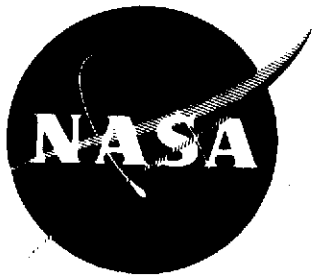


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HIGH-TIP-SPEED, LOW-LOADING TRANSONIC FAN STAGE

(Part 2 - Data Compilation)

(NASA-CR-121262) HIGHTIP-SPEED,
LOW-LOADING TRANSONIC FAN STAGE. PART
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February 1974

by T.C. Ware, R.J. Kobayashi, and R.J. Jackson

AIRESEARCH MANUFACTURING COMPANY,
A DIVISION OF
THE GARRETT CORPORATION
Los Angeles, California

Prepared for

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Lewis Research Center

Contract NAS 3-13498

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INTRODUCTION

This document presents data for tests of a high-tip-speed, low-loading transonic fan stage conducted under Contract NAS 3-13498 by the AiResearch Manufacturing Company of California, a Division of The Garrett Corporation. Details of the tests are given in NASA Contractor Report CR-121263, High-Tip-Speed, Low-Loading Transonic Fan Stage (Part 3 - Final Report), dated February 1974.

The fan stage was designed for a specific flow of 42 lb/sec-ft^2 ($205.1 \text{ kgm/sec-m}^2$) to deliver a pressure ratio of 1.5 at an efficiency of 86 percent and an equivalent tip speed of 1600 ft/sec (488.6 m/sec). Both overall stage and blade element performance were determined with uniform inlet flow, radially distorted inlet flow, and circumferentially distorted inlet flow. All testing was performed with the stator closed 3 deg from its nominal setting (greater stagger angle), which improved stall margin and efficiency at design speed.

Tables 1 through 4 present summaries of the test data. Nomenclature is defined in the Symbols and Parameters section. The Data section includes a representative selection of the computer data reduction sheets for the tests.

TABLE 1
UNIFORM INLET FLOW DATA SUMMARY

$\frac{N/\sqrt{\theta}}{(N/\sqrt{\theta})_{des}}$	Reading	$\frac{w\sqrt{\theta}/s}{(w\sqrt{\theta}/s)_{des}}$	$\frac{T_{T12}-T_{T5}}{T_{T5}}$	Rotor			Stage		
				P_{T9}/P_{T5}	η_{ad}	η_{poly}	P_{T12}/P_{T5}	η_{ad}	η_{poly}
0.60	59*	0.686	0.0444	1.152	0.927	0.929	1.145	0.889	0.891
0.60	61*	0.650	0.0548	1.185	0.908	0.910	1.179	0.880	0.883
0.60	62*	0.618	0.0608	1.203	0.892	0.894	1.197	0.866	0.869
0.60	63*	0.565	0.0695	1.223	0.853	0.857	1.213	0.816	0.821
0.60	64	0.499	0.0801	1.245	0.807	0.813	1.221	0.733	0.740
0.70	67*	0.793	0.0627	1.210	0.891	0.894	1.196	0.835	0.839
0.70	69*	0.764	0.0744	1.262	0.921	0.924	1.250	0.882	0.886
0.70	70*	0.731	0.0833	1.289	0.904	0.907	1.277	0.869	0.873
0.70	71*	0.656	0.0997	1.328	0.847	0.853	1.307	0.798	0.805
0.70	74	0.590	0.1095	1.347	0.811	0.819	1.310	0.732	0.742
0.80	75*	0.881	0.0825	1.274	0.867	0.872	1.250	0.796	0.802
0.80	76*	0.869	0.0991	1.338	0.876	0.881	1.324	0.841	0.847
0.80	80*	0.842	0.1106	1.396	0.903	0.907	1.371	0.853	0.859
0.80	81*	0.801	0.1236	1.440	0.888	0.894	1.415	0.842	0.850
0.80	83	0.742	0.1345	1.457	0.844	0.852	1.428	0.795	0.805
0.80	85	0.699	0.1438	1.468	0.806	0.816	1.424	0.738	0.750
0.90	103**	0.984	0.1016	1.352	0.885	0.890	1.320	0.811	0.818
0.90	100	0.971	0.1252	1.429	0.858	0.865	1.414	0.830	0.838
0.90	101**	0.957	0.1426	1.500	0.861	0.868	1.479	0.828	0.837
0.90	106**	0.942	0.1530	1.545	0.865	0.873	1.524	0.834	0.844
0.90	115	0.887	0.1721	1.612	0.850	0.860	1.580	0.809	0.821
0.90	116	0.863	0.1764	1.621	0.840	0.850	1.574	0.782	0.795
0.95	104**	1.019	0.1136	1.396	0.879	0.885	1.348	0.784	0.793
0.95	105**	1.016	0.1353	1.490	0.892	0.898	1.449	0.825	0.834
0.95	117**	1.008	0.1523	1.583	0.921	0.926	1.540	0.861	0.869
0.95	118**	0.995	0.1685	1.640	0.900	0.907	1.604	0.855	0.864
0.95	119**	0.952	0.1914	1.711	0.867	0.876	1.656	0.808	0.821
0.95	120	0.918	0.1966	1.709	0.842	0.853	1.658	0.788	0.803
1.00	107**	1.040	0.1261	1.429	0.851	0.858	1.369	0.743	0.754
1.00	108**	1.044	0.1462	1.510	0.854	0.863	1.475	0.803	0.813
1.00	128**	1.041	0.1524	1.545	0.867	0.875	1.505	0.812	0.822
1.00	125**	1.035	0.1677	1.623	0.884	0.892	1.572	0.821	0.832
1.00	126**	1.031	0.1877	1.724	0.897	0.905	1.669	0.837	0.849
1.00	127	1.016	0.2060	1.770	0.860	0.871	1.738	0.827	0.840
1.00	^a 210	0.986	0.2201	1.806	0.836	0.849	1.763	0.796	0.812
1.10	109**	1.079	0.1493	1.491	0.809	0.820	1.413	0.695	0.709
1.10	110**	1.081	0.1589	1.522	0.802	0.814	1.475	0.738	0.752
1.10	113**	1.082	0.1854	1.653	0.833	0.844	1.597	0.770	0.784
1.10	114**	1.083	0.2049	1.736	0.832	0.845	1.682	0.779	0.794

^a Obtained during predistortion baseline testing.

* Stage blade element data included in data report

** Stage overall and blade element data included in data report

TABLE 2

HUB-RADIAL DISTORTION DATA SUMMARY

$\frac{N/\sqrt{\theta}}{(N/\sqrt{\theta})_{des}}$	Reading	$\frac{W\sqrt{\theta/s}}{(W\sqrt{\theta/s})_{des}}$	$\frac{T_{T12}-T_{T5}}{T_{T5}}$	Rotor			Stage		
				P_{T9}/P_{T5}	η_{ad}	η_{poly}	P_{T12}/P_{T5}	η_{ad}	η_{poly}
0.70	224*	0.739	0.0663	1.217	0.872	0.875	1.200	0.806	0.811
0.70	225	0.706	0.0783	1.254	0.854	0.859	1.243	0.817	0.823
0.70	226	0.670	0.0840	1.275	0.856	0.861	1.258	0.805	0.811
0.70	227*	0.594	0.0979	1.310	0.820	0.826	1.273	0.728	0.737
0.70	271	0.509	0.1221	1.330	0.695	0.707	1.284	0.605	0.619
^a 0.70	228	0.493							
0.90	229*	0.953	0.1091	1.365	0.852	0.858	1.333	0.782	0.791
0.90	230*	0.923	0.1296	1.454	0.870	0.877	1.416	0.805	0.814
0.90	231*	0.872	0.1437	1.484	0.831	0.840	1.447	0.773	0.784
0.90	232	0.828	0.1549	1.500	0.793	0.804	1.465	0.742	0.756
0.90	233	0.800	0.1589	1.509	0.785	0.797	1.470	0.730	0.745
0.90	271	0.679	0.1895	1.547	0.701	0.718	1.479	0.622	0.642
^a 0.90	235	0.660							
1.00	223*	1.022	0.1319	1.434	0.822	0.831	1.390	0.746	0.757
1.00	220**	1.002	0.1604	1.560	0.845	0.854	1.517	0.787	0.799
1.00	221	0.991	0.1766	1.658	0.880	0.888	1.583	0.792	0.805
1.00	222*	0.962	0.1832	1.661	0.852	0.862	1.589	0.769	0.784
1.00	237	0.921	0.1918	1.622	0.773	0.788	1.585	0.730	0.747

^a Stall flow only obtained.

* Stage blade element data included in data report

** Stage overall and blade element data included in data report.

TABLE 3

TIP-RADIAL DISTORTION DATA SUMMARY

$\frac{N/\sqrt{\theta}}{(N/\sqrt{\theta})_{des}}$	Reading	$\frac{W\sqrt{\theta/\delta}}{(W\sqrt{\theta/\delta})_{des}}$	$\frac{T_{T12}-T_{T5}}{T_{T5}}$	Rotor			Stage		
				P_{T9}/P_{T5}	η_{ad}	η_{poly}	P_{T12}/P_{T5}	η_{ad}	η_{poly}
0.70	242*	0.782	0.0693	1.236	0.900	0.903	1.217	0.832	0.836
0.70	243*	0.748	0.0817	1.276	0.883	0.887	1.259	0.831	0.836
0.70	244*	0.716	0.0897	1.299	0.865	0.870	1.281	0.817	0.823
0.70	245	0.677	0.0974	1.315	0.835	0.842	1.291	0.776	0.784
0.90	246*	0.956	0.1160	1.377	0.825	0.833	1.336	0.743	0.753
0.90	248*	0.948	0.1345	1.463	0.854	0.861	1.426	0.791	0.802
0.90	249*	0.937	0.1526	1.538	0.858	0.866	1.500	0.804	0.814
0.90	272	0.920	0.1573	1.547	0.844	0.853	1.513	0.797	0.809
^a 0.90	250	0.910							
0.97	241	0.997	0.1595	1.544	0.828	0.839	1.498	0.766	0.779
1.00	251*	1.021	0.1365	1.452	0.824	0.833	1.395	0.730	0.742
1.00	252**	1.022	0.1604	1.552	0.834	0.844	1.500	0.764	0.777
1.00	253	1.023	0.1713	1.592	0.829	0.840	1.546	0.771	0.784
1.00	254*	1.019	0.1795	1.635	0.840	0.851	1.585	0.781	0.795
1.00	272	1.004	0.2044	1.720	0.820	0.833	1.664	0.763	0.779
^a 1.00	255	0.984							

^a Stall flow only obtained.

* Stage blade element data included in data report

** Stage overall and blade element data included in data report

TABLE 4
CIRCUMFERENTIAL DISTORTION DATA SUMMARY

$\frac{N/\sqrt{\theta}}{(N/\sqrt{\theta})_{des}}$	Reading	$\frac{W\sqrt{\theta/\delta}}{(W\sqrt{\theta/\delta})_{des}}$	$\frac{T_{T12}-T_{T5}}{T_{T5}}$	Stage		
				P_{T9}/P_{T5}	η_{ad}	η_{poly}
0.70	263*	0.768	0.0664	1.208	0.834	0.838
0.70	264*	0.736	0.0773	1.249	0.846	0.851
0.70	265	0.707	0.0848	1.267	0.824	0.830
0.70	266*	0.635	0.0989	1.286	0.753	0.761
^a 0.70	267	0.591				
0.90	276*	0.963	0.1124	1.350	0.795	0.803
0.90	278**	0.940	0.1343	1.432	0.804	0.813
0.90	279	0.904	0.1492	1.469	0.777	0.789
0.90	280*	0.859	0.1648	1.498	0.741	0.756
^a 0.90	281	0.833				
1.00	283*	1.027	0.1374	1.412	0.753	0.764
1.00	284**	1.021	0.1645	1.534	0.789	0.801
1.00	285*	1.002	0.1836	1.586	0.765	0.780
1.00	286	0.979	0.1946	1.610	0.746	0.763
^a 1.00	287	0.940				

^a Stall flow only obtained.

Note: rotor-only values not computed.

* Stage flow distribution data included in data report
 ** Stage overall for all data scans and flow distribution data included in data report

SYMBOLS AND PERFORMANCE PARAMETER DEFINITIONS

Symbols

AR	aspect ratio
c	chord, in. (cm)
C_T	blade tip chord, in. (cm)
D	diffusion factor
D-shock	T.E. shock strength - L.E. shock strength, deg
D.I.	distortion index, $(P_{Tmax} - P_{Tmin})/P_{Tmax}$
f_B	first flexure natural frequency, Hz
h_T	relative deflection (translation) of the blade tip mid-chord point in the first flexural mode
i	incidence angle, angle between inlet air direction and line tangent to blade or vane at leading edge, deg
M	Mach number
N	rotational speed, rpm (rad/sec)
P	total pressure, psia (N/cm^2)
p	static pressure, psia (N/cm^2)
r	radius, in. (cm)
SL	streamline number
SM	stall margin, percent
T	total temperature, $^{\circ}R$ ($^{\circ}K$)
t	static temperature, $^{\circ}R$ ($^{\circ}K$)
t_{max}	blade maximum thickness, in. (cm)
U	rotor speed, ft/sec (m/sec)
V	air velocity, ft/sec (m/sec)
V_T'	relative fluid velocity at blade tip, ft/sec (m/sec)

W	weight flow rate, lbm/sec (kg/sec)
X	Carter's rule additive to deviation angle, deg
Z	axial distance, in. (cm)
β	air angle $\left[\cot^{-1}(V_m/V_\theta) \right]$, deg
β^*	metal angle on conical surface between tangent to mean camber line and axial direction at leading and trailing edge, deg
β_M	stagger or chord angle, angle between a chord line and the axial direction (measured in a plane parallel to Z-axis), deg
$\Delta\beta$	camber or turning angle, deg
γ	ratio of specific heats for air
δ	ratio of mass average inlet total pressure to standard pressure of 14.696 psia (10.133 N/cm ²)
δ°	deviation angle, angle between exit air direction and tangent to blade mean camber line at trailing edge, deg
η	efficiency, percent
θ	ratio of inlet total temperature to standard temperature of 518.69°R (288.16°K)
θ_s	circumferential distortion screen relative angle, deg
σ	solidity, ratio of chord to spacing
ϕ	angle between tangent to streamline projected on meridional plane and axial direction, deg
ϕ_T	relative angular deflection of blade tip in first flexural mode, rad
$\bar{\omega}$	total pressure loss coefficient
ω_T	blade tip torsional natural frequency, Hz

Superscripts:

'	relative to moving blades
*	designates blade metal angle

Subscripts:

ad	adiabatic
id	ideal

L.E.	leading edge
M	meridional component
max	maximum
MCL	mean camber line
min	minimum
poly	polytropic
r	radial direction
ss	suction surface
T	denotes stagnation conditions
T.E.	trailing edge
Z	axial direction
θ	tangential component
0	inlet bellmouth screen plane
1	bellmouth instrumentation plane
5	rotor inlet instrumentation plane
5.5	rotor inlet traverse plane
6	rotor leading edge
8	rotor trailing edge
9	rotor exit traverse plane
10	stator leading edge
11	stator trailing edge
12	stage exit plane

Performance Parameter Definitions

i_m incidence angle based on mean camber line

$$i_m = \beta'_6 - \beta_6^* \quad (\text{rotor})$$

$$i_m = \beta_{10} - \beta_{10}^* \quad (\text{stator})$$

δ°

deviation

$$\delta^{\circ} = \beta_8' - \beta_8'^* \quad (\text{rotor})$$

$$\delta^{\circ} = \beta_{11} - \beta_{11}^* \quad (\text{stator})$$

D

diffusion factor

$$D = 1 - \frac{V_8'}{V_6'} + \frac{r_8 V_{\theta 8} - r_6 V_{\theta 6}}{(r_6 + r_8) \sigma V_6'} \quad (\text{rotor})$$

$$D = 1 - \frac{V_{11}}{V_{10}} + \frac{r_{10} V_{\theta 10} - r_{11} V_{\theta 11}}{(r_{10} + r_{11}) \sigma V_{10}} \quad (\text{stator})$$

 $\bar{\omega}$

loss coefficient

$$\bar{\omega} = \frac{(P_8')_{id} - P_8'}{P_6' - P_6} \quad (\text{rotor})$$

$$\text{where } (P_8')_{id} = P_6' \left\{ \left[1 + \left(\frac{\gamma - 1}{2} \right) \left(\frac{U_8^2}{a_{01}^2} \right) \right] \left[1 - \left(\frac{r_6}{r_8} \right)^2 \right] \right\}^{\gamma/(\gamma-1)}$$

and a_{01} = upstream total acoustic velocity

$$\bar{\omega} = \frac{P_{10} - P_{11}}{P_{10} - P_{10}} \quad (\text{stator})$$

loss parameter

$$\frac{\bar{\omega} \cos \beta_8'}{2\sigma} \quad (\text{rotor})$$

$$\frac{\bar{\omega} \cos \beta_{11}}{2\sigma} \quad (\text{stator})$$

η_{poly} polytropic efficiency

$$\eta_{poly} = \frac{\frac{\gamma - 1}{\gamma} \ln \left[\frac{P_8}{P_6} \right]}{\ln \left[\frac{T_8}{T_6} \right]}$$

(rotor)

$$\eta_{poly} = \frac{\frac{\gamma - 1}{\gamma} \ln \left[\frac{P_{11}}{P_{10}} \right]}{\ln \left[\frac{t_{11}}{t_{10}} \right]}$$

(stator)

$$\eta_{poly} = \frac{\frac{\gamma - 1}{\gamma} \ln \left[\frac{P_{12}}{P_5} \right]}{\ln \left[\frac{T_{12}}{T_5} \right]}$$

(stage)

η_{ad} adiabatic efficiency

$$\eta_{ad} = \frac{\left[\frac{P_8}{P_6} \right]^{\frac{\gamma-1}{\gamma}} - 1}{\left[\frac{T_8}{T_6} \right] - 1}$$

(rotor)

$$\eta_{ad} = \frac{\left[\frac{P_{12}}{P_5} \right]^{\frac{\gamma-1}{\gamma}} - 1}{\left[\frac{T_{12}}{T_5} \right] - 1}$$

(stage)

SM

stall margin

$$SM = \left[\left(\frac{P_{12}}{P_5} \right)_{\text{stall}} \left(\frac{W\sqrt{\theta}}{\delta} \right)_{\text{reference point}} - 1 \right] \times 100\%$$

$N/\sqrt{\theta} = \text{constant}$

For absolute values of stall margin, the reference point at any speed and inlet flow condition (whether uniform or distorted) is defined as the intersection of a particular speed line with the constant throttle line passing through design pressure ratio at design speed obtained with uniform inlet flow.

DATA

This section presents computer data reduction sheets for the following tests of the high-tip-speed, low-loading transonic fan stage:

<u>Test</u>	<u>Page</u>
Uniform inlet flow	13
Hub-radial distortion	137
Tip-radial distortion	173
Circumferential distortion	213

ROTOR INLET TRAVERSE PLANE	READING NUMBER	59	TIME	17H 44 47S	UNIFORM INLET FLOW	STATOR ANGLE	3.00		
SPEED (RPM)	7572.3464				DISTORTION INDEX	0.000			
ACTUAL ORIFICE FLOW	100.9611								
THETA	0.9855								
DELTA	0.9921								
MASS AVERAGED PT	14.5811	(14.6960)							
MASS AVERAGED TT	511.2079	(518.6881)							
TOTAL WEIGHT FLOW	104.7357	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	104.7970								
EQUIV. SPEED	7627.5452								
PERCENT SPEED	59.6787								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.6246	14.6908	14.6993	14.7092	14.7104	14.7041	14.7018	14.7006	14.6791
STATIC PRESSURE	13.4676	13.3763	13.3045	13.1200	13.0949	13.1511	13.2406	13.3464	13.4350
WEDGE PRESSURE	13.4827	13.3992	13.3319	13.1622	13.1400	13.1895	13.2719	13.3715	13.4542
TOTAL TEMPERATURE	519.3282	519.1535	518.9414	518.7600	518.4860	518.5471	518.4906	518.4816	517.7797
ANGLE (DEG.)	2.8168	3.0406	2.3962	2.9855	2.4345	1.7454	2.1805	2.0130	2.3739
APPARENT MACH NO.	0.3427	0.3649	0.3760	0.4015	0.4047	0.3970	0.3850	0.3703	0.3549
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	13.5845	13.5568	13.4927	13.4594	13.4375	13.4488	13.5187	13.5777	13.6087
WEDGE PRESSURE	13.5944	13.5680	13.5048	13.4721	13.4506	13.4616	13.5305	13.5887	13.6191
ANGLE (DEG.)	-0.4374	-0.1859	-0.0192	0.6334	1.1429	3.6766	5.3317	6.0051	5.9370
APPARENT MACH NO.	0.3246	0.3388	0.3500	0.3564	0.3598	0.3573	0.3463	0.3370	0.3289
MEASURING PLANE									
MACH NO.	0.3263	0.3406	0.3518	0.3583	0.3618	0.3592	0.3482	0.3387	0.3306
ABSOLUTE VELOCITY	360.5345	376.0337	388.1336	395.1106	398.8403	396.0687	384.1901	374.0107	365.1831
SWIRL VELOCITY	17.2152	19.5119	15.9746	20.4739	16.9408	11.9843	14.1657	12.5410	14.1700
WEIGHT FLOW	9.7750	7.0918	12.0008	19.2922	21.6908	17.1933	8.4117	4.0888	5.1525
AXIAL VELOCITY	349.8775	367.3210	381.7354	392.5599	398.4584	393.2636	372.0332	356.7930	341.7994
CALCULATING PLANE									
ANGLE (DEG.)	2.5603	2.7573	2.1980	2.8069	2.2796	1.6084	1.9214	1.7666	2.0082
SWIRL VELOCITY	17.5105	19.7845	16.1562	20.6421	16.9251	11.8529	13.7896	12.0877	13.5039
AXIAL VELOCITY	390.5875	409.7830	419.9373	420.0107	424.1515	421.1042	410.0450	390.9062	384.1139
MERIDIONAL VELOCITY	399.3134	415.6031	423.8590	421.3679	424.1541	423.2711	418.7453	404.6958	406.2466
ABSOLUTE VELOCITY	400.7253	417.0938	425.1823	422.8825	425.4983	424.4491	420.0005	405.9188	407.5366
MACH NO.	0.3636	0.3788	0.3864	0.3842	0.3867	0.3857	0.3815	0.3684	0.3699
WEIGHT FLOW	9.7753	7.0961	12.0181	19.2988	21.7322	17.2200	8.4128	4.0290	5.1531
WHEEL SPEED	930.6210	904.8299	877.7314	809.9967	717.0065	607.1230	526.6014	497.3131	467.6712
RELAT. TANG. VELOC.	913.1104	885.0456	861.5751	789.3545	700.0813	595.2699	512.8118	485.2252	454.1671
RELATIVE FLOW ANGLE	66.3799	64.8462	63.8049	61.9063	58.7900	54.5851	50.7652	50.1708	48.1879
RELATIVE VELOCITY	996.6051	977.7684	960.1914	894.7801	818.5477	730.4139	662.0601	631.8404	609.3473
RELATIVE MACH NO.	0.9042	0.8881	0.8726	0.8131	0.7439	0.6638	0.6015	0.5734	0.5531
MCL INCIDENCE	4.1799	3.6462	3.3049	3.5063	2.6900	2.2851	2.3662	2.1708	0.2879
SURFACE INCIDENCE	1.9799	1.6462	1.2049	1.1063	0.2900	-0.4148	-1.3337	-1.6291	-3.8120
RELATIVE TOTAL PRESS	23.0858	22.6410	22.1647	20.7898	19.4068	18.0763	17.2649	16.9705	16.7544
STATIC TEMPERATURE	505.9333	504.6470	503.8729	503.8592	503.4082	503.5418	503.7997	504.7595	503.9664
RELAT. TOTAL TEMP.	588.7819	584.3671	580.7214	570.5711	559.2080	547.9776	540.3037	538.0067	534.8473
STATIC PRESS. (ALT.)	13.3476	13.3048	13.2601	13.2841	13.2681	13.2693	13.2950	13.3845	13.3548
RADIUS RAT-IO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER		59	TIME	17H 4M 47S	UNIFORM INLET FLOW	STATOR ANGLE 3.000			
MASS AVERAGED PT	16.7978	(16.9302)								
MASS AVERAGED TT	535.0194	(542.8479)								
TOTAL WEIGHT FLOW	102.2177	(PROBE INTEGRATION)								
CORR. TOTAL FLOW	102.2776									
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.										
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3630	5.6800	5.9500	
TOTAL PRESSURE	16.6092	16.6879	16.7474	16.9849	16.8916	16.9844	17.2033	17.3346	17.3039	
STATIC PRESSURE	14.3810	14.2914	14.2081	14.2321	14.3057	14.2539	14.0932	14.0127	13.8675	
WEDGE PRESSURE	14.5944	14.5223	14.4546	14.5028	14.5571	14.5219	14.4229	14.3762	14.2534	
TOTAL TEMPERATURE	542.4509	541.5140	541.6275	545.8688	540.8836	541.5485	544.3549	545.0221	545.1872	
ANGLE (DEG.)	21.8824	21.0778	21.7441	26.8302	26.3660	28.9055	31.5332	32.6752	34.2514	
APPARENT MACH NO.	0.4337	0.4500	0.4634	0.4804	0.4658	0.4783	0.5034	0.5239	0.5336	
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.										
STATIC PRESSURE	14.4527	14.3499	14.4443	14.6542	14.7438	14.6951	14.6061	14.5455	14.4963	
WEDGE PRESSURE	14.4829	14.3835	14.4772	14.6874	14.7736	14.7275	14.6446	14.5878	14.5390	
ANGLE (DEG.)	13.4532	15.9070	18.4021	19.0072	21.1478	22.5930	24.1309	24.5689	25.6351	
APPARENT MACH NO.	0.4467	0.4656	0.4609	0.4604	0.4416	0.4559	0.4854	0.5026	0.5049	
MEASURING PLANE										
MACH NO.	0.4501	0.4693	0.4645	0.4640	0.4450	0.4594	0.4894	0.5069	0.5093	
ABSOLUTE VELOCITY	503.5582	523.7988	518.8395	520.3677	497.7360	513.5374	546.9836	565.8864	568.8908	
SWIRL VELOCITY	187.0857	187.8477	191.7642	234.6740	221.0359	247.3489	283.4547	301.7154	315.7519	
WEIGHT FLOW	9.8281	6.8141	11.7450	18.8099	20.9846	16.6268	8.2475	3.7453	5.4120	
AXIAL VELOCITY	465.8057	487.3816	480.8057	463.9686	445.9398	447.9715	461.9201	470.4194	463.7202	
CALCULATING PLANE										
SWIRL VELOCITY	185.8494	186.7161	190.8750	234.0902	221.2404	249.4697	287.5234	306.9823	323.1236	
AXIAL VELOCITY	440.9210	461.1319	457.1979	446.1985	431.2040	431.1786	438.2544	443.2958	436.5226	
ABSOLUTE VELOCITY	484.6139	501.9362	498.7026	505.1163	485.6295	500.8799	532.1518	550.1585	555.5938	
MERIDIONAL VELOCITY	446.5412	464.9002	459.7163	446.5902	431.2986	433.3211	446.7629	455.5131	450.9223	
ANGLE (DEG.)	22.8089	22.0000	22.6152	27.6299	27.1070	29.9948	33.2072	34.6418	36.5721	
MACH NO.	0.4325	0.4489	0.4458	0.4498	0.4338	0.4477	0.4755	0.4921	0.4968	
WEIGHT FLOW	9.8283	6.8037	11.7490	18.8160	20.9505	16.6427	8.2612	3.7507	5.4152	
WHEEL SPEED	906.0084	883.5401	861.0951	802.6756	719.6697	621.1029	556.5599	533.9292	513.6390	
RELAT. TANG. VELOC.	720.1589	696.8239	670.2199	568.5853	498.4292	371.6330	269.0363	226.9469	190.5153	
RELATIVE FLOW ANGLE	58.1988	56.2901	55.5532	51.8526	49.1300	40.6178	31.0560	26.4836	22.9042	
RELATIVE VELOCITY	847.3652	837.6727	812.7322	723.0019	659.1283	570.8575	521.5147	508.9175	489.5170	
RELATIVE MACH NO.	0.7563	0.7492	0.7265	0.6439	0.5887	0.5102	0.4650	0.4552	0.4377	
DEVIATION	2.1988	-0.0098	-0.3467	0.6526	2.1300	1.9178	3.1560	3.5836	4.3042	
AIR TURNING ANGLE	8.1810	8.5560	8.2517	10.0536	9.6600	13.9673	19.7101	23.6872	25.2837	
REL. MACH NO. (WHL.)	0.7621	0.7459	0.7290	0.6855	0.6206	0.5411	0.4883	0.4694	0.4526	
IDEAL PRESS. RATIO	0.9777	0.9811	0.9855	0.9939	1.0019	1.0091	1.0175	1.0205	1.0247	
ROTOR PRESS. RATIO	1.1357	1.1359	1.1393	1.1547	1.1482	1.1550	1.1703	1.1791	1.1788	
ROTOR TEMP. RATIO	1.0445	1.0430	1.0437	1.0522	1.0431	1.0443	1.0498	1.0511	1.0529	
ADIABATIC EFFY.	0.8319	0.8614	0.8689	0.8031	0.9331	0.9483	0.9218	0.9422	0.9094	
POLYTR. EFFICIENCY	0.8349	0.8639	0.8713	0.8070	0.9344	0.9494	0.9235	0.9435	0.9115	
TOTAL LOSS COEFF.	0.0590	0.0486	0.0480	0.0952	0.0314	0.0301	0.0606	0.0500	0.0864	
SHOCK LOSS COEFF.	0.0002	-0.0007	-0.0016	-0.0052	-0.0093	-0.0141	-0.0179	-0.0195	-0.0208	
PROFILE LOSS COEFF.	0.0587	0.0493	0.0496	0.1004	0.0408	0.0443	0.0795	0.0696	0.1072	
TOTAL LOSS PARAM.	0.0094	0.0081	0.0081	0.0173	0.0059	0.0064	0.0139	0.0117	0.0203	
PROFILE LOSS PARAM.	0.0094	0.0082	0.0084	0.0183	0.0077	0.0094	0.0131	0.0163	0.0252	
ROTOR DIFFUS. FACT.	0.2111	0.2056	0.2180	0.2740	0.2784	0.3200	0.3373	0.3312	0.3440	
STATIC PRESS. (ALT.)	14.6047	14.5316	14.6112	14.7822	14.8423	14.8011	14.7376	14.6895	14.6183	
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6030	0.5756	0.5534	
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000	
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540	
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000	

STATOR INLET TRAVERSE PLANE	READING NUMBER	59	TIME	17H 4M 47S	UNIFORM INLET FLOW	STATOR ANGLE	3.00		
MASS AVERAGED PT	16.7976	(16.9299)							
MASS AVERAGED TT	535.0177	(542.8462)							
TOTAL WEIGHT FLOW	102.2505	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	102.3104								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	16.6092	16.6879	16.7474	16.9849	16.8916	16.9844	17.2053	17.3346	17.3039
STATIC PRESSURE	14.4527	14.3499	14.4443	14.6542	14.7438	14.6951	14.6051	14.5455	14.4963
WEDGE PRESSURE	14.4829	14.3835	14.4772	14.6874	14.7736	14.7275	14.6446	14.5878	14.5390
TOTAL TEMPERATURE	542.4507	541.5139	541.6274	545.8687	540.8834	541.5484	544.3548	545.0220	545.1871
ANGLE (DEG.)	21.8823	21.0778	21.7441	26.8302	26.3660	28.9055	31.5352	32.6752	34.2514
MACH NO.	0.4501	0.4693	0.4645	0.4640	0.4450	0.4594	0.4894	0.5069	0.5093
ABSOLUTE VELOCITY	503.5581	523.7984	518.8391	520.3677	497.7359	513.5374	546.9831	565.8860	568.8908
SWIRL VELOCITY	187.0857	187.8476	191.7640	234.6740	221.0359	247.3488	283.4544	301.7151	315.7519
AXIAL VELOCITY	465.8058	487.3813	480.8055	463.9686	445.9398	447.9715	461.9198	470.4191	463.7203
WEIGHT FLOW	9.8281	6.8141	11.7450	18.8099	20.9846	16.6268	8.2475	3.7453	5.4120
CALCULATING PLANE									
ANGLE (DEG.)	21.9868	21.0597	21.5121	26.2329	25.2586	27.5587	30.1072	31.1434	32.4810
MACH NO.	0.4484	0.4702	0.4706	0.4753	0.4639	0.4765	0.5020	0.5193	0.5224
SWIRL VELOCITY	187.7795	188.4185	192.5113	235.2607	221.0359	245.5224	279.8247	297.7020	310.6337
AXIAL VELOCITY	464.0744	488.3165	487.4092	476.4150	467.4735	469.4608	481.5762	491.6553	486.9475
ABSOLUTE VELOCITY	501.7273	524.6830	525.3532	532.5280	518.0095	531.7507	560.3813	579.0736	582.8048
WEIGHT FLOW	9.8457	6.8202	11.7557	18.8141	20.9942	16.6273	8.2399	3.7409	5.4122
MERIDIONAL VELOCITY	464.2554	488.6767	487.8022	476.7352	467.4764	470.6653	484.5021	495.6730	492.1019
STATIC TEMPERATURE	521.4648	518.5708	518.6353	522.2549	518.5488	518.0109	518.2188	517.1142	516.9570
STATIC PRESS. (ALT.)	14.4676	14.3424	14.3892	14.5500	14.5746	14.5389	14.4850	14.4225	14.3664
MCL INCIDENCE	-7.0046	-8.2047	-8.0904	-4.7194	-8.3911	-6.5805	-4.0997	-3.1120	-1.7851
SUC SUR INCIDENCE	-13.4231	-14.7202	-14.6478	-10.9570	-14.5013	-12.7512	-10.4527	-9.5265	-8.2689
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 59 PCT DES SPD= 60.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.670 HUB STATIC PRES= 14.690

PCT IMMERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.0000	-13.4000	501.7000	187.8000	521.5000	14.4700	16.6100
.100	13.1600	-7.5000	1.0600	2.8000	-14.7000	524.7000	188.4000	518.6000	14.3400	16.6900
.150	12.8300	-7.6000	1.0900	1.4000	-14.7000	525.4000	192.5000	518.6000	14.3900	16.7500
.282	12.0000	-8.4000	1.1700	2.8000	-10.9000	532.5000	235.3000	522.3000	14.5500	16.9800
.470	10.8200	-10.1000	1.3000	-1.1000	-14.5000	518.0000	221.0000	518.5000	14.5700	16.8900
.689	9.4800	-9.8000	1.4700	-1.6000	-12.8000	531.8000	245.5000	518.0000	14.5400	16.9800
.850	8.5900	-9.2000	1.6200	-1.9000	-10.5000	560.4000	279.8000	518.2000	14.4900	17.2100
.900	8.2700	-9.1000	1.6700	-1.6000	-9.5000	579.1000	297.7000	517.1000	14.4200	17.3300
.937	8.0200	-9.0000	1.7300	-1.8000	-8.3000	582.8000	310.6000	517.0000	14.3600	17.3000

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	543.3000	16.2500
.1000	13.1500	542.2000	16.6100
.1500	12.8400	541.0000	16.7100
.2822	11.9700	543.7000	16.8900
.4702	10.8300	539.8000	16.8600
.6887	9.5700	539.6000	16.9400
.8500	8.6700	542.8000	17.0800
.9000	8.4000	543.4000	17.1900
.9372	8.1200	544.4000	16.9000

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2944	.1682	.0808	.3357	7.4000	.3849	433.4336	432.8396	22.6842
.1000	.2423	.0340	.0160	.7223	7.1000	.4247	476.2749	475.7846	21.6052
.1500	.2311	.0169	.0078	1.0817	6.0000	.4349	486.7839	486.6386	11.8932
.2822	.2186	.0370	.0158	188.8351	8.0000	.4525	506.9744	506.4525	22.9979
.4702	.2029	.0129	.0050	3.0753	6.0000	.4492	501.5481	501.4557	-9.6284
.6887	.2078	.0164	.0056	125.6735	5.2000	.4565	509.2821	509.0835	-14.2200
.8500	.2268	.0478	.0147	1.1861	4.3000	.4694	524.6374	524.3489	-17.3944
.9000	.2356	.0481	.0144	1.1272	4.5000	.4794	535.6280	535.4192	-14.9556
.9372	.2870	.1361	.0393	.5589	5.2000	.4521	506.7928	506.7434	-7.0759

PCT IMMERS	EX STAT PRES
.0500	14.6711
.1000	14.6722
.1500	14.6732
.2822	14.6761
.4702	14.6800
.6887	14.6842
.8500	14.6872
.9000	14.6881
.9372	14.6890

ROTOR INLET TRAVERSE PLANE		READING NUMBER 61		TIME 17H 33M 51S		UNIFORM INLET FLOW		STATOR ANGLE 3.00	
SPEED (RPM)	7578.9340								
ACTUAL ORIFICE FLOW	95.2932								
THETA	0.9857								
DELTA	0.9928								
MASS AVERAGED PT	14.5905	(14.6960)							
MASS AVERAGED TT	511.2710	(518.6881)							
TOTAL WEIGHT FLOW	98.6048	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	98.6051								
EQUIV. SPEED	7633.7096								
PERCENT SPEED	59.7270								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.6395	14.6967	14.6968	14.7091	14.7082	14.7005	14.6990	14.6973	14.6812
STATIC PRESSURE	13.6125	13.5206	13.4363	13.2848	13.2788	13.3308	13.4588	13.5463	13.6122
WEDGE PRESSURE	13.6218	13.5364	13.4563	13.3138	13.3081	13.3568	13.4778	13.5609	13.6232
TOTAL TEMPERATURE	519.2352	519.2378	519.0200	518.8121	518.6993	518.2784	518.3694	518.1465	517.8748
ANGLE (DEG.)	3.2406	2.3554	2.8109	3.2242	2.6356	1.7297	2.1783	2.0572	1.3814
APPARENT MACH NO.	0.3224	0.3447	0.3571	0.3799	0.3806	0.3725	0.3541	0.3409	0.3285
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	13.6850	13.6610	13.6059	13.5869	13.5769	13.6118	13.6878	13.7164	13.7650
WEDGE PRESSURE	13.6938	13.6709	13.6165	13.5979	13.5880	13.6224	13.6973	13.7255	13.7733
ANGLE (DEG.)	-7.2439	-0.1810	-0.1885	1.0125	2.0823	4.5630	5.8011	6.7000	6.0956
APPARENT MACH NO.	0.3102	0.3231	0.3319	0.3368	0.3382	0.3316	0.3190	0.3140	0.3033
MEASURING PLANE									
MACH NO.	0.3117	0.3247	0.3336	0.3385	0.3400	0.3333	0.3206	0.3156	0.3047
ABSOLUTE VELOCITY	344.8073	358.8249	368.5221	373.7643	375.3570	368.0988	354.4327	348.9624	337.1753
SWIRL VELOCITY	18.9387	14.4257	17.7902	20.9149	17.2593	11.0376	13.0552	11.9575	7.6144
WEIGHT FLOW	9.4035	6.8122	11.4642	18.3788	20.5683	16.1297	7.8344	3.8459	4.8012
AXIAL VELOCITY	334.4916	350.7000	362.3318	371.2683	374.9393	365.4948	343.2179	332.8895	315.7423
CALCULATING PLANE									
ANGLE (DEG.)	2.9446	2.1391	2.6301	3.0809	2.5199	1.5953	1.9213	1.7752	1.1682
SWIRL VELOCITY	19.2636	14.6272	17.9925	21.0867	17.2433	10.9166	12.7086	11.5253	7.2564
AXIAL VELOCITY	373.4844	390.5973	390.6793	390.7576	390.8001	390.9587	377.8264	370.8534	354.8224
MERIDIONAL VELOCITY	381.8283	396.1449	394.3278	392.0203	390.8025	392.9704	385.8431	383.9357	375.2674
ABSOLUTE VELOCITY	383.3417	397.4351	395.7532	393.5958	392.1889	394.1344	387.0836	385.1513	376.4034
MACH NO.	0.3474	0.3605	0.3589	0.3569	0.3556	0.3574	0.3509	0.3491	0.3409
WEIGHT FLOW	9.4168	6.8156	11.2985	18.1451	20.2581	16.1642	7.8427	3.8514	4.8122
WHEEL SPEED	931.4563	905.4878	878.3743	810.6107	717.4386	607.7711	527.0837	497.8759	468.0062
RELAT. TANG. VELOC.	912.1927	890.8604	860.3817	789.5239	700.1952	596.8545	514.3799	486.3507	460.7497
RELATIVE FLOW ANGLE	67.2869	66.0266	65.3774	63.5945	60.8328	56.6392	53.1261	51.7118	50.8383
RELATIVE VELOCITY	988.8823	974.9683	946.4411	881.4918	801.8726	714.6054	643.0097	619.6317	594.2354
RELATIVE MACH NO.	0.8962	0.8844	0.8584	0.7994	0.7271	0.6481	0.5829	0.5616	0.5383
MCL INCIDENCE	5.0868	4.8266	4.8774	5.1945	4.7328	4.3392	4.7231	3.7118	2.9383
SURFACE INCIDENCE	2.8869	2.8266	2.7774	2.7945	2.3328	1.6392	1.0231	-0.0881	-1.1616
RELATIVE TOTAL PRESS	23.0553	22.7243	22.0184	20.7024	19.3044	18.0540	17.2379	16.9929	16.7668
STATIC TEMPERATURE	506.9795	506.0645	505.9633	505.9024	505.8844	505.3465	505.8941	505.8005	506.0893
RELAT. TOTAL TEMP.	588.5346	585.3412	580.6377	570.6537	559.4555	547.8578	540.3197	537.7547	535.4628
STATIC PRESS. (ALT.)	13.4664	13.4336	13.4440	13.4685	13.4763	13.4573	13.4938	13.5088	13.5458
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE READING NUMBER 61 TIME 17H 33M 51S UNIFORM INLET FLOW STATOR ANGLE 3.000
 MASS AVERAGED PT 17.2929 (17.4179)
 MASS AVERAGED TT 540.4296 (548.2695)
 TOTAL WEIGHT FLOW 94.5984 (PROBE INTEGRATION)
 CORR. TOTAL FLOW 94.5987

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.
 IMMERSION (IN.) 0.3100 0.6400 0.9600 1.8100 3.0200 4.4300 5.3600 5.6800 5.9500
 TOTAL PRESSURE 17.2405 17.4058 17.3953 17.5929 17.3914 17.2995 17.4531 17.4970 17.5484
 STATIC PRESSURE 15.1230 15.0051 14.9431 14.8865 14.9097 14.7841 14.6470 14.5688 14.4696
 WEDGE PRESSURE 15.3170 15.2268 15.1703 15.1414 15.1400 15.0182 14.9141 14.8532 14.7788
 TOTAL TEMPERATURE 549.7885 551.2089 548.8211 552.3510 546.1673 545.0525 546.5004 546.7832 547.4803
 ANGLE (DEG.) 27.6181 28.5955 28.3229 32.8482 32.1968 35.3823 36.7191 37.8136 39.5676
 APPARENT MACH NO. 0.4145 0.4413 0.4465 0.4680 0.4494 0.4540 0.4792 0.4894 0.5014

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.
 STATIC PRESSURE 15.1967 15.2349 15.2505 15.3439 15.3488 15.2474 15.1203 15.0651 14.9932
 WEDGE PRESSURE 15.2243 15.2648 15.2799 15.3751 15.3763 15.2751 15.1532 15.1000 15.0305
 ANGLE (DEG.) 38.6588 21.8659 21.2710 24.4501 26.8763 28.4485 29.9675 30.7031 31.5411
 APPARENT MACH NO. 0.4252 0.4370 0.4343 0.4429 0.4231 0.4253 0.4538 0.4636 0.4756

MEASURING PLANE
 MACH NO. 0.4284 0.4404 0.4376 0.4463 0.4262 0.4285 0.4573 0.4673 0.4794
 ABSOLUTE VELOCITY 483.3772 497.0479 493.0925 504.2597 479.6809 481.8902 513.6856 524.6349 538.1775
 SWIRL VELOCITY 223.4380 237.3065 233.4553 273.3187 255.5776 278.1724 304.6273 318.1254 338.6718
 WEIGHT FLOW 9.3184 6.3202 10.9810 17.7153 19.6451 14.9127 7.4789 3.3455 4.9023
 AXIAL VELOCITY 427.0696 435.3338 433.1592 423.3265 405.9012 391.6833 408.4063 409.9250 409.8574

CALCULATING PLANE
 SWIRL VELOCITY 221.9615 235.8770 232.3728 272.6387 255.8140 280.5575 308.9999 323.6788 346.5784
 AXIAL VELOCITY 405.6988 413.7513 412.8313 407.8785 390.8001 377.8596 387.9018 386.9775 385.0629
 ABSOLUTE VELOCITY 467.8889 480.0887 476.6036 491.7448 467.9970 472.9514 502.6542 513.5292 529.7458
 MERIDIONAL VELOCITY 410.8701 417.1325 415.1052 408.2365 390.8859 379.7372 395.4327 397.6426 399.5960
 ANGLE (DEG.) 28.6238 29.6274 29.3145 33.6948 33.1409 36.5207 38.4683 39.8368 41.9146
 MACH NO. 0.4142 0.4248 0.4224 0.4348 0.4155 0.4203 0.4471 0.4570 0.4716
 WEIGHT FLOW 9.3379 6.3249 10.9913 17.7345 19.5260 14.9395 7.4870 3.3492 4.9077
 WHEEL SPEED 906.8218 884.1823 861.7258 803.2842 720.1034 621.7661 557.0748 534.5335 514.0068
 RELAT. TANG. VELOC. 684.8601 648.3053 629.3530 530.6454 464.2893 341.2085 248.0748 210.8547 167.4283
 RELATIVE FLOW ANGLE 59.0392 57.2421 56.5923 52.4283 49.9061 41.9410 32.1022 27.9354 22.7334
 RELATIVE VELOCITY 798.6535 770.9079 753.9213 669.5084 606.9235 510.5129 466.8062 450.0882 433.2541
 RELATIVE MACH NO. 0.7070 0.6821 0.6683 0.5920 0.5388 0.4537 0.4152 0.4005 0.3857
 DEVIATION 3.0392 0.9421 0.6923 1.2283 2.9061 3.2410 4.2022 5.0354 4.1334
 AIR TURNING ANGLE 8.2475 8.7844 8.7850 11.1662 10.9267 14.6981 21.0239 23.7764 28.1048
 REL. MACH NO. (WHL.) 0.7629 0.7459 0.7297 0.6860 0.6210 0.5416 0.4887 0.4699 0.4527
 IDEAL PRESS. RATIO 0.9777 0.9811 0.9855 0.9939 1.0019 1.0091 1.0176 1.0206 1.0247
 ROTOR PRESS. RATIO 1.1776 1.1843 1.1836 1.1960 1.1824 1.1767 1.1873 1.1904 1.1952
 ROTOR TEMP. RATIO 1.0588 1.0615 1.0574 1.0646 1.0529 1.0516 1.0542 1.0552 1.0571
 ADIABATIC EFFY. 0.8130 0.8044 0.8595 0.8119 0.9263 0.9219 0.9269 0.9244 0.9149
 POLYTR. EFFICIENCY 0.8173 0.8090 0.8628 0.8166 0.9280 0.9237 0.9287 0.9263 0.9170
 TOTAL LOSS COEFF. 0.0863 0.0962 0.0681 0.1139 0.0435 0.0547 0.0648 0.0728 0.0916
 SHOCK LOSS COEFF. -0.0002 -0.0009 -0.0024 -0.0060 -0.0103 -0.0151 -0.0190 -0.0203 -0.0216
 PROFILE LOSS COEFF. 0.0865 0.0971 0.0706 0.1199 0.0539 0.0698 0.0838 0.0931 0.1133
 TOTAL LOSS PARAM. 0.0135 0.0157 0.0112 0.0205 0.0081 0.0113 0.0147 0.0168 0.0216
 PROFILE LOSS PARAM. 0.0135 0.0158 0.0116 0.0215 0.0100 0.0145 0.0191 0.0215 0.0267
 ROTOR DIFFUS. FACT. 0.2648 0.2861 0.2811 0.3360 0.3402 0.4012 0.4113 0.4197 0.4316
 STATIC PRESS. (ALT.) 15.3202 15.3741 15.3854 15.4490 15.4430 15.3195 15.2146 15.1618 15.0884
 RADIUS RATIO 0.9775 0.9531 0.9287 0.8656 0.7759 0.6696 0.6000 0.5756 0.5534
 STREAMLINE SLOPE -9.1000 -7.3000 -6.0000 -2.4000 1.2000 5.7000 11.2000 13.3000 15.5000
 SOLIDITY 1.6400 1.6580 1.6700 1.6940 1.7300 1.7880 1.8530 1.9100 1.9540
 METAL CAMBER 6.2000 4.9000 4.6000 7.2000 9.1000 13.6000 20.5000 25.1000 29.3000

STATOR INLET TRAVERSE PLANE		READING NUMBER 61		TIME 17H 33M 51S		UNIFORM INLET FLOW		STATOR ANGLE 3.00	
MASS AVERAGED PT	17.2929	(17.4179)							
MASS AVERAGED TT	540.4254	(548.2655)							
TOTAL WEIGHT FLOW	94.7079	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	94.7082								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.2405	17.4058	17.3953	17.5929	17.3914	17.2995	17.4531	17.4970	17.5484
STATIC PRESSURE	15.1967	15.2349	15.2505	15.3439	15.3488	15.2474	15.1203	15.0651	14.9932
WEDGE PRESSURE	15.2243	15.2648	15.2799	15.3751	15.3763	15.2751	15.1532	15.0999	15.0305
TOTAL TEMPERATURE	549.7883	551.2087	548.8209	552.3508	546.1671	545.0524	546.5033	546.7830	547.4801
ANGLE (DEG.)	27.6181	28.5955	28.3229	32.8482	32.1968	35.3823	36.7191	37.8136	39.5676
MACH NO.	0.4284	0.4404	0.4376	0.4463	0.4262	0.4285	0.4573	0.4673	0.4794
ABSOLUTE VELOCITY	483.3771	497.0475	493.0924	504.2592	479.6806	481.8901	513.6851	524.6344	538.1771
SWIRL VELOCITY	223.4380	237.3063	233.4552	273.3184	255.5774	278.1722	304.6270	318.1250	338.6715
AXIAL VELOCITY	427.0696	435.3334	433.1593	423.3260	405.9009	391.6833	408.4051	409.9247	409.8573
WEIGHT FLOW	9.3183	6.3202	10.9810	17.7153	19.6451	14.9127	7.4739	3.3455	4.9023
CALCULATING PLANE									
ANGLE (DEG.)	27.7738	28.5818	28.0410	32.2023	30.9585	33.8869	35.1439	36.1732	37.7428
MACH NO.	0.4266	0.4411	0.4429	0.4557	0.4420	0.4416	0.4674	0.4766	0.4885
SWIRL VELOCITY	224.2667	238.0276	234.3650	274.0015	255.5774	276.1181	300.7261	313.8937	333.1817
AXIAL VELOCITY	424.8260	435.8986	439.0108	434.0632	425.0455	410.1036	426.1882	428.2954	429.4157
ABSOLUTE VELOCITY	481.4256	497.8203	498.8535	514.4099	496.8329	496.1069	524.5537	534.6540	547.9211
WEIGHT FLOW	9.3225	6.3239	10.9963	17.7161	19.6691	14.9361	7.4922	3.3478	4.9036
MERIDIONAL VELOCITY	424.9918	436.2201	439.3648	434.3550	425.0481	411.1559	428.7776	431.7954	433.9611
STATIC TEMPERATURE	530.4735	530.5565	528.0904	530.3179	525.6155	524.5770	523.6061	523.0092	522.5252
STATIC PRESS.(ALT.)	15.2124	15.2285	15.2025	15.2570	15.2072	15.1303	15.0258	14.9765	14.9053
MCL INCIDENCE	-1.2153	-0.6770	-1.5563	1.2539	-2.6913	-0.2360	0.9674	1.9588	3.5323
SUC SUR INCIDENCE	-7.6361	-7.1981	-8.1189	-4.9876	-8.8014	-6.4230	-5.4160	-4.4967	-3.0071
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 61 PCT DES SPD= 60.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.510 HUB STATIC PRES= 15.510

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	FX FLO ANG	INC ANG	SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	1.6000	-7.6000		481.4000	224.3000	530.5000	15.2100	17.2400
.100	13.1600	-7.5000	1.0600	4.0000	-7.2000		497.8000	238.0000	530.5600	15.2300	17.4100
.150	12.8300	-7.6000	1.0900	3.2000	-8.1000		498.9000	234.4000	528.0900	15.2000	17.4000
.282	12.0000	-8.4000	1.1700	3.7000	-5.9900		514.4000	274.0000	530.3200	15.2600	17.5900
.470	10.8200	-10.1000	1.3000	-5.5000	-8.8000		496.8000	255.6000	525.6200	15.2100	17.3900
.689	9.4800	-9.8000	1.4700	-1.1000	-6.4000		496.1000	276.1000	524.5800	15.1300	17.2900
.850	8.5900	-9.2000	1.6200	-1.2000	-5.4000		524.5000	300.7000	523.6100	15.0300	17.4500
.900	8.2700	-9.1000	1.6700	-.9000	-4.5000		534.7000	313.9000	523.0100	14.9800	17.5000
.937	8.0200	-9.0000	1.7300	-.5000	-3.0000		547.9000	333.2000	522.5300	14.9100	17.5500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	551.0000	16.9500
.1000	13.1500	551.1000	17.3400
.1500	12.8400	547.9200	17.4200
.2822	11.9700	549.5000	17.4700
.4702	10.8300	545.0000	17.3600
.6887	9.5700	543.7000	17.2800
.8500	8.6700	545.4000	17.3200
.9000	8.4000	545.7600	17.4300
.9372	8.1200	547.3700	17.2100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3669	.1429	.0687	.4447	6.0000	.3584	407.1987	407.0399	11.3697
.1000	.2801	.0321	.0151	.8509	8.5000	.4024	455.6976	454.5875	31.7878
.1500	.2626	-.0091	-.0042	.0068	7.8000	.4187	463.5109	462.7881	25.8739
.2822	.2895	.0515	.0220	3.0382	9.1000	.4158	469.7761	468.7969	30.3157
.4702	.2841	.0138	.0053	1.3910	6.6000	.4045	455.4670	455.4497	-3.9746
.6887	.2960	.0046	.0016	1.4393	5.7000	.3960	445.6485	445.5664	-8.5553
.8500	.3218	.0537	.0166	.9725	5.0000	.4002	451.0202	450.9213	-9.4455
.9000	.3113	.0278	.0083	1.0758	5.2000	.4117	463.7190	463.6618	-7.2838
.9372	.3750	.1288	.0372	.6739	5.7000	.3883	438.7981	438.7921	-2.2975

PCT IMMERS	EX STAT PRES
.0500	15.5100
.1000	15.5100
.1500	15.5100
.2822	15.5100
.4702	15.5100
.6887	15.5100
.8500	15.5100
.9000	15.5100
.9372	15.5100

ROTOR INLET TRAVERSE PLANE		READING NUMBER 62		TIME 17H 47M 36S		UNIFORM INLET FLOW		STATUR ANGLE 3.00	
SPEED (RPM)	7586.4104								
ACTUAL ORIFICE FLOW	91.1305								
THETA	0.9846								
DELTA	0.9937								
MASS AVERAGED PT	14.6036	(14.6960)							
MASS AVERAGED TT	510.7207	(518.6881)							
TOTAL WEIGHT FLOW	94.7015	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	94.5654								
EQUIV. SPEED	7645.3562								
PERCENT SPEED	59.8181								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.6269	14.7007	14.6968	14.7055	14.7116	14.7030	14.6995	14.7010	14.6838
STATIC PRESSURE	13.7195	13.6297	13.5416	13.3969	13.3983	13.4690	13.5960	13.6720	13.7353
WEDGE PRESSURE	13.7242	13.6407	13.5564	13.4195	13.4211	13.4877	13.6084	13.6812	13.7414
TOTAL TEMPERATURE	518.7627	518.9293	518.9875	518.9589	519.0215	518.5001	517.8710	517.7471	517.7076
ANGLE (DEG.)	3.5086	1.9775	3.1999	3.8175	3.2362	1.8912	2.1153	2.2648	2.2224
APPARENT MACH NO.	0.3029	0.3286	0.3415	0.3638	0.3644	0.3531	0.3336	0.3220	0.3092
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	13.7950	13.7521	13.7069	13.6796	13.6848	13.7396	13.8033	13.8437	13.8414
WEDGE PRESSURE	13.8025	13.7609	13.7162	13.6893	13.6946	13.7486	13.8154	13.8514	13.8490
ANGLE (DEG.)	-2.6425	-0.4901	0.3237	1.6929	3.1721	4.8086	6.3518	6.7035	4.9951
APPARENT MACH NO.	0.2890	0.3086	0.3155	0.3214	0.3214	0.3110	0.2987	0.2928	0.2903
MEASURING PLANE									
MACH NO.	0.2903	0.3101	0.3171	0.3230	0.3230	0.3125	0.3001	0.2941	0.2916
ABSOLUTE VELOCITY	321.5479	342.9796	350.6015	356.9750	357.0502	345.6769	332.1994	325.6852	322.9580
SWIRL VELOCITY	19.1205	11.5768	19.2655	23.6457	20.1551	11.3328	11.8825	12.2860	11.7317
WEIGHT FLOW	8.8317	6.5558	10.9768	17.6492	19.6890	15.2668	7.4036	3.6195	4.6228
AXIAL VELOCITY	311.8468	335.2936	344.5931	354.3676	356.4614	343.2013	321.7006	310.6456	302.3062
CALCULATING PLANE									
ANGLE (DEG.)	3.1926	1.7987	2.9444	3.5914	3.0429	1.7498	1.8651	1.9603	1.8837
SWIRL VELOCITY	19.4485	11.7385	19.4846	23.8400	20.1364	11.2085	11.5670	11.8419	11.1802
AXIAL VELOCITY	347.6556	372.7882	377.8047	378.8226	377.7923	365.8868	354.0052	344.9704	338.9312
MERIDONAL VELOCITY	355.4224	378.0829	381.3329	380.0468	377.7947	367.7694	361.5175	357.1396	358.4605
ABSOLUTE VELOCITY	356.9827	379.2864	382.8459	381.8025	379.3369	368.9528	362.7319	358.3795	359.7011
MACH NO.	0.3230	0.3436	0.3469	0.3460	0.3437	0.3340	0.3283	0.3243	0.3255
WEIGHT FLOW	8.8470	6.5566	10.9885	17.6772	19.6922	15.2714	7.4193	3.6202	4.6287
WHEEL SPEED	933.3021	907.1387	879.7418	811.7327	718.3101	608.5682	528.1457	498.8278	468.7958
RELAT. TANG. VELOC.	913.8535	895.4000	860.2571	787.8925	698.1735	597.3596	516.5797	486.9858	457.6155
RELATIVE FLOW ANGLE	68.7478	67.1083	66.0936	64.2495	61.5815	58.3813	55.0147	53.7451	51.9278
RELATIVE VELOCITY	980.5371	971.9504	940.9870	874.7629	793.8356	701.4932	630.5152	603.9069	581.2967
RELATIVE MACH NO.	0.8872	0.8806	0.8528	0.7927	0.7192	0.6352	0.5717	0.5465	0.5260
MCL INCIDENCE	6.5478	5.9083	5.5935	5.8495	5.4815	6.0813	6.6147	5.7450	4.0278
/ SURFACE INCIDENCE	4.3478	3.9083	3.4936	3.4495	3.0815	3.3813	2.9147	1.9451	-0.0722
RELATIVE TOTAL PRESS	23.0167	22.7840	22.0511	20.7060	19.3179	18.0295	17.2230	16.9618	16.7148
STATIC TEMPERATURE	508.1440	506.9386	506.7693	506.8077	507.0253	507.1630	506.9260	507.0658	506.9482
RELAT. TOTAL TEMP.	588.2576	585.6801	580.5820	570.5930	559.5608	548.1464	539.9938	537.3962	535.0477
STATIC PRESS.(ALT.)	13.6065	13.5468	13.5220	13.5363	13.5565	13.6092	13.6415	13.6676	13.6441
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	62	TIME	17H 47M 36S	UNIFORM INLET FLOW	STATOR ANGLE	3.000
MASS AVERAGED PT	17.5695	(17.6806)					
MASS AVERAGED TT	543.1500	(551.6232)					
TOTAL WEIGHT FLOW	89.0609	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	88.9329						

PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0, 104 DEG.								
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.5996	17.8329	17.7589	17.8636	17.6213	17.5089	17.6143	17.6280	17.6849
STATIC PRESSURE	15.5512	15.4413	15.3116	15.2279	15.2126	15.0816	14.9474	14.8752	14.8057
WEDGE PRESSURE	15.7262	15.6490	15.5253	15.4618	15.4225	15.2937	15.1857	15.1235	15.0690
TOTAL TEMPERATURE	553.8513	556.9811	553.7714	555.5136	549.4048	548.2714	547.5196	547.8037	548.7217
ANGLE (DEG.)	31.4876	33.9977	32.0056	37.2591	36.0391	39.4913	40.6256	41.2902	43.0724
APPARENT MACH NO.	0.4042	0.4360	0.4424	0.4588	0.4405	0.4438	0.4652	0.4730	0.4836

PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0, 300 DEG.								
STATIC PRESSURE	15.6026	15.3122	15.8100	15.7294	15.7017	15.5596	15.4265	15.3865	15.3226
WEDGE PRESSURE	15.6292	15.3485	15.8356	15.7583	15.7269	15.5854	15.4566	15.4176	15.3559
ANGLE (DEG.)	40.6676	28.8540	31.7317	28.0982	30.3045	32.3501	34.2744	34.6020	34.8610
APPARENT MACH NO.	0.4153	0.4679	0.4079	0.4270	0.4063	0.4111	0.4361	0.4416	0.4536

MEASURING PLANE									
MACH NO.	0.4183	0.4717	0.4109	0.4302	0.4092	0.4140	0.4394	0.4450	0.4572
ABSOLUTE VELOCITY	474.3884	533.8369	466.0644	487.9933	462.4258	467.4542	494.9493	501.2853	514.8938
SWIRL VELOCITY	247.1198	297.8374	246.5370	295.2477	272.0521	296.4648	319.9137	327.4996	347.8112
WEIGHT FLOW	8.9661	6.4193	10.2435	16.5373	18.3855	13.8856	6.9393	3.0938	4.5251
AXIAL VELOCITY	403.4598	441.6018	394.4573	388.1437	373.9116	359.7529	372.9054	372.9154	372.0397

CALCULATING PLANE									
SWIRL VELOCITY	245.4869	296.0432	245.3938	294.5133	272.3037	299.0068	324.5109	333.2165	355.9312
AXIAL VELOCITY	382.9250	420.1424	376.7973	373.7851	362.6807	346.7357	355.0148	351.0225	350.0272
ABSOLUTE VELOCITY	459.8367	517.6094	452.2514	476.9217	454.3967	459.9298	486.8566	491.8172	509.3037
MERIDIONAL VELOCITY	387.8060	423.5759	378.8727	374.1133	362.7603	348.4586	361.9072	360.6967	363.2379
ANGLE (DEG.)	32.5950	35.1050	33.0048	38.1605	36.8233	40.6906	42.3489	43.4274	45.3968
MACH NO.	0.4051	0.4567	0.3983	0.4201	0.4019	0.4072	0.4319	0.4363	0.4520
WEIGHT FLOW	8.9737	6.4315	10.2647	16.5383	18.3864	13.8923	6.9556	3.0864	4.5317
WHEEL SPEED	908.6187	885.7944	863.0675	804.3959	720.9780	622.5814	558.1930	535.5556	514.8742
RELAT. TANG. VELOC.	663.1318	589.7511	617.6737	509.8826	448.6742	323.5746	233.6820	202.3389	158.9428
RELATIVE FLOW ANGLE	59.6807	54.3132	58.4758	53.7317	51.0440	42.8795	32.8503	29.2910	23.6329
RELATIVE VELOCITY	768.2038	726.1011	724.6138	632.4088	576.9779	475.5248	430.7947	413.5736	396.4903
RELATIVE MACH NO.	0.6767	0.6407	0.6382	0.5570	0.5103	0.4210	0.3822	0.3669	0.3519
DEVIATION	3.6807	-1.9867	2.5758	2.5317	4.0441	4.1795	4.9502	6.3910	5.0329
AIR TURNING ANGLE	9.0671	12.7950	7.6177	10.5176	10.5374	15.5017	22.1644	24.4540	28.2948
REL. MACH NO. (WHL.)	0.7642	0.7468	0.7309	0.6871	0.6219	0.5423	0.4896	0.4708	0.4536
IDEAL PRESS. RATIO	0.9776	0.9810	0.9854	0.9939	1.0020	1.0091	1.0176	1.0207	1.0248
ROTOR PRESS. RATIO	1.2032	1.2130	1.2083	1.2147	1.1977	1.1908	1.1982	1.1991	1.2043
ROTOR TEMP. RATIO	1.0676	1.0733	1.0670	1.0704	1.0585	1.0574	1.0572	1.0580	1.0599
ADIABATIC EFFY.	0.8025	0.7737	0.8290	0.8114	0.9041	0.8913	0.9257	0.9174	0.9111
POLYTR. EFFICIENCY	0.8077	0.7798	0.8336	0.8166	0.9065	0.8940	0.9286	0.9195	0.9134
TOTAL LOSS COEFF.	0.1051	0.1313	0.0965	0.1252	0.0623	0.0869	0.0708	0.0875	0.1041
SHOCK LOSS COEFF.	-0.0007	-0.0011	-0.0028	-0.0064	-0.0108	-0.0158	-0.0197	-0.0212	-0.0224
PROFILE LOSS COEFF.	0.1059	0.1324	0.0993	0.1316	0.0741	0.1027	0.0906	0.1087	0.1265
TOTAL LOSS PARAM.	0.0161	0.0231	0.0151	0.0218	0.0115	0.0178	0.0150	0.0199	0.0244
PROFILE LOSS PARAM.	0.0163	0.0233	0.0155	0.0229	0.0134	0.0210	0.0204	0.0248	0.0296
ROTOR DIFFUS. FACT.	0.2972	0.3486	0.3124	0.3806	0.3771	0.4470	0.4636	0.4693	0.4864
STATIC PRESS. (ALT.)	15.7184	15.4555	15.9194	15.8210	15.7652	15.6193	15.4942	15.4665	15.3711
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 62 TIME 17H 47M 36S UNIFORM INLET FLOW STATOR ANGLE 3.00

MASS AVERAGED PT 17.5690 (17.6801)
 MASS AVERAGED TT 543.1277 (551.6005)
 TOTAL WEIGHT FLOW 88.4133 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 88.2862

MEASURING PLANE

IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.5996	17.8329	17.7589	17.8636	17.6213	17.5089	17.6143	17.6280	17.6849
STATIC PRESSURE	15.6026	15.3122	15.8100	15.7294	15.7017	15.5596	15.4255	15.3865	15.3226
WEDGE PRESSURE	15.6292	15.3485	15.8356	15.7583	15.7269	15.5854	15.4566	15.4176	15.3559
TOTAL TEMPERATURE	553.8512	556.9810	553.7712	555.5135	549.4047	548.2712	547.5195	547.8036	548.7215
ANGLE (DEG.)	31.4876	33.9977	32.0056	37.2591	36.0391	39.4913	40.6266	41.2902	43.0724
MACH NO.	0.4183	0.4717	0.4109	0.4302	0.4092	0.4140	0.4394	0.4450	0.4572
ABSOLUTE VELOCITY	474.3884	533.8364	466.0641	487.9928	462.4253	467.4542	494.9490	501.2853	514.8936
SWIRL VELOCITY	247.1198	297.8371	246.5366	295.2473	272.0518	296.4647	319.9185	327.4996	347.8111
AXIAL VELOCITY	403.4597	441.6016	394.4571	388.1433	373.9111	359.7528	372.9053	372.9154	372.0397
WEIGHT FLOW	8.9661	6.4193	10.2435	16.5373	18.3855	13.8856	6.9393	3.0938	4.5251

CALCULATING PLANE

ANGLE (DEG.)	32.3239	34.0358	32.2732	37.0609	34.7682	37.9766	39.0505	39.6183	41.2354
MACH NO.	0.4089	0.4718	0.4088	0.4332	0.4226	0.4246	0.4469	0.4524	0.4640
SWIRL VELOCITY	248.0363	298.7423	247.4974	295.9853	272.0518	294.2756	315.8217	323.1435	342.1732
AXIAL VELOCITY	390.9866	441.3007	390.9020	390.9128	390.8892	375.9664	388.2974	389.3526	389.3674
ABSOLUTE VELOCITY	464.0059	534.0152	463.7842	491.3403	477.0712	478.9967	503.1399	509.2192	522.2252
WEIGHT FLOW	8.7672	6.4117	10.0635	16.2934	18.4034	13.9013	6.9468	3.0977	4.5279
MERIDIONAL VELOCITY	391.1392	441.6262	391.2172	391.1755	390.8916	376.9309	390.6566	392.5343	393.4889
STATIC TEMPERATURE	535.9266	533.2337	535.8560	535.4082	530.4448	529.1767	526.4768	526.2546	526.0600
STATIC PRESS.(ALT.)	15.6855	15.3106	15.8282	15.7013	15.5835	15.4664	15.3570	15.3185	15.2584
MCL INCIDENCE	3.3365	4.7809	2.6792	6.1158	1.1184	3.8640	4.8978	5.4320	7.0619
SUC SUR INCIDENCE	-3.0860	-1.7441	-3.8867	-0.1290	-4.9917	-2.3333	-1.5094	-1.0516	0.4854
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO# 62 PCT DES SPD# 60.00 FAN INLET TOT TEMP# 518.688
 OUTER WALL STATIC PRES# 15.970 HUB STATIC PRES# 15.960

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	2.2000	-3.1000	464.0000	248.0000	535.9000	15.6900	17.6000
.100	13.1600	-7.5000	1.0600	4.8000	-1.7000	534.0000	298.7000	533.2000	15.3100	17.8300
.150	12.8300	-7.6000	1.0900	4.3000	-3.9000	563.8000	247.5000	535.9000	15.8200	17.7600
.202	12.0000	-8.4000	1.1700	4.0000	-1.1000	491.3000	296.0000	535.4000	15.7000	17.8600
.470	10.8200	-10.1000	1.3000	.3000	-5.0000	477.1000	272.1000	530.4000	15.5800	17.6200
.689	9.4800	-9.8000	1.4700	-.5000	-2.3000	479.0000	294.3000	529.2000	15.4700	17.5100
.850	8.5900	-9.2000	1.6200	-.6500	-1.5000	503.1000	315.8000	526.5000	15.3600	17.6100
.900	8.2700	-9.1000	1.6700	-.2000	-1.1000	509.2000	323.1000	526.3000	15.3200	17.6300
.937	8.0200	-9.0000	1.7300	.5000	.5000	522.2000	242.2000	526.1000	15.2600	17.6800

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	555.9000	17.3500
.1000	13.1500	555.6200	17.6900
.1500	12.8400	552.8000	17.7500
.2022	11.9700	552.1500	17.7600
.4702	10.8300	547.8000	17.6000
.6887	9.5700	546.1000	17.4300
.8500	8.6700	546.8000	17.4900
.9000	8.4000	547.0000	17.5400
.9372	8.1200	549.1000	17.3500

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3891	.1309	.0629	.3895	6.6000	.3462	395.4244	395.1329	15.1795
.1000	.4101	.0556	.0261	1.0080	9.3000	.3852	438.6242	437.0859	36.7031
.1500	.3855	.0652	.0024	3.2239	8.9000	.3917	444.6477	443.3941	33.3391
.2022	.3235	.0463	.0197	12.1238	9.4000	.3929	445.7383	444.6525	31.0931
.4702	.3262	.0098	.0038	1.5773	7.4000	.3758	425.2142	425.2084	2.2264
.6887	.3682	.0392	.0133	1.4193	6.3000	.3566	403.4437	403.4304	-3.5207
.8500	.3775	.0533	.0165	.9378	5.5500	.3638	411.6270	411.6005	-4.6697
.9000	.3684	.0390	.0117	1.0075	5.9000	.3696	418.0555	418.0529	-1.4593
.9372	.3762	.1364	.0394	.6771	6.5000	.3474	394.3111	394.2961	3.4410

PCT IMMERS	EX STAT PRES
.0500	15.9694
.1000	15.9689
.1500	15.9684
.2022	15.9669
.4702	15.9650
.6887	15.9629
.8500	15.9614
.9000	15.9609
.9372	15.9605

ROTOR INLET TRAVERSE PLANE		READING NUMBER	63	TIME	17H 59M 5S	UNIFORM INLET FLOW	STATOR ANGLE 3.00		
SPEED (RPM)	7591.0186					DISTORTION INDEX	0.000		
ACTUAL ORIFICE FLOW	83.6064								
THETA	0.9825								
DELTA	0.9948								
MASS AVERAGED PT	14.6204	(14.6960)							
MASS AVERAGED TT	509.6588	(518.6881)							
TOTAL WEIGHT FLOW	87.0640	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	86.7487								
EQUIV. SPEED	7657.9665								
PERCENT SPEED	59.9167								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.6574	14.6956	14.6968	14.7052	14.7071	14.6971	14.6944	14.6945	14.6840
STATIC PRESSURE	13.8848	13.7923	13.7213	13.6046	13.6092	13.6901	13.7936	13.8449	13.8940
WEDGE PRESSURE	13.8858	13.7968	13.7284	13.6169	13.6214	13.6984	13.7979	13.8478	13.8954
TOTAL TEMPERATURE	519.2784	518.7714	518.7421	518.5478	518.6932	518.5248	518.5223	518.6080	518.6775
ANGLE (DEG.)	3.2832	1.9169	3.7585	3.5935	3.1556	1.9071	2.2957	2.2447	2.6991
APPARENT MACH NO.	0.2789	0.3015	0.3135	0.3331	0.3327	0.3185	0.3011	0.2923	0.2820
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	13.9469	13.9135	13.8568	13.8363	13.8463	13.9126	13.9671	13.9848	14.0118
WEDGE PRESSURE	13.9533	13.9205	13.8644	13.8441	13.8540	13.9197	13.9736	13.9912	14.0178
ANGLE (DEG.)	-18.1692	0.1777	0.6419	1.6878	3.6045	5.3044	6.3045	6.4199	6.2991
APPARENT MACH NO.	0.2660	0.2792	0.2897	0.2948	0.2933	0.2796	0.2689	0.2655	0.2585
MEASURING PLANE									
MACH NO.	0.2673	0.2805	0.2911	0.2962	0.2947	0.2809	0.2702	0.2668	0.2597
ABSOLUTE VELOCITY	296.3941	310.8425	322.3463	327.8802	326.2866	311.2998	299.5592	295.8347	288.0641
SWIRL VELOCITY	16.4938	10.1707	20.8009	20.4461	17.9608	10.2915	11.6284	11.0605	12.7082
WEIGHT FLOW	8.2253	6.0049	10.1897	16.3895	18.1893	13.9003	6.7400	3.3158	4.1635
AXIAL VELOCITY	287.5153	303.8871	316.6403	325.5669	325.7739	309.0677	290.0588	282.1772	269.5591
CALCULATING PLANE									
ANGLE (DEG.)	2.9953	1.7428	3.4592	3.3891	2.9686	1.7670	2.0333	1.9459	2.3786
SWIRL VELOCITY	16.7767	10.3128	21.0374	20.6141	17.9441	10.1787	11.3197	10.6608	12.1108
AXIAL VELOCITY	319.6140	337.9274	347.0158	347.0808	345.0145	328.9269	317.8239	312.7581	290.5429
MERIDONAL VELOCITY	326.7543	342.7269	350.2564	348.2024	345.0166	330.6194	324.5725	323.7910	307.2842
ABSOLUTE VELOCITY	328.2140	343.9046	351.9040	349.8224	346.4904	331.7897	325.7997	325.0103	308.5888
MACH NO.	0.2965	0.3109	0.3183	0.3164	0.3133	0.2998	0.2942	0.2935	0.2765
WEIGHT FLOW	8.2323	6.0198	10.2147	16.3982	18.2049	13.9047	6.7411	3.3170	4.0310
WHEEL SPEED	934.3774	908.7732	881.4013	813.3936	719.7224	609.5575	528.6856	499.2357	469.1298
RELAT. TANG. VELOC.	917.6006	898.4605	860.3638	792.7795	701.7781	599.3786	517.3658	488.5749	457.0189
RELATIVE FLOW ANGLE	70.3996	69.1204	67.8488	66.2883	63.8200	61.1189	57.8978	56.4667	56.0846
RELATIVE VELOCITY	974.0425	961.6094	928.9269	865.8775	782.0031	684.5172	610.7493	586.1279	550.7176
RELATIVE MACH NO.	0.8799	0.8694	0.8403	0.7831	0.7071	0.6185	0.5516	0.5294	0.4970
MCL INCIDENCE	8.1996	7.9204	7.3488	7.8883	7.7200	8.8189	9.4978	8.4667	8.1846
SURFACE INCIDENCE	5.9996	5.9203	5.2488	5.4883	5.3200	6.1189	5.7978	4.6667	4.0846
RELATIVE TOTAL PRESS	23.0891	22.7787	22.0052	20.7475	19.3325	18.0101	17.1774	16.9276	16.5891
STATIC TEMPERATURE	510.2931	508.9159	508.4235	508.3548	508.6906	509.3558	509.6814	509.8083	510.7437
RELAT. TOTAL TEMP.	589.4285	585.9696	580.3246	570.8036	559.6411	548.3826	540.7497	538.4267	536.0121
STATIC PRESS. (ALT.)	13.7896	13.7424	13.6997	13.7191	13.7390	13.8083	13.8359	13.8411	13.9144
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4865
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	63	TIME	17H 59M 9S	UNIFORM INLET FLOW	STATOR ANGLE	3.000		
MASS AVERAGED PT	17.8867	(17.9791)							
MASS AVERAGED TT	547.0762	(556.7683)							
TOTAL WEIGHT FLOW	79.4820	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	79.1941								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0,	104 DEG.						
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.9865	18.2465	18.2495	18.2045	17.8828	17.6681	17.7919	17.7787	17.8530
STATIC PRESSURE	15.9702	15.8329	15.7103	15.6259	15.5444	15.4395	15.3230	15.2547	15.2023
WEDGE PRESSURE	16.1256	16.0257	15.9163	15.8363	15.7305	15.6152	15.5276	15.4609	15.4224
TOTAL TEMPERATURE	563.2427	564.3148	560.9751	560.3346	553.5503	551.6197	551.1400	551.1288	551.5273
ANGLE (DEG.)	40.6635	40.4310	38.5715	43.4954	42.2642	45.2420	45.2645	45.2968	47.0124
APPARENT MACH NO.	0.3981	0.4346	0.4464	0.4506	0.4319	0.4237	0.4452	0.4511	0.4620
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0,	300 DEG.						
STATIC PRESSURE	16.0861	16.1335	16.2207	16.1571	16.0708	15.9015	15.7748	15.7309	15.6822
WEDGE PRESSURE	16.1108	16.1619	16.2475	16.1842	16.0942	15.9243	15.8017	15.7583	15.7118
ANGLE (DEG.)	40.6167	35.6293	36.6588	32.6315	35.5937	38.7827	40.5243	40.2840	39.8644
APPARENT MACH NO.	0.3998	0.4199	0.4108	0.4134	0.3909	0.3881	0.4151	0.4187	0.4311
MEASURING PLANE									
MACH NO.	0.4026	0.4230	0.4137	0.4163	0.3936	0.3908	0.4131	0.4217	0.4343
ABSOLUTE VELOCITY	460.7053	483.9737	472.3716	475.0594	447.1331	443.3573	473.1251	477.0185	490.8718
SWIRL VELOCITY	299.5689	313.2845	294.0346	326.8039	300.7100	314.1005	333.9744	336.0893	355.6663
WEIGHT FLOW	7.8582	5.5235	9.7207	14.9373	16.5188	12.1940	6.2510	2.8018	4.1026
AXIAL VELOCITY	348.7321	367.7064	368.7078	344.4358	330.8919	311.4598	330.9066	332.6265	331.5225
CALCULATING PLANE									
SWIRL VELOCITY	297.5893	311.3973	292.6712	325.9909	300.9881	316.7936	338.7683	341.9562	363.9698
AXIAL VELOCITY	330.7047	350.0322	351.0509	330.9375	320.8030	290.5858	314.8020	314.7760	310.7196
ABSOLUTE VELOCITY	448.7936	471.4024	459.3164	465.4590	440.6836	431.5469	467.3443	471.4090	486.9519
MERIDIONAL VELOCITY	334.9200	352.8926	352.9846	331.2280	320.8733	292.0297	320.9137	323.4512	322.4467
ANGLE (DEG.)	41.8963	41.5753	39.7372	44.4815	43.0851	47.3719	47.0088	47.2787	49.4212
MACH NO.	0.3918	0.4116	0.4019	0.4077	0.3878	0.3801	0.4128	0.4166	0.4307
WEIGHT FLOW	7.8525	5.5282	9.7085	14.8992	16.5069	11.8313	6.2572	2.8065	4.0914
WHEEL SPEED	909.6654	887.3905	864.6956	806.0419	722.3955	623.5936	558.7625	535.9934	515.2410
RELAT. TANG. VELOC.	612.0761	575.9932	572.0243	480.0509	421.4074	306.7998	219.9940	194.0371	151.2710
RELATIVE FLOW ANGLE	61.3133	58.5057	58.3223	55.3951	52.7133	46.4130	34.4317	30.9594	25.1330
RELATIVE VELOCITY	697.7166	675.5006	672.1680	583.2331	529.6639	423.5650	389.0796	377.1884	356.1668
RELATIVE MACH NO.	0.6092	0.5899	0.5882	0.5108	0.4661	0.3731	0.3437	0.3333	0.3150
DEVIATION	5.3133	2.2057	2.4223	4.1950	5.7133	7.7130	6.5317	8.0594	6.5330
AIR TURNING ANGLE	9.0862	10.6146	9.5265	10.8932	11.1066	14.7058	23.4661	25.5072	30.9516
REL. MACH NO. (WHL.)	0.7648	0.7479	0.7323	0.6881	0.6229	0.5431	0.4900	0.4711	0.4539
IDEAL PRESS. RATIO	0.9776	0.9810	0.9854	0.9939	1.0020	1.0092	1.0177	1.0207	1.0248
ROTOR PRESS. RATIO	1.2271	1.2416	1.2417	1.2379	1.2159	1.2021	1.2107	1.2098	1.2157
ROTOR TEMP. RATIO	1.0846	1.0877	1.0814	1.0805	1.0672	1.0638	1.0629	1.0627	1.0633
ADIABATIC EFFY.	0.7111	0.7264	0.7837	0.7803	0.8549	0.8463	0.8931	0.8923	0.9064
POLYTR. EFFICIENCY	0.7194	0.7346	0.7902	0.7869	0.8589	0.8503	0.8959	0.8951	0.9090
TOTAL LOSS COEFF.	0.1894	0.1894	0.1485	0.1675	0.1115	0.1414	0.1195	0.1295	0.1276
SHOCK LOSS COEFF.	-0.0012	-0.0018	-0.0035	-0.0070	-0.0115	-0.0168	-0.0208	-0.0222	-0.0241
PROFILE LOSS COEFF.	0.1906	0.1913	0.1521	0.1745	0.1231	0.1583	0.1404	0.1517	0.1518
TOTAL LOSS PARAM.	0.0277	0.0298	0.0233	0.0280	0.0195	0.0272	0.0265	0.0290	0.0295
PROFILE LOSS PARAM.	0.0278	0.0301	0.0239	0.0292	0.0215	0.0305	0.0311	0.0340	0.0351
ROTOR DIFFUS. FACT.	0.3806	0.3992	0.3753	0.4420	0.4390	0.5164	0.5206	0.5189	0.5344
STATIC PRESS. (ALT.)	16.1794	16.2374	16.3269	16.2357	16.1208	15.9911	15.8218	15.7768	15.7152
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6090	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 63 TIME 17H 59M 0S UNIFORM INLET FLOW STATOR ANGLE 3.0°

MASS AVERAGED PT 17.8855 (17.9779)
 MASS AVERAGED TT 547.0552 (556.7470)
 TOTAL WEIGHT FLOW 79.9907 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 79.7010

MEASURING PLANE

IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.9865	18.2465	18.2495	18.2045	17.8827	17.6681	17.7919	17.7787	17.8530
STATIC PRESSURE	16.0861	16.1335	16.2207	16.1570	16.0708	15.9015	15.7748	15.7309	15.6822
WEDGE PRESSURE	16.1108	16.1619	16.2475	16.1842	16.0942	15.9243	15.8017	15.7583	15.7118
TOTAL TEMPERATURE	563.2426	564.3147	560.9750	560.3345	553.5501	551.6195	551.1398	551.1286	551.5271
ANGLE (DEG.)	40.6634	40.4310	38.5715	43.4954	42.2642	45.2420	45.2645	45.2968	47.0124
MACH NO.	0.4026	0.4230	0.4137	0.4163	0.3936	0.3908	0.4131	0.4217	0.4343
ABSOLUTE VELOCITY	460.7053	483.9736	472.3716	475.0599	447.1330	443.3572	473.1251	477.0180	490.8718
SWIRL VELOCITY	299.5688	313.2844	294.0346	326.8043	300.7099	314.1003	333.9743	336.0889	355.6663
AXIAL VELOCITY	348.7320	367.7065	368.7078	344.4362	330.8919	311.4598	330.9056	332.6263	331.5224
WEIGHT FLOW	7.8582	5.5235	9.7207	14.9373	16.5187	12.1940	6.2510	2.8018	4.1026

CALCULATING PLANE

ANGLE (DEG.)	40.8405	40.4023	38.2636	42.7723	40.9922	43.7317	43.6949	43.6136	45.1524
MACH NO.	0.4018	0.4239	0.4178	0.4232	0.4039	0.3983	0.4233	0.4270	0.4391
SWIRL VELOCITY	300.6799	314.2365	295.1804	327.6211	300.7099	311.7810	329.6975	331.6186	349.9012
AXIAL VELOCITY	346.8366	368.1895	373.2437	353.1345	345.0145	324.8910	344.0624	347.0607	347.0375
ABSOLUTE VELOCITY	459.8901	485.0290	476.8882	482.6198	458.4320	451.6235	478.7755	482.8161	496.1301
WEIGHT FLOW	7.8609	5.5287	9.7326	14.9634	16.5210	12.2075	6.2578	2.8072	4.1114
MERIDIONAL VELOCITY	346.9719	368.4611	373.5447	353.3719	345.0166	325.7246	346.1529	349.8968	350.7109
STATIC TEMPERATURE	545.6211	544.7341	542.0450	540.9536	536.0553	534.6452	532.0629	531.7252	531.0362
STATIC PRESS. (ALT.)	16.0925	16.1247	16.1834	16.0942	15.9817	15.8376	15.7285	15.6831	15.6376
MCL INCIDENCE	11.8564	11.1521	8.6745	11.8310	7.3425	9.6339	9.5704	9.4600	11.0203
SUC SUR INCIDENCE	5.4305	4.6223	2.1036	5.5823	1.2322	3.4217	3.1349	2.9436	4.4024
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 63 PCT DES SPD= 60.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 16.490 HUB STATIC PRES= 16.450

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	.3400	5.4000	459.9000	300.7000	545.6000	16.0900	17.9900
.100	13.1600	-7.5000	1.0600	.3300	4.6000	485.0000	314.2000	544.7000	16.1200	18.2500
.150	12.8300	-7.6000	1.0900	.3300	2.1000	476.9000	295.2000	542.0000	16.1800	18.2500
.282	12.0000	-8.4000	1.1700	4.7000	5.6000	482.6000	327.6000	540.9000	16.0900	18.2000
.470	10.8200	-10.1000	1.3000	1.8000	1.2000	458.4000	300.7000	536.1000	15.9800	17.8800
.689	9.4800	-9.8000	1.4700	.2000	3.4000	451.6000	311.8000	534.6000	15.8300	17.6600
.850	8.5900	-9.2000	1.6200	.8000	3.1000	478.8000	329.7000	532.1000	15.7200	17.7900
.900	8.2700	-9.1000	1.6700	1.4000	2.9000	482.8000	331.6000	531.7000	15.6800	17.7800
.937	8.0200	-9.0000	1.7300	1.6000	4.4000	496.1000	349.9000	531.0000	15.6300	17.8500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	563.6000	17.7900
.1000	13.1500	562.4000	17.9900
.1500	12.8400	559.5000	18.1100
.2822	11.9700	556.0000	18.0000
.4702	10.8300	551.6700	17.7800
.6887	9.5700	549.2500	17.5800
.8500	8.6700	549.3000	17.6100
.9000	8.4000	548.9000	17.6600
.9372	8.1200	550.3400	17.4400

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4827	.1053	.0506	.6497	4.7400	.3313	381.4200	381.4133	2.2634
.1000	.4621	.1221	.0576	.9118	4.8300	.3554	408.0457	408.0390	2.3502
.1500	.3960	.0676	.0310	1.0857	4.9300	.3691	422.2799	422.2729	2.4321
.2822	.4153	.0948	.0404	2.9743	10.1000	.3575	408.0858	406.7136	33.4379
.4702	.4163	.0526	.0202	1.2760	8.9000	.3325	378.6151	378.4283	11.8926
.6887	.4569	.0437	.0149	1.3542	7.0000	.3079	350.3842	350.3821	1.2231
.8500	.4652	.0870	.0268	1.0502	7.0000	.3127	355.8264	355.7917	4.9681
.9000	.4461	.0571	.0171	1.1840	7.5000	.3195	363.2641	363.1557	8.8753
.9372	.5309	.1847	.0534	.7662	7.6000	.2899	330.5595	330.4306	9.2298

PCT IMMERS	EX STAT PRES
.0500	16.4878
.1000	16.4856
.1500	16.4835
.2822	16.4777
.4702	16.4701
.6887	16.4616
.8500	16.4556
.9000	16.4538
.9372	16.4519

ROTOR INLET TRAVERSE PLANE READING NUMBER 67 TIME 14H 12M 55S UNIFORM INLET FLOW STATOR ANGLE 3.00

SPEED (RPM) 8919.5570

ACTUAL DRIFICE FLOW 116.5734

THETA 0.9935

DELTA 0.9920

MASS AVERAGED PT 14.5784 (14.6960)

MASS AVERAGED TT 515.3570 (518.6881)

TOTAL WEIGHT FLOW 121.3957 (PROBE INTEGRATION)

EQUIV. WEIGHT FLOW 121.9807

EQUIV. SPEED 8948.3385

PERCENT SPEED 70.0128

DISTORTION INDEX 0.000

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.

IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5865	14.6689	14.6834	14.6959	14.7271	14.7222	14.7237	14.7218	14.6884
STATIC PRESSURE	12.9973	12.9013	12.7984	12.4878	12.3952	12.5223	12.6834	12.8377	12.9647
WEDGE PRESSURE	13.0406	12.9647	12.8765	12.6119	12.5385	12.6447	12.7822	12.9152	13.0225
TOTAL TEMPERATURE	522.4461	520.7933	519.8999	518.5545	517.7854	517.5350	517.5809	517.4388	516.6982
ANGLE (DEG.)	2.7480	0.0412	0.9888	2.6234	2.4277	1.5543	2.0034	2.0897	2.1623
APPARENT MACH NO.	0.4032	0.4236	0.4371	0.4724	0.4848	0.4711	0.4539	0.4364	0.4182

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.

STATIC PRESSURE	13.0744	12.9856	12.9802	12.9637	12.9047	12.9498	13.0579	13.1302	13.1495
WEDGE PRESSURE	13.0910	13.0048	12.9998	12.9837	12.9261	12.9705	13.0768	13.1480	13.1665
ANGLE (DEG.)	0.1433	0.7528	2.5692	2.8200	3.8285	5.5853	6.2690	7.1381	6.8225
APPARENT MACH NO.	0.3960	0.4182	0.4206	0.4243	0.4356	0.4292	0.4150	0.4050	0.3983

MEASURING PLANE

MACH NO.	0.3984	0.4208	0.4233	0.4270	0.4384	0.4319	0.4176	0.4075	0.4007
ABSOLUTE VELOCITY	437.9833	461.8227	464.4251	468.3363	480.4231	473.5495	458.4071	447.6697	440.4028
SWIRL VELOCITY	20.4021	0.3249	7.8897	21.3266	20.3489	12.7602	15.5301	15.5823	15.5659
WEIGHT FLOW	11.4637	8.4049	13.9819	22.1746	25.3020	19.9533	9.7637	4.7648	6.0460
AXIAL VELOCITY	425.0605	451.7306	457.0909	465.4554	479.9657	470.2404	443.9488	427.0424	412.2555

CALCULATING PLANE

ANGLE (DEG.)	2.4816	0.0370	0.9016	2.5093	2.2645	1.4253	1.7632	1.7880	1.8139
SWIRL VELOCITY	20.7521	0.3294	7.9795	21.5018	20.3300	12.6203	15.1178	15.0191	14.8342
AXIAL VELOCITY	477.8147	508.6082	506.0388	489.6378	513.0955	506.1892	490.0980	480.1210	467.3979
MERIDIONAL VELOCITY	488.4893	515.8319	510.7645	491.2201	513.0987	508.7939	500.4969	497.0577	494.3295
ABSOLUTE VELOCITY	489.9509	516.8473	511.8380	492.6960	514.5846	509.9595	501.7503	498.3240	495.6146
MACH NO.	0.4475	0.4731	0.4683	0.4501	0.4709	0.4665	0.4587	0.4554	0.4528
WEIGHT FLOW	11.4522	8.4071	13.9886	21.7935	25.3184	19.9745	9.7233	4.7692	6.0485
WHEEL SPEED	1088.5054	1059.8398	1028.7706	950.4448	841.7328	712.9490	618.3308	584.0158	549.2274
RELAT. TANG. VELOC.	1067.7531	1059.5093	1028.7908	928.9429	821.4028	700.3286	603.2130	568.9967	534.3932
RELATIVE FLOW ANGLE	65.4164	64.0406	63.4186	62.1305	58.0087	54.0015	50.3170	48.8607	47.2304
RELATIVE VELOCITY	1174.1882	1178.4064	1141.4438	1050.8245	968.4897	865.6392	783.8131	755.5286	727.9681
RELATIVE MACH NO.	1.0724	1.0787	1.0444	0.9600	0.8864	0.7919	0.7166	0.6905	0.6652
MCL INCIDENCE	3.2164	2.8406	2.9186	3.7305	1.9087	1.7015	1.9170	0.8607	-0.6695
SURFACE INCIDENCE	1.0165	0.8406	0.8186	1.3305	-0.4912	-0.9984	-1.7829	-2.9392	-4.7695
RELATIVE TOTAL PRESS	26.9905	27.0142	25.9030	23.4389	21.5112	19.5861	18.3877	18.0626	17.6950
STATIC TEMPERATURE	502.3056	498.4510	498.0256	498.3376	495.7715	495.9187	496.6531	496.8014	496.3132
RELAT. TOTAL TEMP.	617.9798	614.5938	606.8122	590.3011	573.7741	558.2039	547.7241	544.2402	540.2920
STATIC PRESS. (ALT.)	12.7127	12.5834	12.6340	12.7879	12.6512	12.6817	12.7448	12.7687	12.7598
RADIUS RATIO	0.9796	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE		READING NUMBER 67		TIME 14H 12M 55S		UNIFORM INLET FLOW		STATOR ANGLE 3.000	
MASS AVERAGED PT	17.6376	(17.7798)							
MASS AVERAGED TT	548.4325	(551.9774)							
TOTAL WEIGHT FLOW	117.8977	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	118.4658								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0, 104 DEG.							
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.3196	17.4432	17.5411	17.7328	17.8095	17.8734	18.1815	18.3676	18.2639
STATIC PRESSURE	14.2041	14.0807	13.9422	13.9526	14.1484	14.1131	13.9719	13.8775	13.7481
WEDGE PRESSURE	14.5324	14.4523	14.3582	14.4023	14.5723	14.5559	14.5080	14.4790	14.3595
TOTAL TEMPERATURE	554.5346	550.0442	549.6577	558.6860	549.0035	549.2038	551.6070	552.9303	553.2106
ANGLE (DEG.)	22.5938	20.4430	21.1582	29.2075	25.6359	28.7014	30.9558	31.9355	33.3870
APPARENT MACH NO.	0.5069	0.5253	0.5425	0.5533	0.5430	0.5496	0.5771	0.5929	0.5963
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0, 300 DEG.							
STATIC PRESSURE	14.2610	14.2569	14.4575	14.6425	14.7196	14.6767	14.5575	14.4900	14.4214
WEDGE PRESSURE	14.3090	14.3076	14.5057	14.6907	14.7677	14.7271	14.6171	14.5553	14.4860
ANGLE (DEG.)	19.6078	13.2428	13.8345	17.3111	20.2297	22.2387	23.4291	24.3394	25.3693
APPARENT MACH NO.	0.5294	0.5396	0.5281	0.5255	0.5242	0.5332	0.5671	0.5861	0.5850
MEASURING PLANE									
MACH NO.	0.5342	0.5446	0.5328	0.5302	0.5289	0.5381	0.5725	0.5920	0.5908
ABSOLUTE VELOCITY	597.6649	607.1060	595.0279	597.8743	591.6972	601.6922	639.2923	660.4653	659.8713
SWIRL VELOCITY	228.9038	211.4467	214.2695	291.5171	255.9861	287.9340	325.7775	344.9551	357.9918
WEIGHT FLOW	11.3667	7.8498	13.4677	20.8066	24.9547	19.4105	9.6494	4.3806	6.2880
AXIAL VELOCITY	550.0751	567.2609	553.6188	521.4505	533.4279	525.8928	543.1344	553.4304	543.1930
CALCULATING PLANE									
SWIRL VELOCITY	227.3912	210.1729	213.2760	290.7919	256.2229	290.4029	330.4537	350.9768	366.3495
AXIAL VELOCITY	519.7985	536.6418	525.0781	489.6379	516.1080	505.1850	513.1970	519.2941	507.6042
ABSOLUTE VELOCITY	574.3657	581.3574	570.3544	570.7114	577.2109	585.7593	619.6521	639.5485	642.4875
MERIDIONAL VELOCITY	526.4242	541.0273	527.9703	490.0678	516.2212	507.6952	523.1604	533.6059	526.7623
ANGLE (DEG.)	23.5871	21.3513	22.0680	30.6543	26.3579	29.8431	32.7271	34.0024	35.7652
MACH NO.	0.5123	0.5202	0.5096	0.5049	0.5152	0.5230	0.5539	0.5720	0.5742
WEIGHT FLOW	11.3822	7.8601	13.4779	20.4450	24.9692	19.4312	9.6563	4.3836	6.2917
WHEEL SPEED	1059.7177	1034.9818	1009.2716	941.8545	844.8593	729.3657	653.5077	627.0157	603.2113
RELAT. TANG. VELOC.	832.3262	824.7285	795.9955	651.0626	588.6363	438.9629	323.0539	276.0390	236.8618
RELATIVE FLOW ANGLE	57.6879	56.7350	56.4445	53.0306	48.7501	40.8474	31.6956	27.3530	24.2114
RELATIVE VELOCITY	984.8294	986.3506	955.1759	814.8917	782.9283	671.1504	614.8662	600.7766	577.5655
RELATIVE MACH NO.	0.8784	0.8826	0.8534	0.7209	0.6989	0.5993	0.5496	0.5373	0.5162
DEVIATION	1.6879	0.4350	0.5445	1.8306	1.7501	2.1474	3.7956	4.4530	5.6114
AIR TURNING ANGLE	7.7285	7.3055	6.9740	9.0998	9.2586	13.1540	18.6214	21.5077	23.0189
REL. MACH NO. (WHL.)	0.8727	0.8533	0.8367	0.7907	0.7188	0.6290	0.5690	0.5476	0.5283
IDEAL PRESS. RATIO	0.9709	0.9753	0.9810	0.9920	1.0026	1.0123	1.0239	1.0280	1.0338
ROTOR PRESS. RATIO	1.1873	1.1891	1.1946	1.2066	1.2093	1.2140	1.2348	1.2476	1.2434
ROTOR TEMP. RATIO	1.0614	1.0561	1.0572	1.0773	1.0602	1.0611	1.0657	1.0685	1.0706
ADIABATIC EFFY.	0.8188	0.9033	0.9106	0.7123	0.9255	0.9312	0.9450	0.9513	0.9088
POLYTR. EFFICIENCY	0.8231	0.9057	0.9128	0.7198	0.9275	0.9331	0.9466	0.9528	0.9116
TOTAL LOSS COEFF.	0.0682	0.0335	0.0330	0.1564	0.0369	0.0412	0.0417	0.0409	0.0840
SHOCK LOSS COEFF.	0.0181	0.0192	0.0134	0.0039	-0.0008	-0.0064	-0.0110	-0.0125	-0.0140
PROFILE LOSS COEFF.	0.0500	0.0142	0.0196	0.1525	0.0377	0.0477	0.0527	0.0535	0.0981
TOTAL LOSS PARAM.	0.0111	0.0055	0.0054	0.0277	0.0070	0.0087	0.0095	0.0095	0.0196
PROFILE LOSS PARAM.	0.0081	0.0023	0.0032	0.0270	0.0071	0.0100	0.0120	0.0124	0.0229
ROTOR DIFFUS. FACT.	0.2192	0.2170	0.2201	0.3081	0.2711	0.3225	0.3349	0.3337	0.3447
STATIC PRESS. (ALT.)	14.4801	14.5042	14.6922	14.9001	14.8595	14.8327	14.7607	14.7128	14.6055
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SBLIDITY	-1.6400	-1.6500	-1.6700	-1.6940	-1.7300	-1.7480	-1.8580	-1.9100	-1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 67 TIME 14H 12M 55S UNIFORM INLET FLOW STATOR ANGLE 3.00

MASS AVERAGED PT 17.6375 (17.7797)
 MASS AVERAGED TT 548.4530 (551.9980)
 TOTAL WEIGHT FLOW 118.2611 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 118.8311

MEASURING PLANE	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.3196	17.4432	17.5411	17.7328	17.8095	17.8734	18.1815	18.3676	18.2639
STATIC PRESSURE	14.2610	14.2569	14.4575	14.6425	14.7196	14.6767	14.5575	14.4900	14.4214
WEDGE PRESSURE	14.3090	14.3076	14.5057	14.6907	14.7677	14.7270	14.6171	14.5553	14.4860
TOTAL TEMPERATURE	554.5345	550.0441	549.6576	550.6858	549.0034	549.2037	551.6069	552.9302	553.2105
ANGLE (DEG.)	22.5938	20.4430	21.1582	29.2075	25.6359	28.7014	30.9558	31.9355	33.3870
MACH NO.	0.5342	0.5446	0.5328	0.5302	0.5289	0.5381	0.5725	0.5920	0.5908
ABSOLUTE VELOCITY	597.6648	607.1059	595.0278	597.8738	591.6967	601.6918	639.2918	660.4651	659.8711
SWIRL VELOCITY	228.9037	211.4467	214.2695	291.5168	255.9859	287.9338	325.7773	344.9549	357.9916
AXIAL VELOCITY	550.0751	567.2609	553.6188	521.4580	533.4275	525.8924	543.1342	553.4302	543.1929
WEIGHT FLOW	11.3667	7.8498	13.4677	20.8066	24.9547	19.4105	9.6494	4.3806	6.2880

CALCULATING-PLANE	22.7542	20.4201	20.9050	28.5202	24.4389	27.2302	29.4136	30.3386	31.5345
ANGLE (DEG.)	22.7542	20.4201	20.9050	28.5202	24.4389	27.2302	29.4136	30.3386	31.5345
MACH NO.	0.5310	0.5457	0.5406	0.5439	0.5545	0.5611	0.5903	0.6088	0.6088
SWIRL VELOCITY	229.7527	212.0894	215.1044	292.2456	255.9859	285.8076	321.6055	340.3667	352.1887
AXIAL VELOCITY	546.7881	568.6802	562.1541	536.7957	562.2967	554.3978	569.4377	580.5648	572.9394
ABSOLUTE VELOCITY	594.2151	608.2743	603.2631	612.3919	618.7408	625.8932	657.8757	677.9546	678.5720
WEIGHT FLOW	11.3676	7.8574	13.4819	20.8209	24.9738	19.4367	9.6555	4.3756	6.2913
MERIDIONAL VELOCITY	547.0013	569.0996	562.6074	537.1564	562.3000	555.8203	572.8976	585.3091	579.0040
STATIC TEMPERATURE	524.9341	519.1209	519.2937	527.4853	517.1908	516.6675	515.6592	514.7666	515.0323
STATIC PRESS. (ALT.)	14.2939	14.2455	14.3775	14.5014	14.4519	14.4340	14.3614	14.3001	14.2198
MCL INCIDENCE	-6.2369	-8.8448	-8.6980	-2.4306	-9.2108	-6.9098	-4.7976	-3.9234	-2.7416
SUC SUR INCIDENCE	-12.6557	-15.3598	-15.2549	-8.6697	-15.3209	-13.0797	-11.1463	-10.3313	-9.2154
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.4868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG ND= 67 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.590 HUB STATIC PRES= 14.640

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.1000	-12.7000	594.2000	229.8000	524.9000	14.2900	17.3200
.100	13.1600	-7.5000	1.0600	3.7000	-15.4000	608.2000	212.1000	519.1000	14.2400	17.4400
.150	12.8300	-7.6000	1.0900	1.0000	-15.2000	603.3000	215.1000	519.3000	14.3800	17.5400
.282	12.0000	-8.4000	1.1700	2.5000	-8.7000	612.4000	292.2000	527.5000	14.5000	17.7300
.470	10.8200	-10.1000	1.3000	-1.1000	-15.3000	618.7000	256.0000	517.2000	14.4500	17.8100
.689	9.4800	-9.8000	1.4700	-1.6000	-13.1000	625.9000	285.8000	516.7000	14.4300	17.8700
.850	8.5900	-9.2000	1.6200	-1.6000	-11.1000	657.9000	321.6000	515.6000	14.3600	18.1800
.900	8.2700	-9.1000	1.6700	-1.4000	-10.3000	678.0000	340.4000	514.8000	14.3000	18.3700
.937	8.0200	-9.0000	1.7300	-.7000	-9.2000	678.6000	352.2000	515.0000	14.2200	18.2600

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	553.8000	16.8100
.1000	13.1500	551.9300	17.3800
.1500	12.8400	549.4300	17.4900
.2822	11.9700	556.2000	17.5500
.4702	10.8300	548.2200	17.6400
.6887	9.5700	547.6000	17.7300
.8500	8.6700	551.8600	17.8900
.9000	8.4000	552.4100	18.0200
.9372	8.1200	554.0000	17.6900

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2852	.1663	.0806	.4544	9.5000	.4541	513.3502	511.3178	45.6339
.1000	.2021	.0187	.0088	.6160	8.2000	.5057	568.0616	566.8775	36.6583
.1500	.2004	.0158	.0073	.9035	5.6000	.5148	576.3882	576.3004	10.0594
.2822	.2313	.0557	.0238	4.1106	8.0000	.5190	584.4820	583.8803	26.5138
.4702	.2172	.0506	.0195	.7211	6.0000	.5255	587.0938	586.9856	-11.2707
.6887	.2156	.0407	.0138	1.2464	5.2000	.5317	593.3496	593.1182	-16.5673
.8500	.2336	.0759	.0234	.5103	4.6000	.5436	608.2497	608.0125	-16.9833
.9000	.2431	.0860	.0257	.5981	4.7000	.5534	618.8781	618.6933	-15.1205
.9372	.2796	.1411	.0408	.4380	5.3000	.5273	592.1286	592.0844	-7.2340

PCT IMMERS	EX STAT PRES
.0500	14.5928
.1000	14.5955
.1500	14.5981
.2822	14.6054
.4702	14.6149
.6887	14.6255
.8500	14.6330
.9000	14.6353
.9372	14.6376

ROTOR INLET TRAVERSE PLANE		READING NUMBER 69		TIME 14H 37M 17S		UNIFORM INLET FLOW		STATOR ANGLE 3.00	
SPEED (RPM)	8921.6043								
ACTUAL ORIFICE FLOW	112.3460								
THETA	0.9925								
DELTA	0.9930								
MASS AVERAGED PT	14.5938	(14.6960)							
MASS AVERAGED TT	514.8116	(518.6881)							
TOTAL WEIGHT FLOW	117.7383	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	118.1183								
EQUIV. SPEED	8955.1318								
PERCENT SPEED	70.0659								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5999	14.6567	14.6664	14.7236	14.7233	14.7197	14.7099	14.7119	14.6715
STATIC PRESSURE	13.1464	13.0620	12.9560	12.6209	12.5781	12.7202	12.9008	13.0289	13.1402
WEDGE PRESSURE	13.1777	13.1053	13.0124	12.7288	12.6923	12.8134	12.9688	13.0817	13.1766
TOTAL TEMPERATURE	522.1044	520.8785	519.9926	518.3703	517.7951	517.7520	517.5430	517.0070	517.1723
ANGLE (DEG.)	1.2108	0.1997	-0.0831	2.0618	2.2932	1.3351	1.8477	2.0778	2.1901
APPARENT MACH NO.	0.3853	0.4029	0.4169	0.4607	0.4653	0.4494	0.4279	0.4129	0.3947
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	13.1929	13.0853	13.0778	13.0528	13.0567	13.1182	13.2432	13.2982	13.3361
WEDGE PRESSURE	13.2080	13.1028	13.0956	13.0718	13.0757	13.1361	13.2590	13.3133	13.3501
ANGLE (DEG.)	-2.3997	1.6080	4.0615	3.8936	4.8231	5.7957	6.7562	7.0337	7.2394
APPARENT MACH NO.	0.3809	0.4032	0.4054	0.4157	0.4151	0.4064	0.3879	0.3804	0.3696
MEASURING PLANE									
MACH NO.	0.3831	0.4057	0.4079	0.4183	0.4177	0.4089	0.3902	0.3825	0.3716
ABSOLUTE VELOCITY	421.6948	445.7406	448.1152	459.1364	458.5313	449.1705	429.2205	421.0738	409.4053
SWIRL VELOCITY	8.6574	1.5203	-0.6398	16.4347	18.3462	10.3966	13.4114	14.5733	14.6562
WEIGHT FLOW	11.1427	8.1669	13.5032	21.9046	24.3909	19.1286	9.2477	4.5308	5.6818
AXIAL VELOCITY	409.6110	435.9976	441.1016	456.4931	458.1388	446.0741	415.7185	401.6747	383.2330
CALCULATING PLANE									
ANGLE (DEG.)	1.0938	0.1803	-0.0759	1.9328	2.1411	1.2266	1.6213	1.7822	1.8422
SWIRL VELOCITY	8.8060	1.5416	-0.6470	16.5698	18.3291	10.2826	13.0554	14.0465	13.9672
AXIAL VELOCITY	460.2156	488.8029	487.2141	489.9842	489.2515	479.2252	460.2295	450.4141	433.2533
MERIDIONAL VELOCITY	470.4971	495.7453	491.7641	491.5676	489.2546	481.6911	469.9947	466.3030	458.2175
ABSOLUTE VELOCITY	471.6020	496.7435	492.7763	492.8534	490.6016	482.8104	471.2017	467.5548	459.4928
MACH NO.	0.4301	0.4539	0.4501	0.4502	0.4481	0.4407	0.4297	0.4262	0.4186
WEIGHT FLOW	11.1442	8.1549	13.5044	21.8872	24.4201	19.1498	9.2522	4.5365	5.6886
WHEEL SPEED	1089.6882	1060.5565	1029.4598	951.3355	842.3640	713.3409	618.8229	584.7032	549.3923
RELAT. TANG. VELOC.	1080.8821	1059.0147	1030.1065	934.7656	824.0348	703.0580	605.7674	570.6566	535.4250
RELATIVE FLOW ANGLE	66.4772	64.9150	64.4808	62.2615	59.3013	55.5837	52.1935	50.7467	49.4432
RELATIVE VELOCITY	1178.8439	1169.3053	1141.4689	1056.1368	958.3335	852.2422	766.7132	736.9446	704.7292
RELATIVE MACH NO.	1.0751	1.0686	1.0428	0.9648	0.8753	0.7779	0.6992	0.6718	0.6421
MCL INCIDENCE	4.2772	3.7150	3.9808	3.8615	3.2013	3.2837	3.7935	2.7467	1.5432
SURFACE INCIDENCE	2.0772	1.7150	1.8808	1.4615	0.8013	0.5837	0.0935	-1.0532	-2.5567
RELATIVE TOTAL PRESS.	27.3241	26.8860	26.0461	23.7310	21.5092	19.5705	18.3589	17.9981	17.6001
STATIC TEMPERATURE	503.4562	508.2353	499.7135	498.1472	497.7784	498.3676	499.0869	498.8540	499.6345
RELAT. TOTAL TEMP.	619.9756	614.6110	608.5254	591.0116	574.1561	558.7657	547.9511	543.9514	540.8881
STATIC PRESS. (ALT.)	12.8560	12.7238	12.7616	12.8108	12.8272	12.8810	12.9557	12.9833	13.0041
RADIUS-RATIO	-0.9736	-0.9464	-0.9179	-0.8869	-0.7495	-0.6347	-0.5505	-0.5198	-0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE READING NUMBER 69 TIME 14H 37M 17S UNIFORM INLET FLOW STATOR ANGLE 3.000
 MASS AVERAGED PT 18.4099 (18.5387)
 MASS AVERAGED TT 554.5428 (558.7186)
 TOTAL WEIGHT FLOW 112.5409 (PROBE INTEGRATION)
 CORR. TOTAL FLOW 112.9041

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.
 IMMERSION (IN.) 0.3100 0.6400 0.9600 1.8100 3.0200 4.4300 5.3600 5.6800 5.9500
 TOTAL PRESSURE 18.3010 18.4856 18.5561 18.8042 18.5286 18.3666 18.5113 18.6233 18.6296
 STATIC PRESSURE 15.2868 15.1461 15.0400 14.9722 15.0043 14.8374 14.6347 14.5301 14.4432
 WEDGE PRESSURE 15.5734 15.4860 15.4111 15.4004 15.3773 15.2139 15.0774 15.0162 14.9502
 TOTAL TEMPERATURE 564.0727 560.8049 557.8676 565.6876 555.9699 553.8271 554.9719 555.8491 556.6551
 ANGLE (DEG.) 28.8908 27.3819 26.9167 33.9872 31.3331 34.1038 35.6131 37.0292 38.6853
 APPARENT MACH NO. 0.4857 0.5093 0.5219 0.5418 0.5230 0.5257 0.5494 0.5632 0.5695

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.
 STATIC PRESSURE 15.2673 15.2659 15.4507 15.5967 15.6372 15.4915 15.3269 15.2236 15.1352
 WEDGE PRESSURE 15.3137 15.3161 15.4984 15.6463 15.6804 15.5346 15.3764 15.2777 15.1913
 ANGLE (DEG.) 30.6041 25.3034 19.2780 23.5176 25.3507 27.4819 29.1615 30.1309 30.5968
 APPARENT MACH NO. 0.5110 0.5254 0.5137 0.5193 0.4941 0.4950 0.5217 0.5394 0.5478

MEASURING PLANE
 MACH NO. 0.5155 0.5301 0.5182 0.5239 0.4983 0.4992 0.5263 0.5444 0.5529
 ABSOLUTE VELOCITY 582.8905 597.4967 583.8118 594.8518 562.6847 562.5594 592.3343 612.3249 621.6988
 SWIRL VELOCITY 280.8281 274.1013 263.7234 332.2906 292.5908 314.4248 342.0330 364.6290 383.7774
 WEIGHT FLOW 11.0402 7.6809 13.2893 20.6914 23.4826 17.8341 8.8059 3.9628 5.7516
 AXIAL VELOCITY 508.9139 529.2049 519.4527 492.8799 480.6030 464.3393 477.5177 483.3689 479.2869

CALCULATING PLANE
 SWIRL VELOCITY 278.9723 272.4500 262.5005 331.4640 292.8614 317.1208 346.9426 370.9941 392.7371
 AXIAL VELOCITY 481.2255 500.8227 489.2192 473.9192 466.1452 447.0760 452.1906 455.4411 449.3369
 ABSOLUTE VELOCITY 562.4354 574.6210 558.4609 579.4970 551.4459 550.7651 577.7608 598.0153 610.4491
 MERIDIONAL VELOCITY 487.3594 504.9154 491.9140 474.3353 466.2476 449.2974 460.9696 467.9931 466.2958
 ANGLE (DEG.) 30.0498 28.4984 28.1679 34.9125 32.0841 35.2883 37.4359 39.1039 41.0913
 MACH NO. 0.4965 0.5087 0.4946 0.5096 0.4879 0.4882 0.5127 0.5309 0.5423
 WEIGHT FLOW 11.0453 7.6814 13.2065 20.7077 23.5156 17.8558 8.8069 3.9670 5.7545
 WHEEL SPEED 1060.8688 1035.6023 1009.9478 942.7369 845.4928 729.7664 654.0279 627.7536 603.3924
 RELAT. TANG. VELOC. 781.8962 763.1521 747.4472 611.2730 552.6313 412.6456 307.0852 256.7595 210.6553
 RELATIVE FLOW ANGLE 58.0647 56.5108 56.6502 52.1894 49.8463 42.5652 33.6705 28.7510 24.3118
 RELATIVE VELOCITY 921.3471 915.0631 894.7942 773.7237 723.0408 610.0365 553.8902 533.8005 511.6711
 RELATIVE MACH NO. 0.8133 0.8101 0.7925 0.6805 0.6397 0.5407 0.4915 0.4739 0.4545
 DEVIATION 2.0647 0.2108 0.7502 0.9894 2.8463 3.8652 5.7705 5.8510 5.7117
 AIR TURNING ANGLE 8.4124 8.4041 7.8305 10.0721 9.4550 13.0184 18.5229 21.9957 25.1314
 REL. MACH NO. (WHL.) 0.8721 0.8540 0.8362 0.7909 0.7192 0.6292 0.5693 0.5482 0.5285
 IDEAL PRESS. RATIO 0.9709 0.9753 0.9810 0.9919 1.0026 1.0123 1.0239 1.0281 1.0338
 ROTOR PRESS. RATIO 1.2535 1.2612 1.2652 1.2771 1.2584 1.2477 1.2584 1.2658 1.2697
 ROTOR TEMP. RATIO 1.0803 1.0766 1.0728 1.0912 1.0737 1.0696 1.0723 1.0751 1.0763
 ADIABATIC EFFY. 0.8292 0.8942 0.9543 0.7927 0.9206 0.9369 0.9385 0.9273 0.9249
 POLYTR. EFFICIENCY 0.8346 0.8976 0.9558 0.7998 0.9232 0.9388 0.9405 0.9297 0.9274
 TOTAL LOSS COEFF. 0.0821 0.0496 0.0213 0.1309 0.0483 0.0439 0.0530 0.0694 0.0789
 SHOCK LOSS COEFF. 0.0186 0.0174 0.0132 0.0043 -0.0014 -0.0073 -0.0120 -0.0136 -0.0154
 PROFILE LOSS COEFF. 0.0635 0.0321 0.0080 0.1265 0.0497 0.0517 0.0650 0.0831 0.0944
 TOTAL LOSS PARAM. 0.0132 0.0082 0.0035 0.0236 0.0090 0.0090 0.0118 0.0159 0.0184
 PROFILE LOSS PARAM. 0.0102 0.0053 0.0013 0.0229 0.0092 0.0105 0.0145 0.0190 0.0220
 ROTOR DIFFUS. FACT. 0.2899 0.2880 0.2860 0.3622 0.3370 0.3922 0.4056 0.4152 0.4262
 STATIC PRESS. (ALT.) 15.4640 15.4926 15.6989 15.7499 15.7449 15.6039 15.4719 15.3701 15.2517
 RADIUS RATIO 0.9775 0.9531 0.9287 0.8656 0.7759 0.6696 0.6000 0.5756 0.5534
 STREAMLINE SLOPE -9.1000 -7.3000 -6.0000 -2.4000 1.2000 5.7000 11.2000 13.3000 15.5000
 SBLIORITY -- -1.6400 -1.6580 -1.6700 1.6940 1.7300 1.7480 1.8530 1.9100 1.9540
 METAL CAMBER 6.2000 4.9000 4.6000 7.2000 9.1000 13.6000 20.5000 25.1000 29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER 69			TIME 14H 37M 17S	UNIFORM INLET FLOW			STATOR ANGLE 3.00	
MASS AVERAGED PT	18.4099	(18.5388)							
MASS AVERAGED TT	554.5458	(558.7215)							
TOTAL WEIGHT FLOW	112.5188	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	112.8820								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	18.3010	18.4856	18.5561	18.8042	18.5286	18.3666	18.5113	18.6233	18.6296
STATIC PRESSURE	15.2673	15.2659	15.4507	15.5967	15.6372	15.4915	15.3269	15.2236	15.1352
WEDGE PRESSURE	15.3137	15.3161	15.4984	15.6463	15.6804	15.5346	15.3764	15.2777	15.1913
TOTAL TEMPERATURE	564.0725	560.8048	557.8674	565.6874	555.9698	553.8270	554.9718	555.8490	556.6550
ANGLE (DEG.)	28.8908	27.3819	26.9167	33.9872	31.3331	34.1038	35.6131	37.0291	38.6853
MACH NO.	0.5155	0.5301	0.5182	0.5239	0.4983	0.4992	0.5263	0.5444	0.5529
ABSOLUTE VELOCITY	582.8983	597.4963	583.8115	594.8514	562.6846	562.5591	592.3339	612.3249	621.6988
SWIRL VELOCITY	280.8279	274.1010	263.7231	332.2903	292.5907	314.4246	342.0327	364.6289	383.7773
AXIAL VELOCITY	508.9138	529.2043	519.4523	492.8798	480.6029	464.3391	477.5175	483.3690	479.2869
WEIGHT FLOW	11.0402	7.6809	13.2893	20.6914	23.4826	17.8341	8.8059	3.9628	5.7516
CALCULATING PLANE									
ANGLE (DEG.)	29.0608	27.4235	26.6165	33.2520	30.0222	32.5870	34.4950	35.3220	36.8037
MACH NO.	0.5132	0.5299	0.5253	0.5359	0.5189	0.5160	0.5323	0.5570	0.5650
SWIRL VELOCITY	281.8695	274.9341	264.7508	333.1210	292.5907	312.1029	337.6528	359.7790	377.5564
AXIAL VELOCITY	506.2372	528.8689	527.3142	507.0533	505.3256	487.2626	490.3756	506.7159	503.6192
ABSOLUTE VELOCITY	580.4665	597.2987	591.3220	607.8140	584.7929	580.5498	598.6712	625.6614	634.5186
WEIGHT FLOW	11.0448	7.6705	13.3076	20.7123	23.5194	17.8483	8.6923	3.9680	5.7553
MERIDIONAL VELOCITY	506.4347	529.2589	527.7394	507.3941	505.3286	488.5129	493.3550	510.8567	508.9501
STATIC TEMPERATURE	535.8529	530.9917	528.6948	534.9688	527.5567	525.8251	525.2075	523.3752	523.2453
STATIC PRESS. (ALT.)	15.2989	15.2679	15.3756	15.4651	15.4204	15.3166	15.2631	15.0850	15.0007
MCL INCIDENCE	0.0721	-1.0362	-2.9820	2.3043	-3.6275	-1.5393	0.3146	1.1007	2.5832
SUC SUR INCIDENCE	-6.3491	-8.3564	-9.5434	-3.9379	-9.7377	-7.7229	-6.0649	-5.3479	-3.9462
RADIUS RATIO	0.9764	0.9534	-0.9295	0.8694	0.7839	-0.6868	0.6223	-0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 69 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.770 HUB STATIC PRES= 15.800

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.0000	-6.3000	580.5000	281.9000	535.9000	15.3000	18.3000
.100	13.1600	-7.5000	1.0600	4.5000	-8.4000	597.3000	274.9000	531.0000	15.2700	18.5000
.150	12.8300	-7.6000	1.0900	2.5000	-9.5000	591.3000	264.8000	528.7000	15.3800	18.5600
.282	12.0000	-8.4000	1.1700	3.6000	-3.9000	607.8000	333.1000	534.9000	15.4700	18.8000
.470	10.8200	-10.1000	1.3000	-3.0000	-9.7000	584.8000	292.6000	527.6000	15.4200	18.5300
.689	9.4800	-9.8000	1.4700	-9.0000	-7.7000	580.5000	312.1000	525.8000	15.3200	18.3700
.850	8.5900	-9.2000	1.6200	-9.0000	-6.1000	598.7000	337.7000	525.2000	15.2600	18.5100
.900	8.2700	-9.1000	1.6700	-7.0000	-5.3000	625.7000	359.8000	523.4000	15.0900	18.6200
.937	8.0200	-9.0000	1.7300	-1.0000	-3.9000	634.5000	377.6000	523.2000	15.0000	18.6300

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	563.1200	17.8500
.1000	13.1500	562.0900	18.4300
.1500	12.8400	557.3600	18.4900
.2822	11.9700	561.4500	18.5900
.4702	10.8300	554.6400	18.4300
.6887	9.5700	552.6700	18.2900
.8500	8.6700	554.4600	18.3400
.9000	8.4000	555.1000	18.2800
.9372	8.1200	556.3500	18.0100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3703	.1500	.0719	.6119	8.4000	.4243	484.8699	483.6888	33.8228
.1000	.2762	.0217	.0102	.7457	9.0000	.4769	541.9983	540.3275	42.5247
.1500	.2652	.0220	.0101	.9767	7.1000	.4818	545.0273	544.5086	23.7738
.2822	.2959	.0631	.0269	3.5215	9.0000	.4896	555.5639	554.4676	34.8841
.4702	.2757	.0322	.0124	1.1690	6.8000	.4757	537.1430	537.1356	-2.8125
.6887	.2869	.0262	.0089	1.1000	5.9000	.4629	522.4110	522.3465	-8.2057
.8500	.2965	.0523	.0161	.8539	5.3000	.4669	527.4990	527.4339	-8.2856
.9000	.3397	.0963	.0288	.7655	5.4000	.4615	521.9515	521.9125	-6.3767
.9372	.3895	.1708	.0494	.6174	6.1000	.4367	495.5481	495.5473	.8649

PCT IMMERS	EX STAT PRES
.0500	15.7717
.1000	15.7733
.1500	15.7748
.2822	15.7792
.4702	15.7849
.6887	15.7913
.8500	15.7958
.9000	15.7972
.9372	15.7986

ROTOR INLET TRAVERSE PLANE		READING NUMBER	70	TIME	14H 54M 34S	UNIFORM INLET FLOW	STATOR ANGLE 3.00		
SPEED (RPM)	8912.8306					DISTORTION INDEX	0.000		
ACTUAL ORIFICE FLOW	108.0882								
THETA	0.9910								
DELTA	0.9936								
MASS AVERAGED PT	14.6021	(14.6960)							
MASS AVERAGED TT	514.0428	(518.6881)							
TOTAL WEIGHT FLOW	113.3025	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	113.5192								
EQUIV. SPEED	8953.0117								
PERCENT SPEED	70.0493								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.6166	14.6642	14.6583	14.7263	14.7209	14.7109	14.7090	14.7048	14.6838
STATIC PRESSURE	13.2900	13.2059	13.1067	12.7897	12.7707	12.8915	13.0847	13.1993	13.2960
WEDGE PRESSURE	13.3138	13.2372	13.1453	12.8742	12.8571	12.9609	13.1308	13.2333	13.3230
TOTAL TEMPERATURE	522.2481	521.3666	520.3409	518.5794	517.6202	517.5681	517.1481	517.0326	516.4293
ANGLE (DEG.)	-0.2380	0.4328	-1.2752	1.9859	2.0833	1.4299	1.8993	2.0988	2.2278
APPARENT MACH NO.	0.3675	0.3851	0.3975	0.4423	0.4439	0.4291	0.4058	0.3909	0.3752
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	13.3300	13.2201	13.1898	13.1852	13.1747	13.2757	13.3947	13.4535	13.4897
WEDGE PRESSURE	13.3433	13.2356	13.2057	13.2022	13.1918	13.2911	13.4084	13.4663	13.5017
ANGLE (DEG.)	-5.0859	2.5104	4.6849	4.5036	5.5443	6.0537	7.4822	7.5662	7.3402
APPARENT MACH NO.	0.3631	0.3854	0.3889	0.3980	0.3988	0.3834	0.3660	0.3567	0.3482
MEASURING PLANE									
MACH NO.	0.3651	0.3876	0.3912	0.4004	0.4012	0.3857	0.3680	0.3586	0.3501
ABSOLUTE VELOCITY	402.3773	426.4684	430.2830	440.1462	440.9929	424.4125	405.5059	395.4097	386.2570
SWIRL VELOCITY	-1.6239	3.1510	-9.4260	15.1746	16.0307	10.5211	13.0240	13.8233	14.0653
WEIGHT FLOW	10.7293	7.8789	13.0526	21.1761	23.6463	18.2522	8.8226	4.2950	5.4167
AXIAL VELOCITY	390.9262	417.1377	423.4474	437.6326	440.6772	421.4701	392.7389	377.1883	361.5564
CALCULATING PLANE									
ANGLE (DEG.)	-0.2153	0.3904	-1.1660	1.8598	1.9492	1.3202	1.6710	1.8102	1.8783
SWIRL VELOCITY	-1.6517	3.1951	-9.5332	15.2993	16.0158	10.4057	12.6782	13.3236	13.4041
AXIAL VELOCITY	438.4725	467.8988	467.3569	470.1592	469.5891	450.5065	433.5872	420.5562	407.7146
MERIDIONAL VELOCITY	448.2682	474.5444	471.7214	471.6785	469.5920	452.8246	442.7872	435.3917	431.2073
ABSOLUTE VELOCITY	449.2947	475.5712	472.8297	472.9338	470.8699	453.9545	443.9955	436.6366	432.4796
MACH NO.	0.4090	0.4338	0.4312	0.4313	0.4294	0.4134	0.4040	0.3971	0.3932
WEIGHT FLOW	10.7347	7.8849	13.0651	21.1999	23.6579	18.2243	-8.8227	4.2893	5.4233
WHEEL SPEED	1089.2805	1059.8092	1028.8717	950.9184	842.3072	713.2988	618.9127	584.5504	549.6572
RELAT. TANG. VELOC.	1090.9320	1056.6139	1038.4047	935.6190	826.2913	702.8929	606.2344	571.2267	536.2529
RELATIVE FLOW ANGLE	67.6622	65.8145	65.5691	63.2459	60.3900	57.2093	53.8562	52.6853	51.1970
RELATIVE VELOCITY	1179.4389	1158.2851	1140.5285	1047.7896	950.4071	836.1270	750.7199	718.2379	688.1184
RELATIVE MACH NO.	1.0738	1.0567	1.0402	0.9557	0.8667	0.7615	0.6832	0.6533	0.6257
MCL INCIDENCE	5.4622	4.6145	5.0691	4.8459	4.2900	4.9093	5.4562	4.6853	3.2970
SURFACE INCIDENCE	3.2623	2.6145	2.9691	2.4459	1.8900	2.2093	1.7562	0.8853	-0.8029
RELATIVE TOTAL PRESS	27.5644	26.7738	26.1895	23.7237	21.5066	19.4944	18.3084	17.9222	17.5647
STATIC TEMPERATURE	505.3173	502.4292	501.6574	499.9503	499.1871	500.4372	500.7736	501.2001	500.9146
RELAT. TOTAL TEMP.	621.9884	614.7653	610.3641	591.3908	574.2829	558.5535	547.5861	544.0398	540.1913
STATIC PRESS. (ALT.)	13.0254	12.8844	12.8987	12.9578	12.9678	13.0775	13.1438	13.1895	13.1982
RADIUS RATIO	-0.9736	-0.9464	-0.9179	-0.8469	-0.7495	-0.6347	-0.5505	-0.5198	-0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE READING NUMBER 70 TIME 14H 54M 34S UNIFORM INLET FLOW STATOR ANGLE 3.000
 MASS AVERAGED PT 18.8318 (18.9529)
 MASS AVERAGED TT 558.0708 (563.1140)
 TOTAL WEIGHT FLOW 106.6834 (PROBE INTEGRATION)
 CORR. TOTAL FLOW 106.8875

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.
 IMMERSION (IN.) 0.3100 0.6400 0.9600 1.8100 3.0200 4.4300 5.3600 5.6800 5.9500
 TOTAL PRESSURE 18.9042 19.1695 19.0979 19.2531 18.9433 18.6121 18.7454 18.7221 18.8519
 STATIC PRESSURE 15.8980 15.7384 15.5975 15.5000 15.4437 15.2440 15.0653 14.9527 14.9052
 WEDGE PRESSURE 16.1722 16.0778 15.9505 15.8980 15.7988 15.5801 15.4577 15.3631 15.3492
 TOTAL TEMPERATURE 570.6247 568.8085 565.3514 570.0054 559.3848 556.8348 556.7330 556.0371 558.6851
 ANGLE (DEG.) 33.7354 32.7121 31.7810 37.6024 36.2123 39.2102 39.5293 40.8123 42.8571
 APPARENT MACH NO. 0.4775 0.5076 0.5138 0.5302 0.5159 0.5104 0.5321 0.5390 0.5499

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.
 STATIC PRESSURE 15.8481 15.6831 16.0357 16.1606 16.1168 15.9080 15.7081 15.6368 15.5645
 WEDGE PRESSURE 15.8945 15.7384 16.0820 16.2074 16.1584 15.9474 15.7542 15.6840 15.6159
 ANGLE (DEG.) 30.9434 28.4352 26.3234 27.1778 28.9067 32.0490 34.0391 33.8941 34.4899
 APPARENT MACH NO. 0.5040 0.5383 0.5017 0.5021 0.4820 0.4750 0.5046 0.5093 0.5257

MEASURING PLANE
 MACH NO. 0.5083 0.5433 0.5059 0.5065 0.4860 0.4789 0.5089 0.5138 0.5304
 ABSOLUTE VELOCITY 578.3951 615.5989 574.2623 578.1358 551.2268 542.2937 574.8190 579.7326 599.3011
 SWIRL VELOCITY 320.4022 331.9200 301.8607 352.5366 325.6410 341.8692 363.0952 375.0859 403.1680
 WEIGHT FLOW 10.6806 7.6310 12.7555 19.7228 22.2337 16.3934 8.2700 3.6389 5.3213
 AXIAL VELOCITY 479.7828 516.7808 487.2134 457.7411 444.7328 419.0226 440.0130 434.3551 434.5140

CALCULATING PLANE
 SWIRL VELOCITY 318.2850 329.9204 300.4611 351.6596 325.9422 344.8006 368.3071 381.6336 412.5805
 AXIAL VELOCITY 454.4899 488.9394 463.3453 440.0208 430.3730 404.2491 417.4913 410.4950 408.7213
 ABSOLUTE VELOCITY 560.4463 593.9943 555.2279 564.3665 540.7471 533.6245 563.6102 569.5968 592.4617
 MERIDIONAL VELOCITY 460.2830 492.9349 465.8975 448.4071 438.4674 406.2578 425.5957 421.8083 424.1473
 ANGLE (DEG.) 34.9449 33.9559 32.9053 38.5678 37.0742 40.3920 41.3502 42.8435 45.1989
 MACH NO. 0.4917 0.5231 0.4884 0.4938 0.4764 0.4709 0.4985 0.5043 0.5240
 WEIGHT FLOW 10.6923 7.6271 12.7625 19.7177 22.2081 16.4249 8.2734 3.6463 5.3308
 WHEEL SPEED 1060.4717 1034.8727 1009.3708 942.3236 845.4356 729.7235 654.1226 627.5895 603.6835
 RELAT. TANG. VELOC. 742.1866 704.9521 708.9095 590.6641 519.4933 384.9229 285.8155 245.9559 191.1029
 RELATIVE FLOW ANGLE 58.1942 55.0371 56.6871 53.2914 50.3540 43.4555 33.8840 30.2465 24.2544
 RELATIVE VELOCITY 873.3277 860.1989 848.3000 736.7784 674.6669 559.6525 512.6626 488.2791 465.2109
 RELATIVE MACH NO. 0.7663 0.7576 0.7462 0.6447 0.5943 0.4939 0.4534 0.4323 0.4115
 DEVIATION 2.1942 -1.2628 0.7871 -2.0914 3.3540 4.7555 5.9840 7.3465 5.6544
 AIR TURNING ANGLE 9.4680 10.7773 8.8819 9.9544 10.0360 13.7538 19.9721 22.4388 26.9426
 REL. MACH NO. (WHL.) 0.8705 0.8537 0.8348 0.7904 0.7189 0.6292 0.5694 0.5480 0.5287
 IDEAL PRESS. RATIO 0.9710 0.9753 0.9810 0.9920 1.0026 1.0123 1.0239 1.0281 1.0338
 ROTOR PRESS. RATIO 1.2933 1.3072 1.3028 1.3073 1.2868 1.2651 1.2744 1.2731 1.2838
 ROTOR TEMP. RATIO 1.0926 1.0909 1.0865 1.0991 1.0806 1.0758 1.0765 1.0754 1.0818
 ADIABATIC EFFY. 0.8227 0.8738 0.9074 0.8021 0.9257 0.9161 0.9371 0.9469 0.9042
 POLYTR. EFFICIENCY 0.8291 0.8784 0.9108 0.8095 0.9283 0.9189 0.9392 0.9487 0.9075
 TOTAL LOSS COEFF. 0.0970 0.0700 0.0505 0.1364 0.0498 0.0651 0.0593 0.0534 0.1119
 SHOCK LOSS COEFF. 0.0183 0.0153 0.0129 0.0035 -0.0019 -0.0083 -0.0130 -0.0148 -0.0164
 PROFILE LOSS COEFF. 0.0786 0.0546 0.0376 0.1329 0.0518 0.0734 0.0723 0.0682 0.1283
 TOTAL LOSS PARAM. 0.0156 0.0121 0.0083 0.0240 0.0091 0.0132 0.0132 0.0120 0.0261
 PROFILE LOSS PARAM. 0.0126 0.0094 0.0061 0.0234 0.0095 0.0149 0.0161 0.0154 0.0299
 ROTOR DIFFUS. FACT. 0.3414 0.3434 0.3362 0.3982 0.3927 0.4503 0.4560 0.4674 0.4879
 STATIC PRESS. (ALT.) 16.0239 15.9077 16.2238 16.2976 16.2174 15.9892 15.8183 15.7372 15.6342
 RADIUS RATIO 0.9775 0.9531 0.9287 0.8656 0.7759 0.6696 0.6000 0.5756 0.5534
 STREAMLINE SLOPE -9.1000 -7.3000 -6.0000 -2.4000 1.2000 5.7000 11.2000 13.3000 15.5000
 SOLIDITY 1.4400 1.6580 1.6700 1.6940 1.7300 1.7880 1.8520 1.9100 1.9540
 METAL CAMBER 6.2000 4.9000 4.6000 7.2000 9.1000 13.6000 20.5000 25.1000 29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 70 TIME 14H 54M 34S UNIFORM INLET FLOW STATOR ANGLE 3.00

MASS AVERAGED PT 18.8318 (18.9529)
 MASS AVERAGED TT 558.0703 (563.1135)
 TOTAL WEIGHT FLOW 106.6393 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 106.8434

MEASURING PLANE	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
IMMERSION (IN.)	18.9042	19.1695	19.0979	19.2531	18.9433	18.6121	18.7454	18.7221	18.8519
TOTAL PRESSURE	15.8481	15.6831	16.0357	16.1686	16.1168	15.9080	15.7081	15.6368	15.5645
STATIC PRESSURE	15.8945	15.7384	16.0820	16.2074	16.1584	15.9474	15.7542	15.6840	15.6159
WEDGE PRESSURE	570.6246	568.8084	565.3513	570.0052	559.3847	556.8347	556.7328	556.0370	558.6850
TOTAL TEMPERATURE	33.7353	32.7121	31.7810	37.6023	36.2123	39.2102	39.5293	40.8122	42.8571
ANGLE (DEG.)	0.5083	0.5433	0.5059	0.5065	0.4860	0.4789	0.5089	0.5138	0.5304
MACH NO.	578.3948	615.5985	574.2619	578.1358	551.2271	542.2934	574.8187	579.7325	599.3011
ABSOLUTE VELOCITY	320.4020	331.9197	301.8605	352.5366	325.6411	341.8690	363.0949	375.0858	403.1679
SWIRL VELOCITY	479.7826	516.7805	487.2131	457.7410	444.7330	419.0223	440.0128	434.3551	434.5140
AXIAL VELOCITY	10.6806	7.6310	12.7555	19.7227	22.2338	16.3934	8.2700	3.6389	5.3213
WEIGHT FLOW									

CALCULATING PLANE	33.9035	32.6796	31.7123	36.8735	34.8551	37.6758	37.9423	39.1395	40.9523
ANGLE (DEG.)	0.5067	0.5445	0.5083	0.5167	0.5032	0.4917	0.5185	0.5226	0.5393
MACH NO.	321.5904	332.9286	303.0369	353.4178	325.6411	339.3446	358.4453	370.0968	396.6328
SWIRL VELOCITY	477.5147	517.9953	489.4210	470.1592	466.5725	438.4394	458.7374	453.7580	456.0364
AXIAL VELOCITY	576.6942	616.9253	576.8319	589.2351	569.8016	556.1104	585.1695	589.2164	608.8115
ABSOLUTE VELOCITY	10.6883	7.6381	12.6710	19.7358	22.2643	16.3987	8.2734	3.6398	5.3296
WEIGHT FLOW	477.7010	518.3773	489.8156	470.4753	466.5754	439.5644	461.5246	457.4661	460.8635
MERIDIONAL VELOCITY	542.7679	536.9816	537.5786	541.1277	532.4211	531.1519	528.3185	527.2343	527.9730
STATIC TEMPERATURE	15.8650	15.6692	16.0100	16.8484	15.9349	15.7766	15.6048	15.5417	15.4667
STATIC PRESS.(ALT.)	4.9167	3.4237	2.1179	5.9283	1.2053	3.5625	3.7829	4.9494	6.7758
MCL INCIDENCE	-1.5064	-3.1003	-4.4476	-0.3164	-4.9048	-2.6341	-2.6176	-1.5304	0.2023
SUC SUR INCIDENCE	0.9766	0.9534	0.9295	0.8694	0.7839	0.6848	0.6223	0.5901	0.5810
RADIUS RATIO	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000
STREAMLINE SLOPE									

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 70 PCT DER SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 16.460 HUB STATIC PRES= 16.450

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.9000	-1.5000	576.7000	321.6000	542.7000	15.9000	18.9000
.100	13.1600	-7.5000	1.0600	4.5000	-3.1000	616.9000	332.9000	537.0000	15.6700	19.1700
.150	12.8300	-7.6000	1.0900	3.3000	-4.4000	576.8000	303.0000	537.6000	16.0100	19.1000
.282	12.0000	-8.4000	1.1700	5.0000	-.3000	589.2000	353.4000	541.1000	16.0500	19.2500
.470	10.8200	-10.1000	1.3000	1.1000	-4.9000	569.8000	325.6000	532.4000	15.9300	18.9400
.689	9.4800	-9.8000	1.4700	.3000	-2.6000	556.1000	339.3000	531.1000	15.7800	18.6100
.850	8.5900	-9.2000	1.6200	.1000	-2.6000	585.2000	358.4000	528.3000	15.6000	18.7500
.900	8.2700	-9.1000	1.6700	.3000	-1.5000	589.2000	370.1000	527.3000	15.5400	18.7200
.937	8.0200	-9.0000	1.7300	1.1000	.2000	608.8000	396.6000	528.0000	15.4700	18.8500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	569.8000	18.5000
.1000	13.1500	568.4500	18.9800
.1500	12.8400	565.2800	19.0700
.2822	11.9700	565.6000	19.0500
.4702	10.8300	558.7700	18.8000
.6887	9.5700	555.9800	18.5600
.8500	8.6700	556.2100	18.5000
.9000	8.4000	556.9800	18.4500
.9372	8.1200	558.7500	18.2400

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4192	.1333	.0640	.6442	8.3000	.4120	474.1485	473.0505	32.2493
.1000	.3771	.0543	.0255	.8665	9.0000	.4559	522.0245	520.4153	40.9576
.1500	.2995	.0097	.0044	.9712	7.9000	.4636	529.0140	528.1367	30.4522
.2822	.3281	.0625	.0266	2.8879	10.4000	.4620	527.4709	525.4637	45.9721
.4702	.3344	.0465	.0179	.9014	8.2000	.4404	500.7330	500.6408	9.6128
.6887	.3500	.0177	.0060	1.0511	7.1000	.4185	475.4685	475.4619	2.4895
.8500	.3856	.0794	.0245	.8458	6.3000	.4129	469.4223	469.4216	.8193
.9000	.3971	.0849	.0254	.7400	6.4000	.4081	464.4433	464.4369	2.4318
.9372	.4574	.1805	.0522	.6478	7.1000	.3869	441.7727	441.6913	8.4809

PCT IMMERS	EX STAT PRES
.0500	16.4594
.1000	16.4589
.1500	16.4584
.2822	16.4569
.4702	16.4550
.6887	16.4529
.8500	16.4514
.9000	16.4509
.9372	16.4505

ROTOR INLET TRAVERSE PLANE		READING NUMBER 71			TIME 15H 7M 51S			UNIFORM INLET FLOW		STATOR ANGLE 3.00	
SPEED (RPM)		8894.8365					DISTORTION INDEX		0.000		
ACTUAL ORIFICE FLOW		97.1220									
THETA		0.9910									
DELTA		0.9949									
MASS AVERAGED PT		14.6216 (14.6960)									
MASS AVERAGED TT		514.0527 (518.6881)									
TOTAL WEIGHT FLOW		136.1261 (PROBE INTEGRATION)									
EQUIV. WEIGHT FLOW		136.2058									
EQUIV. SPEED		8934.8503									
PERCENT SPEED		69.9072									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)		0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE		14.6385	14.6613	14.6516	14.7209	14.7210	14.7132	14.7065	14.7090	14.6897	
STATIC PRESSURE		13.6120	13.5193	13.4482	13.1699	13.1971	13.3317	13.4552	13.5222	13.5995	
WEDGE PRESSURE		13.6213	13.5336	13.4655	13.2079	13.2323	13.3583	13.4747	13.5385	13.6114	
TOTAL TEMPERATURE		521.0333	520.7424	520.6728	518.9404	518.1528	517.8785	516.8973	515.4680	515.8339	
ANGLE (DEG.)		-1.5235	-1.2614	-3.5805	1.5434	2.1943	1.6525	2.0470	1.9556	2.1749	
APPARENT MACH NO.		0.3223	0.3400	0.3493	0.3966	0.3931	0.3740	0.3556	0.3461	0.3317	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE		-266.1747	361.5158	328.4960	384.1409	353.4342	368.5834	389.7073	402.5949	431.9747	
WEDGE PRESSURE		-243.2097	331.6251	301.8504	352.0340	324.3662	336.0160	357.0420	368.6478	395.0799	
ANGLE (DEG.)		571.5292	611.3999	571.6655	583.9576	564.6983	551.1297	579.9285	583.9390	603.3587	
APPARENT MACH NO.		1.6607	1.7166	1.7004	1.7260	1.7121	1.7192	1.7285	1.7337	1.7451	
MEASURING PLANE											
MACH NO.		1.6778	1.7311	1.7151	1.7403	1.7267	1.7337	1.7428	1.7479	1.7591	
ABSOLUTE VELOCITY		1490.1956	1520.1205	1519.2586	1533.1835	1525.6468	1529.5216	1534.5147	1537.3186	1543.4249	
SWIRL VELOCITY		-30.7813	-32.9055	-93.4012	41.0854	58.4131	43.8165	53.1155	50.0787	54.8690	
WEIGHT FLOW		14.0232	9.4140	15.6158	24.4565	27.5334	21.8487	10.9127	5.4200	6.9138	
AXIAL VELOCITY		1455.0846	1494.3804	1492.6528	1524.7871	1524.4441	1518.7618	1486.0784	1466.5939	1444.7704	
CALCULATING PLANE											
ANGLE (DEG.)		-3.6074	-3.2340	-9.0884	4.1754	5.8067	4.3477	5.1783	4.8633	5.3628	
SWIRL VELOCITY		-39.3652	-33.3652	-94.4634	41.4230	58.3589	-43.3361	51.7054	48.2686	52.2897	
AXIAL VELOCITY		623.3905	589.4790	589.5184	566.3996	572.8599	568.9905	569.5303	566.2889	556.0153	
MERIDIONAL VELOCITY		637.3172	597.8512	595.0237	568.2298	572.8634	571.9183	581.6146	586.2653	588.0530	
ABSOLUTE VELOCITY		639.5543	599.7967	603.4749	570.7424	576.8282	574.5652	584.9319	589.2886	591.4342	
MACH NO.		0.5925	0.5534	0.5570	0.5250	0.5309	0.5287	0.5388	0.5431	0.5452	
WEIGHT FLOW		14.0313	9.4028	15.5347	24.4747	27.5586	21.8669	10.9146	5.4223	6.9197	
WHEEL SPEED		1088.3371	1058.2928	1026.4571	948.6592	840.1663	711.6382	617.8070	584.2495	548.8588	
RELAT. TANG. VELOC.		1127.7020	1091.6579	1120.9205	907.2359	781.8073	668.3020	566.1014	535.9806	496.5690	
RELATIVE FLOW ANGLE		60.5274	-61.2927	62.8393	57.9400	53.7683	49.4440	44.2257	42.4346	40.1788	
RELATIVE VELOCITY		1295.3319	1244.6456	1269.0610	1070.4963	969.2239	879.6123	811.6318	794.3438	769.6668	
RELATIVE MACH NO.		1.2001	1.1483	1.1713	0.9848	0.8921	0.8095	0.7477	0.7321	0.7095	
MCL INCIDENCE		-1.6725	0.0927	1.5392	-0.4599	-2.3316	-2.8559	-4.1742	-5.5653	-7.7211	
SURFACE INCIDENCE		-3.8725	-1.9872	-0.5606	-2.8599	-4.7316	-5.5559	-7.8742	-9.3653	-11.8211	
RELATIVE TOTAL PRESS		-645.7309	820.3777	767.6808	714.5693	592.8201	567.2757	564.8094	575.0445	604.3946	
STATIC TEMPERATURE		486.8064	490.6552	490.2194	491.7904	490.4622	490.4194	488.4914	486.7160	486.8519	
RELAT. TOTAL TEMP.		627.2091	620.2137	624.8929	587.3026	568.6406	554.7760	543.1824	538.9589	535.9336	
STATIC PRESS. (ALT.)		11.5424	11.9065	11.8672	12.1990	12.1487	12.1610	12.0690	12.0344	12.0805	
RADIUS RATIO		0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5585	0.5190	0.4885	
STREAMLINE SLOPE		-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	71	TIME	15H	7M	51S	UNIFORM INLET FLOW	STATOR ANGLE	3.000
MASS AVERAGED PT	19.4162	(19.5150)							
MASS AVERAGED TT	566.6182	(571.7276)							
TOTAL WEIGHT FLOW	93.3825	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	93.4371								

PROBE TYPE - NASA 4 PARAMETER	LOCATION	- STA 9.0,	104 DEG.						
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.6084	20.0170	20.0664	19.9142	19.2948	18.9949	19.0446	19.0068	19.1717
STATIC PRESSURE	16.6534	16.4737	16.3221	16.1969	15.9429	15.8424	15.6900	15.5780	15.5096
WEDGE PRESSURE	16.8991	16.8031	16.6875	16.5597	16.2492	16.1187	16.0004	15.9022	15.8746
TOTAL TEMPERATURE	580.0825	579.7741	581.5435	576.9704	568.1899	563.5262	561.2937	559.4733	561.3043
ANGLE (DEG.)	41.2763	39.8336	40.8937	42.8023	45.0531	47.5257	46.4358	46.4792	48.2795
APPARENT MACH NO.	0.4659	0.5064	0.5201	0.5202	0.5015	0.4900	0.5051	0.5112	0.5263

PROBE TYPE - NASA 2 PARAMETER	LOCATION	- STA 9.0,	300 DEG.						
STATIC PRESSURE	16.7003	17.1394	16.7300	16.9199	16.7947	16.5014	16.3502	16.2867	16.2302
WEDGE PRESSURE	16.7430	17.1811	16.7812	16.9641	16.8297	16.5364	16.3891	16.3261	16.2739
ANGLE (DEG.)	22.3519	28.5552	34.6408	33.4552	36.2763	40.2931	41.8442	41.3981	41.0692
APPARENT MACH NO.	0.4805	0.4723	0.5119	0.4841	0.4462	0.4494	0.4682	0.4711	0.4895

MEASURING PLANE									
MACH NO.	0.4845	0.4762	0.5164	0.4882	0.4497	0.4529	0.4719	0.4749	0.4936
ABSOLUTE VELOCITY	557.6636	548.5824	593.6214	561.3956	515.3980	516.9420	537.2118	540.3480	561.3784
SWIRL VELOCITY	367.1235	350.7308	388.0204	381.2396	364.7679	380.4822	386.9140	388.5434	415.2234
WEIGHT FLOW	9.6105	6.5755	11.9406	18.3137	18.5867	13.9262	7.0989	3.1759	4.6757
AXIAL VELOCITY	418.2384	420.4594	448.0445	411.6697	364.0946	348.3351	367.9943	368.9839	370.2186

CALCULATING PLANE									
SWIRL VELOCITY	364.6975	348.6179	386.2212	380.2912	365.1053	383.7446	392.4677	395.3260	424.9173
AXIAL VELOCITY	388.8673	388.9760	427.1802	389.6507	353.7661	335.7647	350.1706	348.6405	348.5168
ABSOLUTE VELOCITY	537.4961	525.4650	578.3282	545.4363	509.1362	511.6676	531.2166	534.1984	558.6747
MERIDIONAL VELOCITY	393.8241	392.1547	429.4527	389.9928	353.8438	337.4331	356.9689	358.2491	361.6705
ANGLE (DEG.)	43.0895	41.7950	42.0559	44.2299	45.8226	48.7303	48.1782	48.5088	50.5605
MACH NO.	0.4662	0.4552	0.5024	0.4736	0.4440	0.4481	0.4664	0.4693	0.4911
WEIGHT FLOW	9.4509	6.4244	11.9588	18.0444	18.6125	13.9263	7.1078	3.1767	4.6802
WHEEL SPEED	1059.5533	1033.3922	1007.0019	948.0848	843.2869	728.0248	652.9539	627.2663	602.8064
RELAT. TANG. VELOC.	694.8558	684.7739	620.7807	559.7937	478.1814	344.2802	260.4862	231.9403	177.8891
RELATIVE FLOW ANGLE	60.4569	60.2014	55.3249	55.1363	53.4995	45.5756	36.1189	32.9202	26.1905
RELATIVE VELOCITY	798.7000	789.1138	754.8496	682.2487	594.8638	482.0684	441.9048	426.7771	403.0509
RELATIVE MACH NO.	0.6927	0.6837	0.6558	0.5925	0.5188	0.4222	0.3880	0.3749	0.3543
DEVIATION	4.4569	3.9014	-0.5750	3.9363	6.4995	6.8756	8.2189	10.0202	7.5905
AIR TURNING ANGLE	0.0704	1.0912	6.7143	2.8036	0.2688	3.8603	8.1067	9.5143	13.9883
REL. MACH NO. (WHL.)	0.8651	0.8483	0.8235	0.7916	0.7211	0.6301	0.5705	0.5495	0.5297
IDEAL PRESS. RATIO	0.9714	0.9756	0.9816	0.9919	1.0026	1.0124	1.0240	1.0282	1.0339
ROTOR PRESS. RATIO	1.3395	1.3652	1.3695	1.3527	1.3106	1.2910	1.2949	1.2921	1.3051
ROTOR TEMP. RATIO	1.1131	1.1133	1.1169	1.1118	1.0965	1.0881	1.0859	1.0853	1.0881
ADIABATIC EFFY.	0.7689	0.8200	0.8034	0.8057	0.8318	0.8586	0.8921	0.8899	0.8965
POLYTR. EFFICIENCY	0.7782	0.8277	0.8119	0.8138	0.8381	0.8636	0.8959	0.8938	0.9003
TOTAL LOSS COEFF.	0.1320	0.1094	0.1205	0.1432	0.1263	0.1142	0.0976	0.1028	0.1052
SHOCK LOSS COEFF.	0.0465	0.0336	0.0393	0.0062	-0.0004	-0.0054	-0.0091	-0.0100	-0.0114
PROFILE LOSS COEFF.	0.0855	0.0757	0.0811	0.1370	0.1268	0.1196	0.1067	0.1128	0.1166
TOTAL LOSS PARAM.	0.0198	0.0164	0.0205	0.0241	0.0217	0.0223	0.0212	0.0225	0.0241
PROFILE LOSS PARAM.	0.0128	0.0113	0.0138	0.0231	0.0218	0.0234	0.0232	0.0248	0.0267
ROTOR DIFFUS. FACT.	0.4692	0.4508	0.4967	0.4693	0.4978	0.5775	0.5918	0.6006	0.6269
STATIC PRESS. (ALT.)	16.8960	17.3648	16.8894	17.0786	16.8522	16.5496	16.4069	16.3450	16.2568
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7800	1.8500	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER 71			TIME 15H 7M 51S			UNIFORM INLET FLJW		STATOR ANGLE 3.00	
MASS AVERAGED PT	19.4183	(19.5171)								
MASS AVERAGED TT	566.6604	(571.7701)								
TOTAL WEIGHT FLOW	94.0191	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	94.0742									
MEASURING PLANE										
IMMERSTION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500	
TOTAL PRESSURE	19.6084	20.0170	20.0664	19.9142	19.2948	18.9949	19.0446	19.0068	19.1717	
STATIC PRESSURE	16.7003	17.1394	16.7300	16.9199	16.7947	16.5014	16.3502	16.2867	16.2302	
WEDGE PRESSURE	16.7430	17.1811	16.7812	16.9641	16.8297	16.5364	16.3891	16.3261	16.2739	
TOTAL TEMPERATURE	580.0024	579.7739	581.5434	576.9703	568.1898	563.5260	561.2985	559.4731	561.3042	
ANGLE (DEG.)	41.2763	39.8336	40.8937	42.8023	45.0531	47.5257	46.4358	46.4792	48.2795	
MACH NO.	0.4845	0.4762	0.5164	0.4882	0.4497	0.4529	0.4719	0.4749	0.4936	
ABSOLUTE VELOCITY	557.6636	548.5824	593.6214	561.3955	515.3980	516.9419	537.2118	540.3480	561.3784	
SWIRL VELOCITY	367.1234	350.7307	388.0204	381.2394	364.7678	380.4820	386.9139	388.5433	415.2234	
AXIAL VELOCITY	418.2384	420.4595	448.8445	411.6697	364.0946	348.3350	367.9942	368.9841	370.2187	
WEIGHT FLOW	9.6105	6.5755	11.9406	18.3137	18.5867	13.9262	7.0989	3.1759	4.6757	
CALCULATING PLANE										
ANGLE (DEG.)	41.4023	39.8122	40.5567	42.0453	43.7606	45.9841	44.8189	44.8104	46.4145	
MACH NO.	0.4841	0.4772	0.5217	0.4968	0.4606	0.4610	0.4777	0.4803	0.4986	
SWIRL VELOCITY	368.4851	351.7967	389.5325	382.1925	364.7678	377.6725	381.9592	383.3753	408.4929	
AXIAL VELOCITY	416.9299	421.0564	454.1699	422.7911	379.8967	363.9127	383.3764	384.9152	387.8005	
ABSOLUTE VELOCITY	557.3813	549.6886	599.3762	570.8897	527.3929	525.8191	543.5472	546.2208	566.7937	
WEIGHT FLOW	9.6300	6.5797	11.9539	18.3448	18.5820	13.9487	7.1145	3.1795	4.6857	
MERIDIONAL VELOCITY	417.0926	421.3671	454.5360	423.0753	379.8989	364.8463	385.7057	388.0607	391.9053	
STATIC TEMPERATURE	554.0565	554.5458	551.5542	549.8505	545.0735	540.5562	536.7982	534.7981	534.7183	
STATIC PRESS. (ALT.)	16.7039	17.1284	16.6693	16.8239	16.6831	16.4195	16.2898	16.2305	16.1766	
MCL INCIDENCE	12.4184	10.5615	10.9694	11.1035	10.1109	11.8921	10.7012	10.6666	12.2958	
SUC SUR INCIDENCE	5.9923	4.0322	4.3967	4.8553	4.0006	5.6741	4.2589	4.1404	5.6645	
RADIUS-RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810	
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000	

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 71 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.330 HUB STATIC PRES= 17.250

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.1000	5.9900	557.3000	368.5000	554.1000	16.6900	19.6000
.100	13.1600	-7.5000	1.0600	5.4000	4.0000	549.7000	351.8000	554.5000	17.1200	20.0100
.150	12.8300	-7.6000	1.0900	6.7000	4.4000	599.4000	389.5000	551.6000	16.6700	20.0700
.282	12.0000	-8.4000	1.1700	5.8000	4.9000	570.9000	382.2000	549.9000	16.8100	19.9100
.470	10.8200	-10.1000	1.3000	2.4000	4.0000	527.4000	364.8000	545.1000	16.6900	19.3000
.689	9.4800	-9.8000	1.4700	.5000	5.7000	525.9000	377.7000	540.6000	16.4000	19.0000
.850	8.5900	-9.2000	1.6200	.4000	4.3000	543.5000	382.0000	536.8000	16.2900	19.0400
.900	8.2700	-9.1000	1.6700	.4000	4.1000	546.2000	383.4000	534.8000	16.2300	19.0000
.937	8.0200	-9.0000	1.7300	.0000	5.7000	566.8000	408.5000	534.7000	16.1700	19.1700

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	580.3700	19.3300
.1000	13.1500	580.8000	19.6200
.1500	12.8400	580.1300	19.7800
.2822	11.9700	572.9000	19.3000
.4702	10.8300	565.3000	19.0500
.6887	9.5700	562.0000	18.8000
.8500	8.6700	560.4000	18.7000
.9000	8.4000	560.3700	18.6100
.9372	8.1200	562.1600	18.3500

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4580	.0928	.0445	.7099	8.5000	.3986	463.3835	462.1976	33.1307
.1000	.3634	.1349	.0634	.3110	9.9000	.4257	494.0371	491.8445	46.4930
.1500	.4020	.0853	.0389	.8750	11.3000	.4400	509.7460	506.2648	59.4724
.2822	.4086	.1323	.0562	1.2094	11.2000	.4165	480.4544	477.9949	48.5529
.4702	.4361	.0958	.0368	1.1611	9.5000	.3747	430.7086	430.3308	18.0362
.6887	.4769	.0769	.0262	1.0136	7.3000	.3500	401.7865	401.7712	3.5062
.8500	.4964	.1236	.0382	.8211	6.6000	.3401	390.2111	390.2015	2.7242
.9000	.5133	.1408	.0422	.6975	6.5000	.3301	378.9128	378.9036	2.6453
.9372	.6014	.2733	.0790	.5707	6.0000	.2979	343.2515	343.2515	.0000

PCT IMMERS	EX STAT PRES
.0500	17.3255
.1000	17.3212
.1500	17.3171
.2822	17.3054
.4702	17.2901
.6887	17.2733
.8500	17.2612
.9000	17.2576
.9372	17.2538

ROTOR INLET TRAVERSE PLANE		READING NUMBER 75		TIME 15H 44M 41S		UNIFORM INLET FLOW		STATOR ANGLE 3.00		
SPEED (RPM)		10154.3169				DISTORTION INDEX		0.000		
ACTUAL ORIFICE FLOW		128.8941								
THETA		0.9890								
DELTA		0.9895								
MASS AVERAGED PT		14.5427 (14.6960)								
MASS AVERAGED TT		513.0190 (518.6881)								
TOTAL WEIGHT FLOW		135.6733 (PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW		136.3518								
EQUIV. SPEED		10210.2677								
PERCENT SPEED		79.8863								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION (IN.)		0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE		14.5735	14.6796	14.6983	14.6802	14.7380	14.7302	14.7199	14.7219	14.6548
STATIC PRESSURE		12.4680	12.2920	12.1917	11.9481	11.7352	11.8934	12.0764	12.2556	12.4309
WEDGE PRESSURE		12.5784	12.4465	12.3687	12.1718	12.0177	12.1386	12.2805	12.4243	12.5581
TOTAL TEMPERATURE		520.7608	520.2326	519.6150	519.4675	518.2846	517.3807	517.4175	517.3968	516.6405
ANGLE (DEG.)		2.5733	2.4105	1.1714	0.1038	1.5899	1.4845	1.6106	1.7107	2.2592
APPARENT MACH NO.		0.4633	0.4912	0.5025	0.5242	0.5477	0.5330	0.5153	0.4982	0.4747
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE		12.6564	12.5829	12.4547	12.3200	12.3636	12.4459	12.5830	12.6878	12.7255
WEDGE PRESSURE		12.6796	12.6090	12.4835	12.3510	12.3948	12.4754	12.6148	12.7128	12.7488
ANGLE (DEG.)		1.7535	1.3335	0.9559	1.9912	4.4420	5.9341	7.1154	7.3178	7.0601
APPARENT MACH NO.		0.4503	0.4710	0.4886	0.5029	0.5034	0.4929	0.4746	0.4625	0.4505
MEASURING PLANE										
MACH NO.		0.4533	0.4743	0.4921	0.5066	0.5072	0.4965	0.4780	0.4657	0.4535
ABSOLUTE VELOCITY		496.1095	518.1170	536.6840	551.7050	552.3117	541.2167	521.9351	509.1174	496.3115
SWIRL VELOCITY		21.6417	21.3159	10.8005	0.9953	15.3236	13.9283	14.2160	14.5078	18.3281
WEIGHT FLOW		12.7840	9.2171	15.6028	25.1808	28.2138	22.1707	10.8308	5.2881	6.6504
AXIAL VELOCITY		481.5361	506.3657	528.1779	548.8799	552.0687	537.4521	505.5757	485.7560	464.5644
CALCULATING PLANE										
ANGLE (DEG.)		2.3006	2.1478	1.0575	0.0971	1.4801	1.3537	1.3986	1.4519	1.8806
SWIRL VELOCITY		22.0130	21.6137	10.9233	1.0935	15.3094	13.7756	13.8386	13.9834	17.4665
AXIAL VELOCITY		546.9115	575.3015	590.7124	590.7965	591.4701	581.9189	565.7902	550.7001	530.9530
MERIDIONAL VELOCITY		559.1296	583.4724	596.2289	592.7055	591.4736	584.9131	577.7952	570.1264	561.5466
ABSOLUTE VELOCITY		560.5879	584.8981	597.3428	593.7143	592.6772	586.0869	578.9885	571.3399	562.8832
MACH NO.		0.5152	0.5388	0.5509	0.5474	0.5464	0.5399	0.5330	0.5256	0.5174
WEIGHT FLOW		12.7101	9.2216	15.6119	25.0461	28.1343	22.1751	10.8316	5.2915	6.6508
WHEEL SPEED		1244.0189	1209.9529	1174.1734	1083.5273	959.9747	813.6133	705.6417	666.4032	626.7166
RELAT. TANG. VELOC.		1222.0054	1188.3393	1163.2499	1082.5236	944.6653	799.8377	691.8031	652.4197	609.2499
RELATIVE FLOW ANGLE		65.4137	63.8492	62.8626	61.2985	57.9487	53.8225	50.1314	48.8511	47.3333
RELATIVE VELOCITY		1343.8464	1323.8540	1307.1491	1234.1623	1114.5553	990.8902	901.3537	866.4267	828.5648
RELATIVE MACH NO.		1.2351	1.2196	1.2057	1.1379	1.0275	0.9129	0.8298	0.7971	0.7616
MCL INCIDENCE		3.2137	2.6492	2.3626	2.8985	1.8487	1.5225	1.7314	0.8511	-0.5666
SURFACE INCIDENCE		1.0137	0.6492	0.2626	0.4985	-0.5512	-1.1774	-1.9685	-2.9488	-4.6666
RELATIVE TOTAL PRESS.		32.1472	31.3128	30.4346	27.5917	24.1880	21.3524	19.7773	19.2879	18.6893
STATIC TEMPERATURE		494.4769	491.6491	489.8364	490.0577	489.0436	488.8355	489.5575	490.2692	490.3478
RELAT. TOTAL TEMP.		645.5198	638.0845	632.4323	617.1384	592.4531	570.4299	557.0772	552.6551	547.3181
STATIC PRESS. (ALT.)		12.1593	12.0473	11.9575	11.9735	12.0294	12.0788	12.1297	12.1949	12.2085
RADIUS RATIO		0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5595	0.5198	0.4885
STREAMLINE SLOPE		-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE READING NUMBER 75 TIME 15H 44M 41S UNIFORM INLET FLOW STATOR ANGLE 3.000
 MASS AVERAGED PT 18.5215 (18.7167)
 MASS AVERAGED TT 558.1436 (564.3115)
 TOTAL WEIGHT FLOW 129.9978 (PROBE INTEGRATION)
 CORR. TOTAL FLOW 130.6479

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.
 IMMERSION (IN.) 0.3100 0.6400 0.9600 1.8100 3.0200 4.4300 5.3600 5.6800 5.9500
 TOTAL PRESSURE 17.8339 18.0450 18.2063 18.5413 18.9101 19.0120 19.3540 19.5550 19.4131
 STATIC PRESSURE 13.6290 13.4437 13.2994 13.4260 13.8480 13.8238 13.7062 13.6614 13.6142
 WEDGE PRESSURE 14.1989 14.1090 14.0427 14.2163 14.6104 14.6179 14.6178 14.6194 14.5549
 TOTAL TEMPERATURE 567.9217 564.0538 560.9267 575.2344 560.6382 560.0460 562.7023 563.5481 562.0695
 ANGLE (DEG.) 25.0368 23.1510 22.7413 33.4913 27.9636 30.1583 31.7285 32.9145 34.7519
 APPARENT MACH NO. 0.5800 0.6034 0.6205 0.6279 0.6184 0.6244 0.6461 0.6582 0.6548

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.
 STATIC PRESSURE 14.1185 14.1708 14.2493 14.5538 14.7175 14.7687 14.6374 14.5489 14.4569
 WEDGE PRESSURE 14.1807 14.2365 14.3168 14.6215 14.7899 14.8423 14.7238 14.6434 14.5504
 ANGLE (DEG.) 32.8379 22.4845 15.2764 18.5359 24.0079 23.6300 25.6419 26.4174 26.9944
 APPARENT MACH NO. 0.5817 0.5919 0.5961 0.5925 0.6030 0.6054 0.6374 0.6563 0.6552

MEASURING PLANE
 MACH NO. 0.5875 0.5979 0.6022 0.5985 0.6092 0.6116 0.6445 0.6639 0.6628
 ABSOLUTE VELOCITY 662.4366 671.4280 674.4644 679.1825 682.5553 685.2893 720.9830 741.5723 740.0033
 SWIRL VELOCITY 279.5012 263.2555 260.1317 374.5102 320.0425 343.0948 375.6929 397.9843 416.0466
 WEIGHT FLOW 12.0659 8.3466 14.7911 22.1347 28.0989 21.8430 10.8113 4.8742 6.9632
 AXIAL VELOCITY 598.3891 615.6770 620.6101 566.0125 602.8389 590.4868 607.6237 614.8502 599.6870

CALCULATING PLANE
 SWIRL VELOCITY 277.6543 261.6695 258.9254 373.5785 320.3385 346.0366 381.0856 404.9317 425.7597
 AXIAL VELOCITY 563.9710 580.3217 586.6941 542.5681 581.4111 565.8104 571.8307 574.8623 559.1630
 ABSOLUTE VELOCITY 635.9852 641.8302 645.1723 659.9632 664.8121 666.5011 697.3047 717.0258 720.5520
 MERIDIONAL VELOCITY 571.1598 585.0639 589.9256 543.0446 581.5387 568.6217 582.9324 590.7055 580.2669
 ANGLE (DEG.) 26.1717 24.2338 23.7771 34.4995 28.8115 31.4037 33.6343 35.1137 37.2369
 MACH NO. 0.5625 0.5698 0.5742 0.5804 0.5923 0.5937 0.6216 0.6401 0.6439
 WEIGHT FLOW 12.0802 8.3517 14.8082 22.1443 28.0970 21.8622 10.8111 4.8758 6.9668
 WHEEL SPEED 1211.1178 1181.4837 1151.9187 1073.7335 963.5403 832.3479 745.7856 715.4688 688.3169
 RELAT. TANG. VELOC. 933.4633 919.8139 892.9933 708.1550 643.2018 486.3112 364.7000 310.5372 262.5572
 RELATIVE FLOW ANGLE 58.5389 57.5410 56.5508 52.2028 47.8824 40.5387 32.0314 27.7312 24.3457
 RELATIVE VELOCITY 1094.3385 1090.1181 1070.2563 886.0665 867.1192 748.2173 687.6163 667.3577 636.9034
 RELATIVE MACH NO. 0.9679 0.9677 0.9526 0.7793 0.7725 0.6665 0.6130 0.5958 0.5692
 DEVIATION 2.5389 1.2410 0.6508 1.0028 0.8824 1.8387 4.1314 4.8312 5.7457
 AIR TURNING ANGLE 6.8747 6.3081 6.3117 9.0957 10.0662 13.2838 18.1000 21.1198 22.9876
 REL. MACH NO. (WHL.) 0.9744 0.9556 0.9353 0.8825 0.8072 0.7100 0.6438 0.6201 0.5990
 IDEAL PRESS. RATIO 0.9638 0.9691 0.9763 0.9900 1.0033 1.0157 1.0307 1.0361 1.0436
 ROTOR PRESS. RATIO 1.2237 1.2292 1.2386 1.2630 1.2830 1.2906 1.3148 1.3282 1.3246
 ROTOR TEMP. RATIO 1.0905 1.0842 1.0795 1.1073 1.0817 1.0824 1.0875 1.0891 1.0879
 ADIABATIC EFFY. 0.6554 0.7209 0.7930 0.6421 0.9031 0.9169 0.9291 0.9469 0.9510
 POLYTR. EFFICIENCY 0.6651 0.7290 0.7992 0.6537 0.9064 0.9199 0.9318 0.9490 0.9530
 TOTAL LOSS COEFF. 0.1536 0.1196 0.0865 0.2080 0.0521 0.0534 0.0562 0.0457 0.0450
 SHOCK LOSS COEFF. 0.0573 0.0525 0.0482 0.0313 0.0112 0.0007 -0.0042 -0.0061 -0.0082
 PROFILE LOSS COEFF. 0.0962 0.0670 0.0382 0.1766 0.0408 0.0527 0.0604 0.0519 0.0533
 TOTAL LOSS PARAM. 0.0244 0.0193 0.0142 0.0376 0.0101 0.0113 0.0128 0.0106 0.0104
 PROFILE LOSS PARAM. 0.0153 0.0108 0.0063 0.0319 0.0079 0.0112 0.0137 0.0120 0.0124
 ROTOR DIFFUS. FACT. 0.2504 0.2385 0.2434 0.3739 0.3093 0.3480 0.3583 0.3607 0.3736
 STATIC PRESS. (ALT.) 14.3872 14.4788 14.5590 14.7584 14.9147 14.9789 14.9143 14.8433 14.6889
 RADIUS RATIO 0.9775 0.9531 0.9287 0.8656 0.7759 0.6696 0.6000 0.5756 0.5534
 STREAMLINE SLOPE -9.1000 -7.3000 -6.0000 -2.4000 1.2000 5.7000 11.2000 13.3000 15.5000
 SOLIDITY 1.6400 1.6580 1.6700 1.6940 1.7300 1.7880 1.8580 1.9100 1.9540
 METAL CAMBER 6.2000 4.9000 4.6000 7.2000 9.1000 13.6000 20.5000 25.1000 29.3000

STATOR INLET TRAVERSE PLANE		READING NUMBER 75		TIME 15H 44M 41S		UNIFORM INLET FLOW		STATOR ANGLE 3.00	
MASS AVERAGED PT	18.5221	(18.7173)							
MASS AVERAGED TT	558.1422	(564.3100)							
TOTAL WEIGHT FLOW	129.9249	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	130.5746								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3630	5.6800	5.9500
TOTAL PRESSURE	17.8339	18.0450	18.2063	18.5413	18.9101	19.0120	19.3540	19.5550	19.4131
STATIC PRESSURE	14.1185	14.1708	14.2493	14.5538	14.7175	14.7686	14.6374	14.5489	14.4569
WEDGE PRESSURE	14.1807	14.2365	14.3168	14.6215	14.7899	14.8423	14.7238	14.6434	14.5504
TOTAL TEMPERATURE	567.9216	564.0537	560.9266	575.2344	560.6381	560.0458	562.7022	563.5479	562.0693
ANGLE (DEG.)	25.0368	23.1510	22.7413	33.4913	27.9635	30.1582	31.7285	32.9145	34.7519
MACH NO.	0.5875	0.5979	0.6022	0.5985	0.6092	0.6116	0.6445	0.6639	0.6628
ABSOLUTE VELOCITY	662.4363	671.4277	674.4640	679.1824	682.5553	685.2892	720.9876	741.5720	740.0031
SWIRL VELOCITY	279.5011	263.2553	260.1315	374.5100	320.0424	343.0947	375.6926	397.9841	416.0463
AXIAL VELOCITY	598.3889	615.6767	620.6096	566.8125	602.8389	590.4867	607.6233	614.8501	599.6871
WEIGHT FLOW	12.0659	8.3466	14.7911	22.1347	28.0989	21.8430	10.8113	4.8742	6.9632
CALCULATING PLANE									
ANGLE (DEG.)	25.3905	23.1199	22.4538	32.7023	26.5770	28.5778	30.0812	31.1628	32.7746
MACH NO.	0.5799	0.5993	0.6115	0.6137	0.6409	0.6387	0.6662	0.6853	0.6841
SWIRL VELOCITY	280.5379	264.0554	261.1451	375.4462	320.0424	340.5613	370.8817	392.6905	409.3025
AXIAL VELOCITY	598.0623	617.4703	630.8970	583.7632	638.7476	624.2034	639.2824	648.3561	634.7256
ABSOLUTE VELOCITY	654.4714	672.9042	684.2080	695.2502	715.3437	713.3572	743.3170	763.4117	761.7651
WEIGHT FLOW	11.9987	8.3553	14.8012	22.1511	28.1127	21.8455	10.8170	4.8746	6.9683
MERIDIONAL VELOCITY	598.2925	617.9256	631.4058	584.1556	638.7514	625.8052	643.1668	653.6544	641.4442
STATIC TEMPERATURE	592.1421	526.2641	521.8991	534.9673	518.0864	517.8031	516.8377	515.1734	513.9712
STATIC PRESS. (ALT.)	14.2082	14.1552	14.1443	14.3799	14.3447	14.4478	14.3715	14.2823	14.1933
MCL INCIDENCE	-3.5995	-6.1429	-7.1480	1.7543	-7.0728	-5.5587	-4.1259	-3.0925	-1.4884
SUC. SUR INCIDENCE	-10.0194	-12.6600	-13.7061	-4.4876	-13.1829	-11.7321	-10.4787	-9.5071	-7.9753
RADIUS RATIO	0.9766	0.9534	8.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 75 PCT DES SPD= 80.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.560 HUB STATIC PRES= 14.620

PCT IMMERSION	IN RADIUS	EX PL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.1000	-10.0000	662.4000	279.5000	532.1000	14.2000	17.8300
.100	13.1600	-7.5000	1.0600	3.9000	-12.7000	671.4000	263.3000	526.3000	14.1600	18.0400
.150	12.8300	-7.6000	1.0900	1.9000	-13.7000	674.5000	260.1000	521.9000	14.1400	18.2100
.282	12.0000	-8.4000	1.1700	3.2000	-4.5000	679.2000	374.5000	535.0000	14.3800	18.5400
.470	10.8200	-10.1000	1.3000	.0000	-13.2000	682.6000	320.0000	518.1000	14.3400	19.9100
.689	9.4800	-9.8000	1.4700	-.9000	-11.7000	685.3000	343.1000	517.8000	14.4500	19.0100
.850	8.5900	-9.2000	1.6200	-.5000	-10.5000	721.0000	375.7000	516.8000	14.3700	19.3500
.900	8.2700	-9.1000	1.6700	.0000	-9.5000	741.6000	398.0000	515.2000	14.2800	19.5600
.937	8.0200	-9.0000	1.7300	.6000	-8.0000	740.0000	416.0000	514.0000	14.1900	19.4100

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	563.8600	17.3500
.1000	13.1500	564.0400	17.9000
.1500	12.8400	559.9000	18.0100
.2822	11.9700	568.2500	18.1600
.4702	10.8300	557.6300	18.6500
.6887	9.5700	557.2300	18.7900
.8500	8.6700	561.2000	18.8800
.9000	8.4000	563.0600	18.8200
.9372	8.1200	563.3500	18.2800

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3124	.1322	.0635	.9080	7.5000	.5064	574.9303	574.0890	31.0915
.1000	.2282	.0361	.0170	.7795	8.4000	.5507	622.4686	621.0271	42.3374
.1500	.2305	.0491	.0225	.8804	6.5000	.5587	628.7511	628.4054	20.8463
.2822	.2645	.0913	.0390	-1.5849	8.6000	.5691	644.4642	643.4593	35.9750
.4702	.1933	.2262	.0870	1.4605	7.1000	.6028	673.6849	673.6849	.0000
.6887	.1795	.0482	.0164	2.2187	5.9000	.6111	682.1313	682.0471	-10.7144
.8500	.2037	.0944	.0291	.5180	5.7000	.6163	689.9772	689.9509	-6.0211
.9000	.2334	.1402	.0420	.3991	6.1000	.6121	686.7256	686.7256	.0000
.9372	.2842	.2165	.0626	.3049	6.6000	.5743	647.2206	647.1851	6.7776

PCT IMMERS	EX STAT PRES
.0500	14.5633
.1000	14.5666
.1500	14.5697
.2822	14.5784
.4702	14.5899
.6887	14.6026
.8500	14.6116
.9000	14.6143
.9372	14.6171

ROTOR INLET TRAVERSE PLANE		READING NUMBER	76	TIME	15H 48M 38S	UNIFORM INLET FLOW			STATOR ANGLE	3.00
SPEED (RPM)	10157.2184					DISTORTION INDEX			0.000	
ACTUAL ORIFICE FLOW	127.0113									
THETA	0.9888									
DELTA	0.9898									
MASS AVERAGED PT	14.5473	(14.6960)								
MASS AVERAGED TT	512.9066	(518.6881)								
TOTAL WEIGHT FLOW	134.1902	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	134.8033									
EQUIV. SPEED	10214.3031									
PERCENT SPEED	79.9178									
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.										
IMMERSTION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.5643	14.6959	14.6854	14.6727	14.7466	14.7276	14.7200	14.7212	14.6815	
STATIC PRESSURE	12.5670	12.3956	12.2949	12.0318	11.8461	12.0021	12.2318	12.4210	12.5719	
WEDGE PRESSURE	12.6618	12.5342	12.4499	12.2365	12.1050	12.2233	12.4048	12.5591	12.6814	
TOTAL TEMPERATURE	520.9100	520.3382	519.9927	519.3959	517.7973	517.4622	517.4411	517.4982	517.1273	
ANGLE (DEG.)	3.0220	1.7880	0.6868	0.1627	1.9832	1.3960	1.7327	2.1133	2.6080	
APPARENT MACH NO.	0.4516	0.4821	0.4914	0.5158	0.5385	0.5228	0.5004	0.4817	0.4621	
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.										
STATIC PRESSURE	12.6944	12.6167	12.4652	12.3789	12.4261	12.5573	12.7236	12.8080	12.8711	
WEDGE PRESSURE	12.7167	12.6425	12.4936	12.4087	12.4563	12.5847	12.7480	12.8310	12.8924	
ANGLE (DEG.)	3.0294	0.9773	0.7610	2.2254	4.9161	5.9596	7.2511	7.3902	7.3202	
APPARENT MACH NO.	0.4444	0.4686	0.4860	0.4951	0.4969	0.4792	0.4579	0.4473	0.4348	
MEASURING PLANE										
MACH NO.	0.4473	0.4718	0.4895	0.4987	0.5805	0.4826	0.4610	0.4503	0.4376	
ABSOLUTE VELOCITY	489.8112	515.5351	533.9498	543.5274	545.4366	526.7652	584.1527	492.9486	479.5436	
SWIRL VELOCITY	25.0899	15.7343	6.3809	1.5364	18.8752	12.7490	14.7723	17.3518	20.4415	
WEIGHT FLOW	12.5663	9.1982	15.5318	24.9009	27.9869	21.7238	10.5458	5.1553	6.4798	
AXIAL VELOCITY	475.2511	504.0346	525.5567	540.7428	545.0800	523.1209	488.3222	470.2284	448.7672	
CALCULATING PLANE										
ANGLE (DEG.)	2.7064	1.5940	0.6203	0.1509	1.8375	1.2743	1.5067	1.7986	2.1762	
SWIRL VELOCITY	25.5203	15.9541	6.3726	1.5490	18.8577	12.6092	14.3801	16.7246	19.4806	
AXIAL VELOCITY	538.8652	572.2941	587.5494	586.8820	586.7808	565.8277	545.7027	531.5777	511.6254	
MERIDIONAL VELOCITY	550.9037	580.4222	593.0365	588.7786	586.7843	568.7392	557.2813	550.3296	541.1056	
ABSOLUTE VELOCITY	552.5191	581.6592	594.0842	589.7886	588.0932	569.8907	558.4947	551.6254	542.5205	
MACH NO.	0.5074	0.5356	0.5478	0.5436	0.5419	0.5242	0.5131	0.5065	0.4977	
WEIGHT FLOW	12.5666	9.2014	15.5414	24.9292	28.0175	21.7386	10.5557	5.1575	6.4818	
WHEEL SPEED	1244.3321	1210.3083	1174.2111	1084.0297	960.8059	813.8708	705.9046	666.6013	626.6692	
RELAT. TANG. VELOC.	1218.8117	1194.3538	1167.8383	1082.4805	941.9482	801.2614	691.5243	649.8765	607.1884	
RELATIVE FLOW ANGLE	65.6772	64.0818	63.0784	61.4577	58.0794	54.6328	51.1357	49.7415	48.2938	
RELATIVE VELOCITY	1337.5334	1327.9195	1309.7854	1232.2435	1109.7664	982.5904	888.1261	851.5880	813.3099	
RELATIVE MACH NO.	1.2283	1.2229	1.2077	1.1357	1.0226	0.9038	0.8160	0.7820	0.7462	
MCL INCIDENCE	3.4772	2.8818	2.5784	3.0577	1.9794	2.3328	2.7357	1.7415	0.3938	
SURFACE INCIDENCE	1.2772	0.8817	0.4784	0.6577	-0.4205	-0.3671	-0.9642	-2.0584	-3.7061	
RELATIVE TOTAL PRESS	31.9575	31.5358	30.5414	27.6460	24.1617	21.3309	19.7124	19.1835	18.6283	
STATIC TEMPERATURE	495.3701	492.0639	490.5167	490.3777	489.0334	490.4685	491.5174	492.2054	492.6799	
RELAT. TOTAL TEMP.	645.0399	639.4299	633.7915	617.0467	591.4614	570.7144	557.0730	552.4844	547.6230	
STATIC PRESS.(ALT.)	12.2162	12.0877	11.9746	12.0005	12.0753	12.2116	12.2986	12.3550	12.3944	
RADIUS RATIO	-0.9736	-0.9464	-0.9279	-0.8469	-0.7495	-0.6347	-0.5505	-0.5198	-0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE READING NUMBER, 76 TIME 15H 48M 38S UNIFORM INLET FLOW STATOR ANGLE 3.000
 MASS AVERAGED PT 19.4700 (19.6689)
 MASS AVERAGED TT 565.6585 (572.0346)
 TOTAL WEIGHT FLOW 124.0156 (PROBE INTEGRATION)
 CORR. TOTAL FLOW 124.5822

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.
 IMMERSION (IN.) 0.3100 0.6400 0.9600 1.8100 3.0200 4.4300 5.3600 5.6800 5.9500
 TOTAL PRESSURE 19.4652 19.6879 19.8354 19.7154 19.7411 19.5667 19.6595 19.6967 19.4740
 STATIC PRESSURE 15.1701 15.0115 14.8702 14.6840 14.8787 14.6931 14.4146 14.2753 13.9551
 WEDGE PRESSURE 15.7200 15.6456 15.5737 15.4087 15.5583 15.3807 15.1989 15.1079 14.8240
 TOTAL TEMPERATURE 581.1439 577.1950 573.8396 581.6499 567.6183 564.8234 565.2176 567.0120 566.1534
 ANGLE (DEG.) 31.6328 28.7487 28.5424 37.7413 32.7541 35.5165 36.4722 38.1242 45.3418
 APPARENT MACH NO. 0.5611 0.5825 0.5981 0.6040 0.5933 0.5966 0.6176 0.6274 0.6367

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.
 STATIC PRESSURE 15.4649 16.0219 15.3363 15.8523 15.8483 15.6688 15.4415 15.3536 15.2516
 WEDGE PRESSURE 15.5315 16.0806 15.4152 15.9155 15.9121 15.7329 15.5130 15.4284 15.3236
 ANGLE (DEG.) 29.9589 24.0606 21.7409 23.5302 27.1376 28.4420 29.8422 30.3804 31.0574
 APPARENT MACH NO. 0.5772 0.5456 0.6111 0.5617 0.5636 0.5669 0.5917 0.6011 0.5953

MEASURING PLANE
 MACH NO. 0.5829 0.5507 0.6175 0.5670 0.5690 0.5724 0.5976 0.6073 0.6013
 ABSOLUTE VELOCITY 665.0521 628.6567 698.0885 649.2860 644.6017 646.7880 673.6815 684.8849 678.3353
 SWIRL VELOCITY 347.8762 301.6141 332.8603 397.1692 348.7376 374.5936 397.1758 418.2299 477.6478
 WEIGHT FLOW 12.1838 8.1561 15.4100 21.4747 26.6357 20.2572 9.9369 4.3748 5.6630
 AXIAL VELOCITY 564.7408 549.8013 611.9739 513.1140 542.0896 524.8432 537.3001 532.9271 471.9855

CALCULATING PLANE
 SWIRL VELOCITY 345.5775 299.7971 331.3169 396.1811 349.0602 377.8055 402.8769 425.5307 488.7991
 AXIAL VELOCITY 532.8444 520.0848 578.5104 490.4082 524.3786 504.4123 508.4499 491.3067 444.1474
 ABSOLUTE VELOCITY 641.6610 604.8702 670.3118 631.5620 630.8673 633.0326 657.2912 661.0542 672.5530
 MERIDIONAL VELOCITY 539.6364 524.3350 581.6969 490.8388 524.4937 506.9186 518.3212 504.8471 460.9103
 ANGLE (DEG.) 32.9164 29.9131 29.7573 38.8761 33.5997 36.7785 38.3369 40.8386 47.6757
 MACH NO. 0.5611 0.5286 0.5912 0.5506 0.5562 0.5595 0.5821 0.5847 0.5958
 WEIGHT FLOW 12.1915 8.1582 15.4194 21.3964 26.6465 20.2748 9.9460 4.3090 5.6735
 WHEEL SPEED 1211.4229 1181.8307 1151.9554 1074.2320 964.3746 832.6113 746.0633 715.6817 688.2650
 RELAT. TANG. VELOC. 865.8452 882.0334 820.6384 678.0506 615.3143 454.8057 343.1864 290.1510 199.4657
 RELATIVE FLOW ANGLE 58.0670 59.2703 54.6698 54.0995 49.5559 41.8985 33.5091 29.8874 23.4013
 RELATIVE VELOCITY 1020.2427 1026.1141 1005.8917 837.0634 808.5204 681.0394 621.6379 582.2871 502.2199
 RELATIVE MACH NO. 0.8921 0.8968 0.8872 0.7298 0.7128 0.6019 0.5505 0.5150 0.4449
 DEVIATION 2.0670 2.9703 -1.2301 2.8995 2.5559 3.1985 5.6091 6.9874 4.8013
 AIR TURNING ANGLE 7.6101 4.8114 8.4085 7.3581 8.5235 12.7343 17.6266 19.8541 24.8924
 REL. MACH NO. (WHL.) 0.9753 0.9550 0.9347 0.8829 0.8083 0.7102 0.6441 0.6204 0.5991
 IDEAL PRESS. RATIO 0.9638 0.9692 0.9763 0.9900 1.0033 1.0158 1.0307 1.0361 1.0436
 ROTOR PRESS. RATIO 1.3365 1.3396 1.3506 1.3436 1.3386 1.3285 1.3355 1.3379 1.3264
 ROTOR TEMP. RATIO 1.1156 1.1092 1.1035 1.1198 1.0962 1.0915 1.0923 1.0956 1.0948
 ADIABATIC EFFY. 0.7465 0.7969 0.8655 0.7341 0.9028 0.9235 0.9330 0.9062 0.8863
 POLYTR. EFFICIENCY 0.7567 0.8051 0.8711 0.7449 0.9068 0.9265 0.9357 0.9100 0.8907
 TOTAL LOSS COEFF. 0.1423 0.1103 0.0717 0.1724 0.0610 0.0549 0.0571 0.0884 0.1149
 SHOCK LOSS COEFF. 0.0552 0.0536 0.0489 0.0308 0.0105 0.0002 -0.0050 -0.0070 -0.0092
 PROFILE LOSS COEFF. 0.0870 0.0567 0.0228 0.1415 0.0504 0.0547 0.0621 0.0955 0.1241
 TOTAL LOSS PARAM. 0.0229 0.0170 0.0124 0.0298 0.0114 0.0114 0.0128 0.0200 0.0269
 PROFILE LOSS PARAM. 0.0140 0.0087 0.0039 0.0245 0.0094 0.0113 0.0139 0.0216 0.0291
 ROTOR DIFFUS. FACT. 0.3173 0.2973 0.3100 0.4180 0.3666 0.4195 0.4294 0.4553 0.5467
 STATIC PRESS. (ALT.) 15.7205 16.2758 15.6580 16.0453 16.0003 15.8205 15.6279 15.6263 15.3173
 RADIUS RATIO 0.9775 0.9531 0.9287 0.8656 0.7759 0.6696 0.6000 0.5756 0.5534
 STREAMLINE SLOPE -9.1000 -7.3000 -6.0000 -2.4000 1.2000 5.7000 11.2000 13.3000 15.5000
 SOLIDITY 1.6480 1.6580 1.6700 1.6940 1.7300 1.7880 1.8580 1.9100 1.9540
 METAL CAMBER 6.2000 4.9000 4.6000 7.2000 9.1000 13.6000 20.5000 25.1000 29.3000

STATOR INLET TRAVERSE PLANE		READING NUMBER 76		TIME 15H 48M 38S		UNIFORM INLET FLOW		STATOR ANGLE 3.00	
MASS AVERAGED PT	19.4701	{ 19.6690}							
MASS AVERAGED TT	565.6647	{572.0408}							
TOTAL WEIGHT FLOW	124.0762	{PROBE INTEGRATION}							
EQUIV. WEIGHT FLOW	124.6431								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.4652	19.6879	19.8354	19.7154	19.7411	19.5667	19.6595	19.6967	19.4740
STATIC PRESSURE	15.4649	16.0219	15.3363	15.8523	15.8483	15.6688	15.4415	15.3536	15.2516
WEDGE PRESSURE	15.5315	16.0806	15.4152	15.9155	15.9121	15.7329	15.5130	15.4283	15.3236
TOTAL TEMPERATURE	581.1438	577.1948	573.8395	581.6498	567.6182	564.8233	565.2175	567.0119	566.1532
ANGLE (DEG.)	31.6328	28.7487	28.5424	37.7413	32.7541	35.5165	36.4721	38.1242	45.3418
MACH NO.	0.5829	0.5507	0.6175	0.5670	0.5690	0.5724	0.5976	0.6073	0.6013
ABSOLUTE VELOCITY	665.0517	628.6566	698.0882	649.2856	644.6016	646.7878	673.6814	684.8849	678.3352
SWIRL VELOCITY	347.8760	301.6139	332.8601	397.1689	348.7375	374.5935	397.1757	418.2299	477.6476
AXIAL VELOCITY	564.7407	549.8013	611.9735	513.1139	542.0894	524.8432	537.3003	532.9271	471.9856
WEIGHT FLOW	12.1838	8.1561	15.4100	21.4747	26.6357	20.2572	9.9369	4.3748	5.6630
CALCULATING PLANE									
ANGLE (DEG.)	31.8091	28.7602	28.2577	36.9888	31.3392	33.9288	34.8632	36.3982	43.6558
MACH NO.	0.5806	0.5511	0.6253	0.5789	0.5935	0.5918	0.6120	0.6209	0.6072
SWIRL VELOCITY	349.1663	302.5306	334.1572	398.1617	348.7375	371.8275	392.0897	412.6670	469.9052
AXIAL VELOCITY	541.9452	550.2055	620.6934	527.5910	571.6835	551.7325	561.8121	558.7608	491.4828
ABSOLUTE VELOCITY	662.6277	629.1304	706.2525	662.0589	670.5188	667.3425	688.7380	699.1249	684.4844
WEIGHT FLOW	12.1919	8.1530	15.3977	21.4761	26.6618	20.2541	9.9327	4.3751	5.6333
MERIDIONAL VELOCITY	542.1644	550.6113	621.1938	527.9454	571.6870	553.1480	565.2253	563.3247	496.6851
STATIC TEMPERATURE	544.4723	544.1694	532.2439	545.1483	530.2758	527.8545	525.8423	526.4379	527.2876
STATIC PRESS.(ALT.)	15.4917	16.0168	15.2403	15.7111	15.5556	15.4379	15.2677	15.1877	15.1815
NCL INCIDENCE	2.8215	-0.4985	-1.3394	6.0436	-2.3105	-0.1941	0.6850	2.1856	9.5079
SUC SUR INCIDENCE	-3.6006	-7.0197	-7.9022	-0.2011	-8.4207	-6.3811	-5.6967	-4.2718	2.9058
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 76 PCT DES SPD= 80.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 16.110 HUB STATIC PRES= 16.120

PCT IMMERSION	IN RADIUS	EX FL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.8000	-3.6000	662.6000	349.2000	544.4000	15.5000	19.4700
.100	13.1600	-7.5000	1.0600	6.3000	-7.0000	629.1000	302.0000	544.1000	16.0200	19.6900
.150	12.8300	-7.6000	1.0900	3.9000	-7.9000	699.9000	334.0000	532.2000	15.2400	19.8400
.282	12.0000	-8.4000	1.1700	4.6000	-2.2000	662.1000	398.0000	545.0000	15.7100	19.7200
.470	10.8200	-10.1000	1.3000	.9000	-8.4000	670.0000	348.7000	530.3000	15.5600	19.7400
.689	9.4800	-9.8000	1.4700	.4000	-6.4000	667.0000	371.8000	527.9000	15.4400	19.5700
.850	8.5900	-9.2000	1.6200	.8000	-5.6000	689.0000	392.0000	525.8000	15.2700	19.6600
.900	8.2700	-9.1000	1.6700	.9600	-4.3000	699.0000	412.7000	526.4000	15.1900	19.7000
.937	8.0200	-9.0000	1.7300	1.6000	-2.9000	684.0000	470.0000	527.3000	15.1800	19.4700

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	577.9600	18.7700
.1000	13.1500	576.4400	19.5600
.1500	12.8400	572.2800	19.7200
.2822	11.9700	578.0200	19.5400
.4702	10.8300	565.5600	19.6100
.6887	9.5700	562.5100	19.4700
.8500	8.6700	564.6700	19.4100
.9000	8.4000	565.8400	19.2900
.9372	8.1200	567.6100	18.8500

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3999	.1761	.0845	.6828	9.0000	.4723	544.6046	542.8503	43.6767
.1000	.2050	.0354	.0166	.6996	10.8000	.5338	611.0527	607.3625	67.0534
.1500	.3037	.0261	.0119	1.0688	8.5000	.5452	621.0911	619.6528	42.2437
.2822	.3042	.0449	.0191	1.9418	10.0000	.5322	610.1292	608.1639	48.9317
.4702	.2860	.0311	.0120	1.2078	8.0000	.5371	608.7548	608.6797	9.5619
.6887	.2930	.0242	.0082	1.2903	7.2000	.5267	598.0292	596.0147	4.1610
.8500	.3115	.0569	.0176	.8476	7.0000	.5221	592.2605	592.2028	8.2692
.9000	.3370	.0909	.0272	.8100	7.0600	.5131	583.1078	583.0260	9.7696
.9372	.3926	.1445	.0418	.5926	7.6000	.4781	546.0534	545.8405	15.2467

PCT IMMERS	EX STAT PRES
.0500	16.1106
.1000	16.1111
.1500	16.1116
.2822	16.1131
.4702	16.1150
.6887	16.1171
.8500	16.1186
.9000	16.1191
.9372	16.1195

ROTOR INLET TRAVERSE PLANE		READING NUMBER	80	TIME	9H 47M 5S	UNIFORM INLET FLOW	STATOR ANGLE 3.00		
SPEED (RPM)	10144.2716								
ACTUAL ORIFICE FLOW	124.0351								
THETA	0.9882								
DELTA	0.9863								
MASS AVERAGED PT	14.4958	(14.6960)							
MASS AVERAGED TT	512.5760	(518.6881)							
TOTAL WEIGHT FLOW	130.9650	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	131.9885								
EQUIV. SPEED	10204.5747								
PERCENT SPEED	79.8417								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5867	14.6665	14.6309	14.6828	14.7529	14.7393	14.7322	14.7235	14.6884
STATIC PRESSURE	12.7102	12.5528	12.4226	12.1279	11.9967	12.1771	12.4443	12.6203	12.7623
WEDGE PRESSURE	12.7883	12.6630	12.5476	12.3149	12.2238	12.3643	12.5803	12.7282	12.8458
TOTAL TEMPERATURE	520.8061	521.2531	521.1428	519.5169	517.8145	516.8683	516.6333	516.5786	516.5545
ANGLE (DEG.)	2.0508	0.9743	0.3794	-0.0884	1.6913	1.4899	1.6652	1.7218	2.3310
APPARENT MACH NO.	0.4375	0.4628	0.4735	0.5075	0.5252	0.5072	0.4802	0.4607	0.4417
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	12.7643	12.6469	12.5077	12.4616	12.5597	12.7023	12.8857	12.9815	13.0287
WEDGE PRESSURE	12.7859	12.6718	12.5344	12.4900	12.5876	12.7274	12.9075	13.0017	13.0475
ANGLE (DEG.)	0.5681	0.5053	1.0577	2.4536	4.9156	5.9958	7.1012	7.2736	6.8256
APPARENT MACH NO.	0.4379	0.4617	0.4752	0.4862	0.4815	0.4626	0.4386	0.4251	0.4147
MEASURING PLANE									
MACH NO.	0.4407	0.4648	0.4785	0.4897	0.4849	0.4658	0.4415	0.4278	0.4173
ABSOLUTE VELOCITY	482.8384	508.2021	522.4924	534.1368	529.2034	509.1771	483.6666	469.2566	458.1150
SWIRL VELOCITY	16.7876	8.4530	3.4056	-0.8206	15.6185	13.1514	13.6200	13.4590	17.4545
WEIGHT FLOW	12.4116	9.0435	15.1543	24.5102	27.2813	21.1193	10.1870	4.9446	6.2295
AXIAL VELOCITY	468.8177	497.0279	514.3045	531.4019	528.9438	505.6339	468.4948	447.7217	428.7921
CALCULATING PLANE									
ANGLE (DEG.)	1.8416	0.8691	0.3431	-0.0821	1.5713	1.3617	1.4518	1.4685	1.9486
SWIRL VELOCITY	17.0756	8.5711	3.4443	-0.8274	15.6040	13.0072	13.2584	12.9726	16.6340
AXIAL VELOCITY	530.0578	563.9483	574.0437	575.9463	567.8311	546.1811	522.1145	505.0062	487.8818
MERIDIONAL VELOCITY	541.8994	571.9577	579.4045	577.8075	567.8346	548.9915	533.1927	522.8208	515.9937
ABSOLUTE VELOCITY	543.1942	573.0397	580.4276	578.8164	569.0553	550.1580	534.3865	524.0248	517.3272
MACH NO.	0.4984	0.5273	0.5344	0.5329	0.5234	0.5051	0.4899	0.4800	0.4735
WEIGHT FLOW	12.3952	9.0503	15.1660	24.5339	27.2915	21.1427	10.1955	4.9510	6.2376
WHEEL SPEED	1243.2711	1208.0939	1171.7977	1082.8713	959.8749	813.5626	705.7832	666.5589	626.4194
RELAT. TANG. VELOC.	1226.1951	1199.5226	1168.3530	1083.6983	944.2709	800.5554	692.5248	653.5862	609.7851
RELATIVE FLOW ANGLE	66.1579	64.5074	63.6227	61.9345	58.9797	55.5593	52.4065	51.3429	49.7626
RELATIVE VELOCITY	1340.6003	1328.9055	1304.1309	1228.1136	1101.8545	970.7112	874.0049	836.9686	798.8036
RELATIVE MACH NO.	1.2301	1.2228	1.2009	1.1307	1.0135	0.8912	0.8013	0.7666	0.7312
MCL INCIDENCE	3.9578	3.3074	3.1227	3.5345	2.8797	3.2593	4.0065	3.3429	1.8626
SURFACE INCIDENCE	1.7579	1.3074	1.0227	1.1345	0.4797	0.5593	0.3065	-0.4570	-2.2373
RELATIVE TOTAL PRESS	32.2083	31.6064	30.3722	27.6541	24.1580	21.2852	19.6706	19.1566	18.5952
STATIC TEMPERATURE	496.1256	493.7629	492.9449	491.5618	490.8817	491.7399	492.9357	493.7934	494.3489
RELAT. TOTAL TEMP.	646.4541	641.6053	635.2965	617.4130	591.8586	569.9691	556.3259	551.9190	547.2919
STATIC PRESS. (ALT.)	12.3090	12.1350	12.0445	12.1007	12.2394	12.3821	12.5015	12.5750	12.5965
RADIUS RATIO	-0.9736	0.9464	-0.9179	0.8469	-0.7495	-0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	80	TIME	9H 47M 5S	UNIFORM INLET FLOW	STATOR ANGLE	3.000		
MASS AVERAGED PT	20.2265	(20.5058)							
MASS AVERAGED TT	571.0354	(577.8446)							
TOTAL WEIGHT FLOW	121.5772	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	122.5274								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0,	104 DEG.							
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.5239	20.7799	20.7274	20.9178	20.5378	20.0888	20.0379	20.0932	20.1761
STATIC PRESSURE	15.9789	15.7253	15.6234	15.4618	15.4422	15.1825	14.9092	14.6013	14.7405
WEDGE PRESSURE	16.6070	16.4663	16.3781	16.3025	16.1996	15.9037	15.6836	15.6224	15.5980
TOTAL TEMPERATURE	568.8124	585.7902	580.4256	588.2226	572.6513	569.1833	568.1438	568.6369	570.3065
ANGLE (DEG.)	35.3240	33.7508	32.3428	40.1931	37.4955	40.1112	41.4365	41.8415	43.5980
APPARENT MACH NO.	0.5585	0.5863	0.5900	0.6076	0.5922	0.5875	0.6017	0.6105	0.6177
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0,	300 DEG.							
STATIC PRESSURE	16.3613	16.4856	16.0983	16.7039	16.6472	16.3627	16.0744	15.9732	15.8632
WEDGE PRESSURE	16.4302	16.5573	16.1786	16.7736	16.7099	16.4222	16.1394	16.0418	15.9362
ANGLE (DEG.)	45.4700	25.7810	25.7501	26.7796	29.5956	31.6408	33.3980	34.0103	34.5203
APPARENT MACH NO.	0.5729	0.5791	0.6057	0.5707	0.5509	0.5444	0.5646	0.5764	0.5904
MEASURING PLANE									
MACH NO.	0.5785	0.5848	0.6119	0.5762	0.5561	0.5494	0.5701	0.5821	0.5964
ABSOLUTE VELOCITY	664.7122	669.5045	695.3682	662.7583	633.5535	625.0547	646.7082	659.7794	675.9352
SWIRL VELOCITY	383.3988	371.1344	371.2953	427.4632	385.6288	401.6172	424.9315	435.8227	461.1412
WEIGHT FLOW	12.1352	8.3946	15.2705	22.0380	25.5616	18.9042	9.1276	4.1049	5.9702
AXIAL VELOCITY	541.0142	555.4266	586.3639	505.9601	502.6457	476.7491	481.3731	486.7328	484.2822
CALCULATING PLANE									
SWIRL VELOCITY	380.8654	368.8986	369.5737	426.3998	385.9854	405.0607	431.0310	443.4306	471.9071
AXIAL VELOCITY	509.9798	525.8165	554.9758	486.4887	487.2878	458.9099	456.9983	458.6384	454.6171
ABSOLUTE VELOCITY	642.5429	646.6684	670.1585	647.9849	622.5119	614.2754	635.1386	647.8514	668.0241
MERIDIONAL VELOCITY	516.4803	530.1135	558.0328	486.9158	487.3947	460.7882	465.4629	471.2786	471.7752
ANGLE (DEG.)	36.6994	35.0012	33.6131	41.1756	38.3256	41.3960	43.2872	43.9714	46.0058
MACH NO.	0.5579	0.5635	0.5882	0.5625	0.5458	0.5394	0.5592	0.5708	0.5889
WEIGHT FLOW	12.1233	8.4049	15.2761	22.0609	25.5938	18.9049	9.1338	4.1063	5.9729
WHEEL SPEED	1210.3900	1179.6683	1149.5878	1073.0836	963.4400	832.2961	745.9354	715.6361	687.9906
RELAT. TANG. VELOC.	829.5244	810.7694	780.0141	646.6838	577.4546	427.2352	314.9043	272.2054	216.0834
RELATIVE FLOW ANGLE	58.0929	56.8219	54.4197	53.0225	49.8344	42.8363	34.0800	30.0103	24.6089
RELATIVE VELOCITY	977.1706	968.6934	959.0736	809.4979	755.6503	628.3753	561.9790	544.2418	518.9063
RELATIVE MACH NO.	0.8485	0.8442	0.8418	0.7027	0.6626	0.5517	0.4948	0.4795	0.4574
DEVIATION	2.0929	0.5219	-1.4802	1.8225	2.8344	4.1363	6.1800	7.1103	6.0089
AIR TURNING ANGLE	8.0649	7.6854	9.2029	8.9119	9.1452	12.7229	18.3265	21.3325	25.1537
REL. MACH NO. (WHL.)	0.9733	0.9526	0.9327	0.8819	0.8073	0.7100	0.6439	0.6202	0.5987
IDEAL PRESS. RATIO	0.9639	0.9693	0.9764	0.9900	1.0033	1.0157	1.0307	1.0361	1.0435
ROTOR PRESS. RATIO	1.4070	1.4168	1.4166	1.4246	1.3921	1.3629	1.3601	1.3647	1.3736
ROTOR TEMP. RATIO	1.1305	1.1238	1.1137	1.1322	1.1059	1.1012	1.0997	1.1007	1.1040
ADIABATIC EFFY.	0.7839	0.8445	0.9190	0.8037	0.9355	0.9134	0.9209	0.9214	0.9118
POLYTR. EFFICIENCY	0.7940	0.8519	0.9229	0.8132	0.9385	0.9171	0.9242	0.9248	0.9157
TOTAL LOSS COEFF.	0.1353	0.0949	0.0475	0.1406	0.0448	0.0694	0.0743	0.0801	0.1003
SHOCK LOSS COEFF.	0.0558	0.0535	0.0467	0.0297	0.0093	-0.0005	-0.0059	-0.0080	-0.0101
PROFILE LOSS COEFF.	0.0794	0.0413	0.0007	0.1109	0.0354	0.0699	0.0802	0.0881	0.1104
TOTAL LOSS PARAM.	0.0218	0.0156	0.0082	0.0249	0.0083	0.0142	0.0165	0.0181	0.0233
PROFILE LOSS PARAM.	0.0128	0.0068	0.0001	0.0196	0.0066	0.0143	0.0178	0.0199	0.0256
ROTOR DIFFUS. FACT.	0.3590	0.3560	0.3509	0.4457	0.4195	0.4747	0.4973	0.4973	0.5125
STATIC PRESS. (ALT.)	16.6140	16.7517	16.4007	16.8757	16.7720	16.4812	16.2045	16.1094	15.9553
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	80	TIME	9H 47M	5S	UNIFORM INLET FLOW	STATOR ANGLE	9.00	
MASS AVERAGED PT	20.2278	(20.5070)							
MASS AVERAGED TT	571.0644	(577.8741)							
TOTAL WEIGHT FLOW	121.0727	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	122.0189								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.5239	20.7799	20.7274	20.9178	20.5378	20.0888	20.0379	20.0932	20.1761
STATIC PRESSURE	16.3613	16.4856	16.0983	16.7039	16.6472	16.3627	16.0744	15.9732	15.8632
WEDGE PRESSURE	16.4302	16.5573	16.1786	16.7736	16.7099	16.4222	16.1394	16.0418	15.9362
TOTAL TEMPERATURE	588.8123	585.7901	580.4255	588.2225	572.6512	569.1831	568.1436	568.6368	570.3064
ANGLE (DEG.)	35.3240	33.7508	32.3427	40.1931	37.4954	40.1112	41.4365	41.8415	43.5980
MACH NO.	0.5785	0.5848	0.6119	0.5762	0.5561	0.5494	0.5701	0.5821	0.5964
ABSOLUTE VELOCITY	664.7122	669.5045	695.3682	662.7582	633.5533	625.0546	646.7031	659.7792	675.9351
SWIRL VELOCITY	383.3988	371.1343	371.2952	427.4631	385.6286	401.6170	424.9313	435.8226	461.1411
AXIAL VELOCITY	541.0142	555.4265	586.3638	505.9601	502.6455	476.7491	481.3730	486.7326	484.2822
WEIGHT FLOW	12.1352	8.3946	15.2705	22.0380	25.5616	18.9042	9.1276	4.1049	5.9702
CALCULATING PLANE									
ANGLE (DEG.)	35.5205	33.7122	32.2350	39.4020	36.0617	38.9729	40.4009	40.1347	41.7076
MACH NO.	0.5764	0.5862	0.6156	0.5879	0.5762	0.5585	0.5727	0.5920	0.6058
SWIRL VELOCITY	384.8208	372.2623	372.7422	428.5317	385.6286	398.6515	419.4899	430.0257	453.6662
AXIAL VELOCITY	538.0890	556.9239	590.1010	520.6636	528.5663	491.7645	491.8762	509.0383	508.0422
ABSOLUTE VELOCITY	662.5216	671.0601	699.2172	675.3839	655.1033	634.8188	649.5134	670.3271	685.9010
WEIGHT FLOW	12.1371	8.4029	15.1777	22.0582	25.5834	18.6593	8.9781	4.1049	5.9708
MERIDIONAL VELOCITY	538.2988	557.3348	590.5768	521.0136	528.5695	493.0262	494.8648	513.1980	513.4200
STATIC TEMPERATURE	552.1687	548.1599	539.5728	550.2358	537.0104	535.7727	533.1834	531.4045	531.3280
STATIC PRESS.(ALT.)	16.3865	16.4672	16.0515	16.5551	16.3992	16.2541	16.0427	15.8515	15.7462
MCL INCIDENCE	6.5343	4.4571	2.6410	8.4584	2.4120	4.8629	6.2564	5.9527	7.5391
SUC SUR INCIDENCE	0.1105	-2.0677	-3.9249	2.2120	-3.6982	-1.3370	-0.1590	-0.5352	0.9576
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 80 PCT DES SPD= 80.00 FAN INLET TOT TEMP= 518.688
 OUTER HALL STATIC PRES= 17.110 HUB STATIC PRES= 17.080

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	6.1900	.1000	662.5000	384.8000	552.2000	16.4000	20.5200
.100	13.1600	-7.5000	1.0600	7.6000	-2.1000	671.1000	372.3000	548.2000	16.4700	20.7800
.150	12.8300	-7.6000	1.0900	5.9000	-3.9000	699.2000	372.7000	539.6000	16.0500	20.7300
.282	12.0000	-8.4000	1.1700	6.6000	2.2000	675.3000	428.5000	550.2000	16.5600	20.9200
.470	10.8200	-10.1000	1.3000	2.6000	-3.7000	655.0000	385.6000	537.0000	16.4000	20.5400
.689	9.4800	-9.8000	1.4700	2.1000	-1.3000	634.8000	398.7000	535.8000	16.2500	20.0900
.850	8.5900	-9.2000	1.6200	2.1000	-.2000	649.5000	419.5000	533.2000	16.0400	20.0400
.900	8.2700	-9.1000	1.6700	2.3000	-.5000	670.3000	430.0000	531.4000	15.8500	20.1000
.937	8.0200	-9.0000	1.7300	2.9000	.9600	686.0000	453.6000	531.4000	15.7500	20.1800

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	586.3400	19.7600
.1000	13.1500	585.3400	20.5100
.1500	12.8400	580.4400	20.6500
.2822	11.9700	582.3700	20.5100
.4702	10.8300	571.5100	20.2900
.6887	9.5700	568.0000	19.8600
.8500	8.6700	567.3000	19.5700
.9000	8.4000	567.8700	19.5500
.9372	8.1200	570.3300	19.1900

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4331	.1845	.0882	.6419	10.5900	.4584	533.0379	529.9302	57.4753
.1000	.3182	.0626	.0293	.7903	12.1000	.5158	596.0496	590.8137	78.8314
.1500	.3392	.0171	.0078	.9500	10.5000	.5258	604.4252	601.2235	62.1304
.2822	.3471	.0940	.0399	1.8796	12.0000	.5163	595.0688	591.1450	68.3978
.4702	.3366	.0604	.0232	.8897	9.7000	.5009	572.7443	572.1547	25.9814
.6887	.3584	.0599	.0204	.9324	8.9000	.4684	535.5582	535.1985	19.6248
.8500	.4052	.1175	.0362	.7774	8.3000	.4448	509.3782	509.0361	18.6655
.9000	.4237	.1294	.0387	.7689	8.4000	.4433	507.8960	507.4868	20.3828
.9372	.4896	.2235	.0645	.6192	8.9000	.4112	473.4215	472.8152	23.9518

PCT IMMERS	EX STAT PRES
.0500	17.1083
.1000	17.1067
.1500	17.1052
.2822	17.1008
.4702	17.0951
.6887	17.0887
.8500	17.0842
.9000	17.0828
.9372	17.0814

ROTOR INLET TRAVERSE PLANE		READING NUMBER	81	TIME	9H 58M 46S	UNIFORM INLET FLOW		STATOR ANGLE 3.00	
SPEED (RPM)	10155.9684					DISTORTION INDEX		0.000	
ACTUAL ORIFICE FLOW	118.1515								
THETA	0.9896								
DELTA	0.9861								
MASS AVERAGED PT	14.4919	(14.6960)							
MASS AVERAGED TT	513.3069	(518.6881)							
TOTAL WEIGHT FLOW	125.6382	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	126.7449								
EQUIV. SPEED	10209.0629								
PERCENT SPEED	79.8768								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.6086	14.6293	14.5965	14.6768	14.7643	14.7482	14.7445	14.7317	14.7019
STATIC PRESSURE	12.9465	12.7966	12.5825	12.3424	12.2692	12.4727	12.7718	12.9144	13.0313
WEDGE PRESSURE	12.9978	12.8685	12.6792	12.4872	12.4426	12.6065	12.8610	12.9833	13.0827
TOTAL TEMPERATURE	521.2960	521.2652	521.5119	519.8158	517.2312	516.7282	516.5963	516.2946	516.6077
ANGLE (DEG.)	-0.3895	-0.2555	-0.5508	-0.7874	1.2043	1.7996	1.8123	1.6870	2.1955
APPARENT MACH NO.	0.4118	0.4319	0.4529	0.4859	0.5003	0.4787	0.4461	0.4286	0.4116
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	12.9157	12.7671	12.6661	12.6479	12.7328	12.9404	13.1307	13.1761	13.2606
WEDGE PRESSURE	12.9351	12.7893	12.6894	12.6729	12.7578	12.9616	13.1488	13.1933	13.2761
ANGLE (DEG.)	-1.2551	0.4033	3.1841	2.4212	5.3110	6.1535	7.0472	7.1349	6.5108
APPARENT MACH NO.	0.4204	0.4423	0.4516	0.4627	0.4615	0.4334	0.4077	0.4000	0.3844
MEASURING PLANE									
MACH NO.	0.4231	0.4452	0.4546	0.4658	0.4646	0.4362	0.4102	0.4024	0.3867
ABSOLUTE VELOCITY	464.1964	487.6056	497.5017	509.2582	507.9984	478.0460	450.5504	442.2236	425.4761
SWIRL VELOCITY	-3.0665	-2.1268	-4.7082	-6.9631	10.6769	14.9133	13.8077	12.4276	15.2694
WEIGHT FLOW	12.0279	8.7219	14.5300	23.5824	26.4458	20.0760	9.6104	4.7070	5.8550
AXIAL VELOCITY	450.9799	476.9456	489.6937	506.6038	507.8584	474.6467	436.3855	421.9363	398.2750
CALCULATING PLANE									
ANGLE (DEG.)	-0.3501	-0.2286	-0.5002	-0.7336	1.1200	1.6513	1.5858	1.4459	1.8429
SWIRL VELOCITY	-3.1191	-2.1566	-4.7617	-7.0203	10.6670	14.7498	13.4412	11.9784	14.5516
AXIAL VELOCITY	509.3770	539.4744	544.3593	547.2547	544.5938	510.6163	484.4927	473.5511	451.2482
MERIDIONAL VELOCITY	520.7568	547.1364	549.4427	549.0232	544.5971	513.2438	494.7727	490.2561	477.2492
ABSOLUTE VELOCITY	521.7913	548.1574	550.4752	550.0755	545.7080	514.4676	495.9835	491.4451	478.5358
MACH NO.	0.4778	0.5032	0.5054	0.5050	0.5008	0.4708	0.4532	0.4489	0.4366
WEIGHT FLOW	12.0277	8.7299	14.5367	23.5960	26.4752	20.0816	9.6202	4.7072	5.8634
WHEEL SPEED	1243.2335	1208.6114	1171.8983	1083.0361	960.8385	814.0310	706.1192	667.0354	626.6627
RELAT. TANG. VELOC.	1246.3526	1210.7679	1176.6596	1090.0563	950.1715	799.2811	692.6779	655.0569	612.1110
RELATIVE FLOW ANGLE	67.3238	65.6824	64.9699	63.2674	60.1807	57.2944	54.4623	53.1883	52.0574
RELATIVE VELOCITY	1350.7709	1328.6523	1298.6208	1220.5115	1095.1766	949.8784	851.2358	818.1995	776.1743
RELATIVE MACH NO.	1.2370	1.2197	1.1924	1.1206	1.0051	0.8693	0.7778	0.7473	0.7082
MCL INCIDENCE	5.1238	4.4824	4.4699	4.8674	4.0807	4.9944	6.0623	5.1883	4.1574
SURFACE INCIDENCE	2.9238	2.4824	2.3699	2.4674	1.6807	2.2944	2.3623	1.3883	0.0574
RELATIVE TOTAL PRESS	32.8920	31.7762	30.4183	27.7140	24.2519	21.1828	19.5877	19.0907	18.5326
STATIC TEMPERATURE	498.5012	496.1102	496.1318	494.5540	492.4909	494.7605	496.1841	496.2656	497.6058
RELAT. TOTAL TEMP.	651.2583	643.8967	637.3790	618.9203	592.1347	569.6466	556.3091	551.7823	547.5958
STATIC PRESS.(ALT.)	12.4940	12.3056	12.2596	12.3303	12.4388	12.6697	12.8058	12.8283	12.8962
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE		READING NUMBER		81	TIME	9H 58M 46S	UNIFORM INLET FLOW			STATUR ANGLE	3.000
MASS AVERAGED PT	20.8626	{ 21.1564}									
MASS AVERAGED TT	578.5415	{584.6066}									
TOTAL WEIGHT FLOW	113.5776	(PROBE INTEGRATION)									
CORR. TOTAL FLOW	114.5780										
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0, 104 DEG.									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500		
TOTAL PRESSURE	21.1365	21.7519	21.6738	21.7833	21.1153	20.3777	20.4843	20.3752	20.5342		
STATIC PRESSURE	16.8046	16.5561	16.2905	16.1691	15.9996	15.7206	15.5795	15.4809	15.4281		
WEDGE PRESSURE	17.3857	17.3118	17.0947	17.0300	16.7507	16.3781	16.2939	16.1953	16.1914		
TOTAL TEMPERATURE	596.2803	597.2784	591.4187	594.4234	578.5423	573.8121	571.2312	571.2563	573.4222		
ANGLE (DEG.)	38.9347	38.5820	37.1201	43.0347	41.4445	45.8965	45.7719	46.0127	47.5772		
APPARENT MACH NO.	0.5358	0.5806	0.5924	0.6037	0.5848	0.5675	0.5813	0.5822	0.5927		
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	17.3237	17.6561	17.0716	17.4776	17.3532	16.9917	16.7603	16.6551	16.5970		
WEDGE PRESSURE	17.3840	17.7220	17.1493	17.5482	17.4125	17.0436	16.8194	16.7142	16.6608		
ANGLE (DEG.)	26.1025	34.7902	38.9764	31.8781	33.2417	36.3431	39.2151	39.5414	39.6292		
APPARENT MACH NO.	0.5360	0.5491	0.5882	0.5645	0.5322	0.5117	0.5382	0.5395	0.5547		
MEASURING PLANE											
MACH NO.	0.5408	0.5543	0.5941	0.5699	0.5370	0.5162	0.5432	0.5445	0.5600		
ABSOLUTE VELOCITY	627.5741	642.7984	682.5679	659.2310	616.4659	591.7032	619.6112	621.2455	638.8667		
SWIRL VELOCITY	393.5143	400.0792	411.2156	449.6379	408.0214	423.9409	441.2479	443.1814	467.2222		
WEIGHT FLOW	11.3272	7.9018	14.6577	21.6745	24.1132	16.6513	8.3898	3.7101	5.4291		
AXIAL VELOCITY	487.0851	501.4961	543.3310	481.5942	462.0876	410.8789	429.5175	427.7879	426.9753		
CALCULATING PLANE											
SWIRL VELOCITY	390.9140	397.6691	409.3088	448.5193	408.3988	427.5760	447.5816	450.9178	478.1301		
AXIAL VELOCITY	461.2470	475.2989	515.2867	462.9072	447.9562	390.7675	407.9408	404.0298	390.8131		
ABSOLUTE VELOCITY	609.8938	623.4798	661.0845	645.5706	606.9972	581.2380	611.6571	613.6363	627.6454		
MERIDIONAL VELOCITY	467.1264	479.1830	518.1251	463.3137	448.0545	392.7092	415.8607	415.1649	405.5631		
ANGLE (DEG.)	40.2205	39.8589	38.4071	44.0337	42.2913	47.5021	47.5827	48.0683	50.6660		
MACH NO.	0.5248	0.5366	0.5742	0.5574	0.5283	0.5066	0.5358	0.5374	0.5495		
WEIGHT FLOW	11.3380	7.9034	14.6598	21.6779	24.1244	16.4650	8.3919	3.7120	5.3048		
WHEEL SPEED	1210.3533	1180.1737	1149.6865	1073.2472	964.4073	832.7752	746.2901	716.1478	688.2577		
RELAT. TANG. VELOC.	819.4390	782.5044	740.3773	624.7277	556.0086	405.1991	298.7034	265.2300	210.1275		
RELATIVE FLOW ANGLE	60.3146	58.5181	55.0154	53.4386	51.1368	45.8969	35.6894	32.5727	27.3893		
RELATIVE VELOCITY	943.2325	917.5670	903.6658	777.7814	714.0716	564.2755	512.0223	492.6549	456.7658		
RELATIVE MACH NO.	0.8116	0.7898	0.7849	0.6715	0.6215	0.4918	0.4485	0.4315	0.3999		
DEVIATION	4.3146	2.2181	-0.8845	2.2386	4.1368	7.1969	7.7894	9.6727	8.7893		
AIR TURNING ANGLE	7.0092	7.1642	9.9545	9.8287	9.0438	11.3974	18.7729	20.6155	24.6680		
REL. MACH NO. (WHL.)	0.9702	0.9514	0.9317	0.8812	0.8075	0.7105	0.6442	0.6205	0.5988		
IDEAL PRESS. RATIO	0.9641	0.9694	0.9765	0.9900	1.0033	1.0158	1.0307	1.0361	1.0435		
ROTOR PRESS. RATIO	1.4468	1.4868	1.4848	1.4841	1.4301	1.3817	1.3892	1.3830	1.3966		
ROTOR TEMP. RATIO	1.1438	1.1458	1.1340	1.1435	1.1185	1.1104	1.1057	1.1064	1.1099		
ADIABATIC EFFY.	0.7727	0.8217	0.8909	0.8309	0.9072	0.8754	0.9307	0.9115	0.9102		
POLYTR. EFFICIENCY	0.7842	0.8314	0.8968	0.8401	0.9118	0.8810	0.9339	0.9154	0.9143		
TOTAL LOSS COEFF.	0.1534	0.1252	0.0743	0.1318	0.0718	0.1115	0.0719	0.0986	0.1130		
SHOCK LOSS COEFF.	0.0579	0.0526	0.0446	0.0275	0.0082	-0.0018	-0.0073	-0.0091	-0.0115		
PROFILE LOSS COEFF.	0.0954	0.0726	0.0297	0.1043	0.0635	0.1133	0.0792	0.1077	0.1245		
TOTAL LOSS PARAM.	0.0231	0.0197	0.0127	0.0231	0.0130	0.0217	0.0157	0.0217	0.0256		
PROFILE LOSS PARAM.	0.0144	0.0114	0.0051	0.0183	0.0115	0.0220	0.0173	0.0237	0.0282		
ROTOR DIFFUS. FACT.	0.3904	0.4002	0.3991	0.4728	0.4595	0.5365	0.5471	0.5506	0.5795		
STATIC PRESS. (ALT.)	17.5214	17.8818	17.3343	17.6411	17.4602	17.1031	16.8488	16.7394	16.7242		
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534		
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000		
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540		
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000		

STATOR INLET TRAVERSE PLANE	READING NUMBER	81	TIME	9H 58M 46S	UNIFORM INLET FLOW	STATOR ANGLE	3.70°		
MASS AVERAGED PT	20.8596	(21.1534)							
MASS AVERAGED TT	578.4947	(584.5592)							
TOTAL WEIGHT FLOW	113.7886	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	114.7909								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	21.1365	21.7519	21.6738	21.7833	21.1153	20.3777	20.4843	20.3752	20.5341
STATIC PRESSURE	17.3237	17.6561	17.0716	17.4776	17.3532	16.9917	16.7603	16.6551	16.5970
WEDGE PRESSURE	17.3840	17.7219	17.1493	17.5482	17.4125	17.0436	16.8194	16.7142	16.6608
TOTAL TEMPERATURE	596.2803	597.2782	591.4186	594.4233	578.5421	573.8120	571.2311	571.2562	573.4221
ANGLE (DEG.)	38.9347	38.5820	37.1201	43.0347	41.4445	45.8965	45.7719	46.0127	47.5772
MACH NO.	0.5408	0.5543	0.5941	0.5699	0.5370	0.5162	0.5432	0.5445	0.5600
ABSOLUTE VELOCITY	627.5741	642.7985	682.5677	659.2310	616.4657	591.7031	619.6112	621.2455	638.8666
SWIRL VELOCITY	393.5143	400.0793	411.2154	449.6379	408.0213	423.9408	441.2479	443.1813	467.2220
AXIAL VELOCITY	487.0852	501.4963	543.3310	481.5942	462.0877	410.8789	429.5175	427.7879	426.9752
WEIGHT FLOW	11.3272	7.9018	14.6577	21.6745	24.1132	16.6513	8.3898	3.7101	5.4291
CALCULATING PLANE									
ANGLE (DEG.)	39.0828	38.5622	36.7725	42.5522	40.0031	44.3113	44.1812	44.3481	45.7209
MACH NO.	0.5400	0.5554	0.6010	0.5769	0.5539	0.5268	0.5500	0.5509	0.5660
SWIRL VELOCITY	394.9739	401.2953	412.8180	450.7619	408.0213	420.8105	435.5974	437.2866	459.6486
AXIAL VELOCITY	485.3121	502.3729	551.3768	490.0190	485.2020	430.0458	447.2241	446.3471	447.2191
ABSOLUTE VELOCITY	626.6505	644.0488	689.9521	666.7940	634.7306	603.1937	626.9810	628.1958	645.3367
WEIGHT FLOW	11.3437	7.9052	14.6666	21.5098	24.1514	16.6740	8.3930	3.7104	5.4339
MERIDIONAL VELOCITY	485.5014	502.7435	551.8214	490.3484	485.2049	431.1491	449.9413	449.9946	451.9530
STATIC TEMPERATURE	563.4753	562.6297	551.6286	557.3842	545.1288	543.6610	538.6608	538.5786	538.9186
STATIC PRESS.(ALT.)	17.3341	17.6413	16.9800	17.3861	17.1436	16.8678	16.6777	16.5775	16.5230
MCL INCIDENCE	10.0981	9.3107	7.1822	11.6108	6.3534	10.2149	10.0596	10.2005	11.5949
SUC SUR INCIDENCE	3.6728	2.7822	0.6125	5.3622	0.2431	4.0013	3.6212	3.6781	4.9709
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 81 PCT DES SPD= 80.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 18.040 HUB STATIC PRES= 17.920

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG	SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.6700	3.6700		626.7000	395.0000	563.5000	17.3300	21.1400
.100	13.1600	-7.5000	1.0600	7.0400	2.8000		644.0000	401.3000	562.6000	17.6400	21.7500
.150	12.8300	-7.6000	1.0900	6.3000	.6000		690.0000	412.8000	551.6000	17.0000	21.6700
.282	12.0000	-8.4000	1.1700	6.3000	5.4000		667.0000	450.8000	557.4000	17.4000	21.7800
.470	10.8200	-10.1000	1.3000	3.3100	.2000		634.8000	408.0000	545.0000	17.1400	21.1100
.689	9.4800	-9.8000	1.4700	1.8100	4.0000		603.2000	421.0000	543.7000	16.8700	20.3800
.850	8.5900	-9.2000	1.6200	2.0800	3.6000		627.0000	435.6000	538.7000	16.6800	20.4800
.900	8.2700	-9.1000	1.6700	2.4000	3.7000		628.2000	437.3000	538.6000	16.5800	20.3800
.937	8.0200	-9.0000	1.7300	1.8800	5.0000		645.3000	459.6000	539.0000	16.5200	20.5300

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	595.6200	20.8300
.1000	13.1500	595.8000	21.3400
.1500	12.8400	591.2500	21.5200
.2822	11.9700	586.9900	21.2900
.4702	10.8300	577.1000	20.8100
.6887	9.5700	572.0700	20.0900
.8500	8.6700	570.8800	19.8200
.9000	8.4000	571.7000	19.7700
.9372	8.1200	573.9200	19.3600

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4121	.0814	.0390	.7980	9.0700	.4585	537.3847	535.6006	43.7521
.1000	.3407	.0998	.0467	.6789	11.5400	.4969	580.4099	576.0341	71.1363
.1500	.3722	.0321	.0146	.8903	10.9000	.5100	592.6176	589.0388	65.0305
.2822	.3877	.1119	.0475	2.5534	11.7000	.4954	574.3856	570.9169	63.0298
.4702	.3096	.0756	.0290	.8839	10.4100	.4618	532.5223	531.6340	30.7469
.6887	.4554	.0826	.0281	.9492	8.6100	.4039	465.9812	465.7487	14.7181
.8500	.5051	.1737	.0536	.7037	8.2800	.3804	439.1817	438.8923	15.9400
.9000	.5062	.1605	.0480	.7051	8.5000	.3760	434.6448	434.2635	18.2010
.9372	.5993	.2918	.0843	.5721	7.6800	.3334	387.2781	387.1116	11.3540

PCT IMMERS	EX STAT PRES
.0500	18.0333
.1000	18.0269
.1500	18.0206
.2822	18.0031
.4702	17.9802
.6887	17.9549
.8500	17.9368
.9000	17.9314
.9372	17.9257

ROTOR INLET TRAVERSE PLANE		READING NUMBER	103	TIME	9H 50M 57S	UNIFORM INLET FLOW			STATOR ANGLE 3.	
SPEED (RPM)		11417.1653				DISTORTION INDEX			0.000	
ACTUAL ORIFICE FLOW		144.7539								
THETA		0.9876								
DELTA		0.9926								
MASS AVERAGED PT		14.5885	(14.6960)							
MASS AVERAGED TT		512.2792	(518.6881)							
TOTAL WEIGHT FLOW		150.1806	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW		150.3491								
EQUIV. SPEED		11488.3602								
PERCENT SPEED		89.8862								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION (IN.)		0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE		14.5882	14.6684	14.7175	14.7039	14.7330	14.7163	14.6961	14.7041	14.6342
STATIC PRESSURE		11.5928	11.3935	11.1989	10.8624	10.8750	11.0682	11.2201	11.4960	11.7098
WEDGE PRESSURE		11.8778	11.7465	11.6209	11.3857	11.4022	11.5297	11.6303	11.8289	11.9772
TOTAL TEMPERATURE		519.9699	519.7164	519.6222	519.1580	518.6504	517.5177	517.5220	517.4742	517.6911
ANGLE (DEG.)		1.4925	2.7215	2.6180	2.4580	2.2484	1.8495	1.5860	1.7168	1.9893
APPARENT MACH NO.		0.5498	0.5722	0.5907	0.6155	0.6162	0.6007	0.5878	0.5661	0.5426
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE		11.9956	11.9636	11.8426	11.7217	11.6944	11.7768	12.0220	12.1272	12.1891
WEDGE PRESSURE		12.0311	12.0011	11.8835	11.7649	11.7388	11.8191	12.0539	12.1622	12.2216
ANGLE (DEG.)		8.1001	2.1849	2.1814	2.6856	3.7511	5.2874	6.4702	7.0967	6.4250
APPARENT MACH NO.		0.5319	0.5431	0.5612	0.5734	0.5789	0.5684	0.5390	0.5277	0.5138
MEASURING PLANE										
MACH NO.		0.5360	0.5474	0.5658	0.5782	0.5839	0.5731	0.5433	0.5318	0.5177
ABSOLUTE VELOCITY		582.0789	593.7442	612.5228	625.1155	630.8375	619.9639	589.5079	577.7289	563.1557
SWIRL VELOCITY		14.7301	27.5772	27.5417	26.6727	24.7484	19.8766	15.8116	16.5223	18.3121
WEIGHT FLOW		14.4253	10.2286	17.2372	27.6377	31.0639	24.4944	11.8770	5.8303	7.3366
AXIAL VELOCITY		565.3373	580.1425	602.3272	621.3489	630.3172	615.5387	571.0369	551.2173	527.2134
CALCULATING PLANE										
ANGLE (DEG.)		1.3098	2.3845	2.3264	2.2550	2.0603	1.6658	1.3591	1.4396	1.6323
SWIRL VELOCITY		14.9827	27.9625	27.8549	26.8919	24.7254	19.6586	15.3918	15.9251	17.4513
AXIAL VELOCITY		654.2517	670.4953	684.6306	681.9194	686.2780	674.9400	647.7383	632.6569	611.3732
MERIDIONAL VELOCITY		668.8681	680.0180	691.0242	684.1229	686.2821	678.4130	661.4821	654.9745	646.6006
ABSOLUTE VELOCITY		670.0629	681.6112	692.5990	685.6594	687.7330	679.7097	662.6894	656.2107	647.9008
MACH NO.		0.6229	0.6345	0.6456	0.6386	0.6407	0.6326	0.6155	0.6091	0.6008
WEIGHT FLOW		14.4310	10.2317	17.2479	27.6382	31.0727	24.5082	11.8842	5.8281	7.3382
WHEEL SPEED		1400.8058	1362.0875	1321.1444	1219.5233	1079.7608	915.3379	793.8918	749.7656	704.4515
RELAT. TANG. VELOC.		1385.8228	1334.1249	1293.2893	1192.6311	1055.0351	895.6792	778.5091	733.8404	687.0001
RELATIVE FLOW ANGLE		64.2359	62.9917	61.8839	60.1605	58.9569	52.8588	49.6450	48.2503	46.7353
RELATIVE VELOCITY		1538.7945	1497.4357	1466.3255	1374.9153	1258.6030	1123.6038	1021.5775	983.6225	943.4304
RELATIVE MACH NO.		1.4306	1.3941	1.3669	1.2806	1.1725	1.0458	0.9439	0.9130	0.8749
MCL INCIDENCE		2.0359	1.7917	1.3839	1.7605	0.8569	0.5588	1.2460	0.2503	-1.1646
SURFACE INCIDENCE		-0.1640	-0.2082	-0.7160	-0.6394	-1.5430	-2.1411	-2.4539	-3.5496	-5.2646
RELATIVE TOTAL PRESS		39.8740	37.7643	35.9877	31.6436	27.3744	23.5399	21.4673	20.8077	20.0708
STATIC TEMPERATURE		482.4736	480.9351	479.5876	479.9563	479.2494	479.1135	481.0158	481.6826	482.7858
RELAT. TOTAL TEM6.		680.2245	668.1088	659.0326	637.5866	611.2105	584.0573	567.7683	562.1003	556.7965
STATIC PRESS. (ALT.)		11.2288	11.1842	11.1192	11.1737	11.1765	11.2384	11.3793	11.4444	11.4647
RADIUS-RATIO		0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE		-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	103	TIME	9H 504 575	UNIFORM INLET FLOW	STATOR ANGLE	3.00
MASS AVERAGED PT	19.7224	(19.8677)					
MASS AVERAGED TT	568.8126	(575.9287)					
TOTAL WEIGHT FLOW	149.1522	(PROBE INTEGRATION)					
CRP. TOTAL FLOW	149.3195						

PROBE TYPE - NASA 4	PARAMETER	LOCATION	- STA 9.0,	104 DEG.					
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.6691	19.1329	19.2099	19.8155	19.9699	20.2764	20.5977	20.7247	19.3460
STATIC PRESSURE	13.7136	13.4197	13.4232	13.7069	14.1481	14.3452	14.3734	14.3308	13.7308
WEDGE PRESSURE	14.6483	14.3127	14.3300	14.6709	15.0518	15.2668	15.3497	15.3400	14.6014
TOTAL TEMPERATURE	580.6477	575.1497	572.3038	583.8635	572.6534	572.3230	574.1299	576.2691	575.0638
ANGLE (DEG.)	21.2137	20.3839	20.4105	27.1912	27.6052	30.1173	31.9698	32.9298	32.4507
APPARENT MACH NO.	0.6628	0.6575	0.6608	0.6697	0.6486	0.6498	0.6620	0.6700	0.6470

PROBE TYPE - NASA 2	PARAMETER	LOCATION	- STA 9.0,	300 DEG.					
STATIC PRESSURE	14.0036	13.7891	13.7943	14.4294	14.7113	14.8872	14.7700	14.6566	14.5840
WEDGE PRESSURE	14.1190	13.8958	13.9030	14.5351	14.8124	14.9914	14.8873	14.7914	14.6718
ANGLE (DEG.)	9.4595	15.4567	15.3870	20.1928	25.4522	25.8027	27.1812	28.0967	28.9729
APPARENT MACH NO.	0.7049	0.6917	0.6956	0.6804	0.6675	0.6712	0.6972	0.7120	0.6412

MEASURING PLANE									
MACH NO.	0.7140	0.7004	0.7044	0.6888	0.6754	0.6793	0.7050	0.7213	0.6484
ABSOLUTE VELOCITY	802.3383	784.9189	787.1868	779.2560	758.4926	763.0723	791.6358	808.7149	732.7293
SWIRL VELOCITY	289.4011	272.6195	273.8781	355.7990	351.4523	381.5659	415.3326	434.1982	387.4924
WEIGHT FLOW	15.0799	9.7600	17.1242	27.1247	31.2737	24.4881	11.9350	5.3329	6.9864
AXIAL VELOCITY	745.5923	733.6835	736.0248	692.5735	672.1182	657.7807	665.4523	670.4068	609.4012

CALCULATING PLANE									
SWIRL VELOCITY	287.4887	270.9773	272.6083	354.9138	351.7773	384.8375	421.2942	441.7778	396.5390
AXIAL VELOCITY	691.4367	684.5686	688.6520	658.7864	647.0334	627.5937	624.5688	624.5976	568.0634
ABSOLUTE VELOCITY	757.9090	742.3970	745.1151	749.7027	737.4869	739.7133	764.3149	780.0126	711.3300
MERIDIONAL VELOCITY	700.2501	690.1628	692.4453	659.3647	647.1754	630.7121	636.6946	641.8117	589.5031
ANGLE (DEG.)	22.5473	21.5667	21.5680	28.2766	28.4946	31.4756	33.9584	35.2283	34.8696
MACH NO.	0.6708	0.6590	0.6634	0.6603	0.6551	0.6567	0.6794	0.6932	0.6279
WEIGHT FLOW	15.0576	9.7655	17.1396	27.1251	31.2999	24.4929	11.9433	5.3353	6.9928
WHEEL SPEED	1363.7581	1330.0386	1296.1035	1208.5004	1083.7714	936.4151	839.0564	804.9691	773.6924
RELAT. TANG. VELOC.	1076.2694	1059.0615	1023.4954	853.5867	731.9939	551.5775	417.7621	363.1913	377.1534
RELATIVE FLOW ANGLE	56.9510	56.9089	55.9199	52.3154	48.5194	41.1708	33.2706	29.5049	32.6104
RELATIVE VELOCITY	1284.0191	1264.0944	1235.7276	1078.5969	977.0623	837.8752	761.5150	737.4483	699.8276
RELATIVE MACH NO.	1.1364	1.1222	1.1002	0.9500	0.8679	0.7438	0.6759	0.6554	0.6178
DEVIATION	0.9510	0.6089	0.0199	1.1154	1.5194	2.4708	5.3706	6.6049	14.0104
AIR TURNING ANGLE	7.2848	6.0828	5.9640	7.8451	8.4374	11.6880	16.3753	18.7453	14.1248
REL. MACH NO. (WHL.)	1.0682	1.0509	1.0310	0.9769	0.8943	0.7896	0.7176	0.6919	0.6683
IDEAL PRESS. RATIO	0.9567	0.9628	0.9712	0.9878	1.0041	1.0195	1.0382	1.0450	1.0544
ROTOR PRESS. RATIO	1.3482	1.3043	1.3052	1.3476	1.3554	1.3778	1.4015	1.4094	1.3219
ROTOR TEMP. RATIO	1.1166	1.1066	1.1013	1.1246	1.1041	1.1059	1.1093	1.1136	1.1108
ADIABATIC EFFY.	0.7631	0.7390	0.7795	0.7132	0.8713	0.9050	0.9251	0.9061	0.7485
POLYTR. EFFICIENCY	0.7729	0.7486	0.7877	0.7250	0.8768	0.9092	0.9286	0.9105	0.7582
TOTAL LOSS COEFF.	0.1150	0.1202	0.1002	0.1678	0.0733	0.0642	0.0604	0.0830	0.2285
SHOCK LOSS COEFF.	0.0158	0.0240	0.0335	0.0644	0.0396	0.0136	0.0029	0.0007	-0.0015
PROFILE LOSS COEFF.	0.0991	0.0962	0.0667	0.1034	0.0336	0.0506	0.0574	0.0822	0.2300
TOTAL LOSS PARAM.	0.0191	0.0198	0.0168	0.0302	0.0140	0.0135	0.0135	0.0189	0.0492
PROFILE LOSS PARAM.	0.0164	0.0158	0.0111	0.0186	0.0064	0.0106	0.0129	0.0187	0.0495
ROTOR DIFFUS. FACT.	0.2256	0.2138	0.2165	0.2954	0.3089	0.3559	0.3732	0.3766	0.3753
STATIC PRESS. (ALT.)	14.5490	14.2947	14.2992	14.7891	14.9695	15.1791	15.1225	15.0321	14.8325
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	103	TIME	9H 50M 57S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
MASS AVERAGED PT	19.7215	(19.8667)							
MASS AVERAGED TT	568.8186	(575.9350)							
TOTAL WEIGHT FLOW	148.9161	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	149.0831								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.6691	19.1329	19.2099	19.8155	19.9699	20.2764	20.5976	20.7247	19.3460
STATIC PRESSURE	14.0036	13.7891	13.7943	14.4294	14.7113	14.8672	14.7700	14.6566	14.5840
WEDGE PRESSURE	14.1190	13.8958	13.9030	14.5351	14.8124	14.9914	14.8873	14.7814	14.6718
TOTAL TEMPERATURE	580.6476	575.1496	572.3037	583.8634	572.6532	572.3229	574.1297	576.2690	575.0637
ANGLE (DEG.)	21.2137	20.3839	20.4105	27.1912	27.6052	30.1173	31.9698	32.9297	32.4506
MACH NO.	0.7140	0.7004	0.7044	0.6888	0.6754	0.6793	0.7050	0.7213	0.6484
ABSOLUTE VELOCITY	802.3382	784.9187	787.1867	779.2559	758.4924	763.0720	791.6358	808.7145	732.7290
SWIRL VELOCITY	289.4010	272.6195	273.8781	355.7989	351.4522	381.5657	415.3324	434.1979	387.4923
AXIAL VELOCITY	745.5923	733.6834	736.0247	692.5735	672.1178	657.7805	665.4523	670.4066	609.4007
WEIGHT FLOW	15.0799	9.7600	17.1242	27.1247	31.2736	24.4881	11.9350	5.3329	6.9864
CALCULATING PLANE									
ANGLE (DEG.)	21.4137	20.3604	20.0837	26.3495	26.0662	28.6206	30.5718	31.0633	30.5211
MACH NO.	0.7076	0.7019	0.7183	0.7129	0.7159	0.7078	0.7239	0.7476	0.6713
SWIRL VELOCITY	290.4744	273.4481	274.9454	356.6882	351.4522	378.7482	410.0139	428.4227	381.2113
AXIAL VELOCITY	739.6764	735.8359	750.9826	719.1332	717.4725	693.0729	693.0700	710.2280	645.6182
ABSOLUTE VELOCITY	795.8720	786.4538	801.2447	804.0670	799.8353	792.2579	809.7693	835.2861	756.5346
WEIGHT FLOW	15.0813	9.7660	17.1316	27.1347	31.2865	24.3495	11.8386	5.3349	6.9925
MERIDIONAL VELOCITY	739.9650	736.3786	751.5880	719.6166	717.4769	694.8512	697.2810	716.0318	652.4521
STATIC TEMPERATURE	527.8385	523.5989	518.8004	530.0511	519.4383	520.2250	519.7061	518.3710	527.5466
STATIC PRESS.(ALT.)	14.0840	13.7706	13.6224	14.1219	14.1919	14.5157	14.5326	14.3032	14.3026
MCL INCIDENCE	-7.5778	-8.9045	-9.5200	-4.6027	-7.5836	-5.5158	-3.6324	-3.1927	-3.7657
SUC SUR INCIDENCE	-13.9961	-15.4195	-16.0762	-10.8404	-13.6937	-11.6893	-9.9881	-9.6066	-10.2288
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6865	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 103 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.430 HUB STATIC PRES= 14.400

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.2000	-13.9900	795.9000	290.5000	527.8000	14.0800	19.6700
.100	13.1600	-7.5000	1.0600	4.4000	-15.4200	786.5000	273.4000	523.6000	13.7800	19.1400
.150	12.8300	-7.6000	1.0900	1.2000	-16.0800	801.0000	275.0000	518.8000	13.6200	19.2100
.282	12.0000	-8.4000	1.1700	2.8000	-10.8400	804.0000	256.7000	530.1000	14.1200	19.8200
.470	10.8200	-10.1000	1.3000	.4000	-13.6900	800.0000	351.5000	519.4000	14.1900	20.0000
.689	9.4800	-9.8000	1.4700	-.5000	-11.7000	792.3000	378.7000	520.2000	15.5200	20.2700
.850	8.5900	-9.2000	1.6200	.0000	-10.0000	809.8000	410.0000	519.7000	14.5300	20.6000
.900	8.2700	-9.1000	1.6700	.4000	-9.6000	835.3000	428.4000	518.4000	14.3000	20.7200
.937	8.0200	-9.0000	1.7300	1.1000	-10.2000	756.5000	381.2000	527.5000	14.3000	19.3500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	575.0000	18.7000
.1000	13.1500	572.0800	19.0000
.1500	12.8400	567.8000	19.0000
.2822	11.9700	576.6500	19.2600
.4702	10.8300	568.9000	19.6300
.6887	9.5700	567.9000	19.9400
.8500	8.6700	571.4000	19.9500
.9000	8.4000	572.9400	19.5800
.9372	8.1200	574.3100	18.6300

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2620	.1735	.0832	.6041	8.6000	.6201	702.3924	700.5061	51.4419
.1000	.2140	.0261	.0123	1.3267	8.9000	.6397	721.1158	718.9905	55.3233
.1500	.2517	.0376	.0172	1.4212	5.8000	.6399	718.5487	718.3911	15.0481
.2822	.1952	.0982	.0419	4.0267	8.2000	.6565	741.4386	740.5534	36.2191
.4702	.2167	.0637	.0245	1.6023	7.5000	.6791	759.7183	759.6997	5.3038
.6887	.1820	.0695	.0236	4.1664	6.5000	.6974	777.7152	777.7045	-4.0721
.8500	.1911	.1071	.0331	-1.3974	6.2000	.6983	781.0416	781.0416	.0000
.9000	.2401	.1776	.0532	.1665	6.5000	.6771	760.3973	760.3787	5.3085
.9372	.2149	.1426	.0412	.1761	7.1000	.6178	699.5084	699.3795	13.4288

PCT IMMERS	EX STAT PRES
.0500	14.4283
.1000	14.4267
.1500	14.4252
.2822	14.4208
.4702	14.4151
.6887	14.4087
.8500	14.4042
.9000	14.4028
.9372	14.4014

ROTOR INLET TRAVERSE PLANE	READING NUMBER	101	TIME	9H 38M 56S	UNIFORM INLET FLOW	STATOR ANGLE 3.			
SPEED (RPM)	11398.4468				DISTURTION INDEX	0.000			
ACTUAL ORIFICE FLOW	140.5251								
THETA	0.9875								
DELTA	0.9931								
MASS AVERAGED PT	14.5959	(14.6960)							
MASS AVERAGED TT	512.2437	(518.6881)							
TOTAL WEIGHT FLOW	146.5820	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	146.6675								
EQUIV. SPEED	11469.9232								
PERCENT SPEED	89.7419								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.								
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5719	14.6954	14.6972	14.6885	14.7334	14.7298	14.7141	14.7114	14.6448
STATIC PRESSURE	11.9093	11.6433	11.4308	11.1904	11.1543	11.2963	11.5536	11.8110	12.0264
WEDGE PRESSURE	12.1209	11.9385	11.7802	11.6075	11.5938	11.6925	11.8742	12.0709	12.2271
TOTAL TEMPERATURE	521.4622	520.0592	519.4844	519.0222	519.1334	516.9158	516.7518	516.8629	516.9133
ANGLE (DEG.)	1.8527	3.2494	2.4185	2.1363	1.9451	1.6034	1.6784	1.6756	1.8562
APPARENT MACH NO.	0.5196	0.5528	0.5710	0.5896	0.5951	0.5838	0.5619	0.5391	0.5142
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	12.2670	12.1786	12.0235	11.8505	11.8136	12.0076	12.1426	12.3020	12.4383
WEDGE PRESSURE	12.2970	12.2125	12.0604	11.8907	11.8555	12.0455	12.1776	12.3339	12.4665
ANGLE (DEG.)	2.4371	1.2684	1.4828	2.3132	3.8360	5.4436	6.7813	7.4148	7.0755
APPARENT MACH NO.	0.4983	0.5209	0.5389	0.5577	0.5658	0.5437	0.5269	0.5081	0.4851
MEASURING PLANE									
MACH NO.	0.5020	0.5249	0.5432	0.5623	0.5705	0.5481	0.5310	0.5119	0.4886
ABSOLUTE VELOCITY	546.9453	570.6516	589.4435	608.8971	617.3140	594.4625	576.8626	557.1812	532.9865
SWIRL VELOCITY	17.1809	31.6419	24.4855	22.5817	20.9521	16.5240	16.3735	15.5524	16.1718
WEIGHT FLOW	13.7538	9.9594	16.7753	27.1475	30.6272	23.8506	11.7240	5.6881	7.0557
AXIAL VELOCITY	531.1220	557.3228	579.7178	605.3631	616.9244	590.2949	558.7639	531.6230	499.0040
CALCULATING PLANE									
ANGLE (DEG.)	1.6405	2.8647	2.1632	1.9669	1.7871	1.4534	1.4421	1.4103	1.5338
SWIRL VELOCITY	17.4757	32.0839	24.7640	22.7672	20.9326	16.3428	15.9388	14.9902	15.4116
AXIAL VELOCITY	609.1796	640.1491	654.5799	661.9132	669.8890	643.1005	632.1128	607.8517	574.5583
MERIDONAL VELOCITY	622.7889	649.2408	660.6929	664.0521	669.8929	646.4095	645.5250	629.2942	607.6644
ABSOLUTE VELOCITY	624.0596	651.0510	662.1710	665.4509	671.2252	647.6289	646.7509	630.5159	608.9255
MACH NO.	0.5772	0.6039	0.6150	0.6183	0.6241	0.6005	0.5997	0.5836	0.5623
WEIGHT FLOW	13.7591	9.9631	16.7770	27.1371	30.6309	23.8355	11.7321	5.6894	7.0575
WHEEL SPEED	1396.5551	1359.4527	1319.1985	1217.7253	1077.5263	914.4009	793.2031	749.0047	703.8497
RELAT. TANG. VELOC.	1379.0792	1327.3688	1294.4347	1194.9579	1056.5937	898.0580	777.2693	734.0145	688.4379
RELATIVE FLOW ANGLE	65.6964	63.9361	62.9599	60.9387	57.6250	54.2543	50.2904	49.3926	48.5662
RELATIVE VELOCITY	1513.1838	1477.6402	1453.2979	1367.0733	1251.0580	1106.5051	1010.3711	966.8443	918.2607
RELATIVE MACH NO.	1.3996	1.3708	1.3499	1.2703	1.1633	1.0261	0.9358	0.8949	0.8480
MCL INCIDENCE	3.4964	2.7361	2.4599	2.5387	1.5250	1.9543	1.8904	1.3926	0.6662
SURFACE INCIDENCE	1.2964	0.7361	0.3599	0.1387	-0.8749	-0.7456	-1.8095	-2.4073	-3.4337
RELATIVE TOTAL PRESS	39.0264	37.2110	35.6857	31.5496	27.3251	23.4432	21.3907	20.6956	19.9104
STATIC TEMPERATURE	488.8456	484.6545	482.8999	482.1067	481.5666	482.0913	482.0324	483.8579	486.1270
RELAT. TOTAL TEMP.	680.6107	667.0308	659.1247	637.9037	612.0702	583.7487	566.7654	561.4650	556.1373
STATIC PRESS. (ALT.)	11.6258	11.4843	11.3849	11.3482	11.3299	11.5420	11.5376	11.6802	11.8151
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5535	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	101	TIME	9H 38M 56S	UNIFORM INLET FLOW	STATOR ANGLE	3.00
MASS AVERAGED PT	21.8923	(22.0424)					
MASS AVERAGED TT	587.3228	(594.7118)					
TOTAL WEIGHT FLOW	139.0173	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	139.0983						

PROBE TYPE - NASA 4 PARAMETER	LOCATION	- STA 9.0,	104 DEG.						
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3630	5.6800	5.9500
TOTAL PRESSURE	22.1054	22.4229	22.3542	22.2628	22.2580	21.7174	21.4970	21.4606	21.1451
STATIC PRESSURE	16.7219	16.4337	16.3229	16.0187	16.1203	15.8009	15.5530	15.4170	15.3885
WEDGE PRESSURE	17.4263	17.2912	17.1948	16.9558	17.0264	16.6641	16.4341	16.3273	16.2278
TOTAL TEMPERATURE	611.2121	605.7506	599.0930	605.9089	589.8332	583.5823	580.1843	582.4793	581.9880
ANGLE (DEG.)	33.9419	31.9355	31.3996	38.5260	36.8275	38.7719	39.5320	40.2903	42.1246
APPARENT MACH NO.	0.5931	0.6209	0.6240	0.6362	0.6308	0.6270	0.6315	0.6374	0.6268

PROBE TYPE - NASA 2 PARAMETER	LOCATION	- STA 9.0,	300 DEG.						
STATIC PRESSURE	16.8156	16.9286	17.0609	17.2395	17.1543	16.8403	16.4878	16.3641	16.2515
WEDGE PRESSURE	16.9114	17.0296	17.1562	17.3273	17.2444	16.9252	16.5770	16.4560	16.3383
ANGLE (DEG.)	27.9643	29.7621	30.8018	29.4720	32.5971	33.5101	34.6534	35.0569	35.7567
APPARENT MACH NO.	0.6307	0.6396	0.6268	0.6094	0.6151	0.6076	0.6208	0.6278	0.6184

MEASURING PLANE									
MACH NO.	0.6377	0.6467	0.6336	0.6157	0.6216	0.6139	0.6275	0.6347	0.6250
ABSOLUTE VELOCITY	741.0156	748.4360	730.7554	715.9462	712.5807	702.2296	714.6653	723.5310	712.9645
SWIRL VELOCITY	412.7037	394.9753	379.9802	445.6592	427.1107	438.5164	451.4585	463.0924	472.8629
WEIGHT FLOW	13.9092	9.7043	16.8226	24.8088	29.6883	22.1975	10.6303	4.6974	6.5625
AXIAL VELOCITY	613.2016	633.6808	622.5180	559.7506	570.3614	545.9544	547.0425	546.2501	522.8785

CALCULATING PLANE									
SWIRL VELOCITY	409.9766	392.5959	378.2183	444.5505	427.5058	442.2765	457.9388	471.1763	483.9025
AXIAL VELOCITY	577.0648	590.9068	588.2172	537.1758	551.2000	524.1572	518.1914	514.1035	490.8945
ABSOLUTE VELOCITY	714.7145	714.3113	702.8993	698.4078	698.4456	688.5888	699.8892	708.6423	703.3768
MERIDIONAL VELOCITY	584.4203	595.7356	591.4571	537.6473	551.3209	526.7618	528.2518	528.2723	509.4218
ANGLE (DEG.)	35.3450	33.5551	32.6962	39.5576	37.7464	40.1031	41.4127	42.4495	44.5304
MACH NO.	0.6133	0.6150	0.6076	0.5996	0.6083	0.6011	0.6136	0.6206	0.6159
WEIGHT FLOW	13.9136	9.6370	16.8274	24.8281	29.6918	22.2000	10.6448	4.7022	6.5721
WHEEL SPEED	1359.6198	1327.4662	1294.1948	1206.7189	1081.5287	935.4563	838.3337	804.1524	773.0316
RELAT. TANG. VELOC.	949.6430	934.8700	915.9764	762.1684	654.0227	493.1797	380.3949	332.9761	289.1290
RELATIVE FLOW ANGLE	58.3916	57.4933	57.1493	54.8003	49.8703	43.1143	35.7578	32.2238	29.5777
RELATIVE VELOCITY	1115.0644	1108.5499	1090.3368	932.7191	855.3948	721.5983	650.9609	624.4554	585.7525
RELATIVE MACH NO.	0.9569	0.9544	0.9426	0.8007	0.7450	0.6300	0.5707	0.5468	0.5129
DEVIATION	2.3916	1.1933	1.2493	3.6003	2.8703	4.4143	7.8578	9.3238	10.9777
AIR TURNING ANGLE	7.3047	6.4427	5.8105	6.1383	7.7546	11.1400	14.5325	17.1688	18.9885
REL. MACH NO. (WHL.)	1.0664	1.0502	1.0294	0.9753	0.8923	0.7886	0.7171	0.6912	0.6676
IDEAL PRESS. RATIO	0.9568	0.9628	0.9713	0.9878	1.0041	1.0195	1.0382	1.0449	1.0543
ROTOR PRESS. RATIO	1.5169	1.5258	1.5209	1.5156	1.5107	1.4743	1.4609	1.4587	1.4438
ROTOR TEMP. RATIO	1.1721	1.1647	1.1532	1.1674	1.1361	1.1289	1.1227	1.1269	1.1258
ADIABATIC EFFY.	0.7331	0.7773	0.8293	0.7523	0.9175	0.9087	0.9311	0.8965	0.8781
POLYTR. EFFICIENCY	0.7483	0.7902	0.8391	0.7663	0.9222	0.9135	0.9347	0.9018	0.8843
TOTAL LOSS COEFF.	0.1824	0.1518	0.1131	0.1883	0.0604	0.0753	0.0627	0.1036	0.1317
SHOCK LOSS COEFF.	0.0221	0.0322	0.0395	0.0652	0.0373	0.0110	0.0022	-0.0003	-0.0031
PROFILE LOSS COEFF.	0.1603	0.1196	0.0736	0.1231	0.0231	0.0643	0.0605	0.1039	0.1349
TOTAL LOSS PARAM.	0.0291	0.0246	0.0183	0.0320	0.0112	0.0153	0.0137	0.0229	0.0293
PROFILE LOSS PARAM.	0.0256	0.0193	0.0119	0.0209	0.0043	0.0131	0.0132	0.0230	0.0300
ROTOR DIFFUS. FACT.	0.3469	0.3322	0.3306	0.4167	0.4186	0.4651	0.4852	0.4903	0.5072
STATIC PRESS. (ALT.)	17.1515	17.3742	17.4220	17.4619	17.3372	17.0119	16.6745	16.5528	16.3705
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8540	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER			101	TIME	9H 38M 56S	UNIFORM INLET FLOW	STATOR ANGLE 3.	
MASS AVERAGED PT	21.8920	(22.0421)							
MASS AVERAGED TT	587.3416	(594.7309)							
TOTAL WEIGHT FLOW	138.6687	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	138.7496								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3630	5.6800	5.9500
TOTAL PRESSURE	22.1054	22.4229	22.3542	22.2628	22.2580	21.7174	21.4970	21.4606	21.1451
STATIC PRESSURE	16.8156	16.9286	17.0609	17.2395	17.1543	16.8403	16.4878	16.3641	16.2515
WEDGE PRESSURE	16.9114	17.0296	17.1562	17.3273	17.2444	16.9252	16.5770	16.4560	16.3383
TOTAL TEMPERATURE	611.2119	605.7504	599.0927	605.9088	589.8331	583.5821	580.1882	582.4792	581.9879
ANGLE (DEG.)	33.9419	31.9355	31.3996	38.5260	36.8275	38.7719	39.5320	40.2903	42.1246
MACH NO.	0.6377	0.6467	0.6336	0.6157	0.6216	0.6139	0.6275	0.6347	0.6250
ABSOLUTE VELOCITY	741.0158	748.4358	730.7552	715.9463	712.5805	702.2299	714.6652	723.5310	712.9644
SWIRL VELOCITY	412.7039	394.9752	379.9801	445.6592	427.1106	438.5165	451.4534	463.0923	472.8628
AXIAL VELOCITY	613.2021	633.6806	622.5182	559.7508	570.3613	545.9546	547.0424	546.2501	522.8788
WEIGHT FLOW	13.9092	9.7043	16.8226	24.8088	29.6883	22.1975	10.6303	4.6974	6.5625
CALCULATING PLANE									
ANGLE (DEG.)	34.1277	31.9144	31.0959	37.7310	35.7893	37.0990	37.8447	38.5422	40.2063
MACH NO.	0.6354	0.6480	0.6414	0.6291	0.6383	0.6334	0.6413	0.6475	0.6365
SWIRL VELOCITY	414.2346	396.1756	381.4608	446.7733	427.1106	435.2785	445.6773	456.9327	465.1980
AXIAL VELOCITY	610.1833	635.1245	631.4536	576.4077	591.4336	574.5569	572.6318	572.5702	549.3585
ABSOLUTE VELOCITY	738.5329	749.8084	739.0279	730.3842	730.3506	722.8031	729.1787	737.0063	725.0922
WEIGHT FLOW	13.9187	9.7079	16.8092	24.8104	29.3222	22.2029	10.6372	4.6970	6.5628
MERIDIONAL VELOCITY	610.4213	635.5930	631.9628	576.7952	591.4372	576.0312	576.1109	577.2492	555.1733
STATIC TEMPERATURE	565.6562	558.9080	553.6279	561.5509	545.4463	540.2848	536.1327	537.4664	538.4137
STATIC PRESS.(ALT.)	16.8476	16.9104	16.9520	17.0540	16.9213	16.5777	16.3021	16.1914	16.0996
MCL INCIDENCE	5.1410	2.6579	1.5010	6.7863	2.1395	2.9841	3.6847	4.3471	6.0219
SUC SUR INCIDENCE	-1.2822	-3.8655	-5.0640	0.5410	-3.9706	-3.2109	-2.7152	-2.1277	-0.5436
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 101 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.920 HUB STATIC PRES= 17.850

PCT IMMERSION	IN RADIUS	EX PL ANG	SOLIDITY	EX FLO ANG	INC ANG'SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.8500	-1.3000	738.5000	414.2000	565.7000	16.8000	22.1100
.100	13.1600	-7.5000	1.0600	6.5400	-3.9000	749.8000	396.2000	558.9000	16.9000	22.4200
.150	12.8300	-7.6000	1.0900	4.5200	-5.1000	739.0000	381.5000	553.6000	17.0000	22.3500
.282	12.0000	-8.4000	1.1700	4.9000	.5000	730.4000	446.7000	561.6000	17.0500	22.2600
.470	10.8200	-10.1000	1.3000	1.3000	-4.0000	730.4000	427.0000	545.4000	16.9200	22.2600
.689	9.4800	-9.8000	1.4700	.9000	-3.2000	722.8000	435.3000	540.3000	16.5800	21.7200
.850	8.5900	-9.2000	1.6200	1.6000	-2.7000	729.2000	445.7000	536.1000	16.3000	21.5000
.900	8.2700	-9.1000	1.6700	1.6000	-2.1000	737.0000	456.9000	537.5000	16.2000	21.4600
.937	8.0200	-9.0000	1.7300	2.1000	-.5000	725.1000	465.2000	538.4000	16.1000	21.1500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	605.9100	21.1900
.1000	13.1500	604.4200	22.1300
.1500	12.8400	598.8000	22.3600
.2822	11.9700	601.3700	22.0200
.4702	10.8300	588.2000	21.9100
.6887	9.5700	581.4800	21.6200
.8500	8.6700	580.0800	21.0400
.9000	8.4000	580.6000	20.8800
.9372	8.1200	583.8400	20.3800

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4406	.1733	.0829	.8871	10.2300	.4956	583.8049	500.7852	59.3012
.1000	.3324	.0525	.0246	.9293	11.0400	.5580	652.4624	648.2166	74.3134
.1500	.3044	-.0019	-.0009	.9879	9.1200	.5722	664.9193	662.8513	52.4003
.2822	.3471	.0461	.0196	1.5065	10.3000	.5523	644.4943	642.1388	55.0507
.4702	.3533	.0655	.0252	.9028	8.4000	.5464	631.0018	630.8394	14.3157
.6887	.3578	.0195	.0066	1.1252	7.7000	.5288	608.3027	608.2277	9.5548
.8500	.4068	.0885	.0273	.8153	7.8000	.4896	564.8103	564.3902	15.7648
.9000	.4287	.1103	.0330	.8575	7.7000	.4780	552.1548	551.9395	15.4171
.9372	.4731	.1525	.0440	.6836	8.1000	.4390	510.2134	509.8708	18.6961

PCT IMMERS	EX STAT PRES
.0500	17.9161
.1000	17.9123
.1500	17.9087
.2822	17.8985
.4702	17.8851
.6887	17.8704
.8500	17.8598
.9000	17.8566
.9372	17.8533

ROTOR INLET TRAVERSE PLANE	READING NUMBER	106	TIME	10H 32M 27S	UNIFORM INLET FLOW	STATOR ANGLE 3.			
SPEED (RPM)	11444.8720				DISTORTION INDEX	0.000			
ACTUAL ORIFICE FLOW	137.9053								
THETA	0.9956								
DELTA	0.9929								
MASS AVERAGED PT	14.5927	(14.6960)							
MASS AVERAGED TT	516.4110	(518.6881)							
TOTAL WEIGHT FLOW	143.5846	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	144.2828								
EQUIV. SPEED	11470.0767								
PERCENT SPEED	89.7431								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5728	14.6950	14.6830	14.6936	14.7323	14.7338	14.7103	14.7098	14.6557
STATIC PRESSURE	12.0365	11.7676	11.5245	11.2520	11.2785	11.4408	11.6911	11.9463	12.1418
WEDGE PRESSURE	12.2222	12.0340	11.8455	11.6521	11.6806	11.7964	11.9781	12.1776	12.3212
TOTAL TEMPERATURE	521.1118	520.2386	519.2939	519.0142	518.1962	517.7178	516.4998	517.5937	518.9184
ANGLE (DEG.)	1.7591	2.3295	1.9905	1.9020	1.3783	1.3957	1.7197	1.6494	2.0264
APPARENT MACH NO.	0.5075	0.5418	0.5623	0.5851	0.5854	0.5725	0.5497	0.5265	0.5040
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	12.3336	12.2551	12.0738	11.9404	11.9462	12.1117	12.3755	12.4257	12.4994
WEDGE PRESSURE	12.3624	12.2875	12.1095	11.9790	11.9853	12.1476	12.4059	12.4552	12.5267
ANGLE (DEG.)	1.3261	0.3295	0.5642	1.9365	2.7053	4.2545	6.2338	6.7756	6.7698
APPARENT MACH NO.	0.4904	0.5120	0.5318	0.5480	0.5509	0.5323	0.4991	0.4932	0.4788
MEASURING PLANE									
MACH NO.	0.4939	0.5158	0.5360	0.5525	0.5554	0.5365	0.5028	0.4968	0.4822
ABSOLUTE VELOCITY	538.5754	561.2705	582.0488	598.8934	601.8905	582.5132	547.8133	541.5864	526.3097
SWIRL VELOCITY	16.0634	22.3159	19.9010	19.7762	14.4772	14.0948	15.9316	14.8803	17.4332
WEIGHT FLOW	13.5432	9.8032	16.5466	26.7382	30.0077	23.4012	11.2399	5.5407	6.9493
AXIAL VELOCITY	523.0196	548.5713	572.6048	595.5025	601.6834	578.4833	530.6154	516.7497	492.7092
CALCULATING PLANE									
ANGLE (DEG.)	1.5892	2.0588	1.7817	1.7510	1.2693	1.2656	1.5017	1.3927	1.6750
SWIRL VELOCITY	16.3389	22.6277	20.1273	19.9387	14.4638	13.9402	15.5086	14.3425	16.6137
AXIAL VELOCITY	587.9231	628.4446	646.0435	651.2269	651.7407	629.9726	590.5421	588.9144	567.1208
MERIDIONAL VELOCITY	601.0577	637.3702	652.0767	653.3313	651.7448	633.2143	603.0723	609.6889	599.7983
ABSOLUTE VELOCITY	602.3014	638.7860	653.3975	654.6401	652.9074	634.3756	604.2959	610.8960	601.0877
MACH NO.	0.5558	0.5918	0.6063	0.6075	0.6058	0.5874	0.5578	0.5642	0.5546
WEIGHT FLOW	13.3798	9.8039	16.5570	26.7593	30.0122	23.4082	11.1658	5.5418	6.9563
WHEEL SPEED	1397.0435	1359.2369	1319.4586	1217.7507	1078.5147	913.7044	793.4124	748.4859	702.4981
RELAT. TANG. VELOC.	1380.7042	1336.6092	1299.3311	1197.8120	1064.0509	899.7642	777.9037	734.1433	685.8843
RELATIVE FLOW ANGLE	66.4754	64.5058	63.3502	61.3905	58.5122	54.8640	52.2154	50.2913	48.8308
RELATIVE VELOCITY	1505.8597	1480.7984	1453.7760	1364.4028	1247.7878	1100.2435	984.2917	954.2990	911.1505
RELATIVE MACH NO.	1.3897	1.3719	1.3490	1.2663	1.1578	1.0188	0.9035	0.8814	0.8407
MCL INCIDENCE	4.2754	3.3058	2.8501	2.9905	2.4122	2.5640	3.8154	2.2913	0.9308
SURFACE INCIDENCE	2.0754	1.3058	0.7502	0.5905	0.0122	-0.1359	0.1154	-1.5086	-3.1691
RELATIVE TOTAL PRESS	38.6938	37.5005	35.7908	31.6171	27.4391	23.4431	21.1313	20.6037	19.8587
STATIC TEMPERATURE	490.7533	486.1473	483.6889	483.2927	482.7188	484.2563	486.2056	486.5706	488.8075
RELAT. TOTAL TEMP.	680.5206	669.3473	659.9473	638.4630	612.2962	584.9098	566.5759	562.2744	557.9945
STATIC PRESS. (ALT.)	11.8134	11.5939	11.4534	11.4505	11.4963	11.6637	11.9077	11.8504	11.8906
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5515	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	106	TIME	10H 32M 27S	UNIFORM INLET FLOW	STATOR ANGLE	3.00
MASS AVERAGED PT	22.5522	(22.7117)					
MASS AVERAGED TT	598.5466	(601.1957)					
TOTAL WEIGHT FLOW	135.0023	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	135.6588						

PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0,	104 DEG.							
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	23.1772	23.6249	23.4590	23.1496	22.7029	21.9991	21.6036	21.4291	21.5914
STATIC PRESSURE	17.5151	17.2459	17.0679	16.7716	16.6957	16.2735	16.0092	15.9234	16.0270
WEDGE PRESSURE	18.2611	18.1718	18.0033	17.7153	17.5505	17.0753	16.7900	16.6848	16.7988
TOTAL TEMPERATURE	620.3714	616.3206	608.9847	613.4796	594.6461	586.6539	583.0947	581.7969	586.9167
ANGLE (DEG.)	37.8076	34.8802	34.2084	41.1252	39.4633	41.6038	41.5557	42.7543	45.9163
APPARENT MACH NO.	0.5939	0.6242	0.6269	0.6304	0.6178	0.6128	0.6114	0.6088	0.6098

PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0,	300 DEG.							
STATIC PRESSURE	17.6828	17.7355	17.8591	17.9775	17.7418	17.3554	16.9973	16.8485	16.7239
WEDGE PRESSURE	17.7818	17.8450	17.9604	18.0673	17.8268	17.4336	17.0754	16.9261	16.8089
ANGLE (DEG.)	34.9360	29.0144	34.2568	31.4530	34.2150	35.5399	36.6744	37.3158	38.0777
APPARENT MACH NO.	0.6273	0.6462	0.6298	0.6059	0.5981	0.5862	0.5899	0.5905	0.6090

MEASURING PLANE									
MACH NO.	0.6342	0.6536	0.6367	0.6122	0.6042	0.5921	0.5958	0.5964	0.6154
ABSOLUTE VELOCITY	742.9427	762.0684	740.2014	716.5313	697.4729	680.0926	682.8745	682.0169	704.3615
SWIRL VELOCITY	454.3908	434.8514	415.3788	470.9912	443.2872	450.3981	449.7634	458.5975	500.9655
WEIGHT FLOW	13.6874	9.8118	16.9395	24.4979	28.4907	20.9650	9.9954	4.3432	6.1856
AXIAL VELOCITY	585.6386	623.8056	611.0196	539.4297	538.4542	507.2297	507.3716	496.0349	485.1952

CALCULATING PLANE									
SWIRL VELOCITY	451.3882	432.2318	413.4528	469.8195	443.6972	454.2599	456.2193	466.6030	512.6612
AXIAL VELOCITY	551.9280	588.4163	577.9335	517.9760	521.3927	488.5298	480.0666	467.5198	455.9010
ABSOLUTE VELOCITY	719.2524	734.8046	714.0108	700.3865	685.4806	669.6133	669.8049	670.4466	698.3102
MERIDIONAL VELOCITY	558.9632	593.2247	581.1170	518.4307	521.5071	490.9573	489.3858	480.4048	473.1075
ANGLE (DEG.)	39.2269	36.2535	35.5330	42.1540	40.3431	42.8598	43.4813	44.8825	48.2915
MACH NO.	0.6124	0.6283	0.6125	0.5974	0.5931	0.5823	0.5836	0.5856	0.6097
WEIGHT FLOW	13.6914	9.8208	16.9462	24.5126	28.5142	20.9972	9.9859	4.3451	6.1885
WHEEL SPEED	1360.0952	1327.2549	1294.4498	1206.7445	1082.5206	934.7440	838.5497	803.5953	771.5469
RELAT. TANG. VELOC.	908.7068	895.0231	880.9969	736.9248	638.8233	480.4841	382.3303	336.9923	258.8858
RELATIVE FLOW ANGLE	58.4037	56.4636	56.5908	54.8736	50.7735	44.3824	37.9986	35.0488	28.6877
RELATIVE VELOCITY	1066.8590	1073.7699	1055.3919	901.0151	824.6603	686.9526	621.0281	586.8155	539.3075
RELATIVE MACH NO.	0.9084	0.9182	0.9054	0.7686	0.7135	0.5974	0.5411	0.5125	0.4709
DEVIATION	2.4037	0.1636	0.6908	3.6736	3.7735	5.6824	10.0986	12.1488	10.0877
AIR TURNING ANGLE	8.0717	8.0421	6.7593	6.5169	7.7386	10.4815	14.2158	15.2424	20.1431
REL. MACH NO. (WHL.)	1.0666	1.0486	1.0289	0.9750	0.8922	0.7879	0.7173	0.6907	0.6666
IDEAL PRESS. RATIO	0.9568	0.9629	0.9714	0.9878	1.0041	1.0194	1.0382	1.0449	1.0541
ROTOR PRESS. RATIO	1.5904	1.6076	1.5976	1.5754	1.5410	1.4931	1.4639	1.4567	1.4732
ROTOR TEMP. RATIO	1.1904	1.1846	1.1727	1.1820	1.1475	1.1331	1.1289	1.1240	1.1310
ADIABATIC EFFY.	0.7422	0.7846	0.8276	0.7601	0.8900	0.9101	0.8997	0.9139	0.8922
POLYTR. EFFICIENCY	0.7584	0.7985	0.8385	0.7749	0.8965	0.9151	0.9049	0.9183	0.8979
TOTAL LOSS COEFF.	0.1929	0.1615	0.1264	0.1962	0.0865	0.0769	0.0991	0.0865	0.1225
SHOCK LOSS COEFF.	0.0255	0.0318	0.0398	0.0646	0.0359	0.0100	0.0005	-0.0011	-0.0035
PROFILE LOSS COEFF.	0.1673	0.1296	0.0865	0.1316	0.0505	0.0668	0.0986	0.0876	0.1260
TOTAL LOSS PARAM.	0.0308	0.0269	0.0208	0.0333	0.0158	0.0153	0.0210	0.0185	0.0274
PROFILE LOSS PARAM.	0.0267	0.0216	0.0142	0.0223	0.0092	0.0133	0.0209	0.0187	0.0282
ROTOR DIFFUS. FACT.	0.3816	0.3622	0.3594	0.4418	0.4435	0.4939	0.4994	0.5191	0.5596
STATIC PRESS. (ALT.)	17.9969	18.1107	18.2137	18.1884	17.8968	17.4860	17.1540	16.9901	16.7999
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SPLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8540	1.9100	1.9440
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	106	TIME	10H 32M 27S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
MASS AVERAGED PT	22.5521	(22.7116)							
MASS AVERAGED TT	598.5446	(601.1838)							
TOTAL WEIGHT FLOW	135.0119	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	135.6684								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	23.1772	23.6249	23.4590	23.1496	22.7029	21.9991	21.6036	21.4291	21.5914
STATIC PRESSURE	17.6828	17.7355	17.8591	17.9775	17.7418	17.3554	16.9973	16.8485	16.7239
WEDGE PRESSURE	17.7818	17.8450	17.9604	18.0673	17.8268	17.4336	17.0754	16.9261	16.8089
TOTAL TEMPERATURE	620.3713	616.3204	608.9846	613.4795	594.6460	586.6537	583.0946	581.7969	586.9165
ANGLE (DEG.)	37.8076	34.8802	34.2084	41.1252	39.4633	41.6038	41.5557	42.7543	45.9163
MACH NO.	0.6342	0.6536	0.6367	0.6122	0.6042	0.5921	0.5958	0.5964	0.6154
ABSOLUTE VELOCITY	742.9426	762.0682	740.2015	716.5312	697.4729	680.0925	682.8743	682.0172	704.3614
SWIRL VELOCITY	454.3907	434.8512	415.3788	470.9910	443.2872	450.3979	449.7632	458.5976	500.9654
AXIAL VELOCITY	585.6385	623.8054	611.0199	539.4298	538.4542	507.2298	507.3714	496.0351	485.1951
WEIGHT FLOW	13.6874	9.8118	16.9395	24.4979	28.4907	20.9650	9.9954	4.3432	6.1856
CALCULATING PLANE									
ANGLE (DEG.)	37.9919	34.8484	33.8383	40.3364	37.9445	39.9540	39.8861	40.9917	44.0197
MACH NO.	0.6325	0.6551	0.6452	0.6244	0.6261	0.6081	0.6071	0.6068	0.6236
SWIRL VELOCITY	456.0761	436.1729	416.9975	472.1683	443.2872	447.0721	444.0038	452.4978	492.8451
AXIAL VELOCITY	582.9239	625.4425	621.0030	555.0458	567.5158	532.6681	530.2828	519.6894	509.0060
ABSOLUTE VELOCITY	741.1061	763.7125	749.2668	729.7586	720.9165	697.2386	694.8710	693.0542	713.1199
WEIGHT FLOW	13.6966	9.8175	16.9522	24.4999	28.5251	20.9757	10.0057	4.3492	6.1896
MERIDIONAL VELOCITY	583.1513	625.9040	621.5038	555.4189	567.5193	534.0348	533.5046	523.9362	514.3938
STATIC TEMPERATURE	574.5605	567.7439	562.2963	569.2244	551.4902	546.3127	543.1167	541.9419	544.6195
STATIC PRESS.(ALT.)	17.7074	17.7127	17.7346	17.8025	17.4339	17.1390	16.8481	16.7121	16.6133
MCL INCIDENCE	9.0067	5.5941	4.2456	9.3935	4.2947	5.8465	5.7384	6.8167	9.8756
SUC SUR INCIDENCE	2.5819	-0.9315	-2.3216	3.1464	-1.8154	-0.3559	-0.6738	0.3217	3.2696
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 106 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 516.686
 OUTER WALL STATIC PRES= 18.750 HUB STATIC PRES= 18.600

PCT IM- MERSION	IN RADIUS	EX FL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	.5000	2.6000	741.0000	456.0000	574.6000	17.7100	23.1700
.100	13.1600	-7.5000	1.0600	6.7600	-9.9000	763.7000	436.2000	567.7000	17.7100	23.6200
.150	12.8300	-7.6000	1.0900	5.4000	-2.3000	749.3000	417.0000	562.3000	17.7300	23.4600
.282	12.0000	-8.4000	1.1700	5.4000	3.1400	729.8000	472.2000	569.2200	17.8000	23.1500
.470	10.8200	-10.1000	1.3000	1.4000	-1.8000	721.0000	443.3000	551.5000	17.4300	22.7000
.689	9.4800	-9.8000	1.4700	1.4000	-3.6000	797.2000	447.0000	546.3000	17.1400	22.0000
.850	8.5900	-9.2000	1.6200	2.1000	-6.8000	694.9000	444.0000	543.1000	16.8500	21.6100
.900	8.2700	-9.1000	1.6700	2.0000	.3000	693.0000	452.5000	541.9000	16.7100	21.4300
.937	8.0200	-9.0000	1.7300	1.8700	3.2700	713.0000	492.8000	544.6000	16.6100	21.5900

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	614.4000	22.3200
.1000	13.1500	612.6700	23.1500
.1500	12.8400	607.0000	23.2800
.2822	11.9700	606.3400	22.8500
.4702	10.8300	592.0000	22.4300
.6887	9.5700	584.3500	21.9400
.8500	8.6700	581.7600	21.1100
.9000	8.4000	582.4000	21.0000
.9372	8.1200	586.0400	20.7200

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4835	.1557	.0748	.9489	4.9000	.5059	599.5606	599.5377	5.2321
.1000	.3611	.0795	.0373	1.0190	11.2600	.5583	657.2505	652.6812	77.3654
.1500	.3319	.0314	.0143	1.0921	10.0000	.5664	663.1511	660.2080	62.4080
.2822	.3698	.0561	.0239	2.3711	10.8000	.5426	636.4175	633.5931	59.8922
.4702	.3932	.0512	.0197	1.0645	8.5000	.5183	602.2521	602.0723	14.7143
.6887	.4753	.0123	.0042	1.1542	8.2000	.4879	564.8823	564.7137	13.8013
.8500	.4743	.1050	.0324	.8674	8.3000	.4272	496.0832	495.7500	18.1783
.9000	.4841	.0911	.0273	.8196	8.1000	.4187	486.8153	486.5187	16.9896
.9372	.5450	.1747	.0505	.7614	7.8700	.3950	461.5949	461.3490	15.0627

PCT IMMERS	EX STAT PRES
.0500	18.7416
.1000	18.7336
.1500	18.7258
.2822	18.7039
.4702	18.6753
.6887	18.6436
.8500	18.6210
.9000	18.6142
.9372	18.6072

ROTOR INLET TRAVERSE PLANE	READING NUMBER	104	TIME	10H	4M	26S	UNIFORM INLET FLOW	STATUS	ANGLE	3.
SPEED (RPM)	12102.7696						DISTORTION INDEX	0.000		
ACTUAL ORIFICE FLOW	149.5966									
THETA	0.9887									
DELTA	0.9907									
MASS AVERAGED PT	14.5596	(14.6960)								
MASS AVERAGED TT	512.8499	(518.6881)								
TOTAL WEIGHT FLOW	154.4632	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	155.0296									
EQUIV. SPEED	12171.4645									
PERCENT SPEED	95.2309									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.5253	14.6814	14.7194	14.7274	14.7295	14.7229	14.7136	14.7031	14.6116	
STATIC PRESSURE	11.1348	10.9226	10.7541	10.4053	10.5404	10.8402	10.9692	11.2271	11.4600	
WEDGE PRESSURE	11.5269	11.4204	11.3172	11.1025	11.1830	11.3759	11.4610	11.6370	11.7815	
TOTAL TEMPERATURE	519.8630	519.3695	519.6315	518.4542	518.8523	518.3735	517.6385	517.3686	517.2405	
ANGLE (DEG.)	1.6791	2.0943	2.3044	2.9063	2.2090	1.9172	1.5804	1.4808	1.8444	
APPARENT MACH NO.	0.5842	0.6098	0.6243	0.6482	0.6397	0.6182	0.6081	0.5876	0.5630	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.7317	11.6935	11.6057	11.4778	11.4545	11.5449	11.7076	11.8628	11.9115	
WEDGE PRESSURE	11.7713	11.7369	11.6516	11.5267	11.5039	11.5922	11.7513	11.9030	11.9491	
ANGLE (DEG.)	7.2582	2.7435	2.7128	2.8242	4.2591	5.1359	6.3027	6.9421	5.9938	
APPARENT MACH NO.	0.5562	0.5745	0.5875	0.6020	0.6047	0.5944	0.5758	0.5576	0.5437	
MEASURING PLANE										
MACH NO.	0.5608	0.5794	0.5926	0.6074	0.6102	0.5996	0.5807	0.5622	0.5481	
ABSOLUTE VELOCITY	607.3795	626.2894	639.6139	654.5338	657.2810	646.7092	627.5992	608.8383	594.4221	
SWIRL VELOCITY	17.2912	22.3886	25.3165	33.0174	25.3340	21.4932	16.7737	15.0190	17.9215	
WEIGHT FLOW	14.7596	10.5988	17.7012	28.4567	31.8021	25.1083	12.3788	6.0341	7.5988	
AXIAL VELOCITY	589.8601	612.2119	629.1104	650.3540	656.7565	642.0685	607.9363	580.9601	556.5258	
CALCULATING PLANE										
ANGLE (DEG.)	1.4620	1.8145	2.0326	2.6463	2.0134	1.7168	1.3485	1.2310	1.4991	
SWIRL VELOCITY	17.5879	22.7014	25.6044	33.2887	25.3105	21.2576	16.3284	14.4761	17.0790	
AXIAL VELOCITY	688.1093	715.5714	720.4149	719.2204	718.9446	708.2108	692.6054	672.6477	651.5823	
MERIDIONAL VELOCITY	703.4820	725.7346	727.1425	721.5447	718.9490	711.8549	707.3020	696.3759	689.1265	
ABSOLUTE VELOCITY	704.7283	727.1083	728.6066	723.3201	720.3992	713.1830	708.5132	697.5687	690.4030	
MACH NO.	0.6579	0.6807	0.6822	0.6768	0.6738	0.6665	0.6617	0.6506	0.6434	
WEIGHT FLOW	14.7658	10.6039	17.7043	28.4741	31.8090	25.1247	12.3454	6.0324	7.6023	
WHEEL SPEED	1484.2507	1443.5595	1399.6877	1292.9131	1143.7413	968.9637	841.0025	794.4280	746.6635	
RELAT. TANG. VELOC.	1466.6628	1420.8580	1374.0831	1259.6242	1118.4308	947.7060	824.6740	779.9518	729.5843	
RELATIVE FLOW ANGLE	64.3756	62.9435	62.1131	60.1950	57.2665	53.0887	49.3813	48.2402	46.6336	
RELATIVE VELOCITY	1626.6486	1595.4709	1554.6190	1451.6471	1329.5767	1185.2782	1086.4451	1045.5927	1003.5879	
RELATIVE MACH NO.	1.5186	1.4937	1.4557	1.3583	1.2437	1.1077	1.0147	0.9752	0.9353	
MCL INCIDENCE	2.1756	1.7435	1.6131	1.7950	1.1665	0.7887	0.9813	0.2402	-1.2663	
SURFACE INCIDENCE	-0.0243	-0.2564	-0.4868	-0.6049	-1.2334	-1.9112	-2.7186	-3.5597	-5.3663	
RELATIVE TOTAL PRESS	44.2568	42.5464	39.9820	34.4676	29.4286	24.8920	22.5524	21.8262	20.9467	
STATIC TEMPERATURE	478.3956	475.2679	475.3258	474.8868	475.6033	476.0251	475.9008	476.9319	477.6400	
RELAT. TOTAL TEMP.	699.3236	687.6088	677.0323	650.3644	622.9213	592.9948	574.0396	567.7821	561.3168	
STATIC PRESS. (ALT.)	10.8612	10.7648	10.7781	10.8349	10.8645	10.9286	10.9651	11.0616	11.0596	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE		READING NUMBER		104	TIME 10H 4M 26S			UNIFORM INLET FLOW		STATOR ANGLE 3.00	
MASS AVERAGED PT	20.3155	(20.5057)									
MASS AVERAGED TT	575.6548	(582.2080)									
TOTAL WEIGHT FLOW	155.0128	(PROBE INTEGRATION)									
CORR. TOTAL FLOW	155.5812										
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0,		104	DEG.						
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500		
TOTAL PRESSURE	20.4420	19.8778	19.8274	20.3298	20.4685	20.8986	21.2243	21.3746	20.7587		
STATIC PRESSURE	13.7614	13.5323	13.4462	13.7318	14.1945	14.5040	14.5290	14.5291	14.2087		
WEDGE PRESSURE	14.8566	14.5657	14.4878	14.8114	15.2052	15.5336	15.6138	15.6449	15.2720		
TOTAL TEMPERATURE	584.2043	578.8533	578.7727	590.6081	580.7247	579.1216	580.0196	580.3427	580.8895		
ANGLE (DEG.)	19.8517	19.5003	21.1828	27.1989	28.1818	31.4113	31.9144	32.8373	34.5258		
APPARENT MACH NO.	0.6910	0.6816	0.6848	0.6882	0.6658	0.6651	0.6759	0.6829	0.6770		
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0,		300	DEG.						
STATIC PRESSURE	14.1509	14.1389	13.8522	14.4392	14.7127	14.9846	14.8896	14.7439	14.6683		
WEDGE PRESSURE	14.2942	14.2559	13.9774	14.5596	14.8281	15.1036	15.0215	14.8854	14.7938		
ANGLE (DEG.)	14.2089	11.9758	17.8491	19.7927	26.5426	26.1519	27.7051	28.2118	28.8537		
APPARENT MACH NO.	0.7336	0.7059	0.7248	0.7075	0.6946	0.6973	0.7205	0.7380	0.7129		
MEASURING PLANE											
MACH NO.	0.7437	0.7150	0.7345	0.7167	0.7034	0.7061	0.7301	0.7482	0.7222		
ABSOLUTE VELOCITY	835.0704	802.6139	822.1808	813.1087	792.4094	794.5132	820.1238	838.8945	813.0756		
SWIRL VELOCITY	282.6610	267.1547	296.3962	371.3523	374.2148	412.6905	429.6042	449.2671	454.4918		
WEIGHT FLOW	15.9973	10.2333	17.7632	28.1058	32.1991	25.1525	12.3934	5.5562	7.6590		
AXIAL VELOCITY	782.9052	754.4089	764.8371	722.6108	698.4427	675.7983	689.8048	696.1334	660.6534		
CALCULATING PLANE											
SWIRL VELOCITY	280.7932	265.5453	295.0218	370.4285	374.5609	416.2290	435.7708	457.1098	465.1024		
AXIAL VELOCITY	725.2773	691.4512	711.3722	686.0258	670.6798	644.8340	646.2983	647.4739	614.3203		
ABSOLUTE VELOCITY	787.3137	746.9126	774.6772	781.0626	769.1911	771.0457	790.7764	808.0690	789.9794		
MERIDIONAL VELOCITY	734.5220	697.1017	715.2905	686.6280	670.8271	648.0382	658.8458	665.3184	637.5059		
ANGLE (DEG.)	21.1374	20.9810	22.4963	28.3324	29.1460	32.8009	33.9488	35.1798	37.0843		
MACH NO.	0.6969	0.6609	0.6879	0.6857	0.6808	0.6833	0.7013	0.7178	0.6997		
WEIGHT FLOW	16.0076	10.1415	17.7512	28.1111	32.2013	25.1731	12.4012	5.5603	7.6652		
WHEEL SPEED	1444.9963	1409.5937	1373.1584	1281.2271	1147.9894	991.2755	888.8470	852.9202	820.0533		
RELAT. TANG. VELOC.	1164.2029	1144.0484	1078.1365	910.7985	773.4283	575.0465	453.0762	395.8104	354.9509		
RELATIVE FLOW ANGLE	57.7514	58.6450	56.4378	52.9884	49.0637	41.5848	34.5157	30.7493	29.1083		
RELATIVE VELOCITY	1376.5501	1339.7000	1293.8388	1140.6193	1023.8164	866.3901	799.5971	774.1539	729.6599		
RELATIVE MACH NO.	1.2184	1.1854	1.1490	1.0014	0.9062	0.7678	0.7092	0.6877	0.6463		
DEFIATION	1.7514	2.3450	0.5379	1.7884	2.0637	2.8848	6.6157	7.8493	10.5083		
AIR TURNING ANGLE	6.6241	4.2984	5.6752	7.2065	8.2028	11.5038	14.8656	17.4909	17.5253		
REL. MACH NO. (WHL.)	1.1161	1.0975	1.0777	1.0249	0.9386	0.8303	0.7561	0.7294	0.7052		
IDEAL PRESS. RATIO	0.9528	0.9594	0.9686	0.9865	1.0045	1.0216	1.0425	1.0501	1.0607		
ROTOR PRESS. RATIO	1.4073	1.3539	1.3470	1.3804	1.3896	1.4194	1.4424	1.4537	1.4207		
ROTOR TEMP. RATIO	1.1237	1.1145	1.1138	1.1391	1.1192	1.1171	1.1205	1.1217	1.1230		
ADIABATIC EFFY.	0.8277	0.7889	0.7799	0.6924	0.8258	0.8974	0.9149	0.9260	0.8568		
POLYTR. EFFICIENCY	0.8358	0.7978	0.7890	0.7060	0.8337	0.9023	0.9192	0.9298	0.8637		
TOTAL LOSS COEFF.	0.0841	0.0978	0.1045	0.1857	0.1044	0.0708	0.0686	0.0639	0.1324		
SHOCK LOSS COEFF.	0.0117	0.0113	0.0119	0.0365	0.0600	0.0246	0.0095	0.0053	0.0021		
PROFILE LOSS COEFF.	0.0723	0.0864	0.0925	0.1492	0.0443	0.0461	0.0591	0.0586	0.1303		
TOTAL LOSS PARAM.	0.0136	0.0153	0.0172	0.0330	0.0197	0.0148	0.0152	0.0143	0.0296		
PROFILE LOSS PARAM.	0.0117	0.0135	0.0153	0.0265	0.0084	0.0096	0.0131	0.0131	0.0291		
ROTOR DIFFUS. FACT.	0.2092	0.2138	0.2276	0.2934	0.3153	0.3721	0.3791	0.3824	0.4013		
STATIC PRESS. (ALT.)	14.7793	14.8284	14.4482	14.8442	15.0089	15.2911	15.2836	15.1648	14.9704		
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534		
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000		
SOLIDITY	1.6400	1.8580	1.6700	1.6940	1.7300	1.7880	1.8540	1.9100	1.9540		
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000		

STATOR INLET TRAVERSE PLANE	READING NUMBER	104	TIME	10H	4M	26S	UNIFORM INLET FLOW	STATOR ANGLE	3.
MASS AVERAGED PT	20.3148	(20.5050)							
MASS AVERAGED TT	575.6535	(582.2066)							
TOTAL WEIGHT FLOW	155.0615	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	155.6301								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.4420	19.8778	19.8274	20.3298	20.4685	20.8986	21.2243	21.3746	20.7587
STATIC PRESSURE	14.1609	14.1389	13.8522	14.4392	14.7127	14.9846	14.8896	14.7439	14.6683
WEDGE PRESSURE	14.2942	14.2559	13.9774	14.5596	14.8281	15.1036	15.0215	14.8854	14.7938
TOTAL TEMPERATURE	584.2042	578.8532	578.7726	590.6080	580.7246	579.1215	580.0195	580.3426	580.8893
ANGLE (DEG.)	19.8517	19.5003	21.1828	27.1988	28.1818	31.4113	31.9144	32.8373	34.5258
MACH NO.	0.7437	0.7150	0.7345	0.7167	0.7034	0.7061	0.7301	0.7482	0.7222
ABSOLUTE VELOCITY	835.0703	802.6139	822.1803	813.1086	792.4094	794.5131	820.1238	838.8944	813.0752
SWIRL VELOCITY	282.6609	267.1547	296.3960	371.3522	374.2147	412.6903	429.6042	449.2669	454.4915
AXIAL VELOCITY	782.9051	754.4088	764.8368	722.6109	698.4430	675.7983	689.8048	696.1334	660.6530
WEIGHT FLOW	15.9973	10.2333	17.7632	28.1058	32.1991	25.1525	12.3934	5.5562	7.6590
CALCULATING PLANE									
ANGLE (DEG.)	20.0467	19.4746	20.8146	26.2949	26.5443	29.5937	30.1257	30.9196	32.7971
MACH NO.	0.7366	0.7166	0.7502	0.7437	0.7476	0.7421	0.7585	0.7771	0.7405
SWIRL VELOCITY	283.7093	267.9666	297.5510	372.2805	374.2147	409.6430	424.1029	443.2912	447.1245
AXIAL VELOCITY	776.5087	756.7773	781.7055	752.4154	748.1046	720.2826	729.8542	739.1071	692.8727
ABSOLUTE VELOCITY	827.9429	804.2930	837.9501	840.8326	837.3825	831.1064	848.8410	867.9080	831.6465
WEIGHT FLOW	16.0036	10.2402	17.7732	28.1230	32.2111	25.1575	12.3936	5.5572	7.6018
MERIDIONAL VELOCITY	776.8117	757.3353	782.3358	752.9211	748.1092	722.1307	734.2885	745.1467	700.2068
STATIC TEMPERATURE	527.0732	524.9811	520.2675	531.8562	522.3903	521.7082	520.2167	517.8561	523.5306
STATIC PRESS.(ALT.)	14.2543	14.1178	13.6507	14.0825	14.1266	14.4976	14.4975	14.3414	14.4224
MCL INCIDENCE	-8.9454	-9.7909	-8.7886	-4.6573	-7.1055	-4.5403	-4.0811	-3.3377	-1.4656
SUC SUR INCIDENCE	-15.3632	-16.3053	-15.3453	-10.8950	-13.2156	-10.7162	-10.4342	-9.7503	-7.9528
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 104 PCT DES SPD= 95.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.410 HUB STATIC PRES= 14.260

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	FX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.6800	-15.4000	827.9000	283.7000	527.1000	14.2500	20.4400
.100	13.1600	-7.5000	1.0600	3.8600	-16.3000	804.2000	267.9700	525.0000	14.1200	19.8800
.150	12.8300	-7.6000	1.0900	1.2600	-15.3000	838.0000	297.6000	520.3000	13.6500	19.8300
.282	12.0000	-8.4000	1.1700	2.7100	-10.9000	840.8000	372.3000	531.8600	14.0800	20.3300
.470	10.8200	-10.1000	1.3000	.8500	-13.2000	837.5000	374.2000	522.4000	14.1300	20.4700
.689	9.4800	-9.8000	1.4700	-.0300	-10.7200	831.0000	409.6000	521.7000	14.5000	20.9000
.850	8.5900	-9.2000	1.6200	.3700	-10.4000	849.0000	424.1000	520.2000	14.5000	21.2200
.900	8.2700	-9.1000	1.6700	.7000	-9.8000	868.0000	443.3000	517.9000	14.3400	21.3700
.937	8.0200	-9.0000	1.7300	.4900	-8.0000	831.6000	447.1000	523.5000	14.4200	20.7600

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	583.7500	19.1500
.1000	13.1500	577.7200	19.3300
.1500	12.8400	572.9100	19.5700
.2822	11.9700	583.8800	19.8400
.4702	10.8300	574.5200	19.9200
.6887	9.5700	573.9400	20.3600
.8500	8.6700	577.1200	20.4200
.9000	8.4000	578.3100	19.8300
.9372	8.1200	579.1500	18.6100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2428	.2084	.1000	.1463	8.0800	.6512	740.5271	739.0002	47.5300
.1000	.1965	.0955	.0449	.4792	8.3600	.6630	748.8749	747.1761	50.4133
.1500	.2454	.0421	.0193	1.7873	5.8600	.6779	761.1744	760.9903	16.7377
.2822	.2353	.0784	.0335	5.5102	8.1100	.6952	786.3607	785.4813	37.1797
.4702	.2268	.0868	.0334	3.7425	7.9500	.7020	786.9361	786.8495	11.6740
.6887	.1882	.0844	.0287	.7159	6.7700	.7285	813.4144	813.4143	-.4259
.8500	.1850	.1190	.0367	-2.6046	6.5700	.7334	820.6147	820.5975	5.2993
.9000	.2391	.2191	.0656	-.0801	6.8600	.7017	789.2313	789.1724	9.6420
.9372	.2924	.3391	.0980	-.1213	6.9900	.6280	713.2565	713.1500	12.3236

PCT IMMERS	EX STAT PRES
.0500	14.4016
.1000	14.3936
.1500	14.3858
.2822	14.3639
.4702	14.3353
.6887	14.3036
.8500	14.2810
.9000	14.2742
.9372	14.2672

ROTOR INLET TRAVERSE PLANE		READING NUMBER	105	TIME	10H 19M 23S	UNIFORM INLET FLOW	STATOR ANGLE 3.		
SPEED (RPM)	12131.5098					DISTORTION INDEX	0.000		
ACTUAL ORIFICE FLOW	149.4863								
THETA	0.9915								
DELTA	0.9912								
MASS AVERAGED PT	14.5666	(14.6960)							
MASS AVERAGED TT	514.3169	(518.6881)							
TOTAL WEIGHT FLOW	154.4774	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	155.1907								
EQUIV. SPEED	12182.9566								
PERCENT SPEED	95.3208								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5472	14.6720	14.7100	14.7230	14.7330	14.7182	14.7039	14.7042	14.6344
STATIC PRESSURE	11.2182	10.9638	10.7257	10.3938	10.4940	10.7932	10.8898	11.2651	11.5143
WEDGE PRESSURE	11.5915	11.4461	11.2956	11.0943	11.1567	11.3430	11.4043	11.6640	11.8275
TOTAL TEMPERATURE	519.7838	519.8505	519.3419	519.1323	518.8435	518.0906	517.0236	517.5623	516.6561
ANGLE (DEG.)	1.6247	2.1729	2.1741	2.7740	2.3944	1.9029	1.7534	1.6593	1.6709
APPARENT MACH NO.	0.5788	0.6061	0.6259	0.6487	0.6428	0.6214	0.6135	0.5847	0.5599
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	11.7547	11.7405	11.5962	11.4091	11.4187	11.5160	11.7378	11.8690	12.0215
WEDGE PRESSURE	11.7942	11.7827	11.6422	11.4594	11.4690	11.5638	11.7806	11.9092	12.0573
ANGLE (DEG.)	-1.3763	2.1802	1.9711	3.0858	4.2050	5.0119	6.3748	6.7341	6.4383
APPARENT MACH NO.	0.5556	0.5685	0.5877	0.6090	0.6088	0.5971	0.5716	0.5570	0.5333
MEASURING PLANE									
MACH NO.	0.5602	0.5733	0.5928	0.6146	0.6144	0.6024	0.5764	0.5616	0.5375
ABSOLUTE VELOCITY	606.7620	620.0585	639.8502	661.7097	661.5077	649.5118	623.2885	608.2162	583.5349
SWIRL VELOCITY	16.7146	22.9967	23.8943	31.8615	27.6358	21.4256	18.4818	16.8117	15.9386
WEIGHT FLOW	14.7591	10.5061	17.6839	28.6005	31.9031	25.1529	12.3087	6.0230	7.5098
AXIAL VELOCITY	589.2754	606.0916	629.3971	657.5588	660.8929	644.8562	603.7108	580.3213	546.3773
CALCULATING PLANE									
ANGLE (DEG.)	1.4151	1.8885	1.9181	2.5239	2.1810	1.7037	1.4892	1.3801	1.3618
SWIRL VELOCITY	17.0014	23.3180	24.1660	32.1233	27.6102	21.1906	17.9911	16.2040	15.1893
AXIAL VELOCITY	687.1795	706.1947	720.5910	727.7630	723.9491	711.4122	691.0231	671.5621	637.9394
MERIDIONAL VELOCITY	702.5313	716.2246	727.3202	730.1146	723.9536	715.0729	705.6852	695.2519	674.6977
ABSOLUTE VELOCITY	703.7624	717.6209	728.7341	731.8270	725.4832	716.3962	706.9413	696.4814	675.9325
MACH NO.	0.6569	0.6710	0.6823	0.6855	0.6790	0.6697	0.6611	0.6495	0.6288
WEIGHT FLOW	14.7640	10.5064	17.6840	28.6012	31.9047	25.1624	12.3177	6.0202	7.5163
WHEEL SPEED	1485.7652	1444.2536	1401.3998	1293.2881	1144.8311	970.1429	842.2959	795.0294	747.7909
RELAT. TANG. VELOC.	1468.7637	1420.9360	1377.2335	1261.1646	1117.2207	948.9523	824.3057	778.8252	732.6016
RELATIVE FLOW ANGLE	64.4377	63.2497	62.1615	59.9327	57.0571	53.0007	49.4334	48.2451	47.3563
RELATIVE VELOCITY	1628.1326	1591.2372	1557.4872	1457.2588	1331.2743	1188.2086	1085.1134	1044.0036	995.9527
RELATIVE MACH NO.	1.5198	1.4879	1.4584	1.3651	1.2461	1.1109	1.0133	0.9736	0.9266
MCL INCIDENCE	2.2377	2.0498	1.6615	1.5327	0.9571	0.7007	1.0334	0.2451	-0.5436
SURFACE INCIDENCE	0.0377	0.0497	-0.4384	-0.8672	-1.4428	-1.9992	-2.6655	-3.5548	-4.6436
RELATIVE TOTAL PRESS	44.4216	42.3640	40.1047	34.5837	29.4301	24.9285	22.5723	21.7975	20.9365
STATIC TEMPERATURE	478.4378	476.8546	475.0468	474.4784	474.9843	475.3845	475.5218	477.2381	478.7419
RELAT. TOTAL TEMP.	699.7276	688.2552	677.3793	651.5371	622.6705	592.8657	573.3016	567.8426	561.0556
STATIC PRESS. (ALT.)	10.8866	10.8486	10.7701	10.7497	10.8182	10.8945	10.9738	11.0727	11.2106
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	105	TIME	10H 19M 23S	UNIFORM INLET FLOW	STATOR ANGLE	9.00
MASS AVERAGED PT	21.7057	(21.8984)					
MASS AVERAGED TT	589.8619	(594.8752)					
TOTAL WEIGHT FLOW	152.1196	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	152.8221						

PROBE TYPE - NASA 4 PARAMETER	LOCATION	- STA 9.0,	104 DEG.						
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.2022	21.8030	21.8119	21.4801	21.9574	22.1831	22.1730	21.6540	21.5397
STATIC PRESSURE	15.5643	15.2745	15.0085	15.0749	15.4130	15.3931	15.2721	15.0008	14.9917
WEDGE PRESSURE	16.6211	16.3142	16.1038	16.0939	16.4539	16.4807	16.3825	16.0675	16.0344
TOTAL TEMPERATURE	608.5292	597.4287	593.3305	605.9682	591.3640	589.0590	586.3350	585.1413	583.1738
ANGLE (DEG.)	27.2517	25.1524	25.6581	34.9174	33.1755	34.3623	35.0803	36.5341	38.8570
APPARENT MACH NO.	0.6568	0.6573	0.6730	0.6558	0.6556	0.6657	0.6721	0.6671	0.6630

PROBE TYPE - NASA 2 PARAMETER	LOCATION	- STA 9.0,	300 DEG.						
STATIC PRESSURE	15.7459	15.6518	15.8899	16.2220	16.2068	16.1872	15.8796	15.7196	15.5641
WEDGE PRESSURE	15.8781	15.7754	16.0060	16.3186	16.3170	16.3044	16.0065	15.8367	15.6828
ANGLE (DEG.)	13.0460	15.9378	13.5722	25.0922	30.6063	30.1851	30.7519	31.1290	31.6429
APPARENT MACH NO.	0.7091	0.6961	0.6800	0.6392	0.6654	0.6781	0.6986	0.6838	0.6889

MEASURING PLANE									
MACH NO.	0.7184	0.7049	0.6883	0.6464	0.6733	0.6864	0.7075	0.6923	0.6975
ABSOLUTE VELOCITY	825.9975	804.4534	784.9171	748.8246	768.3134	781.0602	801.8448	784.9291	789.6572
SWIRL VELOCITY	377.1302	341.0108	339.1269	428.3257	420.4076	439.4621	456.9299	461.9742	489.3104
WEIGHT FLOW	15.8462	10.5329	18.1056	25.6701	31.7953	25.2468	12.2408	5.1825	7.3830
AXIAL VELOCITY	732.1915	726.2524	705.9746	613.5952	643.0532	642.7271	650.6226	623.5477	607.3431

CALCULATING PLANE									
SWIRL VELOCITY	374.6381	338.9565	337.5544	427.2601	420.7966	443.2303	463.4888	470.0386	500.7340
AXIAL VELOCITY	683.1668	679.1106	663.3854	587.2295	620.5280	614.9498	611.5606	584.0981	567.5045
ABSOLUTE VELOCITY	787.6873	764.8770	748.4863	727.4457	750.6938	761.3361	777.6700	763.1596	773.8188
MERIDIONAL VELOCITY	691.8748	684.6601	667.0394	587.7450	620.6641	618.0054	623.4336	600.1961	588.9232
ANGLE (DEG.)	28.7043	26.4909	26.9337	35.9927	34.0993	35.7382	37.1125	38.7765	41.3731
MACH NO.	0.6819	0.6670	0.6536	0.6264	0.6565	0.6675	0.6841	0.6713	0.6821
WEIGHT FLOW	15.8559	10.5408	18.1230	25.6813	31.8304	25.2688	12.2420	5.1875	7.3895
WHEEL SPEED	1446.4704	1410.2718	1374.8380	1281.5989	1149.0831	992.4821	890.2151	853.5655	821.2918
RELAT. TANG. VELOC.	1071.8324	1071.3152	1037.2834	854.3387	728.2864	549.2517	426.7263	383.5269	320.5578
RELATIVE FLOW ANGLE	57.1577	57.4182	57.2566	55.4740	49.5617	41.6292	34.3908	32.5788	28.5600
RELATIVE VELOCITY	1275.7411	1271.4067	1233.2470	1036.9852	956.8828	826.8058	755.4896	712.2695	670.5130
RELATIVE MACH NO.	1.1044	1.1088	1.0769	0.8930	0.8368	0.7249	0.6646	0.6265	0.5911
DEVIATION	1.1577	1.1182	1.3566	4.2740	2.5617	2.9292	6.4908	9.6788	9.9600
AIR TURNING ANGLE	7.2800	5.8315	4.9049	4.4587	7.4954	11.3715	15.0425	15.6662	18.7962
REL. MACH NO. (WHL.)	1.1171	1.0981	1.0785	1.0250	0.9397	0.8312	0.7574	0.7300	0.7060
IDEAL PRESS. RATIO	0.9527	0.9594	0.9686	0.9865	1.0045	1.0216	1.0426	1.0502	1.0609
ROTOR PRESS. RATIO	1.5262	1.4860	1.4827	1.4589	1.4903	1.5071	1.5079	1.4726	1.4717
ROTOR TEMP. RATIO	1.1707	1.1492	1.1424	1.1672	1.1397	1.1369	1.1340	1.1305	1.1287
ADIABATIC EFFY.	0.7505	0.8017	0.8350	0.6800	0.8627	0.9067	0.9278	0.8945	0.9058
POLYTR. EFFICIENCY	0.7648	0.8124	0.8439	0.6965	0.8703	0.9119	0.9318	0.9001	0.9108
TOTAL LOSS COEFF.	0.1578	0.1159	0.0957	0.2234	0.0947	0.0737	0.0642	0.0968	0.0924
SHOCK LOSS COEFF.	0.0118	0.0114	0.0118	0.0342	0.0607	0.0254	0.0093	0.0051	0.0015
PROFILE LOSS COEFF.	0.1460	0.1044	0.0838	0.1892	0.0339	0.0483	0.0548	0.0916	0.0908
TOTAL LOSS PARAM.	0.0261	0.0188	0.0155	0.0373	0.0177	0.0154	0.0142	0.0213	0.0207
PROFILE LOSS PARAM.	0.0241	0.0169	0.0135	0.0316	0.0063	0.0101	0.0121	0.0202	0.0204
ROTOR DIFFUS. FACT.	0.2879	0.2667	0.2750	0.3769	0.3753	0.4124	0.4252	0.4427	0.4647
STATIC PRESS. (ALT.)	16.2670	16.1803	16.3727	16.4905	16.4411	16.4549	16.2124	16.0099	15.7755
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER			105	TIME	10H 19M 23S	UNIFORM INLET FLOW			STATOR ANGLE	3.
MASS AVERAGED PT	21.7057	(21.8984)									
MASS AVERAGED TT	589.8622	(594.8754)									
TOTAL WEIGHT FLOW	152.0706	(PROBE INTEGRATION)									
EQUIV. WEIGHT FLOW	152.7728										
MEASURING PLANE											
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500		
TOTAL PRESSURE	22.2022	21.8030	21.8119	21.4801	21.9573	22.1831	22.1730	21.6540	21.5387		
STATIC PRESSURE	15.7459	15.6518	15.8899	16.2220	16.2068	16.1872	15.8796	15.7196	15.5641		
WEDGE PRESSURE	15.8781	15.7754	16.0060	16.3186	16.3170	16.3044	16.0055	15.8367	15.6828		
TOTAL TEMPERATURE	608.5291	597.4286	593.3304	605.9681	591.3639	589.0589	586.3348	585.1412	583.1737		
ANGLE (DEG.)	27.2517	25.1524	25.6581	34.9174	33.1755	34.3623	35.0803	36.5341	38.8570		
MACH NO.	0.7184	0.7049	0.6883	0.6464	0.6733	0.6864	0.7075	0.6923	0.6975		
ABSOLUTE VELOCITY	825.9974	804.4534	784.9171	748.8249	768.3137	781.0601	801.8448	784.9290	789.6572		
SWIRL VELOCITY	377.1301	341.0107	339.1267	428.3257	420.4077	439.4619	456.9298	461.9741	489.3103		
AXIAL VELOCITY	732.1914	726.2525	705.9745	613.5955	643.0536	642.7269	650.6227	623.5476	607.3431		
WEIGHT FLOW	15.8462	10.5329	18.1056	25.6701	31.7953	25.2468	12.2408	5.1825	7.3830		
CALCULATING PLANE											
ANGLE (DEG.)	27.4626	25.1280	25.2888	34.0920	31.5468	32.5932	33.2887	34.6923	36.8215		
MACH NO.	0.7136	0.7063	0.7004	0.6629	0.7072	0.7156	0.7304	0.7120	0.7159		
SWIRL VELOCITY	378.5289	342.0471	340.4483	429.3964	420.4077	436.2170	451.0786	455.8293	481.3788		
AXIAL VELOCITY	727.3068	728.2634	719.5874	633.4048	683.7856	681.2678	685.9939	657.4874	641.9644		
ABSOLUTE VELOCITY	821.0562	805.9843	797.4924	766.4181	803.5453	811.2785	825.3442	805.3004	808.6624		
WEIGHT FLOW	15.8520	10.5379	18.1194	25.6737	31.8243	25.2397	12.2498	5.1855	7.3877		
MERIDIONAL VELOCITY	727.5905	728.8005	720.1676	633.8304	683.7898	683.0157	690.1619	662.8603	648.7595		
STATIC TEMPERATURE	552.4044	543.3156	540.3965	557.1198	537.6715	534.4034	529.8739	531.3361	529.0098		
STATIC PRESS.(ALT.)	15.8138	15.6311	15.7204	15.9977	15.7296	15.7701	15.5513	15.4442	15.3075		
MCL INCIDENCE	-1.5266	-4.1334	-4.3107	3.1449	-2.1029	-1.5330	-0.8990	0.4658	2.6013		
SUC SUR INCIDENCE	-7.9473	-10.6519	-10.8711	-3.0979	-8.2131	-7.7167	-7.2712	-5.9776	-3.9284		
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810		
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000		

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 105 PCT DES SPD= 95.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 16.780 HUB STATIC PRES= 16.690

PCT IM- MERSION	IN RADIUS	EX PL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.9600	-7.9000	821.0000	378.5000	552.4000	15.8100	22.2000
.100	13.1600	-7.5000	1.0600	4.8900	-10.6000	806.0000	342.0000	543.4000	15.6300	21.8000
.150	12.8300	-7.6000	1.0900	2.3400	-10.9000	797.5000	340.4000	540.4000	15.7200	21.8100
.282	12.0000	-8.4000	1.1700	3.8400	-3.1000	766.4000	429.4000	557.1000	16.0000	21.4800
.470	10.8200	-10.1000	1.3000	.3600	-8.2000	803.5000	420.4000	537.7000	15.7300	21.9600
.689	9.4800	-9.8000	1.4700	1.0300	-7.7000	811.3000	436.2000	534.4000	15.7700	22.1800
.850	8.5900	-9.2000	1.6200	.4900	-7.2700	825.3000	451.0000	529.9000	15.5500	22.1700
.900	8.2700	-9.1000	1.6700	1.0700	-6.0000	805.3000	455.8000	531.3000	15.4400	21.6500
.937	8.0200	-9.0000	1.7300	1.9600	-3.9000	808.7000	481.4000	529.0000	15.3100	21.5400

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	598.1200	20.9300
.1000	13.1500	598.4500	21.5700
.1500	12.8400	590.6700	21.7500
.2822	11.9700	595.2400	21.1800
.4702	10.8300	586.2700	21.4000
.6887	9.5700	582.4200	21.5800
.8500	8.6700	581.3000	21.1200
.9000	8.4000	581.4800	20.8300
.9372	8.1200	583.5000	19.9200

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3799	.1987	.0952	1.0390	9.3600	.5713	663.5380	661.0533	57.3696
.1000	.2887	.0373	.0175	.8183	9.3900	.6106	706.3355	703.7646	60.2102
.1500	.2847	.0099	.0045	1.2619	6.9400	.6213	713.1693	712.5746	29.1182
.2822	.3260	.0547	.0233	-16.7179	9.2400	.5886	680.7920	679.2635	45.5930
.4702	.3388	.0899	.0346	1.0905	7.4600	.6032	691.2591	691.2455	4.3433
.6887	.3118	.0936	.0318	1.2729	7.8300	.6152	701.7150	701.6017	12.6140
.8500	.3503	.1586	.0490	.8001	6.6900	.5888	672.9646	672.9400	5.7552
.9000	.3515	.1320	.0395	.8266	7.1700	.5710	653.9264	653.8123	12.2114
.9372	.4374	.2600	.0751	.5198	7.9600	.5088	587.4125	587.0686	20.0905

PCT IMMERS	EX STAT PRES
.0500	16.7750
.1000	16.7702
.1500	16.7655
.2822	16.7524
.4702	16.7352
.6887	16.7162
.8500	16.7026
.9000	16.6985
.9372	16.6943

ROTOR INLET TRAVERSE PLANE		READING NUMBER	117	TIME	15H 15M 25S	UNIFORM INLET FLOW	STATOR ANGLE 3.		
SPEED (RPM)	12162.5846					DISTORTION INDEX	0.000		
ACTUAL ORIFICE FLOW	147.9215								
THETA	0.9985								
DELTA	0.9903								
MASS AVERAGED PT	14.5536	(14.6960)							
MASS AVERAGED TT	517.9274	(518.6881)							
TOTAL WEIGHT FLOW	152.3750	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	153.7527								
EQUIV. SPEED	12171.5137								
PERCENT SPEED	95.2313								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5177	14.6744	14.7214	14.7269	14.7301	14.7234	14.7119	14.7016	14.6330
STATIC PRESSURE	11.2559	11.0550	10.8967	10.5321	10.6242	10.9480	11.0914	11.3640	11.5949
WEDGE PRESSURE	11.6111	11.5095	11.4138	11.1772	11.2340	11.4492	11.5446	11.7336	11.8886
TOTAL TEMPERATURE	519.4239	519.1360	519.0773	518.9530	518.8283	518.1756	517.8618	517.6692	517.9521
ANGLE (DEG.)	1.4466	2.1476	2.2065	2.7913	2.2200	1.9308	1.7738	1.7886	1.9125
APPARENT MACH NO.	0.5739	0.5993	0.6139	0.6401	0.6342	0.6102	0.5987	0.5767	0.5528
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	11.7654	11.7576	11.6402	11.5219	11.4899	11.6073	11.8335	11.9721	12.0540
WEDGE PRESSURE	11.8041	11.7994	11.6854	11.5698	11.5386	11.6533	11.8795	12.0101	12.0891
ANGLE (DEG.)	-1.5418	2.7273	3.3654	4.6535	6.6399	5.9751	7.0189	7.2948	7.2031
APPARENT MACH NO.	0.5517	0.5668	0.5839	0.5972	0.6009	0.5876	0.5611	0.5452	0.5294
MEASURING PLANE									
MACH NO.	0.5562	0.5716	0.5889	0.6025	0.6063	0.5928	0.5658	0.5496	0.5335
ABSOLUTE VELOCITY	602.6886	618.3272	635.9211	649.6096	653.4224	639.7828	612.4653	595.9373	579.4890
SWIRL VELOCITY	14.7823	22.6659	24.1016	31.4733	25.3108	21.4139	18.3716	17.7549	18.1166
WEIGHT FLOW	14.6029	10.4495	17.5535	28.1580	31.5170	24.8070	12.1076	5.9106	7.4290
AXIAL VELOCITY	585.3655	604.4087	625.5190	645.5252	652.8962	635.1870	593.2214	568.5704	542.5262
CALCULATING PLANE									
ANGLE (DEG.)	1.2611	1.8665	1.9491	2.5470	2.0243	1.7585	1.5108	1.4917	1.5625
SWIRL VELOCITY	15.0359	22.9826	24.3757	31.7319	25.2873	21.1791	17.8838	17.1131	17.2650
AXIAL VELOCITY	682.0172	704.2130	715.2568	712.3411	714.4277	688.8455	677.0359	656.1257	631.9120
MERIDIONAL VELOCITY	697.2538	714.2148	721.9363	714.6429	714.4322	692.3902	691.4013	679.2711	668.3229
ABSOLUTE VELOCITY	698.4378	715.5984	723.3567	716.3497	715.8794	693.7197	692.6550	680.5233	669.6046
MACH NO.	0.6515	0.6689	0.6769	0.6697	0.6692	0.6467	0.6457	0.6334	0.6225
WEIGHT FLOW	14.6117	10.4531	17.5541	28.1603	31.5319	24.6054	12.1175	5.9107	7.4300
WHEEL SPEED	1484.8841	1443.8900	1400.4402	1292.2972	1143.7726	969.1526	840.8245	794.2007	746.1535
RELAT. TANG. VELOC.	1469.8481	1420.9072	1376.0644	1260.5652	1118.4849	947.9734	822.9405	777.0874	728.8884
RELATIVE FLOW ANGLE	64.6219	63.3139	62.3170	60.4503	57.4318	53.8561	49.9645	48.8426	47.4822
RELATIVE VELOCITY	1626.8422	1590.3083	1553.9446	1449.0472	1327.1857	1173.9069	1074.8331	1032.1213	988.9052
RELATIVE MACH NO.	1.5176	1.4867	1.4541	1.3548	1.2407	1.0944	1.0019	0.9607	0.9193
MCL INCIDENCE	2.4219	2.1139	1.8170	2.0503	1.3318	1.5561	1.5645	0.8426	-0.4177
SURFACE INCIDENCE	0.2219	0.1139	-0.2829	-0.3496	-1.0681	-1.1438	-2.1354	-2.9573	-4.5177
RELATIVE TOTAL PRESS	44.3208	42.3496	40.0094	34.4268	29.4045	24.6189	22.4651	21.6650	20.8261
STATIC TEMPERATURE	478.7326	476.4440	475.4593	476.1860	476.1277	478.1274	477.9604	479.1673	480.6557
RELAT. TOTAL TEMP.	699.5006	687.2925	676.7531	651.1795	622.8908	592.8057	574.0412	567.7311	562.0020
STATIC PRESS. (ALT.)	10.9141	10.8697	10.8302	10.9014	10.9082	11.1132	11.1145	11.2197	11.2675
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE		READING NUMBER		117	TIME	154.255	UNIFORM INLET FLOW		STATOR ANGLE = 3.00	
MASS AVERAGED PT	23.0433	(23.2687)								
MASS AVERAGED TT	603.8337	(604.7207)								
TOTAL WEIGHT FLOW	149.6348	(PROBE INTEGRATION)								
CORR. TOTAL FLOW	150.9877									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0, 104 DEG.								
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0700	4.4300	5.3600	5.6800	5.9500	
TOTAL PRESSURE	24.2188	23.8420	23.5481	23.4338	23.4952	22.8119	22.1299	21.9898	22.0612	
STATIC PRESSURE	17.0711	16.6929	16.3634	16.4602	16.5989	16.2771	15.9654	15.7649	15.5889	
WEDGE PRESSURE	18.2177	17.8439	17.5250	17.5809	17.7035	17.3110	16.9130	16.7396	16.4254	
TOTAL TEMPERATURE	625.5435	616.2169	606.9256	613.9876	601.0999	593.6005	589.0535	588.0585	589.0905	
ANGLE (DEG.)	33.1361	31.7696	30.9926	38.6334	37.0343	38.6608	39.6359	40.5478	40.6909	
APPARENT MACH NO.	0.6513	0.6572	0.6638	0.6543	0.6491	0.6405	0.6316	0.6367	0.6489	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0, 300 DEG.								
STATIC PRESSURE	17.3258	17.2059	16.8408	17.6302	17.5749	17.2298	16.8159	16.5815	16.4346	
WEDGE PRESSURE	17.4651	17.3381	16.9764	17.7376	17.6856	17.3323	16.9133	16.6812	16.5407	
ANGLE (DEG.)	23.0732	26.2461	20.4203	27.8151	31.0124	32.5178	32.9359	33.2142	33.6958	
APPARENT MACH NO.	0.7000	0.6905	0.7002	0.6437	0.6503	0.6391	0.6319	0.6410	0.6549	
MEASURING PLANE										
MACH NO.	0.7089	0.6991	0.7091	0.6510	0.6578	0.6462	0.6338	0.6482	0.6625	
ABSOLUTE VELOCITY	827.6333	811.3666	815.8330	758.8011	758.1275	741.6812	731.2942	740.6487	756.2187	
SWIRL VELOCITY	451.2464	426.1911	419.2644	473.4475	456.5976	462.0290	462.9992	476.5943	487.2730	
WEIGHT FLOW	15.8970	10.5666	18.5571	26.4880	31.6602	23.6246	10.8670	4.7866	7.1162	
AXIAL VELOCITY	691.2608	686.1938	697.9783	592.3710	605.1740	577.5188	558.9395	557.0803	566.6914	
CALCULATING PLANE										
SWIRL VELOCITY	448.2647	423.6238	417.3203	472.2697	457.0200	465.9907	469.6451	484.9140	498.6489	
AXIAL VELOCITY	647.0163	646.1954	656.2357	567.2716	584.3500	554.6811	528.8092	523.8989	530.7659	
ABSOLUTE VELOCITY	794.7577	777.9416	781.5927	739.2827	742.7333	727.3281	715.7311	725.2987	743.7573	
MERIDIONAL VELOCITY	655.2637	651.4762	659.8503	567.7696	584.4783	557.4372	539.0757	538.3377	550.7981	
ANGLE (DEG.)	34.6736	33.2069	32.4141	39.7288	37.9815	39.9830	41.5552	42.7325	43.1592	
MACH NO.	0.6781	0.6677	0.6766	0.6329	0.6433	0.6327	0.6242	0.6336	0.6507	
WEIGHT FLOW	15.8981	10.5759	18.5704	26.4912	31.6686	23.6516	10.8666	4.7896	7.1224	
WHEEL SPEED	1445.6129	1409.9163	1373.8968	1280.6171	1148.0209	991.4688	888.6589	852.6759	819.4933	
RELAT. TANG. VELOC.	997.3481	986.2925	956.5764	808.3471	691.0007	525.4782	419.0138	367.7619	320.8443	
RELATIVE FLOW ANGLE	56.6950	56.5542	55.4021	54.9166	49.7742	43.3097	37.8574	34.3388	30.2212	
RELATIVE VELOCITY	1193.3454	1182.0297	1162.0846	987.8195	905.0396	766.0701	682.7701	651.9633	637.4319	
RELATIVE MACH NO.	1.0182	1.0145	1.0060	0.8457	0.7839	0.6664	0.5954	0.5696	0.5577	
DEVIATION	0.6950	0.2542	-0.4978	3.7166	2.7742	4.6097	9.9574	11.4388	11.6212	
AIR TURNING ANGLE	7.9268	6.7597	6.9148	5.5336	7.6576	10.5464	12.1071	14.5038	17.2609	
REL. MACH NO. (WHL.)	1.1164	1.0981	1.0782	1.0245	0.9388	0.8305	0.7562	0.7295	0.7048	
IDEAL PRESS. RATIO	0.9528	0.9594	0.9686	0.9866	1.0045	1.0216	1.0425	1.0501	1.0607	
ROTOR PRESS. RATIO	1.6682	1.6247	1.5995	1.5912	1.5950	1.5493	1.5042	1.4957	1.5076	
ROTOR TEMP. RATIO	1.2043	1.1870	1.1692	1.1831	1.1585	1.1455	1.1374	1.1359	1.1373	
ADIABATIC EFFY.	0.7682	0.7933	0.8468	0.7730	0.8983	0.9140	0.8937	0.8953	0.9048	
POLYTR. EFFICIENCY	0.7842	0.8068	0.8566	0.7873	0.9047	0.9192	0.9044	0.9011	0.9102	
TOTAL LOSS COEFF.	0.1703	0.1451	0.1032	0.1746	0.0790	0.0729	0.0930	0.1014	0.0999	
SHOCK LOSS COEFF.	0.0117	0.0114	0.0119	0.0378	0.0591	0.0220	0.0078	0.0039	0.0011	
PROFILE LOSS COEFF.	0.1586	0.1341	0.0913	0.1370	0.0199	0.0509	0.0852	0.0974	0.0987	
TOTAL LOSS PARAM.	0.0285	0.0242	0.0175	0.0296	0.0147	0.0148	0.0197	0.0219	0.0220	
PROFILE LOSS PARAM.	0.0265	0.0223	0.0155	0.0232	0.0037	0.0103	0.0181	0.0210	0.0218	
ROTOR DIFFUS. FACT.	0.3493	0.3363	0.3320	0.4143	0.4181	0.4603	0.4853	0.4965	0.4912	
STATIC PRESS. (ALT.)	17.8046	17.6852	17.3327	17.8970	17.7896	17.4235	17.0201	16.7823	16.6002	
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5334	
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000	
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540	
REAR CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	28.3000	

STATOR INLET TRAVERSE PLANE	READING NUMBER			117	TIME	15H 15M 25S	UNIFORM INLET FLOW	STATOR ANGLE 3.	
MASS AVERAGED PT	23.0439	(23.2693)							
MASS AVERAGED TT	603.8428	(604.7298)							
TOTAL WEIGHT FLOW	149.5301	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	150.8820								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	24.2188	23.8420	23.5481	23.4338	23.4952	22.8119	22.1299	21.9898	22.0612
STATIC PRESSURE	17.3258	17.2059	16.8408	17.6302	17.5749	17.2298	16.8159	16.5815	16.4346
WEDGE PRESSURE	17.4651	17.3381	16.9764	17.7376	17.6856	17.3323	16.9133	16.6812	16.5407
TOTAL TEMPERATURE	625.5434	616.2167	606.9255	613.9875	601.0997	593.6003	589.0533	588.0584	589.0904
ANGLE (DEG.)	33.1361	31.7696	30.9926	38.6334	37.0343	38.6608	39.6358	40.5478	40.6909
MACH NO.	0.7089	0.6991	0.7091	0.6510	0.6578	0.6462	0.6388	0.6482	0.6625
ABSOLUTE VELOCITY	827.6333	811.3667	815.8330	758.8013	758.1275	741.6812	731.2931	740.6487	756.2188
SWIRL VELOCITY	451.2464	426.1911	419.2643	473.4474	456.5976	462.0289	462.9991	476.5941	487.2729
AXIAL VELOCITY	691.2610	688.1942	697.9784	592.3713	605.1742	577.5188	558.9395	557.0805	566.6914
WEIGHT FLOW	15.8970	10.5666	18.5571	26.4880	31.6603	23.6246	10.8600	4.7866	7.1162
CALCULATING PLANE									
ANGLE (DEG.)	33.3569	31.8096	30.5805	37.7818	35.4469	36.9484	37.9586	38.7463	39.1010
MACH NO.	0.7054	0.6992	0.7206	0.6661	0.6854	0.6676	0.6527	0.6619	0.6709
SWIRL VELOCITY	452.9201	427.4865	420.8983	474.6310	456.5976	458.6173	457.0702	470.2550	479.3745
AXIAL VELOCITY	687.0174	688.2082	711.2555	611.2928	640.3836	608.7474	584.8950	585.0038	588.8497
ABSOLUTE VELOCITY	823.9381	811.4517	827.8175	775.0365	787.3117	764.2207	745.9032	755.1010	764.9371
WEIGHT FLOW	15.8993	10.5530	18.5706	26.5047	31.6750	23.6258	10.8613	4.7915	7.0487
MERIDIONAL VELOCITY	687.2855	688.7159	711.8288	611.7036	640.3875	610.3092	586.4486	589.7843	595.0827
STATIC TEMPERATURE	569.1230	561.4982	549.9577	564.0820	549.5802	545.1074	542.8781	540.7534	540.5200
STATIC PRESS.(ALT.)	17.3801	17.2046	16.6662	17.4052	17.1610	16.9211	16.6239	16.3902	16.3179
MCL INCIDENCE	4.3699	2.5531	0.9851	6.8372	1.7971	2.8332	3.7993	4.5529	4.9049
SUC SUR INCIDENCE	-2.0530	-3.9703	-5.5794	0.5918	-4.3130	-3.3615	-2.6013	-1.9236	-1.6489
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 117 PCT DES SPD= 95.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 18.400 HUB STATIC PRES= 18.260

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	7.6600	-2.0500	823.9000	452.9000	569.0000	17.3800	24.2200
.100	13.1600	-7.5000	1.0600	7.2000	-3.9700	811.5000	427.5000	561.5000	17.2000	23.8400
.150	12.8300	-7.6000	1.0900	5.0000	-5.6000	827.8000	420.9000	550.0000	16.6600	23.5500
.262	12.0000	-8.4000	1.1700	5.4000	.6000	775.0000	474.6000	564.0000	17.4100	23.4300
.470	10.8200	-10.1000	1.3000	3.5000	-4.3000	787.3000	456.6000	549.6000	17.1600	23.4900
.689	9.4800	-9.8000	1.4700	3.1000	-3.4000	764.2000	458.6000	545.1000	16.9200	22.8100
.850	8.5900	-9.2000	1.6200	3.0000	-2.6000	745.9000	457.1000	542.9000	16.8200	22.1300
.900	8.2700	-9.1000	1.6700	5.1000	-1.9000	755.1000	470.3000	540.8000	16.3900	22.0000
.937	8.0200	-9.0000	1.7300	5.4000	-1.6000	764.9000	479.4000	540.5000	16.3200	22.0600

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	612.3200	22.5800
.1000	13.1500	608.3700	23.2200
.1500	12.8400	602.5000	23.2200
.2622	11.9700	602.8400	22.8200
.4702	10.8300	595.8000	22.9500
.6887	9.5700	587.7400	22.4700
.8500	8.6700	584.3000	21.7300
.9000	8.4000	584.5700	21.2400
.9372	8.1200	587.8000	20.5600

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4286	.2398	.1142	1.0955	12.0600	.5494	647.1347	641.3600	86.2594
.1000	.3522	.0934	.0437	1.4141	11.7000	.5873	686.8076	681.3919	86.0798
.1500	.3738	.0479	.0219	1.1515	9.6000	.5878	684.0459	681.4429	59.6185
.2622	.3752	.1013	.0431	3.4249	10.8000	.5664	660.7772	657.8447	62.1846
.4702	.3555	.0853	.0327	1.1427	10.6000	.5759	667.2577	668.0131	40.7351
.6887	.3580	.0577	.0196	1.3441	9.9000	.5495	634.1677	633.2397	34.2950
.8500	.3932	.0726	.0224	1.1290	9.8000	.5032	581.7000	580.5521	36.5252
.9000	.4458	.1355	.0404	.8919	11.2000	.4686	543.5945	541.4424	48.3224
.9372	.5294	.2613	.0752	.6426	11.4000	.4145	484.4012	482.2514	45.5862

PCT IMMERS	EX STAT PRES
.0500	18.3922
.1000	18.3847
.1500	18.3774
.2622	18.3570
.4702	18.3303
.6887	18.3007
.8500	18.2796
.9000	18.2733
.9372	18.2667

ROTOR INLET TRAVERSE PLANE		READING NUMBER	118	TIME	15H 27M 37S	UNIFORM INLET FLOW		STATOR ANGLE 3.	
SPEED (RPM)	12087.2007								
ACTUAL ORIFICE FLOW	144.0143								
THETA	0.9976								
DELTA	0.9913								
MASS AVERAGED PT	14.5694	(14.6960)							
MASS AVERAGED TT	517.4794	(518.6881)							
TOTAL WEIGHT FLOW	149.5953	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	150.7191								
EQUIV. SPEED	12101.3090								
PERCENT SPEED	94.6820								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5815	14.6711	14.6794	14.7010	14.7404	14.7310	14.7083	14.7077	14.6398
STATIC PRESSURE	11.5075	11.2515	11.0489	10.6894	10.8771	11.1763	11.3696	11.6423	11.8433
WEDGE PRESSURE	11.8113	11.6461	11.5067	11.2689	11.4057	11.6086	11.7392	11.9403	12.0820
TOTAL TEMPERATURE	519.6574	519.4416	519.4601	518.7818	518.6908	517.9098	517.7921	517.8793	518.2607
ANGLE (DEG.)	1.3757	2.3240	2.3879	2.7703	2.0802	1.6298	1.8174	1.8124	1.9711
APPARENT MACH NO.	0.5569	0.5838	0.6001	0.6280	0.6164	0.5933	0.5757	0.5538	0.5309
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	11.9874	11.9644	11.8026	11.6525	11.6050	11.7608	12.0298	12.0947	12.2042
WEDGE PRESSURE	12.0229	12.0020	11.8437	11.6971	11.6514	11.8037	12.0638	12.1305	12.2366
ANGLE (DEG.)	6.5590	2.6482	2.7945	4.3653	6.5772	6.2460	7.4555	7.2448	7.1318
APPARENT MACH NO.	0.5322	0.5432	0.5622	0.5807	0.5893	0.5714	0.5392	0.5318	0.5125
MEASURING PLANE									
MACH NO.	0.5364	0.5476	0.5669	0.5858	0.5945	0.5763	0.5435	0.5359	0.5164
ABSOLUTE VELOCITY	582.4062	593.9100	613.5946	632.7107	641.5409	623.1316	589.7643	581.9769	561.8623
SWIRL VELOCITY	13.5855	23.5585	25.1659	30.4243	23.2859	17.6056	18.1255	17.5696	18.1031
WEIGHT FLOW	14.3379	10.1732	17.1092	27.6801	31.2256	24.4399	11.8106	5.8226	7.2766
AXIAL VELOCITY	565.6823	580.4746	603.4835	628.7436	641.0830	618.7547	571.2209	555.2448	526.0078
CALCULATING PLANE									
ANGLE (DEG.)	1.2064	2.0349	2.1208	2.5464	1.9316	1.4683	1.5555	1.5151	1.6201
SWIRL VELOCITY	13.8186	23.8876	25.4521	30.6743	23.2642	17.4125	17.6443	16.9345	17.2521
AXIAL VELOCITY	655.1528	671.2958	686.2903	688.7408	688.8014	678.2994	648.3135	639.2434	608.9608
MERIDIONAL VELOCITY	669.7892	680.8300	692.6993	690.9666	688.8056	681.7896	662.0716	661.7934	644.0492
ABSOLUTE VELOCITY	670.9539	682.2631	694.1756	692.6503	690.1988	683.0185	663.3293	663.0469	645.3391
MACH NO.	0.6238	0.6352	0.6472	0.6457	0.6432	0.6360	0.6132	0.6159	0.5983
WEIGHT FLOW	14.3492	10.1795	17.1216	27.6256	30.9572	24.4407	11.8216	5.8277	7.2719
WHEEL SPEED	1475.9874	1435.1390	1391.8491	1285.0548	1137.3260	963.8097	836.0310	789.4595	741.6286
RELAT. TANG. VELOC.	1462.1685	1411.2512	1366.3971	1254.3804	1114.0617	946.3971	818.3835	772.5250	724.3764
RELATIVE FLOW ANGLE	65.3887	64.2461	63.1173	61.1523	58.2724	54.2310	51.0274	49.4147	48.3596
RELATIVE VELOCITY	1608.2765	1566.8946	1531.9505	1432.0979	1309.8038	1166.4064	1052.6636	1017.2341	969.2886
RELATIVE MACH NO.	1.4954	1.4589	1.4284	1.3350	1.2205	1.0861	0.9779	0.9450	0.8886
MCL INCIDENCE	3.1887	3.0461	2.6173	2.7523	2.1724	1.9310	2.6274	1.4147	0.4596
SURFACE INCIDENCE	0.9887	1.0461	0.5173	0.3523	-0.2275	-0.7689	-1.0725	-2.3852	-3.6403
RELATIVE TOTAL PRESS	43.7250	41.4043	39.1054	33.8793	28.9200	24.6877	22.2036	21.5004	20.6139
STATIC TEMPERATURE	482.0886	480.6115	479.2607	478.8105	479.0087	479.1069	481.2023	481.3146	483.5976
RELAT. TOTAL TEMP.	697.9448	685.4186	675.0413	649.6804	621.9169	592.2684	573.3436	567.3773	561.7957
STATIC PRESS. (ALT.)	11.2156	11.1803	11.0757	11.1063	11.1591	11.2189	11.3830	11.3850	11.4920
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5535	0.5198	0.4385
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE		READING NUMBER		118	TIME	15H 27M 37S	UNIFORM INLET FLOW		STATOR ANGLE 3.00	
MASS AVERAGED PT		23.8900		(24.0976)						
MASS AVERAGED TT		611.5923		(613.0209)						
TOTAL WEIGHT FLOW		141.9837		(PROBE INTEGRATION)						
CORR. TOTAL FLOW		143.0503								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.										
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500	
TOTAL PRESSURE	24.9530	25.2622	25.1171	24.7194	23.9885	23.0506	22.5035	22.3450	22.3486	
STATIC PRESSURE	18.2157	17.9161	17.6862	17.3694	17.1116	16.6829	16.4815	16.4821	16.3482	
WEDGE PRESSURE	19.2147	19.0748	18.8635	18.5354	18.1874	17.6463	17.3679	17.3287	17.2329	
TOTAL TEMPERATURE	636.1062	628.6753	620.0819	625.9361	606.9301	596.6213	590.5474	590.8166	593.5882	
ANGLE (DEG.)	38.8891	36.2207	35.1232	42.1968	40.9501	43.1499	43.8544	45.3769	46.9995	
APPARENT MACH NO.	0.6229	0.6467	0.6531	0.6550	0.6417	0.6299	0.6201	0.6139	0.6210	
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.										
STATIC PRESSURE	18.4381	18.1430	18.1238	18.6375	18.4070	17.8822	17.5444	17.3519	17.2559	
WEDGE PRESSURE	18.5628	18.2860	18.2632	18.7496	18.5064	17.9721	17.6299	17.4386	17.3454	
ANGLE (DEG.)	40.7944	34.2033	32.4197	30.1740	32.4573	34.4623	36.4741	36.8053	37.3823	
APPARENT MACH NO.	0.6644	0.6958	0.6906	0.6413	0.6204	0.6071	0.6013	0.6059	0.6129	
MEASURING PLANE										
MACH NO.	0.6723	0.7046	0.6993	0.6485	0.6271	0.6135	0.6075	0.6122	0.6193	
ABSOLUTE VELOCITY	794.8794	825.0568	813.8059	763.4929	728.9971	708.7497	698.8503	703.9915	713.0115	
SWIRL VELOCITY	497.9288	486.4990	467.3689	512.5313	477.7699	483.5279	480.9848	496.7039	516.5092	
WEIGHT FLOW	14.7461	10.5738	18.5942	26.2302	29.7023	21.6499	10.0633	4.3580	6.2498	
AXIAL VELOCITY	617.3323	664.2149	664.4288	565.3085	550.5805	515.8100	500.6152	490.2138	481.6642	
CALCULATING PLANE										
SWIRL VELOCITY	494.6384	483.5682	465.2018	511.2563	478.2118	487.6738	487.8889	505.3746	528.5677	
AXIAL VELOCITY	581.1355	624.2752	626.2650	542.5837	532.6198	488.9367	474.9638	462.9004	452.7143	
ABSOLUTE VELOCITY	769.5734	754.4959	783.7224	746.5831	716.6329	693.0057	688.0850	694.7189	707.8658	
MERIDIONAL VELOCITY	588.5430	629.3767	629.7145	543.0601	532.7365	491.3662	484.1850	475.6580	469.8006	
ANGLE (DEG.)	40.3545	37.7173	36.5620	43.2447	41.8657	44.8674	45.7088	47.4501	49.3578	
MACH NO.	0.6490	0.6761	0.6711	0.6330	0.6156	0.5988	0.5975	0.6035	0.6145	
WEIGHT FLOW	14.7549	10.5763	18.6018	26.2544	29.7084	21.4021	10.0704	4.3635	6.2516	
WHEEL SPEED	1436.9512	1401.3715	1365.4687	1273.4402	1141.5504	986.0028	883.5928	847.5857	814.5239	
RELAT. TANG. VELOC.	942.3127	917.8031	900.2667	762.1836	663.3383	498.3289	395.7038	342.2111	285.9562	
RELATIVE FLOW ANGLE	58.8124	55.5601	55.0283	54.5301	51.2317	45.4032	39.2578	35.7331	31.3279	
RELATIVE VELOCITY	1111.0066	1112.8690	1098.6449	935.8620	850.7794	699.8374	625.3131	585.9685	549.9849	
RELATIVE MACH NO.	0.9370	0.9470	0.9407	0.7935	0.7309	0.6047	0.5429	0.5091	0.4774	
DEVIATION	2.0124	-0.7398	-0.8716	3.3301	4.2317	6.7032	11.3578	12.8331	12.7279	
AIR TURNING ANGLE	7.3762	8.6860	8.0889	6.6222	7.0406	8.8277	11.7696	13.6815	17.0316	
REL. MACH NO. (WHL.)	1.1114	1.0934	1.0735	1.0199	0.9341	0.8261	0.7523	0.7255	0.7009	
IDEAL PRESS. RATIO	0.9532	0.9598	0.9689	0.9867	1.0045	1.0214	1.0421	1.0496	1.0600	
ROTOR PRESS. RATIO	1.7112	1.7219	1.7110	1.6814	1.6273	1.5647	1.5303	1.5192	1.5265	
ROTOR TEMP. RATIO	1.2240	1.2102	1.1937	1.2065	1.1701	1.1519	1.1405	1.1408	1.1453	
ADIABATIC EFFY.	0.7376	0.7961	0.8538	0.7725	0.8756	0.8964	0.9186	0.8999	0.8825	
POLYTR. EFFICIENCY	0.7565	0.8110	0.8644	0.7884	0.8838	0.9027	0.9233	0.9056	0.8893	
TOTAL LOSS COEFF.	0.2084	0.1605	0.1121	0.1957	0.1039	0.0918	0.0739	0.1022	0.1332	
SHOCK LOSS COEFF.	0.0113	0.0118	0.0163	0.0453	0.0529	0.0205	0.0055	0.0027	-0.0000	
PROFILE LOSS COEFF.	0.1971	0.1486	0.0958	0.1504	0.0510	0.0712	0.0733	0.0995	0.1333	
TOTAL LOSS PARAM.	0.0336	0.0273	0.0192	0.0335	0.0188	0.0180	0.0164	0.0217	0.0291	
PROFILE LOSS PARAM.	0.0318	0.0253	0.0164	0.0257	0.0092	0.0139	0.0152	0.0211	0.0291	
ROTOR DIFFUS. FACT.	0.4018	0.3819	0.3731	0.4519	0.4568	0.5191	0.5350	0.5594	0.5793	
STATIC PRESS. (ALT.)	18.8058	18.6051	18.5776	18.8787	18.5779	18.0899	17.6833	17.4713	17.3226	
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534	
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000	
SOLIDITY	1.6400	1.6500	1.6700	1.6940	1.7300	1.7800	1.8500	1.9100	1.9540	
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000	

STATOR INLET TRAVERSE PLANE	READING NUMBER	118	TIME	15H 27M 37S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
MASS AVERAGED PT	23.8880	(24.0955)							
MASS AVERAGED TT	611.5583	(612.9867)							
TOTAL WEIGHT FLOW	142.2862	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	143.3551								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	24.9530	25.2622	25.1171	24.7194	23.9885	23.0506	22.5035	22.3450	22.3486
STATIC PRESSURE	18.4381	18.1430	18.1238	18.6375	18.4070	17.8822	17.5444	17.3519	17.2558
WEDGE PRESSURE	18.5628	18.2860	18.2632	18.7496	18.5064	17.9721	17.6299	17.4386	17.3454
TOTAL TEMPERATURE	636.1061	628.6751	620.0818	625.9360	606.9299	596.6211	590.5473	590.8165	593.5880
ANGLE (DEG.)	38.8891	36.2207	35.1232	42.1968	40.9501	43.1499	43.8544	45.3769	46.9994
MACH NO.	0.6723	0.7046	0.6993	0.6485	0.6271	0.6135	0.6075	0.6122	0.6193
ABSOLUTE VELOCITY	794.8793	825.0567	813.8059	763.4932	728.9972	708.7496	698.8532	703.9917	713.0115
SWIRL VELOCITY	497.9286	486.4988	467.3688	512.5314	477.7699	483.5278	480.9846	496.7041	516.5091
AXIAL VELOCITY	617.3323	664.2150	664.4290	565.3090	550.5808	515.8100	500.6152	490.2140	481.6642
WEIGHT FLOW	14.7461	10.5738	18.5942	26.2302	29.7023	21.6499	10.0633	4.3580	6.2498
CALCULATING PLANE									
ANGLE (DEG.)	39.0924	36.1773	34.7124	41.3601	39.3986	41.4714	42.1781	43.6365	45.1323
MACH NO.	0.6703	0.7065	0.7093	0.6618	0.6492	0.6293	0.6175	0.6209	0.6266
SWIRL VELOCITY	499.7754	487.9775	469.1902	513.8126	477.7699	479.9574	474.8254	490.0974	508.1367
AXIAL VELOCITY	614.1432	666.2937	676.2861	582.6268	580.6756	542.0385	523.0615	512.9980	504.7965
ABSOLUTE VELOCITY	792.7624	827.0796	824.3763	777.8706	752.7390	725.7872	709.5414	713.2508	720.7491
WEIGHT FLOW	14.7499	10.5812	18.6072	26.2464	29.7403	21.6701	10.0759	4.3628	6.2511
MERIDIONAL VELOCITY	614.3827	666.7851	676.8314	583.0183	580.6792	543.4292	526.2394	517.1900	510.1397
STATIC TEMPERATURE	583.8770	571.8289	563.5805	575.7100	559.8607	552.9090	548.7712	548.5958	550.4470
STATIC PRESS. (ALT.)	18.4692	18.1121	17.9623	18.4300	18.0740	17.6542	17.4051	17.2317	17.1550
MCL INCIDENCE	10.1076	6.9240	5.1203	10.4179	5.7489	7.3678	8.0444	9.4830	11.0000
SUC SUR INCIDENCE	3.6824	0.3973	-1.4475	4.1701	-0.3613	1.1614	1.6181	2.9665	4.3823
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0599	6.2999	7.2999	8.3000

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STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 118 PCT DES SPD= 95.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATC PRES= 19.480 HUB STATIC PRES= 19.280

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLD ANG	INC ANG	SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.9900	3.7000		792.8000	499.8000	583.9000	18.4700	24.9500
.100	13.1600	-7.5000	1.0600	7.9200	.4000		827.1000	487.9800	571.8000	18.1100	25.2600
.150	12.8300	-7.6000	1.0900	8.0600	-1.4400		824.4000	469.2000	563.6000	17.9600	25.1200
.282	12.0000	-8.4000	1.1700	8.1100	4.1700		777.9000	513.8000	575.7000	18.4300	24.7200
.470	10.8200	-10.1000	1.3000	5.0200	-1.4000		752.7000	477.8000	559.9000	18.0700	24.0000
.689	9.4800	-9.8000	1.4700	2.9000	1.1600		725.8000	479.9000	552.9000	17.6900	23.0500
.850	8.5900	-9.2000	1.6200	2.1000	1.6100		709.5000	474.8000	548.8000	17.4100	22.5100
.900	8.2700	-9.1000	1.6700	5.2100	2.9700		713.2000	490.1000	548.6000	17.2300	22.3400
.937	8.0200	-9.0000	1.7300	3.5200	4.3800		720.7000	508.1000	550.4000	17.1500	22.3500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	625.4300	23.6600
.1000	13.1500	620.8400	24.5500
.1500	12.8400	613.6400	24.3200
.2822	11.9700	611.7900	24.1900
.4702	10.8300	601.8700	23.7000
.6887	9.5700	592.2000	22.9700
.8500	8.6700	588.3300	22.0200
.9000	8.4000	589.6000	21.4300
.9372	8.1200	593.0000	21.0300

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4580	.1991	.0952	1.1572	10.3900	.5352	638.0697	634.5839	66.5857
.1000	.3870	.0993	.0464	1.2926	12.4200	.5860	692.3024	685.6988	95.3925
.1500	.4020	.1117	.0510	1.0732	10.6600	.5743	675.4269	671.6526	71.3047
.2822	.3819	.0843	.0358	-7.5714	11.5100	.5691	668.7439	664.9450	71.1795
.4702	.3712	.0506	.0194	1.3521	12.1200	.5439	635.5991	633.1611	55.6171
.6887	.4049	.0148	.0050	1.3388	9.7000	.5020	584.2973	583.5490	29.5613
.8500	.4780	.0961	.0296	.9238	8.3000	.4374	510.4014	510.0586	18.7030
.9000	.5458	.1781	.0531	.7687	11.3100	.3897	456.9958	455.1078	41.4981
.9372	.6139	.2538	.0732	.6736	9.5200	.3535	416.7640	415.9777	25.5880

PCT IMMERS	EX STAT PRES
.0500	19.4688
.1000	19.4581
.1500	19.4477
.2822	19.4186
.4702	19.3804
.6887	19.3381
.8500	19.3080
.9000	19.2989
.9372	19.2896

ROTOR INLET TRAVERSE PLANE		READING NUMBER 119			TIME 15H 33M 7S		UNIFORM INLET FLOW		STATOR ANGLE 3.	
SPEED (RPM)	12122.7499									
ACTUAL ORIFICE FLOW	138.3949									
THETA	0.9975									
DELTA	0.9914									
MASS AVERAGED PT	14.5701	(14.6960)								
MASS AVERAGED TT	517.4253	(518.6881)								
TOTAL WEIGHT FLOW	144.1926	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	145.2613									
EQUIV. SPEED	12137.5334									
PERCENT SPEED	94.9654									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.5362	14.6548	14.6977	14.6941	14.7385	14.7403	14.7265	14.7248	14.6552	
STATIC PRESSURE	12.0008	11.6964	11.4116	10.9913	11.2318	11.4706	11.7027	11.9407	12.1488	
WEDGE PRESSURE	12.1871	11.9710	11.7667	11.4709	11.6494	11.8194	11.9904	12.1745	12.3267	
TOTAL TEMPERATURE	520.1815	519.2172	519.0302	518.8751	518.5221	518.1413	517.8485	517.7613	518.2133	
ANGLE (DEG.)	3.1559	2.9933	2.7733	2.2524	1.6280	1.5727	1.6144	1.6826	1.9859	
APPARENT MACH NO.	0.5081	0.5453	0.5726	0.6053	0.5894	0.5705	0.5498	0.5283	0.5032	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	12.3031	12.2125	12.0038	11.8858	11.8836	12.0760	12.3257	12.4341	12.4989	
WEDGE PRESSURE	12.3318	12.2450	12.0411	11.9254	11.9242	12.1127	12.3573	12.4638	12.5261	
ANGLE (DEG.)	1.0077	1.3516	2.5217	5.3443	7.4828	5.9804	7.1976	7.2704	7.2495	
APPARENT MACH NO.	0.4903	0.5130	0.5412	0.5542	0.5585	0.5370	0.5038	0.4937	0.4788	
MEASURING PLANE										
MACH NO.	0.4939	0.5169	0.5456	0.5588	0.5631	0.5412	0.5106	0.4974	0.4822	
ABSOLUTE VELOCITY	538.5161	562.3845	591.8266	605.3310	609.7309	587.3949	555.8160	542.1210	526.3252	
SWIRL VELOCITY	28.8059	28.7280	28.1879	23.6690	17.3217	16.0152	15.1740	15.1949	17.0859	
WEIGHT FLOW	13.4727	9.7703	16.7122	26.8670	30.1988	23.4795	11.3312	5.5355	6.9365	
AXIAL VELOCITY	522.4459	549.3769	581.9032	601.7717	609.4514	583.2851	538.3938	517.2518	492.7346	
CALCULATING PLANE										
ANGLE (DEG.)	2.8484	2.6496	2.4786	2.0717	1.4976	1.4241	1.3934	1.4213	1.6421	
SWIRL VELOCITY	29.3000	29.1293	28.5085	23.8635	17.3056	15.8396	14.7712	14.6457	16.2827	
AXIAL VELOCITY	587.8716	628.4456	657.5846	658.6840	660.9109	636.1098	606.2288	589.2439	566.9500	
MERIDIONAL VELOCITY	601.0049	637.3711	663.7256	660.8126	660.9149	639.3831	619.0919	610.0301	599.6177	
ABSOLUTE VELOCITY	602.7395	639.0503	665.3468	662.2467	662.1423	640.5857	620.2909	611.2429	600.8977	
MACH NO.	0.5562	0.5920	0.6182	0.6151	0.6150	0.5936	0.5735	0.5646	0.5544	
WEIGHT FLOW	13.3201	9.7605	16.7169	26.8850	30.2014	23.4968	11.3353	5.5346	6.9417	
WHEEL SPEED	1479.6599	1439.7465	1396.5939	1288.7859	1140.9160	966.4787	838.4878	791.9128	743.8827	
RELAT. TANG. VELOC.	1450.3599	1410.6168	1368.0853	1264.9224	1123.6104	950.6391	823.7156	777.2671	727.6000	
RELATIVE FLOW ANGLE	67.4919	65.6849	64.1199	62.4170	59.5359	56.0761	53.0722	51.8739	50.5081	
RELATIVE VELOCITY	1569.9522	1547.9281	1520.5880	1427.1301	1303.5752	1145.6547	1030.4238	988.0690	942.8377	
RELATIVE MACH NO.	1.4489	1.4341	1.4129	1.3256	1.2108	1.0616	0.9527	0.9127	0.8700	
MCL INCIDENCE	5.2919	4.4849	3.6199	4.0170	3.4359	3.7761	4.6722	3.8739	2.6081	
SURFACE INCIDENCE	3.0919	2.4849	1.5199	1.6170	1.0359	1.0761	0.9722	0.0739	-1.4918	
RELATIVE TOTAL PRESS	41.9748	40.7958	38.9130	34.1148	29.7357	24.6022	22.1030	21.3262	20.4735	
STATIC TEMPERATURE	489.8331	485.1646	482.1304	482.3293	482.0123	483.9948	485.8492	486.6938	488.1626	
RELAT. TOTAL TEMP.	695.7294	684.9584	674.8602	652.0463	623.5194	593.2140	574.1541	567.6743	562.1445	
STATIC PRESS. (ALT.)	11.7800	11.5598	11.3563	11.3819	11.4172	11.6135	11.7821	11.8595	11.8921	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.8000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	119	TIME	15H 33M 7S	UNIFORM INLET FLOW	STATOR ANGLE	3.00		
MASS AVERAGED PT	24.9345	(25.1499)							
MASS AVERAGED TT	621.1767	(622.6927)							
TOTAL WEIGHT FLOW	135.9783	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	136.9861								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	25.5920	26.7747	26.3252	25.9266	24.9882	23.8278	23.1692	22.7528	24.3344
STATIC PRESSURE	19.4701	19.1626	18.7568	18.5012	18.1337	17.5920	17.3253	17.3518	17.1669
WEDGE PRESSURE	20.2833	20.3446	19.9438	19.6617	19.1637	18.4899	18.1398	18.0637	18.3003
TOTAL TEMPERATURE	646.2821	646.3500	638.3510	634.8292	614.2513	602.6845	596.1857	593.6436	598.8620
ANGLE (DEG.)	44.1153	41.9816	40.0833	45.2097	44.4447	47.6452	50.4146	51.1375	51.6927
APPARENT MACH NO.	0.5864	0.6393	0.6428	0.6415	0.6278	0.6131	0.6019	0.5839	0.6514
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	19.5159	19.4749	18.8237	19.6368	19.2737	18.6983	18.2804	18.1413	17.9919
WEDGE PRESSURE	19.6255	19.6185	18.9755	19.7517	19.3743	18.7854	18.3628	18.2177	18.1131
ANGLE (DEG.)	44.2970	51.1239	35.1863	33.3699	35.7046	38.7274	41.9710	42.6559	43.4330
APPARENT MACH NO.	0.6281	0.6820	0.7006	0.6360	0.6142	0.5930	0.5861	0.5727	0.6635
MEASURING PLANE									
MACH NO.	0.6349	0.6904	0.7095	0.6431	0.6207	0.5990	0.5920	0.5783	0.6714
ABSOLUTE VELOCITY	759.6338	821.3025	836.9534	762.8626	726.5677	696.4804	685.3697	669.1419	771.5637
SWIRL VELOCITY	527.7844	548.3818	538.0648	541.1176	508.7423	513.6087	525.4666	517.4053	600.6849
WEIGHT FLOW	13.4325	10.0907	18.0912	25.8637	28.9055	20.2836	8.9843	3.8277	6.4426
AXIAL VELOCITY	544.3431	609.4351	639.3535	537.1743	518.7026	468.2497	434.4805	416.9369	474.5185
CALCULATING PLANE									
SWIRL VELOCITY	524.2969	545.0782	535.5700	539.7715	509.2130	518.0126	533.0092	526.4373	614.7086
AXIAL VELOCITY	513.8879	575.4079	603.5366	515.5354	502.6928	451.7883	413.8388	388.8208	447.7502
ABSOLUTE VELOCITY	739.4577	796.7495	810.1467	747.4165	716.3219	689.4912	680.3959	661.5055	771.1889
MERIDIONAL VELOCITY	520.4381	580.1102	606.8609	515.9879	502.8032	454.0331	421.8733	399.5368	464.6491
ANGLE (DEG.)	45.5189	43.3999	41.5384	46.2602	45.3123	48.8437	52.1065	53.4805	53.8698
MACH NO.	0.6167	0.6679	0.6846	0.6290	0.6113	0.5925	0.5874	0.5712	0.6710
WEIGHT FLOW	13.4337	10.1002	18.0931	25.8641	28.9321	20.3181	9.0007	3.7823	6.4536
WHEEL SPEED	1440.5273	1405.8703	1370.1235	1277.1375	1145.1540	988.7333	886.1893	850.2197	816.9995
RELAT. TANG. VELOC.	916.2303	860.7919	834.5533	737.3660	635.9406	470.7207	353.1802	323.7825	202.2908
RELATIVE FLOW ANGLE	60.4027	56.0231	53.9767	55.0169	51.6687	46.0339	39.9352	39.0212	23.5265
RELATIVE VELOCITY	1053.7236	1038.0223	1031.8717	899.9734	810.6980	654.0061	550.1938	514.2614	506.7744
RELATIVE MACH NO.	0.8789	0.8702	0.8720	0.7574	0.6919	0.5620	0.4750	0.4441	0.4409
DEVIATION	4.4027	-0.2768	-1.9232	3.8169	4.6687	7.3339	12.0352	16.1212	4.9265
AIR TURNING ANGLE	7.0891	9.6617	10.1431	7.4000	7.8671	10.0421	13.1370	12.8526	26.9815
REL. MACH NO. (WHL.)	1.1166	1.0972	1.0770	1.0211	0.9358	0.8280	0.7541	0.7274	0.7028
IDEAL PRESS. RATIO	0.9528	0.9595	0.9687	0.9867	1.0045	1.0215	1.0422	1.0498	1.0603
ROTOR PRESS. RATIO	1.7605	1.8270	1.7911	1.7644	1.6954	1.6165	1.5733	1.5451	1.6604
ROTOR TEMP. RATIO	1.2424	1.2448	1.2298	1.2234	1.1846	1.1631	1.1512	1.1465	1.1556
ADIABATIC EFFY.	0.7204	0.7641	0.7851	0.7853	0.8796	0.8997	0.9123	0.9019	1.0000
POLYTR. EFFICIENCY	0.7416	0.7831	0.8019	0.8016	0.8882	0.9062	0.9177	0.9077	1.0000
TOTAL LOSS COEFF.	0.2410	0.2105	0.1878	0.1984	0.1087	0.0972	0.0938	0.1089	-0.0000
SHOCK LOSS COEFF.	0.0122	0.0151	0.0194	0.0489	0.0498	0.0162	0.0032	0.0007	-0.0017
PROFILE LOSS COEFF.	0.2288	0.1953	0.1684	0.1494	0.0588	0.0809	0.0905	0.1081	0.0017
TOTAL LOSS PARAM.	0.0363	0.0354	0.0330	0.0335	0.0194	0.0188	0.0193	0.0221	-0.0000
PROFILE LOSS PARAM.	0.0344	0.0329	0.0296	0.0252	0.0105	0.0157	0.0186	0.0219	0.0004
ROTOR DIFFUS. FACT.	0.4291	0.4347	0.4263	0.4810	0.4919	0.5577	0.6098	0.6247	0.6377
STATIC PRESS. (ALT.)	19.8057	19.8598	19.2447	19.8653	19.4195	18.7922	18.3453	18.2378	17.9974
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6790	1.6940	1.7300	1.7880	1.8540	1.9140	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	119	TIME	15H 33M 7S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
MASS AVERAGED PT	24.9355	(25.1509)							
MASS AVERAGED TT	621.2017	(622.7178)							
TOTAL WEIGHT FLOW	135.9057	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	136.9129								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	25.5920	26.7747	26.3252	25.9266	24.9882	23.8278	23.1692	22.7528	24.3344
STATIC PRESSURE	19.5159	19.4749	18.8237	19.6368	19.2737	18.6983	18.2814	18.1413	17.9919
WEDGE PRESSURE	19.6255	19.6185	18.9755	19.7517	19.3743	18.7854	18.3627	18.2177	18.1131
TOTAL TEMPERATURE	646.2819	646.3499	638.3508	634.8291	614.2512	602.6844	596.1856	593.6435	598.8619
ANGLE (DEG.)	44.1153	41.9816	40.0833	45.2096	44.4447	47.6452	50.4146	51.1375	51.6927
MACH NO.	0.6349	0.6904	0.7095	0.6431	0.6207	0.5990	0.5920	0.5783	0.6714
ABSOLUTE VELOCITY	759.6337	821.3025	836.9536	762.8628	726.5682	696.4803	685.3695	669.1419	771.5637
SWIRL VELOCITY	527.7843	548.3817	538.0649	541.1176	508.7426	513.6087	525.4655	517.4052	600.6847
AXIAL VELOCITY	544.3432	609.4351	639.3538	537.1745	518.7031	468.2498	434.4805	416.9370	474.5185
WEIGHT FLOW	13.4325	10.0907	18.0912	25.8637	28.9056	20.2836	8.9843	3.8277	6.4426
CALCULATING PLANE									
ANGLE (DEG.)	44.2983	41.9282	39.6590	44.3679	42.9376	46.1441	48.8754	49.5071	50.3457
MACH NO.	0.6340	0.6925	0.7187	0.6551	0.6394	0.6095	0.5967	0.5824	0.6707
SWIRL VELOCITY	529.7420	550.0484	540.1619	542.4703	508.7426	509.8161	518.7375	510.5231	590.9480
AXIAL VELOCITY	541.8817	611.4335	650.5784	553.5749	545.7522	488.8529	451.9160	434.9181	488.8190
ABSOLUTE VELOCITY	758.6676	823.5182	846.7674	776.0424	746.8347	707.8863	690.4517	673.6310	770.8759
WEIGHT FLOW	13.4383	10.0998	18.1080	25.8999	28.9383	20.2398	8.9862	3.8314	6.3635
MERIDIONAL VELOCITY	542.0932	611.8845	651.1030	553.9469	545.7555	490.1073	454.6617	438.4721	493.9931
STATIC TEMPERATURE	598.4247	590.0659	578.8419	584.8521	567.9493	561.0926	556.6312	555.9953	549.5247
STATIC PRESS.(ALT.)	19.5299	19.4399	18.6679	19.4396	18.9814	18.5438	18.2138	18.0842	18.0020
MCL INCIDENCE	15.3156	12.6791	10.0709	13.4277	9.2879	12.0524	14.7824	15.4017	16.2686
SUC SUR INCIDENCE	8.8883	6.1482	3.4990	7.1779	3.1777	5.8340	8.3154	8.8371	9.5957
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

ROG NO= 119 PCT DES SPD= 95.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 20.230 HUB STATIC PRES= 19.930

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLU ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.8200	8.8800	758.7000	529.7000	598.4000	19.5200	25.5900
.100	13.1600	-7.5000	1.0600	9.3400	6.1400	823.5000	550.0000	590.0000	19.4400	26.7700
.150	12.8300	-7.6000	1.0900	6.7700	3.4900	846.8000	540.2000	578.8000	18.6700	26.3300
.282	12.0000	-8.4000	1.1700	3.5200	7.1700	776.0000	542.5000	584.9000	19.4400	25.9300
.470	10.8200	-10.1000	1.3000	4.7700	3.1700	747.0000	508.7000	567.9000	19.0000	25.0000
.689	9.4800	-9.8000	1.4700	3.0900	5.8300	708.0000	509.8000	561.1000	18.5400	23.8200
.850	8.5900	-9.2000	1.6200	2.7200	8.3100	690.5000	518.7000	556.6000	18.2100	23.1700
.900	8.2700	-9.1000	1.6700	4.4200	8.8400	673.6000	510.5000	556.0000	18.0800	22.7500
.937	8.0200	-9.0000	1.7300	4.5600	9.6000	771.0000	591.0000	549.5000	18.0000	24.3300

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	642.4000	24.9400
.1000	13.1500	640.8800	25.6800
.1500	12.8400	634.2700	25.3700
.2822	11.9700	620.9000	25.1600
.4702	10.8300	608.2400	24.2800
.6887	9.5700	598.4000	22.9600
.8500	8.6700	594.6000	22.0000
.9000	8.4000	596.3000	21.3800
.9372	8.1200	599.0700	21.1700

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4236	.1071	.0514	.9137	8.2200	.5562	670.6245	669.1345	44.6785
.1000	.3810	.1487	.0692	.7743	13.8400	.5959	714.5854	705.1119	115.9720
.1500	.4281	.1253	.0571	.8507	11.3700	.5812	694.4120	689.5702	81.8601
.2822	.4024	.1186	.0506	-2.5929	8.9200	.5731	678.0629	676.7836	41.6310
.4702	.4036	.1200	.0460	1.1000	11.8700	.5280	621.2285	619.0769	51.6589
.6887	.4877	.1629	.0553	.8702	9.8900	.4470	525.6351	524.8708	28.3341
.8500	.5824	.2359	.0727	.6870	8.9200	.3743	441.2399	440.7428	20.9391
.9000	.6578	.2934	.0876	.5613	10.5200	.3151	373.4462	372.3356	28.7804
.9372	.7574	.4992	.1438	.4227	10.5600	.2931	348.7191	347.6152	27.7242

PCT IMMERS	EX STAT PRES
.0500	20.2133
.1000	20.1972
.1500	20.1816
.2822	20.1379
.4702	20.0806
.6887	20.0172
.8500	19.9720
.9000	19.9584
.9372	19.9443

ROTOR INLET TRAVERSE PLANE		READING NUMBER	107	TIME	10H 48M 1S	UNIFORM INLET FLOW	STATUS ANGLE 0.		
SPEED (RPM)	12773.0806								
ACTUAL ORIFICE FLOW	152.8415								
THETA	0.9942								
DELTA	0.9895								
MASS AVERAGED PT	14.5420	(14.6960)							
MASS AVERAGED TT	515.7017	(518.6881)							
TOTAL WEIGHT FLOW	157.3418	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	158.5495								
EQUIV. SPEED	12810.0117								
PERCENT SPEED	100.2269								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.4521	14.6748	14.7222	14.7457	14.7400	14.7203	14.7175	14.7141	14.6351
STATIC PRESSURE	10.8170	10.6224	10.4449	10.0628	10.2335	10.6494	10.7578	10.9977	11.2342
WEDGE PRESSURE	11.2866	11.2170	11.1240	10.9129	11.0075	11.2478	11.3191	11.4806	11.6248
TOTAL TEMPERATURE	519.5554	519.2400	520.0247	519.5201	517.9138	518.1294	517.6514	517.9651	517.3303
ANGLE (DEG.)	1.4508	2.2614	2.0759	2.2950	2.0380	1.9912	1.6662	1.6683	1.5087
APPARENT MACH NO.	0.6048	0.6315	0.6455	0.6699	0.6594	0.6319	0.6239	0.6060	0.5830
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	11.4852	11.4783	11.3609	11.2548	11.2263	11.3626	11.5739	11.7093	11.7765
WEDGE PRESSURE	11.5284	11.5261	11.4123	11.3092	11.2813	11.4139	11.6254	11.7530	11.8172
ANGLE (DEG.)	-1.4869	2.2264	2.5071	2.6973	3.5508	4.9947	6.1596	6.4475	6.1157
APPARENT MACH NO.	0.5774	0.5975	0.6141	0.6274	0.6299	0.6138	0.5902	0.5756	0.5611
MEASURING PLANE									
MACH NO.	0.5823	0.6028	0.6198	0.6333	0.6359	0.6194	0.5954	0.5806	0.5658
ABSOLUTE VELOCITY	629.2562	649.9238	666.9136	680.3630	682.9586	666.5655	642.4398	627.4580	612.4889
SWIRL VELOCITY	15.4788	25.0861	23.7812	27.1055	24.2861	23.0075	18.1021	17.4367	15.1055
WEIGHT FLOW	14.9854	10.8094	18.1023	29.0463	32.4831	25.4884	12.5221	6.1338	7.7395
AXIAL VELOCITY	611.1685	635.2477	656.0590	676.3428	682.4892	661.7536	622.2874	598.6781	573.5270
CALCULATING PLANE									
ANGLE (DEG.)	1.2536	1.9404	1.8121	2.0741	1.8437	1.7744	1.4032	1.3923	1.2184
SWIRL VELOCITY	15.7443	25.4366	24.0516	27.3282	24.2636	22.7552	17.6215	16.8065	14.3954
AXIAL VELOCITY	718.4728	749.7641	759.2143	753.5702	752.7306	733.5089	715.7774	690.4708	675.8311
MERIDIONAL VELOCITY	734.5238	760.4127	766.3043	756.0054	752.7352	737.2833	730.9648	714.8280	714.7727
ABSOLUTE VELOCITY	735.7167	761.8542	767.6919	757.5039	754.1293	738.6424	732.2020	716.0640	715.9794
MACH NO.	0.6895	0.7165	0.7225	0.7120	0.7085	0.6925	0.6859	0.6694	0.6693
WEIGHT FLOW	14.9866	10.8128	18.1058	29.0651	32.5046	25.5023	12.5228	6.0985	7.7431
WHEEL SPEED	1562.5811	1519.4820	1472.5620	1359.3462	1204.8351	1020.0383	885.1128	835.6245	785.7671
RELAT. TANG. VELOC.	1546.8368	1494.0452	1448.5100	1332.0179	1180.5713	997.2829	867.4912	818.8177	771.3716
RELATIVE FLOW ANGLE	64.5992	63.0258	62.1200	60.4225	57.4785	53.5249	49.8820	48.8792	47.1812
RELATIVE VELOCITY	1712.3752	1676.4242	1638.7197	1531.6053	1400.1279	1240.2256	1134.3944	1086.9411	1051.6245
RELATIVE MACH NO.	1.6049	1.5766	1.5424	1.4396	1.3154	1.1628	1.0627	1.0161	0.9831
MCL INCIDENCE	2.3992	1.8258	1.6200	2.0225	1.3785	1.2249	1.4820	0.8792	-0.7187
SURFACE INCIDENCE	0.1992	-0.1741	-0.4799	-0.3774	-1.0214	-1.4750	-2.2179	-2.9207	-4.8188
RELATIVE TOTAL PRESS	49.1845	47.1433	44.3726	37.8915	31.7742	26.2663	23.6215	22.5935	21.8643
STATIC TEMPERATURE	474.3906	470.8381	470.8048	471.6440	470.6082	472.7280	473.0739	475.3103	474.7371
RELAT. TOTAL TEMP.	719.0580	705.1994	695.0766	667.3676	633.6719	600.7255	580.0651	573.5928	566.6252
STATIC PRESS. (ALT.)	10.5149	10.4221	10.3980	10.5154	10.5446	10.6816	10.7420	10.8947	10.8369
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5535	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	107	TIME	104 484	15	UNIFORM INLET FLOW	STATGR ANGLE	3.00
MASS AVERAGED PT	20.7842	(21.0043)						
MASS AVERAGED TT	584.9869	(588.3747)						
TOTAL WEIGHT FLOW	159.4749	(PROBE INTEGRATION)						
CORR. TOTAL FLOW	160.6991							
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.								
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800 5.9500
TOTAL PRESSURE	20.6865	20.6262	20.5962	20.6046	21.1004	21.6093	21.9095	21.7728 19.9844
STATIC PRESSURE	13.8619	13.6652	13.5342	13.7823	14.3224	14.8044	14.8532	14.7403 13.9073
WEDGE PRESSURE	14.9970	14.8301	14.7213	14.9182	15.4420	15.9228	16.0235	15.9035 14.8978
TOTAL TEMPERATURE	586.7817	582.5132	582.5270	597.6626	589.6561	586.4657	586.4670	586.7812 585.4366
ANGLE (DEG.)	19.7784	18.8510	20.2362	27.7785	28.0581	30.5881	32.1454	32.8855 36.7830
APPARENT MACH NO.	0.6938	0.7031	0.7096	0.6953	0.6831	0.6752	0.6838	0.6853 0.6617
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.								
STATIC PRESSURE	14.1853	13.9367	13.8377	14.5042	14.6878	15.0335	14.9812	14.8449 14.7382
WEDGE PRESSURE	14.3253	14.0837	13.9874	14.6306	14.8229	15.1722	15.1310	14.9953 14.8388
ANGLE (DEG.)	4.9922	17.8608	14.5986	19.8204	26.6922	26.8219	28.0888	28.4635 28.9428
APPARENT MACH NO.	0.7441	0.7589	0.7646	0.7170	0.7286	0.7292	0.7459	0.7499 0.6663
MEASURING PLANE								
MACH NO.	0.7545	0.7699	0.7758	0.7265	0.7385	0.7391	0.7575	0.7605 0.6742
ABSOLUTE VELOCITY	848.0756	860.7219	865.9370	827.2026	835.2785	833.4512	852.4355	855.4536 766.5797
SWIRL VELOCITY	286.0444	277.3033	298.8106	385.2097	392.8690	422.6619	449.4399	458.7388 453.0405
WEIGHT FLOW	16.1877	10.9056	18.8255	28.2213	33.5505	26.4801	12.8293	5.6384 6.8916
AXIAL VELOCITY	795.4627	812.2037	810.5649	731.2830	737.0782	715.0232	715.2121	709.4982 605.9698
CALCULATING PLANE								
SWIRL VELOCITY	284.1542	275.6328	297.4251	384.2513	393.2324	426.2859	455.8912	466.7468 463.6174
AXIAL VELOCITY	735.5078	749.7642	749.1983	689.4367	706.5632	680.3272	668.5943	659.3594 565.3684
ABSOLUTE VELOCITY	798.1898	805.5268	810.8506	790.6908	809.6309	806.5702	820.8393	823.5896 748.5916
MERIDIONAL VELOCITY	744.8829	755.8911	753.3250	690.0420	706.7183	683.7075	681.5749	677.5316 586.7065
ANGLE (DEG.)	21.0972	20.1600	21.6264	29.0974	29.0633	32.0329	34.2488	35.2529 39.3029
MACH NO.	0.7055	0.7153	0.7211	0.6913	0.7135	0.7128	0.7264	0.7291 0.6570
WEIGHT FLOW	16.1952	10.9115	18.8197	28.1120	33.5661	26.4988	12.8349	5.6430 6.8934
WHEEL SPEED	1521.2549	1483.7298	1444.6515	1347.0602	1209.3105	1043.5265	935.4659	897.1497 863.0007
RELAT. TANG. VELOC.	1237.1006	1208.0967	1147.2263	962.8086	816.0778	617.2402	479.5756	430.4029 399.3833
RELATIVE FLOW ANGLE	58.9472	57.9665	56.7093	54.3711	49.1078	42.0753	35.1314	32.4259 34.2440
RELATIVE VELOCITY	1444.0455	1425.0853	1372.4525	1184.5499	1079.5521	921.1088	833.3839	802.6803 709.7404
RELATIVE MACH NO.	1.2765	1.2655	1.2206	1.0356	0.9514	0.8141	0.7375	0.7106 0.6229
DEVIATION	2.9472	1.6665	0.8093	3.1711	2.1078	3.3753	7.2314	9.5259 15.6440
AIR TURNING ANGLE	5.6520	5.0593	5.4107	6.0513	8.3706	11.4496	14.7506	16.4532 12.9371
REL. MACH NO. (WHL.)	1.1585	1.1406	1.1195	1.0649	0.9795	0.8682	0.7917	0.7638 0.7387
IDEAL PRESS. RATIO	0.9492	0.9562	0.9662	0.9855	1.0049	1.0236	1.0467	1.0551 1.0668
ROTOR PRESS. RATIO	1.4313	1.4055	1.3989	1.3973	1.4315	1.4679	1.4886	1.4797 1.3655
ROTOR TEMP. RATIO	1.1293	1.1218	1.1201	1.1504	1.1385	1.1318	1.1329	1.1328 1.1316
ADIABATIC EFFY.	0.8329	0.8374	0.8367	0.6658	0.7781	0.8779	0.9045	0.8905 0.7062
POLYTR. EFFICIENCY	0.8411	0.8450	0.8443	0.6811	0.7890	0.8843	0.9097	0.8964 0.7188
TOTAL LOSS COEFF.	0.0810	0.0764	0.0779	0.2032	0.1421	0.0883	0.0794	0.0969 0.2651
SHOCK LOSS COEFF.	0.0140	0.0132	0.0124	0.0140	0.0529	0.0372	0.0164	0.0097 0.0060
PROFILE LOSS COEFF.	0.0670	0.0632	0.0655	0.1891	0.0891	0.0511	0.0630	0.0871 0.2591
TOTAL LOSS PARAM.	0.0127	0.0122	0.0128	0.0349	0.0268	0.0183	0.0174	0.0214 0.0560
PROFILE LOSS PARAM.	0.0105	0.0101	0.0107	0.0325	0.0168	0.0106	0.0138	0.0192 0.0548
ROTOR DIFFUS. FACT.	0.2082	0.2008	0.2175	0.3017	0.3127	0.3567	0.3739	0.3801 0.4455
STATIC PRESS. (ALT.)	14.8410	14.6677	14.5691	14.9719	15.0796	15.4014	15.4234	15.2888 14.9568
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756 0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000 15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100 1.9640
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000 29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	107	TIME	10H 48M 1S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
MASS AVERAGED PT	20.7838	(21.0039)							
MASS AVERAGED TT	584.9931	(588.3807)							
TOTAL WEIGHT FLOW	159.5073	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	160.7317								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.6865	20.6262	20.5962	20.6046	21.1004	21.6093	21.9095	21.7728	19.9844
STATIC PRESSURE	14.1853	13.9367	13.8377	14.5042	14.6878	15.0335	14.9812	14.8449	14.7382
WEDGE PRESSURE	14.3253	14.0837	13.9874	14.6306	14.8229	15.1722	15.1310	14.9953	14.8388
TOTAL TEMPERATURE	586.7816	582.5131	582.5269	597.6625	589.6560	586.4656	586.4659	586.7811	585.4365
ANGLE (DEG.)	19.7784	18.8510	20.2362	27.7785	28.0581	30.5881	32.1454	32.8855	36.7829
MACH NO.	0.7545	0.7699	0.7758	0.7265	0.7385	0.7391	0.7575	0.7605	0.6742
ABSOLUTE VELOCITY	848.0754	860.7219	865.9370	827.2026	835.2781	833.4511	852.4363	855.4534	766.5796
SWIRL VELOCITY	286.0442	277.3032	298.8106	385.2096	392.8687	422.6617	449.4397	458.7386	453.0403
AXIAL VELOCITY	795.4623	812.2036	810.5649	731.2832	737.0780	715.0230	715.2121	709.4980	605.9698
WEIGHT FLOW	16.1877	10.9056	18.8255	28.2213	33.5505	26.4801	12.8293	5.6384	6.8916
CALCULATING PLANE									
ANGLE (DEG.)	19.9813	18.8242	19.8634	26.8575	26.3873	28.6586	30.2779	30.9200	34.7827
MACH NO.	0.7470	0.7718	0.7934	0.7538	0.7868	0.7819	0.7899	0.7912	0.6938
SWIRL VELOCITY	287.1051	278.1460	299.9751	386.1725	392.8687	419.5407	443.6844	452.6369	445.6968
AXIAL VELOCITY	788.6167	814.9175	829.3265	761.5871	790.8690	766.6224	758.9450	754.7007	640.6840
ABSOLUTE VELOCITY	840.4841	862.5965	883.4828	855.2503	883.9772	876.5222	883.9780	886.1946	786.8751
WEIGHT FLOW	16.1926	10.9118	18.8194	28.2322	33.4884	26.4937	12.8320	5.6414	6.8955
MERIDIONAL VELOCITY	788.9243	815.5185	829.9952	762.0990	790.8741	768.5893	763.5562	760.8679	647.4656
STATIC TEMPERATURE	527.9528	520.5770	517.4569	536.7744	524.7929	522.6585	521.6296	521.5793	534.0915
STATIC PRESS.(ALT.)	14.2863	13.9115	13.6007	14.1382	14.0260	14.4329	14.5327	14.4100	14.4881
MCL INCIDENCE	-9.0108	-10.4418	-9.7404	-4.0943	-7.2625	-5.4778	-3.9280	-3.3372	0.5409
SUC SUR INCIDENCE	-15.4286	-16.9557	-16.2965	-10.3324	-13.3726	-11.6513	-10.2820	-9.7499	-5.9672
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6668	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG.NO= 107 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.320 HUB STATIC PRES= 14.090

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.7700	-15.4000	840.5000	287.1000	527.9000	14.2900	20.6900
.100	13.1600	-7.5000	1.0600	3.0700	-17.0000	862.6000	278.1000	520.6000	13.9100	20.6300
.150	12.8300	-7.6000	1.0900	2.1300	-16.3000	883.5000	300.0000	517.5000	13.6000	20.6000
.252	12.0000	-8.4000	1.1700	1.7000	-10.3000	855.3000	386.1000	536.8000	14.1300	20.6000
.470	10.8200	-10.1000	1.3000	.9000	-13.4000	883.9800	392.9000	524.8000	14.0300	21.1000
.689	9.4800	-9.8000	1.4700	.8000	-11.6000	876.5000	419.5000	522.7000	14.4300	21.6100
.850	8.5900	-9.2000	1.6200	1.1200	-10.3000	884.0000	443.7000	521.6000	14.5300	21.9000
.900	8.2700	-9.1000	1.6700	1.0100	-9.7000	886.2000	452.6000	521.6000	14.4100	21.7700
.937	8.0200	-9.0000	1.7300	1.1000	-5.9700	786.9000	445.7000	534.1000	14.8800	19.9800

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	586.5500	19.1800
.1000	13.1500	583.2000	20.0700
.1500	12.8400	580.9400	20.2600
.2522	11.9700	589.5400	20.4200
.4702	10.8300	581.9500	20.2000
.6887	9.5700	582.1400	20.7900
.8500	8.6700	582.9200	20.3500
.9000	8.4000	583.8800	20.2200
.9372	8.1200	586.0600	18.6500

PCT IMMERS	DEF PRCT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MECH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2406	.2359	.1132	.0159	8.1700	.6409	752.4043	750.7761	49.8717
.1000	.1957	.0833	.0393	.4089	7.9700	.7138	884.6767	883.5219	43.0452
.1500	.2180	.0486	.0223	.8884	6.7300	.7247	814.5223	813.9595	38.8733
.2522	.2344	.0896	.0383	-.7004	7.1000	.7142	809.7683	809.4119	24.0228
.4702	.2400	.1273	.0490	1.2775	8.0000	.7274	817.9656	817.8647	12.8400
.6887	.1844	.1142	.0388	2.6139	7.6090	.7617	852.7784	852.6953	11.9066
.8500	.2060	.2103	.0649	-1.2019	7.3200	.7417	833.1622	833.0030	16.2854
.9000	.2128	.2106	.0630	-.5955	7.1100	.7356	827.4796	827.5510	14.5894
.9372	.2231	.2608	.0754	-1.1861	7.1000	.6448	735.2574	735.1219	14.1151

PCT IMMERS	EX STAT PRES
.0500	14.3072
.1000	14.2948
.1500	14.2829
.2522	14.2494
.4702	14.2054
.6887	14.1569
.8500	14.1222
.9000	14.1118
.9372	14.1010

ROTOR INLET TRAVERSE PLANE	READING NUMBER	108	TIME	11H 21M 34S	UNIFORM INLET FLOW	STATUS	ANGLE	3.	
SPEED (RPM)	12801.6495								
ACTUAL ORIFICE FLOW	152.9776								
THETA	0.9958								
DELTA	0.9892								
MASS AVERAGED PT	14.5377	(14.6960)							
MASS AVERAGED TT	516.5105	(518.6881)							
TOTAL WEIGHT FLOW	157.0395	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	158.4158								
EQUIV. SPEED	12828.6062								
PERCENT SPEED	100.3724								
DISTORTION INDEX 0.000									
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.								
IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5022	14.6644	14.7268	14.7414	14.7380	14.7250	14.7084	14.7084	14.5728
STATIC PRESSURE	10.7718	10.5612	10.4102	10.0644	10.2780	10.6693	10.7727	11.0081	11.2510
WEDGE PRESSURE	11.2692	11.1739	11.1052	10.9123	11.0323	11.2623	11.3266	11.4862	11.6211
TOTAL TEMPERATURE	519.0548	518.0358	518.5780	518.8804	519.8441	518.1857	517.7166	517.5666	517.7064
ANGLE (DEG.)	1.4488	2.1080	2.2089	2.1001	2.0405	1.9499	1.6320	1.6004	1.5046
APPARENT MACH NO.	0.6111	0.6353	0.6479	0.6697	0.6566	0.6307	0.6224	0.6048	0.5778
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.4965	11.4799	11.3625	11.2729	11.2610	11.3540	11.5438	11.7161	11.7609
WEDGE PRESSURE	11.5404	11.5274	11.4140	11.3268	11.3151	11.4056	11.5919	11.7595	11.8008
ANGLE (DEG.)	-2.1323	1.8980	1.9604	2.5054	3.7433	4.8423	6.1020	6.5717	6.0535
APPARENT MACH NO.	0.5806	0.5965	0.6144	0.6251	0.6261	0.6151	0.5931	0.5744	0.5572
MEASURING PLANE									
MACH NO.	0.5856	0.6017	0.6200	0.6310	0.6320	0.6208	0.5984	0.5793	0.5618
ABSOLUTE VELOCITY	632.5351	648.8401	667.1235	678.0607	679.0611	667.9045	645.4510	626.1689	608.4548
SWIRL VELOCITY	15.5389	23.3456	25.3116	24.7210	24.1782	22.5753	17.8140	16.6938	14.9654
WEIGHT FLOW	15.0799	10.7922	18.1156	28.9692	32.2724	25.4999	12.5380	6.1190	7.6608
AXIAL VELOCITY	614.3535	634.2506	656.2100	674.1408	678.5935	663.0989	625.2140	597.4665	569.7504
CALCULATING PLANE									
ANGLE (DEG.)	1.2501	1.8101	1.9274	1.9022	1.8503	1.7378	1.3774	1.3335	1.2175
SWIRL VELOCITY	15.8054	23.6718	25.5995	24.9242	24.1558	22.3278	17.3411	16.0904	14.2619
AXIAL VELOCITY	723.2648	748.0415	759.6770	749.4363	746.7394	734.8997	720.1858	690.1954	670.0412
MERIDIONAL VELOCITY	739.4229	758.6659	766.7714	751.8581	746.7439	738.6812	735.4678	714.5428	708.6491
ABSOLUTE VELOCITY	740.6156	760.0514	768.2095	753.2755	748.1348	740.0257	736.6952	715.7621	709.8530
MACH NO.	0.6945	0.7146	0.7231	0.7076	0.7023	0.6939	0.6935	0.6691	0.6631
WEIGHT FLOW	15.0816	10.7943	18.1218	28.9656	32.2748	25.5069	12.5413	6.0906	7.6622
WHEEL SPEED	1565.6035	1523.4552	1476.7551	1362.1582	1204.3420	1021.4634	886.3416	837.1593	786.6219
RELAT. TANG. VELOC.	1549.7979	1499.7829	1451.1555	1337.2340	1180.1860	999.1355	869.0013	821.0687	772.3597
RELATIVE FLOW ANGLE	64.4940	63.1676	62.1488	60.6534	57.6772	53.5239	49.7576	48.9684	47.4634
RELATIVE VELOCITY	1717.1545	1680.7504	1641.2768	1534.1072	1396.5905	1242.5465	1138.4525	1088.4507	1048.1998
RELATIVE MACH NO.	1.6104	1.5803	1.5449	1.4411	1.3111	1.1652	1.0671	1.0175	0.9792
MCL INCIDENCE	2.2939	1.9676	1.6488	2.2534	1.5772	1.2239	1.3576	0.9684	-0.4365
SURFACE INCIDENCE	0.0940	-0.0323	-0.4511	-0.1465	-0.8227	-1.4760	-2.3423	-2.8315	-4.5365
RELATIVE TOTAL PRESS	49.6365	47.4067	44.5425	38.0357	31.6828	26.3268	23.6739	22.6433	21.7362
STATIC TEMPERATURE	473.3311	469.9740	469.4280	471.5957	473.1172	472.6102	472.5906	474.9809	475.8098
RELAT. TOTAL TEMP.	719.1270	705.0023	693.7779	667.7166	635.9515	601.0983	580.3550	573.4597	567.1642
STATIC PRESS. (ALT.)	10.5045	10.4324	10.3961	10.5539	10.6019	10.6717	10.6920	10.8933	10.8486
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.6000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	108	TIME	11H 21M 34S	UNIFORM INLET FLOW	STATUS	ANGLE	3.00	
MASS AVERAGED PT	21.9542	(22.1932)							
MASS AVERAGED TT	595.7454	(598.2570)							
TOTAL WEIGHT FLOW	154.5895	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	155.9444								
PROBE TYPE - NASA 4 PARAMETER	LOCATION	- STA 9.0,	104 DEG.						
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3610	5.6800	5.9500
TOTAL PRESSURE	22.8274	22.5721	22.4424	21.7784	21.7599	22.5603	22.5150	22.3791	20.7200
STATIC PRESSURE	15.6813	15.4783	15.2560	15.0188	15.3187	15.5752	15.4039	15.2320	14.6577
WEDGE PRESSURE	16.8579	16.6473	16.4457	16.1295	16.3659	16.7222	16.5819	16.4144	15.6409
TOTAL TEMPERATURE	607.0784	596.8609	597.4747	610.2461	594.9926	592.8677	590.7835	590.5468	589.2276
ANGLE (DEG.)	24.7924	23.6444	24.8349	34.0778	33.6852	34.5117	34.9312	36.3136	39.6540
APPARENT MACH NO.	0.6728	0.6742	0.6816	0.6694	0.6512	0.6684	0.6738	0.6805	0.6469
PROBE TYPE - NASA 2 PARAMETER	LOCATION	- STA 9.0,	300 DEG.						
STATIC PRESSURE	15.7948	15.5817	15.9492	16.2445	16.1947	16.2276	15.9239	15.8198	15.7398
WEDGE PRESSURE	15.9443	15.7308	16.0818	16.3486	16.2998	16.3545	16.0643	15.9548	15.8302
ANGLE (DEG.)	10.1898	23.8880	16.5730	24.5783	31.9338	30.6375	31.2043	31.1439	31.5866
APPARENT MACH NO.	0.7349	0.7373	0.7069	0.6536	0.6561	0.6939	0.7116	0.7125	0.6323
MEASURING PLANE									
MACH NO.	0.7450	0.7475	0.7160	0.6611	0.6637	0.7026	0.7210	0.7219	0.6393
ABSOLUTE VELOCITY	853.2373	849.3923	817.0506	767.4133	759.7966	800.3630	818.2194	819.0960	731.9762
SWIRL VELOCITY	356.7095	339.7349	342.4057	429.6905	421.3889	452.0433	464.5170	479.5476	461.4823
WEIGHT FLOW	16.8426	11.2739	18.9546	26.4011	30.8735	25.7244	12.4577	5.4264	6.6575
AXIAL VELOCITY	772.2624	775.9827	739.8501	635.1830	632.2014	657.4422	665.1032	652.4971	556.7693
CALCULATING PLANE									
SWIRL VELOCITY	354.3524	337.6882	340.8180	428.6216	421.7786*	455.9193	471.1847	487.9189	472.2562
AXIAL VELOCITY	717.2544	719.9650	689.5222	607.1637	608.6027	628.6251	624.8976	609.9402	521.5890
ABSOLUTE VELOCITY	809.1309	801.4723	773.4651	744.4673	741.4019	779.8991	793.1743	795.0936	719.1188
MERIDIONAL VELOCITY	726.3970	725.8485	693.3202	607.6967	608.7362	631.7486	637.0297	626.7502	541.2747
ANGLE (DEG.)	26.2595	25.0976	26.2693	35.1754	34.6791	35.9087	36.9729	38.6121	42.1036
MACH NO.	0.7026	0.7010	0.6743	0.6397	0.6462	0.6830	0.6957	0.6986	0.6272
WEIGHT FLOW	16.8506	11.2691	18.9124	26.4087	30.8427	25.7476	12.4630	5.4303	6.6647
WHEEL SPEED	1524.1973	1487.6094	1448.7652	1349.8464	1208.8152	1044.9842	936.7657	898.7976	863.9394
RELAT. TANG. VELOC.	1169.8449	1149.9210	1107.9473	921.2247	787.0365	589.0645	465.5808	410.8788	391.6832
RELATIVE FLOW ANGLE	58.1626	57.7394	57.9631	56.5889	52.2799	42.9977	36.1617	33.2477	35.8908
RELATIVE VELOCITY	1377.0218	1359.8435	1306.9963	1103.6077	994.9805	863.7727	789.0323	749.4245	668.1272
RELATIVE MACH NO.	1.1958	1.1895	1.1394	0.9484	0.8673	0.7564	0.6931	0.6585	0.5827
DEVIATION	2.1626	1.4394	2.0631	5.3889	5.2799	4.2977	8.2617	10.3477	17.2908
AIR TURNING ANGLE	6.3313	5.4282	4.1857	4.0644	5.3973	10.5262	13.5958	15.7206	11.5726
REL. MACH NO. (WHL.)	1.1603	1.1425	1.1223	1.0663	0.9792	0.8693	0.7927	0.7650	0.7395
IDEAL PRESS. RATIO	0.9490	0.9561	0.9660	0.9855	1.0049	1.0237	1.0468	1.0552	1.0669
ROTOR PRESS. RATIO	1.5740	1.5392	1.5239	1.4773	1.4764	1.5321	1.5307	1.5215	1.4218
ROTOR TEMP. RATIO	1.1695	1.1521	1.1521	1.1760	1.1445	1.1441	1.1411	1.1410	1.1381
ADIABATIC EFFY.	0.8143	0.8604	0.8393	0.6684	0.8153	0.8981	0.9152	0.9022	0.7647
POLYTR. EFFICIENCY	0.8258	0.8686	0.8486	0.6860	0.8233	0.9041	0.9202	0.9078	0.7760
TOTAL LOSS COEFF.	0.1126	0.0796	0.0938	0.2290	0.1250	0.0796	0.0740	0.0911	0.2244
SHOCK LOSS COEFF.	0.0141	0.0133	0.0124	0.0137	0.0546	0.0378	0.0172	0.0099	0.0056
PROFILE LOSS COEFF.	0.0985	0.0662	0.0814	0.2153	0.0703	0.0418	0.0557	0.0812	0.2187
TOTAL LOSS PARAM.	0.0181	0.0128	0.0149	0.0372	0.0221	0.0162	0.0150	0.0199	0.0465
PROFILE LOSS PARAM.	0.0158	0.0106	0.0129	0.0349	0.0124	0.0085	0.0123	0.0177	0.0453
ROTOR DIFFUS. FACT.	0.2614	0.2528	0.2668	0.3639	0.3756	0.4101	0.4231	0.4347	0.4848
STATIC PRESS. (ALT.)	16.4212	16.2599	16.5514	16.5390	16.4347	16.5124	16.2809	16.1554	15.8971
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.8696	0.6030	0.5756	0.5534
STRFAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8510	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.4000	7.2000	9.1000	13.6000	20.5000	25.1000	26.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	108	TIME	11H 21M 34S	UNIFORM INLET FLOW	STATOR ANGLE 3.			
MASS AVERAGED PT	21.9537	(22.1927)							
MASS AVERAGED TT	595.7512	(598.2629)							
TOTAL WEIGHT FLOW	154.4625	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	155.8162								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.8274	22.5721	22.4424	21.7784	21.7599	22.5603	22.5150	22.3791	20.7200
STATIC PRESSURE	15.7948	15.5817	15.9492	16.2445	16.1947	16.2276	15.9239	15.8198	15.7398
WEDGE PRESSURE	15.9443	15.7308	16.0818	16.3486	16.2998	16.3545	16.0643	15.9548	15.8302
TOTAL TEMPERATURE	607.0784	596.8608	597.4746	610.2460	594.9924	592.8676	590.7893	590.5467	589.2274
ANGLE (DEG.)	24.7924	23.6444	24.8349	34.0778	33.6852	34.5117	34.9312	36.3138	34.6540
MACH NO.	0.7450	0.7475	0.7160	0.6611	0.6637	0.7026	0.7210	0.7219	0.6393
ABSOLUTE VELOCITY	853.2373	849.3923	817.0505	767.4135	759.7966	800.3628	818.2194	819.0959	731.9762
SWIRL VELOCITY	356.7095	339.7348	342.4056	429.6905	421.3887	452.0429	464.5159	479.5474	461.4821
AXIAL VELOCITY	772.2624	775.9830	739.8501	635.1829	632.2015	657.4421	665.1032	652.4967	556.7694
WEIGHT FLOW	16.8426	11.2739	18.9546	26.4011	30.8735	25.7244	12.4577	5.4264	6.6575
CALCULATING PLANE									
ANGLE (DEG.)	25.0132	23.6232	24.4600	33.2407	32.1034	33.0061	33.1115	34.4330	37.6821
MACH NO.	0.7390	0.7490	0.7293	0.6788	0.6953	0.7267	0.7452	0.7437	0.6541
SWIRL VELOCITY	358.0326	340.7674	343.7399	430.7647	421.3887	448.7050	458.5685	473.1691	454.0017
AXIAL VELOCITY	766.3403	778.1237	754.6660	656.2578	670.6641	689.7830	702.1321	689.1922	586.7376
ABSOLUTE VELOCITY	847.0303	850.9148	830.7301	786.2119	792.9110	825.2107	843.0361	841.4724	747.6417
WEIGHT FLOW	16.8466	11.2776	18.9625	26.4021	30.8810	25.5327	12.4679	5.4285	6.6633
MERIDIONAL VELOCITY	766.6393	778.6977	755.2746	656.6989	670.6684	691.5530	706.3981	694.8243	592.9988
STATIC TEMPERATURE	547.4338	536.7611	540.1336	558.8843	542.6216	536.3200	531.8127	531.8140	542.8483
STATIC PRESS.(ALT.)	15.8839	15.5598	15.7569	15.9995	15.7545	15.8769	15.5750	15.5026	15.5459
MCL INCIDENCE	-3.9769	-5.6393	-5.1402	2.2930	-1.5463	-1.1191	-1.0772	0.2044	3.4710
SUC SUR INCIDENCE	-10.3967	-12.1567	-11.6999	-3.9492	-7.6565	-7.3038	-7.4484	-6.2369	-3.0678
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 108 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 18.840 HUB STATIC PRES= 16.760

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.3000	-10.4000	847.0000	358.0000	547.4000	15.9000	22.8300
.100	13.1600	-7.5000	1.0600	5.0100	-12.2000	851.0000	340.7000	536.7000	15.5500	22.5700
.150	12.8300	-7.6000	1.0900	3.2000	-11.7000	830.7000	343.7000	540.1000	15.7600	22.4400
.282	12.0000	-8.4000	1.1700	3.6100	-3.9000	786.2000	430.7000	558.9000	16.0000	21.7700
.470	10.8200	-10.1000	1.3000	1.2100	-7.7000	793.0000	421.4000	542.6000	15.7500	21.7600
.689	9.4800	-9.8000	1.4700	1.6800	-7.3000	825.2000	448.7000	536.3000	15.8800	22.5600
.850	8.5900	-9.2000	1.6200	1.2800	-7.4000	843.0000	458.6000	531.8000	15.5800	22.5100
.900	8.2700	-9.1000	1.6700	1.2900	-6.2000	841.5000	473.2000	531.8000	15.5000	22.3800
.937	8.0200	-9.0000	1.7300	2.2000	-3.1000	747.6000	454.0000	542.8000	15.5500	20.7200

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	602.0500	21.1500
.1000	13.1500	600.1400	22.1500
.1500	12.8400	595.5200	22.3200
.2822	11.9700	600.9300	21.4400
.4702	10.8300	591.2400	21.4500
.6887	9.5700	589.9000	22.3000
.8500	8.6700	588.4000	21.6600
.9000	8.4000	587.9000	21.3000
.9372	8.1200	589.7000	20.1800

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.5899	.2424	.1161	.7740	9.7000	.4209	497.4524	495.3256	45.9500
.1000	.4654	.0598	.0281	.8283	9.5100	.5048	591.3582	589.0989	51.6431
.1500	.4355	.0180	.0082	1.0397	7.8000	.5245	610.8659	609.9134	34.0994
.2822	.4840	.0572	.0244	1.4321	9.0100	.4894	574.4964	573.3565	36.1730
.4702	.4328	.0516	.0198	1.0737	8.3100	.5228	606.8221	606.6868	12.8142
.6887	.3273	.0389	.0132	1.0735	8.6800	.6086	699.1788	698.8024	22.9375
.8500	.3508	.1227	.0378	.7864	7.4800	.5948	683.4450	683.2744	15.2670
.9000	.3685	.1570	.0470	.7305	7.3900	.5802	667.4641	667.2949	15.0265
.9372	.3688	.1044	.0302	.7332	8.2000	.5134	595.6027	595.1637	22.8639

PCT IMMERS	EX STAT PRES
.0500	18.7239
.1000	18.6124
.1500	18.5044
.2822	18.2012
.4702	17.8038
.6887	17.3647
.8500	17.0510
.9000	16.9569
.9372	16.8593

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

UNIFORM INLET FLOW

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12794.0413	ORIFICE ACTUAL FLOW = 153.3906	AMBIENT PRESSURE = 14.8526
EQUIVALENT SPEED (RPM) = 12837.0295	BELLMOUTH ACTUAL FLOW = 153.1035	AMBIENT TEMPERATURE = 514.6881
PERCENT EQUIVALENT SPEED = 100.4383	INLET FLOW (STA 5) = 0.0000	INLET TOTAL PRESSURE (MA) = 14.5900
ORF TO BELL FLOW RATIO = 1.0018	ORIFICE EQUIVALENT FLOW = 153.9875	INLET TEMPERATURE = 515.2201
ORF TO INLET FLOW RATIO = 0.0000	BELLMOUTH EQUIVALENT FLOW = 153.6992	BELLMOUTH TOTAL PRESSURE = 14.5900
ORF TO EXIT FLOW RATIO = 0.9553	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0000
EQVT. FLOW PER ANN. AREA = 43.4624	EXIT FLOW (STA 12) = 160.5657	EXIT TOTAL PRESSURE (MA) = 21.9637
EQVT. FLOW PER FRON. AREA = 34.1814	MIXING DUCT TEMPERATURE = 594.5398	EXIT TEMPERATURE (STA 12) = 593.7834
PERCENT DESIGN EQVT. FLOW = 104.1082	INNER ORIFICE FLOW = 59.2859	STAGE PRESSURE RATIO (MA) = 1.5053
DISTORTION INDEX (RADIAL) = 0.0000	OUTER ORIFICE FLOW = 94.1046	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1524	0.8117	0.8222	4096.99
MIXING DUCT	0.1539	0.8039	0.8149	4136.54
TORQUEMETER	-0.0055	*****	*****	-148.76

STAGE ELEMENT PERFORMANCE

IMMERSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.4877	1.5459	1.5566	1.4800	1.4841	1.5534	1.4998	1.4594	1.3853
TEMPERATURE RISE	0.1726	0.1681	0.1598	0.1606	0.1457	0.1424	0.1369	0.1368	0.1389
ADIABATIC EFFICIENCY	0.6945	0.7866	0.8419	0.7364	0.8183	0.9403	0.8953	0.8324	0.7014
POLYTROPIC EFFICIENCY	0.7110	0.7992	0.8514	0.7505	0.8281	0.9439	0.9011	0.8411	0.7148
TOTAL PRESSURE	21.7056	22.5558	22.7112	21.5933	21.6533	22.6644	21.8826	21.2934	20.2124
TOTAL TEMPERATURE	604.19	601.87	597.55	598.00	590.29	588.59	585.78	585.73	586.81
STATIC PRESSURE	17.3503	17.3437	17.3371	17.3195	17.2955	17.2698	17.2514	17.2455	17.2398

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 162.5580	PRESSURE RATIO = 11.4477	TURBINE GAS FLOW = 0.3947
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0158	TURBINE AIR FLOW = 24.9588
INLET TOTAL TEMPERATURE = 1530.1028	SPECIFIC HEAT = 0.2678	TURBINE TOTAL FLOW = 25.3536
EXIT TOTAL TEMPERATURE = 1056.2467	TURBINE EFFICIENCY = 0.6671	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS
 293 404 408 410 423 427 437 541

PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	0.00(0.00)	129	0.00(0.00)	120	12.37(12.46)	124	12.72(12.81)
130	0.00(0.00)	131	0.00(0.00)	121	12.38(12.47)	125	12.72(12.81)
132	0.00(0.00)	133	0.00(0.00)	122	12.37(12.46)	126	12.72(12.81)
134	0.00(0.00)	135	0.00(0.00)	123	12.37(12.46)	127	12.73(12.83)
136	0.00(0.00)	137	0.00(0.00)				
138	0.00(0.00)	139	0.00(0.00)				
140	0.00(0.00)	141	0.00(0.00)				
142	0.00(0.00)	143	0.00(0.00)				
144	0.00(0.00)	145	0.00(0.00)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 21.70(21.86)				IMMERSION B - AVG 22.55(22.71)				IMMERSION C - AVG 22.71(22.87)			
ANGLE 136		ANGLE 320		ANGLE 72		ANGLE 248		ANGLE 168		ANGLE 352	
204	22.51(22.68)	215	21.68(21.84)	226	22.42(22.58)	237	21.97(22.13)	248	21.90(22.06)	259	21.38(21.53)
205	20.18(20.32)	216	19.21(19.35)	227	21.43(21.58)	238	21.60(21.75)	249	22.51(22.67)	260	22.63(22.79)
206	20.42(20.57)	217	19.57(19.71)	228	22.07(22.24)	239	22.28(22.44)	250	22.94(23.11)	261	22.84(23.00)
207	22.03(22.19)	218	21.06(21.22)	229	22.82(22.99)	240	22.70(22.86)	251	22.90(23.06)	262	22.77(22.93)
208	22.40(22.56)	219	21.80(21.96)	230	22.86(23.03)	241	22.68(22.84)	252	22.93(23.10)	263	22.78(22.95)
209	22.39(22.55)	220	21.87(22.03)	231	22.86(23.02)	242	22.71(22.88)	253	22.93(23.09)	264	22.83(22.99)
210	22.35(22.52)	221	21.75(21.91)	232	22.99(23.15)	243	22.75(22.92)	254	22.95(23.12)	265	22.78(22.95)
211	22.40(22.56)	222	21.65(21.81)	233	22.85(23.01)	244	22.68(22.84)	255	22.91(23.08)	266	22.64(22.80)
212	22.42(22.58)	223	21.71(21.87)	234	22.69(22.85)	245	22.55(22.71)	256	22.84(23.00)	267	22.60(22.77)
213	22.47(22.64)	224	21.94(22.10)	235	22.76(22.92)	246	22.61(22.77)	257	22.77(22.93)	268	22.57(22.73)
214	22.46(22.62)	225	21.99(22.15)	236	22.67(22.84)	247	22.58(22.74)	258	22.40(22.57)	269	22.04(22.20)
IMMERSION D - AVG 21.59(21.75)				IMMERSION E - AVG 21.65(21.81)				IMMERSION F - AVG 22.66(22.82)			
ANGLE 96		ANGLE 280		ANGLE 40		ANGLE 216		ANGLE 72		ANGLE 248	
270	21.51(21.66)	281	21.59(21.74)	292	21.65(21.80)	303	21.50(21.66)	314	22.76(22.92)	325	22.46(22.62)
271	20.83(20.99)	282	20.99(21.15)	293	19.71(19.85)	304	21.01(21.16)	315	21.21(21.37)	326	21.26(21.41)
272	21.46(21.62)	283	21.62(21.78)	294	21.45(21.60)	305	21.63(21.78)	316	22.42(22.59)	327	22.62(22.79)
273	21.63(21.79)	284	21.78(21.93)	295	21.63(21.78)	306	21.77(21.92)	317	22.84(23.01)	328	22.75(22.92)
274	21.63(21.79)	285	21.79(21.95)	296	21.67(21.83)	307	21.82(21.98)	318	22.89(23.05)	329	22.78(22.95)
275	21.63(21.78)	286	21.77(21.93)	297	21.65(21.81)	308	21.82(21.98)	319	22.91(23.07)	330	22.80(22.96)
276	21.61(21.77)	287	21.72(21.88)	298	21.64(21.80)	309	21.80(21.96)	320	22.89(23.06)	331	22.80(22.97)
277	21.58(21.74)	288	21.71(21.87)	299	21.65(21.81)	310	21.79(21.95)	321	22.88(23.04)	332	22.79(22.96)
278	21.60(21.75)	289	21.71(21.87)	300	21.68(21.83)	311	21.82(21.98)	322	22.89(23.06)	333	22.81(22.97)
279	21.61(21.77)	290	21.71(21.87)	301	21.71(21.86)	312	21.88(22.04)	323	22.92(23.09)	334	22.83(23.00)
280	21.67(21.83)	291	21.75(21.91)	302	21.77(21.93)	313	21.97(22.13)	324	22.86(23.03)	335	22.80(22.96)
IMMERSION G - AVG 21.88(22.04)				IMMERSION H - AVG 21.29(21.44)				IMMERSION J - AVG 20.21(20.35)			
ANGLE 168		ANGLE 352		ANGLE 96		ANGLE 280		ANGLE 40		ANGLE 216	
336	21.88(22.04)	347	22.12(22.28)	358	21.90(22.06)	369	22.01(22.17)	380	21.31(21.46)	391	20.92(21.07)
337	20.67(20.82)	348	20.66(20.81)	359	21.91(22.07)	370	21.89(22.05)	381	20.59(20.74)	392	19.82(19.96)
338	21.60(21.75)	349	20.88(21.03)	360	21.62(21.78)	371	20.89(21.05)	382	20.08(20.23)	393	18.67(18.81)
339	22.07(22.23)	350	21.81(21.97)	361	20.24(20.39)	372	19.84(19.99)	383	19.07(19.21)	394	18.47(18.60)
340	22.10(22.26)	351	22.06(22.22)	362	19.81(19.95)	373	19.96(20.10)	384	18.71(18.85)	395	18.80(18.94)
341	22.12(22.28)	352	22.14(22.30)	363	20.29(20.44)	374	20.80(20.96)	385	19.21(19.35)	396	19.46(19.60)
342	22.10(22.26)	353	22.14(22.30)	364	21.09(21.24)	375	21.55(21.70)	386	20.10(20.25)	397	20.09(20.24)
343	22.08(22.24)	354	22.13(22.30)	365	21.60(21.75)	376	21.79(21.95)	387	20.86(21.01)	398	20.60(20.75)
344	22.06(22.22)	355	22.13(22.29)	366	21.76(21.91)	377	21.81(21.97)	388	21.11(21.27)	399	20.96(21.11)
345	22.04(22.20)	356	22.14(22.30)	367	21.76(21.92)	378	21.89(22.05)	389	21.18(21.34)	400	21.09(21.24)
346	22.10(22.26)	357	22.15(22.31)	368	21.80(21.96)	379	21.96(22.12)	390	21.23(21.38)	401	21.12(21.27)

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TT12 - STAGE EXIT TOTAL

IMMERSSION A		IMMERSSION B		IMMERSSION C		IMMERSSION D		IMMERSSION E	
AVG 604.19(608.26)	AVG 601.87(605.92)	AVG 597.55(601.57)	AVG 598.00(602.02)	AVG 590.29(594.26)					
402 611.59(615.71)	409 607.58(611.67)	416 604.11(608.18)	423 609.64(613.75)	430 596.48(600.49)					
403 600.08(604.12)	410 609.64(613.75)	417 597.83(601.85)	424 593.77(597.77)	431 586.76(590.71)					
404 609.59(613.69)	411 605.85(609.93)	418 598.00(602.02)	425 600.41(604.46)	432 591.57(595.55)					
405 604.78(608.86)	412 597.27(601.29)	419 591.57(595.55)	426 598.45(602.48)	433 588.17(592.13)					
406 605.57(609.64)	413 599.80(603.83)	420 595.18(599.19)	427 596.65(600.66)	434 588.85(592.82)					
407 604.50(608.57)	414 595.30(599.30)	421 596.48(600.49)	428 597.32(601.34)	435 589.99(593.96)					
408 609.64(613.75)	415 602.49(606.54)	422 602.10(606.15)	429 606.01(610.09)	436 594.17(598.17)					

IMMERSSION F		IMMERSSION G		IMMERSSION H		IMMERSSION J	
AVG 588.59(592.55)	AVG 585.78(589.72)	AVG 585.73(589.67)	AVG 586.81(590.76)				
437 609.64(613.75)	444 584.14(588.07)	451 584.03(587.96)	458 585.45(589.39)				
438 587.66(591.62)	445 581.69(585.61)	452 584.14(588.07)	459 588.85(592.82)				
439 591.23(595.21)	446 591.68(595.67)	453 588.97(592.93)	460 585.62(589.56)				
440 590.27(594.24)	447 585.56(589.50)	454 584.71(588.65)	461 586.87(590.82)				
441 584.14(588.07)	448 583.97(587.90)	455 585.62(589.56)	462 585.85(589.79)				
442 589.31(593.27)	449 585.51(589.45)	456 585.45(589.39)	463 586.59(590.53)				
443 590.33(594.30)	450 589.48(593.44)	457 588.17(592.13)	464 587.83(591.79)				

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL					
475 598.62(602.65)	477 597.77(601.80)	479 598.45(602.48)	481 597.72(601.74)		
INNERWALL					
485 588.40(592.36)	488 590.38(594.36)	491 587.66(591.62)			

AVERAGE 594.53(598.54)
AVERAGE 598.14(602.16)
AVERAGE 588.82(592.78)

FLOWS

OUTER

PRESSURE (PSIA)	493 16.10	494 16.15	AVG 16.13
DELTA PRESSURE (PSI)	497 1.61	498 1.65	AVG 1.63
TEMPERATURE (R)	500 597.04	501 597.55	AVG 597.29

INNER

PRESSURE (PSIA)	503 16.27	504 16.28	AVG 16.27
DELTA PRESSURE (PSI)	507 3.22	508 3.20	AVG 3.21
TEMPERATURE (R)	510 585.68	511 586.19	AVG 585.93

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 312.56	619 249.31
DELTA PRESSURE (PSI)	623 2.71	620 2.29
TEMPERATURE (R)	624 557.76	621 538.37

REFERENCE PRESSURES

512 -0.496	513 8.016	514 8.016	515 7.991	516 8.017	517 8.055	518 4.012	519 8.009
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REFERENCE TEMPERATURES - ICE-BATH

520 491.750	521 491.812	522 491.566	523 491.628	524 491.689	525 491.628
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ROTOR INLET TRAVERSE PLANE	READING NUMBER	128	TIME	9H 26M 50S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
SPEED (RPM)	12755.9901				DISTORTION INDEX	0.000			
ACTUAL ORIFICE FLOW	152.7661								
THETA	0.9935								
DELTA	0.9922								
MASS AVERAGED PT	14.5826	(14.6960)							
MASS AVERAGED TT	515.3284	(518.6881)							
TOTAL WEIGHT FLOW	157.5906	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	158.3004								
EQUIV. SPEED	12797.5019								
PERCENT SPEED	100.1291								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5549	14.6933	14.7074	14.7325	14.7271	14.7159	14.6984	14.7024	14.6078
STATIC PRESSURE	10.8403	10.6564	10.4758	10.0848	10.2931	10.6765	10.7813	11.0226	11.2683
WEDGE PRESSURE	11.3301	11.2448	11.1373	10.9205	11.0372	11.2645	11.3295	11.4946	11.6421
TOTAL TEMPERATURE	519.5878	520.2177	519.4173	519.2085	518.9961	517.4174	517.6327	517.2146	516.8844
ANGLE (DEG.)	1.0721	2.3139	2.2010	2.2474	1.9402	1.9180	1.7277	1.7099	1.5498
APPARENT MACH NO.	0.6089	0.6300	0.6428	0.6681	0.6552	0.6297	0.6212	0.6034	0.5786
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	11.5105	11.4968	11.3708	11.2834	11.2506	11.3676	11.5694	11.7101	11.8108
WEDGE PRESSURE	11.5552	11.5445	11.4217	11.3368	11.3047	11.4187	11.6157	11.7535	11.8503
ANGLE (DEG.)	1.0597	2.2270	2.6630	3.1502	4.0004	4.9863	6.3001	6.4064	6.2121
APPARENT MACH NO.	0.5836	0.5971	0.6119	0.6233	0.6263	0.6129	0.5896	0.5745	0.5548
MEASURING PLANE									
MACH NO.	0.5887	0.6024	0.6175	0.6291	0.6322	0.6185	0.5948	0.5794	0.5594
ABSOLUTE VELOCITY	635.6959	649.4790	664.5840	676.1986	679.2808	665.6563	641.8251	626.3021	605.9285
SWIRL VELOCITY	11.5568	25.6506	25.1252	26.3816	22.9976	22.1318	18.7526	17.8390	15.3511
WEIGHT FLOW	15.2429	10.8419	18.1113	29.0144	32.4201	25.5586	12.5375	6.1451	7.6958
AXIAL VELOCITY	617.5079	634.7909	653.7157	672.2250	678.8539	660.8794	621.6731	597.5637	567.3746
CALCULATING PLANE									
ANGLE (DEG.)	0.9228	1.9852	1.9227	2.0336	1.7589	1.7121	1.4603	1.4228	1.2539
SWIRL VELOCITY	11.7551	26.0090	25.4109	26.5984	22.9762	21.8891	18.2547	17.1943	14.6294
AXIAL VELOCITY	728.7344	749.3304	755.9228	748.0527	747.2028	731.2657	715.0451	691.2217	667.3223
MERIDIONAL VELOCITY	745.0147	759.9730	762.9822	750.4699	747.2073	735.0284	730.2170	715.6053	705.7736
ABSOLUTE VELOCITY	746.1320	761.4333	764.4165	751.9464	748.5628	736.3633	731.4702	716.8514	706.9878
MACH NO.	0.7002	0.7160	0.7191	0.7062	0.7027	0.6902	0.6851	0.6702	0.6602
WEIGHT FLOW	15.2524	10.8472	18.1171	29.0338	32.4252	25.5525	12.5394	6.1209	7.7018
WHEEL SPEED	1561.0063	1516.5711	1471.9840	1358.4261	1202.4030	1019.7429	884.2643	835.4137	785.3383
RELAT. TANG. VELOC.	1549.2512	1490.5622	1446.5728	1331.8275	1179.4266	997.8537	866.0094	818.2193	770.7086
RELATIVE FLOW ANGLE	64.3179	62.9851	62.1912	60.5994	57.6445	53.6245	49.8626	48.8276	47.5184
RELATIVE VELOCITY	1719.0767	1673.1208	1635.4554	1528.7148	1396.1966	1239.3457	1132.7792	1087.0019	1045.0398
RELATIVE MACH NO.	1.6134	1.5734	1.5386	1.4358	1.3107	1.1616	1.0611	1.0163	0.9759
MCL INCIDENCE	2.1179	1.7851	1.6912	2.1994	1.5445	1.3245	1.4626	0.8276	-0.3815
SURFACE INCIDENCE	-0.0820	-0.2148	-0.4087	-0.2005	-0.8554	-1.3755	-2.2373	-2.9723	-4.4816
RELATIVE TOTAL PRESS	49.9164	46.9973	44.1678	37.7835	31.6407	26.2385	23.5561	22.5992	21.7459
STATIC TEMPERATURE	473.1318	471.7790	470.6724	472.0599	472.2896	472.3566	473.1504	474.5266	475.3893
RELAT. TOTAL TEMP.	719.7354	705.6536	693.7961	666.9317	634.7748	600.0003	579.8304	572.6804	566.0540
STATIC PRESS. (ALT.)	10.4895	10.4394	10.4200	10.5606	10.5809	10.7006	10.7352	10.8784	10.9017
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	12R	TIME	9H	26M	50S	UNIFORM INLET FLOW	STATOR ANGLE	3.00
MASS AVERAGED PT	22.5272	(22.7023)							
MASS AVERAGED TT	597.4841	(601.3793)							
TOTAL WEIGHT FLOW	155.7481	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	156.4496								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	23.5112	23.1981	23.0822	22.0953	22.1088	23.1709	22.7276	22.3282	22.2889
STATIC PRESSURE	16.2465	15.9608	15.7513	15.5650	15.7165	16.0152	15.7165	15.4792	15.4668
WEDGE PRESSURE	17.3991	17.1123	16.9239	16.5879	16.7117	17.1502	16.8282	16.5634	16.5460
TOTAL TEMPERATURE	613.3773	603.7144	601.6621	610.4101	597.5564	596.5741	592.0078	592.1520	592.5303
ANGLE (DEG.)	26.9306	25.4184	27.0726	34.7721	34.6042	35.4861	35.9186	37.2487	40.6881
APPARENT MACH NO.	0.6704	0.6740	0.6810	0.6535	0.6453	0.6701	0.6696	0.6675	0.6666
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	16.2806	16.1139	16.5559	16.6982	16.6621	16.6131	16.2153	16.0774	15.8915
WEDGE PRESSURE	16.4342	16.2637	16.6872	16.7972	16.7626	16.7451	16.3434	16.2024	16.0215
ANGLE (DEG.)	13.6774	18.0058	17.4708	25.5212	32.6972	31.5316	31.8257	31.9188	32.2475
APPARENT MACH NO.	0.7342	0.7309	0.6970	0.6384	0.6416	0.6974	0.7026	0.6928	0.7034
MEASURING PLANE									
MACH NO.	0.7442	0.7409	0.7059	0.6456	0.6488	0.7063	0.7116	0.7015	0.7124
ABSOLUTE VELOCITY	856.3588	845.6391	808.6368	750.6248	746.3500	807.2081	809.5152	799.4248	811.3029
SWIRL VELOCITY	386.7258	362.0140	367.2416	427.7935	423.8390	467.1537	470.9438	478.4892	522.7365
WEIGHT FLOW	17.0141	11.3670	19.0204	26.3399	30.7273	26.2003	12.3929	5.2968	7.4580
AXIAL VELOCITY	761.2714	761.7710	718.5004	616.1555	614.2944	655.2643	650.1403	629.2776	607.9948
CALCULATING PLANE									
SWIRL VELOCITY	384.1703	359.8332	365.5388	426.7293	424.2311	471.1592	477.7038	486.8419	534.9405
AXIAL VELOCITY	707.6844	709.2594	673.7139	589.6181	589.7386	626.7992	610.6093	588.7442	568.8320
ABSOLUTE VELOCITY	814.0692	801.3922	773.6423	729.0702	727.3930	787.4357	785.4435	777.3377	797.4012
MERIDIONAL VELOCITY	716.7049	715.0554	677.4248	590.1357	589.8681	629.9137	622.4548	604.9699	590.3008
ANGLE (DEG.)	28.4616	26.8678	28.4474	35.8486	35.6835	36.8879	37.9923	39.5400	43.1909
MACH NO.	0.7038	0.6982	0.6696	0.6256	0.6310	0.6873	0.6884	0.6803	0.6990
WEIGHT FLOW	17.0165	11.3723	19.0236	26.3493	30.6147	26.2246	12.3836	5.2970	7.4663
WHEEL SPEED	1519.7219	1480.8873	1444.0846	1346.1483	1206.8690	1043.2241	934.5731	896.9235	862.5297
RELAT. TANG. VELOC.	1135.5514	1121.0541	1078.5457	919.4189	782.6377	572.0647	456.8653	410.0816	327.5891
RELATIVE FLOW ANGLE	57.7420	57.4687	57.8676	57.3055	52.9951	42.2447	36.2778	34.1316	29.0283
RELATIVE VELOCITY	1342.8117	1329.6867	1273.6424	1092.5157	980.0335	850.9106	772.1247	730.8594	675.1071
RELATIVE MACH NO.	1.1609	1.1585	1.1067	0.9374	0.8502	0.7427	0.6758	0.6396	0.5918
DEVIATION	1.7420	1.1687	1.9676	6.1055	5.9951	3.5447	8.3778	11.2316	10.4283
AIR TURNING ANGLE	6.5758	5.5163	4.3235	3.2938	4.6493	11.3797	13.5848	14.6959	18.4900
REL. MACH NO. (WHL.)	1.1571	1.1393	1.1195	1.0643	0.9777	0.8680	0.7911	0.7637	0.7384
IDEAL PRESS. RATIO	0.9493	0.9564	0.9662	0.9855	1.0049	1.0236	1.0456	1.0551	1.0667
ROTOR PRESS. RATIO	1.6153	1.5788	1.5694	1.4997	1.5012	1.5745	1.5462	1.5186	1.5258
ROTOR TEMP. RATIO	1.1805	1.1605	1.1583	1.1756	1.1513	1.1529	1.1436	1.1448	1.1463
ADIABATIC EFFY.	0.8116	0.8667	0.8664	0.6974	0.8118	0.9038	0.9216	0.8739	0.8755
POLYTR. EFFICIENCY	0.8238	0.8750	0.8746	0.7141	0.8223	0.9098	0.9253	0.8811	0.8827
TOTAL LOSS COEFF.	0.1202	0.0799	0.0813	0.2104	0.1310	0.0794	0.0700	0.1199	0.1274
SHOCK LOSS COEFF.	0.0141	0.0132	0.0123	0.0148	0.0547	0.0369	0.0161	0.0097	0.0053
PROFILE LOSS COEFF.	0.1060	0.0666	0.0690	0.1956	0.0762	0.0425	0.0539	0.1102	0.1220
TOTAL LOSS PARAM.	0.0195	0.0129	0.0129	0.0335	0.0227	0.0164	0.0152	0.0259	0.0285
PROFILE LOSS PARAM.	0.0172	0.0108	0.0110	0.0311	0.0132	0.0088	0.0116	0.0238	0.0273
ROTOR DIFFUS. FACT.	0.2877	0.2706	0.2893	0.3690	0.3878	0.4235	0.4374	0.4516	0.4936
STATIC PRESS. (ALT.)	16.8964	16.7534	17.0916	16.9754	16.9096	16.8954	16.5534	16.3811	16.0841
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6030	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SPLITTING	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 128 TIME 9H 26M 50S UNIFORM INLET FLOW STATOR ANGLE 3.

MASS AVERAGED PT 22.5264 (22.7015)
 MASS AVERAGED TT 597.4860 (601.3813)
 TOTAL WEIGHT FLOW 155.7495 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 156.4511

MEASURING PLANE	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	23.5112	23.1981	23.0822	22.0953	22.1088	23.1709	22.7276	22.3282	22.2889
STATIC PRESSURE	16.2806	16.1139	16.5559	16.6982	16.6621	16.6131	16.2163	16.0774	15.8915
WEDGE PRESSURE	16.4341	16.2637	16.6872	16.7972	16.7626	16.7451	16.3484	16.2024	16.0215
TOTAL TEMPERATURE	613.3772	603.7141	601.6620	610.4100	597.5563	596.5740	592.0077	592.1519	592.5302
ANGLE (DEG.)	26.9306	25.4184	27.0726	34.7721	34.6042	35.4861	35.9186	37.2487	40.6881
MACH NO.	0.7442	0.7409	0.7059	0.6456	0.6488	0.7063	0.7116	0.7015	0.7124
ABSOLUTE VELOCITY	856.3588	845.6392	808.6366	750.6247	746.3499	807.2082	809.5151	799.4248	811.3026
SWIRL VELOCITY	386.7258	362.0139	367.2415	427.7934	423.8388	467.1537	470.9437	478.4891	522.7363
AXIAL VELOCITY	761.2714	761.7710	718.5003	616.1555	614.2944	655.2646	650.1405	629.2776	607.9945
WEIGHT FLOW	17.0141	11.3670	19.0204	26.3399	30.7773	26.2003	12.3929	5.2968	7.4580

CALCULATING PLANE	27.1531	25.3814	26.7051	33.9194	33.0698	33.8224	34.1292	35.4102	38.6874
ANGLE (DEG.)	27.1531	25.3814	26.7051	33.9194	33.0698	33.8224	34.1292	35.4102	38.6874
MACH NO.	0.7389	0.7428	0.7176	0.6626	0.6776	0.7327	0.7336	0.7206	0.7287
SWIRL VELOCITY	388.1601	363.1142	368.6726	428.8628	423.8388	463.7042	464.9130	472.1247	514.2631
AXIAL VELOCITY	755.7988	764.3572	731.8618	636.7474	649.9160	691.0863	684.9159	663.0906	641.1922
ABSOLUTE VELOCITY	850.8016	847.6382	820.8994	768.8922	776.7496	834.5490	832.0855	819.2445	828.0465
WEIGHT FLOW	17.0192	11.3748	19.0224	26.3635	30.7192	26.0983	12.3939	5.2977	7.4553
MERIDIONAL VELOCITY	756.0938	764.9211	732.4520	637.1753	649.9200	692.8594	689.0782	668.5093	647.9793
STATIC TEMPERATURE	553.1531	543.8361	545.5846	561.2522	547.3825	538.8296	534.5712	536.5196	535.7331
STATIC PRESS. (ALT.)	16.3623	16.0847	16.3802	16.4596	16.2577	16.2171	15.8937	15.8013	15.6574
MCL INCIDENCE	-1.8362	-3.8798	-2.8933	2.9722	-0.5799	-0.3008	-0.0533	1.1896	4.4869
SUC SUR INCIDENCE	-8.2568	-10.3985	-9.4548	-3.2705	-6.6901	-6.4875	-6.4307	-5.2597	-2.0625
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 128 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.480 HUB STATIC PRES= 17.350

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.8700	-8.2600	850.8000	388.2000	553.1000	16.4000	23.5100
.100	13.1600	-7.5000	1.0600	5.7200	-10.4000	847.6000	363.1000	543.8000	16.0800	23.2000
.150	12.8300	-7.6000	1.0900	4.2300	-9.5000	820.9000	368.7000	545.6000	16.3800	23.0800
.282	12.0000	-8.4000	1.1700	4.8600	-3.3000	768.9000	428.9000	561.3000	16.4600	22.0900
.470	10.8200	-10.1000	1.3000	2.2100	-7.0000	776.7000	423.8000	547.4000	16.2600	22.1100
.689	9.4800	-9.8000	1.4700	2.7900	-6.5000	834.5000	463.7000	538.8000	16.2200	23.1700
.850	8.5900	-9.2000	1.6200	1.8200	-6.4000	832.1000	464.9000	534.6000	15.8900	22.7200
.900	8.2700	-9.1000	1.6700	1.9100	-5.3000	819.2000	472.1000	536.5000	15.8000	22.3200
.937	8.0200	-9.0000	1.7300	2.8400	-2.1000	828.0000	514.3000	535.7000	15.6600	22.2900

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	608.2600	21.8600
.1000	13.1500	605.9200	22.7100
.1500	12.8400	601.5700	22.8700
.2822	11.9700	602.0200	21.7500
.4702	10.8300	594.2600	21.8100
.6887	9.5700	592.6000	22.8200
.8500	8.6700	589.7200	22.0400
.9000	8.4000	589.6700	21.4400
.9372	8.1200	590.7600	20.3500

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3894	.2321	.1110	.5829	10.2700	.5749	673.1107	669.5813	68.8402
.1000	.3062	.0688	.0323	.7125	10.2200	.6241	725.3439	721.7323	72.2929
.1500	.2835	.0313	.0143	.8882	8.8300	.6332	732.4767	730.4814	54.0277
.2822	.3438	.0604	.0257	2.3821	10.0600	.5707	665.0389	662.8406	54.0295
.4702	.3386	.0513	.0197	1.0990	9.3100	.5762	666.7652	666.2693	25.7119
.6887	.2995	.0504	.0171	1.1352	9.5900	.6355	729.4506	728.5860	35.5063
.8500	.3430	.0996	.0307	.8453	8.0200	.5934	682.7746	682.4301	21.6847
.9000	.3775	.1350	.0404	.7872	8.0100	.5573	643.7308	643.3732	21.4553
.9372	.4903	.2926	.0845	.5611	8.8400	.4823	561.6673	560.9774	27.8290

PCT IMMERS	EX STAT PRES
.0500	17.4727
.1000	17.4658
.1500	17.4590
.2822	17.4401
.4702	17.4152
.6887	17.3878
.8500	17.3682
.9000	17.3623
.9372	17.3562

ROTOR INLET TRAVERSE PLANE	READING NUMBER	125	TIME	8H 47M 4S	UNIFORM INLET FLOW	STATOR ANGLE 3.				
SPEED (RPM)	12688.8720									
ACTUAL ORIFICE FLOW	152.6875									
THETA	0.9870									
DELTA	0.9926									
MASS AVERAGED PT	14.5879	(14.6960)								
MASS AVERAGED TT	511.9691	(518.6881)								
TOTAL WEIGHT FLOW	157.8152	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	157.9510									
EQUIV. SPEED	12771.8641									
PERCENT SPEED	99.9285									
DISTORTION INDEX 0.000										
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.5226	14.7077	14.7260	14.7288	14.7372	14.7074	14.7104	14.6965	14.5890	
STATIC PRESSURE	10.9140	10.7108	10.5237	10.1259	10.3232	10.6910	10.8217	11.0725	11.3047	
WEDGE PRESSURE	11.3721	11.2850	11.1719	10.9423	11.0581	11.2717	11.3600	11.5274	11.6635	
TOTAL TEMPERATURE	519.3713	519.0796	518.6236	519.0215	518.5071	518.4873	518.2014	518.3732	518.1550	
ANGLE (DEG.)	1.5178	2.3227	2.0627	2.2620	2.0950	1.8989	1.7853	1.7326	1.9140	
APPARENT MACH NO.	0.6014	0.6268	0.6406	0.6655	0.6537	0.6282	0.6189	0.5992	0.5744	
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	11.5484	11.4718	11.3814	11.3009	11.2807	11.3904	11.6039	11.7543	11.8051	
WEDGE PRESSURE	11.5917	11.5205	11.4325	11.3539	11.3343	11.4409	11.6497	11.7967	11.8444	
ANGLE (DEG.)	1.7821	2.5742	2.9637	3.1849	5.0483	5.5067	6.3465	6.7708	6.3816	
APPARENT MACH NO.	0.5766	0.6010	0.6123	0.6211	0.6239	0.6097	0.5869	0.5691	0.5537	
MEASURING PLANE										
MACH NO.	0.5815	0.6064	0.6178	0.6269	0.6298	0.6153	0.5920	0.5739	0.5583	
ABSOLUTE VELOCITY	628.4317	653.4923	664.9906	673.9840	676.8702	662.4298	639.0189	620.7218	604.8174	
SWIRL VELOCITY	16.1725	25.9068	23.5619	26.4660	24.7427	21.8057	19.3026	17.9146	18.9232	
WEIGHT FLOW	15.1503	10.9467	18.2227	29.0600	32.5034	25.5338	12.5505	6.1214	7.6934	
AXIAL VELOCITY	610.3499	638.7096	654.1723	670.0164	676.3806	657.6833	618.9370	592.2330	566.2386	
CALCULATING PLANE										
ANGLE (DEG.)	1.3121	1.9884	1.8007	2.0496	1.9030	1.6948	1.5096	1.4341	1.5494	
SWIRL VELOCITY	16.4500	26.2688	23.8299	26.6834	24.7197	21.5666	18.7902	17.2671	18.0336	
AXIAL VELOCITY	717.1914	755.6269	756.9657	744.6008	742.9566	727.8698	711.9585	688.6829	665.6655	
MERIDIONAL VELOCITY	733.2138	766.3590	764.0346	747.0070	742.9612	731.6151	727.0648	712.9769	704.0215	
ABSOLUTE VELOCITY	734.4261	767.8288	765.4217	748.4922	744.3784	732.9443	728.3355	714.2279	705.3170	
MACH NO.	0.6882	0.7227	0.7202	0.7026	0.6984	0.6867	0.6819	0.6675	0.6585	
WEIGHT FLOW	15.1508	10.9535	18.2329	29.0698	32.4858	25.5420	12.5594	6.1215	7.6993	
WHEEL SPEED	1558.2039	1515.1909	1470.1582	1355.9490	1200.5600	1016.6494	882.0084	832.8079	782.8035	
RELAT. TANG. VELOC.	1541.7536	1488.9222	1446.3284	1329.2652	1175.8403	995.0827	863.2182	815.5407	764.7698	
RELATIVE FLOW ANGLE	64.5658	62.7650	62.1546	60.6655	57.7132	53.6757	49.8936	48.8389	47.3685	
RELATIVE VELOCITY	1707.2217	1674.5728	1635.7305	1524.7834	1390.8953	1235.0912	1128.6136	1083.2554	1039.4800	
RELATIVE MACH NO.	1.5998	1.5761	1.5391	1.4314	1.3950	1.1571	1.0567	1.0125	0.9705	
MCL INCIDENCE	2.3658	1.5650	1.6546	2.2655	1.6132	1.3757	1.4936	0.6389	-0.5314	
SURFACE INCIDENCE	0.1658	-0.4349	-0.4453	-0.1344	-0.7867	-1.3242	-2.2063	-2.9610	-4.6314	
RELATIVE TOTAL PRESS	49.0823	47.0840	44.2389	37.6088	31.4795	26.1403	23.5027	22.5823	21.6015	
STATIC TEMPERATURE	474.3762	469.9259	469.8201	472.3176	472.3604	473.7491	474.0479	475.8999	476.7520	
RELAT. TOTAL TEMP.	717.5108	703.7203	692.7010	666.1358	633.4776	600.7874	580.0686	573.6021	566.6798	
STATIC PRESS. (ALT.)	10.5786	10.3864	10.4232	10.5918	10.6380	10.7275	10.7741	10.8991	10.9034	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	125	TIME	84 478 45	UNIFORM	INLET FLJW	STATOR	ANGLE	3.00
MASS AVERAGED PT	23.6717	(23.8470)							
MASS AVERAGED TT	604.9848	(612.9244)							
TOTAL WEIGHT FLOW	154.9210	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	155.0542								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	25.2498	24.6309	24.3429	23.5873	23.7146	23.6030	23.1222	22.7034	22.3552
STATIC PRESSURE	17.3138	16.8700	16.5614	16.4046	16.6929	16.4313	16.1094	15.9199	15.9169
WEDGE PRESSURE	18.5744	18.1037	17.8039	17.5346	17.7884	17.5587	17.2112	16.9810	16.9136
TOTAL TEMPERATURE	640.7891	624.4275	615.4680	620.9756	608.1381	600.5841	596.0549	593.9593	596.8816
ANGLE (DEG.)	32.2230	29.9742	30.3539	37.7667	37.4194	39.2481	39.3757	40.6457	43.5176
APPARENT MACH NO.	0.6774	0.6783	0.6839	0.6651	0.6544	0.6642	0.6635	0.6578	0.6441
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	17.3398	18.5007	17.2395	17.7747	17.6580	17.4466	16.9206	16.7650	16.6137
WEDGE PRESSURE	17.5098	18.6146	17.3854	17.8819	17.7723	17.5643	17.0412	16.8787	16.7224
ANGLE (DEG.)	22.5336	23.6923	24.7448	29.0452	33.9165	33.1362	33.8057	33.8632	34.4231
APPARENT MACH NO.	0.7428	0.6456	0.7107	0.6418	0.6555	0.6638	0.6750	0.6649	0.6577
MEASURING PLANE									
MACH NO.	0.7532	0.6530	0.7199	0.6490	0.6631	0.6716	0.6832	0.6728	0.6654
ABSOLUTE VELOCITY	884.8236	767.2280	833.2637	760.9505	768.5294	772.7855	782.2006	769.7967	764.0242
SWIRL VELOCITY	470.5644	382.3861	420.2379	465.7410	466.9758	487.5708	492.4796	496.3532	520.4547
WEIGHT FLOW	17.1079	10.7662	19.4625	27.0043	32.0020	24.7925	11.8130	5.0470	6.9292
AXIAL VELOCITY	746.5827	663.0040	717.6012	601.1537	610.3522	596.7997	600.0531	576.1742	548.1096
CALCULATING PLANE									
SWIRL VELOCITY	467.4549	380.0826	418.2893	444.5824	467.4077	491.7514	499.5487	505.0178	532.6054
AXIAL VELOCITY	692.0445	623.8200	672.4110	575.5564	589.9358	571.8259	566.9435	543.6970	514.6070
ABSOLUTE VELOCITY	843.3004	735.7154	795.9063	740.8409	753.5489	757.1165	764.7020	753.8732	754.9654
MERIDIONAL VELOCITY	700.8656	628.9176	676.1147	576.0618	590.0653	574.6673	577.9554	558.6814	534.0292
ANGLE (DEG.)	33.9993	31.3123	31.8463	38.8613	38.3424	40.6447	41.3335	42.8350	45.9288
MACH NO.	0.7142	0.6240	0.6846	0.6305	0.6491	0.6568	0.6665	0.6576	0.6568
WEIGHT FLOW	17.0505	10.7710	19.4499	27.0073	32.0354	24.7862	11.8234	5.0528	6.9390
WHEEL SPEED	1516.9935	1479.5396	1442.2935	1343.6934	1205.0191	1040.0592	932.1858	894.1254	859.7459
RELAT. TANG. VELOC.	1049.5383	1099.4569	1024.0041	879.1108	737.6110	548.3077	432.6371	389.1077	327.1405
RELATIVE FLOW ANGLE	56.2658	60.2295	56.5647	56.7642	51.3415	43.6555	36.8173	34.8563	31.4912
RELATIVE VELOCITY	1262.0393	1266.6262	1227.0760	1051.0388	944.5882	794.2817	721.9459	680.8300	626.2651
RELATIVE MACH NO.	1.0688	1.0743	1.0555	0.8945	0.8137	0.6891	0.6293	0.5939	0.5448
DEVIATION	0.2658	3.9295	0.6648	5.5642	4.3415	4.9555	8.9173	11.9563	12.8912
AIR TURNING ANGLE	8.2999	2.5354	5.5897	3.9012	6.3717	10.0202	13.0753	13.9825	15.8772
REL. MACH NO. (WHL.)	1.1568	1.1387	1.1183	1.0629	0.9768	0.8657	0.7894	0.7615	0.7365
IDEAL PRESS. RATIO	0.9494	0.9564	0.9662	0.9855	1.0049	1.0235	1.0454	1.0547	1.0664
ROTOR PRESS. RATIO	1.7386	1.6746	1.6530	1.6014	1.6091	1.6048	1.5718	1.5448	1.5323
ROTOR TEMP. RATIO	1.2337	1.2029	1.1867	1.1964	1.1728	1.1583	1.1502	1.1458	1.1519
ADIABATIC EFFY.	0.7297	0.7799	0.8251	0.7313	0.8406	0.9124	0.9157	0.9061	0.8523
POLYTR. EFFICIENCY	0.7497	0.7952	0.8370	0.7484	0.8509	0.9181	0.9219	0.9117	0.8609
TOTAL LOSS COEFF.	0.2092	0.1571	0.1212	0.2062	0.1251	0.0749	0.0776	0.0906	0.1566
SHOCK LOSS COEFF.	0.0138	0.0132	0.0123	0.0157	0.0570	0.0357	0.0153	0.0092	0.0048
PROFILE LOSS COEFF.	0.1954	0.1438	0.1089	0.1905	0.0681	0.0391	0.0622	0.0814	0.1517
TOTAL LOSS PARAM.	0.0354	0.0235	0.0200	0.0333	0.0226	0.0151	0.0157	0.0194	0.0341
PROFILE LOSS PARAM.	0.0330	0.0215	0.0179	0.0308	0.0123	0.0079	0.0134	0.0174	0.0331
ROTOR DIFFUS. FACT.	0.3469	0.3154	0.3300	0.4039	0.4220	0.4730	0.4853	0.5012	0.5380
STATIC PRESS. (ALT.)	17.9784	18.9484	17.7937	18.0494	17.8686	17.6687	17.1654	16.9834	16.7353
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9640
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.5000

STATOR INLET TRAVERSE PLANE	READING NUMBER	125	TIME	8H 47M 4S	UNIFORM INLET FLOW	STATOR ANGLE 3.			
MASS AVERAGED PT	23.6724	(23.8477)							
MASS AVERAGED TT	604.9990	(612.9387)							
TOTAL WEIGHT FLOW	155.0352	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	155.1686								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	25.2498	24.6309	24.3429	23.5873	23.7146	23.6030	23.1222	22.7034	22.3552
STATIC PRESSURE	17.3398	18.5007	17.2395	17.7747	17.6580	17.4466	16.9206	16.7650	16.6137
WEDGE PRESSURE	17.5098	18.6145	17.3854	17.8819	17.7723	17.5643	17.0412	16.8787	16.7223
TOTAL TEMPERATURE	640.7889	624.4274	615.4678	620.9755	608.1380	600.5840	596.0548	593.9592	596.8815
ANGLE (DEG.)	32.2229	29.9742	30.3539	37.7667	37.4194	39.2481	39.3767	40.6457	43.5176
MACH NO.	0.7532	0.6530	0.7199	0.6490	0.6631	0.6716	0.6832	0.6728	0.6654
ABSOLUTE VELOCITY	884.8236	767.2283	833.2636	760.9504	768.5295	772.7854	782.2009	769.7966	764.0242
SWIRL VELOCITY	470.5643	382.3861	420.2377	465.7409	466.9759	487.5706	492.4797	496.3530	520.4546
AXIAL VELOCITY	746.5825	663.0043	717.6012	601.1537	610.3524	596.7997	600.0535	578.1743	548.1098
WEIGHT FLOW	17.1079	10.7662	19.4625	27.0043	32.0020	24.7925	11.8130	5.0471	6.9292
CALCULATING PLANE									
ANGLE (DEG.)	32.4313	29.9347	29.9631	36.9008	35.8068	37.4781	37.6404	38.8457	41.5335
MACH NO.	0.7495	0.6546	0.7314	0.6648	0.6911	0.6944	0.6994	0.6870	0.6775
SWIRL VELOCITY	472.3097	383.5484	421.8753	466.9052	466.9759	483.9704	486.1733	489.7511	512.0184
AXIAL VELOCITY	742.3384	665.0725	730.7941	620.8362	646.3121	630.2165	629.3834	607.1283	577.0446
ABSOLUTE VELOCITY	880.9474	769.0414	845.2069	777.9514	798.1811	796.6914	799.1246	784.6998	776.7994
WEIGHT FLOW	17.1206	10.7759	19.4632	27.0323	32.0287	24.8055	11.8222	5.0488	6.9377
MERIDIONAL VELOCITY	742.6280	665.5631	731.3833	621.2534	646.3159	631.8335	633.2074	612.0898	583.1525
STATIC TEMPERATURE	576.3225	575.2870	556.1377	570.6870	555.2191	547.8510	543.0207	542.8019	546.7750
STATIC PRESS.(ALT.)	17.4000	18.4747	17.0597	17.5392	17.2344	17.1031	16.6801	16.5584	16.4408
MCL INCIDENCE	3.4440	0.6768	0.3672	5.9556	2.1570	3.3643	3.4791	4.6532	7.3632
SUC SUR INCIDENCE	-2.9786	-5.8452	-6.1968	-0.2891	-3.9531	-2.8318	-2.9195	-1.8242	0.7835
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 125 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 18.700 HUB STATIC PRES= 18.530

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	6.6100	-3.0000	881.0000	472.3000	576.3000	17.4000	25.2500
.100	13.1600	-7.5000	1.0600	6.8700	-5.8000	769.0000	383.5000	575.3000	18.4700	24.6300
.150	12.8300	-7.6000	1.0900	5.0300	-6.2000	845.2000	421.9000	556.1000	17.0600	24.3400
.282	12.0000	-6.4000	1.1700	4.8000	-2.2000	778.0000	466.9000	570.7000	17.5300	23.5900
.470	10.8200	-10.1000	1.3000	1.8000	-3.9000	798.2000	467.0000	555.2000	17.2300	23.7100
.689	9.4800	-9.8000	1.4700	3.6000	-2.8000	796.7000	483.9000	547.9000	17.1000	23.6000
.850	8.5900	-9.2000	1.6200	2.4000	-2.9000	799.0000	486.2000	543.0000	16.6800	23.1000
.900	8.2700	-9.1000	1.6700	2.6600	-1.8000	784.7000	489.8000	542.8000	16.5600	22.7000
.937	8.0200	-9.0000	1.7300	3.0000	.8000	776.8000	512.0000	546.8000	16.4400	22.3600

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	621.9400	23.4800
.1000	13.1500	617.8700	24.0800
.1500	12.8400	613.0800	23.9200
.2822	11.9700	609.2100	22.9500
.4702	10.8300	602.8300	23.0500
.6887	9.5700	596.0400	23.3000
.8500	8.6700	591.3300	21.9600
.9000	8.4000	591.5700	21.6700
.9372	8.1200	593.2000	20.9600

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4353	.2255	.1077	1.8525	11.0100	.5803	686.6636	682.0992	79.0422
.1000	.2453	.0893	.0418	-2.8446	11.3700	.6133	720.6545	715.4803	86.2025
.1500	.3558	.0577	.0264	.9633	9.6300	.6055	709.3540	706.6222	62.1943
.2822	.3925	.1056	.0450	2.9495	10.2000	.5527	649.2228	646.9458	54.3255
.4702	.3945	.1019	.0392	1.0395	8.9000	.5610	654.9378	654.6147	20.5721
.6887	.3469	.0462	.0157	1.2139	10.4000	.5780	669.7362	668.4146	42.0531
.8500	.4542	.1776	.0548	.8197	8.6000	.4967	577.9424	577.4354	24.2017
.9000	.4669	.1678	.0502	.7787	8.7600	.4769	556.0428	555.4436	25.8054
.9372	.5415	.2365	.0683	.7401	9.0000	.4225	495.6703	494.9910	25.9414

PCT IMMERS	EX STAT PRES
.0500	18.6905
.1000	18.6814
.1500	18.6726
.2822	18.6478
.4702	18.6153
.6887	18.5794
.8500	18.5538
.9000	18.5461
.9372	18.5381

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

UNIFORM INLET FLOW

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12717.7814	ORIFICE ACTUAL FLOW = 152.3672	AMBIENT PRESSURE = 14.8526
EQUIVALENT SPEED (RPM) = 12794.1003	BELLMOUTH ACTUAL FLOW = 152.4977	AMBIENT TEMPERATURE = 513.1881
PERCENT EQUIVALENT SPEED = 100.1025	INLET FLOW (STA 5) = 0.0000	INLET TOTAL PRESSURE(MA) = 14.5899
ORF TO BELL FLOW RATIO = 0.9991	ORIFICE EQUIVALENT FLOW = 152.5591	INLET TEMPERATURE = 512.5184
ORF TO INLET FLOW RATIO = 0.0000	BELLMOUTH EQUIVALENT FLOW = 152.6898	BELLMOUTH TOTAL PRESSURE = 14.5899
ORF TO EXIT FLOW RATIO = 0.9467	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0000
EQVT. FLOW PER ANN. AREA = 43.0593	EXIT FLOW (STA 12) = 160.9422	EXIT TOTAL PRESSURE (MA) = 24.3477
EQVT. FLOW PER FRON. AREA = 33.8644	MIXING DUCT TEMPERATURE = 609.0439	EXIT TEMPERATURE (STA 12) = 608.7402
PERCENT DESIGN EQVT. FLOW = 103.1425	INNER ORIFICE FLOW = 60.1017	STAGE PRESSURE RATIO(MA) = 1.6687
DISTORTION INDEX (RADIAL) = 0.0000	OUTER ORIFICE FLOW = 92.2654	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 32.0000	OUTER DISCHARGE VALVE = 31.0000	

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1877	0.8373	0.8485	4987.58
MIXING DUCT	0.1883	0.8346	0.8461	5003.40
TORQUEMETER	-0.0055	*****	*****	-147.88

STAGE ELEMENT PERFORMANCE

IMMERISION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.7243	1.7391	1.7175	1.6685	1.7119	1.6242	1.5003	1.4934	1.4528
TEMPERATURE RISE	0.2286	0.2143	0.1988	0.1939	0.1859	0.1579	0.1490	0.1517	0.1557
ADIABATIC EFFICIENCY	0.7341	0.7966	0.8380	0.8101	0.8906	0.9393	0.8233	0.7991	0.7219
POLYTROPIC EFFICIENCY	0.7536	0.8117	0.8498	0.8233	0.8986	0.9433	0.8331	0.8101	0.7361
TOTAL PRESSURE	25.1575	25.3738	25.0589	24.3442	24.9769	23.6984	21.8898	21.7898	21.1971
TOTAL TEMPERATURE	629.69	622.38	614.45	611.91	607.84	593.49	588.91	590.27	592.35
STATIC PRESSURE	19.9253	19.9100	19.8947	19.8535	19.7976	19.7378	19.6949	19.6812	19.6681

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 192.1871	PRESSURE RATIO = 13.5343	TURBINE GAS FLOW = 0.5567
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0190	TURBINE AIR FLOW = 29.2553
INLET TOTAL TEMPERATURE = 1578.4812	SPECIFIC HEAT = 0.2712	TURBINE TOTAL FLOW = 29.8120
EXIT TOTAL TEMPERATURE = 1100.3439	TURBINE EFFICIENCY = 0.6281	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

293 404 408 410 423 427 437 541

PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	0.00(0.00)	129	0.00(0.00)	120	12.43(12.52)	124	12.77(12.86)
130	0.00(0.00)	131	0.00(0.00)	121	12.43(12.52)	125	12.79(12.88)
132	0.00(0.00)	133	0.00(0.00)	122	12.41(12.50)	126	12.79(12.88)
134	0.00(0.00)	135	0.00(0.00)	123	12.42(12.51)	127	12.79(12.88)
136	0.00(0.00)	137	0.00(0.00)				
138	0.00(0.00)	139	0.00(0.00)				
140	0.00(0.00)	141	0.00(0.00)				
142	0.00(0.00)	143	0.00(0.00)				
144	0.00(0.00)	145	0.00(0.00)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 25.15(25.34)		IMMERSION B - AVG 25.37(25.55)		IMMERSION C - AVG 25.05(25.24)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352						
204	26.60(26.80)	215	25.38(25.56)	226	25.88(26.06)	237	26.16(26.35)	248	24.69(24.87)	259	23.29(23.46)
205	23.71(23.89)	216	22.29(22.45)	227	24.40(24.58)	238	23.25(23.42)	249	24.64(24.82)	260	23.50(23.68)
206	22.14(22.30)	217	21.72(21.88)	228	23.61(23.79)	239	24.38(24.56)	250	25.41(25.59)	261	25.14(25.33)
207	23.36(23.53)	218	23.00(23.17)	229	25.15(25.33)	240	25.41(25.59)	251	25.43(25.61)	262	25.34(25.52)
208	25.23(25.41)	219	24.69(24.87)	230	25.65(25.84)	241	25.65(25.84)	252	25.25(25.43)	263	25.32(25.50)
209	26.32(26.52)	220	25.35(25.53)	231	25.78(25.97)	242	25.61(25.79)	253	25.17(25.36)	264	25.23(25.41)
210	26.58(26.77)	221	25.35(25.54)	232	25.75(25.93)	243	25.53(25.71)	254	25.13(25.32)	265	25.14(25.32)
211	26.54(26.73)	222	25.32(25.51)	233	25.69(25.88)	244	25.61(25.80)	255	25.13(25.32)	266	25.14(25.32)
212	26.50(26.69)	223	25.50(25.69)	234	25.74(25.93)	245	25.69(25.88)	256	25.16(25.35)	267	25.17(25.35)
213	26.55(26.74)	224	25.71(25.89)	235	25.77(25.96)	246	25.69(25.87)	257	25.20(25.39)	268	25.16(25.34)
214	26.62(26.82)	225	25.84(26.03)	236	25.85(26.03)	247	26.07(26.26)	258	25.29(25.47)	269	24.83(25.01)

IMMERSION D - AVG 24.34(24.52)		IMMERSION E - AVG 24.97(25.15)		IMMERSION F - AVG 23.69(23.87)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248						
270	24.68(24.86)	281	24.51(24.68)	292	25.17(25.36)	303	25.03(25.21)	314	23.95(24.12)	325	24.14(24.31)
271	23.12(23.29)	282	23.06(23.23)	293	22.16(22.32)	304	22.83(22.99)	315	22.81(22.98)	326	22.59(22.76)
272	23.23(23.40)	283	23.51(23.68)	294	24.48(24.66)	305	24.11(24.28)	316	22.09(22.25)	327	22.10(22.26)
273	24.36(24.54)	284	24.42(24.60)	295	25.19(25.37)	306	25.14(25.33)	317	23.61(23.78)	328	23.45(23.62)
274	24.68(24.86)	285	24.60(24.78)	296	25.28(25.46)	307	25.27(25.45)	318	23.92(24.09)	329	23.89(24.07)
275	24.71(24.89)	286	24.58(24.76)	297	25.30(25.48)	308	25.29(25.48)	319	23.94(24.11)	330	23.99(24.16)
276	24.63(24.81)	287	24.56(24.74)	298	25.29(25.47)	309	25.27(25.45)	320	23.92(24.09)	331	24.02(24.20)
277	24.59(24.77)	288	24.57(24.74)	299	25.29(25.48)	310	25.25(25.44)	321	23.91(24.08)	332	24.07(24.24)
278	24.59(24.77)	289	24.59(24.77)	300	25.30(25.48)	311	25.24(25.43)	322	23.95(24.13)	333	24.15(24.33)
279	24.59(24.77)	290	24.55(24.73)	301	25.28(25.47)	312	25.24(25.42)	323	23.99(24.17)	334	24.19(24.37)
280	24.61(24.79)	291	24.53(24.71)	302	25.28(25.47)	313	25.21(25.39)	324	23.97(24.14)	335	24.20(24.37)

IMMERSION G - AVG 21.88(22.04)		IMMERSION H - AVG 21.78(21.94)		IMMERSION J - AVG 21.19(21.35)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	22.70(22.87)	347	22.94(23.11)	358	22.68(22.84)	369	22.65(22.81)	380	22.36(22.52)	391	22.14(22.30)
337	21.78(21.94)	348	22.09(22.25)	359	22.81(22.97)	370	22.43(22.59)	381	21.63(21.78)	392	21.25(21.41)
338	20.77(20.92)	349	20.97(21.12)	360	22.49(22.65)	371	21.59(21.75)	382	21.40(21.56)	393	20.27(20.42)
339	20.79(20.94)	350	20.89(21.04)	361	21.31(21.47)	372	20.64(20.79)	383	20.49(20.64)	394	19.90(20.05)
340	20.31(20.46)	351	21.60(21.75)	362	20.51(20.66)	373	20.26(20.41)	384	19.99(20.14)	395	19.88(20.03)
341	20.70(20.85)	352	22.22(22.38)	363	20.50(20.65)	374	20.49(20.64)	385	19.98(20.13)	396	20.08(20.23)
342	21.21(21.36)	353	22.51(22.67)	364	20.88(21.04)	375	20.95(21.11)	386	20.25(20.40)	397	20.39(20.54)
343	21.65(21.81)	354	22.58(22.84)	365	21.45(21.61)	376	21.58(21.74)	387	20.82(20.97)	398	20.88(21.03)
344	22.02(22.18)	355	22.77(22.94)	366	22.03(22.19)	377	22.11(22.27)	388	21.42(21.57)	399	21.48(21.64)
345	22.24(22.40)	356	22.84(23.01)	367	22.33(22.49)	378	22.40(22.56)	389	21.95(22.11)	400	21.99(22.15)
346	22.27(22.44)	357	22.89(23.05)	368	22.55(22.72)	379	22.55(22.71)	390	22.28(22.45)	401	22.24(22.40)

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG 629.69(637.27)	402 635.96(643.61)	AVG 622.38(629.87)	409 630.32(637.91)	AVG 614.45(621.95)	416 622.29(629.78)	AVG 611.91(619.28)	423 609.64(616.98)	AVG 607.84(615.16)	430 609.70(617.04)
403 622.18(629.66)	410 609.64(616.98)	411 624.38(631.90)	417 611.26(618.62)	418 616.48(623.90)	424 608.64(615.97)	425 616.70(624.12)	431 606.91(614.21)	432 609.75(617.09)	433 607.13(614.44)
404 609.59(616.92)	412 618.08(625.53)	413 620.41(627.88)	419 611.59(618.95)	420 614.26(621.65)	426 612.70(620.08)	427 615.20(622.61)	434 610.26(617.60)	435 603.72(610.99)	436 610.37(617.71)
405 630.10(637.68)	414 616.92(624.35)	415 621.73(629.22)	421 612.43(619.80)	422 617.97(625.41)	428 610.26(617.60)	429 616.20(623.62)			
406 637.70(645.38)									
407 629.11(636.68)									
408 609.59(616.92)									

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG 593.49(600.63)	437 609.64(616.98)	AVG 588.91(596.00)	444 589.53(596.63)	AVG 590.27(597.38)	451 590.61(597.72)	AVG 592.35(599.48)	458 594.05(601.21)
438 590.27(597.37)	445 590.21(597.32)	446 588.34(595.43)	453 588.00(595.08)	454 587.04(594.11)	455 589.82(596.92)	459 591.29(598.41)	462 593.15(600.29)
439 596.99(604.17)	447 587.15(594.22)	448 589.25(596.34)	456 590.21(597.32)	457 590.83(597.95)	460 592.47(599.61)	461 590.95(598.06)	463 591.34(598.46)
440 594.22(601.38)	449 587.15(594.22)	450 591.34(598.46)			464 593.66(600.81)		
441 592.47(599.61)							
442 593.49(600.64)							
443 596.25(603.43)							

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE 609.04(616.37)
475 615.59(623.00)	477 615.59(623.00)	479 616.59(624.01)	481 615.59(623.00)	AVERAGE 615.84(623.25)
INNERWALL				AVERAGE 598.60(605.80)
485 598.73(605.94)	488 599.74(606.96)	491 597.32(604.51)		

FLOWS

OUTER				AVG 16.11
PRESSURE (PSIA)	493 16.08	494 16.13		AVG 1.61
DELTA PRESSURE (PSI)	497 1.58	498 1.63		AVG 614.04
TEMPERATURE (R)	500 613.87	501 614.20		
INNER				AVG 16.36
PRESSURE (PSIA)	503 16.35	504 16.36		AVG 3.36
DELTA PRESSURE (PSI)	507 3.37	508 3.34		AVG 595.27
TEMPERATURE (R)	510 594.79	511 595.75		

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 318.07	619 247.30
DELTA PRESSURE (PSI)	623 5.31	620 3.17
TEMPERATURE (R)	624 555.90	621 536.54

REFERENCE PRESSURES

512 -0.497	513 8.010	514 8.012	515 7.987	516 8.035	517 8.030	518 4.008	519 7.988
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REFERENCE TEMPERATURES - ICE BATH

520 491.566	521 492.057	522 491.689	523 491.812	524 491.689	525 491.628
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ROTOR INLET TRAVERSE PLANE		READING NUMBER	126	TIME	9H 22M 28S	UNIFORM INLET FLOW			STATOR ANGLE 3.
SPEED (RPM)	12722.5747								
ACTUAL ORIFICE FLOW	151.8684								
THETA	0.9897								
DELTA	0.9928								
MASS AVERAGED PT	14.5905	(14.6960)							
MASS AVERAGED TT	513.3603	(518.6881)							
TOTAL WEIGHT FLOW	156.9172	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	157.2374								
EQUIV. SPEED	12788.4232								
PERCENT SPEED	100.0580								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5516	14.6450	14.7273	14.7282	14.7267	14.7207	14.7176	14.6977	14.6061
STATIC PRESSURE	10.9907	10.7487	10.5650	10.1309	10.3750	10.7244	10.8909	11.1342	11.3953
WEDGE PRESSURE	11.4327	11.2928	11.1970	10.9449	11.0555	11.2977	11.4037	11.5706	11.7327
TOTAL TEMPERATURE	520.0794	519.1325	519.4742	518.9133	519.1229	517.7027	517.6224	517.3976	516.7732
ANGLE (DEG.)	1.2736	2.0000	2.0771	2.3470	2.0171	1.8155	1.6846	1.6719	1.6739
APPARENT MACH NO.	0.5971	0.6207	0.6380	0.6651	0.6532	0.6265	0.6141	0.5946	0.5681
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	11.5977	11.5580	11.4171	11.3016	11.2760	11.4346	11.6999	11.8192	11.9203
WEDGE PRESSURE	11.6405	11.6035	11.4674	11.3546	11.3295	11.4844	11.7438	11.8603	11.9575
ANGLE (DEG.)	0.3377	2.3595	2.7592	3.5462	4.6434	5.4106	6.6682	6.2799	6.4311
APPARENT MACH NO.	0.5737	0.5862	0.6085	0.6210	0.6236	0.6061	0.5770	0.5620	0.5422
MEASURING PLANE									
MACH NO.	0.5785	0.5913	0.6141	0.6267	0.6294	0.6116	0.5819	0.5667	0.5466
ABSOLUTE VELOCITY	625.4147	638.3692	661.2007	673.8560	676.5116	658.7075	628.8447	613.3764	592.8571
SWIRL VELOCITY	13.5063	21.7934	23.5905	27.4543	23.8114	20.7309	17.9150	17.0828	16.2227
WEIGHT FLOW	15.1054	10.7265	18.1234	29.0225	32.4139	25.4576	12.4182	6.0716	7.5984
AXIAL VELOCITY	607.4798	624.0554	650.4383	669.8497	676.0552	654.0180	609.1131	585.2415	555.1049
CALCULATING PLANE									
ANGLE (DEG.)	1.1011	1.7280	1.8164	2.1258	1.8301	1.6235	1.4409	1.3863	1.3613
SWIRL VELOCITY	13.7380	22.0978	23.8588	27.6799	23.7893	20.5036	17.4394	16.4654	15.4601
AXIAL VELOCITY	713.7235	731.4548	751.3024	744.6737	743.5185	722.4029	692.2726	679.3394	649.5386
MERIDIONAL VELOCITY	729.6684	741.8435	758.3186	747.0800	743.5231	726.1202	706.9612	703.3037	686.9651
ABSOLUTE VELOCITY	730.8236	743.1910	759.7070	748.6001	744.9077	727.4205	708.2033	704.5380	688.2037
MACH NO.	0.6845	0.6972	0.7142	0.7028	0.6990	0.6810	0.6614	0.6577	0.6412
WEIGHT FLOW	15.1145	10.7201	18.1318	29.0380	32.4182	25.4525	12.3665	6.0739	7.6014
WHEEL SPEED	1559.1614	1517.0782	1470.8590	1357.8486	1201.4035	1018.7388	883.6456	834.6734	784.8657
RELAT. TANG. VELOC.	1545.4234	1494.9803	1446.9999	1330.1687	1177.6141	998.2351	866.2061	818.2079	769.4056
RELATIVE FLOW ANGLE	64.7260	63.6085	62.3428	60.6797	57.7326	53.9679	50.7803	49.3189	48.2400
RELATIVE VELOCITY	1709.0196	1668.9210	1633.6631	1525.6070	1392.6956	1234.3922	1118.0819	1078.9347	1031.4579
RELATIVE MACH NO.	1.6007	1.5657	1.5360	1.4322	1.3068	1.1556	1.0442	1.0072	0.9610
MCL INCIDENCE	2.5259	2.4085	1.8428	2.2797	1.6326	1.6679	2.3803	1.3189	0.3400
SURFACE INCIDENCE	0.3260	0.4085	-0.2571	-0.1202	-0.7673	-1.0320	-1.3196	-2.4810	-3.7599
RELATIVE TOTAL PRESS	49.3611	46.7114	44.1752	37.6537	31.5429	26.1924	23.3426	22.5674	21.5776
STATIC TEMPERATURE	475.4664	473.0797	471.3206	472.2072	472.8578	473.7036	475.9237	476.1472	477.4602
RELAT. TOTAL TEMP.	719.4328	705.3137	693.9907	666.1879	634.5761	600.4041	579.8566	572.8880	565.7690
STATIC PRESS. (ALT.)	10.6341	10.5830	10.4806	10.5903	10.6253	10.7905	10.9721	10.9919	11.0758
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	126	TIME	PH 226 295	UNIFURK	INLET FLJW	STATOR ANGLE	3.00
MASS AVERAGED PT	25.1616	(25.3434)						
MASS AVERAGED TT	616.0846	(622.4784)						
TOTAL WEIGHT FLOW	154.1363	(PROBE INTEGRATION)						
CORR. TOTAL FLOW	154.4529							

PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0, 104 DEG.								
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	27.2094	26.2109	25.9954	25.1811	25.7735	24.5344	23.6051	23.1056	22.7847
STATIC PRESSURE	18.5074	18.0362	17.6945	17.5798	17.9162	17.2297	16.7856	16.6656	16.8659
WEDGE PRESSURE	19.8948	19.3291	19.0171	18.7702	19.1502	18.3688	17.8406	17.6306	17.6962
TOTAL TEMPERATURE	653.1551	635.5199	626.0607	629.3567	620.3422	607.4039	598.8040	597.9139	601.8997
ANGLE (DEG.)	37.3218	33.2571	33.5624	40.8753	40.5984	42.9300	43.4746	44.5187	47.9697
APPARENT MACH NO.	0.6845	0.6745	0.6837	0.6620	0.6657	0.6567	0.6454	0.6339	0.6122

PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0, 300 DEG.								
STATIC PRESSURE	18.8702	18.6434	18.9692	19.0620	18.8561	18.4669	17.9431	17.8263	17.7694
WEDGE PRESSURE	19.0469	18.7978	19.1066	19.1739	18.9908	18.5791	18.0458	17.9192	17.8558
ANGLE (DEG.)	44.1082	30.2741	28.7771	33.1475	35.9012	36.4335	37.9063	38.0275	38.5788
APPARENT MACH NO.	0.7328	0.7062	0.6783	0.6366	0.6754	0.6431	0.6316	0.6138	0.6009

MEASURING PLANE									
MACH NO.	0.7429	0.7153	0.6866	0.6437	0.6836	0.6504	0.6385	0.6203	0.6070
ABSOLUTE VELOCITY	881.5771	841.2341	804.1630	760.2347	797.5932	755.0226	737.1242	717.2533	705.7212
SWIRL VELOCITY	533.2527	460.2883	443.7466	497.2147	519.0189	512.9744	503.7724	498.3920	519.4056
WEIGHT FLOW	17.0546	11.4477	19.4477	27.2363	33.3852	23.8056	10.9079	4.6054	6.1765
AXIAL VELOCITY	699.4452	701.8690	668.8458	574.5031	605.5855	551.4500	531.3403	506.8392	468.1745

CALCULATING PLANE									
SWIRL VELOCITY	529.7289	457.5155	441.6890	495.9777	519.4990	517.3727	511.0036	507.0922	531.5316
AXIAL VELOCITY	654.4976	658.1085	630.7727	550.7170	584.7674	530.2317	504.1113	478.0537	441.0820
ABSOLUTE VELOCITY	849.3046	806.7710	773.7187	742.2437	783.0444	743.4376	725.4457	706.7287	702.1395
MERIDIONAL VELOCITY	662.8403	663.4863	634.2471	551.2005	584.8956	532.8665	513.8983	491.2288	457.7293
ANGLE (DEG.)	38.9427	34.7661	34.9583	41.9545	41.5687	44.2426	45.3320	46.6284	50.2489
MACH NO.	0.7129	0.6832	0.6583	0.6272	0.6700	0.6396	0.6276	0.6105	0.6037
WEIGHT FLOW	17.0553	11.4507	19.4616	27.2397	33.3870	23.8243	10.9226	4.6089	6.1880
WHEEL SPEED	1517.9256	1481.3826	1442.9805	1345.5760	1205.8656	1042.1968	933.9154	896.1285	862.0107
RELAT. TANG. VELOC.	988.1968	1023.8670	1001.2915	849.5979	686.3665	524.8241	422.9128	389.0364	330.4790
RELATIVE FLOW ANGLE	56.1481	57.0561	57.6488	57.0255	49.5638	44.5645	39.4528	38.3781	35.8292
RELATIVE VELOCITY	1189.9116	1220.0482	1185.2652	1012.7379	901.7770	747.9217	665.5424	626.6220	564.5638
RELATIVE MACH NO.	0.9988	1.0332	1.0085	0.8558	0.7716	0.6434	0.5758	0.5413	0.4854
DEVIATION	0.1481	0.7561	1.7488	5.8256	2.5638	5.8645	11.5528	15.4781	17.2292
AIR TURNING ANGLE	8.5777	6.5523	4.6939	3.6541	8.1688	9.4033	11.3274	10.9407	12.4107
REL. MACH NO. (WHL.)	1.1569	1.1391	1.1188	1.0643	0.9774	0.8671	0.7906	0.7630	0.7381
IDEAL PRESS. RATIO	0.9494	0.9564	0.9662	0.9855	1.0049	1.0236	1.0465	1.0550	1.0667
ROTOR PRESS. RATIO	1.8698	1.7897	1.7651	1.7097	1.7501	1.6666	1.6038	1.5720	1.5602
ROTOR TEMP. RATIO	1.2558	1.2241	1.2051	1.2128	1.1949	1.1732	1.1568	1.1556	1.1647
ADIABATIC EFFY.	0.7618	0.8042	0.8585	0.7756	0.8870	0.9051	0.9199	0.8852	0.8213
POLYTR. EFFICIENCY	0.7817	0.8195	0.8675	0.7918	0.8955	0.9117	0.9251	0.8923	0.8321
TOTAL LOSS COEFF.	0.1989	0.1528	0.1082	0.1851	0.0988	0.0876	0.0737	0.1176	0.2044
SHOCK LOSS COEFF.	0.0139	0.0130	0.0122	0.0155	0.0563	0.0354	0.0134	0.0085	0.0040
PROFILE LOSS COEFF.	0.1850	0.1398	0.0960	0.1696	0.0425	0.0522	0.0652	0.1090	0.2004
TOTAL LOSS PARAM.	0.0337	0.0250	0.0173	0.0297	0.0185	0.0174	0.0163	0.0241	0.0424
PROFILE LOSS PARAM.	0.0314	0.0229	0.0153	0.0272	0.0079	0.0104	0.0135	0.0223	0.0415
ROTOR DIFFUS. FACT.	0.3992	0.3537	0.3574	0.4344	0.4630	0.5156	0.5340	0.5495	0.5935
STATIC PRESS. (ALT.)	19.3985	19.1842	19.4379	19.3215	19.0798	18.6339	18.1045	17.9665	17.8159
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6030	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8540	1.9100	1.9540
MFTAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	126	TIME	9H 22M 28S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
MASS AVERAGED PT	25.1610	(25.3428)							
MASS AVERAGED TT	616.0706	(622.4643)							
TOTAL WEIGHT FLOW	154.0306	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	154.3448								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	27.2094	26.2109	25.9954	25.1811	25.7735	24.5344	23.6051	23.1056	22.7887
STATIC PRESSURE	18.8702	18.6434	18.9692	19.0620	18.8561	18.4669	17.9431	17.8263	17.7694
WEDGE PRESSURE	19.0469	18.7978	19.1066	19.1739	18.9908	18.5791	18.0458	17.9192	17.8558
TOTAL TEMPERATURE	653.1550	635.5198	626.0606	629.3566	620.3420	607.4037	598.8038	597.9138	601.8996
ANGLE (DEG.)	37.3218	33.2571	33.5624	40.8753	40.5984	42.9299	43.4745	44.5187	47.9697
MACH NO.	0.7429	0.7153	0.6866	0.6437	0.6836	0.6504	0.6385	0.6203	0.6070
ABSOLUTE VELOCITY	881.5770	841.2340	804.1631	760.2346	797.5931	755.0225	737.1241	717.2531	705.7212
SWIRL VELOCITY	533.2525	460.2882	443.7466	497.2146	519.0188	512.9742	503.7723	498.3919	519.4056
AXIAL VELOCITY	699.4452	701.8690	668.8459	574.5029	605.5855	551.4501	531.3400	506.8395	468.1745
WEIGHT FLOW	17.0546	11.4477	19.4477	27.2363	33.3852	23.8056	10.9079	4.6054	6.1765
CALCULATING PLANE									
ANGLE (DEG.)	37.7349	33.2075	33.1523	40.1009	38.9958	41.2047	41.7893	42.7819	46.1176
MACH NO.	0.7365	0.7174	0.6968	0.6565	0.7092	0.6682	0.6495	0.6296	0.6134
SWIRL VELOCITY	535.2305	461.6871	445.4759	498.4576	519.0188	509.1864	497.3211	491.7628	510.9862
AXIAL VELOCITY	690.6355	704.3268	680.9934	590.9153	640.0290	580.5383	555.4281	530.3880	490.4268
ABSOLUTE VELOCITY	874.7625	843.4344	815.0584	774.1450	824.8088	774.0815	748.8129	727.2170	712.5685
WEIGHT FLOW	16.9802	11.4577	19.4665	27.2074	33.3852	23.8285	10.9175	4.6082	6.1790
MERIDIONAL VELOCITY	690.9050	704.8463	681.5425	591.3124	640.0328	582.0279	558.8026	534.7221	495.6179
STATIC TEMPERATURE	589.5481	576.4436	570.8303	579.5941	563.8048	557.7114	552.2961	554.0679	559.8585
STATIC PRESS.(ALT.)	18.9825	18.6085	18.7992	18.8588	18.4318	18.1890	17.7800	17.6924	17.6802
MCL INCIDENCE	8.7496	3.9520	3.5591	9.1579	5.3460	7.1004	7.6532	8.6215	11.9957
SUC SUR INCIDENCE	2.3249	-2.5724	-3.0076	2.9109	-0.7641	0.8947	1.2293	2.1119	5.3675
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

HOG NO= 126 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 20.080 HUB STATIC PRES= 19.790

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	7.3000	2.5000	874.7000	535.2000	589.5000	18.9800	27.2100
.100	13.1600	-7.5000	1.0600	7.5100	-2.6000	843.4000	461.7000	576.4000	18.6100	26.2100
.150	12.8300	-7.6000	1.0900	5.1000	-3.0000	815.0000	445.5000	570.8000	18.8000	26.0000
.282	12.0000	-8.4000	1.1700	4.5000	2.9000	774.0000	498.5000	579.6000	18.8600	25.1800
.470	10.8200	-10.1000	1.3000	3.2800	-.7600	624.8000	519.0000	563.8000	18.4300	25.7700
.689	9.4800	-9.8000	1.4700	3.2000	.8900	774.0000	509.1000	557.7000	18.1900	24.5300
.850	8.5900	-9.2000	1.6200	2.7000	1.2300	748.8000	497.3000	552.3000	17.7700	23.6100
.900	8.2700	-9.1000	1.6700	1.6800	2.1000	727.2000	491.8000	554.1000	17.6690	23.1000
.937	8.0200	-9.0000	1.7300	.9000	5.4000	712.6000	511.0000	560.0000	17.6800	22.7900

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	637.2700	25.3400
.1000	13.1500	629.8700	25.5500
.1500	12.8400	621.8500	25.2400
.2822	11.9700	619.3000	24.5200
.4702	10.8300	615.1800	25.1500
.6887	9.5700	600.6000	23.8700
.8500	8.6700	596.0000	22.0400
.9000	8.4000	597.4000	21.9400
.9372	8.1200	599.5000	21.3500

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4416	.2272	.1084	1.4149	11.7000	.5873	702.8876	697.1903	89.3121
.1000	.3624	.0868	.0406	1.0948	12.0100	.5989	711.7243	705.6191	93.0218
.1500	.3684	.1056	.0482	.9238	9.7000	.5841	690.8314	688.0964	61.4110
.2822	.4085	.1044	.0445	2.1046	9.9000	.5481	649.3814	647.3796	50.9499
.4702	.3882	.0845	.0324	1.0788	10.3800	.5858	688.9942	687.8655	39.4212
.6887	.4240	.1041	.0354	1.1624	10.0000	.5183	606.6040	605.6581	33.8615
.8500	.5789	.2692	.0830	.6791	8.9000	.3914	461.3927	460.8805	21.7346
.9000	.5718	.2136	.0639	.7101	7.7800	.3840	453.4839	453.2889	13.2949
.9372	.6553	.2818	.0814	.6943	6.6000	.3295	391.2182	391.1968	4.0968

PCT IMMERS	EX STAT PRES
.0500	20.0638
.1000	20.0483
.1500	20.0332
.2822	19.9909
.4702	19.9355
.6887	19.8743
.8500	19.8306
.9000	19.8175
.9372	19.8038

ROTOR INLET TRAVERSE PLANE		READING NUMBER		109	TIME	11H 34M 6S	UNIFORM INLET FLOW		STATOR ANGLE	3.
SPEED (RPM)	14004.2617						DISTORTION INDEX		0.000	
ACTUAL ORIFICE FLOW	157.7199									
THETA	0.9980									
DELTA	0.9882									
MASS AVERAGED PT	14.5238	(14.6960)								
MASS AVERAGED TT	517.6954	(518.6881)								
TOTAL WEIGHT FLOW	162.1828	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	163.9485									
EQUIV. SPEED	14017.6830									
PERCENT SPEED	109.6759									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION(IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.4639	14.6902	14.7228	14.7481	14.7438	14.7196	14.7051	14.6993	14.6016	
STATIC PRESSURE	10.3185	10.0825	9.8532	9.5328	9.8379	10.3054	10.4748	10.7082	10.9542	
WEDGE PRESSURE	10.9625	10.9042	10.7888	10.6419	10.7882	11.0417	11.1359	11.2809	11.4208	
TOTAL TEMPERATURE	519.4440	519.8881	518.4795	519.3021	519.5372	518.0003	516.5473	517.0782	517.1190	
ANGLE (DEG.)	1.5036	1.9642	2.0152	2.0519	1.9696	1.8964	1.6747	1.5547	1.8803	
APPARENT MACH NO.	0.6418	0.6665	0.6813	0.6988	0.6830	0.6541	0.6428	0.6266	0.6028	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.1249	11.1056	10.9984	10.8551	10.8538	10.9959	11.3088	11.4445	11.5448	
WEDGE PRESSURE	11.1763	11.1623	11.0584	10.9192	10.9178	11.0559	11.3610	11.4935	11.5897	
ANGLE (DEG.)	-1.3491	1.6248	2.2362	2.5991	3.6045	5.4177	5.6399	6.1439	5.8913	
APPARENT MACH NO.	0.6181	0.6387	0.6526	0.6695	0.6693	0.6526	0.6183	0.6033	0.5839	
MEASURING PLANE										
MACH NO.	0.6239	0.6449	0.6590	0.6763	0.6761	0.6590	0.6240	0.6087	0.5890	
ABSOLUTE VELOCITY	670.9814	691.8522	705.8400	722.8030	722.6138	705.8499	671.1584	655.7894	635.9875	
SWIRL VELOCITY	17.1062	23.1957	24.4337	25.7481	24.8351	23.2036	19.0074	16.9838	19.5479	
WEIGHT FLOW	15.5748	11.2014	18.6895	29.9885	33.3955	26.2863	12.8329	6.2908	7.8931	
AXIAL VELOCITY	651.6795	676.3532	694.3769	718.6461	722.1473	700.7931	650.1024	625.7418	595.4307	
CALCULATING PLANE										
ANGLE (DEG.)	1.2710	1.6452	1.7220	1.8259	1.7586	1.6697	1.3996	1.2675	1.5035	
SWIRL VELOCITY	17.3997	23.5198	24.7115	25.9597	24.8121	22.9491	18.5028	16.3699	18.6290	
AXIAL VELOCITY	783.1801	817.8387	820.9512	813.2978	807.1131	786.2739	756.2849	738.8539	708.7504	
MERIDIONAL VELOCITY	800.6766	829.4542	828.6177	815.9260	807.1181	790.3197	772.3318	764.9178	749.5889	
ABSOLUTE VELOCITY	801.8879	830.8011	829.9960	817.3421	808.4990	791.6590	773.5773	766.1304	750.8801	
MACH NO.	0.7584	0.7890	0.7882	0.7747	0.7653	0.7476	0.7287	0.7209	0.7051	
WEIGHT FLOW	15.5789	11.1978	18.6934	29.9916	33.4068	26.2881	12.8337	6.2946	7.8974	
WHEEL SPEED	1710.0777	1661.6956	1613.7878	1487.8115	1316.3604	1116.3420	969.5916	915.1873	860.0215	
RELAT. TANG. VELOC.	1692.6781	1638.1756	1589.0762	1461.8513	1291.5482	1093.3927	951.0887	898.8171	841.3924	
RELATIVE FLOW ANGLE	64.6849	63.1458	62.4606	60.8323	57.9980	54.1402	50.9218	49.6015	48.3026	
RELATIVE VELOCITY	1872.4960	1836.1951	1792.1409	1674.1400	1523.0017	1349.1154	1225.1801	1180.2421	1126.8651	
RELATIVE MACH NO.	1.7709	1.7440	1.7019	1.5869	1.4417	1.2740	1.1541	1.1106	1.0582	
MCL INCIDENCE	2.4849	1.9458	1.9606	2.4323	1.8980	1.8402	2.5218	1.6015	0.4026	
SURFACE INCIDENCE	0.2849	-0.0541	-0.1393	0.0323	-0.5019	-0.8597	-1.1781	-2.1984	-3.6973	
RELATIVE TOTAL PRESS	61.1577	58.6004	54.4565	45.2614	36.6527	29.4220	25.8517	24.7658	23.4246	
STATIC TEMPERATURE	465.8035	462.2611	461.1179	463.5893	464.9991	465.8632	466.9024	468.3350	470.2935	
RELAT. TOTAL TEMP.	758.2903	743.7547	728.5492	697.3282	658.5264	617.2785	591.4304	584.0127	575.7529	
STATIC PRESS.(ALT.)	9.8795	9.7405	9.7704	9.9166	10.0037	10.1572	10.3276	10.3973	10.4771	
RADIUS RATIO	0.9736	-0.9464	0.9179	0.8469	0.7495	0.6347	-0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	109	TIME	114 340 65	UNIFORM INLET FLOW	STATOR ANGLE	1.00		
MASS AVERAGED PT	21.6556	(21.9124)							
MASS AVERAGED TT	600.2447	(601.3956)							
TOTAL WEIGHT FLOW	164.3797	(PRUBE INTEGRATION)							
CORR. TOTAL FLOW	166.1689								
PROBE TYPE - NASA 4 PARAMETER									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	21.8407	21.6501	21.5697	20.6671	21.9023	22.7362	23.2509	22.8696	21.8217
STATIC PRESSURE	14.1797	13.6920	13.3866	13.7622	14.5123	15.1980	15.4240	15.1603	14.8643
WEDGE PRESSURE	15.5096	15.2623	15.1314	14.9273	15.7633	16.4686	16.7433	16.4651	16.0261
TOTAL TEMPERATURE	598.9489	594.0009	594.2119	610.8459	603.7333	607.1966	599.4926	597.8347	595.5882
ANGLE (DEG.)	20.0241	19.5149	20.4001	29.5674	30.3937	32.0928	33.4770	33.9900	35.5784
APPARENT MACH NO.	0.7169	0.7249	0.7302	0.6978	0.7020	0.6949	0.7011	0.7016	0.6791
PROBE TYPE - NASA 2 PARAMETER									
LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	14.3246	14.5810	13.8947	14.6525	14.7563	15.2857	15.2581	15.0960	15.0343
WEDGE PRESSURE	14.4964	14.7371	14.0733	14.7756	14.9140	15.4506	15.4407	15.2723	15.1795
ANGLE (DEG.)	21.6264	17.2809	17.1164	18.9996	24.1949	28.8496	29.2948	29.6309	29.8343
APPARENT MACH NO.	0.7883	0.7622	0.8056	0.7092	0.7619	0.7640	0.7878	0.7821	0.7393
MEASURING PLANE									
MACH NO.	0.8004	0.7733	0.8183	0.7185	0.7730	0.7752	0.7996	0.7939	0.7495
ABSOLUTE VELOCITY	903.2599	872.0362	918.3576	828.0465	879.0685	881.4693	905.6309	897.9698	851.3543
SWIRL VELOCITY	308.2917	290.4705	319.3587	408.2786	444.7351	466.7660	495.1470	495.9573	488.6852
WEIGHT FLOW	17.1904	11.2719	19.7758	27.2986	34.1251	27.4694	13.4814	5.8647	7.9158
AXIAL VELOCITY	845.9169	819.5887	858.7282	719.6540	758.2274	744.2993	748.7417	735.5672	683.1355
CALCULATING PLANE									
SWIRL VELOCITY	306.2544	288.7207	317.8778	407.2629	445.1465	470.7683	502.2544	504.6150	500.0941
AXIAL VELOCITY	776.1786	755.8511	788.9141	684.2507	726.1018	707.1457	690.0850	681.7107	634.5672
ABSOLUTE VELOCITY	844.5676	815.8327	855.5145	797.6571	852.6809	853.2827	865.2090	864.1636	827.7137
MERIDIONAL VELOCITY	786.0722	762.0279	793.2595	684.8514	726.2613	710.6595	703.4826	700.4987	658.5171
ANGLE (DEG.)	21.5074	20.8807	21.9209	30.7242	31.4759	33.6156	36.0082	36.4694	38.1973
MACH NO.	0.7425	0.7182	0.7557	0.6896	0.7472	0.7476	0.7599	0.7605	0.7265
WEIGHT FLOW	17.1970	11.2725	19.7884	27.3111	34.1449	27.4898	13.3900	5.8655	7.9197
WHEEL SPEED	1664.8506	1622.5971	1583.2010	1474.3641	1321.2497	1142.0474	1024.7517	982.5704	944.5535
RELAT. TANG. VELOC.	1358.5959	1333.8764	1265.3230	1067.1011	876.1030	671.2791	522.4972	477.9554	444.4593
RELATIVE FLOW ANGLE	59.9469	60.2614	57.9157	57.3083	50.3425	43.3678	36.6025	34.3061	34.0171
RELATIVE VELOCITY	1569.6151	1536.2007	1493.4200	1267.9613	1137.9857	977.5746	876.2939	848.0210	794.4739
RELATIVE MACH NO.	1.3799	1.3523	1.3192	1.0962	0.9972	0.8565	0.7697	0.7463	0.6973
DEVIATION	3.9469	3.9614	2.0156	6.1083	3.3425	4.6678	8.7025	11.4061	15.4170
AIR TURNING ANGLE	4.7380	2.8844	4.5449	3.5239	7.6554	10.7723	14.3193	15.2953	14.2855
REL. MACH NO. (WHL.)	1.2346	1.2155	1.1966	1.1401	1.0515	0.9374	0.8581	0.8284	0.8020
IDEAL PRESS. RATIO	0.9424	0.9504	0.9614	0.9834	1.0057	1.0276	1.0530	1.0650	1.0790
ROTOR PRESS. RATIO	1.5100	1.4737	1.4650	1.4009	1.4855	1.5446	1.5811	1.5558	1.4944
ROTOR TEMP. RATIO	1.1530	1.1425	1.1460	1.1762	1.1620	1.1625	1.1605	1.1561	1.1517
ADIABATIC EFFY.	0.8150	0.8207	0.7880	0.5723	0.7372	0.8122	0.8694	0.8604	0.8003
POLYTR. EFFICIENCY	0.8254	0.8302	0.7991	0.5920	0.7514	0.8233	0.8775	0.8688	0.8113
TOTAL LOSS COEFF.	0.0961	0.0893	0.1102	0.2681	0.1752	0.1461	0.1161	0.1277	0.1898
SHOCK LOSS COEFF.	0.0179	0.0173	0.0161	0.0135	0.0136	0.0658	0.0350	0.0253	0.0156
PROFILE LOSS COEFF.	0.0781	0.0720	0.0941	0.2546	0.1616	0.0802	0.0810	0.1024	0.1741
TOTAL LOSS PARAM.	0.0146	0.0133	0.0175	0.0427	0.0323	0.0297	0.0250	0.0276	0.0402
PROFILE LOSS PARAM.	0.0119	0.0107	0.0149	0.0405	0.0298	0.0163	0.0175	0.0221	0.0369
ROTOR DIFFUS. FACT.	0.2111	0.2100	0.2201	0.3143	0.3375	0.3751	0.3999	0.3988	0.4152
STATIC PRESS. (ALT.)	15.1483	15.3564	14.7745	15.0373	15.1243	15.6940	15.8625	15.5936	15.3605
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.5000

STATOR INLET TRAVERSE PLANE READING NUMBER 109 TIME 11H 34M 6S UNIFORM INLET FLOW STATOR ANGLE 3.

MASS AVERAGED PT 21.6549 (21.9117)
 MASS AVERAGED TT 600.2432 (601.3941)
 TOTAL WEIGHT FLOW 164.1921 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 165.9797

MEASURING PLANE	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3610	5.6800	5.9500
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3610	5.6800	5.9500
TOTAL PRESSURE	21.8407	21.6501	21.5697	20.6621	21.9023	22.7361	23.2509	22.8696	21.8217
STATIC PRESSURE	14.3246	14.5810	13.8947	14.6525	14.7563	15.2857	15.2581	15.0960	15.0343
WEDGE PRESSURE	14.4964	14.7370	14.0733	14.7756	14.9140	15.4506	15.4407	15.2723	15.1795
TOTAL TEMPERATURE	598.9488	594.0008	594.2118	610.8458	603.7332	602.1964	599.4924	597.8346	595.5880
ANGLE (DEG.)	20.0241	19.5149	20.4001	29.5674	30.3936	32.0928	33.4770	33.9900	35.5783
MACH NO.	0.8004	0.7733	0.8183	0.7185	0.7730	0.7752	0.7998	0.7939	0.7495
ABSOLUTE VELOCITY	903.2599	872.0359	918.3576	828.0463	879.0684	881.4691	905.6316	897.9697	851.3543
SWIRL VELOCITY	308.2916	290.4703	319.3586	408.2784	444.7350	466.7658	495.1457	495.9571	488.6850
AXIAL VELOCITY	845.9170	819.5883	858.7280	719.6539	758.2273	744.2992	748.7412	735.5674	683.1359
WEIGHT FLOW	17.1904	11.2719	19.7758	27.2986	34.1251	27.4694	13.4814	5.8647	7.9158

CALCULATING PLANE	20.2626	19.4982	19.9339	28.6461	28.4411	30.3820	31.7018	31.9400	33.4478
ANGLE (DEG.)	20.2626	19.4982	19.9339	28.6461	28.4411	30.3820	31.7018	31.9400	33.4478
MACH NO.	0.7910	0.7748	0.8414	0.7437	0.8275	0.8113	0.8285	0.8265	0.7765
SWIRL VELOCITY	309.4351	291.3531	320.6031	409.2990	444.7350	463.3192	488.8060	489.3604	480.7637
AXIAL VELOCITY	837.1926	821.8380	883.0231	748.2742	820.1150	789.2789	790.3881	783.9672	726.7951
ABSOLUTE VELOCITY	893.7926	873.4688	941.0345	854.2205	933.8241	917.8325	934.2723	930.4637	878.6898
WEIGHT FLOW	17.1923	11.2749	19.7791	27.3105	34.1383	27.2825	13.4279	5.8668	7.9194
MERIDIONAL VELOCITY	837.5191	822.4442	883.7351	748.7771	820.1200	791.3040	795.1902	790.3737	734.4881
STATIC TEMPERATURE	532.4670	530.4432	520.6414	550.1708	531.1642	532.2937	527.2586	526.1109	531.6144
STATIC PRESS.(ALT.)	14.4589	14.5609	13.5719	14.3155	13.9790	14.7514	14.8238	14.6112	14.6522
MCL INCIDENCE	-8.7294	-9.7673	-9.6700	-2.3045	-5.2087	-3.7500	-2.4955	-2.3089	-0.8081
SUC SUR. INCIDENCE	-15.1473	-16.2817	-16.2260	-8.5438	-11.3188	-9.9279	-8.8581	-8.7299	-7.3021
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 109 PCT DES SPD=110.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 14.120 HUB STATIC PRES= 13.640

PCT IMMERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRFS	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.5400	-15.1000	893.8000	309.4000	532.5000	14.4600	21.8400
.100	13.1600	-7.5000	1.0600	2.7000	-16.3000	873.5000	291.4000	530.4000	14.5600	21.6500
.150	12.8300	-7.6000	1.0900	2.0000	-16.2000	941.0000	320.6000	520.6000	13.5700	21.5700
.282	12.0000	-8.4000	1.1700	1.2000	-8.5000	854.2000	409.3000	550.2000	14.3100	20.6600
.470	10.8200	-10.1000	1.3000	1.2600	-11.3000	933.8000	444.7000	531.2000	13.9800	21.9000
.689	9.4800	-9.8000	1.4700	.6500	-9.9000	917.8000	463.3000	532.3000	14.7500	22.7400
.850	8.5900	-9.2000	1.6200	.9300	-8.8600	934.3000	488.8000	527.3000	14.8200	23.2500
.900	8.2700	-9.1000	1.6700	.3600	-8.7300	930.5000	489.4000	526.1000	14.6100	22.8700
.937	8.0200	-9.0000	1.7300	-1.4400	-7.3000	878.7000	480.8000	531.6000	14.6500	21.8200

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	598.0300	20.1700
.1000	13.1500	595.6000	20.9600
.1500	12.8400	590.8800	20.8700
.2822	11.9700	601.1300	20.3000
.4702	10.8300	596.0600	21.0100
.6887	9.5700	594.5200	21.5500
.8500	8.6700	595.4300	20.5300
.9000	8.4000	594.1600	20.7200
.9372	8.1200	595.8700	19.8500

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2030	.2263	.1086	-.5386	7.9400	.7344	836.3650	834.7692	51.6416
.1000	.1302	.0973	.0459	-4.8934	7.2000	.7768	877.7885	876.8140	41.3495
.1500	.2151	.0875	.0401	.7285	6.6000	.7742	871.6807	871.1497	30.4212
.2822	.1951	.0567	.0242	.3748	6.6000	.7504	855.0156	854.8280	17.9061
.4702	.2173	.1124	.0432	.6310	6.3600	.7928	894.3001	894.0839	19.6651
.6887	.1585	.1489	.0507	1.1291	7.4500	.8255	925.5914	925.5318	10.5003
.8500	.2108	.3227	.0996	-3.6595	7.1300	.7821	883.0651	882.9488	14.3329
.9000	.1946	.2603	.0779	-5.9248	6.4600	.7931	893.1585	893.1409	5.6118
.9372	.1955	.2748	.0794	-2.6890	4.5600	.7504	851.2598	850.9910	-21.3922

PCT IMMERS	EX STAT PRES
.0500	14.0932
.1000	14.0675
.1500	14.0425
.2822	13.9726
.4702	13.8809
.6887	13.7795
.8500	13.7072
.9000	13.6854
.9372	13.6629

ROTOR INLET TRAVERSE PLANE	READING NUMBER	110	TIME	13H 28M 46S	UNIFORM INLET FLOW	STATOR ANGLE	3.		
SPEED (RPM)	13958.3090				DISTORTION INDEX	0.000			
ACTUAL ORIFICE FLOW	157.5578								
THETA	1.0002								
DELTA	0.9884								
MASS AVERAGED PT	14.5266	(14.6960)							
MASS AVERAGED TT	518.8214	(518.6681)							
TOTAL WEIGHT FLOW	161.7947	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	163.7015								
EQUIV. SPEED	13956.5177								
PERCENT SPEED	109.1973								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.5242	14.6761	14.6958	14.7519	14.7418	14.7126	14.6979	14.6978	14.6007
STATIC PRESSURE	10.2964	10.0595	9.8587	9.5378	9.8261	10.2986	10.4478	10.7039	10.9561
WEDGE PRESSURE	10.9697	10.8862	10.7819	10.6457	10.7811	11.0354	11.1176	11.2777	11.4218
TOTAL TEMPERATURE	518.5263	519.4292	518.8056	519.2316	519.3453	517.5600	518.3207	518.2155	517.5814
ANGLE (DEG.)	1.5863	2.1398	2.0184	2.0002	1.8910	1.7856	1.6890	1.7411	1.7913
APPARENT MACH NO.	0.6460	0.6673	0.6800	0.6987	0.6836	0.6542	0.6442	0.6268	0.6027
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	11.1129	11.1446	11.0018	10.9098	10.8757	11.0271	11.3070	11.4223	11.4957
WEDGE PRESSURE	11.1658	11.2001	11.0611	10.9727	10.9391	11.0862	11.3592	11.4719	11.5416
ANGLE (DEG.)	1.6455	1.7390	2.3561	2.5524	3.1969	5.0120	5.4613	6.0453	6.0195
APPARENT MACH NO.	0.6245	0.6335	0.6501	0.6641	0.6669	0.6488	0.6179	0.6055	0.5893
MEASURING PLANE									
MACH NO.	0.6303	0.6395	0.6565	0.6708	0.6736	0.6551	0.6236	0.6110	0.5944
ABSOLUTE VELOCITY	677.3941	686.5206	703.3457	717.4007	720.1820	701.9963	670.7466	658.1099	641.4676
SWIRL VELOCITY	18.2197	25.0748	24.3848	24.9113	23.7643	21.7290	19.1577	19.0869	18.7829
WEIGHT FLOW	15.7296	11.1337	18.5954	29.8500	33.3078	26.1816	12.7884	6.2910	7.9265
AXIAL VELOCITY	657.8839	671.0703	691.9223	713.2977	719.7502	697.0097	649.6939	627.9024	600.5874
CALCULATING PLANE									
ANGLE (DEG.)	1.3454	1.7971	1.7273	1.7837	1.6906	1.5747	1.4109	1.4179	1.4287
SWIRL VELOCITY	18.5322	25.4251	24.6621	25.1160	23.7422	21.4907	18.6491	18.3970	17.9000
AXIAL VELOCITY	788.0218	809.3181	816.8027	805.4749	803.3881	780.7496	756.1710	742.2431	716.6732
MERIDIONAL VELOCITY	805.6265	820.8127	824.4306	808.0778	803.3929	784.7668	772.2154	768.4264	757.9682
ABSOLUTE VELOCITY	806.8617	822.2191	825.8080	809.4698	804.7424	786.0668	773.4616	769.6819	759.2376
MACH NO.	0.7636	0.7799	0.7837	0.7664	0.7614	0.7417	0.7286	0.7246	0.7138
WEIGHT FLOW	15.6841	11.1366	18.6007	29.8578	33.3152	26.1818	12.7931	6.2950	7.9301
WHEEL SPEED	1704.1220	1655.1751	1606.2413	1481.4205	1310.8585	1111.9434	963.7030	910.1932	855.8863
RELAT. TANG. VELOC.	1685.5893	1629.7499	1581.5789	1456.3043	1287.1163	1090.4527	945.0538	891.7962	837.9860
RELATIVE FLOW ANGLE	64.4548	63.2684	62.4685	60.9751	58.0285	54.2587	50.7476	49.2499	47.8704
RELATIVE VELOCITY	1868.2194	1824.7787	1783.5575	1665.4761	1517.7696	1343.4827	1220.4313	1177.1911	1129.9276
RELATIVE MACH NO.	1.7681	1.7309	1.6927	1.5768	1.4355	1.2677	1.1496	1.1083	1.0623
MCL INCIDENCE	2.2547	2.0684	1.9685	2.5751	1.9286	1.9587	2.3476	1.2499	-0.0295
SURFACE INCIDENCE	0.0548	0.0684	-0.1314	0.1750	-0.4713	-0.7412	-1.3523	-2.5500	-4.1295
RELATIVE TOTAL PRESS	60.8340	57.6533	53.7228	44.8213	36.4035	29.2559	25.7032	24.6461	23.4400
STATIC TEMPERATURE	464.3145	463.0375	461.9878	464.5956	465.3340	466.2013	468.5238	468.9141	469.6668
RELAT. TOTAL TEMP.	754.9510	740.7915	727.0205	695.8841	657.3318	616.2246	592.5036	584.2412	575.7907
STATIC PRESS. (ALT.)	9.8711	9.8187	9.7953	9.9993	10.0404	10.2084	10.3237	10.3612	10.3951
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5535	0.5198	0.4885
STRFAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	110	TIME	144 281 465	UNIFORM INLET FLOW	STATOR ANGLE	3.500		
MASS AVERAGED PT	22.1108	(22.3685)							
MASS AVERAGED TT	604.8094	(604.6541)							
TOTAL HEIGHT FLOW	162.6916	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	164.6089								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3610	5.6800	5.9500
TOTAL PRESSURE	22.3741	22.4025	22.3421	21.1109	22.2764	23.0855	23.5133	23.2109	21.9667
STATIC PRESSURE	14.8558	14.6332	14.3832	14.4223	14.8914	15.4652	15.5708	15.3534	14.7134
WEDGE PRESSURE	16.1250	15.9556	15.8266	15.5355	16.1339	16.7458	16.9134	16.6823	15.9328
TOTAL TEMPERATURE	604.1620	600.2466	600.7096	613.0164	607.2534	602.1719	601.0558	600.1043	600.3673
ANGLE (DEG.)	21.4823	20.9857	21.9954	30.4571	32.3235	33.2061	33.7532	35.1763	39.4943
APPARENT MACH NO.	0.7005	0.7137	0.7196	0.6769	0.6950	0.6932	0.7027	0.7036	0.6934
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	14.9951	15.8501	14.4712	15.4787	15.5364	15.7672	15.6656	15.5331	15.3904
WEDGE PRESSURE	15.1591	15.9848	14.6535	15.5880	15.6780	15.9257	15.8424	15.7041	15.5277
ANGLE (DEG.)	26.8319	7.1499	19.7803	20.9121	27.6092	30.1322	30.2557	30.4601	30.7278
APPARENT MACH NO.	0.7672	0.7116	0.8004	0.6730	0.7267	0.7482	0.7729	0.7686	0.7220
MEASURING PLANE									
MACH NO.	0.7784	0.7210	0.8130	0.6811	0.7366	0.7588	0.7844	0.7799	0.7317
ABSOLUTE VELOCITY	885.7503	823.3382	917.6739	790.1277	844.3490	865.0974	889.7228	884.5632	836.0017
SWIRL VELOCITY	323.3465	294.0370	342.9044	400.2028	451.4539	472.2412	490.0824	503.6199	525.2623
WEIGHT FLOW	17.1896	11.1676	20.0971	26.8921	33.2466	27.3084	13.4729	5.8183	7.4607
AXIAL VELOCITY	821.6080	766.5663	848.9146	680.5766	713.4836	721.4955	733.2342	714.5557	637.3266
CALCULATING PLANE									
SWIRL VELOCITY	321.2099	292.2656	341.3143	399.2072	451.8716	476.2903	497.1171	512.4112	537.5250
AXIAL VELOCITY	758.0211	713.3992	781.8115	649.5766	685.4780	686.6593	685.1550	664.2176	588.5530
ABSOLUTE VELOCITY	833.1082	777.2769	857.9383	763.7792	821.9767	839.3092	858.1331	854.2877	814.3943
MERIDIONAL VELOCITY	767.6833	719.2290	786.1179	650.1468	685.6284	690.0712	698.4568	682.5234	610.7661
ANGLE (DEG.)	22.9376	22.2499	23.5578	31.5342	33.3549	34.7075	35.9233	37.6068	42.3571
MACH NO.	0.7271	0.6768	0.7538	0.6564	0.7150	0.7337	0.7534	0.7502	0.7109
WEIGHT FLOW	17.2008	11.1708	20.1072	26.9189	33.2615	27.3224	13.4805	5.8204	7.4088
WHEEL SPEED	1659.0521	1616.2303	1575.7972	1468.0307	1315.7276	1137.5477	1018.5333	977.2089	940.0119
RELAT. TANG. VELOC.	1337.8425	1323.9648	1234.4827	1068.8233	863.8559	661.2573	521.4163	464.7976	402.4868
RELATIVE FLOW ANGLE	60.1520	61.4877	57.5112	58.6887	51.5617	43.7786	36.7424	34.2549	33.3844
RELATIVE VELOCITY	1542.4522	1506.7089	1463.5327	1251.0290	1102.8749	955.7506	871.6172	825.7573	731.4579
RELATIVE MACH NO.	1.3463	1.3120	1.2859	1.0752	0.9594	0.8355	0.7652	0.7251	0.6385
DEVIATION	4.1520	5.1877	1.6112	7.4887	4.5617	5.0786	8.8424	11.3549	14.7844
AIR TURNING ANGLE	4.3026	1.7807	4.9572	2.2862	6.4668	10.4800	14.0052	14.9950	14.4859
REL. MACH NO. (WHL.)	1.2320	1.2126	1.1927	1.1364	1.0480	0.9341	0.8536	0.8246	0.7985
IDEAL PRESS. RATIO	0.9427	0.9507	0.9617	0.9835	1.0056	1.0274	1.0544	1.0644	1.0783
ROTOR PRESS. RATIO	1.5404	1.5264	1.5203	1.4310	1.5111	1.5690	1.5997	1.5792	1.5046
ROTOR TEMP. RATIO	1.1651	1.1555	1.1578	1.1806	1.1692	1.1634	1.1596	1.1580	1.1599
ADIABATIC EFFY.	0.7939	0.8240	0.8038	0.5955	0.7379	0.8386	0.8934	0.8808	0.7726
POLYTR. EFFICIENCY	0.8061	0.8342	0.8151	0.6152	0.7527	0.8485	0.9049	0.8883	0.7853
TOTAL LOSS COEFF.	0.1138	0.0950	0.1096	0.2609	0.1818	0.1274	0.0907	0.1107	0.2235
SHOCK LOSS COEFF.	0.0178	0.0169	0.0159	0.0132	0.0148	0.0648	0.0339	0.0248	0.0163
PROFILE LOSS COEFF.	0.0959	0.0780	0.0936	0.2476	0.1669	0.0625	0.0557	0.0859	0.2072
TOTAL LOSS PARAM.	0.0172	0.0136	0.0176	0.0400	0.0326	0.0257	0.0195	0.0239	0.0477
PROFILE LOSS PARAM.	0.0145	0.0112	0.0150	0.0379	0.0300	0.0126	0.0122	0.0185	0.0442
ROTOR DIFFUS. FACT.	0.2261	0.2213	0.2359	0.3188	0.3588	0.3894	0.3985	0.4167	0.4805
STATIC PRESS. (ALT.)	15.7412	16.4859	15.3316	15.8106	15.8469	16.1434	16.1421	15.9824	15.6866
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
INFIL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 110 TIME 13H 28M 46S UNIFORM INLET FLOW STATOR ANGLE 3.

MASS AVERAGED PT 22.1106 (22.3683)
 MASS AVERAGED TT 604.8078 (604.6525)
 TOTAL WEIGHT FLOW 162.6865 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 164.6037

MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.3741	22.4025	22.3421	21.1109	22.2764	23.0855	23.5133	23.2109	21.9687
STATIC PRESSURE	14.9951	15.8501	14.4712	15.4787	15.5364	15.7672	15.6666	15.5331	15.3904
WEDGE PRESSURE	15.1591	15.9848	14.6535	15.5880	15.6780	15.9257	15.8424	15.7041	15.5277
TOTAL TEMPERATURE	604.1619	600.2465	600.7095	613.0163	607.2533	602.1719	601.0557	600.1042	600.3672
ANGLE (DEG.)	21.4823	20.9857	21.9954	30.4571	32.3235	33.2061	33.7582	35.1763	39.4942
MACH NO.	0.7784	0.7210	0.8130	0.6811	0.7366	0.7588	0.7844	0.7799	0.7317
ABSOLUTE VELOCITY	885.7502	823.3380	917.6738	790.1274	844.3490	865.0974	889.7228	884.5631	836.0017
SWIRL VELOCITY	323.3464	294.0369	342.9042	400.2026	451.4539	472.2411	490.0824	503.6197	525.2623
AXIAL VELOCITY	821.6077	766.5663	848.9144	680.5766	713.4837	721.4955	733.2343	714.5554	637.3268
WEIGHT FLOW	17.1896	11.1676	20.0971	26.8921	33.2466	27.3084	13.4729	5.8183	7.4607

CALCULATING PLANE									
ANGLE (DEG.)	21.7127	20.9992	21.5250	29.5898	30.5328	31.2087	31.8371	33.2044	37.4101
MACH NO.	0.7704	0.7212	0.8343	0.7026	0.7798	0.7995	0.8158	0.8078	0.7514
SWIRL VELOCITY	324.5457	294.9304	344.2405	401.2030	451.4539	468.7540	483.8066	496.9210	516.7480
AXIAL VELOCITY	814.0227	767.3537	871.7897	705.5401	764.4180	772.7420	778.1759	758.2485	674.6338
ABSOLUTE VELOCITY	877.5592	823.5419	938.8779	812.9163	888.6401	906.3577	921.1862	912.6055	856.2859
WEIGHT FLOW	17.1919	11.1618	20.1006	26.9072	33.2556	27.3165	13.4701	5.8165	7.4659
MERIDIONAL VELOCITY	814.3404	767.9199	872.4927	706.0142	764.4226	774.7246	782.9040	764.4446	681.7748
STATIC TEMPERATURE	540.2046	543.8116	527.4501	558.0843	541.5773	534.0685	530.5983	530.9641	539.5728
STATIC PRESS.(ALT.)	15.1125	15.8472	14.1608	15.1869	14.9108	15.1557	15.1866	15.1115	15.1091
MCL INCIDENCE	-7.2787	-8.2652	-8.0775	-1.3602	-3.1169	-2.9212	-2.3594	-1.0341	3.1960
SUC SUR INCIDENCE	-13.6972	-14.7807	-14.6349	-7.6001	-9.2271	-9.1012	-8.7228	-7.4655	-3.3398
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 110 PCT DES SPD=110.10 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.970 HUB STATIC PRES= 15.910

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.3300	-13.7000	877.6000	324.5000	540.2000	15.1100	22.3700
.100	13.1600	-7.5000	1.0600	4.3900	-14.8000	823.5000	294.9000	543.8000	15.8400	22.4000
.150	12.8300	-7.6000	1.0900	3.2400	-14.6000	938.9000	344.2000	527.4000	14.1600	22.3400
.282	12.0000	-8.4000	1.1700	1.9300	-7.6000	812.9000	401.2000	558.1000	15.1900	21.1100
.470	10.8200	-10.1000	1.3000	1.6400	-9.2000	888.6000	451.4500	541.6000	14.9100	22.2800
.689	9.4800	-9.8000	1.4700	-1.1000	-9.1000	906.4000	468.8000	534.1000	15.1600	23.0900
.850	8.5900	-9.2000	1.6200	1.2800	-8.7000	921.0000	483.8000	530.4000	15.1900	23.5100
.900	8.2700	-9.1000	1.6700	1.4300	-7.4000	912.6000	496.9000	530.9600	15.1100	23.2100
.937	8.0200	-9.0000	1.7300	1.7800	-3.3000	856.3000	516.7000	539.6000	15.1100	21.9700

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	603.9600	20.6500
.1000	13.1500	603.2900	21.9600
.1500	12.8400	599.5200	22.1700
.2822	11.9700	605.8000	21.0100
.4702	10.8300	602.2100	21.7100
.6887	9.9700	597.2500	22.4100
.8500	8.6700	597.4700	22.4600
.9000	8.4000	596.9000	21.7000
.9372	8.1200	598.6000	20.0700

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3312	.2369	.1136	.4138	8.7300	.6175	717.0298	714.9792	54.1360
.1000	.1694	.0671	.0315	.1747	8.8900	.6907	794.5137	792.1826	60.8160
.1500	.2902	.0208	.0095	.9977	7.8400	.7016	803.4483	802.1640	45.4097
.2822	.2851	.0169	.0072	4.2173	7.3300	.6398	742.1727	741.7516	24.9952
.4702	.3058	.0773	.0297	1.0716	8.7400	.6793	781.8230	781.5028	22.3754
.6887	.2746	.0858	.0292	.9942	6.7000	.7158	816.6919	816.6906	-1.4254
.8500	.2649	.1262	.0389	.6581	7.4800	.7189	820.0197	819.8150	18.3179
.9000	.3010	.1864	.0558	.5210	7.5300	.6805	779.6683	779.4175	19.4569
.9372	.3729	.2770	.0800	.3950	7.7800	.5855	679.2951	678.9673	21.1002

PCT IMMERS	EX STAT PRES
.0500	15.9667
.1000	15.9634
.1500	15.9603
.2822	15.9516
.4702	15.9401
.6887	15.9274
.8500	15.9184
.9000	15.9157
.9372	15.9129

ROTOR INLET TRAVERSE PLANE		READING NUMBER		113	TIME	13H 45M 6S	UNIFORM INLET FLOW		STATOR ANGLE 3.	
SPEED (RPM)	14050.4546						DISTORTION INDEX		0.000	
ACTUAL ORIFICE FLOW	156.9819									
THETA	1.0041									
DELTA	0.9891									
MASS AVERAGED PT	14.5369	(14.6960)								
MASS AVERAGED TT	520.8335	(518.6881)								
TOTAL WEIGHT FLOW	162.0186	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	164.1294									
EQUIV. SPEED	14021.4861									
PERCENT SPEED	109.7056									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.5525	14.7012	14.7094	14.7379	14.7362	14.7087	14.6949	14.6868	14.5821	
STATIC PRESSURE	10.4055	10.1284	9.9282	9.6352	9.9307	10.4178	10.5626	10.8008	11.0422	
WEDGE PRESSURE	11.0438	10.9340	10.8251	10.6814	10.8362	11.1035	11.1849	11.3395	11.4766	
TOTAL TEMPERATURE	518.6683	519.2212	518.2046	519.5922	518.8502	518.6365	517.7161	517.7543	517.5172	
ANGLE (DEG.)	1.3998	2.0658	2.0448	2.0686	1.9440	1.9794	1.9029	1.5925	1.8953	
APPARENT MACH NO.	0.6402	0.6642	0.6764	0.6939	0.6774	0.6466	0.6367	0.6191	0.5949	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.1105	11.1087	10.9569	10.8845	10.8623	10.9911	11.2675	11.4005	11.4823	
WEDGE PRESSURE	11.1641	11.1656	11.0176	10.9476	10.9259	11.0510	11.3205	11.4502	11.5282	
ANGLE (DEG.)	2.2857	2.9810	2.9835	4.1391	5.2864	5.7225	6.1372	6.9391	6.2421	
APPARENT MACH NO.	0.6270	0.6393	0.6559	0.6656	0.6678	0.6522	0.6219	0.6070	0.5891	
MEASURING PLANE										
MACH NO.	0.6329	0.6454	0.6624	0.6724	0.6746	0.6587	0.6277	0.6125	0.5943	
ABSOLUTE VELOCITY	680.0249	692.4010	709.1612	718.9621	721.1467	705.4915	674.7888	659.5752	641.3238	
SWIRL VELOCITY	16.1405	24.4154	24.9089	25.8196	24.4629	24.2064	21.7141	17.4969	19.8689	
WEIGHT FLOW	15.7767	11.1977	18.6869	29.8088	33.2933	26.1862	12.8229	6.2906	7.9056	
AXIAL VELOCITY	660.4916	676.8491	697.6321	714.8201	720.6921	700.4034	653.5426	629.3438	600.4219	
CALCULATING PLANE										
ANGLE (DEG.)	1.1765	1.7274	1.7433	1.8438	1.7363	1.7415	1.5855	1.2965	1.5120	
SWIRL VELOCITY	16.4174	24.7565	25.1922	26.0317	24.4402	23.9410	21.1377	16.8644	18.9349	
AXIAL VELOCITY	798.3661	819.8843	826.6786	807.6267	805.2105	786.4148	762.1417	744.1344	716.3309	
MERIDIONAL VELOCITY	816.2021	831.5289	834.3986	810.2365	805.2154	790.4613	778.3127	770.3845	757.6061	
ABSOLUTE VELOCITY	817.3873	832.9083	835.7859	811.6544	806.5835	791.8265	779.6194	771.6029	758.8989	
MACH NO.	0.7748	0.7913	0.7944	0.7687	0.7633	0.7478	0.7350	0.7266	0.7134	
WEIGHT FLOW	15.7774	11.1998	18.6900	29.8143	33.3085	26.1982	12.8234	6.2930	7.9088	
WHEEL SPEED	1711.8206	1663.2135	1614.6542	1487.8001	1317.5890	1115.9601	968.7597	914.8378	859.9238	
RELAT. TANG. VELOC.	1695.4030	1638.4569	1589.4618	1461.7682	1293.1486	1092.0189	947.6219	897.9731	840.9888	
RELATIVE FLOW ANGLE	64.2931	63.0921	62.3027	61.0012	58.0905	54.1011	50.6028	49.3734	47.9860	
RELATIVE VELOCITY	1881.6417	1837.3838	1795.1626	1671.3014	1523.3528	1348.0853	1226.2780	1183.1518	1131.9132	
RELATIVE MACH NO.	1.7836	1.7457	1.7063	1.5829	1.4417	1.2731	1.1541	1.1142	1.0641	
MCL INCIDENCE	2.0931	1.8921	1.8026	2.6012	1.9905	1.8011	2.2028	1.3733	0.8860	
SURFACE INCIDENCE	-0.1068	-0.1078	-0.2972	0.2012	-0.4094	-0.8988	-1.4971	-2.4265	-4.0139	
RELATIVE TOTAL PRESS	62.2699	58.7676	54.6095	45.1163	36.6781	29.3720	25.8233	24.7808	23.4645	
STATIC TEMPERATURE	463.0207	461.3795	460.0751	464.6261	464.6453	466.4179	467.1819	468.2522	469.6535	
RELAT. TOTAL TEMP.	757.9130	742.8588	728.2475	697.6830	657.9940	617.7734	592.2039	584.6419	576.1326	
STATIC PRESS. (ALT.)	9.7847	9.7252	9.7022	9.9676	10.0180	10.1480	10.2634	10.3344	10.3851	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	113	TIME	13H 45M 6S	UNIFORM INLET FLOW	STATUS	ANGLE	3.00
MASS AVERAGED PT	24.0224	(24.2852)						
MASS AVERAGED TT	523.0958	(620.5292)						
TOTAL WEIGHT FLOW	160.9256	(PROBE INTEGRATION)						
CORR. TOTAL FLOW	163.0222							
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.								
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800 5.9500
TOTAL PRESSURE	25.4053	25.1522	24.7905	23.4189	23.5862	24.8313	24.2911	23.9245 23.1655
STATIC PRESSURE	16.9344	16.7419	16.4839	16.1928	16.2026	16.7684	16.3994	16.1412 15.7990
WEDGE PRESSURE	18.3524	18.1507	17.8761	17.3794	17.4190	18.1087	17.7114	17.4356 17.0172
TOTAL TEMPERATURE	638.6489	622.7702	621.7797	627.8033	619.2456	613.8166	607.2325	606.1861 605.8663
ANGLE (DEG.)	28.8622	28.0580	28.4066	35.5606	38.1480	37.9985	37.9035	39.4771 45.0045
APPARENT MACH NO.	0.6981	0.6992	0.7000	0.6672	0.6728	0.6673	0.6874	0.6880 0.6789
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.								
STATIC PRESSURE	16.8648	17.3014	17.2975	17.5073	17.3465	17.1846	16.9882	16.7869 16.6967
WEDGE PRESSURE	17.0571	17.4697	17.4548	17.6181	17.4668	17.3472	17.1411	16.9356 16.8259
ANGLE (DEG.)	17.5977	14.6672	20.9041	27.7280	33.9341	33.0457	32.3739	32.5843 32.6544
APPARENT MACH NO.	0.7768	0.7411	0.7264	0.6511	0.6696	0.7348	0.7239	0.7204 0.6918
MEASURING PLANE								
MACH NO.	0.7885	0.7514	0.7362	0.6586	0.6776	0.7449	0.7336	0.7301 0.7005
ABSOLUTE VELOCITY	920.7928	870.5862	854.8468	775.0001	790.6855	858.1076	842.5896	838.1477 807.2509
SWIRL VELOCITY	443.2221	408.4648	405.8264	450.4036	488.3849	526.7711	513.6032	527.2889 565.0396
WEIGHT FLOW	17.9258	11.8220	20.0442	27.3167	31.1914	27.1780	12.8054	5.4926 7.0429
AXIAL VELOCITY	804.1523	766.3390	750.3544	630.0344	621.7885	674.2742	659.5516	640.1763 564.9537
CALCULATING PLANE								
SWIRL VELOCITY	440.2934	406.0041	403.9447	449.2830	488.8367	531.2878	520.9755	536.4936 578.2311
AXIAL VELOCITY	744.4766	714.1572	701.8780	603.2274	600.6652	644.7006	621.3003	599.3030 530.5046
ABSOLUTE VELOCITY	873.9841	827.4531	814.0418	753.3815	775.3184	838.6577	820.8863	817.5110 799.1078
MERIDIONAL VELOCITY	753.9661	719.9933	705.7442	603.7571	600.7969	647.9042	633.3625	615.8197 550.5269
ANGLE (DEG.)	30.5671	29.5843	29.8861	36.6335	39.0931	39.4460	39.9355	41.7875 47.4112
MACH NO.	0.7438	0.7103	0.6975	0.6387	0.6623	0.7262	0.7128	0.7102 0.6927
WEIGHT FLOW	17.9262	11.8299	20.0451	27.3438	31.2166	27.1997	12.8190	5.4934 7.0514
WHEEL SPEED	1666.5474	1624.0794	1584.0501	1474.3528	1322.4830	1141.6567	1023.8721	982.1952 944.4464
RELAT. TANG. VELOC.	1226.2539	1218.0752	1180.1053	1025.0698	833.6460	618.3689	502.8966	445.7017 366.2154
RELATIVE FLOW ANGLE	58.4148	59.4132	59.1193	59.5025	54.2204	43.2914	38.4501	35.8954 33.6323
RELATIVE VELOCITY	1439.5009	1414.9547	1375.0354	1189.6596	1027.5809	890.1290	808.7354	760.1866 661.2059
RELATIVE MACH NO.	1.2252	1.2147	1.1783	1.0087	0.8791	0.7708	0.7022	0.6604 0.5732
DEVIATION	2.4148	3.1132	3.2193	8.3025	7.2204	4.5914	10.5501	12.9954 15.0323
AIR TURNING ANGLE	5.8782	3.6788	3.1833	1.4987	3.8701	10.8096	12.1527	13.4779 14.3536
REL. MACH NO. (WHL.)	1.2358	1.2169	1.1976	1.1404	1.0525	0.9374	0.8578	0.8282 0.8021
IDEAL PRESS. RATIO	0.9424	0.9504	0.9614	0.9834	1.0057	1.0276	1.0549	1.0650 1.0790
ROTOR PRESS. RATIO	1.7457	1.7108	1.6853	1.5890	1.6005	1.6882	1.6530	1.6289 1.5886
ROTOR TEMP. RATIO	1.2313	1.1994	1.1998	1.2082	1.1934	1.1835	1.1729	1.1707 1.1707
ADIABATIC EFFY.	0.7429	0.8288	0.8021	0.6769	0.7411	0.8770	0.8910	0.8738 0.8263
POLYTR. EFFICIENCY	0.7621	0.8412	0.8160	0.6971	0.7576	0.8857	0.8984	0.8822 0.8372
TOTAL LOSS COEFF.	0.1830	0.1129	0.1334	0.2361	0.1996	0.1072	0.1033	0.1243 0.1818
SHOCK LOSS COEFF.	0.0182	0.0173	0.0162	0.0134	0.0136	0.0657	0.0355	0.0261 0.0166
PROFILE LOSS COEFF.	0.1648	0.0955	0.1172	0.2227	0.1859	0.0415	0.0678	0.0982 0.1651
TOTAL LOSS PARAM.	0.0292	0.0173	0.0205	0.0353	0.0337	0.0218	0.0217	0.0263 0.0387
PROFILE LOSS PARAM.	0.0263	0.0146	0.0180	0.0333	0.0314	0.0084	0.0142	0.0208 0.0351
ROTOR DIFFUS. FACT.	0.3039	0.2939	0.2996	0.3653	0.4170	0.4500	0.4573	0.4798 0.5522
STATIC PRESS. (ALT.)	17.6023	17.9706	17.9162	17.8012	17.5618	17.4854	17.3157	17.0933 16.8120
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756 0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000 15.5000
SOLIDITY	1.6490	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100 1.9540
MFTAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000 29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 113 TIME 13H 45M 6S UNIFORM INLET FLOW STATOR ANGLE 3.

MASS AVERAGED PT 24.0230 (24.2858)
 MASS AVERAGED TT 623.1103 (620.5437)
 TOTAL WEIGHT FLOW 160.7570 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 162.8514

MEASURING PLANE

IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	25.4053	25.1522	24.7905	23.4188	23.5862	24.8313	24.2911	23.9245	23.1655
STATIC PRESSURE	16.8648	17.3014	17.2975	17.5073	17.3465	17.1846	16.9832	16.7869	16.6967
WEDGE PRESSURE	17.0571	17.4697	17.4548	17.6181	17.4668	17.3471	17.1410	16.9356	16.8259
TOTAL TEMPERATURE	638.6488	622.7701	621.7796	627.8032	619.2455	613.8165	607.2324	606.1860	605.8662
ANGLE (DEG.)	28.8622	28.0580	28.4066	35.5606	38.1480	37.9985	37.9045	39.4771	45.0045
MACH NO.	0.7885	0.7514	0.7362	0.6586	0.6776	0.7449	0.7336	0.7301	0.7005
ABSOLUTE VELOCITY	920.7928	870.5861	854.8470	775.0001	790.6854	858.1076	842.5895	838.1476	807.2509
SWIRL VELOCITY	443.2221	408.4647	405.8265	450.4034	488.3848	526.7711	513.6030	527.2887	565.0396
AXIAL VELOCITY	804.1525	766.3388	750.3546	630.0345	621.7886	674.2742	659.5517	640.1764	564.9538
WEIGHT FLOW	17.9258	11.8220	20.0442	27.3167	31.1914	27.1780	12.8054	5.4926	7.0429

CALCULATING PLANE

ANGLE (DEG.)	29.0971	28.0165	27.9830	34.7004	36.5200	36.0809	36.3797	37.5746	43.3698
MACH NO.	0.7830	0.7535	0.7496	0.6758	0.7058	0.7752	0.7487	0.7489	0.7069
SWIRL VELOCITY	444.8660	409.7062	407.4080	451.5293	488.3848	522.8813	507.0260	520.2753	555.8805
AXIAL VELOCITY	798.3663	769.0157	765.7759	651.0868	658.5366	716.5558	687.2261	675.2146	587.4515
ABSOLUTE VELOCITY	915.0888	872.7280	868.8340	793.5136	820.6767	889.3444	858.1958	857.5864	814.0310
WEIGHT FLOW	17.9343	11.8300	20.0566	27.3338	31.2072	27.1840	12.7254	5.4977	6.9876
MERIDIONAL VELOCITY	798.6779	769.5830	766.3933	651.5244	658.5407	718.3944	691.4014	680.7325	593.6697
STATIC TEMPERATURE	569.2135	559.4969	559.1893	575.4707	563.3248	548.1555	546.1783	545.2112	550.9521
STATIC PRESS.(ALT.)	16.9555	17.2678	17.0822	17.2519	16.9197	16.6953	16.7503	16.4951	16.6002
MCL INCIDENCE	0.1084	-1.2428	-1.6144	3.7537	2.8702	1.9635	2.2108	3.3716	9.2189
SUC SUR INCIDENCE	-6.3128	-7.7634	-8.1769	-2.4895	-3.2399	-4.2290	-4.1802	-3.0953	2.6198
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 113 PCT DES SPD=110.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 18.550 HUB STATIC PRES= 18.380

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.4800	-6.3100	915.0000	444.9000	569.2000	17.0000	25.4000
.100	13.1600	-7.5000	1.0600	4.8200	-7.8000	872.7000	409.7000	559.5000	17.2700	25.1500
.150	12.8300	-7.6000	1.0900	3.8200	-8.2000	868.8000	407.4000	559.2000	17.0800	24.7900
.282	12.0000	-8.4000	1.1700	2.7200	-2.5000	793.5000	451.5000	575.5000	17.2500	23.4200
.470	10.8200	-10.1000	1.3000	2.1900	-3.2400	820.7000	488.4000	563.3000	16.9200	23.5900
.687	9.4800	-9.8000	1.4700	-.1000	-4.2300	889.3000	522.9000	548.2000	16.7000	24.8300
.850	8.5900	-9.2000	1.6200	2.1700	-4.1800	858.2000	507.0000	546.2000	16.7500	24.2900
.900	8.2700	-9.1000	1.6700	1.9400	-3.1000	857.6000	520.3000	545.2000	16.5000	23.9200
.937	8.0200	-9.0000	1.7300	1.9800	2.6200	814.0000	555.9000	551.0000	16.6000	23.1700

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	627.7500	23.3900
.1000	13.1500	625.0800	24.6100
.1500	12.8400	621.9700	20.3100
.2822	11.9700	617.5200	23.0400
.4702	10.8300	612.3400	22.9300
.6887	9.5700	608.2400	24.2500
.8500	8.6700	603.3500	23.0900
.9000	8.4000	603.1100	22.6000
.9372	8.1200	604.8400	21.5200

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4446	.2393	.1147	.7862	8.8800	.5858	696.0035	693.8770	54.3656
.1000	.3106	.0685	.0322	.6763	9.3200	.6497	764.6463	761.9422	64.2499
.1500	.3285	.0623	.0285	.8072	8.4200	.6355	747.3465	745.6861	49.7899
.2822	.3798	.0616	.0263	2.5797	8.1200	.5690	671.6777	670.9210	31.8745
.4702	.4074	.0990	.0380	1.1559	9.2900	.5649	664.3681	663.8629	25.3678
.6887	.3647	.0713	.0243	1.1037	6.7000	.6387	742.4022	742.4010	-1.2957
.8500	.3864	.1592	.0491	.7753	8.3700	.5786	674.4707	673.9870	25.5385
.9000	.4225	.1779	.0532	.7375	8.0400	.5503	643.2714	642.9027	21.7766
.9372	.4952	.2511	.0725	.6137	7.9800	.4794	564.8905	564.5533	19.5173

PCT IMMERS	EX STAT PRES
.0500	18.5405
.1000	18.5314
.1500	18.5226
.2822	18.4978
.4702	18.4653
.6887	18.4294
.8500	18.4038
.9000	18.3961
.9372	18.3881

ROTOR INLET TRAVERSE PLANE		READING NUMBER	114	TIME	14H 5M 57S	UNIFORM INLET FLOW			STATOR ANGLE	3.
SPEED (RPM)	13991.8444									
ACTUAL ORIFICE FLOW	156.9018									
THETA	1.0035									
DELTA	0.9890									
MASS AVERAGED PT	14.5351	(14.6960)								
MASS AVERAGED TT	520.5414	(518.6881)								
TOTAL WEIGHT FLOW	161.7433	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	163.8252									
EQUIV. SPEED	13966.9153									
PERCENT SPEED	109.2787									
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.										
IMMERSION (IN.)	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.5451	14.6690	14.7360	14.7382	14.7303	14.7106	14.7023	14.6791	14.5895	
STATIC PRESSURE	10.4319	10.1585	9.9587	9.6579	9.9189	10.3874	10.5694	10.7784	11.0341	
WEDGE PRESSURE	11.0571	10.9398	10.8516	10.6913	10.8276	11.0864	11.1914	11.3223	11.4728	
TOTAL TEMPERATURE	518.7591	519.5120	518.6043	519.4290	519.7138	517.8339	517.3416	517.1674	516.7032	
ANGLE (DEG.)	1.5072	2.0128	2.0248	2.1926	2.0363	2.0002	1.7749	1.8247	1.7557	
APPARENT MACH NO.	0.6382	0.6610	0.6757	0.6929	0.6778	0.6486	0.6366	0.6204	0.5960	
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.										
STATIC PRESSURE	11.1262	11.1197	10.9864	10.8917	10.8638	11.0100	11.2932	11.4303	11.4751	
WEDGE PRESSURE	11.1793	11.1756	11.0469	10.9546	10.9272	11.0694	11.3438	11.4792	11.5212	
ANGLE (DEG.)	5.1525	2.8119	3.3871	4.2140	5.5532	5.9557	5.8595	6.8377	6.5097	
APPARENT MACH NO.	0.6247	0.6355	0.6549	0.6649	0.6672	0.6504	0.6198	0.6031	0.5906	
MEASURING PLANE										
MACH NO.	0.6306	0.6416	0.6614	0.6716	0.6740	0.6568	0.6255	0.6085	0.5957	
ABSOLUTE VELOCITY	677.6831	688.6160	708.1407	718.2399	720.5391	703.6544	672.6112	655.6302	642.7946	
SWIRL VELOCITY	17.3184	23.6582	24.6300	27.3392	25.6020	24.3974	20.1878	19.9275	18.4481	
WEIGHT FLOW	15.7363	11.1363	18.7014	29.8000	33.2403	26.1750	12.8116	6.2675	7.9293	
AXIAL VELOCITY	658.1873	673.1706	696.6365	714.0453	720.0446	698.5709	651.4773	625.5109	601.8403	
CALCULATING PLANE										
ANGLE (DEG.)	1.2813	1.6882	1.7282	1.9562	1.8204	1.7623	1.4838	1.4893	1.4005	
SWIRL VELOCITY	17.6155	23.9888	24.9101	27.5639	25.5782	24.1299	19.6519	19.2073	17.5808	
AXIAL VELOCITY	786.5425	812.9029	824.9552	805.9852	803.7698	783.2487	757.6338	737.7675	718.0962	
MERIDONAL VELOCITY	804.1141	824.4484	832.2958	808.5899	803.7747	787.2790	773.7092	763.7930	759.4730	
ABSOLUTE VELOCITY	805.3272	825.8084	833.6755	810.0596	805.1782	788.6523	774.9792	765.0690	760.7340	
MACH NO.	0.7620	0.7837	0.7921	0.7670	0.7618	0.7444	0.7311	0.7198	0.7153	
WEIGHT FLOW	15.6741	11.1378	18.7021	29.7983	33.2467	26.1791	12.8056	6.2683	7.9299	
WHEEL SPEED	1705.0088	1656.2768	1607.7502	1482.2426	1311.3703	1112.4778	965.3334	911.7940	857.2515	
RELAT. TANG. VELOC.	1687.3934	1632.2876	1582.8400	1454.6786	1285.7918	1088.3476	945.6855	892.5867	839.6706	
RELATIVE FLOW ANGLE	64.5204	63.2024	62.2637	60.9325	57.9898	54.1193	50.7120	49.4463	47.8711	
RELATIVE VELOCITY	1869.1963	1828.6820	1788.3225	1664.3033	1516.3486	1343.2455	1221.8629	1174.7726	1132.1865	
RELATIVE MACH NO.	1.7687	1.7355	1.6992	1.5759	1.4348	1.2680	1.1512	1.1053	1.0646	
MCL INCIDENCE	2.3204	2.0024	1.7637	2.5325	1.8898	1.8193	2.3120	1.4463	-0.0288	
SURFACE INCIDENCE	0.1204	0.0024	-0.3362	0.1325	-0.5101	-0.8806	-1.3879	-2.3536	-4.1288	
RELATIVE TOTAL PRESS	60.9569	57.9301	54.1777	44.6825	36.3233	29.2197	25.7209	24.5721	23.4645	
STATIC TEMPERATURE	464.7317	462.6203	460.7234	464.6953	465.6083	466.1120	467.4445	468.5545	468.6820	
RELAT. TOTAL TEMP.	755.7885	741.5957	727.0607	695.7346	657.4992	616.1542	591.4732	583.1738	575.0477	
STATIC PRESS. (ALT.)	9.9006	9.7774	9.7414	9.9841	10.0282	10.1812	10.3117	10.3935	10.3724	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5535	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	114	TIME	14H 5M 57S	DIFFUSE INLET FLOW	STATOR ANGLE	3.00
MASS AVERAGED PT	25.2352	(25.5145)					
MASS AVERAGED TT	632.4538	(630.2022)					
TOTAL WEIGHT FLOW	161.0866	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	163.1601						

PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0, 104 DEG.								
IMMERSTION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	27.6233	26.5821	25.9807	24.6862	24.4933	26.1066	24.9123	24.3729	23.9459
STATIC PRESSURE	18.3334	17.8891	17.4091	17.0528	16.9782	17.6613	16.9791	16.6894	16.5897
WEDGE PRESSURE	19.8941	19.3387	18.8417	18.3087	18.2123	19.0656	18.2932	17.9590	17.7980
TOTAL TEMPERATURE	656.2924	636.5871	633.7491	637.0038	627.9960	619.9504	610.6012	609.5292	612.9603
ANGLE (DEG.)	32.5944	30.7334	31.5913	38.9671	41.1501	40.2659	40.5840	42.5425	46.3826
APPARENT MACH NO.	0.7017	0.6901	0.6937	0.6680	0.6649	0.6857	0.6794	0.6754	0.6653

PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0, 300 DEG.								
STATIC PRESSURE	17.9681	17.6440	18.1629	18.4554	18.2566	18.0262	17.8008	17.6250	17.5104
WEDGE PRESSURE	18.1910	17.8453	18.3266	18.5722	18.3741	18.1986	17.9448	17.7590	17.6358
ANGLE (DEG.)	18.2136	25.0331	21.9210	29.8684	35.4221	34.4331	34.6209	34.6649	35.0937
APPARENT MACH NO.	0.7967	0.7769	0.7244	0.6512	0.6545	0.7372	0.7012	0.6882	0.6760

MEASURING PLANE									
MACH NO.	0.8091	0.7886	0.7342	0.6586	0.6621	0.7474	0.7132	0.6968	0.6842
ABSOLUTE VELOCITY	954.8933	918.6750	860.5205	780.7405	778.7870	865.5775	820.6957	806.0621	795.2849
SWIRL VELOCITY	513.0526	468.3642	449.9092	490.6808	512.4515	557.9480	530.0056	539.8008	570.1665
WEIGHT FLOW	18.6549	12.2525	20.1311	27.3256	30.4408	27.5753	12.4387	5.2224	6.9873
AXIAL VELOCITY	802.4125	787.7698	731.5677	606.6540	586.3997	658.7070	618.7209	588.2159	543.2958

CALCULATING PLANE									
SWIRL VELOCITY	509.6622	465.5427	447.8230	489.4602	512.9254	562.7322	537.6134	549.2236	583.4778
AXIAL VELOCITY	743.6222	732.1113	685.8315	581.5463	566.4285	630.3952	584.7173	552.8260	510.0684
ABSOLUTE VELOCITY	910.1867	873.4976	823.0987	761.2651	764.9873	848.1141	803.4564	790.8912	788.4954
MERIDIONAL VELOCITY	753.1008	738.0939	689.6094	582.0569	566.5529	633.5276	596.0693	568.0620	529.3193
ANGLE (DEG.)	34.3901	32.4167	33.1050	40.0375	42.1122	41.7092	42.5481	44.7611	48.7850
MACH NO.	0.7667	0.7454	0.6991	0.6408	0.6494	0.7307	0.6938	0.6824	0.6778
WEIGHT FLOW	18.6583	12.2575	20.1313	27.3536	30.4312	27.5884	12.4536	5.2241	6.9883
WHEEL SPEED	1659.9160	1617.3056	1577.2770	1468.8452	1316.2411	1138.0942	1020.2563	978.9276	941.5114
RELAT. TANG. VELOC.	1150.2536	1151.7625	1129.4539	979.3849	803.3155	575.3622	482.6430	429.7039	358.0336
RELATIVE FLOW ANGLE	56.7864	57.3468	58.5932	59.2768	54.8061	42.2455	38.9975	37.1054	34.0747
RELATIVE VELOCITY	1374.8617	1367.9689	1323.3393	1139.2913	983.0044	855.8029	766.9698	712.2779	639.0359
RELATIVE MACH NO.	1.1581	1.1673	1.1240	0.9591	0.8345	0.7373	0.6623	0.6146	0.5493
DEVIATION	0.7864	1.0468	2.6932	8.0768	7.8061	3.5455	11.0975	14.2054	15.4746
AIR TURNING ANGLE	7.7340	5.8555	3.6704	1.6556	3.1837	11.8738	11.7144	12.3409	13.7964
REL. MACH NO. (WHL.)	1.2329	1.2134	1.1940	1.1376	1.0488	0.9350	0.8550	0.8261	0.7998
IDEAL PRESS. RATIO	0.9427	0.9506	0.9616	0.9835	1.0056	1.0274	1.0546	1.0646	1.0786
ROTOR PRESS. RATIO	1.8991	1.8121	1.7630	1.6749	1.6627	1.7746	1.6944	1.6603	1.6413
ROTOR TEMP. RATIO	1.2651	1.2253	1.2220	1.2263	1.2083	1.1972	1.1802	1.1785	1.1862
ADIABATIC EFFY.	0.7547	0.8182	0.7891	0.6987	0.7479	0.9003	0.8998	0.8707	0.8142
POLYTR. EFFICIENCY	0.7756	0.8327	0.8052	0.7196	0.7652	0.9080	0.9069	0.8796	0.8266
TOTAL LOSS COEFF.	0.1953	0.1324	0.1546	0.2367	0.2072	0.0930	0.0989	0.1334	0.2082
SHOCK LOSS COEFF.	0.0179	0.0170	0.0160	0.0132	0.0150	0.0648	0.0343	0.0241	0.0167
PROFILE LOSS COEFF.	0.1773	0.1153	0.1385	0.2235	0.1922	0.0281	0.0646	0.1092	0.1915
TOTAL LOSS PARAM.	0.0326	0.0215	0.0241	0.0357	0.0345	0.0192	0.0207	0.0278	0.0441
PROFILE LOSS PARAM.	0.0296	0.0187	0.0216	0.0337	0.0320	0.0058	0.0135	0.0228	0.0405
ROTOR DIFFUS. FACT.	0.3452	0.3260	0.3331	0.4003	0.4481	0.4808	0.4937	0.5202	0.5736
STATIC PRESS. (ALT.)	18.7311	18.3909	18.7520	18.7327	18.4540	18.3091	18.0633	17.8492	17.6081
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	114	TIME	14H	5M	57S	UNIFORM INLET FLOW	STATOR ANGLE	3.
MASS AVERAGED PT	25.2320	(25.5112)							
MASS AVERAGED TT	632.4483	(630.1966)							
TOTAL WEIGHT FLOW	160.6755	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	162.7437								
MEASURING PLANE									
IMMERSION (IN.)	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3670	5.6800	5.9500
TOTAL PRESSURE	27.6233	26.5821	25.9807	24.6862	24.4933	26.1066	24.9123	24.3729	23.9459
STATIC PRESSURE	17.9681	17.6440	18.1629	18.4554	18.2566	18.0262	17.8018	17.6250	17.5104
WEDGE PRESSURE	18.1910	17.8453	18.3266	18.5722	18.3741	18.1986	17.9448	17.7590	17.6358
TOTAL TEMPERATURE	656.2923	636.5869	633.7490	637.0036	627.9959	619.9502	610.6010	609.5291	612.9602
ANGLE (DEG.)	32.5944	30.7334	31.5913	38.9671	41.1501	40.2659	40.5840	42.5425	46.3826
MACH NO.	0.8091	0.7886	0.7342	0.6586	0.6621	0.7474	0.7112	0.6968	0.6842
ABSOLUTE VELOCITY	954.8933	918.6749	860.5205	780.7407	778.7867	865.5776	820.6956	806.0620	795.2849
SWIRL VELOCITY	513.0525	468.3641	449.9092	490.6809	512.4514	557.9480	530.0064	539.8006	570.1664
AXIAL VELOCITY	802.4126	787.7698	731.5675	606.6542	586.3999	658.7073	618.7208	588.2160	543.2958
WEIGHT FLOW	18.6549	12.2525	20.1311	27.3256	30.4408	27.5753	12.4387	5.2224	6.9873
CALCULATING PLANE									
ANGLE (DEG.)	33.1799	30.8355	31.1679	38.0966	39.5623	38.8197	38.8030	40.7195	44.4362
MACH NO.	0.7960	0.7870	0.7462	0.6741	0.6861	0.7659	0.7257	0.7103	0.6938
SWIRL VELOCITY	514.9554	469.7876	451.6625	491.9075	512.4514	553.8282	523.2185	532.6208	560.9243
AXIAL VELOCITY	786.5426	785.9723	745.7295	626.4341	619.2818	687.3406	649.6860	617.8056	571.0766
ABSOLUTE VELOCITY	941.2138	917.0254	873.2129	797.6044	804.5850	884.8567	838.0389	820.2977	805.5264
WEIGHT FLOW	18.5284	12.2206	20.1396	27.3508	30.4635	27.3023	12.4492	5.2262	6.9947
MERIDIONAL VELOCITY	786.8494	786.5521	746.3308	626.8551	619.2856	689.1043	653.6333	622.8540	577.1215
STATIC TEMPERATURE	582.8916	566.7354	570.5143	584.1701	574.1798	555.0696	552.4325	553.8132	559.2902
STATIC PRESS.(ALT.)	18.2031	17.6716	17.9603	18.2122	17.8825	17.7111	17.5341	17.4127	17.3622
MCL INCIDENCE	4.1928	1.5782	1.5731	7.1522	5.9126	4.7093	4.6487	6.5422	10.2965
SUC SUR INCIDENCE	-2.2300	-4.9444	-4.9919	0.9066	-0.1976	-1.4902	-1.7569	0.0495	3.6862
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

RDG NO= 114 PCT DES SPD=110.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 19.900 HUB STATIC PRES= 19.610

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.1500	-2.2300	941.2000	515.0000	582.9000	18.2000	27.6200
.100	13.1600	-7.5000	1.0600	5.7200	-4.9400	917.0200	469.8000	566.7000	17.6700	26.5800
.150	12.8300	-7.6000	1.0900	4.2000	-4.9900	873.2000	451.6000	570.5000	17.9600	25.9800
.282	12.0000	-8.4000	1.1700	3.2000	.9000	797.6000	491.9000	584.2000	18.2100	24.6800
.470	10.8200	-10.1000	1.3000	2.0000	-.2000	804.6000	512.4000	574.2000	17.8800	24.4900
.689	9.4800	-9.8000	1.4700	.9000	-1.5000	884.9000	553.8000	555.1000	17.7100	26.1100
.850	8.5900	-9.2000	1.6200	2.1000	-1.7600	838.0000	523.2000	552.4000	17.5300	24.9100
.900	8.2700	-9.1000	1.6700	1.2800	.0500	820.3000	532.6000	553.8000	17.4100	24.3700
.937	8.0200	-9.0000	1.7300	-.4000	3.7000	805.5000	560.9000	559.3000	17.3600	23.9400

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	644.9300	25.1100
.1000	13.1500	639.9300	25.9900
.1500	12.8400	633.0500	25.6100
.2822	11.9700	628.7000	24.2800
.4702	10.8300	619.5000	23.9500
.6887	9.5700	617.0100	25.6500
.8500	8.6700	608.1200	24.1600
.9000	8.4000	607.9200	22.9000
.9372	8.1200	609.4600	22.8100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4797	.2665	.1276	.7338	9.5500	.5871	706.9438	704.0900	63.4577
.1000	.3813	.0662	.0311	.7480	10.2200	.6315	753.6075	749.8552	75.1098
.1500	.3724	.0461	.0211	.9152	8.8000	.6142	730.5111	728.5493	53.5013
.2822	.4256	.0618	.0264	1.5745	8.6000	.5470	653.0589	652.0406	36.4547
.4702	.4498	.0817	.0314	1.3620	9.1000	.5317	631.1669	630.7824	22.0274
.6887	.3778	.0598	.0186	1.0032	7.7000	.6261	734.1650	734.0744	11.5318
.8500	.4108	.1016	.0313	.8800	8.3000	.5514	647.1253	646.6907	23.7131
.9000	.5054	.2112	.0632	.6974	7.3800	.4738	560.1722	560.0324	12.5133
.9372	.5979	.2933	.0648	.6595	5.6000	.4082	485.9770	485.9652	-3.3927

PCT IMMERS	EX STAT PRES
.0500	19.8838
.1000	19.8683
.1500	19.8532
.2822	19.8109
.4702	19.7555
.6887	19.6943
.8500	19.6506
.9000	19.6375
.9372	19.6238

ROTOR INLET TRAVERSE PLANE		READING NUMBER	224	TIME	13H 33M 36S	RADIAL INLET DISTORTION			STATOR ANGLE	3
ROTOR SPEED	9023.6358					DISTORTION INDEX			0.068	
ACTUAL ORIFICE FLOW	105.4183									
THETA	1.0165									
DELTA	0.9609									
MASS AVERAGED PT	14.1215	(14.6960)								
MASS AVERAGED TT	527.2679	(518.6881)								
TOTAL WEIGHT FLOW	112.8705	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	118.4297									
EQUIV. SPEED	8949.9172									
PERCENT SPEED	70.0251									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.8514	14.9361	14.9785	14.9333	14.9832	13.9682	13.9888	13.9964	13.9518	
STATIC PRESSURE	12.7600	12.6263	12.5150	12.2741	12.0355	12.4853	12.6008	12.6914	12.7817	
WEDGE PRESSURE	12.8645	12.7627	12.6779	12.4767	12.2988	12.5225	12.6304	12.7162	12.7994	
TOTAL TEMPERATURE	521.8494	520.7404	518.1377	518.1491	517.7763	519.3286	516.7315	517.9804	517.7936	
ANGLE	0.6469	-0.8349	-0.7356	1.4358	1.7438	2.2136	2.0872	2.1754	3.0652	
APPARENT MACH NO.	0.4575	0.4792	0.4938	0.5132	0.5385	0.3981	0.3847	0.3726	0.3530	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	13.1288	13.0119	12.9431	12.9142	12.8764	12.9760	13.0664	13.0896	13.1310	
WEDGE PRESSURE	13.1485	13.0350	12.9680	12.9388	12.9025	12.9855	13.0750	13.0980	13.1384	
ANGLE	1.4939	1.0913	1.3793	2.1815	2.4522	3.6673	6.4478	7.0421	7.3441	
APPARENT MACH NO.	0.4207	0.4452	0.4584	0.4571	0.4670	0.3244	0.3121	0.3092	0.2941	
MEASURING PLANE										
MACH NO.	0.4233	0.4482	0.4615	0.4602	0.4703	0.3261	0.3136	0.3107	0.2955	
ABSOLUTE VELOCITY	464.4184	490.6842	504.6689	503.3306	513.8506	360.2894	346.7975	343.6916	327.1460	
SWIRL VELOCITY	5.0946	-6.9937	-6.3780	12.5477	15.6361	13.8244	12.2401	12.4536	16.3885	
WEIGHT FLOW	11.7542	8.6082	14.5450	22.8898	26.0150	14.3116	6.9794	3.4433	4.2267	
AXIAL VELOCITY	451.1783	479.9130	496.7311	500.5983	513.5845	357.6382	335.8430	327.8385	306.0439	
CALCULATING PLANE										
ANGLE	0.5807	-0.7476	-0.6674	1.3375	1.6212	2.0466	1.8412	1.8772	2.5960	
SWIRL VELOCITY	5.1820	-7.0914	-6.4505	12.6508	15.6216	13.6728	11.9152	12.0035	15.6181	
AXIAL VELOCITY	510.2322	542.4512	552.7432	540.8288	550.9506	381.6193	369.6589	365.2430	343.4697	
MERIDIONAL VELOCITY	521.6311	550.1555	557.9051	542.5766	550.9539	383.5830	377.5023	378.1273	363.2605	
ABSOLUTE VELOCITY	522.6676	551.2049	558.9437	543.7191	552.1676	384.8222	378.7045	379.3447	364.6450	
MACH NO.	0.4787	0.5061	0.5136	0.4989	0.5071	0.3488	0.3431	0.3437	0.3301	
WEIGHT FLOW	11.7647	8.6084	14.5517	22.9152	26.0403	14.3167	6.9891	3.4495	4.2346	
ROTOR TANG. VELOC.	1089.3198	1060.0797	1030.7005	950.9844	841.8891	711.8425	618.9482	583.8136	548.7429	
RELAT. TANG. VELOC.	1084.1377	1067.1710	1037.1513	938.3334	826.2672	698.1696	607.0328	571.8100	533.1248	
RELATIVE FLOW ANGLE	64.3057	62.7279	61.7235	59.9622	56.3049	61.2152	58.1235	56.5242	55.7304	
RELATIVE VELOCITY	1203.1016	1200.6350	1177.6842	1083.9089	993.1099	796.6030	714.8404	685.5266	645.1203	
RELATIVE MACH NO.	1.1020	1.1025	1.0822	0.9946	0.9120	0.7221	0.6477	0.6212	0.5840	
MCL INCIDENCE	2.1057	1.5279	1.2234	1.5622	0.2049	8.9152	9.7235	8.5242	7.8304	
SURFACE INCIDENCE	-0.0942	-0.4720	-0.8764	-0.8377	-2.1950	6.2152	6.0235	4.7242	3.7304	
RELATIVE TOTAL PRESS	28.1042	27.8742	27.0405	24.2974	22.0684	18.3637	17.3246	16.9807	16.5439	
STATIC TEMPERATURE	498.9622	495.3391	492.1470	493.5545	492.4294	506.9810	504.8322	506.0124	506.7391	
RELAT. TOTAL TEMP.	620.2298	615.8567	607.5294	591.2956	574.4223	559.8923	547.2292	545.0964	541.3393	
STATIC PRESS.	12.6948	12.5389	12.5108	12.5973	12.5706	12.8405	12.8940	12.8974	12.9374	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE		READING NUMBER		224		TIME		13H 33M 36S		RADIAL INLET DISTORTION		STATOR ANGLE		3.0	
MASS AVERAGED PT	17.2475	(17.9491)													
MASS AVERAGED TT	564.3203	(555.1376)													
TOTAL WEIGHT FLOW	106.9769	(PROBE INTEGRATION)													
CORR. TOTAL FLOW	112.2459														
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0, 104 DEG.													
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500						
TOTAL PRESSURE	17.7897	17.8254	17.8887	18.1863	18.1575	17.5226	17.8740	18.0123	18.0114						
STATIC PRESSURE	14.1126	14.0035	13.9053	13.8340	13.9354	13.7647	13.6625	13.5731	13.4788						
WEDGE PRESSURE	14.9102	14.8239	14.7527	14.7487	14.8263	14.5713	14.5494	14.5030	14.4282						
TOTAL TEMPERATURE	555.0526	551.1540	548.5836	558.9437	552.8790	558.4112	557.4759	557.2412	558.2472						
ANGLE	21.5859	21.6072	21.7298	28.8398	27.4672	37.6286	40.6096	40.4793	41.4073						
APPARENT MACH NO.	0.5086	0.5200	0.5320	0.5554	0.5460	0.5201	0.5503	0.5651	0.5720						
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0, 300 DEG.													
STATIC PRESSURE	15.1405	15.0071	14.6443	14.9193	15.0220	14.8966	14.7713	14.6946	14.6327						
WEDGE PRESSURE	15.1794	15.0495	14.6957	14.9709	15.0708	14.9353	14.8196	14.7475	14.6870						
ANGLE	23.7032	17.0801	17.5634	18.1947	21.9863	28.5991	35.4617	35.4733	35.7519						
APPARENT MACH NO.	0.4815	0.4977	0.5375	0.5346	0.5229	0.4832	0.5244	0.5422	0.5479						
MEASURING PLANE															
MACH NO.	0.4855	0.5020	0.5424	0.5395	0.5275	0.4872	0.5291	0.5472	0.5530						
ABSOLUTE VELOCITY	546.2913	562.5591	605.5246	608.0793	592.2958	551.1221	597.0232	615.4808	622.2335						
SWIRL VELOCITY	200.3421	206.5798	223.6629	293.0820	273.1788	335.5072	385.7606	395.4889	406.8395						
WEIGHT FLOW	10.5223	7.1992	13.2716	20.7427	23.8507	15.2308	7.6099	3.5026	5.1061						
AXIAL VELOCITY	506.3720	521.5709	561.1921	532.2400	525.5066	435.2175	449.9242	463.3986	461.3519						
CALCULATING PLANE															
SWIRL VELOCITY	199.0182	205.3353	222.6258	292.3529	273.4314	338.3839	391.2978	402.3927	416.3377						
AXIAL VELOCITY	479.5786	483.0588	531.9037	511.0585	508.2644	419.2857	427.2940	436.7036	432.8116						
ABSOLUTE VELOCITY	525.8121	529.4438	580.2390	590.0227	578.1189	541.1988	586.2899	603.4924	613.1854						
MERIDIONAL VELOCITY	485.6917	487.0063	534.8335	511.5073	508.3759	421.3691	435.5897	448.7392	449.1468						
ANGLE	22.4960	22.9869	22.6736	29.7240	28.2324	38.8392	42.4150	42.5938	43.8231						
MACH NO.	0.4665	0.4711	0.5185	0.5226	0.5142	0.4781	0.5191	0.5359	0.5444						
WEIGHT FLOW	10.5384	7.0733	13.2788	20.7582	23.8520	15.2460	7.6194	3.5035	5.1069						
ROTOR TANG. VELOC.	1060.5100	1035.1368	1011.1647	942.3892	845.0159	728.2338	654.1601	626.7985	602.6793						
RELAT. TANG. VELOC.	861.4917	829.8013	788.5389	650.0361	571.5845	389.8498	262.8623	224.4058	186.3415						
RELATIVE FLOW ANGLE	60.5867	59.5917	55.8527	51.8013	48.3498	42.7750	31.1095	26.5688	22.5326						
RELATIVE VELOCITY	988.9712	962.1563	952.8064	827.1557	764.9539	574.0511	508.7582	501.7219	466.2673						
RELATIVE MACH NO.	0.8775	0.8561	0.8514	0.7326	0.6804	0.5071	0.4504	0.4456	0.4317						
DEVIATION	4.5867	3.2917	-0.0472	0.6013	1.3498	4.0750	3.2095	3.6688	3.9326						
AIR TURNING ANGLE	3.7189	3.1361	5.8707	8.1609	7.9550	18.4401	27.0139	29.9554	33.1978						
ROTOR REL. MACH NO.	0.8714	0.8526	0.8365	0.7903	0.7186	0.6283	0.5694	0.5473	0.5280						
IDEAL PRESS. RATIO	0.9710	0.9754	0.9810	0.9920	1.0026	1.0123	1.0239	1.0280	1.0337						
ROTOR PRESS. RATIO	1.1978	1.1934	1.1942	1.2178	1.2118	1.2544	1.2777	1.2869	1.2909						
ROTOR TEMP. RATIO	1.0636	1.0584	1.0587	1.0787	1.0677	1.0752	1.0788	1.0757	1.0781						
ADIABATIC EFFY.	0.8314	0.8869	0.8853	0.7352	0.8320	0.8886	0.9193	0.9853	0.9682						
POLYTR. EFFICIENCY	0.8357	0.8897	0.8881	0.7425	0.8365	0.8921	0.9220	0.9859	0.9694						
TOTAL LOSS COEFF.	0.0635	0.0396	0.0415	0.1398	0.0886	0.0932	0.0853	0.0161	0.0402						
SHOCK LOSS COEFF.	0.0234	0.0235	0.0198	0.0071	0.0007	-0.0106	-0.0151	-0.0167	-0.0189						
PRDFILE LOSS COEFF.	0.0400	0.0160	0.0217	0.1327	0.0879	0.1039	0.1005	0.0328	0.0591						
TOTAL LOSS PARAM.	0.0095	0.0060	0.0069	0.0255	0.0170	0.0191	0.0196	0.0037	0.0095						
PROFILE LOSS PARAM.	0.0060	0.0024	0.0036	0.0242	0.0168	0.0213	0.0231	0.0076	0.0139						
ROTOR DIFFUS. FACT.	0.2190	0.2419	0.2412	0.3108	0.3043	0.3941	0.4361	0.4229	0.4148						
STATIC PRESS.	15.3251	15.3118	14.8924	15.0979	15.1609	14.9851	14.8747	14.8138	14.7234						
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534						
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000						
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540						
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000						

STATOR INLET TRAVERSE PLANE	READING NUMBER 224			TIME 13H 33M 36S			RADIAL INLET DISTORTION		STATOR ANGLE 3
MASS AVERAGED PT	17.2474	(17.9490)							
MASS AVERAGED TT	564.3142	(555.1316)							
TOTAL WEIGHT FLOW	107.1152	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	112.3909								
MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.7897	17.8253	17.8887	18.1863	18.1575	17.5226	17.8740	18.0123	18.0113
STATIC PRESSURE	15.1405	15.0071	14.6443	14.9193	15.0220	14.8965	14.7713	14.6946	14.6327
WEDGE PRESSURE	15.1794	15.0495	14.6957	14.9709	15.0708	14.9352	14.8196	14.7475	14.6870
TOTAL TEMPERATURE	555.0525	551.1539	548.5835	558.9436	552.8789	558.4111	557.4758	557.2411	558.2471
ANGLE	21.5859	21.6072	21.7298	28.8398	27.4672	37.6286	40.6096	40.4793	41.4073
MACH NO.	0.4855	0.5020	0.5424	0.5395	0.5275	0.4872	0.5291	0.5472	0.5530
ABSOLUTE VELOCITY	546.2909	562.5586	605.5246	608.0792	592.2958	551.1220	597.0228	615.4808	622.2335
SWIRL VELOCITY	200.3419	206.5796	223.6628	293.0819	273.1788	335.5071	385.7603	395.4888	406.8395
AXIAL VELOCITY	506.3716	521.5708	561.1921	532.2399	525.5066	435.2176	449.9240	463.3987	461.3520
WEIGHT FLOW	10.5223	7.1992	13.2716	20.7427	23.8507	15.2308	7.6099	3.5026	5.1061
CALCULATING PLANE									
ANGLE	21.7007	21.5889	21.4798	28.1650	26.2103	36.0849	39.0150	38.8007	39.5066
MACH NO.	0.4834	0.5029	0.5501	0.5533	0.5523	0.5014	0.5386	0.5570	0.5633
SWIRL VELOCITY	201.0850	207.2074	224.5345	293.8145	273.1788	333.0297	380.8204	390.2283	400.2448
AXIAL VELOCITY	504.2992	522.6539	569.6133	547.7754	553.9288	455.9608	469.0297	484.3440	484.4314
ABSOLUTE VELOCITY	544.0132	563.5088	613.6217	622.7984	618.5210	566.3804	607.1563	625.8555	633.1251
WEIGHT FLOW	10.5376	7.2052	13.2796	20.7463	23.8799	15.2418	7.6112	3.5021	5.1111
MERIDIONAL VELOCITY	504.4960	523.0392	570.0725	548.1435	553.9323	457.1307	471.8794	488.3020	489.5591
STATIC TEMPERATURE	530.2816	524.6288	517.2854	526.7130	521.1059	531.6942	526.9271	524.7020	524.9608
STATIC PRESS.	15.1613	14.9981	14.5633	14.7709	14.7588	14.7581	14.6725	14.5902	14.5225
MCL INCIDENCE	-7.2908	-7.6751	-8.1228	-2.7860	-7.4394	1.9675	4.8621	4.6077	5.3147
SUC SUR INCIDENCE	-13.7092	-14.1910	-14.6801	-9.0249	-13.5496	-4.2250	-1.5449	-1.8693	-1.2433
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 224 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.040 HUB STATIC PRES= 15.190

PCT IMMERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.6000	-13.7100	544.0000	201.0000	530.3000	15.1600	17.7900
.100	13.1600	-7.5000	1.0600	5.5600	-14.1900	563.5000	207.2000	524.4000	15.0000	17.8300
.150	12.8300	-7.6000	1.0900	3.3400	-14.6800	613.6000	224.5000	517.3000	14.5600	17.8900
.282	12.0000	-8.4000	1.1700	3.2700	-9.0200	622.8000	293.8000	526.7000	14.7800	18.1900
.470	10.8200	-10.1000	1.3000	-.0900	-13.5500	618.5000	273.1000	521.1000	14.7500	18.1600
.689	9.4800	-9.8000	1.4700	.9800	-4.2300	566.4000	333.0000	531.7000	14.7600	17.5200
.850	8.5900	-9.2000	1.6200	1.3300	-1.5400	607.2000	380.8000	526.9000	14.6700	17.8700
.900	8.2700	-9.1000	1.6700	1.6000	-1.8000	625.9000	390.2000	524.7000	14.5900	18.0100
.937	8.0200	-9.0000	1.7300	2.2700	-1.2400	633.1000	400.2000	524.9000	14.5200	18.0100

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	551.4000	17.0500
.1000	13.1500	551.6000	17.6800
.1500	12.8400	549.2000	17.8400
.2822	11.9700	554.9000	17.9200
.4702	10.8300	551.0000	17.8500
.6887	9.5700	553.7000	17.2300
.8500	8.6700	556.9000	17.5800
.9000	8.4000	557.8000	17.6800
.9372	8.1200	558.7000	17.3300

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2504	.2814	.1346	-.6327	10.0000	.4262	481.8731	479.5733	47.0226
.1000	.1617	.0530	.0249	.2498	10.0600	.4846	545.2253	542.6602	52.8258
.1500	.2342	.0150	.0069	.8444	7.9400	.4975	557.8971	556.9495	32.5036
.2822	.2715	.0792	.0338	1.9702	8.6700	.5021	565.6547	564.7337	32.2657
.4702	.2741	.0909	.0350	.8440	7.8100	.4933	554.2956	554.2949	-.8707
.6887	.3281	.1051	.0357	1.9858	7.7800	.4331	490.4272	490.3555	8.3880
.8500	.3210	.0906	.0280	.7224	7.5300	.4639	525.4722	525.3306	12.1966
.9000	.3233	.0965	.0289	.6414	7.7000	.4722	534.9313	534.7228	14.9362
.9372	.3844	.1948	.0563	.5182	8.2700	.4388	498.9416	498.5500	19.7624

PCT IMMERS	EX STAT PRES
.0500	15.0484
.1000	15.0564
.1500	15.0642
.2822	15.0861
.4702	15.1147
.6887	15.1464
.8500	15.1690
.9000	15.1758
.9372	15.1828

ROTOR INLET TRAVERSE PLANE	READING NUMBER	227	TIME 14H 7M 59S	RADIAL INLET DISTORTION	STATOR ANGLE	3			
ROTOR SPEED	9025.3956			DISTORTION INDEX	0.043				
ACTUAL ORIFICE FLOW	84.7685								
THETA	1.0231								
DELTA	0.9760								
MASS AVERAGED PT	14.3433	(14.6960)							
MASS AVERAGED TT	530.7182	(518.6881)							
TOTAL WEIGHT FLOW	91.1666	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	94.4849								
EQUIV. SPEED	8922.5177								
PERCENT SPEED	69.8107								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.7581	14.8242	14.8352	14.8978	14.8043	14.2731	14.2879	14.3012	14.2556
STATIC PRESSURE	13.4136	13.3451	13.2713	13.0117	13.1495	13.4472	13.4145	13.4119	13.4504
WEDGE PRESSURE	13.4379	13.3770	13.3097	13.0875	13.1981	13.4500	13.4187	13.4166	13.4527
TOTAL TEMPERATURE	521.7412	520.4639	520.5125	517.2176	519.1601	517.2814	516.0681	515.9093	516.0596
ANGLE	-2.3753	-1.1031	-2.8143	0.4338	1.9823	2.6882	2.2354	2.2179	3.0745
APPARENT MACH NO.	0.3683	0.3858	0.3967	0.4341	0.4083	0.2924	0.3007	0.3033	0.2889
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	13.6221	13.4560	13.4284	13.5269	13.7062	13.7845	13.7468	13.7386	13.7504
WEDGE PRESSURE	13.6333	13.4704	13.4434	13.5413	13.7169	13.7889	13.7517	13.7436	13.7550
ANGLE	3.7816	2.1468	3.4175	1.9556	2.1797	1.2632	2.3757	5.6848	5.8256
APPARENT MACH NO.	0.3384	0.3723	0.3777	0.3718	0.3319	0.2225	0.2343	0.2390	0.2265
MEASURING PLANE									
MACH NO.	0.3401	0.3744	0.3799	0.3738	0.3336	0.2236	0.2354	0.2401	0.2275
ABSOLUTE VELOCITY	375.4837	412.3620	418.1968	411.7382	368.3948	248.4115	261.4464	266.5580	252.7934
SWIRL VELOCITY	-15.1199	-7.7655	-20.2127	3.1013	12.7426	11.5737	9.8824	9.8473	12.7020
WEIGHT FLOW	9.8539	7.4868	12.4508	19.6046	19.6468	10.5122	5.5602	2.8216	3.4441
AXIAL VELOCITY	364.5051	403.2794	411.1708	409.6188	368.1541	246.4972	253.1647	254.2562	236.4856
CALCULATING PLANE									
ANGLE	-2.1530	-0.9958	-2.5840	0.4066	1.8969	2.4891	1.9783	1.9242	2.6190
SWIRL VELOCITY	-15.3793	-7.8739	-20.4426	3.1268	12.7308	11.4468	9.6200	9.4914	12.1049
AXIAL VELOCITY	408.0818	452.0063	451.9852	439.5626	383.4030	262.3353	277.5102	281.5179	263.6369
MERIDIONAL VELOCITY	417.1985	458.4261	456.2062	440.9830	383.4053	263.6852	283.3984	291.4488	278.8277
ABSOLUTE VELOCITY	418.4889	459.4945	457.6590	441.9872	384.6042	264.9276	284.5732	292.6289	280.1376
MACH NO.	0.3802	0.4187	0.4169	0.4022	0.3486	0.2386	0.2565	0.2639	0.2525
WEIGHT FLOW	9.8661	7.4973	12.4334	19.6408	19.3399	10.5433	5.5741	2.8245	3.4466
ROTOR TANG. VELOC.	1086.0976	1057.1149	1025.1980	948.9263	838.1922	711.0659	617.4498	583.1932	547.9814
RELAT. TANG. VELOC.	1101.4768	1064.9886	1045.6407	945.7993	825.4614	699.6192	607.8296	573.7018	535.8763
RELATIVE FLOW ANGLE	69.2554	66.7107	66.4289	65.0027	65.0865	69.3489	65.0031	63.0690	62.5113
RELATIVE VELOCITY	1177.8395	1159.4633	1140.8279	1043.5526	910.1569	747.6608	670.6499	643.4874	604.0764
RELATIVE MACH NO.	1.0701	1.0565	1.0394	0.9496	0.8250	0.6734	0.6046	0.5803	0.5444
MCL INCIDENCE	7.0554	5.5107	5.9289	6.6027	8.9865	17.0489	16.6031	15.0690	14.6113
SURFACE INCIDENCE	4.8554	3.5107	3.8289	4.2027	6.5865	14.3489	12.9031	11.2690	10.5113
RELATIVE TOTAL PRESS	28.0378	27.2439	26.6336	24.1716	21.4269	18.6806	17.5986	17.2603	16.8224
STATIC TEMPERATURE	507.0728	502.8227	503.0105	500.9956	506.8315	511.4526	509.3582	508.8161	509.5573
RELAT. TOTAL TEMP.	623.2673	615.1480	611.7642	591.4253	575.8747	557.8767	546.6248	543.1147	539.7919
STATIC PRESS.	13.3567	13.1394	13.1621	13.3263	13.6104	13.7183	13.6485	13.6251	13.6371
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	227	TIME	14H 7M 59S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0		
MASS AVERAGED PT	18.8356	(19.2986)							
MASS AVERAGED TT	583.8638	(570.6290)							
TOTAL WEIGHT FLOW	86.3594	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	89.5028								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERISION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.5675	19.9036	19.7904	19.4571	18.9462	18.7199	18.9404	18.7075	18.8485
STATIC PRESSURE	16.1202	15.9700	15.8002	15.5152	15.5500	15.4085	15.1992	15.0961	15.0021
WEDGE PRESSURE	16.7003	16.6256	16.4654	16.1724	16.1190	15.9650	15.8227	15.6981	15.6435
TOTAL TEMPERATURE	572.9181	572.8227	571.7487	571.2096	572.4171	572.2840	564.0638	559.7503	562.1374
ANGLE	33.8045	33.8932	34.8338	41.0991	53.2049	62.8015	51.4097	50.4088	50.7152
APPARENT MACH NO.	0.4813	0.5137	0.5195	0.5209	0.4861	0.4824	0.5135	0.5069	0.5230
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	16.0382	16.0022	16.7820	16.5344	16.3806	16.2186	16.0348	16.0110	15.9563
WEDGE PRESSURE	16.0940	16.0660	16.8266	16.5775	16.4170	16.2539	16.0780	16.0501	15.9993
ANGLE	35.2007	34.7147	32.6911	32.5900	43.5729	56.1400	56.3111	52.8768	49.7225
APPARENT MACH NO.	0.5359	0.5618	0.4871	0.4839	0.4572	0.4538	0.4895	0.4730	0.4896
MEASURING PLANE									
MACH NO.	0.5408	0.5672	0.4912	0.4879	0.4608	0.4574	0.4937	0.4769	0.4937
ABSOLUTE VELOCITY	614.8447	643.8091	561.2547	559.2257	528.9552	526.1364	562.5847	542.3037	561.7011
SWIRL VELOCITY	341.2101	358.2191	320.0062	367.3984	423.5687	467.5070	437.5514	414.9070	431.1969
WEIGHT FLOW	11.1198	7.7437	12.0115	17.8242	15.1601	8.9762	6.3665	2.8038	4.2230
AXIAL VELOCITY	509.6087	533.2246	459.8505	421.1722	316.8155	240.2528	349.1737	343.1351	352.7420
CALCULATING PLANE									
SWIRL VELOCITY	338.9554	356.0612	318.5225	366.4844	423.9605	471.5156	443.8320	422.1497	441.2639
AXIAL VELOCITY	481.0239	505.2998	438.1692	405.9024	308.3035	232.6370	333.0123	325.1334	332.0239
ABSOLUTE VELOCITY	594.2935	622.3439	544.4677	547.8714	524.8292	526.7373	559.3913	538.9906	560.4835
MERIDIONAL VELOCITY	487.1554	509.4290	440.5827	406.2589	308.3711	233.7929	339.4775	334.0942	344.5551
ANGLE	35.1155	35.1180	35.9537	42.0092	53.8883	63.6426	53.0371	52.3129	52.9589
MACH NO.	0.5217	0.5471	0.4758	0.4776	0.4570	0.4579	0.4907	0.4738	0.4926
WEIGHT FLOW	11.1097	7.7541	12.0275	17.8457	15.1981	9.0076	6.3825	2.8096	4.2242
ROTOR TANG. VELOC.	1057.3730	1032.2418	1005.7667	940.3496	841.3053	727.4394	652.5765	626.1327	601.8428
RELAT. TANG. VELOC.	718.4174	676.1803	687.2443	573.8651	417.3447	255.9238	208.7444	203.9829	160.5789
RELATIVE FLOW ANGLE	55.8592	53.0061	57.3368	54.7042	53.5399	47.5876	31.5874	31.4064	24.9878
RELATIVE VELOCITY	868.0114	846.6035	816.3441	703.1126	518.9117	346.6354	398.5212	391.4434	380.1366
RELATIVE MACH NO.	0.7620	0.7443	0.7134	0.6129	0.4519	0.3013	0.3496	0.3441	0.3341
DEVIATION	-0.1407	-3.2938	1.4368	3.5042	6.5399	8.8876	3.6874	8.5064	6.3878
AIR TURNING ANGLE	13.3962	13.7045	9.0920	10.2985	11.5466	21.7612	33.4156	31.6625	37.5234
ROTOR REL. MACH NO.	0.8667	0.8507	0.8312	0.7878	0.7156	0.6275	0.5680	0.5467	0.5272
IDEAL PRESS. RATIO	0.9713	0.9755	0.9812	0.9920	1.0026	1.0123	1.0238	1.0279	1.0336
ROTOR PRESS. RATIO	1.3258	1.3426	1.3340	1.3060	1.2797	1.3115	1.3256	1.3081	1.3221
ROTOR TEMP. RATIO	1.0980	1.1006	1.0984	1.1043	1.1025	1.1063	1.0930	1.0849	1.0892
ADIABATIC EFFY.	0.8545	0.8719	0.8708	0.7584	0.7109	0.7567	0.9009	0.9377	0.9294
POLYTR. EFFICIENCY	0.8602	0.8771	0.8759	0.7673	0.7208	0.7659	0.9048	0.9401	0.9322
TOTAL LOSS COEFF.	0.0846	0.0779	0.0791	0.1751	0.2535	0.3072	0.1366	0.0854	0.1138
SHOCK LOSS COEFF.	0.0177	0.0153	0.0128	0.0029	-0.0044	-0.0135	-0.0177	-0.0191	-0.0213
PROFILE LOSS COEFF.	0.0668	0.0625	0.0663	0.1721	0.2580	0.3208	0.1544	0.1046	0.1351
TOTAL LOSS PARAM.	0.0144	0.0141	0.0127	0.0298	0.0435	0.0579	0.0313	0.0190	0.0263
PROFILE LOSS PARAM.	0.0114	0.0113	0.0107	0.0293	0.0443	0.0605	0.0333	0.0233	0.0313
ROTOR DIFFUS. FACT.	0.3401	0.3528	0.3588	0.4236	0.5595	0.7118	0.5850	0.5657	0.5625
STATIC PRESS.	16.2550	16.2397	16.9495	16.6454	16.4185	16.2131	16.0658	16.0420	15.9681
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STRFAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER 227			TIME 14H 7M 59S		RADIAL INLET DISTORTION			STATOR ANGLE 3	
MASS AVERAGED PT	18.8357	(19.2987)								
MASS AVERAGED TT	583.8651	(570.6304)								
TOTAL WEIGHT FLOW	86.3707	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	89.5144									
MEASURING PLANE										
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500	
TOTAL PRESSURE	19.5675	19.9036	19.7903	19.4571	18.9462	18.7199	18.9404	18.7075	18.8485	
STATIC PRESSURE	16.0382	16.0022	16.7820	16.5344	16.3806	16.2186	16.0348	16.0110	15.9563	
WEDGE PRESSURE	16.0940	16.0660	16.8266	16.5775	16.4170	16.2539	16.0780	16.0501	15.9993	
TOTAL TEMPERATURE	572.9180	572.8225	571.7486	571.2095	572.4170	572.2839	564.0637	559.7502	562.1373	
ANGLE	33.8045	33.8932	34.8338	41.0991	53.2049	62.8015	51.4097	50.4088	50.7152	
MACH NO.	0.5408	0.5672	0.4912	0.4879	0.4608	0.4574	0.4937	0.4769	0.4937	
ABSOLUTE VELOCITY	614.8446	643.8091	561.2552	559.2256	528.9552	526.1360	562.5850	542.3036	561.7009	
SWIRL VELOCITY	341.2100	358.2191	320.0065	367.3983	423.5686	467.5067	437.5516	414.9068	431.1967	
AXIAL VELOCITY	509.6086	533.2246	459.8509	421.1721	316.8155	240.2527	349.1739	343.1350	352.7419	
WEIGHT FLOW	11.1198	7.7437	12.0115	17.8242	15.1601	8.9762	6.3665	2.8038	4.2230	
CALCULATING PLANE										
ANGLE	33.9540	33.8413	34.5366	40.3445	51.9086	61.5493	49.9000	48.7650	48.9288	
MACH NO.	0.5394	0.5688	0.4964	0.4970	0.4692	0.4592	0.4939	0.4806	0.4970	
SWIRL VELOCITY	342.4755	359.3079	321.2535	368.3167	423.5686	464.0546	431.9486	409.3882	424.2073	
AXIAL VELOCITY	507.6380	534.9072	465.8014	432.6326	331.0310	250.4560	362.7455	357.8451	368.6952	
ABSOLUTE VELOCITY	613.3430	645.5296	566.9627	569.1561	538.1898	528.1066	566.1241	546.3288	565.2683	
WEIGHT FLOW	11.1352	7.7547	12.0168	17.8528	15.1984	9.0069	6.3702	2.8087	4.2267	
MERIDIONAL VELOCITY	507.8360	535.3017	466.1770	432.9234	331.0330	251.0986	364.9494	360.7693	372.5978	
STATIC TEMPERATURE	541.4607	538.0623	544.9313	544.3548	548.3159	549.1611	537.5469	535.0595	535.6993	
STATIC PRESS.	16.0543	15.9829	16.7241	16.4359	16.2951	16.2008	16.0003	15.9730	15.9216	
MCL INCIDENCE	4.9672	4.5862	4.9445	9.4016	18.2589	27.4972	15.8132	14.6535	14.8367	
SUC SUR INCIDENCE	-1.4560	-1.9386	-1.6233	3.1545	12.1486	21.2393	9.3400	8.0950	8.1788	
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810	
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000	

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HUB RADIAL DIST. STATUR INCIDENCE PLOTS

RDG NO= 227 PCT DES SPD= 70.00 FAN INLET TOT TFMP= 518.688
 OUTER WALL STATIC PRES= 16.890 HUB STATIC PRES= 16.810

PCT IMMERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLD ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TFMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	6.3000	-1.4500	613.3000	342.5000	541.4000	16.0500	19.5600
.100	13.1600	-7.5000	1.0600	6.7500	-1.9400	645.5000	359.3000	538.1000	16.0000	19.9000
.150	12.8300	-7.6000	1.0900	7.5800	-1.6200	566.9000	321.2000	544.9000	16.7200	19.7900
.282	12.0000	-8.4000	1.1700	6.6300	3.1500	569.1000	368.3000	544.4000	16.4400	19.4500
.470	10.8200	-10.1000	1.3000	1.3700	12.1400	538.2000	423.6000	548.3000	16.2900	18.9400
.689	9.4800	-9.8000	1.4700	-6.4800	21.2000	528.1000	464.1000	549.0000	16.2000	18.7200
.850	8.5900	-9.2000	1.6200	-3.9700	9.3000	566.1000	431.9000	537.5000	16.0000	18.9400
.900	8.2700	-9.1000	1.6700	-5.5400	8.1000	546.3000	409.4000	535.1000	15.9700	18.7100
.937	8.0200	-9.0000	1.7300	1.9900	8.2000	565.3000	424.2000	535.7000	15.9200	18.8400

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	571.0000	19.0400
.1000	13.1500	542.4000	19.4700
.1500	12.8400	571.1000	19.4700
.2822	11.9700	569.6000	18.9100
.4702	10.8300	570.1000	18.2200
.6887	9.5700	569.0000	18.1400
.8500	8.6700	564.5000	18.0800
.9000	8.4000	563.5000	17.9900
.9372	8.1200	563.5000	17.7900

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4429	.1481	.0708	.7663	10.7000	.4178	481.0183	478.1134	52.7842
.1000	.4283	.1103	.0516	-.4670	11.2500	.4561	510.1900	506.6536	59.9664
.1500	.2796	.1042	.0474	.4360	12.1800	.4565	523.9563	519.3777	69.1153
.2822	.4119	.1794	.0762	.5813	12.0300	.4076	469.1587	466.0212	54.1678
.4702	.5733	.2717	.1045	.5799	8.4700	.3360	388.9227	388.8115	9.2986
.6887	.6055	.2302	.0778	.7597	.3200	.3286	380.1005	377.6722	-42.8968
.8500	.3913	.2925	.0901	.5037	2.2300	.3227	372.0319	371.1392	-25.7573
.9000	.5668	.2628	.0787	.4552	5.5600	.3118	359.3165	359.3005	-3.3868
.9372	.6275	.3596	.1039	.4528	7.9900	.2851	329.0701	328.8716	11.4270

PCT IMMERS	EX STAT PRES
.0500	16.8855
.1000	16.8812
.1500	16.8771
.2822	16.8654
.4702	16.8501
.6887	16.8333
.8500	16.8212
.9000	16.8176
.9372	16.8138

ROTOR INLET TRAVERSE PLANE READING NUMBER 229 TIME 14H 37M 54S RADIAL INLET DISTORTION STATOR ANGLE 3

ROTOR SPEED	11603.1043								
ACTUAL DRIFICE FLOW	129.1754								
THETA	1.0152								
DELTA	0.9316								
MASS AVERAGED PT	13.6915	(14.6960)							
MASS AVERAGED TT	526.5957	(518.6881)							
TOTAL WEIGHT FLOW	136.5230	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	147.6513								
EQUIV. SPEED	11515.6574								
PERCENT SPEED	90.0998								

DISTORTION INDEX 0.115

PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	15.1556	15.2272	15.1717	15.0437	15.1736	13.4639	13.4688	13.5218	13.4674
STATIC PRESSURE	11.3324	11.0866	10.8714	10.4962	10.2779	10.9383	11.1913	11.2771	11.5374
WEDGE PRESSURE	11.8284	11.6820	11.5275	11.2641	11.1869	11.1478	11.3498	11.4281	11.6370
TOTAL TEMPERATURE	519.4256	518.4812	517.7226	517.9437	519.3694	518.6247	518.9201	518.9531	519.5963
ANGLE	-0.9160	1.6656	1.6734	1.9266	1.9043	1.9882	1.9526	2.0274	2.1726
APPARENT MACH NO.	0.6056	0.6270	0.6388	0.6563	0.6744	0.5263	0.5005	0.4961	0.4615

PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	12.1004	12.0567	11.8844	11.7403	11.5486	11.5517	11.7604	11.8497	11.9312
WEDGE PRESSURE	12.1446	12.1031	11.9334	11.7899	11.6053	11.5756	11.7807	11.8694	11.9488
ANGLE	4.6208	1.7607	1.5762	2.4007	1.6168	2.4426	5.9825	6.7756	7.2033
APPARENT MACH NO.	0.5714	0.5821	0.5957	0.6004	0.6308	0.4696	0.4415	0.4355	0.4169

MEASURING PLANE									
MACH NO.	0.5762	0.5872	0.6010	0.6057	0.6368	0.4729	0.4444	0.4383	0.4195
ABSOLUTE VELOCITY	623.0585	634.1197	648.0514	652.8045	683.7965	516.5702	486.7041	480.2511	460.3729
SWIRL VELOCITY	-9.6773	18.0297	18.6295	21.8351	22.7213	17.8036	16.0705	16.2184	16.3495
WEIGHT FLOW	14.5502	10.2966	17.1128	26.9624	31.1364	18.1446	8.7018	4.3014	5.3289
AXIAL VELOCITY	605.2588	620.0118	637.6454	649.0990	683.3815	512.8420	471.3670	458.1389	430.9467

CALCULATING PLANE									
ANGLE	-0.7930	1.4392	1.4702	1.7560	1.7227	1.8177	1.7071	1.7287	1.8404
SWIRL VELOCITY	-9.8434	18.2816	18.8413	22.0145	22.7002	17.6084	15.6438	15.6322	15.5809
AXIAL VELOCITY	710.0992	726.6284	733.1209	717.0734	753.7775	553.8286	523.9037	516.9416	483.8988
MERIDIONAL VELOCITY	725.9632	736.9486	739.9672	719.3907	753.7821	556.6783	535.0199	535.1772	511.7812
ABSOLUTE VELOCITY	727.0436	738.1817	741.2092	720.7231	755.1150	557.9537	536.2613	536.4322	513.0664
MACH NO.	0.6807	0.6921	0.6952	0.6742	0.7095	0.5127	0.4917	0.4919	0.4695
WEIGHT FLOW	14.5547	10.2987	17.1243	26.9678	31.1540	18.1506	8.6896	4.3030	5.2799
ROTOR TANG. VELOC.	1404.8695	1366.9490	1326.7103	1223.8526	1081.5770	916.5330	794.7054	750.4755	704.8294
RELAT. TANG. VELOC.	1414.7128	1348.6670	1307.8690	1201.8380	1058.8764	898.9245	779.0616	734.8432	689.2486
RELATIVE FLOW ANGLE	62.8354	61.3468	60.4998	59.0965	54.5542	58.2314	55.5209	53.9348	53.4055
RELATIVE VELOCITY	1590.1048	1536.8784	1502.6882	1400.6914	1299.7718	1057.3343	945.0836	909.0703	858.4774
RELATIVE MACH NO.	1.4887	1.4409	1.4094	1.3103	1.2213	0.9715	0.8667	0.8336	0.7856
MCL INCIDENCE	0.6354	0.1468	-0.0001	0.6965	-1.5457	5.9314	7.1209	5.9348	5.5055
SURFACE INCIDENCE	-1.5644	-1.8531	-2.1001	-1.7034	-3.9456	3.2314	3.4209	2.1348	1.4055
RELATIVE TOTAL PRESS	43.7093	40.6660	38.3326	32.9956	28.8043	21.1625	19.1960	18.6890	17.9335
STATIC TEMPERATURE	475.3425	473.1184	472.0531	474.7455	471.8214	492.7015	494.9600	494.9763	497.6358
RELAT. TOTAL TEMP.	686.2071	669.7492	659.7611	637.9052	612.6984	585.7941	569.3775	563.8347	559.1183
STATIC PRESS.	11.1131	11.0542	10.9835	11.0931	10.8448	11.2531	11.4150	11.4596	11.5792
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	229	TIME 14H 37M 54S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0
MASS AVERAGED PT	18.8158	(20.1962)				
MASS AVERAGED TT	589.1249	(580.2784)				
TOTAL WEIGHT FLOW	132.6908	(PROBE INTEGRATION)				
CORR. TOTAL FLOW	143.5067					
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.						
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300
TOTAL PRESSURE	20.1017	19.7359	19.9110	20.3384	20.7631	19.8787
STATIC PRESSURE	13.5642	13.2328	13.1981	13.4215	13.7182	13.4281
WEDGE PRESSURE	15.3072	14.9651	14.9726	15.2430	15.5753	15.1483
TOTAL TEMPERATURE	574.4521	571.2875	570.0804	586.7406	578.8521	584.7406
ANGLE	20.1846	21.6286	21.6915	28.8696	29.2105	37.7521
APPARENT MACH NO.	0.6363	0.6414	0.6514	0.6554	0.6543	0.6355
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.						
STATIC PRESSURE	15.4232	14.2685	14.5577	14.9225	15.1197	15.0762
WEDGE PRESSURE	15.5065	14.3771	14.6620	15.0274	15.2304	15.1637
ANGLE	15.1886	12.9040	13.2585	18.2588	26.5354	27.7083
APPARENT MACH NO.	0.6204	0.6883	0.6760	0.6721	0.6804	0.6342
MEASURING PLANE						
MACH NO.	0.6271	0.6969	0.6842	0.6802	0.6888	0.6413
ABSOLUTE VELOCITY	708.8246	779.6181	766.3599	773.1414	775.7344	730.6065
SWIRL VELOCITY	243.7889	286.5573	282.5954	372.9910	378.5576	446.0191
WEIGHT FLOW	13.5221	9.2513	16.0967	25.1550	29.7671	19.5129
AXIAL VELOCITY	663.1492	722.7086	710.4405	676.5220	677.0580	576.0006
CALCULATING PLANE						
SWIRL VELOCITY	242.1779	284.8312	281.2850	372.0631	378.9077	449.8435
AXIAL VELOCITY	621.8329	675.0102	666.5637	643.5784	651.6210	552.8362
ABSOLUTE VELOCITY	675.6572	738.6528	727.7888	744.7372	754.7592	715.6403
MERIDIONAL VELOCITY	629.7591	680.5263	670.2353	644.1434	651.7640	555.5831
ANGLE	21.2480	22.8480	22.8489	29.9947	30.1396	39.0851
MACH NO.	0.5956	0.6570	0.6468	0.6530	0.6685	0.6271
WEIGHT FLOW	13.5269	9.2567	16.1110	25.1341	29.7892	19.5278
ROTOR TANG. VELOC.	1367.7145	1334.7859	1301.5642	1212.7913	1065.5942	937.6377
RELAT. TANG. VELOC.	1125.5364	1049.9549	1020.2790	840.7280	706.6865	487.7943
RELATIVE FLOW ANGLE	60.7723	57.0509	56.6987	52.5418	47.3154	41.2828
RELATIVE VELOCITY	1289.7396	1251.2076	1220.7310	1059.1245	961.3540	739.3347
RELATIVE MACH NO.	1.1370	1.1130	1.0849	0.9288	0.8515	0.6478
DEVIATION	4.7723	0.7509	0.7987	1.3418	0.3153	2.5828
AIR TURNING ANGLE	2.0631	4.2958	3.8011	6.5546	7.2388	16.9486
ROTOR REL. MACH NO.	1.0661	1.0521	1.0329	0.9791	0.8955	0.7904
IDEAL PRESS. RATIO	0.9568	0.9627	0.9711	0.9877	1.0041	1.0195
ROTOR PRESS. RATIO	1.3263	1.2960	1.3123	1.3519	1.3683	1.4764
ROTOR TEMP. RATIO	1.1059	1.1018	1.1011	1.1328	1.1145	1.1274
ADIABATIC EFFY.	0.7923	0.7543	0.7977	0.6763	0.8174	0.9222
POLYTR. EFFICIENCY	0.8004	0.7632	0.8054	0.6897	0.8253	0.9264
TOTAL LOSS COEFF.	0.0899	0.1057	0.0894	0.1944	0.1076	0.0684
SHOCK LOSS COEFF.	0.0114	0.0138	0.0201	0.0549	0.0531	0.0049
PROFILE LOSS COEFF.	0.0784	0.0919	0.0693	0.1395	0.0545	0.0634
TOTAL LOSS PARAM.	0.0133	0.0173	0.0147	0.0349	0.0210	0.0143
PROFILE LOSS PARAM.	0.0116	0.0150	0.0114	0.0250	0.0106	0.0133
ROTOR DIFFUS. FACT.	0.2283	0.2354	0.2381	0.3172	0.3393	0.4167
STATIC PRESS.	15.8147	14.7710	15.0310	15.2739	15.3892	15.2529
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000
SOLIBITY	1.6490	1.6580	1.6700	1.6940	1.7300	1.7680
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000

STATOR INLET TRAVERSE PLANE READING NUMBER 229 TIME 14H 37M 54S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 18.8161 (20.1964)
 MASS AVERAGED TT 589.1226 (580.2762)
 TOTAL WEIGHT FLOW 132.5393 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 143.3429

MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.1017	19.7359	19.9110	20.3384	20.7631	19.8787	19.8619	20.0769	20.1024
STATIC PRESSURE	15.4232	14.2685	14.5577	14.9225	15.1197	15.0762	14.8110	14.6826	14.5686
WEDGE PRESSURE	15.5065	14.3771	14.6620	15.0274	15.2304	15.1637	14.9061	14.7877	14.6781
TOTAL TEMPERATURE	574.4520	571.2874	570.0803	586.7405	578.8519	584.7405	585.4331	586.7690	587.7643
ANGLE	20.1846	21.6286	21.6915	28.8696	29.2105	37.7521	40.4824	41.2668	42.7161
MACH NO.	0.6271	0.6969	0.6842	0.6802	0.6888	0.6413	0.6614	0.6840	0.6942
ABSOLUTE VELOCITY	708.8246	779.6178	766.3599	773.1412	775.7344	730.6065	751.9410	776.2902	787.1316
SWIRL VELOCITY	243.7888	286.5572	282.5953	372.9908	378.5575	446.0190	484.5857	506.9266	528.0942
AXIAL VELOCITY	663.1494	722.7084	710.4404	676.5217	677.0581	576.0007	567.7338	577.6993	571.9709
WEIGHT FLOW	13.5221	9.2513	16.0967	25.1550	29.7671	19.5129	9.1787	4.1509	6.0101

CALCULATING PLANE									
ANGLE	20.3277	21.6088	21.3927	28.0363	27.6353	36.0422	39.3019	39.4328	40.7063
MACH NO.	0.6231	0.6982	0.6959	0.7022	0.7284	0.6633	0.6672	0.6985	0.7081
SWIRL VELOCITY	244.6930	287.4282	283.6966	373.9232	378.5575	442.7256	478.3814	500.1839	519.5340
AXIAL VELOCITY	659.5198	724.6432	723.1870	701.1828	722.0397	607.4250	583.4383	607.2328	602.8905
ABSOLUTE VELOCITY	704.6208	780.9860	778.3102	795.9477	816.1412	753.7107	758.0045	791.3232	801.4675
WEIGHT FLOW	13.5350	9.2557	16.0922	25.1566	29.7551	19.5161	9.0574	4.1551	6.0156
MERIDIONAL VELOCITY	659.7770	725.1777	723.7700	701.6541	722.0440	608.9837	586.9832	612.1950	609.2720
STATIC TEMPERATURE	533.1151	520.5920	519.8033	534.1662	523.4093	537.5327	537.6598	534.7027	534.2902
STATIC PRESS.	15.4735	14.2515	14.4083	14.6353	14.5900	14.7994	14.7378	14.4955	14.3889
MCL INCIDENCE	-8.6643	-7.6552	-8.2099	-2.9148	-6.0145	1.9247	5.1507	5.2451	6.5272
SUC SUR INCIDENCE	-15.0822	-14.1711	-14.7672	-9.1536	-12.1246	-4.2677	-1.2580	-1.2371	-0.0436
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 229 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.290 HUB STATIC PRES= 15.470

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.7000	-15.1000	704.0000	244.7000	533.1000	15.5000	20.1000
.100	13.1600	-7.5000	1.0600	4.9000	-14.2000	781.0000	287.4000	520.6000	14.3000	19.7300
.150	12.8300	-7.6000	1.0900	2.2000	-14.7000	778.0000	283.7000	519.8000	14.4100	19.9100
.282	12.0000	-8.4000	1.1700	2.1200	-9.1000	795.9000	373.9000	534.2000	14.6300	20.3400
.470	10.8200	-10.1000	1.3000	1.4000	-12.1000	816.0000	378.6000	523.4000	14.5900	20.7600
.689	9.4800	-9.8000	1.4700	.6000	-4.3000	753.7000	442.7000	537.5000	14.8000	19.8800
.850	8.5900	-9.2000	1.6200	1.4000	-1.2600	758.0000	478.4000	537.7000	14.7300	19.8600
.900	8.2700	-9.1000	1.6700	1.4600	-1.2400	791.3000	500.2000	534.7000	14.5000	20.0700
.937	8.0200	-9.0000	1.7300	1.3000	-.0400	801.5000	519.5000	534.3000	14.3900	20.1000

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	573.8000	18.8200
.1000	13.1500	571.0000	19.4900
.1500	12.8400	565.9000	19.4800
.2822	11.9700	575.8000	19.7800
.4702	10.8300	574.1000	20.1800
.6887	9.5700	579.0000	19.4400
.8500	8.6700	581.5000	19.4300
.9000	8.4000	581.9000	19.3500
.9372	8.1200	583.9000	18.7600

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0580	.2381	.2783	.1333	-.2574	9.1000	.5528	629.2970	627.1809	51.5636
.1000	.2730	.0442	.0208	.8319	9.4000	.5975	676.1901	673.7188	37.7581
.1500	.2887	.0782	.0358	1.0711	6.8000	.5941	671.6483	671.1533	25.7831
.2822	.3131	.0981	.0419	5.5490	7.5200	.6133	695.7007	695.2245	25.7357
.4702	.2906	.0940	.0361	1.0145	8.5000	.6352	717.6906	717.4764	17.5347
.6887	.3098	.0866	.0295	1.4352	7.4000	.5851	667.8919	667.6553	6.9919
.8500	.3087	.0838	.0259	1.0639	7.6000	.5822	665.9494	665.7506	16.2706
.9000	.3478	.1293	.0387	.8942	7.5600	.5760	659.6087	659.3946	16.8062
.9372	.4150	.2347	.0678	.6121	7.3000	.5329	614.0705	613.9124	13.9316

PCT IMMERS	EX STAT PRES
.0500	15.3000
.1000	15.3097
.1500	15.3190
.2822	15.3453
.4702	15.3797
.6887	15.4177
.8500	15.4448
.9000	15.4530
.9372	15.4614

ROTOR INLET TRAVERSE PLANE		READING NUMBER	230	TIME	14H 48M 57S	RADIAL INLET DISTORTION		STATOR ANGLE		5
ROTOR SPEED	11652.0393					DISTORTION INDEX		0.109		
ACTUAL ORIFICE FLOW	127.3189									
THETA	1.0170									
DELTA	0.9341									
MASS AVERAGED PT	13.7287	(14.6960)								
MASS AVERAGED TT	527.5286	(518.6881)								
TOTAL WEIGHT FLOW	134.6136	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	145.3206									
EQUIV. SPEED	11553.9960									
PERCENT SPEED	90.3997									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	15.1629	15.1766	15.1614	15.0412	15.1041	13.5165	13.5227	13.6100	13.5525	
STATIC PRESSURE	11.3755	11.1443	10.9043	10.4824	10.3890	11.1672	11.4184	11.6871	11.8494	
WEDGE PRESSURE	11.8600	11.7064	11.5438	11.2553	11.2241	11.3389	11.5439	11.7838	11.9167	
TOTAL TEMPERATURE	519.2467	518.7397	519.1163	518.1699	519.5362	517.8128	517.6877	517.8484	518.5951	
ANGLE	-0.8127	1.7284	1.7198	2.0083	1.7953	2.0416	2.0337	2.1106	2.5311	
APPARENT MACH NO.	0.6029	0.6203	0.6363	0.6570	0.6652	0.5072	0.4807	0.4583	0.4325	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	12.1683	12.0994	12.0049	11.7930	11.6280	11.7277	11.9485	12.0739	12.1178	
WEDGE PRESSURE	12.2112	12.1440	12.0512	11.8413	11.6814	11.7494	11.9666	12.0914	12.1336	
ANGLE	1.7074	1.3255	1.5443	2.5494	1.5142	2.6272	6.4270	7.4513	7.3959	
APPARENT MACH NO.	0.5647	0.5733	0.5821	0.5946	0.6171	0.4518	0.4215	0.4145	0.4005	
MEASURING PLANE										
MACH NO.	0.5695	0.5782	0.5871	0.5998	0.6228	0.4548	0.4241	0.4171	0.4029	
ABSOLUTE VELOCITY	616.1681	625.0238	634.0835	646.8794	669.8492	497.6833	465.3019	457.8366	442.8025	
SWIRL VELOCITY	-8.4914	18.4406	18.7325	22.5539	20.9854	17.6130	16.0019	16.0956	18.3193	
WEIGHT FLOW	14.4782	10.1806	16.8695	26.8437	30.6636	17.7364	8.4487	4.1755	5.2053	
AXIAL VELOCITY	598.5807	611.0995	623.8877	643.1765	669.4838	494.0754	450.6182	436.7355	414.4060	
CALCULATING PLANE										
ANGLE	-0.7052	1.4982	1.5186	1.8335	1.6313	1.8686	1.7765	1.8310	2.1225	
SWIRL VELOCITY	-8.6371	18.6982	18.9456	22.7392	20.9659	17.4198	15.5770	15.5138	17.4581	
AXIAL VELOCITY	700.6739	713.9063	713.6471	709.3383	735.1558	532.9313	501.2344	484.2859	470.0537	
MERIDONAL VELOCITY	716.3273	724.0458	720.3116	711.6305	735.1603	535.6735	511.8695	501.3695	497.1384	
ABSOLUTE VELOCITY	717.3923	725.2924	721.5607	712.9884	736.4495	536.9536	513.1197	502.6364	498.4929	
MACH NO.	0.6708	0.6789	0.6750	0.6663	0.6903	0.4924	0.4696	0.4596	0.4556	
WEIGHT FLOW	14.4856	10.1849	16.8782	26.8456	30.6702	17.7522	8.4585	4.1301	5.2080	
ROTOR TANG. VELOC.	1409.7891	1371.1579	1329.3390	1227.6592	1085.0031	920.3048	798.2995	753.7765	707.8581	
RELAT. TANG. VELOC.	1418.4261	1352.4598	1310.3932	1204.9200	1064.0373	902.8848	782.7224	738.2625	690.3999	
RELATIVE FLOW ANGLE	63.2057	61.8376	61.2030	59.4339	55.3589	59.3199	56.8171	55.8189	54.2435	
RELATIVE VELOCITY	1589.0425	1534.0760	1495.3186	1399.3747	1293.3041	1049.8319	935.2351	892.4141	850.7634	
RELATIVE MACH NO.	1.4859	1.4359	1.3990	1.3078	1.2123	0.9628	0.8559	0.8160	0.7776	
MCL INCIDENCE	1.0057	0.6376	0.7030	1.0339	-0.7410	7.0199	8.4171	7.8189	6.3435	
SURFACE INCIDENCE	-1.1942	-1.3623	-1.3969	-1.3660	-3.1409	4.3199	4.7171	4.0189	2.2435	
RELATIVE TOTAL PRESS	43.7767	40.5202	38.1554	33.0307	28.6592	21.2712	19.2836	18.7034	18.0719	
STATIC TEMPERATURE	476.3416	474.9267	475.7220	475.8766	474.2966	493.8420	495.8029	496.8422	497.9044	
RELAT. TOTAL TEMP.	686.8483	670.9329	662.0829	638.7961	613.8160	585.4744	568.5051	563.0595	558.1707	
STATIC PRESS.	11.2139	11.1459	11.1717	11.1669	10.9820	11.4514	11.6264	11.7747	11.7534	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	230	TIME	14H 48M 57S	RAIAL INLET DISTORTION	STATOR ANGLE	3.0		
MASS AVERAGED PT	20.0868	(21.5020)							
MASS AVERAGED TT	602.5732	(592.4750)							
TOTAL WEIGHT FLOW	129.7155	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	140.0330								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	21.9238	21.4823	21.6462	21.9077	21.9594	20.4798	20.7225	20.6572	20.7477
STATIC PRESSURE	15.2686	14.7974	14.6751	14.6699	14.7204	14.2681	14.1957	14.1269	14.0949
WEDGE PRESSURE	17.0256	16.5571	16.5053	16.5668	16.6191	15.9082	15.9126	15.8435	15.8419
TOTAL TEMPERATURE	598.6620	590.5725	586.4028	598.1801	589.9363	591.8517	591.5964	589.7351	590.3133
ANGLE	27.6291	27.3082	26.8789	33.8828	34.4331	44.6615	46.5301	46.1233	46.8779
APPARENT MACH NO.	0.6122	0.6216	0.6348	0.6448	0.6438	0.6119	0.6262	0.6276	0.6331
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	15.7553	15.5519	15.7905	16.3605	16.4367	16.1340	15.7754	15.6750	15.5653
WEDGE PRESSURE	15.8790	15.6694	15.9051	16.4646	16.5399	16.2073	15.8658	15.7657	15.6617
ANGLE	29.2026	21.8292	20.8668	24.0726	28.5908	34.0318	41.4509	42.4095	42.0978
APPARENT MACH NO.	0.6950	0.6869	0.6785	0.6522	0.6495	0.5881	0.6298	0.6336	0.6469
MEASURING PLANE									
MACH NO.	0.7038	0.6955	0.6868	0.6597	0.6570	0.5940	0.6367	0.6407	0.6543
ABSOLUTE VELOCITY	804.5308	790.9256	778.8957	758.8184	749.7406	685.0142	730.6363	733.5976	747.8095
SWIRL VELOCITY	372.0251	361.9338	351.3894	422.7367	423.9194	480.3815	527.0573	524.3223	540.6208
WEIGHT FLOW	14.4964	9.4764	16.6260	25.0953	28.8285	17.2405	8.4696	3.8104	5.6086
AXIAL VELOCITY	710.7422	700.9894	693.2623	629.5093	618.3538	486.0938	499.6354	504.1593	506.2980
CALCULATING PLANE									
SWIRL VELOCITY	369.5668	359.7535	349.7600	421.6851	424.3116	484.5004	534.6226	533.4751	553.2422
AXIAL VELOCITY	664.0050	656.3971	651.2032	602.1936	596.4472	468.4239	474.4357	474.3622	476.0039
ABSOLUTE VELOCITY	768.2087	754.1050	743.2282	736.4036	732.8907	676.2304	721.6058	723.3147	742.3612
MERIDIONAL VELOCITY	672.4688	661.7611	654.7902	602.7224	596.5781	470.7514	483.6466	487.4357	493.9691
ANGLE	29.0629	28.6896	28.2039	34.9573	35.3832	45.9061	48.3541	48.2974	49.2328
MACH NO.	0.6691	0.6602	0.6526	0.6386	0.6410	0.5858	0.6282	0.6310	0.6491
WEIGHT FLOW	14.5024	9.4797	16.6299	25.1162	28.8301	17.2625	8.4769	3.8044	5.6131
ROTOR TANG. VELOC.	1372.5036	1338.8956	1304.1434	1216.5632	1089.0332	941.4964	843.7148	809.2755	777.4341
RELAT. TANG. VELOC.	1002.9368	979.1418	954.3832	794.8781	664.7214	456.9959	309.0922	275.8005	224.1918
RELATIVE FLOW ANGLE	56.1583	55.9470	55.5466	52.8287	48.0926	44.1507	32.5822	29.5021	24.4113
RELATIVE VELOCITY	1207.5167	1181.7979	1157.4096	997.5495	893.1738	656.0884	573.9790	560.0530	542.4643
RELATIVE MACH NO.	1.0517	1.0347	1.0163	0.8651	0.7812	0.5684	0.4997	0.4885	0.4743
DEVIATION	0.1583	-0.3529	-0.3533	1.6286	1.0926	5.4507	4.6822	6.6021	5.8113
AIR TURNING ANGLE	7.0473	5.8905	5.6563	6.6052	7.2663	15.1692	24.2348	26.3168	29.8321
ROTOR REL. MACH NO.	1.0693	1.0549	1.0347	0.9818	0.8977	0.7933	0.7214	0.6954	0.6714
IDEAL PRESS. RATIO	0.9566	0.9625	0.9710	0.9876	1.0041	1.0197	1.0386	1.0455	1.0549
ROTOR PRESS. RATIO	1.4458	1.4154	1.4277	1.4565	1.4538	1.5151	1.5324	1.5177	1.5309
ROTOR TEMP. RATIO	1.1529	1.1384	1.1296	1.1544	1.1355	1.1429	1.1427	1.1388	1.1382
ADIABATIC EFFY.	0.7247	0.7523	0.8248	0.7329	0.8313	0.8799	0.9057	0.9104	0.9338
POLYTR. EFFICIENCY	0.7386	0.7641	0.8334	0.7466	0.8399	0.8867	0.9122	0.9155	0.9377
TOTAL LOSS COEFF.	0.1620	0.1395	0.0973	0.1840	0.1162	0.1174	0.1098	0.1113	0.0892
SHOCK LOSS COEFF.	0.0114	0.0148	0.0223	0.0559	0.0503	0.0041	-0.0026	-0.0050	-0.0073
PROFILE LOSS COEFF.	0.1505	0.1247	0.0750	0.1280	0.0659	0.1132	0.1125	0.1163	0.0965
TOTAL LOSS PARAM.	0.0275	0.0235	0.0164	0.0328	0.0224	0.0235	0.0249	0.0253	0.0207
PROFILE LOSS PARAM.	0.0255	0.0210	0.0127	0.0228	0.0127	0.0227	0.0255	0.0265	0.0225
ROTOR DIFFUS. FACT.	0.3038	0.2935	0.2890	0.3707	0.3988	0.5018	0.5409	0.5309	0.5326
STATIC PRESS.	16.2423	16.0358	16.2619	16.6523	16.6584	16.2357	15.8856	15.8006	15.6331
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6780	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 230 TIME 14H 48M 57S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 20.0868 (21.5021)
 MASS AVERAGED TT 602.5725 (592.4744)
 TOTAL WEIGHT FLOW 129.7319 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 140.0506

MEASURING PLANE

IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	21.9238	21.4823	21.6462	21.9077	21.9594	20.4798	20.7225	20.6572	20.7477
STATIC PRESSURE	15.7553	15.5519	15.7905	16.3605	16.4367	16.1340	15.7764	15.6750	15.5653
WEDGE PRESSURE	15.8790	15.6694	15.9051	16.4646	16.5399	16.2073	15.8658	15.7657	15.6617
TOTAL TEMPERATURE	598.6619	590.5724	586.4026	598.1799	589.9362	591.8516	591.5963	589.7349	590.3132
ANGLE	27.6291	27.3082	26.8788	33.8828	34.4331	44.6615	46.5301	46.1233	46.8779
MACH NO.	0.7038	0.6955	0.6868	0.6597	0.6570	0.5940	0.6367	0.6407	0.6543
ABSOLUTE VELOCITY	804.5306	790.9255	778.8957	758.8182	749.7406	685.0141	730.6361	733.5973	747.8094
SWIRL VELOCITY	372.0249	361.9338	351.3894	422.7365	423.9194	480.3813	527.0570	524.3220	540.6205
AXIAL VELOCITY	710.7421	700.9894	693.2623	629.5094	618.3538	486.0938	499.6353	504.1592	506.2981
WEIGHT FLOW	14.4964	9.4764	16.6260	25.0953	28.8285	17.2405	8.4696	3.8104	5.6086

CALCULATING PLANE

ANGLE	27.8206	27.3122	26.5264	33.0317	32.8362	43.0138	44.9028	44.3652	44.9639
MACH NO.	0.6997	0.6962	0.6979	0.6778	0.6877	0.6079	0.6449	0.6495	0.6627
SWIRL VELOCITY	373.4048	363.0339	352.7587	423.7933	423.9194	476.8342	520.3078	517.3481	531.8574
AXIAL VELOCITY	706.6203	702.0078	705.7180	650.8057	655.8936	510.1056	521.0852	527.9512	531.5377
ABSOLUTE VELOCITY	800.3346	791.6633	790.3683	777.8252	781.7992	699.9532	739.3289	742.9815	756.6338
WEIGHT FLOW	14.5076	9.4736	16.6282	25.1069	28.8548	17.2583	8.4725	3.8157	5.6139
MERIDIONAL VELOCITY	706.8959	702.5257	706.2869	651.2431	655.8977	511.4145	524.2512	532.2656	537.1641
STATIC TEMPERATURE	545.4040	538.4918	534.4467	547.9788	539.0656	551.2140	546.2684	543.9397	542.7522
STATIC PRESS.	15.8121	15.5420	15.6364	16.1092	16.0072	15.9591	15.6696	15.5594	15.4549
MCL INCIDENCE	-1.1685	-1.9475	-3.0721	2.0839	-0.8135	8.9141	10.7856	10.2177	10.8299
SUC SUR INCIDENCE	-7.5893	-8.4677	-9.6335	-4.1582	-6.9237	2.7038	4.3428	3.6952	4.2139
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO# 230 PCT DES SPD# 90.00 FAN INLET TOT TEMP# 518.688
 OUTER WALL STATIC PRES# 17.030 HUB STATIC PRES# 17.080

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.1800	-7.6000	800.3000	373.4000	545.4000	573.8000	15.8100
.100	13.1600	-7.5000	1.0600	5.7100	-8.5000	791.7000	363.0000	538.5000	571.0000	15.9400
.150	12.8300	-7.6000	1.0900	2.9000	-9.6000	790.4000	352.8000	534.4000	565.9000	15.6300
.282	12.0000	-8.4000	1.1700	3.3180	-4.2000	777.8000	423.8000	548.0000	575.8000	16.1100
.470	10.8200	-10.1000	1.3000	1.2300	-6.9000	781.8000	423.9000	539.1000	574.1000	16.0100
.689	9.4800	-9.8000	1.4700	2.1800	2.7000	700.0000	476.8000	551.0000	579.0000	15.9600
.850	8.5900	-9.2000	1.6200	2.6700	4.3400	739.3000	520.3000	546.3000	581.5000	15.6700
.900	8.2700	-9.1000	1.6700	2.3100	4.0000	742.9800	517.3800	543.9000	582.0000	15.5600
.937	8.0200	-9.0000	1.7300	2.7000	4.2000	756.6000	531.9000	542.7000	583.9000	15.4500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	586.9000	20.4800
.1000	13.1500	585.2000	21.1700
.1500	12.8400	580.7000	21.3700
.2822	11.9700	587.9000	21.3400
.4702	10.8300	584.5000	21.3000
.6887	9.5700	588.1000	19.9000
.8500	8.6700	587.2000	19.9500
.9000	8.4000	586.3000	19.6300
.9372	8.1200	588.5000	19.3400

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4403	.0084	.0040	-48.6035	9.5800	.5200	601.4184	598.9622	54.2990
.1000	.3561	.0101	.0048	-47.5931	10.2100	.5659	650.5462	647.3184	64.7251
.1500	.3486	.0104	.0048	-54.4989	7.5000	.5782	661.2584	660.4115	33.4550
.2822	.3600	.0093	.0040	-165.4072	8.7180	.5758	662.7344	661.6235	38.3575
.4702	.3607	.0093	.0036	-57.9055	8.3300	.5726	657.3362	657.1848	14.1103
.6887	.4334	.0070	.0024	-47.3659	8.9800	.4737	550.9030	550.5043	20.9558
.8500	.4559	.0076	.0023	-36.3874	8.8700	.4770	554.0913	553.4898	25.8115
.9000	.4673	.0075	.0023	-31.1826	8.4100	.4672	542.8327	542.3916	21.8795
.9372	.5362	.0068	.0020	-22.1907	8.7000	.4253	496.8924	496.3408	23.4068

PCT IMMERS	EX STAT PRES
.0500	17.0328
.1000	17.0355
.1500	17.0381
.2822	17.0454
.4702	17.0549
.6887	17.0655
.8500	17.0730
.9000	17.0753
.9372	17.0776

ROTOR INLET TRAVERSE PLANE		READING NUMBER	231	TIME 15H	OM 29S	RADIAL INLET DISTORTION		STATOR ANGLE 3	
ROTOR SPEED	11599.1830					DISTORTION INDEX		0.099	
ACTUAL DRIFICE FLOW	120.9641								
THETA	1.0158								
DELTA	0.9417								
MASS AVERAGED PT	13.8406	(14.6960)							
MASS AVERAGED TT	526.9191	(518.6881)							
TOTAL WEIGHT FLOW	128.0208	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	137.0068								
EQUIV. SPEED	11508.2322								
PERCENT SPEED	90.0417								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.							
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	14.9784	15.1809	15.1832	15.0680	14.8730	13.7321	13.7015	13.7171	13.6711
STATIC PRESSURE	11.7703	11.4831	11.3101	11.0178	11.1382	11.8390	11.9520	12.0299	12.1577
WEDGE PRESSURE	12.0945	11.9391	11.8206	11.5913	11.6196	11.9298	12.0236	12.0934	12.2009
TOTAL TEMPERATURE	520.2249	520.0674	519.0877	517.8528	518.6217	518.1847	517.7953	518.0917	518.6313
ANGLE	-0.2934	1.7470	1.7495	1.8436	1.6165	2.3135	2.1754	2.1723	2.9966
APPARENT MACH NO.	0.5612	0.5959	0.6088	0.6237	0.6044	0.4528	0.4359	0.4280	0.4063
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.							
STATIC PRESSURE	12.3759	12.2823	12.1336	11.9920	12.0584	12.3632	12.4561	12.5024	12.5293
WEDGE PRESSURE	12.4112	12.3232	12.1776	12.0367	12.0980	12.3780	12.4691	12.5149	12.5408
ANGLE	2.5558	1.3198	1.6206	1.7904	1.5273	4.5159	6.6445	7.4292	7.6999
APPARENT MACH NO.	0.5252	0.5540	0.5702	0.5756	0.5511	0.3879	0.3693	0.3643	0.3532
MEASURING PLANE									
MACH NO.	0.5293	0.5585	0.5750	0.5805	0.5556	0.3901	0.3714	0.3663	0.3551
ABSOLUTE VELOCITY	575.0741	605.0155	621.8389	627.3453	602.1060	429.1703	409.1168	403.6355	391.6144
SWIRL VELOCITY	-2.8616	18.0418	18.6885	20.0793	16.9841	17.2103	15.0491	14.6047	19.1793
WEIGHT FLOW	13.7363	10.0357	16.8229	26.6005	28.4368	16.0848	7.7469	3.8144	4.7659
AXIAL VELOCITY	558.7059	591.5312	611.8307	623.8139	601.8331	425.9834	396.1723	385.0182	366.3744
CALCULATING PLANE									
ANGLE	-0.2577	1.5349	1.5506	1.6949	1.4887	2.1302	1.9116	1.8670	2.5233
SWIRL VELOCITY	-2.9107	18.2939	18.9010	20.2442	16.9684	17.0216	14.6496	14.0769	18.2777
AXIAL VELOCITY	645.9317	681.6998	697.2193	683.1558	651.8903	456.6149	437.9187	430.8448	413.7530
MERIDIONAL VELOCITY	660.3620	691.3817	703.7305	685.3634	651.8941	458.9644	447.2105	446.0433	437.5936
ABSOLUTE VELOCITY	661.3812	692.6283	704.9848	686.6579	653.1070	460.2770	448.4638	447.2925	439.0235
MACH NO.	0.6143	0.6457	0.6582	0.6396	0.6060	0.4194	0.4083	0.4072	0.3994
WEIGHT FLOW	13.7492	10.0013	16.8316	26.5592	28.4399	16.0929	7.7527	3.8183	4.7753
ROTOR TANG. VELOC.	1402.8848	1363.9830	1324.1107	1223.1712	1081.6582	916.3310	795.0543	750.6147	705.0300
RELAT. TANG. VELOC.	1405.7955	1345.6889	1305.2096	1202.9269	1064.6897	899.3094	780.4047	736.5378	686.7520
RELATIVE FLOW ANGLE	64.8387	62.8072	61.6679	60.3280	58.5216	62.9626	60.1853	58.8013	57.4952
RELATIVE VELOCITY	1553.1705	1512.9067	1482.8375	1384.4692	1248.4106	1009.6562	899.4600	861.0706	814.3196
RELATIVE MACH NO.	1.4426	1.4104	1.3844	1.2897	1.1585	0.9200	0.8189	0.7839	0.7408
MCL INCIDENCE	2.6387	1.6072	1.1679	1.9280	2.4216	10.6626	11.7853	10.8013	9.5952
SURFACE INCIDENCE	0.4388	-0.3927	-0.9319	-0.4719	0.0216	7.9626	8.0853	7.0013	5.4952
RELATIVE TOTAL PRESS	41.8441	39.6701	37.7846	32.7725	27.7186	21.3758	19.3523	18.7595	18.0422
STATIC TEMPERATURE	483.6896	480.0104	477.6657	478.6488	483.1031	500.5583	501.0754	501.4487	502.5816
RELAT. TOTAL TEMP.	685.1761	671.1286	660.9212	638.0221	612.8809	585.3729	568.3358	563.1258	557.7999
STATIC PRESS.	11.6101	11.4690	11.3507	11.4409	11.6043	12.1664	12.2152	12.2366	12.2475
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	231	TIME	15H 0M 29S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0		
MASS AVERAGED PT	20.6360	(21.9113)							
MASS AVERAGED TT	608.3266	(598.8240)							
TOTAL WEIGHT FLOW	122.4958	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	131.0940								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.3003	22.4399	22.6208	22.6202	21.4712	20.8535	21.2138	21.0551	21.1378
STATIC PRESSURE	15.8215	15.4743	15.4348	15.2294	15.0105	14.8285	14.7792	14.6927	14.6438
WEDGE PRESSURE	17.4442	17.2133	17.2290	17.0710	16.6246	16.3383	16.3863	16.2819	16.2651
TOTAL TEMPERATURE	606.4843	599.9709	593.7207	603.9547	594.5226	601.8521	594.4319	591.4424	592.4320
ANGLE	31.8963	30.5652	29.5152	36.5210	39.4063	52.5385	48.9911	47.9108	48.5351
APPARENT MACH NO.	0.6031	0.6275	0.6361	0.6473	0.6159	0.6010	0.6189	0.6175	0.6236
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	16.3113	16.6114	16.8522	17.0502	16.9493	16.5009	16.3102	16.2749	16.1957
WEDGE PRESSURE	16.4279	16.7225	16.9610	17.1529	17.0254	16.5739	16.3971	16.3588	16.2839
ANGLE	39.1215	28.3318	24.7011	25.7850	31.2076	45.0909	47.4606	46.4973	45.0110
APPARENT MACH NO.	0.6757	0.6622	0.6550	0.6415	0.5855	0.5825	0.6181	0.6116	0.6222
MEASURING PLANE									
MACH NO.	0.6839	0.6700	0.6625	0.6488	0.5914	0.5883	0.6246	0.6180	0.6289
ABSOLUTE VELOCITY	788.0818	769.4213	758.3065	750.9744	683.2030	684.3339	719.4772	710.3901	722.2058
SWIRL VELOCITY	415.3094	390.3281	372.8217	446.6194	433.6928	542.2675	539.9477	523.0030	536.3467
WEIGHT FLOW	13.9731	9.4277	16.6919	24.9593	24.9968	14.9378	8.2382	3.7098	5.4580
AXIAL VELOCITY	667.3216	660.9275	658.5545	603.1115	527.8695	415.5212	469.5190	472.3924	473.9366
CALCULATING PLANE									
SWIRL VELOCITY	412.5650	387.9766	371.0931	445.5083	434.0939	546.9173	547.6980	532.1329	548.8684
AXIAL VELOCITY	626.1178	621.2583	620.8526	577.9021	510.9947	401.0270	446.8559	446.7285	446.4960
ABSOLUTE VELOCITY	757.3403	737.6136	727.0983	730.8801	671.3293	679.9619	713.0254	703.4351	718.9595
MERIDIONAL VELOCITY	634.0985	626.3352	624.2723	578.4895	511.1069	403.0196	455.5314	459.0404	463.3476
ANGLE	33.3404	31.9439	30.8272	37.5814	40.2934	53.6819	50.7275	49.9238	50.8100
MACH NO.	0.6549	0.6400	0.6330	0.6300	0.5804	0.5843	0.6186	0.6115	0.6258
WEIGHT FLOW	13.9850	9.4321	16.7012	24.9848	25.0057	14.9507	8.2529	3.7158	5.4671
ROTOR TANG. VELOC.	1365.7819	1331.8892	1299.0137	1212.1156	1085.6761	937.4308	840.2851	805.8809	774.3278
RELAT. TANG. VELOC.	953.2170	943.9125	927.9206	766.6070	651.5821	390.5136	292.5871	273.7480	225.4593
RELATIVE FLOW ANGLE	56.3675	56.4338	56.0689	52.9654	51.8892	44.0972	32.7126	30.8097	25.9470
RELATIVE VELOCITY	1144.8597	1132.8132	1118.3705	960.3351	828.1241	561.1824	541.4020	534.4680	515.2891
RELATIVE MACH NO.	0.9900	0.9829	0.9737	0.8278	0.7159	0.4822	0.4697	0.4646	0.4485
DEVIATION	0.3675	0.1338	0.1689	1.7654	4.8892	5.3972	4.8126	7.9097	7.3470
AIR TURNING ANGLE	8.4711	6.3733	5.5990	7.3626	6.6324	18.8653	27.4726	27.9915	31.5481
ROTOR REL. MACH NO.	1.0665	1.0506	1.0315	0.9786	0.8949	0.7903	0.7187	0.6926	0.6690
IDEAL PRESS. RATIO	0.9568	0.9628	0.9712	0.9877	1.0041	1.0195	1.0383	1.0451	1.0545
ROTOR PRESS. RATIO	1.4888	1.4781	1.4898	1.5012	1.4436	1.5185	1.5482	1.5349	1.5461
ROTOR TEMP. RATIO	1.1658	1.1536	1.1437	1.1662	1.1463	1.1614	1.1480	1.1415	1.1422
ADIABATIC EFFY.	0.7243	0.7671	0.8374	0.7384	0.7542	0.7833	0.8970	0.9182	0.9300
POLYTR. EFFICIENCY	0.7393	0.7795	0.8463	0.7528	0.7665	0.7956	0.9031	0.9229	0.9341
TOTAL LOSS COEFF.	0.1778	0.1459	0.0998	0.1944	0.1879	0.2460	0.1333	0.1100	0.1043
SHOCK LOSS COEFF.	0.0134	0.0199	0.0274	0.0618	0.0361	0.0012	-0.0048	-0.0069	-0.0095
PROFILE LOSS COEFF.	0.1644	0.1260	0.0724	0.1326	0.1518	0.2448	0.1382	0.1170	0.1139
TOTAL LOSS PARAM.	0.0300	0.0243	0.0166	0.0345	0.0335	0.0494	0.0301	0.0247	0.0240
PROFILE LOSS PARAM.	0.0277	0.0210	0.0121	0.0235	0.0270	0.0491	0.0312	0.0263	0.0262
ROTOR DIFFUS. FACT.	0.3366	0.3214	0.3143	0.3966	0.4329	0.5944	0.5634	0.5435	0.5442
STATIC PRESS.	16.7231	17.0376	17.2732	17.3167	17.0926	16.5519	16.3898	16.3598	16.2359
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6440	1.7300	1.7880	1.8580	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	231	TIME	15H	0M	29S	RADIAL INLET DISTORTION	STATOR ANGLE	3
MASS AVERAGED PT	20.6366	(21.9119)							
MASS AVERAGED TT	608.3315	(598.8288)							
TOTAL WEIGHT FLOW	122.3667	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	130.9559								
MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.3003	22.4399	22.6208	22.6202	21.4712	20.8535	21.2138	21.0551	21.1377
STATIC PRESSURE	16.3113	16.6114	16.8522	17.0502	16.9493	16.5009	16.3101	16.2749	16.1957
WEDGE PRESSURE	16.4279	16.7225	16.9610	17.1529	17.0254	16.5739	16.3971	16.3588	16.2839
TOTAL TEMPERATURE	606.4842	599.9708	593.7205	603.9546	594.5225	601.8519	594.4318	591.4422	592.4319
ANGLE	31.8963	30.5652	29.5152	36.5210	39.4063	52.5384	48.9911	47.9108	48.5351
MACH NO.	0.6839	0.6700	0.6625	0.6488	0.5914	0.5883	0.6246	0.6180	0.6289
ABSOLUTE VELOCITY	788.0820	769.4211	758.3065	750.9745	683.2028	684.3337	719.4772	710.3900	722.2059
SWIRL VELOCITY	415.3094	390.3279	372.8217	446.6195	433.6926	542.2674	539.9477	523.0028	536.3468
AXIAL VELOCITY	667.3218	660.9275	658.5546	603.1115	527.8695	415.5210	469.5191	472.3922	473.9366
WEIGHT FLOW	13.9732	9.4277	16.6919	24.9593	24.9968	14.9378	8.2382	3.7098	5.4580
CALCULATING PLANE									
ANGLE	32.0908	30.5675	29.1365	35.6788	37.9233	51.0071	47.6672	46.7503	46.6509
MACH NO.	0.6808	0.6708	0.6729	0.6648	0.6122	0.5965	0.6230	0.6188	0.6355
SWIRL VELOCITY	416.8499	391.5143	374.2746	447.7360	433.6926	538.2634	533.0332	516.0465	527.6530
AXIAL VELOCITY	663.7641	661.8829	670.4414	622.5853	555.6448	434.7767	484.5904	484.4523	497.0989
ABSOLUTE VELOCITY	784.8612	770.2813	769.1756	768.0105	705.6470	693.2518	723.0418	711.2157	729.2408
WEIGHT FLOW	13.9824	9.4251	16.7078	24.9701	25.0155	14.9632	8.1805	3.6564	5.4654
MERIDIONAL VELOCITY	664.0230	662.3713	670.9820	623.0036	555.6482	435.8923	487.5347	488.4111	502.3607
STATIC TEMPERATURE	555.1877	550.5612	544.5300	555.0549	553.1608	561.9789	551.0746	549.4616	548.2524
STATIC PRESS.	16.3548	16.5997	16.7033	16.8210	16.6740	16.3964	16.2630	16.2648	16.1081
MCL INCIDENCE	3.1033	1.3101	-0.4599	4.7328	4.2735	16.9279	13.5658	12.6223	12.5347
SUC SUR INCIDENCE	-3.3191	-5.2124	-7.0234	-1.5111	-1.8366	10.6971	7.1072	6.0803	5.9009
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 231 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.710 HUB STATIC PRES= 17.710

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	6.9000	-3.3000	784.9000	416.8000	555.2000	16.3500	22.3000
.100	13.1600	-7.5000	1.0600	6.7000	-5.2000	770.2000	391.5000	550.6000	16.6000	22.4400
.150	12.8300	-7.6000	1.0900	3.9700	-7.0000	769.2000	374.3000	544.5000	16.7000	22.6200
.282	12.0000	-8.4000	1.1700	4.9400	-1.5000	768.0000	447.7000	555.1000	16.8200	22.6200
.470	10.8200	-10.1000	1.3000	2.6800	-1.8000	705.6000	433.7000	553.2000	16.6700	21.4700
.689	9.4800	-9.8000	1.4700	.9200	10.7000	693.3000	538.3000	561.9000	16.4000	20.8500
.850	8.5900	-9.2000	1.6200	-.0500	7.1000	723.0000	533.0000	551.1000	16.2700	21.2100
.900	8.2700	-9.1000	1.6700	.2300	6.0800	711.2000	516.0000	549.5000	16.2700	21.0600
.937	8.0200	-9.0000	1.7300	.5500	5.9000	729.2000	527.6000	548.3000	16.1100	21.1400

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	597.3000	21.2000
.1000	13.1500	595.9000	21.9700
.1500	12.8400	589.9000	22.2900
.2822	11.9700	597.1000	22.1900
.4702	10.8300	590.6000	20.9200
.6887	9.5700	593.4000	20.1100
.8500	8.4700	590.1000	20.2000
.9000	8.4000	589.0000	20.1100
.9372	8.1200	590.1000	19.5900

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4474	.1649	.0882	1.0521	11.3000	.5135	599.5648	595.2223	72.0298
.1000	.3441	.0805	.0377	1.0580	11.2000	.5636	653.9149	649.4491	76.2927
.1500	.3225	.0557	.0255	1.1677	8.5700	.5828	671.3974	669.7863	46.4836
.2822	.3462	.0741	.0316	1.7323	10.3400	.5769	669.0598	666.5745	57.6144
.4702	.4078	.1146	.0440	.9700	9.7800	.4937	574.2760	573.6479	26.8519
.6887	.5316	.1663	.0566	1.2042	7.7200	.4300	504.2077	504.1427	8.0957
.8500	.5193	.2645	.0631	.7870	6.1500	.4376	511.3987	511.3985	-.4463
.9000	.5084	.1983	.0594	.7319	6.3300	.4300	502.3349	502.3309	2.0165
.9372	.5906	.3082	.0891	.6060	6.5500	.3824	448.8265	448.8059	4.3084

PCT IMMERS	EX STAT PRES
.0500	17.7100
.1000	17.7100
.1500	17.7100
.2822	17.7100
.4702	17.7100
.6887	17.7100
.8500	17.7100
.9000	17.7100
.9372	17.7100

ROTOR INLET TRAVERSE PLANE READING NUMBER 223 TIME 13H 20M 52S RADIAL INLET DISTORTION STATOR ANGLE 3

ROTOR SPEED 12847.8484
 ACTUAL ORIFICE FLOW 136.6199
 THETA 1.0118
 DELTA 0.9187
 MASS AVERAGED PT 13.5026 (14.6960)
 MASS AVERAGED TT 524.8513 (518.6882)
 TOTAL WEIGHT FLOW 143.8744 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 157.5177
 EQUIV. SPEED 12772.1948
 PERCENT SPEED 99.9311

DISTORTION INDEX 0.135

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.
 IMMERSION 0.4000 0.8400 1.2900 2.3600 3.8700 5.6100 6.9300 7.4300 7.9400
 TOTAL PRESSURE 15.1807 15.3385 15.2859 15.1189 15.2722 13.2577 13.2833 13.3494 13.2613
 STATIC PRESSURE 10.6088 10.2658 10.0214 9.6080 9.3021 10.4681 10.6104 10.7150 10.9178
 WEDGE PRESSURE 11.3765 11.2403 11.0907 10.8405 10.7887 10.7430 10.8573 10.9514 11.0940
 TOTAL TEMPERATURE 520.0636 518.8127 517.2635 518.1331 520.0052 517.1840 519.0704 518.7164 518.9131
 ANGLE -0.2658 1.5045 1.6882 1.8549 1.9442 1.9717 1.5575 1.8302 1.8894
 APPARENT MACH NO. 0.6553 0.6813 0.6927 0.7059 0.7223 0.5564 0.5445 0.5393 0.5113

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.
 STATIC PRESSURE 11.6112 11.5645 11.4451 11.2195 10.9613 10.9146 11.1161 11.2147 11.3039
 WEDGE PRESSURE 11.6666 11.6245 11.5068 11.2829 11.0346 10.9466 11.1447 11.2426 11.3287
 ANGLE 2.3921 2.2477 2.1308 2.0294 2.5488 2.6619 5.5723 6.6357 7.3234
 APPARENT MACH NO. 0.6249 0.6419 0.6500 0.6602 0.6974 0.5302 0.5070 0.5014 0.4796

MEASURING PLANE
 MACH NO. 0.6307 0.6481 0.6563 0.6668 0.7049 0.5344 0.5108 0.5051 0.4830
 ABSOLUTE VELOCITY 677.8164 695.0370 703.1872 713.5015 750.5927 580.3454 556.0389 550.1355 527.2121
 SWIRL VELOCITY -3.0553 17.8501 20.3931 22.9770 25.4640 19.8355 14.6453 16.7720 16.2629
 WEIGHT FLOW 15.1819 10.8415 17.9024 28.2190 32.5667 19.2792 9.3965 4.6640 5.7794
 AXIAL VELOCITY 658.5253 679.6246 691.8908 709.4809 750.1195 576.1627 538.6236 524.8609 493.5896

CALCULATING PLANE
 ANGLE -0.2236 1.2552 1.4456 1.6572 1.7105 1.7887 1.3428 1.5422 1.5635
 SWIRL VELOCITY -3.1077 18.0995 20.6250 23.1658 25.4404 19.6180 14.2565 16.1657 15.5175
 AXIAL VELOCITY 795.2296 825.0136 816.2934 799.6937 850.8741 627.2005 607.1785 599.4330 567.5148
 MERIDONAL VELOCITY 812.9955 836.7311 823.9164 802.2780 850.8791 630.4277 620.0617 620.5786 600.2150
 ABSOLUTE VELOCITY 814.0163 837.9345 825.1787 803.6097 852.2517 631.7330 621.2399 621.8177 601.4664
 MACH NO. 0.7712 0.7967 0.7831 0.7602 0.8121 0.5848 0.5744 0.5750 0.5550
 WEIGHT FLOW 15.1858 10.8427 17.9035 28.2252 32.5797 19.2844 9.4067 4.6661 5.7800
 ROTOR TANG. VELOC. 1557.2066 1515.6200 1472.1279 1357.1461 1198.8602 1017.9560 881.2925 832.5538 782.2517
 RELAT. TANG. VELOC. 1560.3139 1497.5204 1451.5029 1333.9800 1173.4195 998.3379 867.0359 816.3880 766.7342
 RELATIVE FLOW ANGLE 62.4786 60.8062 60.4196 58.9768 54.0532 57.7287 54.4297 52.7598 51.9456
 RELATIVE VELOCITY 1759.4151 1715.4256 1669.0410 1556.6478 1449.4507 1180.7273 1065.9394 1025.4788 973.7242
 RELATIVE MACH NO. 1.6669 1.6310 1.5839 1.4726 1.3812 1.0930 0.9857 0.9483 0.8985
 MCL INCIDENCE 0.2786 -0.3937 -0.0803 0.5768 -2.0467 5.4287 6.0297 4.7598 4.0456
 SURFACE INCIDENCE -1.9213 -2.3937 -2.1803 -1.8231 -4.4467 2.7287 2.3297 0.9598 -0.0543
 RELATIVE TOTAL PRESS 54.5415 51.4848 47.5112 39.5971 33.9786 23.1089 20.6983 20.0107 19.0910
 STATIC TEMPERATURE 464.7331 460.3222 460.7073 464.4058 459.3616 484.0414 486.9044 486.5121 488.7712
 RELAT. TOTAL TEMP. 723.2175 705.4595 692.0830 666.0029 634.7723 599.8170 581.6030 574.0990 567.7699
 STATIC PRESS. 10.2424 10.0941 10.1953 10.3090 9.8974 10.5163 10.6200 10.6683 10.7567
 RADIUS RATIO 0.9736 0.9464 0.9179 0.8469 0.7495 0.6347 0.5505 0.5198 0.4885
 STREAMLINE SLOPE -12.0000 -9.6000 -7.8000 -4.6000 0.2000 5.8000 11.7000 15.0000 19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE READING NUMBER 223 TIME 13H 20M 52S RADIAL INLET DISTORTION STATOR ANGLE 3.0

MASS AVERAGED PT 19.5305 (21.2566)

MASS AVERAGED TT 598.6302 (591.6007)

TOTAL WEIGHT FLOW 140.9438 (PROBE INTEGRATION)

CORR. TOTAL FLOW 154.3092

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.

IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.7724	20.9072	21.0750	20.5012	22.1754	21.3937	21.3176	21.3328	20.9755
STATIC PRESSURE	13.3102	13.1566	13.0135	13.0635	13.8016	13.5478	13.5250	13.5095	13.4952
WEDGE PRESSURE	15.3887	15.2832	15.1943	15.1254	16.0799	15.7116	15.6783	15.6671	15.5864
TOTAL TEMPERATURE	577.8483	576.7095	577.7149	601.3368	592.0089	600.8902	598.3494	598.8539	598.2750
ANGLE	18.4247	19.1484	20.2241	31.2767	29.2124	37.7369	40.3682	40.9311	43.7492
APPARENT MACH NO.	0.6690	0.6844	0.7000	0.6739	0.6936	0.6792	0.6775	0.6792	0.6656

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.

STATIC PRESSURE	15.5903	14.3943	14.4592	14.9248	15.0853	15.2607	14.9414	14.8001	14.6523
WEDGE PRESSURE	15.6866	14.5337	14.6016	15.0343	15.2397	15.3852	15.0744	14.9385	14.7849
ANGLE	14.2530	13.6836	13.4714	16.9089	27.1602	27.2125	33.2182	33.9050	34.1422
APPARENT MACH NO.	0.6464	0.7400	0.7435	0.6809	0.7522	0.7030	0.7216	0.7322	0.7251

MEASURING PLANE

MACH NO.	0.6537	0.7502	0.7539	0.6892	0.7629	0.7120	0.7312	0.7422	0.7348
ABSOLUTE VELOCITY	738.3131	837.1102	842.8073	791.9479	859.9689	816.2192	832.8721	844.7952	836.6767
SWIRL VELOCITY	232.5813	273.7951	290.6625	410.8466	419.6887	498.1123	535.4751	547.9130	572.4144
WEIGHT FLOW	14.2296	10.1074	17.6164	24.3007	32.4429	21.5592	10.1073	4.4952	6.1932
AXIAL VELOCITY	698.1616	788.5205	788.9757	676.3457	750.5639	643.6283	629.8913	631.8364	597.9708

CALCULATING PLANE

SWIRL VELOCITY	231.0443	272.1457	289.3147	409.8245	420.0770	502.3834	543.1614	557.4776	585.7782
AXIAL VELOCITY	653.2599	730.5843	732.6731	644.5294	718.8248	615.2538	584.3224	584.5217	560.5577
ABSOLUTE VELOCITY	701.7191	786.1635	792.4131	765.1074	833.5640	797.4557	806.8770	820.2236	826.2737
MERIDIONAL VELOCITY	661.5867	736.5546	736.7089	645.0951	718.9825	618.3110	595.6667	600.6312	581.7140
ANGLE	19.4503	20.4051	21.5213	32.4104	30.2674	39.1880	42.8608	43.5949	46.2098
MACH NO.	0.6188	0.6999	0.7042	0.6638	0.7369	0.6940	0.7061	0.7184	0.7247
WEIGHT FLOW	14.2409	10.1146	17.6228	24.3019	32.4623	21.5531	9.9921	4.4555	6.2003
ROTOR TANG. VELOC.	1516.0223	1479.9581	1444.2256	1344.8794	1203.3127	1041.3959	931.4291	893.8529	859.1398
RELAT. TANG. VELOC.	1284.9778	1207.8124	1154.9111	935.0548	783.2356	539.0125	388.2677	336.3754	273.3617
RELATIVE FLOW ANGLE	62.7580	58.6243	57.4667	55.3983	47.4493	41.0804	33.0972	29.2505	25.1700
RELATIVE VELOCITY	1445.2903	1414.6810	1369.8754	1135.9908	1063.1995	820.2698	711.0346	688.4084	642.7423
RELATIVE MACH NO.	1.2745	1.2596	1.2175	0.9855	0.9399	0.7139	0.6222	0.6029	0.5637
DEVIATION	6.7579	2.3243	1.5667	4.1983	0.4493	2.3804	5.1972	6.3505	6.5700
AIR TURNING ANGLE	-0.2793	2.1818	2.9529	3.5784	6.6039	16.6482	21.3324	23.5093	26.7755
ROTOR REL. MACH NO.	1.1518	1.1371	1.1186	1.0630	0.9758	0.8665	0.7885	0.7613	0.7360
IDEAL PRESS. RATIO	0.9498	0.9565	0.9662	0.9855	1.0049	1.0235	1.0463	1.0547	1.0662
ROTOR PRESS. RATIO	1.3683	1.3630	1.3787	1.3560	1.4520	1.6136	1.6048	1.5980	1.5817
ROTOR TEMP. RATIO	1.1111	1.1115	1.1168	1.1605	1.1384	1.1618	1.1527	1.1544	1.1529
ADIABATIC EFFY.	0.8425	0.8281	0.8212	0.5648	0.8106	0.9031	0.9454	0.9256	0.9132
POLYTR. EFFICIENCY	0.8494	0.8354	0.8292	0.5830	0.8203	0.9094	0.9489	0.9304	0.9186
TOTAL LOSS COEFF.	0.0652	0.0729	0.0814	0.2691	0.1163	0.0902	0.0567	0.0826	0.1039
SHOCK LOSS COEFF.	0.0153	0.0145	0.0134	0.0116	0.0285	0.0217	0.0062	0.0029	-0.0000
PROFILE LOSS COEFF.	0.0498	0.0584	0.0679	0.2574	0.0878	0.0684	0.0504	0.0797	0.1040
TOTAL LOSS PARAM.	0.0091	0.0114	0.0131	0.0451	0.0227	0.0190	0.0127	0.0188	0.0240
PROFILE LOSS PARAM.	0.0069	0.0091	0.0109	0.0431	0.0171	0.0144	0.0113	0.0182	0.0240
ROTOR DIFFUS. FACT.	0.02123	0.2178	0.2271	0.3440	0.3457	0.4230	0.4705	0.4729	0.4979
STATIC PRESS.	16.0457	15.0746	15.1375	15.2579	15.4600	15.5081	15.2876	15.1297	14.7896
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SLOPILITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 223 TIME 13H 20M 52S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 19.5310 (21.2571)
 MASS AVERAGED TT 598.6592 (591.6294)
 TOTAL WEIGHT FLOW 140.9245 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 154.2881

MEASURING PLANE

IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	20.7724	20.9072	21.0750	20.5012	22.1754	21.3937	21.3176	21.3328	20.9755
STATIC PRESSURE	15.5903	14.3943	14.4592	14.9248	15.0853	15.2607	14.9414	14.8001	14.6523
WEDGE PRESSURE	15.6866	14.5337	14.6016	15.0343	15.2397	15.3852	15.0744	14.9385	14.7849
TOTAL TEMPERATURE	577.8481	576.7093	577.7148	601.3367	592.0088	600.8901	598.3492	598.8538	598.2749
ANGLE	18.4247	19.1484	20.2241	31.2767	29.2124	37.7369	40.3682	40.9311	43.7492
MACH NO.	0.6537	0.7502	0.7539	0.6892	0.7629	0.7120	0.7312	0.7422	0.7348
ABSOLUTE VELOCITY	738.3124	837.1101	842.8070	791.9475	859.9688	816.2191	832.8717	844.7947	836.6766
SWIRL VELOCITY	232.5810	273.7950	290.6624	410.8462	419.6886	498.1122	535.4747	547.9125	572.4143
AXIAL VELOCITY	698.1609	788.5205	788.9755	676.3453	750.5640	643.6283	629.8911	631.8361	597.9707
WEIGHT FLOW	14.2296	10.1074	17.6164	24.3007	32.4429	21.5592	10.1073	4.4952	6.1932

CALCULATING PLANE

ANGLE	18.8434	19.2989	19.8489	30.3930	27.3282	35.8637	38.5731	39.1084	41.7418
MACH NO.	0.6391	0.7446	0.7711	0.7108	0.8172	0.7402	0.7489	0.7583	0.7487
SWIRL VELOCITY	233.4437	274.6272	291.7950	411.8733	419.6886	494.4341	528.6178	540.6247	563.1358
AXIAL VELOCITY	683.0437	783.2658	807.3340	701.2240	811.1599	682.9516	661.8345	664.0484	630.1304
ABSOLUTE VELOCITY	723.0262	831.4995	859.9970	814.5019	914.1874	845.3710	850.9598	861.2864	850.8327
WEIGHT FLOW	14.1008	10.0633	17.6239	24.3132	32.4462	21.5791	10.1120	4.4908	6.1947
MERIDIONAL VELOCITY	683.3102	783.8438	807.9849	701.6953	811.1649	684.7038	665.8556	669.4750	636.8003
STATIC TEMPERATURE	534.2725	519.2141	516.3967	546.2937	522.3860	541.7032	538.1508	537.2292	538.1124
STATIC PRESS.	15.7822	14.4702	14.2236	14.6403	14.3013	14.8709	14.6975	14.5765	14.4643
MCL INCIDENCE	-10.1491	-9.9667	-9.7550	-0.5564	-6.3215	1.7457	4.4175	4.9179	7.5736
SUC SUR INCIDENCE	-16.5665	-16.4810	-16.3110	-6.7969	-12.4317	-4.4462	-1.9868	-1.5615	0.9918
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 223 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.330 HUB STATIC PRES= 15.580

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.5600	-16.6000	723.0000	233.4000	534.3000	15.7800	20.7700
.100	13.1600	-7.5000	1.0600	5.2000	-16.5000	831.5000	274.6000	519.2000	14.4700	20.9100
.150	12.8300	-7.6000	1.0900	3.6600	-16.3000	860.0000	291.8000	516.4000	14.2200	21.0800
.282	12.0000	-8.4000	1.1700	1.4800	-6.8000	814.5000	411.9000	546.3000	14.6400	20.5000
.470	10.8200	-10.1000	1.3000	1.1200	-12.4000	914.2000	419.7000	522.4000	14.3000	22.1800
.689	9.4800	-9.8000	1.4700	1.1000	-4.4000	845.4000	494.4000	541.7000	14.8700	21.3900
.850	8.5900	-9.2000	1.6200	1.0400	-2.0000	851.0000	528.6000	538.2000	14.6900	21.3200
.900	8.2700	-9.1000	1.6700	1.3600	-1.5600	861.3000	540.6000	537.2000	14.5700	21.3300
.937	8.0200	-9.0000	1.7300	1.8700	.9900	850.8000	563.1400	538.1000	14.4600	20.9800

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	579.2300	18.8700
.1000	13.1500	578.6000	20.2100
.1500	12.8400	576.8000	20.5700
.2822	11.9700	586.0000	20.0500
.4702	10.8300	587.5000	21.2200
.6887	9.5700	594.4000	20.7200
.8500	8.6700	595.7000	20.7500
.9000	8.4000	595.0000	20.3000
.9372	8.1200	596.9000	19.3400

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2478	.3808	.1825	-.3700	8.9600	.5517	631.9529	629.9525	50.2422
.1000	.2476	.1087	.0511	.5693	9.7000	.6388	724.2329	721.2523	65.6391
.1500	.2651	.0743	.0340	.8124	8.2600	.6589	744.0304	742.5129	47.4956
.2822	.3296	.0768	.0328	-2.8534	6.8800	.6252	714.4439	714.2856	18.4527
.4702	.3148	.1218	.0468	.8259	8.2200	.6885	781.8358	781.6844	15.2821
.6887	.3011	.1028	.0349	1.1938	7.9000	.6570	753.2963	753.1575	14.4614
.8500	.3011	.0860	.0265	.8511	7.2400	.6558	752.8937	752.7697	13.6653
.9000	.3404	.1524	.0456	.7158	7.4600	.6285	723.4934	723.2896	17.1716
.9372	.4111	.2515	.0727	.5057	7.8700	.5655	656.5285	656.1788	21.4237

PCT IMMERS	EX STAT PRES
.0500	15.3439
.1000	15.3574
.1500	15.3703
.2822	15.4068
.4702	15.4545
.6887	15.5073
.8500	15.5450
.9000	15.5563
.9372	15.5681

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

HUB RADIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12850.4054	ORIFICE ACTUAL FLOW = 137.2722	AMBIENT PRESSURE = 14.7446
EQUIVALENT SPEED (RPM) = 12801.1456	BELLMOUTH ACTUAL FLOW = 135.7268	AMBIENT TEMPERATURE = 523.6881
PERCENT EQUIVALENT SPEED = 100.1576	INLET FLOW (STA 5) = 132.1253	INLET TOTAL PRESSURE(MA) = 13.6595
ORF TO BELL FLOW RATIO = 1.0113	ORIFICE EQUIVALENT FLOW = 148.2568	INLET TEMPERATURE = 522.6878
ORF TO INLET FLOW RATIO = 1.0389	BELLMOUTH EQUIVALENT FLOW = 146.5877	BELLMOUTH TOTAL PRESSURE = 14.5131
ORF TO EXIT FLOW RATIO = 0.9685	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0588
EQVT. FLOW PER ANN. AREA = 41.8450	EXIT FLOW (STA 12) = 141.7360	EXIT TOTAL PRESSURE (MA) = 20.7244
EQVT. FLOW PER FRON. AREA = 32.9094	MIXING DUCT TEMPERATURE = 607.2871	EXIT TEMPERATURE (STA 12) = 606.5682
PERCENT DESIGN EQVT. FLOW = 100.2338	INNER ORIFICE FLOW = 50.4302	STAGE PRESSURE RATIO(MA) = 1.5172
DISTORTION INDEX (RADIAL) = 0.1577	OUTER ORIFICE FLOW = 86.8419	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7454

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1604	0.7865	0.7986	3916.71
MIXING DUCT	0.1618	0.7798	0.7923	3950.42
TORQUEMETER	-0.0061	*****	*****	-149.42

STAGE ELEMENT PERFORMANCE

IMMERSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.4681	1.5477	1.5785	1.5005	1.5967	1.4720	1.4309	1.4069	1.3706
TEMPERATURE RISE	0.1619	0.1561	0.1479	0.1638	0.1615	0.1661	0.1601	0.1593	0.1638
ADIABATIC EFFICIENCY	0.7145	0.8496	0.9396	0.7484	0.8835	0.7011	0.6718	0.6415	0.5740
POLYTROPIC EFFICIENCY	0.7295	0.8586	0.9434	0.7623	0.8909	0.7169	0.6879	0.6582	0.5924
TOTAL PRESSURE	20.0537	21.1411	21.5623	20.4964	21.8106	20.1070	19.5463	19.2177	18.7218
TOTAL TEMPERATURE	607.31	604.28	600.04	608.35	607.13	609.55	606.38	605.99	608.31
STATIC PRESSURE	16.7216	16.7214	16.7211	16.7205	16.7195	16.7186	16.7179	16.7177	16.7175

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 154.4211	PRESSURE RATIO = 10.8747	TURBINE GAS FLOW = 0.5015
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0197	TURBINE AIR FLOW = 25.3311
INLET TOTAL TEMPERATURE = 1396.8371	SPECIFIC HEAT = 0.2655	TURBINE TOTAL FLOW = 25.8326
EXIT TOTAL TEMPERATURE = 943.6845	TURBINE EFFICIENCY = 0.7054	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 344 404 405 408 410 423 431 433 437 438 541

PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071	
128	14.22(15.30)	129	14.30(15.39)
130	14.43(15.53)	131	14.46(15.56)
132	14.46(15.56)	133	14.49(15.59)
134	14.22(15.30)	135	14.24(15.33)
136	12.88(13.86)	137	12.97(13.95)
138	12.21(13.14)	139	12.20(13.12)
140	12.22(13.15)	141	12.26(13.19)
142	12.18(13.10)	143	12.20(13.13)
144	12.12(13.04)	145	12.36(13.29)

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 20.05(21.57)		IMMERSION B - AVG 21.14(22.74)		IMMERSION C - AVG 21.56(23.19)	
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352
204	21.03(22.63)	215	20.15(21.68)	226	20.94(22.53)
205	19.05(20.49)	216	18.16(19.54)	227	19.96(21.47)
206	18.83(20.26)	217	18.21(19.59)	228	20.14(21.67)
207	19.92(21.43)	218	19.54(21.02)	229	21.03(22.62)
208	20.36(21.90)	219	20.38(21.92)	230	21.37(22.99)
209	20.42(21.97)	220	20.46(22.01)	231	21.39(23.02)
210	20.51(22.06)	221	20.11(21.63)	232	21.22(22.83)
211	20.63(22.20)	222	19.82(21.32)	233	21.30(22.91)
212	20.70(22.27)	223	19.94(21.45)	234	21.36(22.98)
213	20.87(22.45)	224	20.15(21.68)	235	21.21(22.82)
214	20.91(22.50)	225	20.20(21.74)	236	21.36(22.98)

IMMERSION D - AVG 20.49(22.05)		IMMERSION E - AVG 21.81(23.46)		IMMERSION F - AVG 20.10(21.63)	
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248
270	20.69(22.26)	281	20.38(21.92)	292	21.67(23.32)
271	19.96(21.47)	282	19.93(21.44)	293	20.43(21.98)
272	20.68(22.25)	283	20.70(22.27)	294	21.90(23.56)
273	20.68(22.24)	284	20.71(22.28)	295	21.99(23.66)
274	20.61(22.18)	285	20.59(22.15)	296	21.93(23.60)
275	20.58(22.15)	286	20.49(22.05)	297	21.90(23.56)
276	20.56(22.12)	287	20.39(21.94)	298	21.86(23.52)
277	20.55(22.11)	288	20.35(21.89)	299	21.82(23.48)
278	20.58(22.14)	289	20.33(21.87)	300	21.82(23.48)
279	20.61(22.17)	290	20.33(21.87)	301	21.80(23.46)
280	20.70(22.27)	291	20.42(21.97)	302	21.81(23.47)

IMMERSION G - AVG 19.54(21.02)		IMMERSION H - AVG 19.21(20.67)		IMMERSION J - AVG 18.72(20.14)	
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216
336	14.98(16.12)	347	20.14(21.66)	358	19.82(21.33)
337	19.11(20.56)	348	19.08(20.53)	359	19.81(21.31)
338	18.04(19.41)	349	17.96(19.32)	360	19.69(21.19)
339	18.51(19.91)	350	18.86(20.29)	361	18.63(20.05)
340	19.30(20.77)	351	19.75(21.25)	362	17.90(19.26)
341	19.72(21.21)	352	19.92(21.43)	363	18.13(19.50)
342	19.87(21.38)	353	19.95(21.47)	364	18.67(20.09)
343	20.05(21.57)	354	20.03(21.55)	365	19.31(20.77)
344	14.95(16.08)	355	20.03(21.55)	366	19.66(21.16)
345	20.16(21.69)	356	20.05(21.57)	367	19.78(21.28)
346	20.21(21.74)	357	20.14(21.66)	368	19.88(21.38)

POINT 7 READING 220

***** TRANSONIC FAN RIG *****

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TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG	607.31(602.66)	AVG	604.28(599.66)	AVG	600.04(595.45)	AVG	608.35(603.69)	AVG	607.13(602.48)
402	612.98(608.29)	409	608.69(604.04)	416	605.12(600.49)	423	609.36(604.70)	430	611.03(606.36)
403	602.77(598.16)	410	609.25(604.59)	417	600.02(595.43)	424	604.17(599.55)	431	609.31(604.65)
404	609.25(604.59)	411	603.72(599.10)	418	598.73(594.15)	425	607.36(602.71)	432	605.85(601.21)
405	609.36(604.70)	412	602.04(597.43)	419	596.70(592.14)	426	607.58(602.93)	433	609.25(604.59)
406	608.19(603.54)	413	603.50(598.88)	420	599.63(595.04)	427	608.47(603.82)	434	604.73(600.10)
407	610.59(605.92)	414	602.71(598.10)	421	599.68(595.10)	428	610.87(606.19)	435	606.52(601.88)
408	609.31(604.65)	415	604.34(599.71)	422	602.04(597.43)	429	615.59(610.88)	436	609.59(604.92)
IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J			
AVG	609.55(604.89)	AVG	606.38(601.74)	AVG	605.99(601.35)	AVG	608.31(603.66)		
437	609.42(604.76)	444	608.75(604.09)	451	607.36(602.71)	458	610.48(605.81)		
438	609.31(604.65)	445	608.64(603.98)	452	608.30(603.65)	459	610.76(606.08)		
439	609.81(605.14)	446	604.06(599.43)	453	602.71(598.10)	460	605.57(600.93)		
440	608.92(604.26)	447	603.67(599.05)	454	601.54(596.93)	461	604.95(600.32)		
441	609.03(604.37)	448	606.13(601.49)	455	605.96(601.32)	462	607.08(602.43)		
442	609.53(604.87)	449	605.62(600.99)	456	606.07(601.43)	463	607.24(602.60)		
443	609.98(605.31)	450	609.08(604.42)	457	606.35(601.71)	464	609.20(604.53)		

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE				
475	606.24(601.60)	477	605.51(600.88)	479	606.96(602.32)	481	606.57(601.93)	607.28(602.64)
INNERWALL				AVERAGE				
485	609.03(604.37)	488	609.70(605.03)	491	608.08(603.43)			606.32(601.68)
								AVERAGE 608.94(604.28)

FLOWS

OUTER				AVG			
PRESSURE (PSIA)	493	15.82	494	15.88	15.85		
DELTA PRESSURE (PSI)	497	1.39	498	1.44	1.41		
TEMPERATURE (R)	500	605.01	501	605.57	605.29		
INNER				AVG			
PRESSURE (PSIA)	503	15.77	504	15.79	15.78		
DELTA PRESSURE (PSI)	507	2.38	508	2.37	2.38		
TEMPERATURE (R)	510	605.79	511	606.24	606.01		

TURBINE FLOWS

GAS		AIR	
PRESSURE (PSIA)	622 320.55	619	242.06
DELTA PRESSURE (PSI)	623 4.34	620	2.37
TEMPERATURE (R)	624 565.29	621	525.73

REFERENCE PRESSURES

512	-2.496	513	8.010	514	8.022	515	8.005	516	8.035	517	7.991	518	4.019	519	7.998
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REFERENCE TEMPERATURES - ICE BATH

520	491.382	521	491.321	522	491.321	523	491.137	524	491.137	525	491.076
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ROTOR INLET TRAVERSE PLANE		READING NUMBER	220	TIME	12H 38M 26S	RADIAL INLET DISTORTION			STATOR ANGLE	3
ROTOR SPEED	12821.0688					DISTORTION INDEX			0.131	
ACTUAL ORIFICE FLOW	135.8858									
THETA	1.0061									
DELTA	0.9229									
MASS AVERAGED PT	13.5635	(14.6960)								
MASS AVERAGED TT	521.8670	(518.6881)								
TOTAL WEIGHT FLOW	143.7329	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	156.2097									
EQUIV. SPEED	12781.9645									
PERCENT SPEED	100.0075									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	15.1516	15.3185	15.2757	15.1078	15.2272	13.3095	13.3433	13.3860	13.3370	
STATIC PRESSURE	10.6383	10.3147	10.0515	9.6475	9.4075	10.5526	10.7148	10.8695	11.0933	
WEDGE PRESSURE	11.3835	11.2598	11.1013	10.8518	10.8090	10.8182	10.9500	11.0789	11.2480	
TOTAL TEMPERATURE	520.6103	518.8369	518.1411	517.9138	519.2156	518.5616	517.7359	517.8759	518.4725	
ANGLE	-0.1794	1.5713	1.7477	2.0317	2.0971	1.9410	1.7422	1.9551	2.0657	
APPARENT MACH NO.	0.6523	0.6778	0.6908	0.7039	0.7170	0.5521	0.5389	0.5268	0.4993	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.6240	11.5820	11.4360	11.2291	10.9953	11.0378	11.2868	11.3937	11.4626	
WEDGE PRESSURE	11.6785	11.6411	11.4977	11.2921	11.0668	11.0683	11.3133	11.4190	11.4858	
ANGLE	2.8700	2.5388	2.5913	2.4321	2.8419	3.9155	6.5377	7.5062	7.7648	
APPARENT MACH NO.	0.6213	0.6386	0.6501	0.6584	0.6907	0.5199	0.4912	0.4818	0.4669	
MEASURING PLANE										
MACH NO.	0.6270	0.6447	0.6565	0.6650	0.6981	0.5239	0.4948	0.4853	0.4701	
ABSOLUTE VELOCITY	674.1313	691.7042	703.3367	711.6695	744.0322	569.6157	539.4362	529.5398	513.7196	
SWIRL VELOCITY	-2.0513	18.5529	21.1162	25.1016	27.2255	19.1660	15.8925	17.2449	17.3465	
WEIGHT FLOW	15.2066	10.8763	18.0090	28.3691	32.5869	19.2121	9.3069	4.5810	5.7411	
AXIAL VELOCITY	654.9486	676.3454	692.0173	707.5858	743.4932	565.5204	522.4954	505.1782	480.9127	
CALCULATING PLANE										
ANGLE	-0.1522	1.3136	1.4974	1.8414	1.8524	1.7620	1.5078	1.6538	1.7140	
SWIRL VELOCITY	-2.0865	18.8121	21.3563	25.3079	27.2003	18.9559	15.4706	16.6216	16.5311	
AXIAL VELOCITY	784.1449	819.3752	815.9354	786.1836	840.0018	615.1932	586.7454	574.6934	551.4280	
MERIDIONAL VELOCITY	801.6630	831.0127	823.5551	788.7241	840.0070	618.3587	599.1950	594.9662	583.2015	
ABSOLUTE VELOCITY	802.6829	832.2363	824.8382	790.1304	841.4431	619.6508	600.4133	596.2309	584.4896	
MACH NO.	0.7592	0.7906	0.7827	0.7460	0.8004	0.5729	0.5540	0.5499	0.5384	
WEIGHT FLOW	15.1723	10.8806	18.0053	28.2089	32.6002	19.2286	9.3117	4.5835	5.7416	
ROTOR TANG. VELOC.	1557.5789	1516.7435	1472.0054	1358.4714	1200.6889	1017.3805	883.1024	833.8663	783.1825	
RELAT. TANG. VELOC.	1559.6653	1497.9313	1450.6491	1333.1636	1173.4886	998.4245	867.6317	817.2447	766.6514	
RELATIVE FLOW ANGLE	62.7972	60.9798	60.4160	59.3908	54.4043	58.2288	55.3708	53.9450	52.7394	
RELATIVE VELOCITY	1753.6301	1713.0027	1668.1203	1549.0029	1443.1515	1174.4015	1054.4283	1010.8774	963.2642	
RELATIVE MACH NO.	1.6587	1.6273	1.5829	1.4625	1.3729	1.0858	0.9729	0.9323	0.8874	
MCL INCIDENCE	0.5972	-0.2201	-0.0839	0.9908	-1.6956	5.9288	6.9708	5.9450	4.8394	
SURFACE INCIDENCE	-1.6027	-2.2201	-2.1839	-1.4091	-4.0956	3.2288	3.2798	2.1450	0.7394	
RELATIVE TOTAL PRESS	53.9334	51.2783	47.4064	39.0634	33.6915	23.1613	20.7099	19.9698	19.1270	
STATIC TEMPERATURE	466.7501	461.1323	461.5327	465.9916	460.1846	486.5883	487.7645	488.3127	490.0299	
RELAT. TOTAL TEMP.	723.8233	705.6070	693.0577	665.5450	633.8265	601.4363	580.2035	573.2934	567.2814	
STATIC PRESS.	10.3410	10.1418	10.1921	10.4408	9.9836	10.6535	10.8314	10.8985	10.9485	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS. VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	220	TIME	12H 38M 26S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0
MASS AVERAGED PT	21.3129	(23.0923)					
MASS AVERAGED TT	610.6941	(606.9741)					
TOTAL WEIGHT FLOW	137.0352	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	148.9306						

PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0,	104 DEG.							
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	23.5974	23.4658	23.4708	22.3576	24.1753	22.3021	22.0123	21.7531	21.7681
STATIC PRESSURE	15.6511	15.3061	15.1466	14.9313	15.3164	14.5902	14.4469	14.3585	14.3504
WEDGE PRESSURE	17.8763	17.5573	17.4216	17.0148	17.7017	16.7238	16.5463	16.4218	16.4176
TOTAL TEMPERATURE	607.2883	600.1739	599.7928	613.9595	607.1512	610.2427	605.4949	604.2114	605.4991
ANGLE	26.5390	27.0223	27.6078	39.8975	34.6802	44.8439	47.0181	46.6162	52.0272
APPARENT MACH NO.	0.6427	0.6575	0.6668	0.6372	0.6826	0.6549	0.6520	0.6469	0.6480

PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0,	300 DEG.							
STATIC PRESSURE	16.2839	16.3267	16.7771	17.1314	17.0535	16.7411	16.2384	16.0935	15.9791
WEDGE PRESSURE	16.4400	16.4773	16.9125	17.2247	17.2006	16.8444	16.3492	16.2015	16.0912
ANGLE	17.2611	18.1519	19.4380	23.0260	29.8741	33.4838	39.7630	40.4412	40.3764
APPARENT MACH NO.	0.7377	0.7292	0.7007	0.6222	0.7148	0.6463	0.6661	0.6629	0.6717

MEASURING PLANE									
MACH NO.	0.7479	0.7391	0.7097	0.6289	0.7243	0.6537	0.6740	0.6707	0.6797
ABSOLUTE VELOCITY	855.0485	842.4687	812.3331	735.6520	831.6285	759.6344	778.9587	774.4901	784.4276
SWIRL VELOCITY	380.9223	381.7847	375.6534	471.5721	473.1746	534.4320	566.4929	558.1927	613.5767
WEIGHT FLOW	15.9479	10.5031	17.8611	22.6137	32.4587	19.3288	9.0205	3.9977	5.3062
AXIAL VELOCITY	762.7129	748.5762	718.3223	564.0457	683.8572	537.3543	527.9318	527.5599	478.9119

CALCULATING PLANE									
SWIRL VELOCITY	378.4052	379.4848	373.9116	470.3989	473.6123	539.0145	574.6245	567.9370	627.9015
AXIAL VELOCITY	708.5168	697.7651	674.2939	540.7507	658.6491	516.4833	500.9290	486.8929	451.7122
ABSOLUTE VELOCITY	812.1038	800.1809	775.1555	717.8314	812.1771	748.9927	769.4158	757.5559	784.1990
MERIDIONAL VELOCITY	717.5479	703.4671	678.0879	541.2255	658.7936	519.0495	510.6542	500.3110	468.7608
ANGLE	28.0725	28.5056	28.9735	40.9678	35.6777	46.1678	48.8633	49.3356	54.2090
MACH NO.	0.7065	0.6983	0.6742	0.6125	0.7056	0.6438	0.6650	0.6548	0.6795
WEIGHT FLOW	15.9497	10.5073	17.8777	22.4143	32.4893	19.3278	9.0257	3.9306	5.3125
ROTOR TANG. VELOC.	1516.3850	1481.0560	1444.1058	1346.1934	1205.1486	1040.8075	933.3422	895.2623	860.1621
RELAT. TANG. VELOC.	1137.9798	1101.5711	1070.1943	875.7942	731.5360	501.7931	358.7179	327.3253	232.2606
RELATIVE FLOW ANGLE	57.7669	57.4377	57.6444	58.2848	47.9951	44.0317	35.0869	33.1945	26.3574
RELATIVE VELOCITY	1345.3149	1307.0287	1266.8900	1029.5339	984.4560	721.9478	624.0563	597.8743	523.1459
RELATIVE MACH NO.	1.1704	1.1406	1.1019	0.8785	0.8553	0.6205	0.5394	0.5167	0.4533
DEVIATION	1.7669	1.1377	1.7444	7.0848	0.9951	5.3317	7.1869	10.2945	7.7574
AIR TURNING ANGLE	5.0302	3.5420	2.7715	1.1059	6.4091	14.1971	20.2839	20.7504	26.3819
ROTOR REL. MACH NO.	1.1524	1.1380	1.1188	1.0642	0.9774	0.8660	0.7900	0.7624	0.7369
IDEAL PRESS. RATIO	0.9497	0.9565	0.9662	0.9855	1.0049	1.0235	1.0464	1.0549	1.0664
ROTOR PRESS. RATIO	1.5574	1.5318	1.5364	1.4798	1.5876	1.6756	1.6496	1.6250	1.6321
ROTOR TEMP. RATIO	1.1664	1.1567	1.1575	1.1854	1.1693	1.1767	1.1695	1.1667	1.1678
ADIABATIC EFFY.	0.8085	0.8249	0.8268	0.6372	0.8316	0.8965	0.9049	0.8906	0.8930
POLYTR. EFFICIENCY	0.8200	0.8351	0.8369	0.6565	0.8422	0.9037	0.9114	0.8978	0.9001
TOTAL LOSS COEFF.	0.1121	0.0997	0.1021	0.2563	0.1237	0.1045	0.1091	0.1320	0.1407
SHOCK LOSS COEFF.	0.0151	0.0145	0.0134	0.0118	0.0314	0.0205	0.0051	0.0019	-0.0007
PROFILE LOSS COEFF.	0.0969	0.0852	0.0887	0.2445	0.0922	0.0840	0.1040	0.1300	0.1415
TOTAL LOSS PARAM.	0.0182	0.0161	0.0163	0.0397	0.0239	0.0210	0.0240	0.0289	0.0322
PROFILE LOSS PARAM.	0.0157	0.0138	0.0142	0.0379	0.0178	0.0169	0.0229	0.0284	0.0324
ROTOR DIFFUS. FACT.	0.2942	0.3007	0.3052	0.4232	0.4107	0.5136	0.5579	0.5598	0.6304
STATIC PRESS.	16.9165	16.9456	17.3118	17.3593	17.3445	16.8807	16.3644	16.3136	15.9822
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 220 TIME 12H 38M 26S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 21.3118 (23.0912)
 MASS AVERAGED TT 610.6950 (606.9750)
 TOTAL WEIGHT FLOW 137.1166 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 149.0191

MEASURING PLANE

IMMERSSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	23.5974	23.4658	23.4708	22.3576	24.1753	22.3021	22.0123	21.7531	21.7681
STATIC PRESSURE	16.2839	16.3267	16.7771	17.1314	17.0534	16.7411	16.2384	16.0935	15.9791
WEDGE PRESSURE	16.4400	16.4773	16.9125	17.2247	17.2006	16.8444	16.3492	16.2015	16.0912
TOTAL TEMPERATURE	607.2882	600.1738	599.7926	613.9593	607.1510	610.2426	605.4948	604.2113	605.4990
ANGLE	26.5390	27.0223	27.6078	39.8975	34.6802	44.8439	47.0181	46.6162	52.0272
MACH NO.	0.7479	0.7391	0.7097	0.6289	0.7243	0.6537	0.6740	0.6707	0.6797
ABSOLUTE VELOCITY	855.0484	842.4682	812.3331	735.6520	831.6284	759.6344	778.9587	774.4902	784.4272
SWIRL VELOCITY	380.9221	381.7844	375.6533	471.5720	473.1745	534.4320	566.4928	558.1926	613.5764
AXIAL VELOCITY	762.7127	748.5759	718.3224	564.0457	683.8570	537.3543	527.9318	527.5600	478.9117
WEIGHT FLOW	15.9479	10.5031	17.8611	22.6137	32.4587	19.3288	9.0205	3.9977	5.3062

CALCULATING PLANE

ANGLE	26.7582	26.9994	27.2206	39.0551	32.9367	43.1280	45.3827	44.8976	50.2202
MACH NO.	0.7425	0.7406	0.7219	0.6427	0.7617	0.6700	0.6826	0.6792	0.6839
SWIRL VELOCITY	382.3351	382.9448	377.1172	472.7508	473.1745	530.4857	559.2385	550.7680	603.6306
AXIAL VELOCITY	757.2771	750.5958	732.1475	581.6563	729.3966	565.3398	550.8224	551.7455	501.5702
ABSOLUTE VELOCITY	849.4735	844.0211	824.9763	750.6232	870.2727	777.0460	788.0130	783.5076	788.8720
WEIGHT FLOW	15.9543	10.5063	17.8690	22.6374	32.4636	19.3533	9.0224	3.9979	5.3120
MERIDIONAL VELOCITY	757.5725	751.1494	732.7378	582.0472	729.4012	566.7903	554.1690	556.2543	506.8793
STATIC TEMPERATURE	547.1385	540.9750	543.3100	567.2529	544.1884	560.1182	554.0152	553.3016	553.8336
STATIC PRESS.	16.3669	16.3037	16.5924	16.9373	16.4658	16.5102	16.1181	15.9752	15.9205
MCL INCIDENCE	-2.2313	-2.2606	-2.3774	8.1114	-0.7130	9.0286	11.2684	10.7545	16.1418
SUC SUR INCIDENCE	-8.6517	-8.7805	-8.9393	1.8651	-6.8232	2.8180	4.8227	4.2276	9.4702
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

HUR RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 220 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.990 HUR STATIC PRES= 17.980

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.5000	-8.6000	849.5000	382.3000	547.1000	16.3700	23.6000
.100	13.1600	-7.5000	1.0600	2.5000	-8.8000	844.0000	382.9000	541.0000	16.3000	23.4700
.150	12.8300	-7.6000	1.0900	1.3200	-8.9300	825.0000	377.1000	543.3000	16.5900	23.4700
.282	12.0000	-8.4000	1.1700	1.1700	1.8600	750.6000	472.8000	567.2000	16.9400	22.3600
.470	10.6200	-10.1000	1.3000	1.2400	-6.8000	870.3000	473.2000	544.2000	16.4700	24.1800
.689	9.4800	-9.8000	1.4700	1.7700	2.8200	777.0000	530.5000	560.1000	16.5100	22.3000
.850	8.5900	-9.2000	1.6200	1.5900	4.8200	788.0000	559.2000	554.0000	16.1200	22.0100
.900	8.2700	-9.1000	1.6700	.6000	4.2000	783.5000	550.8000	553.3000	15.9800	21.7500
.937	8.0200	-9.0000	1.7300	.5700	9.4700	788.9000	603.6000	553.8000	15.9200	21.7700

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	602.7000	21.5700
.1000	13.1500	599.7000	22.7400
.1500	12.8400	595.5000	23.1900
.2822	11.9700	603.7000	22.0500
.4702	10.8300	602.5000	23.4600
.6887	9.5700	604.9000	21.6300
.8500	8.6700	601.7000	21.0200
.9000	8.4000	601.4000	20.6700
.9372	8.1200	603.7000	20.1400

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4775	.2808	.1346	.5999	8.9000	.5159	604.9490	603.0841	47.4637
.1000	.1067	-.5955	-.2806	-1.3583	7.0000	.8116	915.7740	914.9024	39.9455
.1500	.3427	.0407	.0187	1.2062	5.9200	.6135	707.6787	707.4909	16.3023
.2822	.4090	.0572	.0244	4.1041	6.5700	.5473	640.3217	640.1882	13.0747
.4702	.3661	.0934	.0359	.9730	8.3400	.6280	727.5183	727.3480	15.7438
.6887	.4363	.1157	.0393	1.0094	8.5700	.5205	611.1374	610.8458	18.8764
.8500	.4992	.1681	.0519	.8220	7.7900	.4776	561.6052	561.3889	15.5830
.9000	.5288	.1872	.0560	.7742	6.7000	.4507	531.0956	531.0665	5.5615
.9372	.6084	.2786	.0805	.6456	6.5700	.4058	480.9094	480.8856	4.7842

PCT IMMERS	EX STAT PRES
.0500	17.9894
.1000	17.9889
.1500	17.9884
.2822	17.9869
.4702	17.9850
.6887	17.9829
.8500	17.9814
.9000	17.9809
.9372	17.9805

ROTOR INLET TRAVERSE PLANE	READING NUMBER	222	TIME	13H	74	55S	RADIAL INLET DISTORTION	STATOR ANGLE	5
ROTOR SPEED	12834.4901						DISTORTION INDEX	0.117	
ACTUAL ORIFICE FLOW	130.1556								
THETA	1.0131								
DELTA	0.9325								
MASS AVERAGED PT	13.7045	(14.6960)							
MASS AVERAGED TT	525.5063	(518.6881)							
TOTAL WEIGHT FLOW	138.9231	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	149.9496								
EQUIV. SPEED	12750.9566								
PERCENT SPEED	99.7649								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.									
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	15.0620	15.2231	15.2017	15.1076	15.0935	13.4686	13.4743	13.4970	13.4353
STATIC PRESSURE	10.9036	10.5925	10.3386	10.0083	10.2425	11.1666	11.2621	11.3701	11.4945
WEDGE PRESSURE	11.5137	11.3818	11.2307	11.0154	11.1383	11.3299	11.4079	11.4996	11.5962
TOTAL TEMPERATURE	519.2191	519.1099	517.8789	517.9733	519.4378	519.0686	518.3686	517.6887	518.4566
ANGLE	-0.2736	1.6023	1.7382	1.9576	1.9100	1.9892	1.8801	2.0769	2.2511
APPARENT MACH NO.	0.6314	0.6580	0.6720	0.6871	0.6733	0.5031	0.4934	0.4837	0.4633
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.									
STATIC PRESSURE	11.7382	11.6821	11.5481	11.3973	11.3667	11.6440	11.8451	11.8455	11.9141
WEDGE PRESSURE	11.7882	11.7368	11.6054	11.4562	11.4260	11.6662	11.8651	11.8648	11.9314
ANGLE	1.3357	1.4625	1.9695	1.8615	2.1091	3.1719	6.2952	6.9058	7.4947
APPARENT MACH NO.	0.6021	0.6209	0.6330	0.6412	0.6432	0.4576	0.4300	0.4330	0.4152
MEASURING PLANE									
MACH NO.	0.6075	0.6267	0.6390	0.6474	0.6495	0.4607	0.4328	0.4358	0.4178
ABSOLUTE VELOCITY	654.5716	673.7899	686.0732	694.3248	696.4016	503.8574	474.4735	477.6085	458.5979
SWIRL VELOCITY	-3.0370	18.4298	20.4849	23.5967	23.2103	17.3737	15.0854	16.5228	16.8741
WEIGHT FLOW	14.9657	10.7111	17.7912	28.1651	31.3656	17.8283	8.5501	4.2879	5.3154
AXIAL VELOCITY	635.9414	658.8195	675.0348	690.3713	695.9767	500.2206	459.5399	455.6050	429.2652
CALCULATING PLANE									
ANGLE	-0.2336	1.3662	1.5128	1.7617	1.7218	1.8217	1.6403	1.7707	1.8954
SWIRL VELOCITY	-3.0891	18.6873	20.7179	23.7906	23.1887	17.1832	14.6849	15.9256	16.0809
AXIAL VELOCITY	756.6536	782.5533	783.4830	772.4755	770.3932	539.2683	511.8059	514.1309	484.9321
MERIDIONAL VELOCITY	773.5575	793.6679	790.7997	774.9717	770.3980	542.0431	522.6654	532.2673	512.8741
ABSOLUTE VELOCITY	774.5787	794.8946	792.0740	776.3336	771.7390	543.3129	523.8851	533.5345	514.1765
MACH NO.	0.7297	0.7510	0.7480	0.7316	0.7268	0.4985	0.4799	0.4891	0.4706
WEIGHT FLOW	14.9669	10.6832	17.7452	28.1759	31.3782	17.8288	8.5612	4.2911	5.2923
ROTOR TANG. VELOC.	1555.8811	1512.6665	1468.8068	1355.0984	1197.5206	1014.4168	880.4226	831.9942	781.2947
RELAT. TANG. VELOC.	1558.9699	1493.9790	1448.0890	1331.3078	1174.3316	997.2335	865.7375	816.0685	765.2137
RELATIVE FLOW ANGLE	63.6097	62.0210	61.3613	59.7959	56.7340	61.4740	58.8798	56.8864	56.1687
RELATIVE VELOCITY	1740.3385	1691.7096	1649.9468	1540.4414	1404.4810	1135.0265	1011.2756	974.3080	921.1903
RELATIVE MACH NO.	1.6396	1.5984	1.5583	1.4517	1.3227	1.0415	0.9263	0.8932	0.8431
MCL INCIDENCE	1.4097	0.8210	0.8613	1.3959	0.6340	9.1740	10.4798	8.8864	8.2687
SURFACE INCIDENCE	-0.7902	-1.1789	-1.2386	-1.0040	-1.7658	6.4740	6.7798	5.0864	4.1687
RELATIVE TOTAL PRESS	52.9328	49.5434	46.1637	39.0359	32.4923	23.1540	20.6249	19.8911	18.9743
STATIC TEMPERATURE	469.2013	466.4449	465.7093	467.8475	469.7654	494.4667	495.5249	494.0265	496.4483
RELAT. TOTAL TEMP.	721.7014	704.9817	692.0831	665.2055	634.2807	601.8364	580.6448	572.9346	567.0903
STATIC PRESS.	10.5681	10.4710	10.4856	10.5822	10.6192	11.3647	11.5091	11.4595	11.5438
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA-STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE		READING NUMBER 222		TIME 13H 7M 55S		RADIAL INLET DISTORTION		STATOR ANGLE 3.0	
MASS AVERAGED PT	22.8622	(24.5162)							
MASS AVERAGED TT	630.7547	(622.5711)							
TOTAL WEIGHT FLOW	131.1053	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	141.5113								
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0, 104 DEG.							
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	26.1930	25.6679	25.3998	24.9543	24.1353	22.9991	22.7084	22.3119	22.5517
STATIC PRESSURE	17.0729	16.5685	16.3348	16.1600	15.8440	15.4203	15.2333	15.1405	15.2359
WEDGE PRESSURE	19.4375	18.9107	18.6619	18.4289	18.0055	17.4290	17.2144	17.0438	17.1764
TOTAL TEMPERATURE	638.7091	625.6652	616.5057	625.2765	620.2437	623.5618	611.3794	607.8358	610.7207
ANGLE	33.6799	32.0723	31.3339	39.6360	47.8659	54.3312	50.9639	50.6685	53.1632
APPARENT MACH NO.	0.6674	0.6757	0.6788	0.6729	0.6611	0.6424	0.6419	0.6326	0.6362
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0, 300 DEG.							
STATIC PRESSURE	17.5568	17.9693	17.6398	18.1716	17.9889	17.4384	17.0882	16.9854	16.9030
WEDGE PRESSURE	17.7488	18.1302	17.8039	18.3048	18.1047	17.5398	17.1922	17.0818	17.0083
ANGLE	29.2552	29.0586	23.7195	27.5926	32.0437	41.5030	49.9750	49.8696	48.4988
APPARENT MACH NO.	0.7673	0.7230	0.7312	0.6807	0.6546	0.6347	0.6435	0.6299	0.6481
MEASURING PLANE									
MACH NO.	0.7786	0.7327	0.7412	0.6890	0.6621	0.6418	0.6508	0.6368	0.6555
ABSOLUTE VELOCITY	910.0355	853.0109	856.7234	807.3702	774.2294	754.5001	757.3352	740.6827	761.9195
SWIRL VELOCITY	503.3825	451.8895	444.6418	514.7123	574.1349	611.9918	585.2876	568.8463	605.3121
WEIGHT FLOW	16.4131	10.7384	18.8516	26.5074	25.2357	16.1782	8.4659	3.7001	5.2736
AXIAL VELOCITY	755.3657	721.1497	730.3373	621.3869	519.3945	439.2576	474.5704	466.1196	453.4402
CALCULATING PLANE									
SWIRL VELOCITY	500.0561	449.1672	442.5801	513.4319	574.6659	617.2394	593.6888	578.7764	619.4437
AXIAL VELOCITY	703.0324	675.3000	684.0562	584.5762	503.3367	424.0654	451.1844	448.5415	428.2905
ABSOLUTE VELOCITY	870.8753	816.4736	818.7522	779.1708	744.6572	750.6391	751.6300	735.4114	762.9997
MERIDIONAL VELOCITY	711.9937	680.8185	687.8241	585.0895	583.4472	426.1726	459.9438	452.6829	444.4550
ANGLE	35.3856	33.5906	32.8647	41.2446	48.7298	55.4471	52.7057	52.6609	55.2776
MACH NO.	0.7413	0.6982	0.7050	0.6628	0.6533	0.6382	0.6455	0.6319	0.6565
WEIGHT FLOW	16.4162	10.7475	18.8510	26.1857	25.2569	16.1934	8.4693	3.7009	5.2840
ROTOR TANG. VELOC.	1514.7320	1477.0748	1440.9677	1342.8506	1201.9685	1037.7753	930.5099	893.2520	858.0888
RELAT. TANG. VELOC.	1014.6756	1027.9074	998.3873	829.4189	627.3024	420.5358	336.8210	314.4758	238.6449
RELATIVE FLOW ANGLE	54.9430	56.4823	55.4358	54.8002	51.2510	44.6187	36.2157	34.7875	28.2331
RELATIVE VELOCITY	1239.5570	1232.9261	1212.3855	1015.0195	804.3428	598.7264	570.0848	551.1958	504.4717
RELATIVE MACH NO.	1.0552	1.0543	1.0440	0.8635	0.6872	0.5090	0.4895	0.4736	0.4340
DEVIATION	-1.0569	0.1823	-0.4641	3.6002	4.2510	5.9187	8.3157	11.8875	9.6331
AIR TURNING ANGLE	8.6666	5.5386	5.9254	4.9957	5.4830	16.8553	22.6640	22.0988	27.9356
ROTOR REL. MACH NO.	1.1517	1.1361	1.1171	1.0621	0.9749	0.8638	0.7879	0.7609	0.7353
IDEAL PRESS. RATIO	0.9498	0.9566	0.9663	0.9856	1.0049	1.0234	1.0462	1.0546	1.0661
ROTOR PRESS. RATIO	1.7390	1.6861	1.6708	1.6517	1.5990	1.7076	1.6853	1.6530	1.6785
ROTOR TEMP. RATIO	1.2301	1.2052	1.1904	1.2071	1.1940	1.2013	1.1794	1.1741	1.1779
ADIABATIC EFFY.	0.7409	0.7813	0.8268	0.7415	0.7371	0.8176	0.8937	0.8845	0.8936
POLYTR. EFFICIENCY	0.7601	0.7967	0.8388	0.7590	0.7538	0.8308	0.9012	0.8923	0.9011
TOTAL LOSS COEFF.	0.1954	0.1561	0.1210	0.2050	0.2196	0.2125	0.1366	0.1533	0.1582
SHOCK LOSS COEFF.	0.0147	0.0138	0.0128	0.0119	0.0501	0.0130	0.0015	-0.0004	-0.0034
PROFILE LOSS COEFF.	0.1807	0.1423	0.1081	0.1930	0.1695	0.1994	0.1350	0.1537	0.1617
TOTAL LOSS PARAM.	0.0342	0.0260	0.0205	0.0348	0.0397	0.0423	0.0296	0.0329	0.0356
PROFILE LOSS PARAM.	0.0316	0.0236	0.0183	0.0328	0.0306	0.0397	0.0293	0.0330	0.0364
ROTOR DIFFUS. FACT.	0.3697	0.3457	0.3409	0.4357	0.5424	0.6237	0.5961	0.5930	0.6301
STATIC PRESS.	18.1913	18.5411	18.2343	18.5891	18.1248	17.4897	17.1643	17.0539	16.8886
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	222	TIME 13H 7M 55S	RADIAL INLET DISTORTION	STATOR ANGLE	3
MASS AVERAGED PT	22.8649	(24.5191)				
MASS AVERAGED TT	630.7753	(622.5914)				
TOTAL WEIGHT FLOW	131.2998	(PROBE INTEGRATION)				
EQUIV. WEIGHT FLOW	141.7213					
MEASURING PLANE						
IMMERSTION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300
TOTAL PRESSURE	26.1930	25.6679	25.3998	24.9543	24.1353	22.9991
STATIC PRESSURE	17.5568	17.9693	17.6398	18.1716	17.9889	17.4384
WEDGE PRESSURE	17.7488	18.1302	17.8039	18.3048	18.1047	17.5398
TOTAL TEMPERATURE	638.7090	625.6651	616.5056	625.2764	620.2436	623.5617
ANGLE	33.6799	32.0723	31.3338	39.6360	47.8659	54.3312
MACH NO.	0.7786	0.7327	0.7412	0.6890	0.6621	0.6418
ABSOLUTE VELOCITY	910.0355	853.0109	856.7235	807.3702	774.2294	754.4999
SWIRL VELOCITY	503.3824	451.8895	444.6418	514.7122	574.1348	611.9918
AXIAL VELOCITY	755.3656	721.1498	730.3374	621.3868	519.3946	439.2577
WEIGHT FLOW	16.4131	10.7384	18.8516	26.5074	25.2357	16.1782
CALCULATING PLANE						
ANGLE	33.9072	32.0502	30.9384	38.7366	46.3856	52.8173
MACH NO.	0.7747	0.7342	0.7528	0.7055	0.6797	0.6498
SWIRL VELOCITY	505.2495	453.2629	446.3746	515.9990	574.1348	607.4728
AXIAL VELOCITY	750.6957	722.9683	743.7123	642.2385	546.0262	459.8180
ABSOLUTE VELOCITY	905.9544	854.5997	868.7534	824.9601	793.0093	763.1914
WEIGHT FLOW	16.4203	10.7404	18.8447	26.5289	25.2463	16.2071
MERIDIONAL VELOCITY	750.9885	723.5015	744.3120	642.6702	546.0295	460.9979
STATIC TEMPERATURE	570.6003	565.0318	553.9671	568.8987	567.9879	575.2041
STATIC PRESS.	17.6235	17.9442	17.4489	17.9073	17.7196	17.3223
MCL INCIDENCE	4.9204	2.7939	1.3433	7.7926	12.7359	18.7428
SUC SUR INCIDENCE	-1.5027	-3.7297	-5.2215	1.5466	6.6256	12.5073
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 222 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.640 HUB STATIC PRES= 17.460

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	6.5300	-1.5000	905.9500	505.3000	570.4000	17.6200	26.1900
.100	13.1600	-7.5000	1.0600	5.5200	-3.7000	854.6000	453.3000	565.0000	17.9400	25.6700
.150	12.8300	-7.6000	1.0900	3.5900	-5.2000	868.7000	446.4000	554.0000	17.4500	25.4000
.202	12.0000	-8.4000	1.1700	3.9600	1.5400	824.9600	516.0000	568.9000	17.9100	24.9500
.470	10.8200	-10.1000	1.3000	2.2400	6.6300	793.0000	574.2000	568.0000	17.7200	24.1300
.689	9.4800	-9.8000	1.4700	-2.8000	12.5000	763.2000	607.5000	575.2000	17.2300	22.9900
.850	8.5900	-9.2000	1.6200	-5.3000	9.4000	756.9000	577.8000	563.9000	17.0900	22.7100
.900	8.2700	-9.1000	1.6700	-2.2200	8.4000	745.2000	561.3000	561.8000	16.9300	22.3100
.937	8.0200	-9.0000	1.7300	-.4500	10.6700	764.9000	595.5000	562.2000	16.8600	22.5500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	620.9000	24.1300
.1000	13.1500	614.7000	24.7600
.1500	12.8400	610.7000	24.9600
.2022	11.9700	615.5000	24.2700
.4702	10.8300	613.9000	22.7400
.6887	9.5700	612.4000	21.5200
.8500	8.6700	605.8000	20.6700
.9000	8.4000	605.8000	20.4200
.9372	8.1200	609.0000	20.1100

PCT IMMERS	DEF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX HACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3371	.2404	.1148	-.0311	18.9300	.6849	799.8844	794.6931	90.0656
.1000	.2386	.1177	.0553	.3987	10.8200	.7144	827.0497	823.2144	79.5565
.1500	.2478	.0553	.0253	-1.1910	8.1900	.7238	834.1779	832.5409	52.2331
.2022	.2613	.0966	.0412	.3929	9.3600	.6944	804.4585	804.5291	55.6938
.4702	.3499	.2168	.0833	-.7438	9.3400	.6198	725.3885	724.8342	28.3521
.6887	.4338	.2552	.0867	1.2257	4.0000	.5507	688.6134	647.8391	-31.6846
.8500	.4865	.3630	.1116	.2737	.9000	.4948	582.9015	580.4894	-53.8429
.9000	.4776	.3513	.1051	.2937	3.8800	.4768	562.6150	562.1927	-21.7938
.9372	.5230	.4288	.1239	.2550	5.5500	.4531	537.1431	537.1266	-4.2187

PCT IMMERS	EX STAT PRES
.0500	17.6300
.1000	17.6203
.1500	17.6110
.2022	17.5847
.4702	17.5503
.6887	17.5123
.8500	17.4852
.9000	17.4770
.9372	17.4686

ROTOR INLET TRAVERSE PLANE		READING NUMBER	242	TIME	10H 28M 35S	RADIAL INLET DISTORTION			STATOR ANGLE	3
ROTOR SPEED	8972.8680					DISTORTION INDEX			0.091	
ACTUAL DRIFICE FLOW	110.8361									
THETA	1.0055									
DELTA	0.9599									
MASS AVERAGED PT	14.1076	(14.6960)								
MASS AVERAGED TT	521.5436	(518.6881)								
TOTAL WEIGHT FLOW	116.5267	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	121.7204									
EQUIV. SPEED	8948.2696									
PERCENT SPEED	70.0122									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	13.8544	13.8468	13.8159	14.2734	15.1840	15.2030	15.1313	15.1029	14.6438	
STATIC PRESSURE	12.6953	12.6487	12.5951	12.3679	12.1734	12.2458	12.4165	12.5593	12.7704	
WEDGE PRESSURE	12.7127	12.6681	12.6158	12.4537	12.4454	12.5053	12.6259	12.7350	12.8475	
TOTAL TEMPERATURE	523.9547	523.2653	521.7444	518.6374	517.0679	516.8083	517.6187	517.9740	517.2447	
ANGLE	0.5372	0.3255	-1.8364	1.5277	1.8735	1.8581	1.9180	1.5456	2.2253	
APPARENT MACH NO.	0.3526	0.3587	0.3625	0.4456	0.5406	0.5356	0.5150	0.4995	0.4363	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	12.8402	12.7304	12.7165	12.7621	12.8634	12.9191	13.0235	13.0941	13.1548	
WEDGE PRESSURE	12.8500	12.7416	12.7274	12.7788	12.8932	12.9482	13.0495	13.1185	13.1710	
ANGLE	3.1712	3.2652	3.2330	4.1465	5.5429	6.1705	7.6833	8.0296	7.8691	
APPARENT MACH NO.	0.3296	0.3467	0.3443	0.4006	0.4889	0.4843	0.4646	0.4530	0.3920	
MEASURING PLANE										
MACH NO.	0.3313	0.3485	0.3461	0.4030	0.4925	0.4878	0.4678	0.4561	0.3943	
ABSOLUTE VELOCITY	365.9195	384.5458	381.9678	442.8506	537.0366	532.1662	511.3171	498.9963	433.6197	
SWIRL VELOCITY	3.3335	2.1369	-12.0490	11.7464	17.5571	17.1410	16.5837	12.8478	15.7726	
WEIGHT FLOW	8.9583	6.5133	10.6287	19.7917	27.4121	21.7437	10.5384	5.1351	5.7198	
AXIAL VELOCITY	355.4940	376.1368	375.8027	440.4284	536.7199	528.3651	495.2137	476.1347	405.8908	
CALCULATING PLANE										
ANGLE	0.4870	0.2949	-1.6874	1.4320	1.7373	1.6962	1.6659	1.3139	1.8659	
SWIRL VELOCITY	3.3907	2.1668	-12.1860	11.8429	17.5408	16.9531	16.1434	12.3834	15.0312	
AXIAL VELOCITY	397.8858	419.9915	412.6485	472.7239	577.3180	571.4688	554.0503	538.8908	460.3774	
MERIDIONAL VELOCITY	406.7748	425.9566	416.5022	474.2514	577.3216	574.4092	565.8032	557.9009	486.9046	
ABSOLUTE VELOCITY	407.8033	426.9689	417.6835	475.3994	578.5863	575.6631	567.0553	559.0711	488.1921	
MACH NO.	0.3702	0.3881	0.3794	0.4337	0.5327	0.5298	0.5215	0.5137	0.4458	
WEIGHT FLOW	8.9743	6.5174	10.6315	19.7953	27.4445	21.7480	10.5492	5.1380	5.7281	
ROTOR TANG. VELOC.	1086.9288	1057.3245	1026.9429	950.3618	842.3105	713.4450	618.3038	583.7096	548.9331	
RELAT. TANG. VELOC.	1083.5378	1055.1574	1039.1286	938.5188	824.7695	696.4917	602.1601	571.3261	533.9019	
RELATIVE FLOW ANGLE	69.4234	68.0168	68.1584	63.1918	55.0089	50.4871	46.7829	45.6813	47.6361	
RELATIVE VELOCITY	1157.3762	1137.8912	1119.4921	1051.5378	1006.7496	902.7992	826.2768	798.5403	722.5836	
RELATIVE MACH NO.	1.0507	1.0343	1.0170	0.9593	0.9269	0.8309	0.7599	0.7338	0.6599	
MCL INCIDENCE	7.2234	6.8168	7.6584	4.7918	-1.0910	-1.8128	-1.6170	-2.3186	-0.2638	
SURFACE INCIDENCE	5.0234	4.8168	5.5584	2.3918	-3.4910	-4.5128	-5.3170	-6.1186	-4.3638	
RELATIVE TOTAL PRESS	25.8152	25.0984	24.5591	23.0565	22.4100	20.3194	19.0940	18.7325	17.6219	
STATIC TEMPERATURE	509.9643	507.9489	507.1289	499.8150	489.2711	489.3053	490.8907	491.9759	497.4483	
RELAT. TOTAL TEMP.	622.6523	616.7330	612.1214	591.9037	573.4299	556.9485	547.6406	545.0157	540.8174	
STATIC PRESS.	12.6029	12.4801	12.5089	12.5422	12.5157	12.5565	12.5703	12.6136	12.7755	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	242	TIME	10H 28M 35S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0
MASS AVERAGED PT	17.4665	(18.1950)					
MASS AVERAGED TT	560.1652	(557.0983)					
TOTAL WEIGHT FLOW	110.6976	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	115.6315						

PROBE TYPE - NASA 4 PARAMETER	LOCATION	- STA 9.0,	104 DEG.						
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.7638	17.8973	17.9381	18.1889	18.3354	18.1918	18.4896	18.6061	18.4231
STATIC PRESSURE	14.2492	14.1153	14.0550	13.9508	14.0803	14.0340	13.8007	13.6715	13.4870
WEDGE PRESSURE	15.0348	14.9421	14.8982	14.8562	14.9898	14.9254	14.7938	14.7192	14.5359
TOTAL TEMPERATURE	570.2540	567.2987	566.6117	565.6347	549.0592	548.7394	550.9515	551.5285	550.5591
ANGLE	31.3086	30.6600	32.1432	32.6726	25.6072	28.5337	31.2046	31.5945	33.4675
APPARENT MACH NO.	0.4940	0.5144	0.5220	0.5456	0.5442	0.5393	0.5735	0.5884	0.5918

PROBE TYPE - NASA 2 PARAMETER	LOCATION	- STA 9.0,	300 DEG.						
STATIC PRESSURE	15.2042	14.7611	14.8210	14.9864	15.1052	15.0734	14.9505	14.8731	14.7883
WEDGE PRESSURE	15.2413	14.8101	14.8696	15.0366	15.1558	15.1218	15.0078	14.9347	14.8479
ANGLE	33.7179	27.6400	26.0583	25.4927	20.4855	22.1832	23.0050	24.1421	24.5463
APPARENT MACH NO.	0.4729	0.5272	0.5247	0.5286	0.5287	0.5207	0.5541	0.5692	0.5638

MEASURING PLANE									
MACH NO.	0.4768	0.5319	0.5294	0.5334	0.5335	0.5253	0.5594	0.5747	0.5692
ABSOLUTE VELOCITY	543.0615	601.5355	599.3405	604.8602	597.0225	588.3036	625.0370	641.2797	635.3602
SWIRL VELOCITY	281.4455	306.0156	318.2558	326.2873	258.0201	280.0172	320.8315	331.6994	345.4381
WEIGHT FLOW	9.4445	6.8963	11.7991	19.7551	24.8646	18.7339	9.2815	4.2117	5.9705
AXIAL VELOCITY	462.7422	516.2116	506.4965	508.7816	538.3581	515.0071	529.6611	539.2880	522.5446

CALCULATING PLANE									
SWIRL VELOCITY	279.5857	304.1720	316.7801	325.4756	258.2588	282.4182	325.4368	337.4897	353.5027
AXIAL VELOCITY	438.5676	484.5292	481.2576	486.6863	521.3843	487.5467	501.1409	505.9587	487.3410
ABSOLUTE VELOCITY	525.6786	576.2992	579.2112	586.6748	582.8390	566.4052	606.5791	600.6978	617.8839
MERIDIONAL VELOCITY	444.1577	488.4888	483.9085	487.1136	521.4987	489.9693	510.8703	519.9031	505.7341
ANGLE	32.4588	32.0666	33.3001	33.7189	26.3072	30.0314	32.9474	33.6525	35.9004
MACH NO.	0.4609	0.5084	0.5107	0.5165	0.5201	0.5047	0.5419	0.5551	0.5526
WEIGHT FLOW	9.4533	6.8480	11.8046	19.6953	24.9004	18.5291	9.2934	4.2122	5.9610
ROTOR TANG. VELOC.	1058.1828	1032.4463	1007.4784	941.7721	845.4390	729.8731	653.4790	626.6871	602.8882
RELAT. TANG. VELOC.	778.5968	728.2741	690.6984	616.2966	587.1803	447.4548	328.0421	289.1972	249.3853
RELATIVE FLOW ANGLE	60.2972	56.1485	54.9848	51.6777	48.3906	42.4034	32.7056	29.0852	26.2487
RELATIVE VELOCITY	896.3753	876.9288	843.3453	785.5577	785.3287	663.5402	607.1246	594.9235	563.8795
RELATIVE MACH NO.	0.7859	0.7737	0.7436	0.6916	0.7008	0.5913	0.5423	0.5321	0.5043
DEVIATION	4.2972	-0.1514	-0.9151	0.4777	1.3906	3.7034	4.8036	6.1852	7.6487
AIR TURNING ANGLE	9.1261	11.8682	13.1735	11.5141	6.6183	8.0837	14.0773	16.5961	21.3874
ROTOR REL. MACH NO.	0.8696	0.8519	0.8332	0.7897	0.7191	0.6297	0.5690	0.5472	0.5281
IDEAL PRESS. RATIO	0.9711	0.9754	0.9811	0.9920	1.0026	1.0124	1.0239	1.0280	1.0337
ROTOR PRESS. RATIO	1.2821	1.2925	1.2983	1.2743	1.2075	1.1965	1.2219	1.2319	1.2580
ROTOR TEMP. RATIO	1.0883	1.0841	1.0859	1.0906	1.0618	1.0617	1.0643	1.0647	1.0644
ADIABATIC EFFY.	0.8322	0.9032	0.9000	0.7908	0.8946	0.8515	0.9151	0.9478	1.0524
POLYTR. EFFICIENCY	0.8380	0.9067	0.9036	0.7979	0.8974	0.8552	0.9175	0.9493	1.0507
TOTAL LOSS COEFF.	0.0906	0.0515	0.0558	0.1322	0.0501	0.0831	0.0575	0.0377	-0.0454
SHOCK LOSS COEFF.	0.0143	0.0121	0.0098	0.0038	0.0016	-0.0041	-0.0084	-0.0099	-0.0144
PROFILE LOSS COEFF.	0.0763	0.0394	0.0459	0.1284	0.0485	0.0873	0.0659	0.0477	-0.0310
TOTAL LOSS PARAM.	0.0136	0.0086	0.0095	0.0242	0.0096	0.0171	0.0130	0.0086	-0.0104
PROFILE LOSS PARAM.	0.0115	0.0066	0.0079	0.0235	0.0093	0.0180	0.0149	0.0109	-0.0071
ROTOR DIFFUS. FACT.	0.2926	0.3040	0.3267	0.3421	0.2933	0.3528	0.3730	0.3682	0.3498
STATIC PRESS.	15.3571	15.0026	15.0140	15.1639	15.2470	15.2873	15.1419	15.0915	14.9711
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.6000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 242 TIME 10H 28M 35S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 17.4663 (18.1948)
 MASS AVERAGED TT 560.1606 (557.0938)
 TOTAL WEIGHT FLOW 111.0423 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 115.9916

MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	17.7638	17.8973	17.9381	18.1889	18.3354	18.1918	18.4896	18.6061	18.4231
STATIC PRESSURE	15.2041	14.7610	14.8210	14.9864	15.1052	15.0734	14.9595	14.8731	14.7883
WEDGE PRESSURE	15.2413	14.8101	14.8696	15.0366	15.1558	15.1218	15.0078	14.9347	14.8479
TOTAL TEMPERATURE	570.2539	567.2985	566.6115	565.6345	549.0591	548.7392	550.9514	551.5284	550.5590
ANGLE	31.3086	30.6600	32.1432	32.6726	25.6072	28.5337	31.2046	31.5945	33.4675
MACH NO.	0.4768	0.5319	0.5294	0.5334	0.5335	0.5253	0.5594	0.5747	0.5692
ABSOLUTE VELOCITY	543.0610	601.5353	599.3404	604.8601	597.0220	588.3035	625.0370	641.2795	635.3598
SWIRL VELOCITY	281.4453	306.0154	318.2557	326.2871	258.0198	280.0172	320.8315	331.6993	345.4377
AXIAL VELOCITY	462.7419	516.2113	506.4964	508.7814	538.3577	515.0070	529.6612	539.2878	522.5445
WEIGHT FLOW	9.4445	6.8963	11.7991	19.7551	24.8646	18.7339	9.2815	4.2117	5.9705

CALCULATING PLANE									
ANGLE	31.4775	30.6354	31.8115	31.9455	24.4180	27.0858	29.6658	29.9584	31.6531
MACH NO.	0.4750	0.5330	0.5361	0.5461	0.5592	0.5474	0.5764	0.5921	0.5856
SWIRL VELOCITY	282.4891	306.9454	319.4959	327.1027	258.0198	277.9495	316.7230	327.2874	339.8383
AXIAL VELOCITY	460.3967	517.2946	514.0707	523.5867	567.3299	542.4956	555.0485	566.8335	550.2560
ABSOLUTE VELOCITY	541.1524	602.6887	606.4630	618.5099	624.1599	611.6862	642.8607	659.4245	652.5632
WEIGHT FLOW	9.4490	6.9015	11.8151	19.7713	24.8719	18.7581	9.2890	4.2149	5.9711
MERIDIONAL VELOCITY	460.5764	517.6760	514.4852	523.9386	567.3334	543.8876	558.4210	571.4656	556.0803
STATIC TEMPERATURE	545.6515	536.8200	535.8390	533.8169	516.7375	517.7119	516.6296	515.3911	515.2185
STATIC PRESS.	15.2211	14.7498	14.7516	14.8507	14.8272	14.8387	14.7619	14.6767	14.6051
MCL INCIDENCE	2.4897	1.3780	2.2171	0.9970	-9.2318	-7.0546	-4.5439	-4.3067	-2.6217
SUC SUR INCIDENCE	-3.9324	-5.1445	-4.3484	-5.2444	-15.3419	-13.2241	-10.8941	-10.7115	-9.0968
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

ROG NO= 242 PCT DES SPD= 70.00 FAN INLET TOT TFMP= 518.688
 OUTER WALL STATIC PRES= 15.160 HUB STATIC PRES= 15.100

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	3.6900	-3.9000	541.2000	282.5000	545.7000	15.2200	17.7600
.100	13.1600	-7.5000	1.0600	6.6000	-5.1000	602.7000	306.9000	536.8000	14.7500	17.9000
.150	12.8300	-7.6000	1.0900	5.1000	-4.3000	606.5000	319.5000	535.8000	14.7500	17.9400
.282	12.0000	-8.4000	1.1700	5.5500	-5.2000	618.5000	327.1000	533.8000	14.8500	18.1900
.470	10.8200	-10.1000	1.3000	.0900	-15.3400	624.2000	258.0000	516.7000	14.8200	18.3400
.689	9.4800	-9.8000	1.4700	.0200	-13.2200	611.7000	277.9000	517.7000	14.8400	18.1900
.850	8.5900	-9.2000	1.6200	-.2000	-10.9000	642.9000	316.7000	516.6000	14.7600	18.4500
.900	8.2700	-9.1000	1.6700	.2400	-10.7000	659.4000	327.3000	515.4000	14.6700	18.6100
.937	8.0200	-9.0000	1.7300	1.1000	-9.1000	652.6000	339.8000	515.2000	14.6100	18.4200

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	565.9000	17.2600
.1000	13.1500	565.7000	17.7500
.1500	12.8400	563.6000	17.6900
.2822	11.9700	557.1000	17.9500
.4702	10.8300	548.9000	18.0100
.6887	9.5700	546.9000	17.9600
.8500	8.6700	549.4000	18.2100
.9000	8.4000	551.3000	18.1600
.9372	8.1200	552.9000	17.7100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL VELOCITY	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.3028	.1969	.0944	1.5255	8.0900	.4349	497.8027	496.7706	32.0376
.1000	.2818	.0476	.0223	1.0434	11.1000	.4808	547.9812	544.3496	62.9834
.1500	.3122	.0784	.0358	1.2136	9.7000	.4758	541.5580	539.4140	48.1414
.2822	.2775	.0719	.0306	-.9433	10.9500	.4991	563.5535	560.9116	54.5037
.4702	.2517	.0937	.0361	.5545	7.1900	.5052	565.9168	565.9161	.8889
.6887	.2353	.0687	.0234	.9380	6.8200	.5023	561.8046	561.8045	.1961
.8500	.2415	.0650	.0201	.8120	6.0000	.5234	585.5824	585.5788	-2.0441
.9000	.2627	.1142	.0342	.5680	6.3400	.5197	582.6494	582.6443	2.4406
.9372	.3120	.1864	.0538	.3773	7.1000	.4824	543.5623	543.4621	10.4350

PCT IMMERS	EX STAT PRES
.0500	15.1567
.1000	15.1534
.1500	15.1503
.2822	15.1416
.4702	15.1301
.6887	15.1174
.8500	15.1084
.9000	15.1057
.9372	15.1029

ROTOR INLET TRAVERSE PLANE		READING NUMBER	243	TIME	10H 39M 29S	RADIAL INLET DISTORTION			STATOR ANGLE	3
ROTOR SPEED	8962.8739					DISTORTION INDEX			0.081	
ACTUAL ORIFICE FLOW	106.0534									
THETA	1.0069									
DELTA	0.9636									
MASS AVERAGED PT	14.1620	(14.6960)								
MASS AVERAGED TT	522.2974	(518.6881)								
TOTAL WEIGHT FLOW	111.2935	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	115.8911									
EQUIV. SPEED	8931.8523									
PERCENT SPEED	69.8838									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	13.9521	13.9360	13.9097	14.2696	15.1436	15.1509	15.0920	15.0655	14.6593	
STATIC PRESSURE	12.9200	12.8804	12.8148	12.5794	12.3556	12.4517	12.6660	12.8000	12.9923	
WEDGE PRESSURE	12.9311	12.8926	12.8289	12.6375	12.5800	12.6574	12.8196	12.9275	13.0438	
TOTAL TEMPERATURE	522.4333	521.6850	521.1614	518.1863	517.7801	517.8683	517.7330	517.4654	517.0868	
ANGLE	0.0180	-1.8505	-2.8418	0.9871	1.8711	1.7787	1.8474	1.6664	2.2643	
APPARENT MACH NO.	0.3312	0.3352	0.3418	0.4201	0.5215	0.5133	0.4884	0.4726	0.4117	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	13.0757	12.9693	12.9280	12.9283	13.0287	13.0945	13.2052	13.2693	13.3325	
WEDGE PRESSURE	13.0837	12.9785	12.9373	12.9425	13.0549	13.1196	13.2275	13.2902	13.3464	
ANGLE	3.7266	4.2275	5.0551	3.6772	5.4689	6.1241	7.5794	8.0172	7.3285	
APPARENT MACH NO.	0.3043	0.3204	0.3233	0.3759	0.4653	0.4581	0.4380	0.4269	0.3685	
MEASURING PLANE										
MACH NO.	0.3058	0.3220	0.3250	0.3781	0.4685	0.4612	0.4409	0.4297	0.3705	
ABSOLUTE VELOCITY	338.2904	355.9251	359.1123	416.2853	512.0004	504.3492	483.0140	471.1536	408.2118	
SWIRL VELOCITY	0.1035	-11.2429	-17.5264	7.1353	16.7164	15.5513	15.0893	13.0787	15.1084	
WEIGHT FLOW	8.4459	6.1458	10.1610	18.8466	26.4178	20.8308	10.0773	4.9088	5.4558	
AXIAL VELOCITY	328.6658	347.9736	353.0709	414.0933	511.6995	500.7687	467.8198	449.5434	382.0989	
CALCULATING PLANE										
ANGLE	0.0164	-1.6893	-2.6243	0.9268	1.7406	1.6268	1.6097	1.4219	1.9037	
SWIRL VELOCITY	0.1052	-11.3999	-17.7257	7.1940	16.7009	15.3807	14.6887	12.6060	14.3982	
AXIAL VELOCITY	365.4095	385.5450	385.7386	443.6745	548.5770	540.5516	521.6706	506.8396	432.1690	
MERIDIONAL VELOCITY	373.5729	391.0208	389.3409	445.1082	548.5802	543.3331	532.7392	524.7188	457.0707	
ABSOLUTE VELOCITY	374.5880	392.1943	390.7465	446.1663	549.8313	544.5527	533.9598	525.9029	458.3524	
MACH NO.	0.3393	0.3556	0.3543	0.4061	0.5048	0.4997	0.4895	0.4818	0.4176	
WEIGHT FLOW	8.4295	6.1221	10.1348	18.8524	26.4346	20.8506	10.0918	4.9124	5.4651	
ROTOR TANG. VELOC.	1086.5132	1056.9817	1025.6313	949.0307	840.1866	711.4066	617.1011	582.9249	548.0095	
RELAT. TANG. VELOC.	1086.4077	1068.3816	1043.3572	941.8366	823.4854	696.0258	602.4124	570.3188	533.6112	
RELATIVE FLOW ANGLE	71.0241	69.8979	69.5366	64.7050	56.3299	52.0238	48.5124	47.3847	49.4180	
RELATIVE VELOCITY	1148.8422	1137.6887	1113.6336	1041.7187	989.4788	882.9849	804.1838	774.9795	702.6055	
RELATIVE MACH NO.	1.0407	1.0317	1.0098	0.9482	0.9085	0.8103	0.7373	0.7100	0.6401	
MCL INCIDENCE	8.8241	8.6979	9.0366	6.3050	0.2299	-0.2761	0.1124	-0.6152	1.5181	
SURFACE INCIDENCE	6.6241	6.6979	6.9366	3.9050	-2.1700	-2.9761	-3.5875	-4.4152	-2.5819	
RELATIVE TOTAL PRESS	25.9755	25.4899	24.7587	23.0661	22.2433	20.1695	18.9526	18.5739	17.5663	
STATIC TEMPERATURE	510.6630	508.8006	508.3847	501.6222	492.6439	493.2083	494.0291	494.4833	499.6420	
RELAT. TOTAL TEMP.	621.3751	617.2198	612.1648	591.9199	574.0490	558.0447	547.7955	544.3900	540.6329	
STATIC PRESS.	12.8831	12.7687	12.7529	12.7369	12.7244	12.7740	12.8103	12.8522	13.0012	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5525	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE		READING NUMBER 243		TIME 10H 39M 29S		RADIAL INLET DISTORTION		STATOR ANGLE 3.0	
MASS AVERAGED PT	18.0997	(18.7821)							
MASS AVERAGED TT	567.0230	(563.1045)							
TOTAL WEIGHT FLOW	105.8411	(PROBE INTEGRATION)							
CDRR. TOTAL FLOW	110.2134								
PROBE TYPE - NASA 4 PARAMETER									
		LOCATION - STA 9.0, 104 DEG.							
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	18.5965	18.9052	18.8444	18.9137	18.9550	18.4899	18.7358	18.6774	18.6978
STATIC PRESSURE	15.2347	15.1092	14.9791	14.7841	14.8131	14.6488	14.4209	14.2898	14.1701
WEDGE PRESSURE	15.9698	15.9035	15.7831	15.6312	15.6626	15.4452	15.2939	15.1807	15.0873
TOTAL TEMPERATURE	577.3642	578.8820	576.6964	570.9852	556.0938	552.5538	552.1544	551.8426	552.4621
ANGLE	37.2034	37.5411	38.3920	36.9992	30.2115	33.3562	35.0539	35.5278	37.5892
APPARENT MACH NO.	0.4716	0.5032	0.5097	0.5290	0.5293	0.5135	0.5459	0.5523	0.5622
PROBE TYPE - NASA 2 PARAMETER									
		LOCATION - STA 9.0, 300 DEG.							
STATIC PRESSURE	15.3861	15.8496	15.6557	15.7991	15.8291	15.7128	15.5445	15.4469	15.3512
WEDGE PRESSURE	15.4360	15.8959	15.7049	15.8467	15.8769	15.7538	15.5938	15.4972	15.4040
ANGLE	30.1346	33.5016	33.7517	30.9718	24.4384	26.8948	27.8321	28.4364	28.8142
APPARENT MACH NO.	0.5228	0.5040	0.5170	0.5092	0.5096	0.4838	0.5188	0.5233	0.5335
MEASURING PLANE									
MACH NO.	0.5275	0.5083	0.5216	0.5136	0.5140	0.4878	0.5234	0.5280	0.5383
ABSOLUTE VELOCITY	602.4825	582.8275	596.4379	586.5938	579.5653	549.6310	587.6119	592.4311	603.9699
SWIRL VELOCITY	363.4416	354.4130	369.7981	352.7816	291.6205	301.2367	334.6533	340.2601	363.7216
WEIGHT FLOW	9.8780	6.4634	11.2946	18.9609	23.9312	17.1794	8.6349	3.8358	5.5654
AXIAL VELOCITY	478.7594	461.1965	466.7044	468.1723	500.8251	457.6124	476.9271	476.5395	472.4886
CALCULATING PLANE									
SWIRL VELOCITY	361.0400	352.2780	368.0835	351.9040	291.8902	303.8196	339.4569	346.1998	372.2131
AXIAL VELOCITY	453.7830	438.2097	444.3948	450.6537	484.7424	440.8188	451.8485	448.9721	443.1480
ABSOLUTE VELOCITY	585.2156	565.8311	579.6966	572.8727	566.7862	538.0079	573.0099	577.6170	592.4352
MERIDIONAL VELOCITY	459.5672	441.7906	446.8426	451.0494	484.8489	443.0092	460.6209	461.3458	459.8732
ANGLE	38.4456	38.7326	39.5715	37.9241	31.0025	34.5149	36.8556	37.5742	39.9645
MACH NO.	0.5116	0.4927	0.5062	0.5010	0.5021	0.4770	0.5097	0.5141	0.5275
WEIGHT FLOW	9.8941	6.4712	11.3065	18.9814	23.9326	17.2058	8.6389	3.8397	5.5706
ROTOR TANG. VELOC.	1057.7780	1032.1117	1006.1921	940.4531	843.3072	727.7878	652.2080	625.8443	601.8737
RELAT. TANG. VELOC.	696.7376	679.8335	638.1087	588.5489	551.4169	423.9681	312.7511	279.6446	229.6604
RELATIVE FLOW ANGLE	56.5914	56.9823	54.9981	52.5345	48.6757	43.7420	34.1757	31.2222	26.5376
RELATIVE VELOCITY	834.6529	810.7726	779.0062	741.5088	734.2608	613.1934	556.7629	539.4822	514.0305
RELATIVE MACH NO.	0.7296	0.7061	0.6802	0.6485	0.6504	0.5437	0.4953	0.4801	0.4576
DEVIATION	0.5914	0.6823	-0.9018	1.3345	1.6757	5.0420	6.2757	8.3222	7.9376
AIR TURNING ANGLE	14.4327	12.9156	14.5384	12.1704	7.6541	8.2817	14.3367	16.1624	22.8804
ROTOR REL. MACH NO.	0.8689	0.8501	0.8317	0.7883	0.7174	0.6280	0.5679	0.5465	0.5272
IDEAL PRESS. RATIO	0.9712	0.9755	0.9812	0.9920	1.0026	1.0123	1.0238	1.0279	1.0336
ROTOR PRESS. RATIO	1.3328	1.3565	1.3547	1.3254	1.2516	1.2203	1.2414	1.2397	1.2754
ROTOR TEMP. RATIO	1.1051	1.1096	1.1065	1.1018	1.0739	1.0669	1.0664	1.0664	1.0684
ADIABATIC EFFY.	0.8128	0.8294	0.8495	0.8219	0.8948	0.8740	0.9585	0.9529	1.0521
POLYTR. EFFICIENCY	0.8202	0.8365	0.8558	0.8289	0.8981	0.8775	0.9597	0.9544	1.0503
TOTAL LOSS COEFF.	0.1193	0.1148	0.1023	0.1274	0.0608	0.0791	0.0304	0.0367	-0.0503
SHOCK LOSS COEFF.	0.0129	0.0117	0.0089	0.0028	0.0005	-0.0053	-0.0097	-0.0113	-0.0155
PROFILE LOSS COEFF.	0.1063	0.1030	0.0934	0.1245	0.0603	0.0844	0.0402	0.0481	-0.0347
TOTAL LOSS PARAM.	0.0200	0.0188	0.0175	0.0228	0.0116	0.0159	0.0067	0.0082	-0.0115
PROFILE LOSS PARAM.	0.0178	0.0169	0.0160	0.0223	0.0115	0.0170	0.0089	0.0107	-0.0079
ROTOR DIFFUS. FACT.	0.3635	0.3756	0.3949	0.3856	0.3416	0.4012	0.4229	0.4236	0.4091
STATIC PRESS.	15.5561	16.0149	15.8213	15.9344	15.9572	15.8226	15.6913	15.5963	15.4694
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER 243			TIME 10H 39M 29S	RADIAL INLET DISTORTION				STATOR ANGLE 3
MASS AVERAGED PT	18.0998	(18.7823)							
MASS AVERAGED TT	567.0316	(563.1131)							
TOTAL WEIGHT FLOW	105.7499	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	110.1184								
MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3610	5.6800	5.9500
TOTAL PRESSURE	18.5965	18.9052	18.8444	18.9137	18.9550	18.4898	18.7358	18.6774	18.6978
STATIC PRESSURE	15.3861	15.8496	15.6557	15.7991	15.8291	15.7128	15.5444	15.4469	15.3512
WEDGE PRESSURE	15.4360	15.8959	15.7049	15.8467	15.8769	15.7538	15.5938	15.4972	15.4040
TOTAL TEMPERATURE	577.3641	578.8818	576.6963	570.9851	556.0937	552.5537	552.1542	551.8425	552.4619
ANGLE	37.2034	37.5411	38.3920	36.9992	30.2114	33.3562	35.0559	35.5278	37.5892
MACH NO.	0.5275	0.5083	0.5216	0.5136	0.5140	0.4878	0.5234	0.5280	0.5383
ABSOLUTE VELOCITY	602.4824	582.8275	596.4379	586.5938	579.5652	549.6310	587.6118	592.4311	603.9698
SWIRL VELOCITY	363.4414	354.4129	369.7981	352.7815	291.6203	301.2366	334.6531	340.2600	363.7215
AXIAL VELOCITY	478.7592	461.1965	466.7042	468.1723	500.8251	457.6124	476.9270	476.5394	472.4884
WEIGHT FLOW	9.8780	6.4634	11.2946	18.9609	23.9312	17.1794	8.6349	3.8357	5.5654
CALCULATING PLANE									
ANGLE	37.3718	37.5140	38.0554	36.2375	28.9294	31.8825	33.4687	33.8879	36.2474
MACH NO.	0.5262	0.5094	0.5272	0.5246	0.5358	0.5042	0.5366	0.5403	0.5434
SWIRL VELOCITY	364.7895	355.4901	371.2392	353.6635	291.6203	299.0123	330.3676	335.7343	357.8258
AXIAL VELOCITY	476.6212	462.0578	473.2258	481.5614	526.6339	479.7146	498.7290	498.8578	487.0634
ABSOLUTE VELOCITY	601.1361	584.0430	602.5494	598.5430	602.8602	567.1680	601.5922	605.5354	609.3544
WEIGHT FLOW	9.8862	6.4683	11.3071	18.9906	23.9472	17.1825	8.6466	3.8366	5.4844
MERIDIONAL VELOCITY	476.8071	462.3986	473.6073	481.8850	526.6370	480.9454	501.7592	502.9344	492.2190
STATIC TEMPERATURE	547.1018	550.3583	546.3646	541.2205	525.9068	525.8278	522.0930	521.4014	521.6587
STATIC PRESS.	15.3995	15.8376	15.5944	15.6794	15.5904	15.5438	15.4014	15.3125	15.2955
MCL INCIDENCE	8.3863	8.2616	8.4661	5.2918	-4.7204	-2.2456	-0.7179	-0.3451	2.0210
SUC SUR INCIDENCE	1.9618	1.7340	1.8954	-0.9524	-10.8305	-8.4274	-7.0913	-6.7821	-4.5025
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 243 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 16.160 HUB STATIC PRES= 16.080

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.5000	1.9600	601.1000	364.8000	547.1000	15.4000	18.5900
.100	13.1600	-7.5000	1.0600	6.1000	1.7300	584.0000	355.5000	550.4000	15.8300	18.9100
.150	12.8300	-7.6000	1.0900	6.1000	1.6900	602.5000	371.2000	546.4000	15.9400	18.8400
.282	12.0000	-8.4000	1.1700	5.8000	-.9500	598.5000	353.6600	541.2000	15.6700	18.9100
.470	10.8200	-10.1000	1.3000	-.2000	-10.8300	602.9000	291.6000	525.9000	15.5900	18.9600
.689	9.4800	-9.8000	1.4700	.0800	-8.4300	567.2000	299.0000	525.8000	15.5400	18.4900
.850	8.5900	-9.2000	1.6200	.1200	-7.0900	601.6000	330.4000	522.1000	15.4000	18.7400
.900	8.2700	-9.1000	1.6700	.4500	-6.7800	605.6000	335.7000	521.4000	15.3100	18.6800
.937	8.0200	-9.0000	1.7300	.7400	-4.5000	609.4000	357.8000	521.6000	15.3000	18.7000

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	576.3000	18.1100
.1000	13.1500	577.4000	18.5000
.1500	12.8400	575.5000	18.5700
.2822	11.9700	562.3000	18.6700
.4702	10.8300	553.9700	18.6200
.6887	9.5700	551.1000	18.4200
.8500	8.6700	552.4000	18.5000
.9000	8.4000	553.8000	18.4200
.9372	8.1200	555.6000	18.0100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.4714	.1505	.0720	.7066	9.9000	.4072	471.4564	469.2859	45.1871
.1000	.3634	.1331	.0624	.6309	10.6000	.4447	513.7620	510.8531	54.5944
.1500	.3630	.0931	.0423	.3088	12.7000	.4514	520.3309	515.1399	73.3153
.2822	.3375	.0741	.0315	-2.4315	11.2000	.4613	525.1902	522.5016	53.0738
.4702	.3275	.1009	.0388	.8839	6.9000	.4585	518.2420	518.2389	-1.8090
.6887	.2975	.0237	.0081	1.1841	6.8800	.4424	499.4566	499.4561	.6474
.8500	.3217	.0719	.0222	.7577	6.3200	.4509	509.2291	509.2279	1.0665
.9000	.3330	.0772	.0231	.6552	6.5500	.4441	502.4554	502.4399	3.9462
.9372	.4098	.2029	.0586	.4630	6.7400	.4053	460.7368	460.6984	5.9505

PCT IMMERS	EX STAT PRES
.0500	16.1555
.1000	16.1512
.1500	16.1471
.2822	16.1354
.4702	16.1201
.6887	16.1033
.8500	16.0912
.9000	16.0876
.9372	16.0838

ROTOR INLET TRAVERSE PLANE		READING NUMBER	244	TIME	10H 46M 56S	RADIAL INLET DISTORTION			STATOR ANGLE	3
ROTOR SPEED	8963.9330					DISTORTION INDEX			0.073	
ACTUAL ORIFICE FLOW	101.8629									
THETA	1.0088									
DELTA	0.9669									
MASS AVERAGED PT	14.2106	(14.6960)								
MASS AVERAGED TT	523.3020	(518.6881)								
TOTAL WEIGHT FLOW	107.7250	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	111.8984									
EQUIV. SPEED	8924.3287									
PERCENT SPEED	69.8249									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	14.0458	14.0324	14.0079	14.3098	15.0930	15.1113	15.0504	15.0236	14.6684	
STATIC PRESSURE	13.1146	13.0579	12.9828	12.7615	12.5170	12.6034	12.8399	12.9725	13.1363	
WEDGE PRESSURE	13.1213	13.0664	12.9935	12.8028	12.6993	12.7721	12.9592	13.0690	13.1728	
TOTAL TEMPERATURE	521.9568	522.2224	521.9678	518.4785	517.6295	517.6763	517.4419	516.9243	516.8593	
ANGLE	-0.1765	-1.6414	-3.0788	0.8396	1.8776	1.7648	1.8933	1.7234	2.5430	
APPARENT MACH NO.	0.3133	0.3208	0.3294	0.4018	0.5028	0.4960	0.4672	0.4506	0.3949	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	13.2414	13.1150	13.0571	13.0745	13.1408	13.2275	13.3490	13.4143	13.4573	
WEDGE PRESSURE	13.2486	13.1235	13.0660	13.0872	13.1642	13.2497	13.3683	13.4322	13.4695	
ANGLE	4.8442	4.2177	4.5493	3.5248	5.1615	6.2110	7.5679	7.8303	7.5802	
APPARENT MACH NO.	0.2900	0.3107	0.3168	0.3594	0.4462	0.4374	0.4149	0.4031	0.3510	
MEASURING PLANE										
MACH NO.	0.2914	0.3122	0.3184	0.3614	0.4492	0.4402	0.4174	0.4055	0.3529	
ABSOLUTE VELOCITY	322.6862	345.2950	352.0001	398.3487	491.7181	482.2965	458.2282	445.5353	389.2963	
SWIRL VELOCITY	-0.9661	-9.6748	-18.6108	5.8075	16.1107	14.7554	14.6711	12.7902	16.1813	
WEIGHT FLOW	8.1685	6.0343	10.0659	18.2351	25.5692	20.1027	9.6531	4.6882	5.2519	
AXIAL VELOCITY	313.5040	337.6168	346.0066	396.2673	491.4270	478.8758	443.8028	425.0887	364.3281	
CALCULATING PLANE										
ANGLE	-0.1607	-1.4943	-2.8349	0.7889	1.7487	1.6193	1.6783	1.4783	2.1440	
SWIRL VELOCITY	-0.9826	-9.8099	-18.8225	5.8553	16.0958	14.5936	14.2816	12.3279	15.4207	
AXIAL VELOCITY	349.3459	375.0544	379.1157	424.2037	526.2044	515.2188	486.4287	476.6994	410.9048	
MERIDIONAL VELOCITY	357.1504	380.3812	382.6561	425.5745	526.2076	517.8699	496.7498	493.5156	434.5813	
ABSOLUTE VELOCITY	358.1663	381.5135	384.1192	426.6137	527.4500	519.0767	497.9725	494.7016	435.9089	
MACH NO.	0.3241	0.3457	0.3481	0.3877	0.4833	0.4752	0.4551	0.4520	0.3965	
WEIGHT FLOW	8.1781	6.0293	10.0698	18.2456	25.5982	20.1036	9.5588	4.6838	5.2575	
ROTOR TANG. VELOC.	1086.0937	1055.5477	1023.9756	947.9643	839.6008	710.9392	616.7545	582.7388	547.6685	
RELAT. TANG. VELOC.	1087.0762	1065.3575	1042.7982	942.1090	823.5050	696.3454	602.4728	570.4108	532.2476	
RELATIVE FLOW ANGLE	71.8127	70.3513	69.8495	65.6903	57.4222	53.3621	50.4939	49.1340	50.7684	
RELATIVE VELOCITY	1144.2423	1131.2276	1110.7893	1033.7711	977.2690	867.8053	780.8544	754.2717	687.1305	
RELATIVE MACH NO.	1.0355	1.0252	1.0068	0.9397	0.8954	0.7946	0.7137	0.6892	0.6250	
MCL INCIDENCE	9.6127	9.1513	9.3495	7.2903	1.3222	1.0621	2.0939	1.1340	2.8684	
SURFACE INCIDENCE	7.4127	7.1513	7.2495	4.8903	-1.0777	-1.6378	-1.6050	-2.6659	-1.2315	
RELATIVE TOTAL PRESS	26.1420	25.5762	24.9180	23.1039	22.1193	20.0576	18.7475	18.4313	17.5119	
STATIC TEMPERATURE	511.2059	510.0181	509.6021	503.3264	494.5053	495.2784	496.8374	496.6098	501.0884	
RELAT. TOTAL TEMP.	620.9314	617.3156	613.0077	592.2985	573.8892	557.8802	547.5032	543.8352	540.2755	
STATIC PRESS.	13.0596	12.9184	12.8810	12.8997	12.8633	12.9454	13.0554	13.0580	13.1617	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	244	TIME	10H 46M 56S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0
MASS AVERAGED PT	18.4931	(19.1246)					
MASS AVERAGED TT	572.3166	(567.2706)					
TOTAL WEIGHT FLOW	100.7020	(PROBE INTEGRATION)					
CORR. TOTAL FLOW	104.6033						

PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0,	104 DEG.							
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.0815	19.3152	19.4083	19.3140	19.2274	18.7811	18.8701	18.8854	18.9425
STATIC PRESSURE	15.7931	15.6452	15.5528	15.3226	15.2239	15.0557	14.8232	14.7165	14.6217
WEDGE PRESSURE	16.4838	16.3807	16.3167	16.1070	16.0096	15.7939	15.6138	15.5282	15.4608
TOTAL TEMPERATURE	586.2958	586.1037	584.0172	574.4420	559.1836	554.9661	555.0336	554.4393	555.9507
ANGLE	43.6310	42.5580	41.9215	39.7204	33.1368	36.1560	37.8445	38.3546	41.4566
APPARENT MACH NO.	0.4621	0.4910	0.5042	0.5160	0.5183	0.5037	0.5273	0.5362	0.5465

PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0,	300 DEG.							
STATIC PRESSURE	15.8107	16.4170	16.2907	16.2743	16.2421	16.0775	15.8777	15.7871	15.7013
WEDGE PRESSURE	15.8614	16.4597	16.3379	16.3199	16.2867	16.1167	15.9227	15.8344	15.7515
ANGLE	33.1560	36.7386	38.1963	34.8715	27.0827	30.1417	31.9255	32.1231	32.2098
APPARENT MACH NO.	0.5208	0.4836	0.5022	0.4965	0.4928	0.4726	0.4986	0.5081	0.5202

MEASURING PLANE									
MACH NO.	0.5254	0.4877	0.5065	0.5008	0.4969	0.4765	0.5028	0.5125	0.5248
ABSOLUTE VELOCITY	605.1019	563.4260	583.3166	574.1801	562.8864	538.6881	567.2433	577.5798	591.5525
SWIRL VELOCITY	416.7245	380.3970	389.1390	366.7001	307.6835	316.8617	345.2634	354.5321	387.1631
WEIGHT FLOW	9.1412	5.9341	10.7798	18.3073	22.9593	16.5878	8.1607	3.6644	5.2445
AXIAL VELOCITY	437.1324	414.2894	433.3776	441.3750	471.3251	433.6359	444.3999	448.0384	438.2786

CALCULATING PLANE									
SWIRL VELOCITY	413.9708	378.1054	387.3347	365.7879	307.9681	319.5785	350.2193	360.7210	396.2019
AXIAL VELOCITY	414.8483	384.9765	412.8590	425.1995	456.4426	416.5599	421.6381	422.8464	411.9022
ABSOLUTE VELOCITY	590.5351	542.5682	568.5007	561.9274	551.5313	527.4662	555.2267	565.5100	583.5868
MERIDIONAL VELOCITY	420.1361	388.1226	415.1330	425.5728	456.5428	418.6297	429.8239	434.5001	427.4482
ANGLE	44.8710	44.4105	43.1045	40.6384	33.9502	37.4289	39.6472	40.4002	43.8179
MACH NO.	0.5121	0.4688	0.4930	0.4896	0.4864	0.4661	0.4917	0.5012	0.5173
WEIGHT FLOW	9.1576	5.8194	10.7864	18.3294	22.9573	16.5644	8.1659	3.6697	5.2516
ROTOR TANG. VELOC.	1057.3693	1030.7118	1004.5675	939.3960	842.7193	727.3096	651.8419	625.6445	601.4991
RELAT. TANG. VELOC.	643.3982	652.6061	617.2328	573.6082	534.7512	407.7311	301.6225	264.9234	205.2971
RELATIVE FLOW ANGLE	56.8558	59.2591	56.0765	53.4276	49.5112	44.2445	35.0588	31.3716	25.6543
RELATIVE VELOCITY	768.4239	759.2982	743.8491	714.2397	703.1286	584.3761	525.0948	508.8956	474.1927
RELATIVE MACH NO.	0.6664	0.6561	0.6451	0.6223	0.6201	0.5164	0.4650	0.4510	0.4203
DEVIATION	0.8558	2.9591	0.1765	2.2276	2.5112	5.5445	7.1588	8.4716	7.0543
AIR TURNING ANGLE	14.9568	11.0922	13.7729	12.2626	7.9110	9.1175	15.4351	17.7624	25.1140
ROTOR REL. MACH NO.	0.8686	0.8494	0.8305	0.7874	0.7169	0.6276	0.5676	0.5464	0.5270
IDEAL PRESS. RATIO	0.9712	0.9755	0.9812	0.9920	1.0026	1.0123	1.0238	1.0279	1.0336
ROTOR PRESS. RATIO	1.3585	1.3764	1.3855	1.3497	1.2739	1.2428	1.2537	1.2570	1.2913
ROTOR TEMP. RATIO	1.1232	1.1223	1.1188	1.1079	1.0802	1.0720	1.0726	1.0725	1.0756
ADIABATIC EFFY.	0.7410	0.7802	0.8202	0.8279	0.8917	0.8893	0.9183	0.9303	1.0017
POLYTR. EFFICIENCY	0.7520	0.7899	0.8283	0.8350	0.8953	0.8926	0.9209	0.9326	1.0016
TOTAL LOSS COEFF.	0.1891	0.1631	0.1347	0.1314	0.0689	0.0766	0.0683	0.0619	-0.0019
SHOCK LOSS COEFF.	0.0122	0.0109	0.0085	0.0023	-0.0002	-0.0063	-0.0111	-0.0126	-0.0164
PROFILE LOSS COEFF.	0.1768	0.1521	0.1262	0.1290	0.0691	0.0830	0.0795	0.0745	0.0145
TOTAL LOSS PARAM.	0.0315	0.0251	0.0225	0.0231	0.0129	0.0153	0.0150	0.0138	-0.0004
PROFILE LOSS PARAM.	0.0294	0.0234	0.0210	0.0226	0.0129	0.0166	0.0175	0.0166	0.0033
ROTOR DIFFUS. FACT.	0.4329	0.4238	0.4294	0.4105	0.3646	0.4287	0.4498	0.4534	0.4629
STATIC PRESS.	15.9564	16.6163	16.4379	16.3952	16.3545	16.1831	15.9958	15.9075	15.7824
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5750	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8540	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 244 TIME 10H 46M 56S RADIAL INLET DISTORTION STATOR ANGLE 5

MASS AVERAGED PT 18.4928 (19.1244)
 MASS AVERAGED TT 572.3534 (567.3070)
 TOTAL WEIGHT FLOW 100.5165 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 104.4106

MEASURING PLANE	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.0815	19.3152	19.4083	19.3140	19.2274	18.7811	18.8701	18.8854	18.9425
STATIC PRESSURE	15.8107	16.4169	16.2907	16.2743	16.2421	16.0775	15.8777	15.7871	15.7013
WEDGE PRESSURE	15.8614	16.4597	16.3379	16.3199	16.2867	16.1167	15.9227	15.8344	15.7515
TOTAL TEMPERATURE	586.2957	586.1035	584.0171	574.4419	559.1835	554.9660	555.0385	554.4392	555.9506
ANGLE	43.6310	42.5580	41.9215	39.7204	33.1368	36.1560	37.8445	38.3546	41.4566
MACH NO.	0.5254	0.4877	0.5065	0.5008	0.4969	0.4765	0.5028	0.5125	0.5248
ABSOLUTE VELOCITY	605.1016	563.4260	583.3165	574.1797	562.8864	538.6876	567.2431	577.5797	591.5525
SWIRL VELOCITY	416.7242	380.3970	389.1389	366.6998	307.6834	316.8613	345.2632	354.5320	387.1630
AXIAL VELOCITY	437.1320	414.2896	433.3776	441.3747	471.3252	433.6355	444.3997	448.0384	438.2786
WEIGHT FLOW	9.1412	5.9341	10.7798	18.3073	22.9593	16.5878	8.1617	3.6644	5.2445

CALCULATING PLANE	43.8315	42.5452	41.6228	38.9934	32.2666	34.6294	36.2707	36.6765	39.5782
ANGLE	43.8315	42.5452	41.6228	38.9934	32.2666	34.6294	36.2707	36.6765	39.5782
MACH NO.	0.5245	0.4886	0.5112	0.5102	0.5094	0.4911	0.5132	0.5229	0.5342
SWIRL VELOCITY	418.2699	381.5532	390.6553	367.6165	307.6834	314.5217	340.8420	349.8164	380.8873
AXIAL VELOCITY	434.6974	414.7427	438.6626	453.0814	486.3406	454.4290	463.5028	468.7212	459.7746
ABSOLUTE VELOCITY	604.0889	564.5116	588.4046	584.4701	576.3415	554.4383	578.4141	588.7508	601.5848
WEIGHT FLOW	9.1390	5.9360	10.7805	18.3177	22.6586	16.6035	8.1646	3.6674	5.2489
MERIDIONAL VELOCITY	434.8671	415.0487	439.0163	453.3860	486.3436	455.5949	466.3190	472.5516	464.6413
STATIC TEMPERATURE	555.7733	559.4357	555.0563	546.0489	531.6060	529.4386	527.2683	525.6959	525.9457
STATIC PRESS.	15.8209	16.4064	16.2395	16.1713	16.1067	15.9264	15.7662	15.6740	15.5980
MCL INCIDENCE	14.8486	13.2966	12.0363	8.0496	-1.3831	0.5083	2.1010	2.4662	5.3871
SUC SUR INCIDENCE	8.4215	6.7652	5.4628	1.8034	-7.4933	-5.6805	-4.2892	-3.9934	-1.1717
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOP INCIDENCE PLOTS

RDG NO= 244 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 16.740 HUB STATIC PRES= 16.620

PCT IMMERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.5000	8.4200	604.0000	418.3000	555.8000	15.8200	19.0800
.100	13.1600	-7.5000	1.0600	7.1000	6.8000	564.5000	381.6000	559.4000	16.4100	19.3200
.150	12.8300	-7.6000	1.0900	8.6000	5.5000	588.4000	390.7000	555.1000	16.2300	19.4100
.282	12.0000	-8.4000	1.1700	6.6000	1.8000	584.5000	367.6000	546.1000	16.1700	19.3100
.470	10.8200	-10.1000	1.3000	.7000	-7.5000	576.3000	307.7000	531.6000	16.1100	19.2300
.687	9.4800	-9.8000	1.4700	.7000	-5.6000	554.4000	314.5000	529.4000	15.9200	18.7800
.850	8.5900	-9.2000	1.6200	1.2000	-4.2000	578.4000	340.8000	527.3000	15.7700	18.8700
.900	8.2700	-9.1000	1.6700	1.1000	-3.9900	588.7000	349.8000	525.7000	15.6700	18.8800
.937	8.0200	-9.0000	1.7300	1.5400	-1.2000	601.6000	380.9000	525.9000	15.6000	18.9400

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	584.7000	18.6500
.1000	13.1500	584.0000	18.8300
.1500	12.8400	581.0000	19.0000
.2822	11.9700	566.0000	19.0700
.4702	10.8300	557.8000	18.9400
.6887	9.5700	553.9000	18.6500
.8500	8.6700	554.4000	18.6300
.9000	8.4000	555.1000	18.5500
.9372	8.1200	557.3000	18.2700

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.5377	.1319	.0632	.8138	8.9000	.3967	462.9462	461.5191	36.3223
.1000	.4132	.1684	.0788	.5941	11.6000	.4148	483.1668	479.4618	59.7201
.1500	.3959	.1289	.0585	.9362	13.2000	.4312	500.2736	494.6487	74.8086
.2822	.3670	.0764	.0324	-4.4759	12.0000	.4393	502.6486	499.3175	57.7730
.4702	.3531	.0929	.0357	.8416	7.8000	.4299	488.7826	488.7461	5.9715
.6887	.3587	.0455	.0155	.9985	7.5000	.4053	460.0898	460.0555	5.6209
.8500	.3800	.0774	.0239	.8595	7.4000	.4053	460.3258	460.2248	9.6403
.9000	.4033	.1028	.0308	.7325	7.2000	.3980	452.5774	452.4939	8.6883
.9372	.4751	.2006	.0580	.5860	7.5400	.3695	421.9063	421.7539	11.3387

PCT IMMERS	EX STAT PRES
.0500	16.7333
.1000	16.7269
.1500	16.7206
.2822	16.7031
.4702	16.6802
.6887	16.6549
.8500	16.6368
.9000	16.6314
.9372	16.6257

ROTOR INLET TRAVERSE PLANE		READING NUMBER	246	TIME	11H 17M 46S	RADIAL INLET DISTORTION			STATOR ANGLE	3
ROTOR SPEED	11531.8759					DISTORTION INDEX			0.137	
ACTUAL ORIFICE FLOW	131.2407									
THETA	1.0083									
DELTA	0.9383									
MASS AVERAGED PT	13.7897	(14.6960)								
MASS AVERAGED TT	523.0054	(518.6881)								
TOTAL WEIGHT FLOW	137.7040	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	147.3637									
EQUIV. SPEED	11484.1850									
PERCENT SPEED	89.8535									
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	13.3624	13.3876	13.3836	14.0144	15.4728	15.4874	15.3877	15.3329	14.6317	
STATIC PRESSURE	11.5433	11.3977	11.2476	11.1169	11.0597	11.1633	11.2513	11.4716	11.7166	
WEDGE PRESSURE	11.6285	11.5075	11.3810	11.3953	11.7399	11.8069	11.8370	11.9713	11.9819	
TOTAL TEMPERATURE	521.9243	521.3951	519.8924	517.6309	518.5268	518.1588	517.9096	517.9238	516.7543	
ANGLE	1.9573	2.4183	2.0659	1.7662	2.0120	1.7956	1.7592	1.2961	1.9675	
APPARENT MACH NO.	0.4500	0.4699	0.4867	0.5516	0.6405	0.6347	0.6237	0.6051	0.5418	
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.6910	11.5931	11.5172	11.5355	11.7339	11.8593	12.0386	12.1507	12.2517	
WEDGE PRESSURE	11.7108	11.6149	11.5403	11.5694	11.7928	11.9155	12.0887	12.1972	12.2830	
ANGLE	1.0165	0.8654	1.9210	4.1376	5.7341	5.5781	6.8603	7.4756	6.9796	
APPARENT MACH NO.	0.4382	0.4550	0.4649	0.5305	0.6350	0.6235	0.5973	0.5810	0.5061	
MEASURING PLANE										
MACH NO.	0.4410	0.4580	0.4681	0.5346	0.6411	0.6293	0.6026	0.5860	0.5099	
ABSOLUTE VELOCITY	483.1470	501.0491	511.6130	580.6098	688.1177	676.4309	649.6430	632.9998	555.1480	
SWIRL VELOCITY	16.0330	20.6810	18.1551	17.8041	24.1578	21.0551	19.3263	13.6668	17.8546	
WEIGHT FLOW	10.7021	7.6812	12.8510	23.4619	32.2318	25.4805	12.4128	6.0547	6.7964	
AXIAL VELOCITY	469.1425	489.6823	503.2891	577.3658	687.6560	671.6224	629.2357	604.0583	519.7229	
CALCULATING PLANE										
ANGLE	1.7521	2.1628	1.8712	1.6320	1.8190	1.5983	1.4833	1.0680	1.6173	
SWIRL VELOCITY	16.3080	20.9699	18.3616	17.9504	24.1354	20.8242	18.8132	13.1728	17.0153	
AXIAL VELOCITY	532.1258	554.2481	561.0166	629.0319	758.9669	745.2869	725.5340	705.5921	601.6288	
MERIDIONAL VELOCITY	544.0139	562.1199	566.2557	631.0647	758.9714	749.1219	740.9283	730.4825	636.2949	
ABSOLUTE VELOCITY	545.2726	563.5173	567.5568	632.3195	760.3505	750.4122	742.1846	731.6327	637.5771	
MACH NO.	0.5004	0.5180	0.5220	0.5854	0.7149	0.7047	0.6962	0.6853	0.5906	
WEIGHT FLOW	10.7131	7.6802	12.8643	23.4682	32.2400	25.4715	12.4126	6.0548	6.7990	
ROTOR TANG. VELOC.	1397.6719	1359.3983	1320.3203	1220.8767	1079.4970	914.4388	793.3063	749.1676	704.8331	
RELAT. TANG. VELOC.	1381.3636	1338.4283	1301.9586	1202.9264	1055.3614	893.6145	774.4931	735.9947	687.8177	
RELATIVE FLOW ANGLE	68.5045	67.2185	66.4947	62.3183	54.2781	50.0268	46.2690	45.2155	47.2285	
RELATIVE VELOCITY	1484.6264	1451.6779	1419.7682	1358.4087	1299.9325	1166.0748	1071.8275	1036.9630	936.9974	
RELATIVE MACH NO.	1.3626	1.3346	1.3058	1.2576	1.2223	1.0950	1.0054	0.9714	0.8680	
MCL INCIDENCE	6.3045	6.0185	5.9947	3.9183	-1.8218	-2.2730	-2.1310	-2.7844	-0.6714	
SURFACE INCIDENCE	4.1045	4.0185	3.8947	1.5183	-4.2218	-4.9731	-5.8310	-6.5844	-4.7714	
RELATIVE TOTAL PRESS	35.3118	33.6863	32.1691	30.1921	29.3055	25.1696	22.9367	22.2557	20.0258	
STATIC TEMPERATURE	497.0084	494.8107	493.0022	484.3969	470.3900	471.3049	472.0994	473.4056	483.0220	
RELAT. TOTAL TEMP.	681.7153	671.2331	661.2741	637.7769	611.0888	584.4400	567.6431	562.8342	555.8768	
STATIC PRESS.	11.2609	11.1481	11.1147	11.1116	11.0045	11.1176	11.1300	11.1970	11.5546	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	246	TIME	11H 17M 46S	RADIAL INLET DISTORTION	STATOR ANGLE	3.0		
MASS AVERAGED PT	18.9888	(20.2368)							
MASS AVERAGED TT	587.2636	(582.4159)							
TOTAL WEIGHT FLOW	133.2802	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	142.6294								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 9.0,	104 DEG.							
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.4530	19.3649	19.4095	19.8404	20.8089	20.7646	20.7529	20.6445	20.0561
STATIC PRESSURE	13.5828	13.3184	13.3593	13.3922	13.9301	14.0297	13.7651	13.6114	13.5979
WEDGE PRESSURE	15.0876	14.8648	14.9067	15.0401	15.6799	15.7506	15.5307	15.3798	15.2481
TOTAL TEMPERATURE	607.4801	599.1461	590.1301	594.6760	573.1783	572.4219	569.9575	569.3101	569.4792
ANGLE	31.9756	31.0057	30.1135	33.2627	26.7377	30.4636	31.9208	32.6446	36.3126
APPARENT MACH NO.	0.6138	0.6266	0.6259	0.6418	0.6490	0.6410	0.6571	0.6624	0.6382
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 9.0,	300 DEG.							
STATIC PRESSURE	15.4271	14.5862	14.6094	14.8424	15.1173	15.3316	15.2554	15.1476	15.0192
WEDGE PRESSURE	15.4944	14.6745	14.6982	14.9358	15.2294	15.4356	15.3615	15.2540	15.1132
ANGLE	19.6975	13.8034	19.6481	24.2842	24.8385	25.6827	25.8169	26.5991	26.6604
APPARENT MACH NO.	0.5797	0.6423	0.6431	0.6502	0.6830	0.6650	0.6699	0.6720	0.6489
MEASURING PLANE									
MACH NO.	0.5854	0.6495	0.6503	0.6576	0.6914	0.6729	0.6780	0.6801	0.6563
ABSOLUTE VELOCITY	681.9015	746.3172	742.6380	754.8239	775.2877	756.0023	759.7852	761.5367	738.0121
SWIRL VELOCITY	360.1544	383.5334	371.8422	413.7056	348.7917	381.9725	398.0711	405.6890	431.2853
WEIGHT FLOW	11.1655	7.9754	14.1433	23.1229	31.0594	23.2642	11.0811	4.8805	6.5517
AXIAL VELOCITY	576.9164	638.1654	641.1147	630.7033	692.3601	649.4047	639.0136	633.2747	586.8554
CALCULATING PLANE									
SWIRL VELOCITY	357.7745	381.2230	370.1180	412.6764	349.1144	385.2477	403.7851	412.7709	441.3542
AXIAL VELOCITY	544.0393	600.9320	604.7838	603.1130	665.3410	620.7405	600.9575	586.0002	546.7540
ABSOLUTE VELOCITY	657.7869	716.6524	712.7472	732.0462	752.3833	734.0460	734.5728	730.8893	719.6530
MERIDIONAL VELOCITY	550.9739	605.8427	608.1151	603.6425	665.4869	623.8249	612.6248	602.1504	567.3895
ANGLE	33.2821	32.3478	31.4241	34.3376	27.6515	31.7837	33.8534	35.1146	38.8604
MACH NO.	0.5634	0.6217	0.6221	0.6362	0.6691	0.6516	0.6535	0.6504	0.6386
WEIGHT FLOW	11.1677	7.9800	14.1463	23.1381	31.0735	23.2894	11.0896	4.8504	6.5446
ROTOR TANG. VELOC.	1360.7074	1327.4123	1295.2955	1209.8420	1083.5061	935.4954	838.4373	804.3271	774.1118
RELAT. TANG. VELOC.	1002.9327	946.1894	925.1774	797.1652	734.3917	550.2476	434.6521	391.5561	332.7575
RELATIVE FLOW ANGLE	61.2174	57.3688	56.6834	52.8658	47.8181	41.4142	35.3555	33.0345	30.3905
RELATIVE VELOCITY	1144.3102	1123.5302	1107.1392	999.9281	991.0621	831.8230	751.1535	718.2626	657.7675
RELATIVE MACH NO.	0.9801	0.9747	0.9664	0.8690	0.8814	0.7384	0.6683	0.6391	0.5837
DEVIATION	5.2174	1.0688	0.7834	1.6658	0.8181	2.7142	7.4555	10.1345	11.7905
AIR TURNING ANGLE	7.2870	9.8496	9.8112	9.4524	6.4599	8.6126	10.9134	12.1809	16.8379
ROTOR REL. MACH NO.	1.0669	1.0483	1.0290	0.9766	0.8941	0.7891	0.7174	0.6912	0.6686
IDEAL PRESS. RATIO	0.9568	0.9630	0.9713	0.9878	1.0041	1.0195	1.0382	1.0449	1.0545
ROTOR PRESS. RATIO	1.4557	1.4464	1.4502	1.4157	1.3448	1.3407	1.3486	1.3464	1.3707
ROTOR TEMP. RATIO	1.1639	1.1491	1.1351	1.1488	1.1053	1.1047	1.1004	1.0992	1.1020
ADIABATIC EFFY.	0.6892	0.7443	0.8280	0.7003	0.8373	0.8336	0.8869	0.8932	0.9232
POLYTR. EFFICIENCY	0.7052	0.7573	0.8368	0.7146	0.8440	0.8403	0.8916	0.8976	0.9265
TOTAL LOSS COEFF.	0.2077	0.1638	0.1057	0.2072	0.0892	0.1044	0.0779	0.0767	0.0670
SHOCK LOSS COEFF.	0.0350	0.0454	0.0567	0.0632	0.0534	0.0221	0.0083	0.0049	-0.0019
PROFILE LOSS COEFF.	0.1727	0.1183	0.0490	0.1439	0.0358	0.0822	0.0696	0.0717	0.0689
TOTAL LOSS PARAM.	0.0305	0.0266	0.0173	0.0369	0.0173	0.0218	0.0171	0.0168	0.0147
PROFILE LOSS PARAM.	0.0253	0.0192	0.0080	0.0256	0.0069	0.0172	0.0152	0.0157	0.0152
ROTOR DIFFUS. FACT.	0.2966	0.2995	0.2937	0.3511	0.3126	0.3778	0.4013	0.4132	0.4228
STATIC PRESS.	15.6855	14.9244	14.9533	15.1111	15.4138	15.6115	15.5781	15.5378	15.2429
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 246 TIME 11H 17M 46S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 18.9885 (20.2364)
 MASS AVERAGED TT 587.2688 (582.4212)
 TOTAL WEIGHT FLOW 133.1777 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 142.5199

MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	19.4530	19.3649	19.4095	19.8404	20.8089	20.7646	20.7529	20.6445	20.0561
STATIC PRESSURE	15.4271	14.5862	14.6094	14.8424	15.1173	15.3316	15.2554	15.1476	15.0192
WEDGE PRESSURE	15.4944	14.6745	14.6982	14.9358	15.2294	15.4356	15.3615	15.2540	15.1132
TOTAL TEMPERATURE	607.4800	599.1460	590.1300	594.6759	573.1782	572.4219	569.9574	569.3100	569.4790
ANGLE	31.9756	31.0057	30.1135	33.2627	26.7377	30.4636	31.9208	32.6446	36.3126
MACH NO.	0.5854	0.6495	0.6503	0.6576	0.6914	0.6729	0.6780	0.6801	0.6563
ABSOLUTE VELOCITY	681.9010	746.3172	742.6379	754.8238	775.2876	756.0023	759.7859	761.5366	738.0121
SWIRL VELOCITY	360.1540	383.5334	371.8420	413.7054	348.7916	381.9724	398.0708	405.6889	431.2852
AXIAL VELOCITY	576.9159	638.1655	641.1146	630.7032	692.3601	649.4047	639.0134	633.2747	586.8554
WEIGHT FLOW	11.1655	7.9754	14.1433	23.1229	31.0594	23.2642	11.0811	4.8805	6.5517

CALCULATING PLANE									
ANGLE	32.1650	30.9836	29.7725	32.4226	25.1758	28.9118	30.2181	30.8671	34.3605
MACH NO.	0.5830	0.6508	0.6595	0.6758	0.7354	0.7019	0.7020	0.7030	0.6749
SWIRL VELOCITY	361.4899	384.6991	373.2911	414.7396	348.7916	379.1520	392.9733	400.2928	424.2943
AXIAL VELOCITY	573.8224	639.6697	651.5353	651.9602	741.0385	685.5047	673.7102	668.7180	619.5880
ABSOLUTE VELOCITY	679.2239	747.6953	752.2157	773.9089	819.9251	785.7870	784.3505	784.9281	757.1978
WEIGHT FLOW	11.1688	7.9787	14.1445	23.1301	31.0654	23.1703	11.0863	4.8814	6.5519
MERIDIONAL VELOCITY	574.0463	640.1416	652.0606	652.3984	741.0430	687.2636	677.8035	674.1825	626.1462
STATIC TEMPERATURE	568.9304	552.4601	542.9966	545.0093	517.2930	521.1284	518.8716	518.1464	521.9745
STATIC PRESS.	15.4561	14.5703	14.4975	14.6137	14.5266	14.9448	14.9354	14.8439	14.7821
MCL INCIDENCE	3.1776	1.7265	0.1765	1.4744	-8.4739	-5.2240	-3.9882	-3.3906	0.1142
SUC SUR INCIDENCE	-3.2449	-4.7963	-6.3874	-4.7673	-14.5841	-11.3981	-10.3418	-9.8028	-6.3894
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 246 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 15.350 HUB STATIC PRES= 15.240

PCT IM- MERSION	IN RADIUS	EX BL ANG	SOLIDITY	FX FLO ANG	INC ANG	SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4200	-7.4000	1.0400	6.9100	-3.2000		679.2000	361.5000	568.9000	15.4500	19.4500
.100	13.1600	-7.5000	1.0600	8.0000	-4.8000		747.7000	384.7000	552.5000	14.5700	19.3600
.150	12.8300	-7.6000	1.0900	4.7000	-6.4000		752.2000	373.3000	542.9900	14.5000	19.4100
.282	12.0000	-8.4000	1.1700	5.4000	-4.8000		773.9000	414.7000	545.0000	14.6100	19.8400
.470	10.8200	-10.1000	1.3000	.8000	-14.6000		819.9000	348.8000	517.3000	14.5300	20.8100
.689	9.4800	-9.8000	1.4700	.9000	-11.4000		785.8000	379.2000	521.1000	14.9400	20.7600
.850	8.5900	-9.2000	1.6200	.6000	-10.3000		784.4000	392.9700	518.9000	14.9400	20.7500
.900	8.2700	-9.1000	1.6700	1.4000	-9.8000		784.9000	400.3000	518.1000	14.8400	20.6400
.937	8.0200	-9.0000	1.7300	1.6500	-6.4000		757.2000	424.3000	521.9700	14.7800	20.0600

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	598.0200	18.6100
.1000	13.1500	596.9000	19.1200
.1500	12.8400	589.4000	19.0900
.2822	11.9700	585.8000	19.4000
.4702	10.8300	569.6000	20.1500
.6887	9.3700	568.3000	20.1300
.8500	8.6700	570.7000	20.4100
.9000	8.4000	571.0000	19.6700
.9372	8.1200	571.7000	18.6000

PCT IMMERS	DIP FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2891	.2100	.1002	.3774	11.3100	.5324	620.8308	616.3214	74.6922
.1000	.2999	.0501	.0234	1.0246	12.5000	.5701	661.5664	655.1281	92.0722
.1500	.3231	.0652	.0298	.8226	9.3000	.5685	655.6640	653.4592	53.7241
.2822	.3181	.0841	.0358	2.8937	10.8000	.5910	677.9319	674.9232	63.7990
.4702	.2807	.1051	.0404	.8356	7.9000	.6401	719.9377	719.8675	10.0519
.6887	.2425	.1082	.0368	.8055	7.7000	.6407	719.7753	719.6865	11.3057
.8500	.2078	.0585	.0181	.4981	6.8000	.6585	739.7178	739.6773	7.7462
.9000	.2613	.1672	.0501	.3180	7.5000	.6141	693.6165	693.4094	16.9466
.9372	.3406	.2765	.0799	.2591	7.6500	.5407	615.9819	615.7265	17.7365

PCT IMMERS	EX STAT PRES
.0500	15.3439
.1000	15.3380
.1500	15.3323
.2822	15.3162
.4702	15.2952
.6887	15.2720
.8500	15.2554
.9000	15.2504
.9372	15.2453

ROTOR INLET TRAVERSE PLANE READING NUMBER 248 TIME 11H 36M 54S RADIAL INLET DISTORTION STATOR ANGLE 3

ROTOR SPEED 11521.5787
 ACTUAL ORIFICE FLOW 130.2304
 THETA 1.0111
 DELTA 0.9390
 MASS AVERAGED PT 13.8002 (14.6960)
 MASS AVERAGED TT 524.4579 (518.6881)
 TOTAL WEIGHT FLOW 137.0665 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 146.7724
 EQUIV. SPEED 11458.0275
 PERCENT SPEED 89.6489

DISTORTION INDEX 0.135

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.
 IMMERSION 0.4000 0.8400 1.2900 2.3600 3.8700 5.6100 6.9300 7.4300 7.9400
 TOTAL PRESSURE 13.3992 13.3977 13.3758 14.0713 15.4400 15.4769 15.3784 15.3335 14.5812
 STATIC PRESSURE 11.6321 11.4682 11.3309 11.1387 11.0744 11.1884 11.2972 11.4774 11.7759
 WEDGE PRESSURE 11.7097 11.5687 11.4493 11.4238 11.7378 11.8205 11.8652 11.9754 12.0180
 TOTAL TEMPERATURE 522.6098 522.0052 521.3480 518.3218 518.0623 517.4844 517.5412 517.2433 515.9298
 ANGLE 1.7688 1.9728 1.8130 1.6842 1.9976 1.7318 1.7408 1.2506 2.1028
 APPARENT MACH NO. 0.4430 0.4626 0.4765 0.5538 0.6381 0.6325 0.6200 0.6048 0.5327

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.
 STATIC PRESSURE 11.7664 11.6680 11.5345 11.5458 11.7643 11.8788 12.0616 12.1867 12.3021
 WEDGE PRESSURE 11.7855 11.6887 11.5571 11.5805 11.8217 11.9343 12.1110 12.2325 12.3317
 ANGLE 1.8425 0.8033 1.3472 3.7683 5.3340 5.3411 6.6939 7.4200 6.8726
 APPARENT MACH NO. 0.4320 0.4458 0.4616 0.5348 0.6295 0.6207 0.5941 0.5773 0.4950

MEASURING PLANE
 MACH NO. 0.4348 0.4487 0.4648 0.5391 0.6354 0.6265 0.5994 0.5822 0.4987
 ABSOLUTE VELOCITY 476.5708 491.2424 508.1206 585.1691 682.4660 673.5867 646.4205 629.1526 543.4772
 SWIRL VELOCITY 14.2919 16.5425 15.8249 17.1111 23.7887 20.2222 19.0298 13.1076 18.6810
 WEIGHT FLOW 10.6008 7.5603 12.7509 23.6592 32.0015 25.3998 12.3627 6.0310 6.6672
 AXIAL VELOCITY 462.8039 480.2352 499.9260 581.9243 682.0139 668.8209 626.1202 600.3966 508.7594

CALCULATING PLANE
 ANGLE 1.5888 1.7653 1.6445 1.5545 1.8095 1.5404 1.4681 1.0309 1.7362
 SWIRL VELOCITY 14.5371 16.7736 16.0049 17.2517 23.7666 20.0004 18.5246 12.6338 17.8028
 AXIAL VELOCITY 523.1139 543.2431 556.4808 634.7052 751.2891 742.7476 721.7997 701.0942 586.3179
 MERIDONAL VELOCITY 534.8005 550.9586 561.6775 636.7562 751.2937 746.5695 737.1149 725.8261 620.1017
 ABSOLUTE VELOCITY 536.0105 552.2188 562.9063 637.9875 752.6639 747.8375 738.3639 726.9669 621.4112
 MACH NO. 0.4915 0.5071 0.5175 0.5910 0.7070 0.7020 0.6922 0.6806 0.5746
 WEIGHT FLOW 10.5920 7.5646 12.7555 23.6718 32.0051 25.4114 12.3687 6.0347 6.6624
 ROTOR TANG. VELOC. 1393.5740 1355.5093 1315.4734 1217.2842 1077.5211 912.9505 791.7812 747.9531 703.7897
 RELAT. TANG. VELOC. 1379.0366 1338.7357 1299.4685 1200.0324 1053.7541 892.9500 773.2565 735.3191 685.9867
 RELATIVE FLOW ANGLE 68.8035 67.6305 66.6244 62.0490 54.5125 50.1021 46.3709 45.3724 47.8879
 RELATIVE VELOCITY 1479.1055 1447.6766 1415.6621 1358.5049 1294.1562 1163.9266 1068.2994 1033.2074 924.7182
 RELATIVE MACH NO. 1.3564 1.3295 1.3014 1.2585 1.2156 1.0926 1.0016 0.9673 0.8551
 MCL INCIDENCE 6.6035 6.4305 6.1244 3.6490 -1.5874 -2.1978 -2.0290 -2.6275 -0.0120
 SURFACE INCIDENCE 4.4036 4.4305 4.0244 1.2490 -3.9874 -4.8978 -5.7290 -6.4275 -4.1120
 RELATIVE TOTAL PRESS 35.2342 33.6672 32.0270 30.2543 29.1242 25.1367 22.8733 22.2174 19.8383
 STATIC TEMPERATURE 498.5029 496.4475 494.8244 484.4461 470.9372 471.0130 472.2348 473.3498 483.9379
 RELAT. TOTAL TEMP. 682.0693 672.0951 662.5804 638.0445 610.2602 583.5829 567.0776 562.0135 554.7814
 STATIC PRESS. 11.3587 11.2400 11.1428 11.1086 11.0604 11.1365 11.1621 11.2443 11.6561
 RADIUS RATIO 0.9736 0.9464 0.9179 0.8469 0.7495 0.6347 0.5505 0.5198 0.4885
 STREAMLINE SLOPE -12.0000 -9.6000 -7.8000 -4.6000 0.2000 5.8000 11.7070 15.0000 19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE		READING NUMBER		248	TIME		11H 36M 54S		RADIAL INLET DISTORTION		STATOR ANGLE		3.0
MASS AVERAGED PT	20.1700	(21.4792)											
MASS AVERAGED TT	598.3907	(591.8077)											
TOTAL WEIGHT FLOW	131.7532	(PROBE INTEGRATION)											
CORR. TOTAL FLOW	141.0828												
PROBE TYPE - NASA 4 PARAMETER		LOCATION - STA 9.0, 104 DEG.											
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500				
TOTAL PRESSURE	21.3917	21.4520	21.3866	21.2499	21.9356	21.6830	21.2176	20.8514	20.6711				
STATIC PRESSURE	15.4640	15.1059	14.9634	14.6589	14.9021	14.7483	14.3328	14.1418	14.0529				
WEDGE PRESSURE	16.9931	16.7270	16.6018	16.3366	16.6909	16.5120	16.0839	15.8481	15.7360				
TOTAL TEMPERATURE	620.1950	614.5019	606.5018	606.5647	581.3845	577.7166	572.6697	571.6556	571.9418				
ANGLE	37.8654	36.3713	35.5759	39.0953	31.0086	34.0294	34.6602	35.8014	37.9416				
APPARENT MACH NO.	0.5833	0.6072	0.6127	0.6248	0.6373	0.6363	0.6418	0.6386	0.6367				
PROBE TYPE - NASA 2 PARAMETER		LOCATION - STA 9.0, 300 DEG.											
STATIC PRESSURE	15.7694	16.4574	16.3132	16.3660	16.3689	16.2946	16.0514	15.8984	15.7578				
WEDGE PRESSURE	15.8775	16.5464	16.4046	16.4523	16.4735	16.3945	16.1459	15.9877	15.8464				
ANGLE	40.8609	35.5733	31.1664	29.6629	27.8055	29.1568	28.9603	29.3369	29.2537				
APPARENT MACH NO.	0.6670	0.6208	0.6276	0.6160	0.6530	0.6449	0.6371	0.6279	0.6281				
MEASURING PLANE													
MACH NO.	0.6750	0.6274	0.6344	0.6226	0.6605	0.6522	0.6442	0.6348	0.6350				
ABSOLUTE VELOCITY	785.5611	731.4774	734.6991	724.1278	749.0899	738.4719	726.9232	716.6069	717.9546				
SWIRL VELOCITY	481.0819	432.8695	426.6723	456.3594	385.8902	411.9520	409.8644	414.3609	435.8644				
WEIGHT FLOW	12.2419	8.0375	14.2531	22.0759	30.4772	22.8699	10.6654	4.5716	6.4778				
AXIAL VELOCITY	618.7506	587.7474	596.5022	561.6464	642.0120	610.0701	592.8009	574.4972	559.0564				
CALCULATING PLANE													
SWIRL VELOCITY	477.9029	430.2619	424.6940	455.2241	386.2471	415.4843	415.7477	421.5941	446.0402				
AXIAL VELOCITY	582.5588	555.1391	563.4243	539.2011	618.9429	584.4409	559.5191	538.7671	523.4981				
ABSOLUTE VELOCITY	760.0377	706.7401	708.8368	706.7907	730.5329	720.2621	706.6403	696.6820	703.7074				
MERIDIONAL VELOCITY	589.9843	559.6756	566.5279	539.6744	619.0787	587.3449	570.3820	553.6156	543.2559				
ANGLE	39.3162	37.7282	36.9597	40.1210	31.9247	35.3634	36.5653	37.9925	40.3785				
MACH NO.	0.6511	0.6046	0.6104	0.6066	0.6428	0.6348	0.6248	0.6157	0.6214				
WEIGHT FLOW	12.2556	8.0409	14.2371	22.1007	30.4941	22.8886	10.6765	4.5724	6.4869				
ROTOR TANG. VELOC.	1356.7175	1323.6154	1290.5401	1206.2817	1081.5236	933.9726	836.8255	803.0231	772.9655				
RELAT. TANG. VELOC.	878.8143	893.3534	865.8459	751.0574	695.2763	518.4884	421.0778	381.4290	326.9251				
RELATIVE FLOW ANGLE	56.1251	57.9335	56.8032	54.3009	48.3180	41.4371	36.4363	34.5661	31.0391				
RELATIVE VELOCITY	1058.4874	1054.1902	1034.7189	924.8436	930.9496	783.4564	708.9724	672.2931	634.0401				
RELATIVE MACH NO.	0.9069	0.9019	0.8910	0.7937	0.8192	0.6905	0.6259	0.5942	0.5599				
DEVIATION	0.1251	1.6335	0.9032	3.1009	1.3180	2.7371	8.5363	11.6661	12.4391				
AIR TURNING ANGLE	12.6784	9.6969	9.8211	7.7481	6.1944	8.6650	9.9346	10.8062	16.8488				
ROTOR REL. MACH NO.	1.0644	1.0454	1.0258	0.9743	0.8928	0.7879	0.7162	0.6901	0.6678				
IDEAL PRESS. RATIO	0.9570	0.9632	0.9715	0.9878	1.0041	1.0194	1.0381	1.0448	1.0543				
ROTOR PRESS. RATIO	1.5964	1.6011	1.5989	1.5101	1.4206	1.4009	1.3797	1.3598	1.4176				
ROTOR TEMP. RATIO	1.1867	1.1771	1.1633	1.1702	1.1222	1.1163	1.1055	1.1051	1.1085				
ADIABATIC EFFY.	0.7633	0.8100	0.8763	0.7323	0.8622	0.8677	0.9033	0.8717	0.9648				
POLYTR. EFFICIENCY	0.7783	0.8221	0.8842	0.7473	0.8688	0.8739	0.9076	0.8771	0.9665				
TOTAL LOSS COEFF.	0.1792	0.1426	0.0904	0.2077	0.0869	0.0917	0.0707	0.0975	0.0333				
SHOCK LOSS COEFF.	0.0372	0.0474	0.0584	0.0633	0.0513	0.0217	0.0078	0.0045	-0.0026				
PROFILE LOSS COEFF.	0.1419	0.0952	0.0320	0.1444	0.0355	0.0700	0.0629	0.0929	0.0360				
TOTAL LOSS PARAM.	0.0304	0.0228	0.0148	0.0357	0.0167	0.0192	0.0153	0.0210	0.0073				
PROFILE LOSS PARAM.	0.0241	0.0152	0.0052	0.0248	0.0068	0.0146	0.0136	0.0200	0.0078				
ROTOR DIFFUS. FACT.	0.3757	0.3547	0.3528	0.4146	0.3639	0.4253	0.4415	0.4576	0.4419				
STATIC PRESS.	16.0929	16.7607	16.6330	16.5769	16.6147	16.5321	16.3094	16.1456	15.9332				
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534				
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000				
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8580	1.9100	1.9540				
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1600	13.6000	20.5000	25.1000	29.3000				

STATOR INLET TRAVERSE PLANE READING NUMBER 248 TIME 11H 36M 54S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 20.1702 (21.4793)
 MASS AVERAGED TT 598.3895 (591.8063)
 TOTAL WEIGHT FLOW 131.6561 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 140.9789

MEASURING PLANE	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	21.3917	21.4520	21.3866	21.2499	21.9356	21.6830	21.2176	20.8514	20.6711
STATIC PRESSURE	15.7694	16.4574	16.3132	16.3660	16.3689	16.2946	16.0514	15.8984	15.7578
WEDGE PRESSURE	15.8775	16.5464	16.4046	16.4523	16.4735	16.3945	16.1459	15.9877	15.8464
TOTAL TEMPERATURE	620.1948	614.5018	606.5017	606.5645	581.3844	577.7165	572.6696	571.6555	571.9416
ANGLE	37.8654	36.3713	35.5759	39.0953	31.0086	34.0294	34.6602	35.8014	37.9416
MACH NO.	0.6750	0.6274	0.6344	0.6226	0.6605	0.6522	0.6442	0.6348	0.6350
ABSOLUTE VELOCITY	785.5608	731.4773	734.6993	724.1274	749.0898	738.4718	726.9226	716.6065	717.9542
SWIRL VELOCITY	481.0817	432.8694	426.6724	456.3591	385.8901	411.9518	409.8640	414.3606	435.8642
AXIAL VELOCITY	618.7506	587.7472	596.5023	561.6460	642.0119	610.0702	592.8035	574.4969	559.0563
WEIGHT FLOW	12.2419	8.0375	14.2531	22.0759	30.4772	22.8699	10.6664	4.5716	6.4778

CALCULATING PLANE	38.0364	36.6350	35.2060	38.2667	29.4438	32.3265	32.9924	34.0287	36.1333
ANGLE	38.0364	36.6350	35.2060	38.2667	29.4438	32.3265	32.9924	34.0287	36.1333
MACH NO.	0.6734	0.6242	0.6425	0.6364	0.6952	0.6788	0.6628	0.6521	0.6487
SWIRL VELOCITY	482.8661	434.1850	428.3352	457.4999	385.8901	408.9100	404.6155	408.8492	428.7991
AXIAL VELOCITY	616.2440	582.8960	606.0781	578.9945	682.6283	645.1749	622.2411	604.4947	586.3179
ABSOLUTE VELOCITY	783.8594	727.9724	743.3703	739.0169	785.0207	766.0868	746.2384	734.7058	732.2214
WEIGHT FLOW	12.2558	7.9781	14.2632	22.0937	30.4974	22.8674	10.6678	4.5757	6.4565
MERIDIONAL VELOCITY	616.4844	583.3260	606.5666	579.3836	682.6325	646.8303	626.0217	609.4345	592.5241
STATIC TEMPERATURE	568.8229	570.2327	560.3795	561.2458	530.2187	529.0374	526.4673	526.8944	527.5963
STATIC PRESS.	15.7912	16.5008	16.2044	16.1824	15.8832	15.9280	15.8017	15.6703	15.5800
MCL INCIDENCE	9.0512	7.3820	5.6144	7.3225	-4.2059	-1.8004	-1.1971	-0.2031	1.9058
SUC SUR INCIDENCE	2.6264	0.8550	-0.9539	1.0767	-10.3161	-7.9834	-7.5675	-6.6412	-4.6166
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 248 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 17.200 HUB STATIC PRES= 17.030

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VFL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.9000	2.6000	783.9000	482.9000	568.9000	15.7900	21.3900
.100	13.1600	-7.5000	1.0600	7.5000	.9000	727.9000	434.2000	570.2000	16.5000	21.4500
.150	12.8300	-7.6000	1.0900	6.6000	-.9600	743.4000	428.3000	560.4000	16.2000	21.0700
.282	12.0000	-8.4000	1.1700	5.9000	1.1000	739.0000	457.5000	561.2000	16.1800	21.2500
.470	10.8200	-10.1000	1.3000	.2700	-10.3000	785.0000	385.9000	530.2000	15.8800	21.9300
.689	9.4800	-9.8000	1.4700	.8500	-7.9000	766.1000	408.9000	529.0000	15.9200	21.6800
.850	8.5900	-9.2000	1.6200	.6080	-7.6000	746.2000	404.6000	526.9000	15.8000	21.2200
.900	8.2700	-9.1000	1.6700	1.0000	-6.6000	734.7000	408.8000	526.9000	15.6700	20.8500
.937	8.0200	-9.0000	1.7300	1.5000	-4.6000	732.2000	428.8000	527.6000	15.5800	20.6700

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	614.1000	20.2500
.1000	13.1500	611.1000	20.9200
.1500	12.8400	604.0000	21.0900
.2822	11.9700	596.3000	20.8600
.4702	10.8300	578.6000	21.4100
.6887	9.5700	574.0000	21.2300
.8500	8.6700	573.4000	20.9700
.9000	8.4000	573.8000	20.2800
.9372	8.1200	575.1000	19.3600

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.5188	.2036	.0974	.8140	10.3000	.4894	580.7987	577.7221	59.7018
.1000	.3573	.1071	.0501	.8878	12.0000	.5379	633.7101	628.2887	62.7158
.1500	.3533	.1376	.0627	1.0274	11.2000	.5499	643.2509	638.9880	73.9334
.2822	.3827	.0769	.0327	3.5491	11.3000	.5366	624.5751	621.2666	64.2016
.4702	.3514	.0860	.0331	.9151	7.3700	.5747	656.3077	656.3004	3.0928
.6887	.3349	.0781	.0266	1.0307	7.6500	.5662	644.6551	644.5841	9.5633
.8500	.3214	.0461	.0142	.8305	6.8080	.5516	628.5705	628.5351	6.6700
.9000	.3748	.1100	.0329	.6748	7.1000	.5044	577.7575	577.6695	10.0633
.9372	.4834	.2574	.0744	.5143	7.5000	.4311	497.6518	497.4813	13.0270

PCT IMMERS	EX STAT PRES
.0500	17.1905
.1000	17.1814
.1500	17.1726
.2822	17.1478
.4702	17.1153
.6887	17.0794
.8500	17.0538
.9000	17.0461
.9372	17.0381

0-3

ROTOR INLET TRAVERSE PLANE		READING NUMBER	249	TIME	11H 45M 7S	RADIAL INLET DISTORTION		STATOR ANGLE		3
ROTOR SPEED	11539.5334									
ACTUAL ORIFICE FLOW	128.1204					DISTORTION INDEX	0.134			
THETA	1.0142									
DELTA	0.9396									
MASS AVERAGED PT	13.8097	(14.6960)								
MASS AVERAGED TT	526.0911	(518.6881)								
TOTAL WEIGHT FLOW	134.7929	(PROBE INTEGRATION)								
EQUIV. WEIGHT FLOW	144.4629									
EQUIV. SPEED	11458.0570									
PERCENT SPEED	89.6491									
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 5.5, 328 DEG.										
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400	
TOTAL PRESSURE	13.4262	13.4177	13.3901	13.9903	15.4369	15.4757	15.3645	15.3220	14.6064	
STATIC PRESSURE	11.7552	11.5994	11.4629	11.2460	11.0964	11.2224	11.3869	11.5923	11.9453	
WEDGE PRESSURE	11.8198	11.6838	11.5632	11.4900	11.7500	11.8426	11.9220	12.0518	12.1558	
TOTAL TEMPERATURE	523.7252	523.4555	522.7477	517.5990	518.3134	516.6489	516.6270	516.8636	516.8649	
ANGLE	0.9926	1.7632	1.4293	1.7155	2.0223	1.7984	1.7786	1.2770	2.1479	
APPARENT MACH NO.	0.4305	0.4489	0.4625	0.5378	0.6366	0.6301	0.6129	0.5957	0.5189	
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 5.5, 260 DEG.										
STATIC PRESSURE	11.9093	11.8250	11.6786	11.6474	11.7991	11.9270	12.1376	12.2679	12.3641	
WEDGE PRESSURE	11.9265	11.8435	11.6990	11.6787	11.8556	11.9814	12.1851	12.3118	12.3930	
ANGLE	1.1993	0.5933	2.0405	2.9857	5.1635	4.6589	6.4384	7.3481	6.7327	
APPARENT MACH NO.	0.4148	0.4259	0.4433	0.5144	0.6257	0.6157	0.5850	0.5677	0.4901	
MEASURING PLANE										
MACH NO.	0.4173	0.4286	0.4463	0.5184	0.6316	0.6214	0.5901	0.5725	0.4937	
ABSOLUTE VELOCITY	458.0805	470.0563	488.6631	563.8469	678.6516	668.5044	637.1142	619.2677	538.3101	
SWIRL VELOCITY	7.7100	14.1476	11.9989	16.7932	23.9475	20.8413	19.1631	13.1743	18.8998	
WEIGHT FLOW	10.2670	7.2911	12.3505	22.8980	31.8519	25.2783	12.2363	5.9602	6.6189	
AXIAL VELOCITY	444.9848	459.5762	480.8704	560.7114	678.1918	663.7511	617.0946	590.9580	503.9093	
CALCULATING PLANE										
ANGLE	0.8932	1.5835	1.2991	1.5891	1.8321	1.6015	1.5042	1.0614	1.7729	
SWIRL VELOCITY	7.8423	14.3453	12.1353	16.9312	23.9253	20.6127	18.6543	12.6981	18.0114	
AXIAL VELOCITY	501.9817	517.9254	534.1013	609.3120	746.9601	736.2239	709.3767	684.3470	580.8986	
MERIDONAL VELOCITY	513.1963	525.2813	539.0891	611.2810	746.9648	740.0123	724.4282	708.4880	614.3702	
ABSOLUTE VELOCITY	514.2662	526.4792	540.2235	612.5121	748.3405	741.2987	725.6840	709.6313	615.6856	
MACH NO.	0.4707	0.4824	0.4956	0.5658	0.7025	0.6953	0.6793	0.6629	0.5690	
WEIGHT FLOW	10.2635	7.2918	12.3591	22.9016	31.8701	25.2932	12.2447	5.9478	6.6206	
ROTOR TANG. VELOC.	1392.0930	1353.6336	1313.7145	1218.1365	1077.2625	913.6908	792.4833	748.2295	703.1546	
RELAT. TANG. VELOC.	1384.2504	1339.2881	1301.5789	1201.2052	1053.3371	893.0782	773.8288	735.5313	685.1430	
RELATIVE FLOW ANGLE	69.6585	68.5846	67.5018	63.0291	54.6581	50.3547	46.8886	46.0730	48.1174	
RELATIVE VELOCITY	1476.3193	1438.6149	1408.8024	1347.7974	1291.3073	1159.8304	1060.0031	1021.2547	920.2561	
RELATIVE MACH NO.	1.3512	1.3181	1.2924	1.2452	1.2123	1.0878	0.9922	0.9540	0.8505	
MCL INCIDENCE	7.4585	7.3846	7.0018	4.6291	-1.4418	-1.9452	-1.5113	-1.9269	0.2174	
SURFACE INCIDENCE	5.2585	5.3846	4.9018	2.2291	-3.8418	-4.6452	-5.2113	-5.7269	-3.8825	
RELATIVE TOTAL PRESS	35.4086	33.5905	32.0315	29.9827	29.0813	25.0905	22.7719	22.0310	19.8420	
STATIC TEMPERATURE	501.4886	500.1622	498.2549	486.4189	471.7079	471.0612	472.9414	475.0704	485.4048	
RELAT. TOTAL TEMP.	684.7417	674.0859	664.8225	637.3912	610.4789	582.6573	566.1503	561.6284	555.6889	
STATIC PRESS.	11.5354	11.4424	11.3207	11.2575	11.1026	11.2027	11.2800	11.4086	11.7259	
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5595	0.5198	0.4885	
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000	

NOTE: ALL PRESSURE UNITS IN PSIA-AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L.-CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE READING NUMBER 249 TIME 11H 45M 7S RADIAL INLET DISTORTION STATOR ANGLE 3.0
 MASS AVERAGED PT 21.2426 (22.6058)
 MASS AVERAGED TT 609.6820 (601.1028)
 TOTAL WEIGHT FLOW 128.6070 (PROBE INTEGRATION)
 CORR. TOTAL FLOW 137.8333

PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.
 IMMERSION 0.3100 0.6400 0.9600 1.8100 3.0200 4.4300 5.3600 5.6800 5.9500
 TOTAL PRESSURE 22.6139 23.3760 23.2769 22.7853 23.0204 22.2419 21.5482 21.3576 21.2846
 STATIC PRESSURE 16.7259 16.4490 16.2191 15.8007 15.6957 15.3781 14.9059 14.7679 14.7925
 WEDGE PRESSURE 18.2597 18.2098 18.0098 17.5717 17.5507 17.1175 16.5899 16.4377 16.4386
 TOTAL TEMPERATURE 631.5990 633.2860 625.8725 616.1970 590.2958 581.6240 574.0617 574.2071 575.3633
 ANGLE 43.6733 42.8987 41.7594 42.6284 35.0117 37.0108 38.3154 38.6772 41.3963
 APPARENT MACH NO. 0.5616 0.6085 0.6170 0.6210 0.6349 0.6234 0.6229 0.6233 0.6190

PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.
 STATIC PRESSURE 17.0594 17.3296 17.5879 17.4866 17.3633 17.1257 16.7917 16.6209 16.4778
 WEDGE PRESSURE 17.1617 17.4446 17.6924 17.5809 17.4675 17.2161 16.8737 16.7027 16.5618
 ANGLE 46.1689 45.2072 42.0888 35.2816 29.6881 32.4224 32.8005 32.7607 33.0360
 APPARENT MACH NO. 0.6407 0.6608 0.6388 0.6204 0.6407 0.6162 0.6016 0.6032 0.6096

MEASURING PLANE
 MACH NO. 0.6479 0.6685 0.6460 0.6270 0.6479 0.6228 0.6078 0.6095 0.6160
 ABSOLUTE VELOCITY 762.6142 786.1257 757.7541 735.1202 741.2629 710.5515 690.1277 691.8483 699.4554
 SWIRL VELOCITY 525.6092 534.1911 503.9111 497.5743 425.2781 426.4674 424.5322 427.7287 457.2287
 WEIGHT FLOW 11.4963 8.1150 14.1334 22.3341 29.9977 21.9493 9.9858 4.3942 6.2200
 AXIAL VELOCITY 550.5343 574.8858 564.3999 540.5730 607.0984 565.7224 537.2552 534.3302 518.6940

CALCULATING PLANE
 SWIRL VELOCITY 522.1359 530.9731 501.5746 496.3364 425.6716 430.1241 430.6260 435.1953 467.9033
 AXIAL VELOCITY 519.7685 543.6242 535.0904 518.8594 584.0595 543.2139 508.4032 502.3187 485.4084
 ABSOLUTE VELOCITY 742.1392 763.8079 736.2967 719.0773 723.6251 695.7876 674.6099 675.9253 688.2710
 MERIDIONAL VELOCITY 526.3938 548.0665 538.0378 519.3150 584.1876 545.9131 518.2737 516.1626 503.7285
 ANGLE 45.0759 44.2736 43.0956 43.6744 36.0389 38.3217 40.2100 40.8488 43.8896
 MACH NO. 0.6291 0.6479 0.6262 0.6123 0.6312 0.6089 0.5931 0.5944 0.6054
 WEIGHT FLOW 11.5040 8.1235 14.1394 22.3409 29.9303 21.9687 9.9909 4.3949 6.2142
 ROTOR TANG. VELOC. 1355.2753 1321.7837 1288.8144 1207.1267 1081.2637 934.7298 837.5677 803.3200 772.2680
 RELAT. TANG. VELOC. 833.1395 790.8106 787.2397 710.7903 655.5921 504.6056 406.9417 368.1245 304.3647
 RELATIVE FLOW ANGLE 57.7147 55.2765 55.6496 53.8477 48.2964 42.7484 38.1386 35.4964 31.1414
 RELATIVE VELOCITY 985.5006 962.1632 953.5360 880.2901 878.1093 743.4030 658.9454 633.9869 588.5409
 RELATIVE MACH NO. 0.8355 0.8162 0.8110 0.7496 0.7660 0.6505 0.5794 0.5575 0.5177
 DEVIATION 1.7147 -1.0234 -0.2503 2.6477 1.2964 4.0483 10.2386 12.5964 12.5414
 AIR TURNING ANGLE 11.9437 13.3081 11.8522 9.1814 6.3617 7.6063 8.7499 10.5766 16.9760
 ROTOR REL. MACH NO. 1.0624 1.0441 1.0243 0.9749 0.8927 0.7886 0.7168 0.6904 0.6673
 IDEAL PRESS. RATIO 0.9572 0.9633 0.9716 0.9878 1.0041 1.0195 1.0381 1.0448 1.0542
 ROTOR PRESS. RATIO 1.6843 1.7421 1.7383 1.6286 1.4912 1.4372 1.4024 1.3939 1.4572
 ROTOR TEMP. RATIO 1.2059 1.2098 1.1972 1.1904 1.1388 1.1257 1.1111 1.1109 1.1131
 ADIABATIC EFFY. 0.7767 0.8158 0.8643 0.7825 0.8693 0.8669 0.9115 0.8961 1.0022
 POLYTR. EFFICIENCY 0.7923 0.8295 0.8744 0.7968 0.8765 0.8736 0.9157 0.9009 1.0021
 TOTAL LOSS COEFF. 0.1841 0.1602 0.1167 0.1888 0.0924 0.0993 0.0681 0.0845 -0.0022
 SHOCK LOSS COEFF. 0.0390 0.0519 0.0611 0.0605 0.0503 0.0208 0.0068 0.0033 -0.0029
 PROFILE LOSS COEFF. 0.1451 0.1083 0.0555 0.1283 0.0421 0.0784 0.0612 0.0812 0.0006
 TOTAL LOSS PARAM. 0.0299 0.0275 0.0197 0.0328 0.0177 0.0203 0.0144 0.0180 -0.0005
 PROFILE LOSS PARAM. 0.0236 0.0186 0.0093 0.0223 0.0081 0.0161 0.0129 0.0173 0.0001
 ROTOR DIFFUS. FACT. 0.4321 0.4346 0.4224 0.4517 0.4114 0.4611 0.4881 0.4920 0.4939
 STATIC PRESS. 17.3261 17.6346 17.8761 17.6950 17.6043 17.3176 16.9855 16.8183 16.6171
 RADIUS RATIO 0.9775 0.9531 0.9287 0.8656 0.7759 0.6696 0.6000 0.5756 0.5534
 STREAMLINE SLOPE -9.1000 -7.3000 -6.0000 -2.4000 1.2000 5.7000 11.2000 13.3000 15.5000
 SOLIDITY 1.6400 1.6580 1.6700 1.6940 1.7300 1.7880 1.8540 1.9100 1.9540
 METAL CAMBER 6.2000 4.9000 4.6000 7.2000 9.1000 13.6000 20.5000 25.1000 29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 249 TIME 11H 45M 7S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 21.2426 (22.6058)
 MASS AVERAGED TT 609.6683 (601.0891)
 TOTAL WEIGHT FLOW 128.6800 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 137.9115

MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.6139	23.3760	23.2769	22.7853	23.0204	22.2419	21.5482	21.3576	21.2846
STATIC PRESSURE	17.0594	17.3296	17.5879	17.4866	17.3633	17.1257	16.7917	16.6209	16.4778
WEDGE PRESSURE	17.1617	17.4446	17.6924	17.5809	17.4675	17.2161	16.8736	16.7027	16.5618
TOTAL TEMPERATURE	631.5989	633.2859	625.8724	616.1969	590.2957	581.6238	574.0616	574.2070	575.3631
ANGLE	43.6733	42.8987	41.7594	42.6284	35.0117	37.0108	38.3154	38.6772	41.3963
MACH NO.	0.6479	0.6685	0.6460	0.6270	0.6479	0.6228	0.6078	0.6095	0.6160
ABSOLUTE VELOCITY	762.6141	786.1257	757.7540	735.1202	741.2627	710.5514	690.1275	691.8481	699.4553
SWIRL VELOCITY	525.6091	534.1911	503.9110	497.5741	425.2779	426.4673	424.5321	427.7285	457.2285
AXIAL VELOCITY	550.5342	574.8859	564.3998	540.5730	607.0984	565.7224	537.2552	534.3302	518.6937
WEIGHT FLOW	11.4963	8.1150	14.1334	22.3341	29.9977	21.9493	9.9858	4.3942	6.2200

CALCULATING PLANE									
ANGLE	43.8376	42.8692	41.4560	41.8140	33.4537	35.2974	36.6530	36.9052	39.4789
MACH NO.	0.6472	0.6702	0.6522	0.6393	0.6766	0.6449	0.6216	0.6234	0.6279
SWIRL VELOCITY	527.5585	535.8147	505.8748	498.8180	425.2779	423.3183	419.0957	422.0393	449.8171
AXIAL VELOCITY	548.4249	576.2416	571.6862	556.6310	642.6641	596.9383	562.1289	561.0055	545.0898
ABSOLUTE VELOCITY	761.8452	787.8981	764.4574	748.4537	771.4667	733.8660	704.7089	706.5014	711.9622
WEIGHT FLOW	11.5077	8.1178	14.1161	22.3472	30.0082	21.9727	9.9897	4.3995	6.2208
MERIDIONAL VELOCITY	548.6390	576.6667	572.1472	557.0050	642.6679	598.4698	565.5442	565.5899	550.8594
STATIC TEMPERATURE	583.0011	581.3387	577.0179	569.8051	540.8753	537.0342	532.9360	532.8532	533.3692
STATIC PRESS.	17.0695	17.3052	17.4969	17.3112	16.9430	16.8177	16.6071	16.4366	16.3205
MCL INCIDENCE	14.8547	13.6208	11.8694	10.8721	-0.1960	1.1780	2.4907	2.6967	5.2867
SUC SUR INCIDENCE	8.4276	7.0892	5.2960	4.6240	-6.3062	-5.0125	-3.9019	-3.7647	-1.2711
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 249 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
 OUTFR WALL STATIC PRES= 18.500 HUB STATIC PRES= 18.230

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	JN TOT PRES
.050	13.4800	-7.4000	1.0400	.0400	8.4000	761.8000	527.6000	583.0000	17.0600	22.6100
.100	13.1600	-7.5000	1.0600	4.2000	7.1000	787.9000	535.8000	581.3000	17.3100	23.3700
.150	12.8300	-7.6000	1.0900	5.3000	5.3000	764.5000	505.9000	577.0000	17.5000	23.2800
.282	12.0000	-8.4000	1.1700	6.1000	4.6000	748.4000	498.8000	569.8000	17.3100	22.7800
.470	10.8200	-10.1000	1.3000	.8600	-6.3000	771.5000	425.3000	540.9000	16.9400	23.0200
.689	9.4800	-9.8000	1.4700	1.5000	-5.0000	733.9000	423.3000	537.0000	16.8200	22.2400
.850	8.5900	-9.2000	1.6200	1.0900	-3.9000	704.7000	419.1000	532.9000	16.6100	21.5500
.900	8.2700	-9.1000	1.6700	1.3500	-3.7000	706.5000	422.0000	532.9000	16.4300	21.3800
.937	8.0200	-9.0000	1.7300	2.1700	-1.3000	712.0000	449.8000	533.4000	16.3200	21.2800

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	628.9000	21.7000
.1000	13.1500	625.8000	22.0700
.1500	12.8400	620.4000	22.3600
.2822	11.9700	605.0000	22.3800
.4702	10.8300	587.2000	22.5900
.6887	9.5700	578.4000	21.9200
.8500	8.6700	576.8000	21.2500
.9000	8.4000	577.1000	20.7300
.9372	8.1200	579.6000	20.0100

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.5693	.1640	.0788	.7648	4.4400	.4842	581.6914	581.6912	.4061
.1000	.5191	.2145	.1009	.8098	8.7000	.5108	610.6597	609.0198	44.7236
.1500	.4437	.1592	.0727	.8587	9.9000	.5308	630.5488	627.8530	58.2442
.2822	.4088	.0731	.0311	4.1576	11.5000	.5351	627.4350	623.8824	66.6738
.4702	.3832	.0707	.0272	1.0046	7.7600	.5520	636.5566	636.5143	7.3324
.6887	.3838	.0590	.0201	1.0613	8.3000	.5137	590.2627	590.0604	15.4513
.8500	.4100	.0607	.0187	.7559	7.2900	.4699	541.3212	541.2232	10.2975
.9000	.4686	.1278	.0382	.6942	7.4500	.4300	497.2814	497.1434	11.7158
.9372	.5764	.2560	.0739	.5618	8.1700	.3658	426.0745	425.7690	16.1331

PCT IMMERS	EX STAT PRES
.0500	18.4849
.1000	18.4705
.1500	18.4564
.2822	18.4171
.4702	18.3655
.6887	18.3085
.8500	18.2678
.9000	18.2556
.9372	18.2429

ROTOR INLET TRAVERSE PLANE	READING NUMBER	251	TIME 13H 21M 56S	RADIAL INLET DISTORTION	STATOR ANGLE	3			
ROTOR SPEED	12858.0019			DISTURTION INDEX	0.161				
ACTUAL ORIFICE FLOW	138.4112								
THETA	1.0101								
DELTA	0.9270								
MASS AVERAGED PT	13.6241	(14.6960)							
MASS AVERAGED TT	523.9479	(518.6881)							
TOTAL WEIGHT FLOW	144.8285	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	157.0124								
EQUIV. SPEED	12793.3011								
PERCENT SPEED	100.0962								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	13.0858	13.1207	13.0861	14.0940	15.6060	15.6048	15.4748	15.4232	14.5365
STATIC PRESSURE	10.6812	10.6134	10.5071	10.3969	10.6011	10.7478	10.8022	11.0244	11.2647
WEDGE PRESSURE	10.8741	10.8275	10.7380	10.9034	11.5225	11.6043	11.5899	11.7024	11.6220
TOTAL TEMPERATURE	519.9709	519.9824	519.4141	517.9709	519.0848	518.6815	517.9511	517.9537	516.4154
ANGLE	1.5870	2.7125	2.8863	1.9332	1.8965	1.8045	1.7064	1.1474	2.1998
APPARENT MACH NO.	0.5210	0.5310	0.5390	0.6167	0.6727	0.6644	0.6550	0.6405	0.5744
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	10.9404	10.9309	10.8889	10.9538	11.1893	11.3839	11.6251	11.7436	11.8270
WEDGE PRESSURE	10.9688	10.9601	10.9182	11.0013	11.2646	11.4543	11.6876	11.8012	11.8648
ANGLE	2.6697	3.4211	4.6783	6.4518	7.0808	6.6067	7.2320	7.9588	7.4267
APPARENT MACH NO.	0.5084	0.5135	0.5152	0.6055	0.6985	0.6794	0.6450	0.6303	0.5464
MEASURING PLANE									
MACH NO.	0.5122	0.5174	0.5191	0.6109	0.7060	0.6865	0.6523	0.6362	0.5508
ABSOLUTE VELOCITY	557.4817	562.8230	564.6350	658.0212	751.6990	732.7691	699.2005	683.2755	597.2049
SWIRL VELOCITY	15.0011	26.0551	27.9885	22.0847	24.8756	22.9219	20.1762	13.0606	21.4743
WEIGHT FLOW	11.5799	8.1291	13.3621	25.3253	33.6628	26.5060	12.8837	6.3070	7.0258
AXIAL VELOCITY	541.4249	549.9340	555.1151	654.2838	751.2461	727.5568	677.2543	652.0680	559.0239
CALCULATING PLANE									
ANGLE	1.4006	2.3936	2.5956	1.7595	1.6681	1.5687	1.4037	0.9215	1.7865
SWIRL VELOCITY	15.2585	26.4191	28.3068	22.2661	24.8526	22.6705	19.6405	12.5885	20.4648
AXIAL VELOCITY	623.0750	631.0180	623.4090	723.8426	852.3618	826.8239	800.5233	781.6037	655.1310
MERIDONAL VELOCITY	636.9948	639.9804	629.2310	726.1817	852.3671	831.0783	817.5039	809.1755	692.8799
ABSOLUTE VELOCITY	638.1930	641.5322	630.8697	727.5212	853.7234	832.3873	818.7611	810.3041	694.2360
MACH NO.	0.5912	0.5945	0.5839	0.6811	0.8137	0.7907	0.7752	0.7673	0.6473
WEIGHT FLOW	11.5908	8.1363	13.3622	25.3321	33.6708	26.5078	12.8894	6.3097	7.0292
ROTOR TANG. VELOC.	1559.9187	1516.4163	1471.5054	1359.6018	1201.9057	1018.1653	883.7023	834.5436	785.4372
RELAT. TANG. VELOC.	1544.6601	1489.9972	1443.1985	1337.3356	1177.0529	995.4947	864.0617	821.9549	764.9721
RELATIVE FLOW ANGLE	67.5897	66.7558	66.4431	61.4980	54.0898	50.1437	46.5859	45.4490	47.8312
RELATIVE VELOCITY	1670.8491	1621.6242	1574.4055	1521.7773	1453.2662	1296.8041	1189.5034	1153.4187	1032.1168
RELATIVE MACH NO.	1.5479	1.5028	1.4574	1.4248	1.3851	1.2320	1.1277	1.0922	0.9623
MCL INCIDENCE	5.3897	5.5558	5.9431	3.0979	-2.0101	-2.1562	-1.8140	-2.5509	-0.0687
SURFACE INCIDENCE	3.1897	3.5558	3.8431	0.6979	-4.4101	-4.8562	-5.5140	-6.3509	-4.1687
RELATIVE TOTAL PRESS	43.0739	40.3016	37.6012	36.1088	34.8781	28.7953	25.7034	24.8370	21.4407
STATIC TEMPERATURE	485.9666	485.6205	486.2206	473.9487	458.3364	460.9760	462.1958	463.3451	476.4480
RELAT. TOTAL TEMP.	719.0469	705.1742	692.9512	666.5597	634.3678	601.0362	579.8749	573.9920	564.7860
STATIC PRESS.	10.3289	10.3299	10.3870	10.3302	10.0976	10.3298	10.3901	10.4455	10.9673
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7030	15.0000	19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE		READING NUMBER 251		TIME 13H 21M 56S		RADIAL INLET DISTORTION		STATOR ANGLE 3.0	
MASS AVERAGED PT	19.7895	{ 21.3463}							
MASS AVERAGED TT	601.9699	{595.9270}							
TOTAL WEIGHT FLOW	142.2309	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	154.1963								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3630	5.6800	5.9500
TOTAL PRESSURE	21.2281	20.6787	20.5676	21.0729	21.9456	21.5629	21.8026	21.5427	20.7512
STATIC PRESSURE	13.6961	13.3030	13.1671	13.3067	13.8251	13.9977	13.8715	13.6283	13.2090
WEDGE PRESSURE	-15.7022	15.2630	15.1263	15.3423	15.9500	16.0226	15.9614	15.7053	15.1971
TOTAL TEMPERATURE	613.7261	606.9517	605.2971	608.3198	590.0987	584.4897	581.0853	581.4190	582.1226
ANGLE	28.4926	29.0729	30.6320	32.4501	29.7126	32.0063	31.7613	33.5630	37.3937
APPARENT MACH NO.	0.6710	0.6734	0.6776	0.6891	0.6910	0.6655	0.6827	0.6875	0.6823
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	15.4572	14.5752	14.4530	14.8619	15.2946	15.4612	15.2741	15.1626	14.9994
WEDGE PRESSURE	15.5705	14.7014	14.5800	14.9902	15.4345	15.5840	15.4104	15.2948	15.1137
ANGLE	13.0715	15.2818	15.2303	21.8401	25.1808	26.4701	25.0018	25.1312	24.7208
APPARENT MACH NO.	0.6807	0.7157	0.7189	0.7151	0.7274	0.6973	0.7220	0.7171	0.6886
MEASURING PLANE									
MACH NO.	0.6890	0.7252	0.7285	0.7245	0.7373	0.7062	0.7316	0.7266	0.6972
ABSOLUTE VELOCITY	798.4090	831.7921	834.5314	833.6708	833.3315	797.9414	822.1558	817.2514	788.7988
SWIRL VELOCITY	379.8001	403.1898	424.3654	446.9894	413.0230	421.5148	428.8093	446.3210	472.8898
WEIGHT FLOW	13.5581	8.9806	15.3416	25.3315	31.8852	23.7622	11.8044	5.0758	6.7260
AXIAL VELOCITY	699.7215	725.1978	716.6502	702.9853	723.7375	674.4026	692.6445	672.7114	618.6567
CALCULATING PLANE									
SWIRL VELOCITY	377.2904	400.7610	422.3977	445.8773	413.4050	425.1290	434.9645	454.1122	483.9300
AXIAL VELOCITY	653.8811	677.7235	672.1284	669.0814	684.2766	643.7486	649.1808	627.2743	576.3560
ABSOLUTE VELOCITY	763.0280	792.9853	797.8216	805.3562	800.4413	774.9646	792.7780	789.3020	770.1695
MERIDIONAL VELOCITY	662.2159	683.2618	675.8307	669.6689	684.4267	646.9473	661.7843	644.5622	598.1087
ANGLE	29.9474	30.5606	32.1091	33.6404	31.1015	33.4000	33.7824	35.8594	39.9694
MACH NO.	0.6558	0.6881	0.6933	0.6975	0.7052	0.6839	0.7029	0.6993	0.6792
WEIGHT FLOW	13.5503	8.9830	15.3470	25.3425	31.6064	23.7820	11.8162	5.0802	6.7229
ROTOR TANG. VELOC.	1518.6631	1480.7362	1443.6149	1347.3132	1206.3700	1041.6099	933.9762	895.9891	862.6384
RELAT. TANG. VELOC.	1141.3727	1079.9751	1021.2171	901.4357	792.9648	616.4808	499.0118	441.8770	378.7082
RELATIVE FLOW ANGLE	59.8782	57.6801	56.5040	53.3918	49.2019	43.6187	37.0178	34.4325	32.3411
RELATIVE VELOCITY	1319.5684	1277.9640	1224.5942	1122.9616	1047.4889	893.6381	828.8372	781.4828	707.9221
RELATIVE MACH NO.	1.1342	1.1089	1.0641	0.9726	0.9229	0.7887	0.7348	0.6923	0.6243
DEVIATION	3.8782	1.3801	0.6040	2.1918	2.2019	4.9187	9.1178	11.5325	13.7411
AIR TURNING ANGLE	7.7114	9.0757	9.9391	8.1061	4.8879	6.5249	9.5680	11.0164	15.4900
ROTOR REL. MACH NO.	1.1574	1.1394	1.1200	1.0643	0.9777	0.8669	0.7908	0.7625	0.7390
IDEAL PRESS. RATIO	0.9493	0.9564	0.9661	0.9855	1.0049	1.0236	1.0465	1.0549	1.0668
ROTOR PRESS. RATIO	1.6222	1.5760	1.5717	1.4951	1.4062	1.3818	1.4089	1.3967	1.4275
ROTOR TEMP. RATIO	1.1803	1.1672	1.1653	1.1744	1.1368	1.1268	1.1218	1.1225	1.1272
ADIABATIC EFFY.	0.8197	0.8277	0.8320	0.6964	0.7465	0.7618	0.8431	0.8165	0.8401
POLYTR. EFFICIENCY	0.8315	0.8384	0.8423	0.7130	0.7584	0.7724	0.8505	0.8249	0.8480
TOTAL LOSS COEFF.	0.1187	0.1101	0.1103	0.2114	0.1522	0.1538	0.1117	0.1369	0.1470
SHOCK LOSS COEFF.	0.0125	0.0113	0.0118	0.0170	0.0271	0.0564	0.0291	0.0216	0.0041
PROFILE LOSS COEFF.	0.1062	0.0987	0.0984	0.1943	0.1250	0.0973	0.0826	0.1153	0.1429
TOTAL LOSS PARAM.	0.0181	0.0177	0.0182	0.0372	0.0287	0.0311	0.0240	0.0295	0.0317
PROFILE LOSS PARAM.	0.0162	0.0159	0.0162	0.0342	0.0236	0.0197	0.0177	0.0249	0.0308
ROTOR DIFFUS. FACT.	0.2736	0.2810	0.2977	0.3453	0.3581	0.4005	0.4017	0.4267	0.4381
STATIC PRESS.	15.9066	15.0696	14.9198	15.2294	15.7494	15.7696	15.6795	15.5425	15.2389
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8540	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE READING NUMBER 251 TIME 13H 21M 56S RADIAL INLET DISTORTION STATOR ANGLE 3

MASS AVERAGED PT 19.7905 (21.3474)
 MASS AVERAGED TT 601.9616 (595.9186)
 TOTAL WEIGHT FLOW 142.5111 (PROBE INTEGRATION)
 EQUIV. WEIGHT FLOW 154.5000

MEASURING PLANE

IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	21.2281	20.6787	20.5676	21.0729	21.9456	21.5629	21.8026	21.5427	20.7512
STATIC PRESSURE	15.4572	14.5752	14.4530	14.8619	15.2946	15.4612	15.2741	15.1626	14.9994
WEDGE PRESSURE	15.5705	14.7014	14.5800	14.9902	15.4345	15.5840	15.4104	15.2948	15.1137
TOTAL TEMPERATURE	613.7260	606.9516	605.2969	608.3197	590.0986	584.4896	581.0852	581.4139	582.1225
ANGLE	28.4926	29.0729	30.6320	32.4501	29.7126	32.0063	31.7613	33.5630	37.3937
MACH NO.	0.6890	0.7252	0.7285	0.7245	0.7373	0.7062	0.7316	0.7266	0.6972
ABSOLUTE VELOCITY	798.4090	831.7920	834.5312	833.6705	833.3315	797.9413	822.1558	817.2512	788.7988
SWIRL VELOCITY	379.8001	403.1897	424.3652	446.9891	413.0229	421.5147	428.8093	446.3208	472.8897
AXIAL VELOCITY	699.7215	725.1978	716.6500	702.9851	723.7375	674.4025	692.6445	672.7112	618.6569
WEIGHT FLOW	13.5581	8.9806	15.3416	25.3314	31.8852	23.7621	11.8044	5.0758	6.7260

CALCULATING PLANE

ANGLE	28.6890	29.0394	30.2065	31.5151	27.9396	30.1835	29.9460	31.6694	35.3796
MACH NO.	0.6852	0.7269	0.7408	0.7477	0.7850	0.7413	0.7611	0.7528	0.7170
SWIRL VELOCITY	381.2089	404.4151	426.0189	448.1065	413.0229	418.4022	423.3181	440.3842	465.2244
AXIAL VELOCITY	695.6182	727.4099	730.7905	729.8165	777.7679	718.3716	733.8132	712.9023	654.1341
ABSOLUTE VELOCITY	794.3342	833.6103	847.2690	857.6734	881.5136	833.7912	851.8939	843.7723	809.1753
WEIGHT FLOW	13.5658	8.9855	15.3517	25.3359	31.8888	23.7666	11.8111	5.0791	6.7263
MERIDIONAL VELOCITY	695.8896	727.9466	731.3799	730.3070	777.7726	720.2149	738.2717	718.7278	661.0580
STATIC TEMPERATURE	561.2196	549.1033	545.5979	547.3248	525.4718	526.7047	520.8421	522.3192	527.9329
STATIC PRESS.	15.5095	14.5517	14.2886	14.5456	14.6136	14.9712	14.8559	14.7964	14.7342
MCL INCIDENCE	-0.2997	-0.2191	0.6108	0.5663	-5.7101	-3.9490	-4.2620	-2.5817	1.1441
SUC SUR INCIDENCE	-6.7209	-6.7405	-5.9534	-5.6748	-11.8202	-10.1264	-10.6139	-9.0005	-5.3703
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 251 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATC PRES= 15.460 HUB STATIC PRES= 15.290

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	6.0000	-6.8000	794.3000	381.2000	561.2000	15.5100	21.2300
.100	13.1600	-7.5000	1.0600	5.7500	-6.7400	833.6000	404.4000	549.1000	14.5500	20.6800
.150	12.8300	-7.6000	1.0900	3.0200	-5.9500	847.3000	426.0000	545.6000	14.2900	20.5700
.282	12.0000	-8.4000	1.1700	4.5000	-5.7000	857.7000	448.1000	547.3000	14.5500	21.0700
.470	10.8200	-10.1000	1.3000	.9700	-11.8000	881.5000	413.0000	525.5000	14.6100	21.9500
.689	9.4800	-9.8000	1.4700	.9800	-10.1300	833.8000	418.4000	526.7000	14.9700	25.5600
.850	8.5900	-9.2000	1.6200	.6000	-10.6000	851.9000	423.3000	520.8000	14.8600	21.8000
.900	8.2700	-9.1000	1.6700	1.6000	-9.0000	843.8000	440.4000	522.3000	14.8000	21.5400
.937	8.0200	-9.0000	1.7300	1.6200	-5.4000	809.2000	465.2000	527.9000	14.7300	20.7500

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	606.7000	19.9000
.1000	13.1500	603.0000	20.2000
.1500	12.8400	598.4000	20.1200
.2822	11.9700	598.7000	20.6700
.4702	10.8300	584.2000	21.0800
.6887	9.5700	576.0000	20.6100
.8500	8.6700	578.6000	20.9900
.9000	8.4000	578.2000	20.0800
.9372	8.1200	577.9000	18.5200

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.2880	.2325	.1112	-.1943	10.4000	.6123	713.0576	709.1514	74.5348
.1000	.3098	.0783	.0367	1.0061	10.2500	.6316	731.5950	727.9140	73.2971
.1500	.3550	.0717	.0328	1.3246	7.4200	.6274	724.3509	723.3450	38.1421
.2822	.3065	.0613	.0261	2.8132	9.9000	.6617	761.0304	758.6844	59.7097
.4702	.2919	.1185	.0456	.9272	8.0700	.6868	777.8962	777.7847	13.1689
.6887	.2671	.4674	.1590	1.3682	7.7800	.6635	748.3360	748.2265	12.7991
.8500	.2413	.1167	.0360	.5668	6.8000	.6865	773.8437	773.8012	8.1036
.9000	.2945	.2166	.0648	.3984	7.7000	.6350	720.0290	719.7482	20.1044
.9372	.4083	.3704	.1070	.3013	7.6200	.5297	607.4262	607.1834	17.1723

PCT IMMERS	EX STAT PRES
.0500	15.4505
.1000	15.4414
.1500	15.4326
.2822	15.4078
.4702	15.3753
.6887	15.3394
.8500	15.3138
.9000	15.3061
.9372	15.2981

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

TIP RADIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12893.5039	ORIFICE ACTUAL FLOW = 139.0101	AMBIENT PRESSURE = 14.6954
EQUIVALENT SPEED (RPM) = 12795.7322	BELLMOUTH ACTUAL FLOW = 137.8532	AMBIENT TEMPERATURE = 526.1881
PERCENT EQUIVALENT SPEED = 100.1152	INLET FLOW (STA 5) = 133.7118	INLET TOTAL PRESSURE(MA) = 13.6140
DRF TO BELL FLOW RATIO = 1.0083	ORIFICE EQUIVALENT FLOW = 151.2042	INLET TEMPERATURE = 526.6452
DRF TO INLET FLOW RATIO = 1.0396	BELLMOUTH EQUIVALENT FLOW= 149.9459	BELLMOUTH TOTAL PRESSURE = 14.4540
DRF TO EXIT FLOW RATIO = 0.9639	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0581
EQVT. FLOW PER ANN. AREA = 42.6768	EXIT FLOW (STA 12) = 144.2075	EXIT TOTAL PRESSURE (MA) = 20.4219
EQVT. FLOW PER FRON. AREA= 33.5636	MIXING DUCT TEMPERATURE = 610.5434	EXIT TEMPERATURE (STA 12)= 611.1637
PERCENT DESIGN EQVT. FLOW= 102.2265	INNER DRIFICE FLOW = 51.4078	STAGE PRESSURE RATIO(MA) = 1.5000
DISTORTION INDEX (RADIAL)= 0.1612	OUTER DRIFICE FLOW = 87.6023	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 24.0000	OUTER DISCHARGE VALVE = 24.0000	P599 = 14.6936

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1604	0.7635	0.7766	3997.38
MIXING DUCT	0.1593	0.7692	0.7820	3967.92
TORQUEMETER	-0.0060	*****	*****	-149.92

STAGE ELEMENT PERFORMANCE

IMMERSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.4692	1.5013	1.5184	1.5130	1.5283	1.5040	1.4965	1.4252	1.3385
TEMPERATURE RISE	0.2070	0.1970	0.1874	0.1732	0.1468	0.1325	0.1296	0.1288	0.1287
ADIABATIC EFFICIENCY	0.5590	0.6225	0.6739	0.7231	0.8757	0.9314	0.9403	0.8255	0.6736
POLYTROPIC EFFICIENCY	0.5820	0.6433	0.6924	0.7387	0.8829	0.9352	0.9436	0.8340	0.6867
TOTAL PRESSURE	20.0023	20.4390	20.6724	20.5991	20.8073	20.4764	20.3741	19.4039	18.2236
TOTAL TEMPERATURE	635.71	630.43	625.37	617.87	603.97	596.46	594.90	594.51	594.46
STATIC PRESSURE	16.3249	16.3145	16.3040	16.2760	16.2379	16.1971	16.1679	16.1585	16.1496

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 151.9216	PRESSURE RATIO = 10.6987	TURBINE GAS FLOW = 0.2974
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0120	TURBINE AIR FLOW = 24.7394
INLET TOTAL TEMPERATURE = 1475.1176	SPECIFIC HEAT = 0.2639	TURBINE TOTAL FLOW = 25.0369
EXIT TOTAL TEMPERATURE = 1012.3091	TURBINE EFFICIENCY = 0.6826	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 344 360 404 405 408 410 423 431 433 437 438 541

POINT 14 READING 252

***** TRANSDUCIC FAN RIG *****

13-19-21

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PAGE 2

PT1 - PITOT STATIC RAKE

25	0.00(0.00)	26	14.48(15.63)	27	0.00(0.00)	28	0.00(0.00)	29	14.43(15.58)	AVERAGE	14.45(15.60)
31	14.46(15.61)	32	0.00(0.00)	33	14.47(15.62)	34	0.00(0.00)	35	14.43(15.58)	36	0.00(0.00)
37	14.41(15.56)	38	14.44(15.59)	39	14.40(15.54)	40	0.00(0.00)	41	14.44(15.59)	42	14.44(15.59)
43	0.00(0.00)	44	14.43(15.58)	45	0.00(0.00)	46	14.46(15.61)	47	0.00(0.00)	48	14.50(15.66)
49	0.00(0.00)	50	14.44(15.59)	51	0.00(0.00)	52	0.00(0.00)	53	14.48(15.63)		

PS1 - PITOT STATIC RAKE

54	13.66(14.75)	55	0.00(0.00)	56	13.32(14.38)	57	0.00(0.00)	58	0.00(0.00)	AVERAGE	13.34(14.40)
60	0.00(0.00)	61	13.27(14.33)	62	0.00(0.00)	63	13.32(14.37)	64	0.00(0.00)	59	13.32(14.38)
66	13.31(14.37)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	65	0.00(0.00)
72	13.29(14.34)	73	0.00(0.00)	74	13.31(14.37)	75	0.00(0.00)	76	13.31(14.36)	71	13.28(14.34)
78	13.31(14.37)	79	0.00(0.00)	80	0.00(0.00)	81	13.33(14.39)	82	13.35(14.42)	77	0.00(0.00)

TTO - INLET SCREEN TEMPERATURE

2	526.21(518.26)	3	526.15(518.20)	4	526.33(518.38)	6	526.63(518.67)	9	526.69(518.73)	AVERAGE	526.64(518.68)
11	526.39(518.44)	14	526.81(518.85)	15	526.63(518.67)	16	526.93(518.96)	18	526.87(518.91)	10	526.33(518.38)
22	526.81(518.85)	23	527.10(519.14)						21	527.10(519.14)	

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)						AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	11.29(12.19)	90	11.33(12.23)					AVERAGE	11.31(12.21)
PS31 - INNERWALL	92	11.37(12.27)	94	11.38(12.29)					AVERAGE	11.38(12.28)
PS40 - OUTERWALL	96	11.31(12.21)	98	11.33(12.23)					AVERAGE	11.32(12.22)
PS41 - INNERWALL	100	11.61(12.53)	102	11.59(12.52)					AVERAGE	11.60(12.52)
PS430 - OUTERWALL	104	11.33(12.23)	106	11.33(12.23)					AVERAGE	11.33(12.23)
PS431 - INNERWALL	108	11.98(12.93)	110	11.97(12.92)					AVERAGE	11.97(12.93)
PS460 - OUTERWALL	112	11.39(12.30)	114	11.39(12.30)					AVERAGE	11.39(12.30)
PS461 - INNERWALL	116	12.12(13.08)	118	12.11(13.07)					AVERAGE	12.11(13.08)
PS50 - OUTERWALL	120	10.95(11.82)	121	10.97(11.84)	122	10.96(11.83)	123	10.93(11.80)	AVERAGE	10.95(11.82)
PS51 - INNERWALL	124	11.91(12.86)	125	11.85(12.79)	126	11.85(12.79)	127	11.96(12.92)	AVERAGE	11.89(12.84)
PS550 - OUTERWALL	146	10.26(11.08)	147	10.29(11.11)	148	10.27(11.09)	149	10.22(11.03)	AVERAGE	10.26(11.08)
PS551 - INNERWALL	150	11.72(12.65)	151	11.69(12.62)	152	11.87(12.82)	153	11.81(12.75)	AVERAGE	11.77(12.71)
PS60 - OUTERWALL	154	9.90(10.69)	155	9.72(10.49)						
PS70 - OUTERWALL	156	10.32(11.14)	157	11.63(12.56)	158	12.09(13.06)	159	12.69(13.70)		
	160	14.57(15.73)	161	15.00(16.19)						
PS80 - OUTERWALL	162	15.45(16.67)	163	15.38(16.60)						
PS90 - OUTERWALL	164	15.03(16.23)	165	15.68(16.92)	166	14.64(15.81)	167	15.11(16.31)	AVERAGE	15.12(16.32)
PS91 - INNERWALL	168	13.53(14.60)	169	13.44(14.51)	170	13.75(14.84)	171	13.40(14.47)	AVERAGE	13.53(14.60)
PS100 - OUTERWALL	172	16.24(17.53)	173	15.68(16.93)	174	15.00(16.19)	175	14.52(15.68)	AVERAGE	15.36(16.58)
PS101 - INNERWALL	176	14.24(15.37)	177	13.88(14.98)	178	13.51(14.58)	179	12.90(13.93)	AVERAGE	13.63(14.72)
PS1020 - OUTERWALL	180	15.53(16.76)								
PS1021 - INNERWALL	181	13.97(15.08)								
PS1040 - OUTERWALL	182	15.91(17.17)								
PS1041 - INNERWALL	183	13.98(15.10)								
PS1060 - OUTERWALL	184	16.07(17.35)								
PS1061 - INNERWALL	185	14.48(15.63)								
PS1080 - OUTERWALL	186	16.14(17.42)								
PS1081 - INNERWALL	187	14.89(16.07)								
PS110 - OUTERWALL	188	16.56(17.88)	189	16.46(17.77)	190	16.28(17.57)	191	16.10(17.38)	AVERAGE	16.35(17.65)
PS111 - INNERWALL	192	15.46(16.69)	193	15.34(16.56)	194	15.21(16.42)	195	14.96(16.15)	AVERAGE	15.24(16.46)
PS120 - OUTERWALL	196	16.20(17.49)	197	16.40(17.70)	198	16.45(17.75)	199	16.28(17.57)	AVERAGE	16.33(17.63)
PS121 - INNERWALL	200	16.14(17.42)	201	16.11(17.39)	202	16.18(17.46)	203	16.11(17.39)	AVERAGE	16.14(17.42)
PS130 - OUTERWALL	465	17.90(19.32)								
PS131 - INNERWALL	469	17.87(19.29)								

PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	12.09(13.05)	129	12.11(13.07)	120	10.95(11.82)	124	11.91(12.86)
130	12.11(13.07)	131	12.12(13.09)	121	10.97(11.84)	125	11.85(12.79)
132	12.12(13.09)	133	12.09(13.05)	122	10.96(11.83)	126	11.85(12.79)
134	13.03(14.07)	135	13.05(14.09)	123	10.93(11.80)	127	11.96(12.92)
136	14.40(15.54)	137	14.42(15.57)				
138	14.42(15.56)	139	14.43(15.58)				
140	14.42(15.56)	141	14.43(15.58)				
142	14.40(15.54)	143	14.41(15.56)				
144	13.64(14.72)	145	13.61(14.70)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 20.00(21.59)		IMMERSION B - AVG 20.43(22.06)		IMMERSION C - AVG 20.67(22.31)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352						
204	21.06(22.73)	215	20.37(21.99)	226	20.82(22.47)	237	20.59(22.22)	248	20.66(22.30)	259	19.52(21.07)
205	18.97(20.48)	216	18.18(19.63)	227	19.68(21.25)	238	19.14(20.66)	249	19.14(20.66)	260	19.76(21.33)
206	17.59(18.99)	217	17.18(18.55)	228	19.32(20.86)	239	19.20(20.73)	250	20.70(22.35)	261	20.78(22.43)
207	18.85(20.35)	218	18.05(19.49)	229	20.41(22.03)	240	20.06(21.65)	251	20.92(22.58)	262	20.91(22.58)
208	20.41(22.03)	219	19.30(20.84)	230	20.86(22.51)	241	20.33(21.95)	252	21.02(22.69)	263	20.84(22.50)
209	20.78(22.43)	220	19.92(21.50)	231	20.69(22.34)	242	20.45(22.07)	253	20.82(22.47)	264	20.65(22.29)
210	20.78(22.43)	221	20.18(21.79)	232	20.62(22.26)	243	20.68(22.33)	254	20.73(22.38)	265	20.62(22.26)
211	20.77(22.42)	222	20.40(22.03)	233	20.82(22.48)	244	20.84(22.49)	255	20.85(22.51)	266	20.79(22.44)
212	20.78(22.43)	223	20.63(22.27)	234	20.75(22.40)	245	20.83(22.49)	256	20.95(22.62)	267	20.90(22.56)
213	20.89(22.55)	224	20.60(22.24)	235	20.64(22.28)	246	20.88(22.54)	257	20.87(22.53)	268	20.79(22.44)
214	21.01(22.68)	225	20.42(22.04)	236	20.93(22.59)	247	21.04(22.71)	258	20.88(22.54)	269	20.63(22.27)
IMMERSION D - AVG 20.59(22.23)		IMMERSION E - AVG 20.80(22.46)		IMMERSION F - AVG 20.47(22.10)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248						
270	20.76(22.41)	281	20.80(22.45)	292	20.51(22.14)	303	20.84(22.50)	314	20.77(22.42)	325	20.28(21.90)
271	19.73(21.30)	282	19.92(21.50)	293	19.55(21.11)	304	20.28(21.90)	315	19.70(21.26)	326	19.44(20.97)
272	20.54(22.18)	283	20.48(22.11)	294	20.72(22.36)	305	21.01(22.68)	316	20.50(22.13)	327	20.34(21.96)
273	20.64(22.28)	284	20.65(22.29)	295	20.89(22.55)	306	21.07(22.74)	317	20.58(22.22)	328	20.53(22.16)
274	20.64(22.28)	285	20.66(22.31)	296	20.92(22.58)	307	21.02(22.69)	318	20.51(22.14)	329	20.52(22.15)
275	20.65(22.29)	286	20.66(22.30)	297	20.91(22.57)	308	20.96(22.63)	319	20.48(22.11)	330	20.47(22.09)
276	20.67(22.32)	287	20.67(22.32)	298	20.88(22.54)	309	20.91(22.57)	320	20.51(22.14)	331	20.47(22.09)
277	20.67(22.32)	288	20.66(22.31)	299	20.89(22.55)	310	20.89(22.55)	321	20.60(22.24)	332	20.53(22.16)
278	20.70(22.34)	289	20.69(22.34)	300	20.90(22.56)	311	20.84(22.50)	322	20.67(22.31)	333	20.70(22.35)
279	20.72(22.36)	290	20.74(22.39)	301	20.87(22.53)	312	20.81(22.46)	323	20.66(22.30)	334	20.91(22.57)
280	20.79(22.44)	291	20.87(22.53)	302	20.90(22.56)	313	20.79(22.44)	324	20.56(22.20)	335	14.64(15.80)
IMMERSION G - AVG 20.37(21.99)		IMMERSION H - AVG 19.40(20.94)		IMMERSION I - AVG 18.22(19.67)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	14.96(16.15)	347	20.79(22.44)	358	20.02(21.61)	369	20.15(21.75)	380	19.13(20.65)	391	19.12(20.64)
337	19.60(21.15)	348	19.77(21.34)	359	20.11(21.71)	370	20.19(21.79)	381	18.73(20.22)	392	18.48(19.94)
338	19.48(21.03)	349	19.22(20.75)	360	19.30(20.83)	371	19.63(21.19)	382	18.16(19.60)	393	17.44(18.82)
339	20.04(21.64)	350	19.94(21.52)	361	18.87(20.37)	372	18.47(19.93)	383	17.37(18.75)	394	16.99(18.34)
340	20.55(22.19)	351	20.51(22.14)	362	18.01(19.45)	373	18.07(19.51)	384	17.08(18.44)	395	16.98(18.33)
341	20.70(22.34)	352	20.75(22.40)	363	18.06(19.50)	374	18.50(19.97)	385	17.34(18.72)	396	17.27(18.64)
342	20.72(22.36)	353	20.84(22.50)	364	18.64(20.13)	375	19.19(20.72)	386	17.90(19.32)	397	17.66(19.06)
343	20.78(22.43)	354	20.85(22.51)	365	19.30(20.83)	376	19.68(21.25)	387	18.53(20.01)	398	18.10(19.53)
344	15.21(16.42)	355	20.87(22.53)	366	19.78(21.35)	377	19.87(21.45)	388	18.86(20.36)	399	18.57(20.05)
345	20.79(22.44)	356	20.87(22.53)	367	19.94(21.52)	378	20.03(21.62)	389	19.02(20.53)	400	18.87(20.37)
346	20.78(22.44)	357	20.87(22.52)	368	20.14(21.74)	379	20.20(21.81)	390	19.12(20.64)	401	19.07(20.59)

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TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG	635.71(626.10)	AVG	630.43(620.91)	AVG	625.37(615.92)	AVG	617.87(608.54)	AVG	603.97(594.85)
402	639.17(629.52)	409	630.54(621.01)	416	624.66(615.22)	423	609.64(600.43)	430	609.70(600.49)
403	628.18(618.69)	410	609.70(600.49)	417	626.53(617.06)	424	612.98(603.72)	431	609.64(600.43)
404	609.64(600.43)	411	628.84(619.33)	418	624.11(614.68)	425	615.26(605.96)	432	603.27(594.16)
405	609.64(600.43)	412	627.13(617.66)	419	622.01(612.61)	426	617.48(608.15)	433	609.64(600.43)
406	636.39(626.78)	413	629.55(620.04)	420	623.33(613.92)	427	617.20(607.87)	434	601.42(592.34)
407	642.44(632.73)	414	633.44(623.87)	421	627.57(618.09)	428	621.84(612.45)	435	601.26(592.17)
408	609.64(600.43)	415	632.46(622.90)	422	627.68(618.20)	429	626.53(617.06)	436	605.74(596.58)

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG	596.46(587.45)	AVG	594.90(585.92)	AVG	594.51(585.52)	AVG	594.46(585.48)
437	609.70(600.49)	444	593.72(584.75)	451	594.68(585.69)	458	593.83(584.86)
438	609.64(600.43)	445	594.00(585.02)	452	596.25(587.24)	459	597.94(588.91)
439	595.63(586.63)	446	591.34(582.41)	453	587.44(578.56)	460	588.91(580.01)
440	595.41(586.41)	447	594.56(585.58)	454	591.80(582.85)	461	594.22(585.25)
441	594.56(585.58)	448	595.13(586.13)	455	594.39(585.41)	462	595.46(586.47)
442	599.46(590.40)	449	596.37(587.36)	456	595.30(586.30)	463	592.59(583.63)
443	597.21(588.19)	450	599.52(590.46)	457	599.57(590.51)	464	597.04(588.02)

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE 610.54(601.31)				
475	618.80(609.45)	477	617.92(608.58)	479	618.53(609.18)	481	617.31(607.98)	AVERAGE 618.14(608.80)
INNERWALL				AVERAGE 597.59(588.56)				
485	597.77(588.74)	488	598.45(589.41)	491	596.53(587.52)			

FLOWS

OUTER				AVERAGE 15.85			
PRESSURE (PSIA)	493	15.81	494	15.89			AVG 15.85
DELTA PRESSURE (PSI)	497	1.44	498	1.50			AVG 1.47
TEMPERATURE (R)	500	616.20	501	616.81			AVG 616.51
INNER				AVERAGE 15.75			
PRESSURE (PSIA)	503	15.75	504	15.76			AVG 15.75
DELTA PRESSURE (PSI)	507	2.45	508	2.43			AVG 2.44
TEMPERATURE (R)	510	593.94	511	594.45			AVG 594.20

TURBINE FLOWS				GAS		AIR	
PRESSURE (PSIA)	622	308.15	619	237.92			
DELTA PRESSURE (PSI)	623	1.59	620	2.31			
TEMPERATURE (R)	624	569.61	621	527.88			

REFERENCE PRESSURES

512	-2.497	513	7.981	514	8.003	515	7.991	516	8.017	517	8.017	518	4.020	519	7.988
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REFERENCE TEMPERATURES - ICE BATH

520	491.995	521	492.057	522	492.118	523	491.812	524	491.750	525	491.750
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ROTOR INLET TRAVERSE PLANE	READING NUMBER	252	TIME 13H 33M 44S	RADIAL INLET DISTORTION	STATOR ANGLE	3			
ROTOR SPEED	12846.4566			DISTORTION INDEX	0.161				
ACTUAL ORIFICE FLOW	138.0610								
THETA	1.0117								
DELTA	0.9266								
MASS AVERAGED PT	13.6184	(14.6960)							
MASS AVERAGED TT	524.7972	(518.6881)							
TOTAL WEIGHT FLOW	143.9869	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	156.2923								
EQUIV. SPEED	12771.4684								
PERCENT SPEED	99.9254								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	13.1018	13.1416	13.0889	14.0708	15.6008	15.6105	15.4776	15.4360	14.4817
STATIC PRESSURE	10.7077	10.6372	10.5291	10.4138	10.5883	10.7533	10.8150	11.0193	11.3100
WEDGE PRESSURE	10.8980	10.8502	10.7556	10.9084	11.5135	11.6095	11.5982	11.7036	11.6413
TOTAL TEMPERATURE	520.2033	519.6658	519.3459	518.4052	518.9778	518.3083	518.2582	517.7125	516.5461
ANGLE	1.6792	2.7975	2.6482	1.9624	1.9030	1.8302	1.7193	1.1583	2.2054
APPARENT MACH NO.	0.5196	0.5303	0.5370	0.6141	0.6732	0.6643	0.6554	0.6413	0.5672
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.0207	11.0095	10.9179	10.9865	11.2094	11.4064	11.6459	11.7616	11.8552
WEDGE PRESSURE	11.0478	11.0375	10.9467	11.0327	11.2841	11.4763	11.7059	11.8190	11.8914
ANGLE	2.8020	3.1270	4.2400	6.2725	6.9858	6.6489	7.2413	7.8751	7.3754
APPARENT MACH NO.	0.4995	0.5054	0.5117	0.5997	0.6962	0.6777	0.6442	0.6294	0.5380
MEASURING PLANE									
MACH NO.	0.5032	0.5092	0.5156	0.6051	0.7036	0.6847	0.6505	0.6354	0.5423
ABSOLUTE VELOCITY	548.1735	554.3893	560.9651	652.1779	749.4078	730.9798	697.4148	682.4297	588.4842
SWIRL VELOCITY	15.6070	26.4679	25.5143	22.2194	24.8854	23.1920	20.2771	13.1677	21.2141
WEIGHT FLOW	11.4330	8.0439	13.2885	25.1001	33.5620	26.4577	12.8473	6.3012	6.9180
AXIAL VELOCITY	532.3617	541.6563	551.6145	648.4625	748.9537	725.7698	675.5202	651.2587	550.8587
CALCULATING PLANE									
ANGLE	1.4870	2.4755	2.3796	1.7896	1.6758	1.5936	1.4158	0.9308	1.7965
SWIRL VELOCITY	15.8747	26.8377	25.8044	22.4020	24.8623	22.9377	19.7388	12.6917	20.2169
AXIAL VELOCITY	610.5190	619.7738	619.9645	715.9926	848.7781	823.4685	797.6493	780.1576	643.5595
MERIDIONAL VELOCITY	624.1583	628.5764	625.7541	718.3063	848.7832	827.7055	814.5738	807.6785	680.6414
ABSOLUTE VELOCITY	625.3747	630.1553	627.2878	719.6526	850.1407	829.0226	815.8282	808.8081	681.9948
MACH NO.	0.5785	0.5832	0.5804	0.6731	0.8098	0.7872	0.7731	0.7657	0.6349
WEIGHT FLOW	11.4340	8.0466	13.3015	25.1001	33.5733	26.4534	12.8535	6.3038	6.9203
ROTOR TANG. VELOC.	1556.9084	1514.2891	1469.0898	1356.7128	1199.9780	1016.7934	881.9328	833.3129	783.9975
RELAT. TANG. VELOC.	1541.0337	1487.4515	1443.2849	1334.3105	1175.1156	993.8555	862.1938	820.6211	763.7805
RELATIVE FLOW ANGLE	67.9510	67.0919	66.5605	61.7050	54.1597	50.2118	46.6259	45.4555	48.2944
RELATIVE VELOCITY	1662.6358	1614.8127	1573.0984	1515.3703	1449.5959	1293.3850	1186.1316	1151.4180	1023.0508
RELATIVE MACH NO.	1.5382	1.4947	1.4556	1.4174	1.3809	1.2281	1.1241	1.0900	0.9525
MCL INCIDENCE	5.7510	5.8920	6.0604	3.3050	-1.9402	-2.0881	-1.7730	-2.5444	0.3944
SURFACE INCIDENCE	3.5510	3.8919	3.9605	0.9050	-4.3402	-4.7881	-5.4730	-6.3444	-3.7055
RELATIVE TOTAL PRESS	42.7753	40.1139	37.6061	35.8380	34.7327	28.7049	25.6282	24.8096	21.2533
STATIC TEMPERATURE	487.5375	486.5324	486.5333	475.2953	458.7519	461.1100	462.8715	463.3315	477.9670
RELAT. TOTAL TEMP.	718.4287	704.1099	692.8898	666.4419	633.8560	600.3310	579.9490	573.5419	564.7797
STATIC PRESS.	10.4426	10.4367	10.4173	10.3855	10.1335	10.3700	10.4233	10.4701	11.0385
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7030	15.0000	19.0000

NOTES ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE	READING NUMBER	252	TIME	13H 33M 44S	RADIAL INLET DISTORTION			STATIC ANGLE 3.0	
MASS AVERAGED PT	21.1208	(22.7920)							
MASS AVERAGED TT	616.0228	(608.8518)							
TOTAL WEIGHT FLOW	140.8700	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	152.9090								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0700	4.4300	5.3610	5.6800	5.9500
TOTAL PRESSURE	23.4198	22.6980	22.7025	22.5449	23.1343	22.8925	22.8516	21.8329	21.2044
STATIC PRESSURE	15.3143	14.7805	14.7037	14.6009	14.8346	14.9577	14.6011	14.1239	13.8972
WEDGE PRESSURE	17.5031	16.9108	16.8461	16.7286	17.0399	17.0986	16.7879	16.1865	15.8740
TOTAL TEMPERATURE	642.3010	628.6542	622.9532	621.7445	600.0752	591.7732	587.3678	585.2044	585.3646
ANGLE	35.8424	34.3271	35.5153	38.1665	34.0903	35.8501	35.0126	37.6639	41.8761
APPARENT MACH NO.	0.6591	0.6627	0.6673	0.6674	0.6758	0.6595	0.6789	0.6682	0.6568
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	15.8367	15.9432	16.0492	16.5178	16.6338	16.5536	16.2691	16.1172	15.9673
WEDGE PRESSURE	16.0033	16.0837	16.1862	16.6349	16.7641	16.6795	16.4032	16.2268	16.0640
ANGLE	20.8777	19.2511	21.4897	27.2296	25.7268	30.5954	28.0798	27.8508	27.5786
APPARENT MACH NO.	0.7586	0.7195	0.7127	0.6739	0.6944	0.6882	0.7051	0.6653	0.6425
MEASURING PLANE									
MACH NO.	0.7695	0.7291	0.7220	0.6820	0.7032	0.6968	0.7142	0.6732	0.6498
ABSOLUTE VELOCITY	902.2020	850.7848	839.8101	797.2926	805.0784	793.4083	808.4852	764.9653	741.4865
SWIRL VELOCITY	527.0190	478.7151	486.9924	492.3713	451.2273	463.2627	459.9314	462.2718	489.3738
WEIGHT FLOW	14.1179	9.1626	15.7122	24.2604	31.0922	23.7930	11.7258	4.7008	6.2028
AXIAL VELOCITY	729.5936	701.0599	682.3550	626.4477	666.7058	641.1499	656.5462	598.8916	545.8768
CALCULATING PLANE									
SWIRL VELOCITY	523.5365	475.8313	484.7344	491.1465	451.6447	467.2349	466.5333	470.3414	500.7989
AXIAL VELOCITY	681.0017	657.5164	642.8159	599.6439	642.0499	613.6233	617.6312	561.2359	512.0583
ABSOLUTE VELOCITY	866.6831	816.8026	808.7253	776.2892	785.9196	774.4849	784.4457	744.9755	730.9366
MERIDIONAL VELOCITY	669.6822	662.8897	646.3567	600.1705	642.1908	616.6723	629.6222	576.7037	531.3842
ANGLE	37.5119	35.8515	36.9768	39.2732	35.0825	37.2423	37.0217	39.9147	44.3076
MACH NO.	0.7359	0.6971	0.6927	0.6625	0.6849	0.6786	0.6909	0.6540	0.6398
WEIGHT FLOW	14.1245	9.1696	15.7280	24.2825	31.1033	23.8133	11.7370	4.7009	6.2106
ROTOR TANG. VELOC.	1515.7322	1478.6589	1441.2455	1344.4502	1204.4350	1040.2069	932.1058	894.6683	861.0570
RELAT. TANG. VELOC.	992.1958	1002.8275	956.5109	853.3037	752.7899	572.9718	465.5724	424.3268	360.2580
RELATIVE FLOW ANGLE	55.1967	56.5346	55.9515	54.8796	49.5333	42.8963	36.4811	36.3450	34.1358
RELATIVE VELOCITY	1208.3516	1202.1171	1154.4217	1043.2312	989.4955	841.7726	783.0591	715.9890	641.9929
RELATIVE MACH NO.	1.0260	1.0259	0.9888	0.8903	0.8623	0.7376	0.6897	0.6286	0.5620
DEVIATION	-0.8032	0.2346	0.0515	3.6796	2.5333	4.1963	8.5811	13.4450	15.5358
AIR TURNING ANGLE	12.7542	10.5572	10.6089	6.8254	4.6263	7.3154	10.1458	9.1105	14.1585
ROTOR REL. MACH NO.	1.1562	1.1386	1.1183	1.0628	0.9766	0.8660	0.7895	0.7616	0.7378
IDEAL PRESS. RATIO	0.9494	0.9564	0.9662	0.9856	1.0049	1.0235	1.0464	1.0547	1.0666
ROTOR PRESS. RATIO	1.7875	1.7271	1.7344	1.6022	1.4828	1.4664	1.4766	1.4144	1.4642
ROTOR TEMP. RATIO	1.2347	1.2097	1.1994	1.1993	1.1562	1.1417	1.1333	1.1303	1.1332
ADIABATIC EFFY.	0.7656	0.8027	0.8511	0.7208	0.7608	0.8141	0.8819	0.7975	0.8626
POLYTR. EFFICIENCY	0.7838	0.8172	0.8622	0.7386	0.7737	0.8238	0.8832	0.8072	0.8698
TOTAL LOSS COEFF.	0.1893	0.1516	0.1146	0.2183	0.1615	0.1334	0.0917	0.1593	0.1337
SHOCK LOSS COEFF.	0.0122	0.0113	0.0119	0.0185	0.0286	0.0552	0.0283	0.0212	0.0032
PROFILE LOSS COEFF.	0.1770	0.1402	0.1027	0.1998	0.1328	0.0782	0.0634	0.1381	0.1305
TOTAL LOSS PARAM.	0.0329	0.0252	0.0192	0.0370	0.0302	0.0273	0.0198	0.0336	0.0283
PROFILE LOSS PARAM.	0.0308	0.0233	0.0172	0.0339	0.0249	0.0160	0.0137	0.0291	0.0276
ROTOR DIFFUS. FACT.	0.3633	0.3388	0.3533	0.4034	0.4039	0.4483	0.4455	0.4863	0.5017
STATIC PRESS.	16.3484	16.4119	16.4783	16.7989	16.9060	16.8202	16.6119	16.3824	16.1010
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER 252			TIME 13H 33M 44S			RADIAL INLET DISTORTION			STATOR ANGLE 3	
MASS AVERAGED PT	21.1209	(22.7921)									
MASS AVERAGED TT	616.0204	(608.8494)									
TOTAL WEIGHT FLOW	140.5800	(PROBE INTEGRATION)									
EQUIV. WEIGHT FLOW	152.5943										
MEASURING PLANE											
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3610	5.6800	5.9500		
TOTAL PRESSURE	23.4198	22.6980	22.7025	22.5449	23.1343	22.8925	22.8546	21.8329	21.2044		
STATIC PRESSURE	15.8367	15.9432	16.0492	16.5178	16.6338	16.5536	16.2691	16.1172	15.9673		
WEDGE PRESSURE	16.0033	16.0837	16.1862	16.6349	16.7641	16.6795	16.4032	16.2268	16.0640		
TOTAL TEMPERATURE	642.3009	628.6541	622.9531	621.7444	600.0751	591.7731	587.3677	585.2043	585.3645		
ANGLE	35.8424	34.3271	35.5153	38.1665	34.0903	35.8501	35.0126	37.6639	41.8761		
MACH NO.	0.7695	0.7291	0.7220	0.6820	0.7032	0.6968	0.7142	0.6732	0.6498		
ABSOLUTE VELOCITY	902.2017	850.7846	839.8100	797.2925	805.0784	793.4082	808.4852	764.9653	741.4865		
SWIRL VELOCITY	527.0188	478.7150	486.9923	492.3711	451.2271	463.2625	459.9313	462.2717	489.3738		
AXIAL VELOCITY	729.5935	701.0599	682.3551	626.4477	666.7059	641.1499	656.5462	598.8917	545.8767		
WEIGHT FLOW	14.1179	9.1626	15.7122	24.2605	31.0922	23.7931	11.7258	4.7008	6.2028		
CALCULATING PLANE											
ANGLE	36.0527	34.2889	35.5339	37.2819	32.4144	34.0193	33.5278	35.8663	39.8992		
MACH NO.	0.7665	0.7309	0.7238	0.6989	0.7386	0.7258	0.7308	0.6902	0.6629		
SWIRL VELOCITY	528.9736	480.1700	488.8901	493.6019	451.2271	459.8417	454.0417	456.1230	481.4413		
AXIAL VELOCITY	725.6738	703.2049	683.5508	647.3768	709.6342	680.2566	684.2677	629.8978	574.8202		
ABSOLUTE VELOCITY	899.0378	852.7544	841.6473	815.2260	841.7862	823.3724	825.5068	782.6911	755.2527		
WEIGHT FLOW	14.1273	9.1674	15.5558	24.2733	31.0928	23.8067	11.6463	4.7013	6.2089		
MERIDIONAL VELOCITY	725.9569	703.7236	684.1019	647.8120	709.6385	682.0020	688.4250	635.0452	580.9047		
STATIC TEMPERATURE	575.1101	568.2245	564.1066	566.6312	541.1830	535.4795	530.7790	534.3834	538.1512		
STATIC PRESS.	15.8826	15.9158	16.0236	16.2747	16.1034	16.1249	16.0234	15.8789	15.7912		
MCL INCIDENCE	7.0667	5.0342	5.9425	6.3370	-1.2353	-0.1034	-0.6584	1.6494	5.7115		
SUC SUR INCIDENCE	0.6427	-1.4910	-0.6260	0.0919	-7.3455	-6.2906	-7.0321	-4.8036	-0.8507		
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810		
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000		

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 252 PCT DES SPD=100.00 FAN INLFT TOT TFMP= 518.688
 OUTER WALL STATIC PRES= 17.630 HUB STATIC PRES= 17.420

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLO ANG	INC ANG SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	5.8000	.6000	899.0000	529.0000	575.1000	15.8800	23.4200
.100	13.1600	-7.5000	1.0600	7.0000	-1.5000	852.7000	480.1000	568.2000	15.9200	22.7000
.150	12.8300	-7.6000	1.0900	4.5000	-.6000	841.6000	488.9000	564.1000	16.0200	22.7000
.282	12.0000	-8.4000	1.1700	5.4000	.1000	815.2000	493.6000	566.6000	16.2700	22.5400
.470	10.8200	-10.1000	1.3000	.3000	-7.3000	841.8000	451.2000	541.2000	16.1000	23.1300
.689	9.4800	-9.8000	1.4700	.3000	-6.2000	823.4000	459.8000	535.5000	16.1200	22.8900
.850	8.5900	-9.2000	1.6200	.9000	-7.0000	825.5000	454.0000	530.8000	16.0200	22.8500
.900	8.2700	-9.1000	1.6700	1.3000	-4.8000	782.7000	456.1000	534.4000	15.8800	21.8300
.937	8.0200	-9.0000	1.7300	1.6000	-.9000	755.2000	481.4000	538.2000	15.7900	21.2000

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	626.1000	21.5900
.1000	13.1500	620.9000	22.0600
.1500	12.8400	615.9000	22.3100
.2822	11.9700	608.5000	22.2300
.4702	10.8300	594.9000	22.4600
.6887	9.5700	587.5000	22.1000
.8500	8.6700	585.9000	21.9900
.9000	8.4000	585.1000	20.9400
.9372	8.1200	585.5000	19.6700

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.5231	.2427	.1161	1.1040	10.2000	.5468	651.5109	648.1756	65.8393
.1000	.4197	.0944	.0442	1.1854	11.5000	.5768	682.1990	677.1140	83.1391
.1500	.4089	.0584	.0267	1.3381	9.1000	.5923	696.5447	694.3974	54.6503
.2822	.3790	.0494	.0210	5.3970	10.8000	.5899	689.7328	686.6717	64.9096
.4702	.3736	.0953	.0367	1.0217	7.4000	.6060	699.3371	699.3275	3.6617
.6887	.3663	.1167	.0397	.9016	7.1000	.5886	676.2701	676.2609	3.5409
.8500	.3523	.1259	.0389	.7471	7.1000	.5844	670.9086	670.8258	10.5382
.9000	.4035	.1496	.0448	.6975	7.4000	.5179	598.2587	598.1047	13.5729
.9372	.5307	.2828	.0817	.5682	7.6000	.4192	488.7104	488.5198	13.6456

PCT IMMERS	EX STAT PRES
.0500	17.6183
.1000	17.6070
.1500	17.5961
.2822	17.5655
.4702	17.5254
.6887	17.4811
.8500	17.4494
.9000	17.4399
.9372	17.4300

ROTOR INLET TRAVERSE PLANE	READING NUMBER	254	TIME	13H 51M 2RS	RADIAL INLET DISTORTION	STATOR ANGLE	3		
ROTOR SPEED	12825.5117				DISTORTION INDEX	0.158			
ACTUAL ORIFICE FLOW	137.9699								
THETA	1.0059								
DELTA	0.9279								
MASS AVERAGED PT	13.6373	(14.6960)							
MASS AVERAGED TT	521.7572	(518.6881)							
TOTAL WEIGHT FLOW	144.6662	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	156.3566								
EQUIV. SPEED	12787.7381								
PERCENT SPEED	100.0527								
PROBE TYPE - NASA 4 PARAMETER	LOCATION - STA 5.5, 328 DEG.								
IMMERSION	0.4000	0.8400	1.2900	2.3600	3.8700	5.6100	6.9300	7.4300	7.9400
TOTAL PRESSURE	13.1210	13.1679	13.1189	14.1329	15.5762	15.5891	15.4623	15.3976	14.4730
STATIC PRESSURE	10.7961	10.6796	10.5694	10.4153	10.5552	10.6881	10.7571	10.9588	11.2675
WEDGE PRESSURE	10.9717	10.8884	10.7928	10.9265	11.4862	11.5650	11.5596	11.6549	11.6086
TOTAL TEMPERATURE	519.9537	519.7990	519.3842	517.9293	518.9756	518.4215	518.5318	518.1796	517.1177
ANGLE	1.5760	2.9976	2.8004	1.9942	1.9970	1.8671	1.7703	1.3104	2.2407
APPARENT MACH NO.	0.5119	0.5281	0.5354	0.6175	0.6741	0.6671	0.6581	0.6434	0.5701
PROBE TYPE - NASA 2 PARAMETER	LOCATION - STA 5.5, 260 DEG.								
STATIC PRESSURE	11.0641	11.0118	10.9277	10.9638	11.1982	11.4142	11.6451	11.7769	11.8693
WEDGE PRESSURE	11.0908	11.0403	10.9569	11.0118	11.2726	11.4835	11.7058	11.8331	11.9051
ANGLE	3.1302	3.8610	4.9657	6.6943	7.3526	6.9120	7.5199	7.9728	7.6023
APPARENT MACH NO.	0.4959	0.5080	0.5137	0.6077	0.6955	0.6753	0.6431	0.6249	0.5356
MEASURING PLANE									
MACH NO.	0.4995	0.5118	0.5176	0.6132	0.7030	0.6823	0.6493	0.6307	0.5398
ABSOLUTE VELOCITY	544.3293	557.1006	563.0530	660.3490	748.7830	728.6815	696.2304	677.8340	585.9219
SWIRL VELOCITY	14.5449	28.4982	27.0794	22.8618	26.0916	23.5850	20.8432	14.7973	21.4602
WEIGHT FLOW	11.4419	8.1216	13.4106	25.5298	33.6374	26.4875	12.8736	6.2840	6.9183
AXIAL VELOCITY	528.6540	544.2133	553.5999	656.5748	748.2872	723.4730	674.3558	646.8394	548.4489
CALCULATING PLANE									
ANGLE	1.3974	2.6493	2.5181	1.8150	1.7601	1.6259	1.4772	1.0569	1.8272
SWIRL VELOCITY	14.7944	28.8964	27.3873	23.0496	26.0673	23.3264	20.2899	14.2625	20.4514
AXIAL VELOCITY	605.4710	623.4890	621.7453	726.3874	847.2618	820.7872	785.7976	772.0990	640.0818
MERIDIONAL VELOCITY	618.9976	632.3443	627.5515	728.7347	847.2669	825.0107	802.4705	799.3356	676.9635
ABSOLUTE VELOCITY	620.1921	634.0132	629.1535	730.0995	848.6641	826.3423	803.7450	800.4954	678.3280
MACH NO.	0.5734	0.5871	0.5822	0.6838	0.8082	0.7843	0.7603	0.7569	0.6312
WEIGHT FLOW	11.4394	8.1279	13.4139	25.5287	33.6432	26.4949	12.8134	6.2848	6.9196
ROTOR TANG. VELOC.	1559.2664	1516.0241	1470.9074	1359.0649	1201.5091	1017.9778	882.8232	833.9987	784.5621
RELAT. TANG. VELOC.	1544.4717	1487.1274	1443.5201	1336.0150	1175.4414	994.6513	862.5332	819.7359	764.1106
RELATIVE FLOW ANGLE	68.1601	66.9644	66.5039	61.3897	54.2158	50.3262	47.0651	45.7220	48.4608
RELATIVE VELOCITY	1663.8961	1615.9847	1574.0300	1521.8375	1448.9731	1292.2746	1178.1011	1144.9473	1020.8546
RELATIVE MACH NO.	1.5385	1.4964	1.4567	1.4253	1.3799	1.2265	1.1145	1.0826	0.9500
MCL INCIDENCE	5.9601	5.7644	6.0038	2.9897	-1.8841	-1.9737	-1.3338	-2.2779	0.5608
SURFACE INCIDENCE	3.7601	3.7644	3.9038	0.5897	-4.2841	-4.6737	-5.0338	-6.0779	-3.5391
RELATIVE TOTAL PRESS	42.9633	40.2216	37.7017	36.1684	34.6537	28.6661	25.3232	24.6160	21.2197
STATIC TEMPERATURE	487.8398	486.2477	486.3711	473.5957	458.9543	461.5759	464.7416	464.8591	478.9078
RELAT. TOTAL TEMP.	718.9894	704.2132	693.0028	666.2175	633.9207	600.5984	580.3083	573.9394	565.4494
STATIC PRESS.	10.4984	10.4270	10.4265	10.3349	10.1336	10.3849	10.5418	10.5320	11.0653
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

ROTOR EXIT TRAVERSE PLANE		READING NUMBER 254		TIME 13H 51M 28S		RADIAL INLET DISTORTION		STATOR ANGLE 3.0	
MASS AVERAGED PT	22.2496	(23.9768)							
MASS AVERAGED TT	622.3150	(618.6546)							
TOTAL WEIGHT FLOW	138.5735	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	149.7716								
PROBE TYPE - NASA 4 PARAMETER LOCATION - STA 9.0, 104 DEG.									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	24.8886	24.4540	24.2186	23.8781	24.3003	23.9257	23.3075	22.0193	22.1031
STATIC PRESSURE	16.5405	16.0893	15.9618	15.6680	15.7861	15.7672	15.1336	14.7205	14.8396
WEDGE PRESSURE	18.8089	18.3414	18.1881	17.8731	18.0535	17.9666	17.3093	16.7081	16.8192
TOTAL TEMPERATURE	657.0748	642.5578	634.4592	630.7957	609.7041	600.1321	592.8332	587.4756	593.7105
ANGLE	41.9873	38.8768	38.8852	41.5317	37.6648	39.0486	38.7936	42.0092	45.9392
APPARENT MACH NO.	0.6459	0.6548	0.6533	0.6572	0.6658	0.6532	0.6652	0.6406	0.6372
PROBE TYPE - NASA 2 PARAMETER LOCATION - STA 9.0, 300 DEG.									
STATIC PRESSURE	16.9951	17.5968	17.3646	17.6939	17.6470	17.4008	17.0794	16.9263	16.7488
WEDGE PRESSURE	17.1662	17.7341	17.5026	17.8116	17.7782	17.5291	17.2003	17.0167	16.8465
ANGLE	29.7436	26.1846	24.0149	29.9316	27.3788	32.7311	30.6771	30.1794	30.3612
APPARENT MACH NO.	0.7488	0.6938	0.6976	0.6612	0.6836	0.6819	0.6735	0.6182	0.6353
MEASURING PLANE									
MACH NO.	0.7594	0.7025	0.7085	0.6690	0.6920	0.6903	0.6817	0.6248	0.6423
ABSOLUTE VELOCITY	901.9041	831.5099	830.8845	789.3144	799.7412	792.0917	778.2171	715.2245	738.3666
SWIRL VELOCITY	602.1206	520.8736	520.7464	523.0394	488.6564	497.6109	483.8415	474.0142	525.3586
WEIGHT FLOW	13.5969	9.0951	15.7996	24.1605	30.8705	23.6611	11.1387	4.2922	5.9929
AXIAL VELOCITY	669.0233	646.0627	645.7117	590.5318	633.0536	613.4361	601.8521	526.2776	508.4133
CALCULATING PLANE									
SWIRL VELOCITY	598.1417	517.7356	518.3316	521.7381	489.1085	501.8777	490.7866	482.2888	537.6236
AXIAL VELOCITY	627.3797	608.5492	609.7887	565.7442	611.0254	586.4191	568.4058	486.8016	477.3154
ABSOLUTE VELOCITY	873.3610	803.5500	803.6462	770.6953	783.5577	774.8398	760.1339	695.5911	731.7230
MERIDIONAL VELOCITY	635.3767	613.5222	613.1476	566.2408	611.1594	589.3330	579.4421	500.2179	495.3302
ANGLE	43.5881	40.3440	40.3191	42.6325	38.6308	40.5101	40.7591	44.6747	48.3412
MACH NO.	0.7327	0.6767	0.6812	0.6519	0.6767	0.6739	0.6644	0.6064	0.6361
WEIGHT FLOW	13.6022	9.1018	15.8110	24.1655	30.8914	23.6279	11.1474	4.2332	5.9928
ROTOR TANG. VELOC.	1518.0280	1480.3528	1443.0287	1346.7814	1205.9719	1041.4180	933.0469	895.4044	861.6772
RELAT. TANG. VELOC.	919.8861	962.6173	924.6970	825.0430	716.8634	539.5403	442.2602	413.1155	324.0537
RELATIVE FLOW ANGLE	55.3668	57.4889	56.4526	55.5377	49.5510	42.4745	37.3528	39.5524	33.1935
RELATIVE VELOCITY	1117.9867	1141.5083	1109.5105	1000.6620	942.0238	799.0100	728.9356	648.7543	591.9146
RELATIVE MACH NO.	0.9380	0.9613	0.9404	0.8464	0.8136	0.6949	0.6371	0.5656	0.5145
DEVIATION	-0.6331	1.1889	0.5526	4.3377	2.5510	3.7745	9.4528	16.6524	14.5935
AIR TURNING ANGLE	12.7932	9.4755	10.0511	5.8520	4.6647	7.8516	9.7132	6.1695	15.2673
ROTOR REL. MACH NO.	1.1574	1.1401	1.1198	1.0643	0.9778	0.8670	0.7902	0.7623	0.7383
IDEAL PRESS. RATIO	0.9493	0.9563	0.9662	0.9855	1.0049	1.0235	1.0465	1.0548	1.0667
ROTOR PRESS. RATIO	1.8968	1.8570	1.8460	1.6895	1.5600	1.5347	1.5073	1.4300	1.5271
ROTOR TEMP. RATIO	1.2637	1.2361	1.2215	1.2179	1.1748	1.1576	1.1432	1.1337	1.1481
ADIABATIC EFFY.	0.7570	0.8156	0.8606	0.7390	0.7731	0.8244	0.8666	0.8034	0.8667
POLYTR. EFFICIENCY	0.7777	0.8308	0.8720	0.7574	0.7868	0.8346	0.8741	0.8131	0.8744
TOTAL LOSS COEFF.	0.2138	0.1559	0.1169	0.2186	0.1685	0.1383	0.1111	0.1596	0.1427
SHOCK LOSS COEFF.	0.0123	0.0113	0.0119	0.0169	0.0290	0.0547	0.0261	0.0199	0.0030
PROFILE LOSS COEFF.	0.2015	0.1445	0.1050	0.2016	0.1395	0.0836	0.0849	0.1396	0.1397
TOTAL LOSS PARAM.	0.0370	0.0252	0.0193	0.0365	0.0316	0.0285	0.0237	0.0322	0.0305
PROFILE LOSS PARAM.	0.0349	0.0234	0.0173	0.0336	0.0261	0.0172	0.0181	0.0281	0.0299
ROTOR DIFFUS. FACT.	0.4338	0.3866	0.3905	0.4419	0.4458	0.4901	0.4950	0.5464	0.5606
STATIC PRESS.	17.4256	18.0014	17.7585	17.9534	17.8850	17.6520	17.3358	17.1780	16.8355
RADIUS RATIO	0.9775	0.9531	0.9287	0.8656	0.7759	0.6696	0.6000	0.5756	0.5534
STREAMLINE SLOPE	-9.1000	-7.3000	-6.0000	-2.4000	1.2000	5.7000	11.2000	13.3000	15.5000
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7880	1.8530	1.9100	1.9540
METAL CAMBER	6.2000	4.9000	4.6000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

STATOR INLET TRAVERSE PLANE	READING NUMBER	254	TIME	13H 51M 28S	RADIAL INLET DISTORTION	STATOR ANGLE			
MASS AVERAGED PT	22.2486	(23.9757)							
MASS AVERAGED TT	622.2937	(618.6333)							
TOTAL WEIGHT FLOW	138.6708	(PROBE INTEGRATION)							
EQUIV. WEIGHT FLOW	149.8768								
MEASURING PLANE									
IMMERSION	0.3100	0.6400	0.9600	1.8100	3.0200	4.4300	5.3600	5.6800	5.9500
TOTAL PRESSURE	24.8886	24.4540	24.2186	23.8781	24.3003	23.9257	23.3075	22.0193	22.1031
STATIC PRESSURE	16.9951	17.5968	17.3646	17.6939	17.6470	17.4008	17.0794	16.9263	16.7488
WEDGE PRESSURE	17.1662	17.7341	17.5026	17.8116	17.7782	17.5291	17.2003	17.0167	16.8465
TOTAL TEMPERATURE	657.0746	642.5577	634.4591	630.7956	609.7039	600.1320	592.8351	587.4755	593.7103
ANGLE	41.9873	38.8768	38.8852	41.5317	37.6648	39.0486	38.7956	42.0092	45.9392
MACH NO.	0.7594	0.7025	0.7065	0.6690	0.6920	0.6903	0.6817	0.6248	0.6423
ABSOLUTE VELOCITY	901.9037	831.5100	830.8844	789.3144	799.7411	792.0917	778.2170	715.2242	738.3666
SWIRL VELOCITY	602.1203	520.8735	520.7463	523.0393	488.6563	497.6109	483.8414	474.0140	525.3586
AXIAL VELOCITY	669.0232	646.0629	645.7118	590.5319	633.0536	613.4361	601.8521	526.2774	508.4133
WEIGHT FLOW	13.5969	9.0951	15.7996	24.1605	30.8705	23.6611	11.1387	4.2922	5.9929
CALCULATING PLANE									
ANGLE	42.2126	38.8182	38.5256	40.6521	35.9901	37.2633	37.0710	40.2420	43.9987
MACH NO.	0.7573	0.7047	0.7148	0.6837	0.7224	0.7143	0.6982	0.6364	0.6515
SWIRL VELOCITY	604.3537	522.4565	522.7754	524.3468	488.6563	493.9365	477.6455	467.7091	516.8428
AXIAL VELOCITY	665.2217	648.3889	655.6226	609.6467	671.8288	648.2523	631.2309	551.6419	534.2338
ABSOLUTE VELOCITY	899.6862	833.8366	839.7250	805.1878	831.5556	817.1072	795.4427	727.4434	748.1288
WEIGHT FLOW	13.5944	9.1045	15.7891	24.1875	30.8955	23.6627	11.1396	4.2958	6.0014
MERIDIONAL VELOCITY	665.4812	648.8671	656.1512	610.0564	671.8330	649.9157	635.0660	556.1499	539.8887
STATIC TEMPERATURE	589.8625	584.7944	575.8999	577.0953	552.2525	544.6922	540.2700	543.5345	547.3399
STATIC PRESS.	17.0288	17.5628	17.2353	17.4700	17.1720	17.0315	16.8321	16.7675	16.6204
MCL INCIDENCE	13.2290	9.5668	8.9366	9.7094	2.3403	3.1489	2.9062	6.0608	9.8544
SUC SUR INCIDENCE	6.8026	3.0382	2.3656	3.4621	-3.7699	-3.0466	-3.4889	-0.4279	3.2487
RADIUS RATIO	0.9766	0.9534	0.9295	0.8694	0.7839	0.6868	0.6223	0.5991	0.5810
STREAMLINE SLOPE	-1.6000	-2.2000	-2.2999	-2.1000	-0.2000	4.0999	6.2999	7.2999	8.3000

TIP RADIAL DIST. STATOR INCIDENCE PLOTS

RDG NO= 254 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
 OUTER WALL STATIC PRES= 18.980 HUB STATIC PRES= 18.710

PCT IM- MERSION	IN RADIUS	EX RL ANG	SOLIDITY	EX FLD ANG	INC ANG	SS	IN VEL	IN TANG VELOCITY	IN STAT TEMP	IN STAT PRES	IN TOT PRES
.050	13.4800	-7.4000	1.0400	4.1000	6.8000		899.7000	604.4000	589.9000	17.0200	24.8900
.100	13.1600	-7.5000	1.0600	6.1800	3.0000		833.8000	522.5000	584.8000	17.5600	24.4500
.150	12.8300	-7.6000	1.0900	5.6600	2.4000		839.7000	522.8000	575.9000	17.2300	24.2200
.282	12.0000	-8.4000	1.1700	5.0000	3.5000		805.2000	524.3000	577.1000	17.4700	23.8800
.470	10.8200	-10.1000	1.3000	-2.0000	-3.8000		831.6000	488.6000	552.3000	17.1700	24.3000
.689	9.4800	-9.8000	1.4700	.4000	-3.0500		817.1000	493.9000	544.7000	17.0300	23.9300
.850	8.5900	-9.2000	1.6200	1.2000	-3.5000		795.4000	477.6000	540.3000	16.8300	23.3100
.900	8.2700	-9.1000	1.6700	1.5000	-.4000		727.4000	467.7100	543.5000	16.7600	22.0200
.937	8.0200	-9.0000	1.7300	1.5000	3.2000		748.1000	516.8000	547.3400	16.6200	22.1000

PCT IMMERSION	EX RADIUS	EX TOT TEMP	EX TOT PRES
.0500	13.4700	640.7000	23.0500
.1000	13.1500	634.4000	23.5600
.1500	12.8400	628.7000	23.7900
.2822	11.9700	616.8000	23.5100
.4702	10.8300	605.2000	23.7600
.6887	9.5700	594.2000	23.3100
.8500	8.6700	590.7000	22.4500
.9000	8.4000	590.4000	21.4200
.9372	8.1200	591.9000	20.4300

PCT IMMERS	DIF FACT	LOSS COEF	LOSS PARAM	POLY EFF	DEV ANG	EX MACH NO	EX COR VEL	EX COR AX VELOCITY	EX COR TANG VELOCITY
.0500	.5804	.2338	.1121	1.1504	8.5000	.5393	645.9786	644.3254	46.1858
.1000	.4413	.1292	.0606	1.1338	10.6800	.5665	677.9980	674.0579	72.9880
.1500	.4260	.0615	.0281	1.1978	10.2600	.5804	690.4508	687.0846	68.0957
.2822	.4161	.0577	.0246	5.4402	10.4000	.5674	669.5627	667.0148	58.3562
.4702	.4063	.0757	.0291	1.0532	6.9000	.5850	682.5047	682.5005	-2.3824
.6887	.4034	.0899	.0306	1.1067	7.2000	.5637	653.1128	653.0968	4.5595
.8500	.4293	.1327	.0410	.8180	7.4000	.5140	596.7980	596.6671	12.4984
.9000	.4760	.1141	.0341	.7152	7.6000	.4416	515.9884	515.8116	13.5070
.9372	.6348	.3047	.0880	.6382	7.5000	.3553	418.4450	418.3016	10.9536

PCT IMMERS	EX STAT PRES
.0500	18.9649
.1000	18.9505
.1500	18.9364
.2822	18.8971
.4702	18.8455
.6887	18.7885
.8500	18.7478
.9000	18.7356
.9372	18.7229

NASA TRANSONIC FAN ROTOR INLET READING NO. 263 TIME 15H 3M 9S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8961.9291
 ACTUAL ORIFICE FLOW 108.2304
 THETA 1.0099
 DELTA 0.9669
 EQUIV. ROTOR SPEED 8917.5787
 PER CENT ROTOR SPEED 69.7721

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	13.8469	13.4977	13.4492	13.4226	13.4225	14.3054	14.3593	14.5137	14.5090
WEDGE PRESSURE	12.4667	12.1587	12.2103	12.2523	12.1987	12.4098	12.5742	12.6367	12.6860
ANGLE	20.8067	5.5258	-0.3869	-2.8764	-8.4288	-14.5055	-7.7876	-5.2378	-2.7119
APPARENT MACH NUMBER	0.3901	0.3891	0.3741	0.3633	0.3720	0.4552	0.4345	0.4491	0.4421
STATIC PRESSURE	12.4521	12.1446	12.1987	12.2423	12.1874	12.3635	12.5370	12.5935	12.6470
TOTAL TEMPERATURE	526.7399	527.1857	530.5019	531.3270	529.6275	529.3040	527.1727	527.0780	527.2694
ABSOLUTE MACH NUMBER	0.3923	0.3913	0.3759	0.3649	0.3738	0.4612	0.4445	0.4548	0.4472
ABSOLUTE VELOCITY	434.8428	433.9394	418.6440	407.0386	416.0463	509.5259	490.7934	501.6269	493.7324
AXIAL VELOCITY	398.6904	422.5691	409.4868	397.6638	402.7461	483.1602	475.8295	488.7042	482.4256
RELATIVE VELOCITY	1295.7386	1199.8142	1154.2837	1133.8685	1098.8383	1073.8105	1124.0947	1148.0726	1165.1432
RELATIVE MACH NUMBER	1.1692	1.0821	1.0366	1.0166	0.9874	0.9721	1.0132	1.0409	1.0555
RELATIVE FLOW ANGLE	72.5383	70.1981	70.0655	70.2750	69.4588	65.2977	66.5993	66.4823	67.0573

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.5207	14.5040	14.4295	14.5277	14.5025	14.5120	14.5016	14.5000	14.3568
WEDGE PRESSURE	12.6350	12.6273	12.7006	12.7306	12.7378	12.6924	12.6792	12.6945	12.6080
ANGLE	-2.1174	-0.4591	-0.4471	-0.0852	0.1453	0.1470	0.4634	1.4099	6.6353
APPARENT MACH NUMBER	0.4501	0.4493	0.4308	0.4384	0.4344	0.4416	0.4421	0.4399	0.4347
STATIC PRESSURE	12.5911	12.5839	12.6681	12.6936	12.7031	12.6536	12.6402	12.6567	12.5735
TOTAL TEMPERATURE	526.4897	527.0537	527.1061	527.1601	527.6930	526.9638	526.5643	526.3656	525.6876
ABSOLUTE MACH NUMBER	0.4559	0.4549	0.4352	0.4433	0.4391	0.4467	0.4473	0.4449	0.4393
ABSOLUTE VELOCITY	502.5033	501.7578	480.8716	489.4576	485.2557	493.0337	493.4627	490.8709	486.6149
AXIAL VELOCITY	491.2011	490.7782	470.3497	478.7615	474.6504	482.2584	482.6641	480.0051	470.9857
RELATIVE VELOCITY	1173.2049	1185.8973	1177.4522	1183.6835	1183.6993	1186.9394	1189.5765	1195.6215	1231.3009
RELATIVE MACH NUMBER	1.0644	1.0752	1.0657	1.0720	1.0711	1.0755	1.0784	1.0838	1.1163
RELATIVE FLOW ANGLE	66.8275	67.0674	67.7857	67.5349	67.7091	67.4431	67.4711	67.6851	68.6419

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 263 TIME 15H 3M 9S CIRCUM. INLET DISTORTION STATUS ANGLE 8.00 DEG.

ROTOR SPEED 8961.9291
 ACTUAL ORIFICE FLOW 108.2304
 THETA 1.0099
 DELTA 0.9669
 EQUIV. ROTOR SPEED 8917.5787
 PER CENT ROTOR SPEED 69.7721

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.4713	14.4605	14.4025	14.5375	14.4269	14.5113	14.4632	14.4276	14.3678
WEDGE PRESSURE	12.5776	12.6005	12.6171	12.6541	12.6673	12.7105	12.7125	12.7054	12.7350
ANGLE	12.7716	15.2829	16.6102	18.4316	19.1717	20.6730	23.8684	25.1047	27.1335
APPARENT MACH NUMBER	0.4520	0.4478	0.4389	0.4496	0.4350	0.4391	0.4332	0.4299	0.4185
STATIC PRESSURE	12.3647	12.3922	12.4188	12.4428	12.4726	12.5105	12.5191	12.5157	12.5582
TOTAL TEMPERATURE	524.7240	524.1460	524.1179	523.9981	524.0784	524.1419	524.2587	523.9296	524.6936
ABSOLUTE MACH NUMBER	0.4793	0.4747	0.4649	0.4766	0.4607	0.4652	0.4587	0.4552	0.4427
ABSOLUTE VELOCITY	526.3876	521.2210	510.9269	523.1915	506.4351	511.2177	504.4656	500.5388	487.6994
AXIAL VELOCITY	513.3375	502.7629	489.5821	496.3283	478.3240	478.2777	461.3013	453.2344	434.0084
RELATIVE VELOCITY	1086.7522	1100.4515	1102.2499	1122.5981	1115.5629	1128.3550	1142.8530	1147.1904	1149.0346
RELATIVE MACH NUMBER	0.9897	1.0023	1.0030	1.0228	1.0148	1.0268	1.0393	1.0432	1.0430
RELATIVE FLOW ANGLE	64.7148	65.4448	66.0499	66.1476	66.7907	67.0284	68.0182	68.4410	69.3068

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.4179	14.5772	13.9693	13.4245	13.4789	13.4530	13.4490	14.3457	14.3555
WEDGE PRESSURE	12.7615	12.7758	12.5688	12.2592	12.2416	12.1649	12.1019	12.3053	12.5370
ANGLE	32.6053	34.9721	34.9721	34.9721	28.2136	22.1414	12.3574	1.4672	7.3448
APPARENT MACH NUMBER	0.4211	0.4381	0.3913	0.3624	0.3734	0.3818	0.3912	0.4732	0.4441
STATIC PRESSURE	12.5805	12.5759	12.4202	12.1377	12.1120	12.0294	11.9539	12.0713	12.3341
TOTAL TEMPERATURE	523.5896	524.0707	524.6603	524.4768	525.1355	525.1408	524.5973	522.8102	523.0883
ABSOLUTE MACH NUMBER	0.4455	0.4641	0.4131	0.3821	0.3937	0.4028	0.4129	0.5026	0.4706
ABSOLUTE VELOCITY	490.1905	510.0316	456.2500	422.8839	435.7010	445.4589	456.0211	549.7790	516.4190
AXIAL VELOCITY	412.9219	417.9210	373.8521	346.5119	383.9197	412.5899	445.4326	549.5829	512.1540
RELATIVE VELOCITY	1180.2224	1208.4000	1164.6387	1137.9215	1115.6163	1090.4552	1039.3789	1016.4116	1042.0681
RELATIVE MACH NUMBER	1.0727	1.0996	1.0546	1.0282	1.0083	0.9862	0.9413	0.9293	0.9497
RELATIVE FLOW ANGLE	70.7159	70.9215	72.2025	73.0632	71.0093	69.2743	66.8012	61.5984	63.8258

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 263 TIME 15H 3M 9S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8961.9291
 ACTUAL ORIFICE FLOW 108.2504
 THETA 1.0099
 DELTA 0.9669
 EQUIV. ROTOR SPEED 8917.5787
 PER CENT ROTOR SPEED 69.7721

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.5323	14.4512	14.5283	14.5324	14.3793	14.5029	14.5495	14.5455	14.5449
WEDGE PRESSURE	12.1474	12.0883	12.3441	12.4319	12.4857	12.5492	12.5540	12.5673	12.5968
ANGLE	-17.3598	-26.3575	-18.8123	-10.1437	-4.1387	-0.6164	1.2743	2.7367	3.8112
APPARENT MACH NUMBER	0.3957	0.5114	0.4880	0.4775	0.4536	0.4593	0.4638	0.4617	0.4578
STATIC PRESSURE	12.1132	11.8960	12.1970	12.3019	12.3896	12.4448	12.4432	12.4594	12.4941
TOTAL TEMPERATURE	523.8945	524.7771	524.9518	524.1902	523.8372	524.3265	524.6019	524.4089	524.8725
ABSOLUTE MACH NUMBER	0.4009	0.5345	0.5061	0.4936	0.4661	0.4726	0.4779	0.4754	0.4710
ABSOLUTE VELOCITY	442.8417	583.8927	554.4624	541.1043	512.0366	519.1468	524.7896	522.0927	517.6526
AXIAL VELOCITY	405.0458	503.8224	503.2957	509.1141	487.5779	495.5000	500.7993	497.8194	493.1041
RELATIVE VELOCITY	608.7476	613.8918	656.8122	712.2331	734.5139	761.9521	777.8232	785.1502	788.6819
RELATIVE MACH NUMBER	0.5511	0.5620	0.5995	0.6498	0.6686	0.6937	0.7033	0.7149	0.7176
RELATIVE FLOW ANGLE	55.1201	49.3104	51.2428	53.1711	55.1834	55.7335	55.9991	56.4054	56.7742

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	372.0000
TOTAL PRESSURE	14.3657	14.4420	14.5008	14.3283	14.3143	14.2804	13.8403	13.4603	13.4463
WEDGE PRESSURE	12.6277	12.6504	12.6542	12.7106	12.6539	12.4837	12.3019	12.2559	12.1678
ANGLE	4.0508	7.0325	8.0716	17.5710	28.0604	35.1809	35.1809	21.6801	3.1749
APPARENT MACH NUMBER	0.4331	0.4390	0.4454	0.4172	0.4233	0.4424	0.4137	0.3683	0.3804
STATIC PRESSURE	12.5558	12.5714	12.5674	12.6552	12.5925	12.4017	12.2516	12.2336	12.1411
TOTAL TEMPERATURE	523.6386	524.5481	524.4860	524.4623	524.3735	525.1888	524.3041	523.8834	523.5581
ABSOLUTE MACH NUMBER	0.4428	0.4495	0.4567	0.4248	0.4317	0.4533	0.4209	0.3719	0.3846
ABSOLUTE VELOCITY	487.2950	494.8551	502.4306	468.6398	475.9344	499.2285	464.3857	411.7105	425.2687
AXIAL VELOCITY	464.0647	469.0991	475.2364	428.1857	404.8839	395.3523	367.7595	367.4158	405.3517
RELATIVE VELOCITY	769.1090	791.9044	803.3658	830.2899	886.9235	938.1596	908.1102	806.8827	723.3511
RELATIVE MACH NUMBER	0.6988	0.7193	0.7303	0.7527	0.8046	0.8520	0.8231	0.7289	0.6543
RELATIVE FLOW ANGLE	57.7015	58.1762	58.2114	61.6183	64.4401	66.1787	67.0098	64.4964	59.5833

NOTE & ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 263 TIME 15H 3M 9S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8961.9291
 ACTUAL ORIFICE FLOW 108.2304
 THETA 1.0099
 DELTA 0.9669
 EQUIV. ROTOR SPEED 8917.5787
 PER CENT ROTOR SPEED 69.7721

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	17.1353	17.0254	16.7875	16.6006	17.2992	17.2382	17.3205	17.5962	17.9463
WEDGE PRESSURE	14.2847	14.2719	14.2280	14.3976	14.5157	14.5364	14.5295	14.6280	14.4655
ANGLE	23.2780	24.6835	27.4767	34.8217	36.1616	33.0876	31.9800	27.2507	21.8527
APPARENT MACH NUMBER	0.5165	0.5084	0.4919	0.4556	0.5070	0.4996	0.5074	0.5206	0.5637
STATIC PRESSURE	14.0519	14.0586	14.0515	14.2737	14.3021	14.3395	14.3147	14.3792	14.0936
TOTAL TEMPERATURE	555.0249	554.5271	553.7814	551.3010	570.0346	568.0643	571.5308	574.7009	569.3640
ABSOLUTE MACH NUMBER	0.5400	0.5302	0.5106	0.4695	0.5285	0.5197	0.5290	0.5449	0.5979
ABSOLUTE VELOCITY	606.1769	595.5433	574.2292	528.8829	601.9485	591.3887	603.2711	622.1183	675.5616
AXIAL VELOCITY	555.3185	539.6876	508.1624	433.2345	484.9651	494.3658	510.5273	551.6614	625.2774
RELATIVE VELOCITY	969.4733	953.0166	921.8449	850.4255	834.4045	866.2341	878.3416	930.6357	1002.1649
RELATIVE MACH NUMBER	0.8636	0.8485	0.8197	0.7550	0.7326	0.7612	0.7702	0.8152	0.8869
RELATIVE FLOW ANGLE	60.1161	60.3982	61.0564	62.9296	59.7542	60.2068	59.7529	59.2604	57.9560

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	17.5768	17.3208	17.2351	17.1940	17.1775	17.1820	17.1037	17.1553	17.1629
WEDGE PRESSURE	14.3307	14.2598	14.2273	14.1922	14.2060	14.2233	14.2170	14.2524	14.2646
ANGLE	21.3198	19.7713	18.8935	19.8960	21.0052	21.1208	22.1098	21.6387	22.6949
APPARENT MACH NUMBER	0.5480	0.5349	0.5307	0.5308	0.5280	0.5266	0.5207	0.5215	0.5209
STATIC PRESSURE	14.0114	13.9809	13.9593	13.9245	13.9453	13.9660	13.9749	14.0077	14.0213
TOTAL TEMPERATURE	561.7001	558.6619	557.2263	556.3357	557.6460	556.6866	556.6902	555.3262	555.0274
ABSOLUTE MACH NUMBER	0.5784	0.5617	0.5571	0.5573	0.5539	0.5522	0.5450	0.5460	0.5452
ABSOLUTE VELOCITY	650.5946	631.2514	625.5531	625.2036	622.3989	620.0969	612.4827	612.7161	611.7754
AXIAL VELOCITY	604.3764	592.3442	590.1423	586.2111	579.4073	576.8184	565.8735	567.9506	562.8590
RELATIVE VELOCITY	1000.9761	1012.2023	1019.7989	1009.2212	996.8622	995.0708	982.9422	987.8847	976.7065
RELATIVE MACH NUMBER	0.8900	0.9008	0.9083	0.8996	0.8872	0.8862	0.8747	0.8803	0.8705
RELATIVE FLOW ANGLE	58.7953	59.5832	59.8627	59.7695	59.7533	59.8201	59.9914	60.0250	59.9660

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 263 TIME 15H 3M 9S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8961.9291
 ACTUAL DRIFICE FLOW 108.2304
 THETA 1.0099
 DELTA 0.9669
 EQUIV. ROTOR SPEED 8917.5787
 PER CENT ROTOR SPEED 69.7721

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	17.8102	17.6408	17.5701	17.5619	17.5768	17.5540	17.4850	17.4741	17.4677
WEDGE PRESSURE	14.4918	14.4848	14.4183	14.3954	14.4004	14.3864	14.3560	14.3618	14.3703
ANGLE	27.2058	26.1965	26.3823	25.5356	25.5567	26.1356	26.4300	27.3605	28.0175
APPARENT MACH NUMBER	0.5508	0.5382	0.5390	0.5406	0.5413	0.5408	0.5333	0.5368	0.5355
STATIC PRESSURE	14.0823	14.1165	14.0491	14.0218	14.0245	14.0123	13.9908	14.0008	14.0132
TOTAL TEMPERATURE	563.8094	559.4790	559.1257	557.3206	556.5285	556.7801	557.1457	556.3928	556.1138
ABSOLUTE MACH NUMBER	0.5891	0.5733	0.5744	0.5763	0.5772	0.5766	0.5734	0.5716	0.5700
ABSOLUTE VELOCITY	663.0387	643.9637	644.8243	645.8387	646.2880	645.8417	642.7154	640.4092	638.4963
AXIAL VELOCITY	589.6616	577.7937	577.6401	582.7257	583.0284	579.7813	575.5130	568.7433	563.6435
RELATIVE VELOCITY	801.6621	806.0020	804.3212	813.6344	813.5659	807.2796	803.1141	792.5100	784.9482
RELATIVE MACH NUMBER	0.7123	0.7176	0.7164	0.7260	0.7266	0.7207	0.7156	0.7074	0.7007
RELATIVE FLOW ANGLE	53.6624	54.3633	54.3139	54.3884	54.3720	54.3131	54.3732	54.3336	54.3179

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	17.4184	17.4304	17.1924	16.9538	16.5494	17.1994	17.0472	17.0741	17.5291
WEDGE PRESSURE	14.3801	14.3860	14.2744	14.2302	14.1858	14.3468	14.3663	14.3241	14.5558
ANGLE	28.1246	28.5468	30.5166	34.0706	39.3536	38.6441	40.0159	37.5633	32.8132
APPARENT MACH NUMBER	0.5305	0.5309	0.5224	0.5065	0.4744	0.5156	0.5005	0.5072	0.5222
STATIC PRESSURE	14.0378	14.0424	13.9581	13.9573	13.9860	14.0475	14.1058	14.0475	14.2336
TOTAL TEMPERATURE	555.3180	555.2715	553.0184	552.0113	546.9373	564.4745	564.1454	565.2044	569.4557
ABSOLUTE MACH NUMBER	0.5638	0.5643	0.5538	0.5345	0.4962	0.5456	0.5273	0.5354	0.5537
ABSOLUTE VELOCITY	631.5730	632.0548	619.7386	598.7317	555.4098	617.3438	597.5201	606.7924	628.6569
AXIAL VELOCITY	556.9764	555.1911	533.8722	495.9402	429.4554	482.1549	457.6062	480.9765	528.3296
RELATIVE VELOCITY	781.7229	777.4176	753.3581	711.9574	654.5992	666.8786	650.2817	676.9080	731.2487
RELATIVE MACH NUMBER	0.6979	0.6941	0.6732	0.6356	0.5848	0.5894	0.5738	0.5973	0.6440
RELATIVE FLOW ANGLE	54.5289	54.4662	54.6751	55.1381	56.7315	54.1316	54.8644	54.6030	54.1504

NOTE & ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 263 TIME 15H 3M 9S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED	8961.9291
ACTUAL DRIFICE FLOW	108.2304
THETA	1.0099
DELTA	0.9669
EQUIV. ROTOR SPEED	8917.5787
PER CENT ROTOR SPEED	69.7721

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	16.6741	16.8068	18.3256	18.1994	17.9341	17.8881	17.7916	17.7978	17.7429
WEDGE PRESSURE	14.0862	14.1625	14.7541	14.6240	14.5284	14.4757	14.4128	14.4128	14.3890
ANGLE	39.6753	35.5243	26.3831	30.9694	30.7402	30.4153	30.9833	31.0215	31.3016
APPARENT MACH NUMBER	0.4968	0.5006	0.5652	0.5678	0.5569	0.5583	0.5559	0.5573	0.5554
STATIC PRESSURE	13.7151	13.7818	14.2015	14.0679	14.0082	13.9537	13.8957	13.8955	13.8775
TOTAL TEMPERATURE	562.3180	566.1311	574.2905	568.3893	564.7579	562.3644	561.2731	562.1385	561.6792
ABSOLUTE MACH NUMBER	0.5357	0.5401	0.6147	0.6178	0.6047	0.6064	0.6047	0.6053	0.6030
ABSOLUTE VELOCITY	605.6049	612.2907	696.2351	695.9649	680.0377	680.3514	677.9571	679.0525	676.3971
AXIAL VELOCITY	461.2673	492.5353	614.9692	589.0692	576.9302	579.0832	573.7460	574.4483	570.5561
RELATIVE VELOCITY	534.4790	577.3634	708.9808	663.6354	657.1080	660.4826	653.5793	653.7950	649.5959
RELATIVE MACH NUMBER	0.4728	0.5093	0.6260	0.5891	0.5843	0.5887	0.5830	0.5828	0.5791
RELATIVE FLOW ANGLE	48.7075	49.0365	48.5638	47.9072	48.2187	48.2585	48.2230	48.1976	48.2077

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	108.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	17.6534	17.6487	17.5798	17.4754	17.4032	17.2253	16.8740	16.2342	16.6344
WEDGE PRESSURE	14.3592	14.3492	14.3196	14.2978	14.2628	14.1594	14.0637	14.0707	14.0980
ANGLE	31.4073	31.6135	32.2434	32.9407	33.9384	35.9348	39.2626	42.5002	43.0278
APPARENT MACH NUMBER	0.5513	0.5519	0.5493	0.5432	0.5408	0.5366	0.5171	0.4566	0.4919
STATIC PRESSURE	13.8589	13.8478	13.8254	13.8192	13.7909	13.7008	13.6434	13.7738	13.7362
TOTAL TEMPERATURE	558.9437	559.1422	558.9538	558.9120	557.2627	555.8287	551.6974	546.5757	556.3148
ABSOLUTE MACH NUMBER	0.5983	0.5990	0.5960	0.5889	0.5862	0.5813	0.5539	0.4902	0.5302
ABSOLUTE VELOCITY	669.7930	670.6359	667.4454	659.9853	656.1657	650.2338	624.3596	548.8483	596.4580
AXIAL VELOCITY	564.3670	563.8631	557.4450	547.0471	537.8126	520.4297	478.3217	400.7821	431.9244
RELATIVE VELOCITY	645.0317	643.4477	635.5613	624.8484	613.0898	590.4339	545.9474	489.6457	498.4391
RELATIVE MACH NUMBER	0.5761	0.5747	0.5675	0.5575	0.5477	0.5279	0.4837	0.4374	0.4430
RELATIVE FLOW ANGLE	48.3174	48.2729	48.2477	48.2998	48.2436	48.1070	48.2738	50.2059	48.5915

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE - CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

FAN STATOR EXIT READING 263

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	17.1200	17.2100	17.3300	17.3700	17.2400	17.1300	17.0900	17.0700	17.0600
STATIC PRESSURE	14.9005	14.7500	14.6466	14.5104	14.3664	14.3164	14.3242	14.3131	14.2897
TOTAL TEMPERATURE	570.0000	572.0000	571.8000	570.3000	565.7000	561.3000	559.0000	559.6000	558.3000
MACH NUMBER	.4604	.4746	.4962	.5135	.5171	.5126	.5086	.5080	.5096
CORRECTED VELOCITY	525.1207	541.6261	564.9890	582.9102	584.4686	577.6387	571.9203	571.6008	572.5973

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	17.0300	17.0500	17.1000	17.1000	17.0500	16.9600	16.9600	17.0000	17.0600
STATIC PRESSURE	14.2730	14.3899	14.4109	14.4577	14.5255	14.5755	14.6644	14.7522	14.8000
TOTAL TEMPERATURE	559.0000	558.0000	557.6000	557.7000	557.3000	556.2000	553.7000	549.0000	562.0000
MACH NUMBER	.5087	.4983	.5005	.4956	.4840	.4703	.4606	.4547	.4552
CORRECTED VELOCITY	572.0262	560.3818	562.5338	557.3654	544.6865	529.4483	517.7710	509.2524	515.7578

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	16.8000	17.1700	17.4800	17.7200	17.5300	17.4000	17.4000	17.3800	17.3200
STATIC PRESSURE	14.7851	14.7500	14.6699	14.5498	14.4247	14.3747	14.3748	14.3598	14.3597
TOTAL TEMPERATURE	561.5000	564.8000	565.7000	562.5000	558.5000	555.0000	553.5000	556.4000	553.6000
MACH NUMBER	.4311	.4710	.5233	.5382	.5352	.5296	.5296	.5294	.5245
CORRECTED VELOCITY	489.3056	534.2196	591.1366	605.3347	599.9779	592.1390	591.3344	592.7194	586.0014

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	17.3000	17.3000	17.3000	17.2700	17.2000	17.1000	16.7600	16.5200	16.6200
STATIC PRESSURE	14.3546	14.4248	14.4498	14.4849	14.5449	14.5949	14.6799	14.7600	14.8000
TOTAL TEMPERATURE	556.0000	552.6000	555.0000	552.1000	553.0000	554.0000	550.0000	550.0000	561.0000
MACH NUMBER	.5233	.5162	.5137	.5076	.4953	.4811	.4392	.4044	.4104
CORRECTED VELOCITY	586.0438	576.7596	575.3232	567.3187	554.7120	540.0138	493.0313	455.2271	466.3847

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	16.1800	16.5100	17.0200	17.6000	17.9800	17.9600	17.9000	17.8600	17.8300
STATIC PRESSURE	14.7647	14.7500	14.6943	14.5905	14.4858	14.4358	14.4277	14.4086	14.4330
TOTAL TEMPERATURE	553.0000	558.0000	563.0000	569.0000	567.0000	562.0000	561.5000	561.0000	560.0000
MACH NUMBER	.3640	.4045	.4630	.5246	.5643	.5674	.5637	.5625	.5579
CORRECTED VELOCITY	412.0798	458.6656	524.7163	594.2312	635.4788	635.9883	631.7647	630.1820	624.8124

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	17.7400	17.7300	17.7000	17.6400	17.5700	17.4000	17.1000	16.7000	16.3200
STATIC PRESSURE	14.4401	14.4615	14.4905	14.5134	14.5653	14.6153	14.6962	14.7681	14.8000
TOTAL TEMPERATURE	558.5000	558.0000	558.0000	557.5000	556.5000	555.0000	554.5000	548.0000	547.0000
MACH NUMBER	.5503	.5475	.5423	.5354	.5246	.5054	.4703	.4228	.3763
CORRECTED VELOCITY	615.9609	612.7116	607.2816	599.6326	587.7093	566.4953	528.5891	474.3426	423.3677

NASA TRANSONIC FAN ROTOR INLET READING NO. 264 TIME 15H 23M 23S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8972.4251
 ACTUAL ORIFICE FLOW 104.2982
 THETA 1.0096
 DELTA 0.9696
 EQUIV. ROTOR SPEED 8929.3031
 PER CENT ROTOR SPEED 69.8638

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	13.5441	13.5953	13.4883	13.4929	13.4675	14.3007	14.3457	14.4844	14.4974
WEDGE PRESSURE	12.5275	12.4222	12.4804	12.4528	12.4216	12.6733	12.7538	12.7740	12.8103
ANGLE	15.3035	2.3978	-4.5389	-7.2293	-15.1702	-16.2586	-7.0736	-3.7322	-1.7353
APPARENT MACH NUMBER	0.3356	0.3613	0.3349	0.3404	0.3417	0.4190	0.4133	0.4274	0.4241
STATIC PRESSURE	12.5209	12.4123	12.4740	12.4457	12.4143	12.6471	12.7302	12.7431	12.7812
TOTAL TEMPERATURE	526.9462	528.3845	532.2987	533.2828	533.2079	531.2342	529.2932	528.4023	527.1589
ABSOLUTE MACH NUMBER	0.3368	0.3629	0.3360	0.3416	0.3430	0.4226	0.4156	0.4316	0.4280
ABSOLUTE VELOCITY	374.8245	403.7266	375.8564	382.3566	383.8176	469.2467	461.9582	477.6122	473.2249
AXIAL VELOCITY	354.1672	394.5735	366.5396	371.1551	362.8850	441.3848	448.5710	466.2272	462.6806
RELATIVE VELOCITY	1231.0848	1168.1075	1115.4520	1100.1496	1049.1168	1052.6254	1122.0536	1152.4926	1165.9638
RELATIVE MACH NUMBER	1.1062	1.0501	0.9972	0.9830	0.9376	0.9481	1.0119	1.0415	1.0546
RELATIVE FLOW ANGLE	73.6109	70.9486	71.4308	70.9707	70.5254	66.7961	67.7700	67.5314	67.9184

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.5208	14.4856	14.4347	14.5114	14.5177	14.4896	14.5086	14.4780	14.3771
WEDGE PRESSURE	12.8048	12.8010	12.7584	12.7560	12.7614	12.7895	12.8158	12.8047	12.7726
ANGLE	-1.8397	-0.2126	0.0583	0.0808	0.0925	0.3230	0.6001	1.9494	5.7733
APPARENT MACH NUMBER	0.4276	0.4239	0.4236	0.4331	0.4331	0.4260	0.4246	0.4225	0.4146
STATIC PRESSURE	12.7737	12.7719	12.7296	12.7220	12.7274	12.7594	12.7863	12.7764	12.7483
TOTAL TEMPERATURE	527.3291	527.9030	528.3236	528.1787	528.5258	528.1809	528.2367	527.3977	527.1472
ABSOLUTE MACH NUMBER	0.4318	0.4278	0.4275	0.4376	0.4376	0.4300	0.4286	0.4263	0.4179
ABSOLUTE VELOCITY	477.3396	473.3822	473.2052	483.9130	484.0774	475.8344	474.3791	471.5427	462.4702
AXIAL VELOCITY	466.6785	463.0346	462.8644	473.3380	473.4987	465.4293	463.9884	460.9831	450.1681
RELATIVE VELOCITY	1166.7404	1177.3612	1179.2972	1183.8129	1183.9687	1182.3220	1183.7785	1192.4913	1215.7160
RELATIVE MACH NUMBER	1.0555	1.0642	1.0655	1.0706	1.0704	1.0686	1.0697	1.0782	1.0987
RELATIVE FLOW ANGLE	67.7595	68.0967	68.1366	67.7667	67.7625	68.0778	68.1636	68.4359	69.2654

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES.

NASA TRANSONIC FAN ROTOR INLET READING NO. 264 TIME 15H 23M 23S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8972.4251
 ACTUAL ORIFICE FLOW 104.2982
 THETA 1.0096
 DELTA 0.9696
 EQUIV. ROTOR SPEED 8929.3031
 PER CENT ROTOR SPEED 69.863R

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.3366	14.4830	14.4166	14.5497	14.4551	14.5107	14.4857	14.4419	14.4485
WEDGE PRESSURE	12.7472	12.7444	12.7384	12.7704	12.7679	12.7949	12.7875	12.8066	12.8313
ANGLE	15.9817	16.4439	17.9513	19.4497	20.3265	20.9690	23.4135	24.9401	26.8973
APPARENT MACH NUMBER	0.4131	0.4313	0.4241	0.4356	0.4247	0.4277	0.4257	0.4178	0.4152
STATIC PRESSURE	12.5750	12.5526	12.5546	12.5734	12.5830	12.6064	12.6012	12.6286	12.6557
TOTAL TEMPERATURE	522.4103	523.2851	523.0914	523.3567	523.4784	523.9534	523.3512	523.5594	523.6467
ABSOLUTE MACH NUMBER	0.4367	0.4566	0.4488	0.4614	0.4495	0.4527	0.4506	0.4419	0.4391
ABSOLUTE VELOCITY	480.3668	501.7533	493.4224	506.8276	494.3240	497.9987	495.4213	486.3754	483.4108
AXIAL VELOCITY	461.7770	481.2059	469.3789	477.8821	463.5193	464.9961	454.5909	441.0009	431.0963
RELATIVE VELOCITY	1078.5947	1095.8289	1099.7593	1118.4780	1115.0991	1121.6272	1134.4430	1136.6124	1145.3954
RELATIVE MACH NUMBER	0.9807	0.9973	1.0003	1.0182	1.0140	1.0197	1.0318	1.0328	1.0404
RELATIVE FLOW ANGLE	66.8219	66.2916	66.8862	66.8639	67.4276	67.4815	68.1624	68.7931	69.3742

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.4279	14.5800	13.9539	13.5791	13.6045	13.5879	13.5714	14.3759	14.4227
WEDGE PRESSURE	12.8717	12.9026	12.7008	12.4637	12.5065	12.4963	12.4637	12.6582	12.7936
ANGLE	32.0170	34.9721	34.9721	34.9513	23.7937	18.4276	10.1532	1.2806	9.6508
APPARENT MACH NUMBER	0.4070	0.4214	0.3690	0.3520	0.3487	0.3479	0.3500	0.4301	0.4173
STATIC PRESSURE	12.7041	12.7194	12.5698	12.3479	12.3926	12.3831	12.3542	12.4690	12.6163
TOTAL TEMPERATURE	523.8133	523.8236	524.2774	524.3657	524.7835	524.5791	524.2237	523.8083	524.7087
ABSOLUTE MACH NUMBER	0.4301	0.4459	0.3891	0.3709	0.3674	0.3665	0.3638	0.4554	0.4413
ABSOLUTE VELOCITY	474.0001	490.6639	430.3623	410.8230	407.2408	406.1887	408.4624	500.7330	486.2795
AXIAL VELOCITY	401.8850	402.0508	352.6398	336.7146	372.6099	385.3420	402.0332	500.5804	479.3719
RELATIVE VELOCITY	1165.2743	1193.4739	1144.8166	1129.2002	1073.5194	1044.5573	998.9959	989.6274	1040.9589
RELATIVE MACH NUMBER	1.0575	1.0846	1.0351	1.0196	0.9687	0.9426	0.9020	0.9001	0.9448
RELATIVE FLOW ANGLE	70.9707	71.3819	72.8789	73.3954	70.8578	69.7499	68.0772	63.1674	65.2724

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NASA TRANSONIC FAN ROTOR INLET READING NO. 264 TIME 15H 23M 23S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG.

ROTOR SPEED 8972.4251
 ACTUAL ORIFICE FLOW 104.2982
 THETA 1.0096
 DELTA 0.9696
 EQUIV. ROTOR SPEED 8929.3031
 PER CENT ROTOR SPEED 69.8638

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.8897	14.4568	14.5184	14.5049	14.3688	14.5406	14.5439	14.5464	14.5434
WEDGE PRESSURE	12.4174	12.3936	12.6240	12.7078	12.7218	12.7219	12.6929	12.7202	12.7379
ANGLE	-29.6206	-27.4924	-17.2445	-7.8734	-1.4716	0.9293	2.2478	3.3808	3.9307
APPARENT MACH NUMBER	0.4032	0.4741	0.4513	0.4387	0.4206	0.4410	0.4452	0.4419	0.4392
STATIC PRESSURE	12.3761	12.2692	12.5298	12.6288	12.6629	12.6401	12.6030	12.6372	12.6581
TOTAL TEMPERATURE	523.0891	523.7294	523.5839	523.9350	523.6809	524.4388	523.9339	523.8065	523.3757
ABSOLUTE MACH NUMBER	0.4092	0.4896	0.4635	0.4492	0.4287	0.4517	0.4555	0.4528	0.4497
ABSOLUTE VELOCITY	451.4218	536.8037	509.1653	494.1999	472.3631	497.1638	501.9833	497.9475	494.5234
AXIAL VELOCITY	378.7101	458.8871	465.9769	467.6579	450.7355	474.4865	478.8126	474.5378	471.0113
RELATIVE VELOCITY	528.0345	580.2727	643.4085	699.3725	726.5506	757.3999	768.7570	772.8930	773.8528
RELATIVE MACH NUMBER	0.4787	0.5294	0.5857	0.6356	0.6594	0.6882	0.6992	0.7028	0.7037
RELATIVE FLOW ANGLE	53.0791	50.3581	52.8106	54.9867	56.9783	56.7221	56.8745	57.2493	57.4757

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	12.0000
TOTAL PRESSURE	14.3678	14.4664	14.5337	14.3388	14.3143	14.2936	13.8057	13.5549	13.5612
WEDGE PRESSURE	12.7867	12.8088	12.8009	12.8426	12.8121	12.6792	12.5453	12.5100	12.4792
ANGLE	4.1470	6.9143	8.1573	16.4355	26.8570	35.1809	35.1809	10.8520	1.1023
APPARENT MACH NUMBER	0.4114	0.4205	0.4297	0.3998	0.4010	0.4173	0.3723	0.3404	0.3466
STATIC PRESSURE	12.7366	12.7496	12.7318	12.8029	12.7714	12.6238	12.5210	12.4967	12.4640
TOTAL TEMPERATURE	523.7674	523.9532	524.3811	524.3927	525.1878	525.0547	524.2321	523.8124	524.9173
ABSOLUTE MACH NUMBER	0.4184	0.4286	0.4389	0.4055	0.4069	0.4249	0.3761	0.3427	0.3492
ABSOLUTE VELOCITY	461.4883	472.3879	483.5410	447.9616	449.7725	469.0129	416.3394	380.0848	387.5572
AXIAL VELOCITY	439.4400	447.9042	457.2802	411.5762	386.5257	371.4240	329.7104	356.8665	369.8614
RELATIVE VELOCITY	752.7949	776.0126	790.8986	809.5451	860.6876	912.6776	867.8666	734.4403	689.9490
RELATIVE MACH NUMBER	0.6825	0.7041	0.7179	0.7328	0.7786	0.8270	0.7840	0.6622	0.6217
RELATIVE FLOW ANGLE	58.5514	58.8388	58.7953	61.9587	64.8034	66.9088	68.2957	63.0212	60.6806

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 264 TIME 15H 23M 23S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8972.4251
 ACTUAL ORIFICE FLOW 104.2982
 THETA 1.0096
 DELTA 0.9696
 EQUIV. ROTOR SPEED 8929.3031
 PER CENT ROTOR SPEED 69.8638

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	17.9254	17.8976	17.7347	17.6715	18.5175	18.5520	18.5436	18.6312	18.5987
WEDGE PRESSURE	15.0544	15.0871	15.0763	15.3349	15.5572	15.5969	15.5417	15.5562	15.2646
ANGLE	28.4727	28.9950	32.2222	39.3384	40.9917	39.7816	39.1293	34.9178	28.0645
APPARENT MACH NUMBER	0.5056	0.5001	0.4873	0.4547	0.5052	0.5041	0.5088	0.5143	0.5389
STATIC PRESSURE	14.8361	14.8814	14.8991	15.2040	15.3328	15.3745	15.3086	15.3085	14.9530
TOTAL TEMPERATURE	562.2667	561.0775	561.3694	561.2535	583.4344	583.6429	588.4092	587.5360	578.7156
ABSOLUTE MACH NUMBER	0.5269	0.5203	0.5051	0.4685	0.5264	0.5251	0.5307	0.5373	0.5672
ABSOLUTE VELOCITY	596.1471	588.4245	572.2861	532.5500	606.5987	605.3689	613.8524	620.6865	648.2304
AXIAL VELOCITY	522.7341	513.4032	483.0289	411.0878	457.0222	464.3334	475.2557	507.8431	570.5748
RELATIVE VELOCITY	915.1840	909.0063	875.4393	809.5264	784.3319	797.1809	803.6134	848.9039	927.1329
RELATIVE MACH NUMBER	0.8089	0.8038	0.7728	0.7122	0.6806	0.6916	0.6947	0.7349	0.8112
RELATIVE FLOW ANGLE	60.1864	60.4634	61.0339	63.0034	59.6908	59.7002	59.3193	59.0294	58.3087

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	18.3926	18.0554	17.9683	17.9408	17.9037	17.9792	17.9046	17.9375	17.9268
WEDGE PRESSURE	15.1988	15.1160	15.0729	15.0103	15.0127	15.0570	15.0737	15.0804	15.0817
ANGLE	27.0957	25.7906	25.1596	25.9054	26.5366	25.6946	26.9936	26.9425	27.7594
APPARENT MACH NUMBER	0.5292	0.5103	0.5074	0.5112	0.5080	0.5098	0.5020	0.5041	0.5030
STATIC PRESSURE	14.9167	14.8854	14.8502	14.7790	14.7894	14.8284	14.8638	14.8654	14.8692
TOTAL TEMPERATURE	570.6888	566.2251	564.2389	563.2699	564.5889	563.3166	563.7557	562.7139	562.7547
ABSOLUTE MACH NUMBER	0.5553	0.5325	0.5290	0.5336	0.5297	0.5319	0.5226	0.5251	0.5238
ABSOLUTE VELOCITY	631.1206	604.2269	599.4066	603.8698	600.3597	602.0718	592.2673	594.3850	593.0981
AXIAL VELOCITY	560.4176	542.6179	541.1066	541.7742	535.7253	541.1176	526.3702	528.5137	523.5142
RELATIVE VELOCITY	934.7786	944.0776	949.7929	942.8283	935.7407	944.7183	929.8453	930.7052	922.1605
RELATIVE MACH NUMBER	0.8226	0.8320	0.8382	0.8332	0.8256	0.8347	0.8205	0.8222	0.8145
RELATIVE FLOW ANGLE	58.9751	60.0317	60.2500	60.0374	60.1286	60.1171	60.4074	60.3301	60.3370

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 264 TIME 15H 23M 23S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8972.4251
 ACTUAL ORIFICE FLOW 104.2982
 THETA 1.0096
 DELTA 0.9696
 EQUIV. ROTOR SPEED 8929.3031
 PER CENT ROTOR SPEED 69.8638

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	17.9284	18.0237	18.0881	18.1357	18.0944	18.0389	18.0675	18.0511	18.0178
WEDGE PRESSURE	14.9058	15.0114	15.0211	15.0271	15.0017	15.0055	14.9790	14.9937	14.9954
ANGLE	33.0779	31.3908	30.9822	30.4583	30.2175	30.9227	30.8458	31.3783	32.1784
APPARENT MACH NUMBER	0.5204	0.5179	0.5221	0.5253	0.5244	0.5197	0.5245	0.5218	0.5189
STATIC PRESSURE	14.5812	14.6919	14.6890	14.6854	14.6630	14.6809	14.6477	14.6632	14.6731
TOTAL TEMPERATURE	567.9804	561.6563	560.9095	560.3340	559.6124	561.0127	560.1594	559.1306	558.5809
ABSOLUTE MACH NUMBER	0.5515	0.5483	0.5535	0.5574	0.5564	0.5505	0.5554	0.5531	0.5496
ABSOLUTE VELOCITY	625.4975	618.6920	623.7800	627.6213	626.1224	620.6637	626.4758	622.3660	618.3815
AXIAL VELOCITY	524.1030	528.1162	534.7625	540.9864	541.0236	532.4223	537.8337	531.3229	523.3745
RELATIVE VELOCITY	728.3936	744.6419	750.1806	756.6938	758.8426	750.0318	752.2908	745.6576	736.3009
RELATIVE MACH NUMBER	0.6422	0.6600	0.6657	0.6721	0.6743	0.6653	0.6632	0.6627	0.6544
RELATIVE FLOW ANGLE	54.2624	54.6536	54.5157	54.4364	54.5114	54.6290	54.4356	54.5267	54.5929

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	17.9446	17.9987	17.8054	17.6309	17.2955	18.0269	18.0465	17.9107	17.9984
WEDGE PRESSURE	15.0154	15.0289	14.9851	14.9238	14.9922	15.2539	15.2520	15.0184	15.1034
ANGLE	32.2389	32.3356	34.5343	37.7624	43.3070	43.0843	45.2302	43.7606	39.2686
APPARENT MACH NUMBER	0.5110	0.5141	0.5025	0.4938	0.4565	0.4944	0.4962	0.5080	0.5069
STATIC PRESSURE	14.7150	14.7197	14.7082	14.6699	14.8119	14.9931	14.9866	14.7262	14.8127
TOTAL TEMPERATURE	558.7958	557.7566	557.4518	557.2933	555.1513	571.0230	572.9485	574.7539	577.5345
ABSOLUTE MACH NUMBER	0.5400	0.5438	0.5297	0.5193	0.4758	0.5199	0.5221	0.5364	0.5350
ABSOLUTE VELOCITY	608.2892	611.7194	596.5414	585.3507	537.5517	593.1787	596.5565	612.8959	612.9007
AXIAL VELOCITY	514.4901	516.8401	491.4053	462.7378	391.1600	433.2162	420.1208	442.6440	474.4846
RELATIVE VELOCITY	733.4468	733.1781	707.5313	673.0578	618.0339	618.9242	596.6726	612.4749	660.3585
RELATIVE MACH NUMBER	0.6511	0.6518	0.6282	0.5971	0.5471	0.5425	0.5222	0.5360	0.5764
RELATIVE FLOW ANGLE	54.9502	54.8175	55.2174	55.4896	57.6686	55.0086	54.8491	54.1425	54.3004

NOTE & ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 264 TIME 15H 23M 23S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8972.4251
 ACTUAL ORIFICE FLOW 104.2982
 THETA 1.0096
 DELTA 0.9696
 EQUIV. ROTOR SPEED 8929.3031
 PER CENT ROTOR SPEED 69.8638

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	16.9589	17.1662	18.4441	18.3787	18.0691	17.8935	17.9035	17.8891	17.8384
WEDGE PRESSURE	14.9020	14.8705	15.1531	15.1429	14.9571	14.8751	14.8520	14.8587	14.8562
ANGLE	46.4658	41.0215	30.5613	33.9654	34.6795	34.3388	34.5259	34.1490	34.4780
APPARENT MACH NUMBER	0.4338	0.4576	0.5374	0.5334	0.5267	0.5206	0.5236	0.5218	0.5179
STATIC PRESSURE	14.6268	14.5551	14.6604	14.6605	14.4964	14.4311	14.4017	14.4124	14.4188
TOTAL TEMPERATURE	562.9729	568.1536	575.4245	571.1019	565.6472	562.9202	562.0914	561.7278	560.2625
ABSOLUTE MACH NUMBER	0.4646	0.4913	0.5823	0.5776	0.5699	0.5629	0.5654	0.5643	0.5599
ABSOLUTE VELOCITY	529.0783	560.6568	662.5409	655.0756	643.8682	634.8554	638.0890	635.6831	630.1547
AXIAL VELOCITY	361.3756	418.7619	563.1002	536.7528	523.2058	517.9452	519.4457	519.7634	513.2753
RELATIVE VELOCITY	449.5607	506.9835	649.8356	612.6210	600.1599	599.2610	598.9427	601.4961	595.7363
RELATIVE MACH NUMBER	0.3948	0.4443	0.5711	0.5401	0.5312	0.5313	0.5316	0.5340	0.5293
RELATIVE FLOW ANGLE	50.7147	49.9496	48.5923	48.2780	48.4206	48.6653	48.5679	48.6715	48.7550

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	17.8115	17.8036	17.7653	17.7017	17.6344	17.5215	17.2697	16.7049	17.0514
WEDGE PRESSURE	14.8582	14.8448	14.8350	14.8099	14.8069	14.7915	14.8633	14.9703	15.1006
ANGLE	34.6320	34.9471	35.7544	36.0443	36.9423	39.0919	42.7352	47.1135	50.0715
APPARENT MACH NUMBER	0.5155	0.5162	0.5140	0.5113	0.5059	0.4979	0.4674	0.3988	0.4202
STATIC PRESSURE	14.4262	14.4116	14.4070	14.3887	14.3974	14.3996	14.5348	14.7473	14.8436
TOTAL TEMPERATURE	560.6902	560.6646	561.1183	560.2718	558.5102	557.7202	555.5755	550.6094	560.1783
ABSOLUTE MACH NUMBER	0.5571	0.5579	0.5554	0.5522	0.5461	0.5369	0.5024	0.4257	0.4495
ABSOLUTE VELOCITY	627.4876	628.2904	625.8939	622.0530	614.6704	604.4298	566.4203	481.0701	511.2934
AXIAL VELOCITY	510.1801	508.9309	502.0632	497.2001	485.7230	464.1552	412.0786	324.7183	325.7781
RELATIVE VELOCITY	593.0268	590.3302	581.4005	576.8966	565.0116	540.0701	492.4659	439.2083	415.0410
RELATIVE MACH NUMBER	0.5265	0.5242	0.5159	0.5121	0.5020	0.4798	0.4368	0.3887	0.3649
RELATIVE FLOW ANGLE	48.7973	48.7375	48.6904	48.7460	48.8181	48.8258	49.5834	53.0420	51.3816

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

FAN STATOR EXIT READING 264

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	18.0800	18.1800	18.2000	18.1500	18.0300	17.9800	17.9500	17.9500	17.9500
STATIC PRESSURE	15.7555	15.7478	15.6322	15.3219	15.2788	15.3000	15.3111	15.3022	15.3044
TOTAL TEMPERATURE	582.0000	586.5000	583.5000	577.5000	573.0000	578.0000	567.5000	566.0000	565.5000
MACH NUMBER	.4478	.4576	.4712	.4979	.4922	.4858	.4631	.4630	.4826
CORRECTED VELOCITY	516.7341	529.6933	543.3643	569.7792	561.2795	552.8828	548.7527	547.9071	547.4252

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	17.9500	17.9000	17.8500	17.8500	17.8200	17.8000	17.8200	17.8000	18.0000
STATIC PRESSURE	15.3144	15.3255	15.3700	15.4167	15.4745	15.5323	15.6391	15.6967	15.7589
TOTAL TEMPERATURE	566.0000	564.5000	563.5000	564.0000	564.5000	564.0000	563.0000	563.0000	571.0000
MACH NUMBER	.4817	.4763	.4673	.4624	.4536	.4456	.4359	.4354	.4400
CORRECTED VELOCITY	546.5695	539.9068	529.6520	524.5969	515.2220	506.4621	495.7532	494.6595	503.2675

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	17.6400	17.8500	17.9800	18.0000	17.9300	17.9000	17.9700	18.0200	18.0500
STATIC PRESSURE	15.7749	15.7400	15.6400	15.3996	15.3099	15.3000	15.3050	15.3100	15.3199
TOTAL TEMPERATURE	569.0000	571.0000	571.5000	567.0000	564.0000	564.0000	563.5000	562.5000	558.0000
MACH NUMBER	.4028	.4278	.4508	.4774	.4805	.4789	.4644	.4682	.4897
CORRECTED VELOCITY	461.2556	489.7594	515.3453	542.3666	544.2252	542.4864	548.2519	551.8388	551.2927

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	18.0000	18.0000	17.9500	17.9300	17.8500	17.7500	17.4000	17.2000	17.3500
STATIC PRESSURE	15.3299	15.3449	15.3700	15.4051	15.4551	15.5051	15.6002	15.6851	15.7550
TOTAL TEMPERATURE	561.0000	559.5000	558.5000	558.0000	557.0000	555.0000	555.0000	561.0000	568.0000
MACH NUMBER	.4845	.4830	.4761	.4707	.4584	.4438	.3980	.3853	.3737
CORRECTED VELOCITY	547.1002	544.7416	536.8404	530.8287	516.9816	500.2642	450.3774	416.5482	428.5739

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	16.1500	16.7000	17.4000	18.0500	18.3500	18.2500	18.2000	18.1000	18.0600
STATIC PRESSURE	15.7953	15.7319	15.6481	15.4811	15.3424	15.3000	15.3091	15.3181	15.3362
TOTAL TEMPERATURE	559.0000	563.0000	566.0000	572.0000	570.0000	564.5000	561.5000	560.5000	560.0000
MACH NUMBER	.1784	.2933	.3923	.4691	.5122	.5083	.5033	.4941	.4890
CORRECTED VELOCITY	205.1215	336.6520	448.4828	535.6668	581.5217	574.4455	567.6067	557.2514	551.4425

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	18.0000	17.9400	17.8500	17.8500	17.8000	17.6500	17.3600	16.9000	16.3500
STATIC PRESSURE	15.3462	15.3653	15.3700	15.3928	15.4347	15.4766	15.5595	15.6728	15.7509
TOTAL TEMPERATURE	559.5000	560.4000	561.0000	559.5000	558.0000	557.0000	557.0000	555.0000	551.6000
MACH NUMBER	.4828	.4757	.4673	.4649	.4559	.4374	.3986	.3299	.2315
CORRECTED VELOCITY	544.5997	537.3303	528.4757	525.1986	514.8225	494.1875	451.8223	375.1246	283.8706

NASA TRANSONIC FAN ROTOR INLET READING NO. 266 TIME 15H 49M 41S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8953.9586
 ACTUAL ORIFICE FLOW 90.4505
 THETA 1.0063
 DELTA 0.9770
 EQUIV. ROTOR SPEED 8925.6791
 PER CENT ROTOR SPEED 69.8355

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	13.8352	13.8598	13.8272	13.8403	13.8651	14.3493	14.4975	14.5919	14.5888
WEDGE PRESSURE	12.9635	12.9456	13.0843	13.1480	13.2507	13.6068	13.6752	13.4991	13.4168
ANGLE	5.8035	-5.1794	-15.6170	-19.9102	-27.2370	-26.3554	-9.8937	-4.5682	-1.7090
APPARENT MACH NUMBER	0.3062	0.3137	0.2819	0.2717	0.2552	0.2765	0.2900	0.3352	0.3479
STATIC PRESSURE	12.9598	12.9412	13.0846	13.1497	13.2544	13.6080	13.6742	13.4921	13.4081
TOTAL TEMPERATURE	529.8011	530.6433	532.9589	532.1695	532.4185	531.5131	529.1819	529.3665	530.6905
ABSOLUTE MACH NUMBER	0.3069	0.3145	0.2819	0.2713	0.2544	0.2763	0.2901	0.3364	0.3493
ABSOLUTE VELOCITY	343.1747	351.7018	316.5361	304.6655	286.0072	309.9226	324.5388	375.2469	389.7515
AXIAL VELOCITY	334.0288	342.6719	298.6569	280.9001	249.8720	272.8046	312.9210	365.9310	381.0723
RELATIVE VELOCITY	1162.7283	1103.5228	1039.8545	1017.1407	982.6644	982.7491	1071.7534	1113.0179	1135.0814
RELATIVE MACH NUMBER	1.0400	0.9868	0.9260	0.9060	0.8743	0.8761	0.9533	0.9978	1.0172
RELATIVE FLOW ANGLE	73.6328	72.3875	73.6366	74.2339	75.4281	74.1566	73.3802	71.4218	71.0568

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.5553	14.5453	14.5823	14.5095	14.5653	14.5471	14.5883	14.5544	14.4973
WEDGE PRESSURE	13.3264	13.2738	13.2423	13.2001	13.1728	13.1663	13.1514	13.1501	13.1108
ANGLE	-2.5274	-1.3835	-0.7058	-0.8210	-0.2346	-0.1353	0.0238	0.2518	2.3891
APPARENT MACH NUMBER	0.3571	0.3638	0.3736	0.3700	0.3815	0.3801	0.3877	0.3834	0.3816
STATIC PRESSURE	13.3164	13.2628	13.2298	13.1882	13.1589	13.1527	13.1365	13.1359	13.0970
TOTAL TEMPERATURE	531.3156	531.2384	531.4060	530.1669	531.0588	529.8476	529.4179	529.7545	528.6120
ABSOLUTE MACH NUMBER	0.3587	0.3654	0.3754	0.3718	0.3836	0.3821	0.3898	0.3855	0.3836
ABSOLUTE VELOCITY	400.2338	407.5703	418.4573	414.0134	427.1441	425.0366	433.2214	428.6786	426.2284
AXIAL VELOCITY	391.1235	398.5527	409.2831	404.9264	417.8067	415.7474	423.7545	419.3071	416.5676
RELATIVE VELOCITY	1133.1321	1142.9680	1151.1936	1148.8722	1157.4849	1157.3870	1161.4933	1161.3538	1174.7898
RELATIVE MACH NUMBER	1.0156	1.0249	1.0329	1.0317	1.0395	1.0405	1.0452	1.0444	1.0575
RELATIVE FLOW ANGLE	70.5632	70.3796	70.0254	70.1846	69.7449	69.8351	69.7403	69.7403	70.0741

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 266 TIME 15H 49M 41S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8953.9586
 ACTUAL ORIFICE FLOW 90.4505
 THETA 1.0063
 DELTA 0.9770
 EQUIV. ROTOR SPEED 8925.6791
 PER CENT ROTOR SPEED 69.8355

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.5349	14.5111	14.5117	14.5665	14.5159	14.5032	14.5327	14.4950	14.4873
WEDGE PRESSURE	13.4775	13.3856	13.3327	13.2818	13.2408	13.2105	13.1774	13.1801	13.1775
ANGLE	12.0008	11.5705	12.4503	12.3175	12.2994	12.6604	13.2155	13.6193	13.9792
APPARENT MACH NUMBER	0.3302	0.3415	0.3499	0.3655	0.3647	0.3675	0.3755	0.3710	0.3703
STATIC PRESSURE	13.3686	13.2692	13.2104	13.1477	13.1077	13.0755	13.0353	13.0425	13.0405
TOTAL TEMPERATURE	522.0161	521.8932	521.9212	522.5749	522.1186	522.1162	522.6147	522.3992	522.1259
ABSOLUTE MACH NUMBER	0.3477	0.3597	0.3687	0.3853	0.3845	0.3875	0.3971	0.3912	0.3905
ABSOLUTE VELOCITY	384.8484	397.8031	407.5367	425.6304	424.5533	427.7904	438.2681	431.8792	430.9933
AXIAL VELOCITY	376.4177	389.6986	397.9320	415.8108	414.7872	417.3674	426.6394	419.7137	418.2072
RELATIVE VELOCITY	994.7408	999.6295	1010.2837	1020.1405	1019.3940	1023.4780	1033.1513	1031.6808	1033.2812
RELATIVE MACH NUMBER	0.8987	0.9040	0.9142	0.9236	0.9233	0.9272	0.9362	0.9347	0.9363
RELATIVE FLOW ANGLE	69.2721	68.7012	68.5006	67.8232	67.8579	67.8138	67.5609	67.8614	67.9641

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.4817	14.5899	13.9403	13.8695	13.8751	13.9149	13.9199	14.5243	14.5719
WEDGE PRESSURE	13.1843	13.2086	13.0201	12.9166	13.0199	13.1722	13.2954	13.6053	13.5826
ANGLE	15.7494	17.6657	21.2496	11.4156	6.3425	2.0242	-2.2456	-2.1598	7.8178
APPARENT MACH NUMBER	0.3685	0.3795	0.3138	0.3204	0.3027	0.2809	0.2568	0.3069	0.3184
STATIC PRESSURE	13.0487	13.0636	12.9260	12.8189	12.9328	13.0966	13.2312	13.5115	13.4812
TOTAL TEMPERATURE	521.8443	522.0904	521.1028	521.3848	521.1833	520.9420	520.9044	521.2231	521.1014
ABSOLUTE MACH NUMBER	0.3886	0.4004	0.3302	0.3373	0.3185	0.2954	0.2701	0.3229	0.3352
ABSOLUTE VELOCITY	428.8259	441.5185	365.6370	373.3711	352.9365	327.7703	300.1263	357.7674	370.9889
AXIAL VELOCITY	412.7062	420.6769	340.7613	365.9655	350.7572	327.5477	299.8791	357.4936	367.5210
RELATIVE VELOCITY	1042.3321	1061.6387	1031.1951	985.1477	947.0887	913.1019	881.5635	901.2112	964.0211
RELATIVE MACH NUMBER	0.9446	0.9628	0.9314	0.8899	0.8547	0.8231	0.7945	0.8135	0.8710
RELATIVE FLOW ANGLE	68.3983	68.3831	71.7130	69.6200	69.6769	70.2653	71.2126	68.3618	69.1305

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 266 TIME 15H 49M 41S CIRCUM. INLET DISTORTION STATUR ANGLE 3.00 DEG

ROTOR SPEED 8953.9586
 ACTUAL ORIFICE FLOW 90.4505
 THETA 1.0063
 DELTA 0.9770
 EQUIV. ROTOR SPEED 8925.6791
 PER CENT ROTOR SPEED 69.8355

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	14.3337	14.5791	14.5444	14.5243	14.5009	14.6015	14.4628	14.5064	14.5059
WEDGE PRESSURE	13.0317	13.1104	13.3010	13.3702	13.3596	13.3330	13.2951	13.2703	13.2489
ANGLE	-20.1688	-14.5331	-7.9361	-1.4152	1.7875	2.2361	3.4950	2.9393	3.2280
APPARENT MACH NUMBER	0.3713	0.3923	0.3595	0.3459	0.3441	0.3626	0.3436	0.3589	0.3621
STATIC PRESSURE	13.0069	13.0760	13.2803	13.3541	13.3442	13.3111	13.2792	13.2499	13.2273
TOTAL TEMPERATURE	523.1716	523.1156	523.1765	523.2394	522.5248	522.8185	522.7787	522.9949	522.6061
ABSOLUTE MACH NUMBER	0.3750	0.3972	0.3627	0.3484	0.3466	0.3659	0.3513	0.3620	0.3654
ABSOLUTE VELOCITY	414.7702	438.6022	401.4856	386.0896	383.8543	404.8110	389.0576	400.7054	404.1755
AXIAL VELOCITY	373.6024	406.3903	379.8704	368.4205	366.2270	386.1246	370.7253	382.0155	385.2282
RELATIVE VELOCITY	578.0383	624.7671	646.6107	674.7753	690.4361	705.2194	702.3873	706.4936	710.1421
RELATIVE MACH NUMBER	0.5226	0.5659	0.5841	0.6089	0.6234	0.6374	0.6343	0.6383	0.6420
RELATIVE FLOW ANGLE	55.8968	55.7268	58.3886	60.2299	60.9387	60.1606	61.0590	60.4688	60.3895

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	372.0000
TOTAL PRESSURE	14.4322	14.5658	14.5702	14.4429	14.3905	14.3347	13.8501	13.8865	13.8646
WEDGE PRESSURE	13.2373	13.2286	13.1900	13.2023	13.1791	13.0696	13.0134	12.9822	13.0315
ANGLE	4.1578	4.3468	4.5717	7.5224	12.0268	20.9963	9.4213	-0.4835	-8.8876
APPARENT MACH NUMBER	0.3535	0.3734	0.3797	0.3604	0.3566	0.3656	0.2996	0.3116	0.2988
STATIC PRESSURE	13.2188	13.2026	13.1613	13.1814	13.1597	13.0470	13.0095	12.9759	13.0277
TOTAL TEMPERATURE	522.0313	522.5831	523.3040	522.2939	522.8943	522.3280	522.0346	522.2763	522.1019
ABSOLUTE MACH NUMBER	0.3563	0.3772	0.3838	0.3636	0.3596	0.3691	0.3003	0.3127	0.2995
ABSOLUTE VELOCITY	394.2196	416.9144	424.3279	402.1726	398.0575	408.0615	333.4667	347.0469	332.5540
AXIAL VELOCITY	375.3805	396.9020	403.8470	380.8610	372.3261	365.7278	314.3757	331.2458	313.9453
RELATIVE VELOCITY	708.9510	724.0591	729.9904	731.3195	751.1312	800.5891	697.4181	658.6302	609.7973
RELATIVE MACH NUMBER	0.6409	0.6551	0.6604	0.6613	0.6786	0.7241	0.6282	0.5935	0.5492
RELATIVE FLOW ANGLE	60.9819	60.1318	59.9039	61.3828	62.5566	64.4245	64.7208	62.2152	61.6588

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 266 TIME 15H 49M 41S CIRCUM. INLET DISTORTION STATOR ANGLE 8.00 DEG.

ROTOR SPEED 8953.9586
 ACTUAL ORIFICE FLOW 90.4505
 THETA 1.0063
 DELTA 0.9770
 FWHV ROTOR SPEED 8925.6791
 PER CENT ROTOR SPEED 69.8355

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	19.2732	19.1958	19.1766	19.0543	19.9706	20.0848	20.0926	20.0276	19.7585
WEDGE PRESSURE	16.1558	16.1652	16.1900	16.5204	16.8558	17.0367	16.9911	16.9857	16.4562
ANGLE	35.6269	36.6524	38.2059	43.9117	47.1282	48.9702	49.9592	50.9599	48.0341
APPARENT MACH NUMBER	0.5085	0.5016	0.4978	0.4562	0.4983	0.4908	0.4955	0.4910	0.5180
STATIC PRESSURE	15.9141	15.9410	15.9749	16.3773	16.6307	16.8281	16.7714	16.7771	16.1838
TOTAL TEMPERATURE	575.6700	575.7710	575.7362	577.8099	595.6573	601.3821	607.4574	609.9875	610.3399
ABSOLUTE MACH NUMBER	0.5303	0.5221	0.5176	0.4702	0.5182	0.5093	0.5148	0.5096	0.5418
ABSOLUTE VELOCITY	606.8566	598.0298	593.0962	542.1117	603.8124	596.7730	605.9682	601.3415	637.5313
AXIAL VELOCITY	492.2188	478.7866	465.1227	389.8889	410.1972	391.2082	389.3194	378.2790	425.6950
RELATIVE VELOCITY	839.2994	828.5761	812.6339	763.8051	718.9649	701.8355	689.4116	680.5674	702.7180
RELATIVE MACH NUMBER	0.7335	0.7234	0.7092	0.6625	0.6170	0.5989	0.5857	0.5767	0.5972
RELATIVE FLOW ANGLE	59.5293	59.8989	60.1351	62.8829	60.2141	60.7859	60.4670	60.8550	58.7114

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	19.1244	19.0185	18.9895	19.0766	19.2373	19.1967	19.2913	19.2186	19.2094
WEDGE PRESSURE	16.2025	16.0729	16.0087	16.0395	16.1140	16.0912	16.1353	16.1474	16.1335
ANGLE	46.2769	43.5604	40.4638	38.5992	36.1177	35.7907	35.8393	36.3234	36.5948
APPARENT MACH NUMBER	0.4926	0.4963	0.5000	0.5040	0.5096	0.5085	0.5117	0.5050	0.5056
STATIC PRESSURE	15.9999	15.8629	15.7906	15.8111	15.8701	15.8504	15.8854	15.9148	15.8996
TOTAL TEMPERATURE	599.5771	589.6751	586.7202	582.0345	579.6456	577.7615	577.7893	576.6726	577.2712
ABSOLUTE MACH NUMBER	0.5114	0.5158	0.5203	0.5250	0.5316	0.5304	0.5342	0.5262	0.5269
ABSOLUTE VELOCITY	598.2942	598.2412	601.5983	604.3480	610.3455	608.0084	612.1945	602.9223	603.9757
AXIAL VELOCITY	412.8883	432.7805	456.8516	471.3853	492.0047	492.1447	495.2314	484.7494	483.9072
RELATIVE VELOCITY	728.8382	756.7782	788.5805	807.9676	834.1147	837.5734	837.0950	831.9518	829.0866
RELATIVE MACH NUMBER	0.6230	0.6526	0.6820	0.7019	0.7265	0.7306	0.7305	0.7261	0.7233
RELATIVE FLOW ANGLE	60.3892	60.1564	59.8348	59.6595	59.3849	59.4816	59.3103	59.6918	59.6491

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 266 TIME 15H 49M 41S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 8953.9586
 ACTUAL ORIFICE FLOW 90.4505
 THETA 1.0063
 DELTA 0.9770
 EQUIV. ROTOR SPEED 8925.6791
 PER CENT ROTOR SPEED 69.8355

PROBE NO. 6 - U.S. 4 PARAMETER, S/W 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	18.0375	18.0279	18.6803	18.9022	18.6814	18.4398	18.2719	18.2515	18.1513
WEDGE PRESSURE	16.5862	16.4338	15.8839	16.0213	15.8826	15.7989	15.7051	15.7129	15.6657
ANGLE	64.3820	58.8161	40.7265	37.1269	40.6583	41.5120	41.9221	42.1950	42.2369
APPARENT MACH NUMBER	0.3482	0.3661	0.4870	0.4918	0.4872	0.4751	0.4701	0.4675	0.4635
STATIC PRESSURE	16.4061	16.2352	15.4872	15.6104	15.4854	15.4291	15.3476	15.3603	15.3220
TOTAL TEMPERATURE	571.0501	572.5398	574.3831	574.2614	570.1187	566.4196	565.1214	562.8873	561.9734
ABSOLUTE MACH NUMBER	0.3705	0.3897	0.5245	0.5301	0.5248	0.5111	0.5054	0.5025	0.4980
ABSOLUTE VELOCITY	428.1737	450.3332	599.9046	605.8499	597.9429	581.3067	574.4886	570.2272	564.8913
AXIAL VELOCITY	184.5158	232.0696	450.0374	477.6550	449.0163	431.0001	423.2834	418.3812	414.1969
RELATIVE VELOCITY	314.9058	346.9527	521.8561	558.9921	521.8156	507.9259	501.8749	498.0047	496.0703
RELATIVE MACH NUMBER	0.2725	0.3003	0.4563	0.4891	0.4579	0.4466	0.4415	0.4389	0.4373
RELATIVE FLOW ANGLE	59.1922	55.7564	48.7287	48.9895	48.7910	49.1874	49.3594	49.4703	49.6446

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	18.1004	18.0747	18.0345	18.0156	17.9603	17.9020	17.7449	17.3833	17.9837
WEDGE PRESSURE	15.6523	15.6653	15.6350	15.6251	15.6416	15.6933	15.8332	16.1361	16.5069
ANGLE	42.1272	41.9353	42.2901	42.0819	42.8000	44.4401	48.4022	54.6208	65.4094
APPARENT MACH NUMBER	0.4604	0.4567	0.4563	0.4556	0.4488	0.4378	0.4052	0.3278	0.3520
STATIC PRESSURE	15.3149	15.3346	15.3058	15.2975	15.3261	15.3965	15.5910	15.9821	16.3235
TOTAL TEMPERATURE	561.4319	560.6126	561.6747	560.1310	560.0730	559.7073	557.7492	555.7327	564.3047
ABSOLUTE MACH NUMBER	0.4945	0.4903	0.4898	0.4890	0.4814	0.4691	0.4339	0.3486	0.3746
ABSOLUTE VELOCITY	560.7915	555.9260	555.8785	554.2813	546.0014	532.4660	493.1756	398.0085	430.1715
AXIAL VELOCITY	411.8907	409.5283	407.2514	407.3949	396.8227	376.7593	324.8745	229.0754	178.4583
RELATIVE VELOCITY	495.9547	496.4210	493.0980	494.6150	485.8617	467.8757	427.9037	391.8905	307.0992
RELATIVE MACH NUMBER	0.4373	0.4379	0.4345	0.4364	0.4284	0.4122	0.3755	0.3432	0.2674
RELATIVE FLOW ANGLE	49.7958	49.9847	49.9525	50.0292	50.2671	50.6654	52.3038	59.2525	59.4004

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 266 TIME 15H 49M 41S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG.

ROTOR SPEED 8953.9586
 ACTUAL ORIFICE FLOW 90.4505
 THETA 1.0063
 DELTA 0.9770
 EQUIV. ROTOR SPEED 8925.6791
 PER CENT ROTOR SPEED 69.8355

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	18.6059	18.5882	18.5121	18.6044	18.6098	18.6055	18.6525	18.6417	18.6191
WEDGE PRESSURE	15.8265	15.7260	15.6682	15.6809	15.6720	15.6470	15.6853	15.7162	15.7019
ANGLE	56.6490	50.0406	45.3020	43.0518	41.7591	41.2667	40.7649	40.2044	40.0604
APPARENT MACH NUMBER	0.4864	0.4947	0.4940	0.5003	0.5016	0.5036	0.5036	0.4999	0.4995
STATIC PRESSURE	15.5763	15.4564	15.4013	15.3971	15.3850	15.3548	15.3933	15.4329	15.4201
TOTAL TEMPERATURE	588.3233	583.6616	574.9063	572.5317	568.5921	567.2989	566.5130	566.5617	566.0824
ABSOLUTE MACH NUMBER	0.5104	0.5203	0.5195	0.5270	0.5286	0.5310	0.5311	0.5266	0.5260
ABSOLUTE VELOCITY	591.5843	600.0754	594.7189	601.6637	601.2541	603.2196	602.8338	598.0287	597.1893
AXIAL VELOCITY	325.2289	385.3876	418.2968	439.6457	448.4939	453.3953	456.5679	456.7280	457.0548
RELATIVE VELOCITY	478.7328	545.1070	594.7036	618.2946	631.8273	637.1210	642.3583	647.8284	649.2581
RELATIVE MACH NUMBER	0.4130	0.4726	0.5195	0.5416	0.5555	0.5609	0.5639	0.5704	0.5719
RELATIVE FLOW ANGLE	55.8063	54.7386	54.8773	54.5835	54.6302	54.5618	54.5947	54.8143	54.8545

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	18.6732	18.6101	18.5476	18.5357	18.3792	19.3475	19.4501	19.0554	19.2665
WEDGE PRESSURE	15.7529	15.7548	15.7541	15.7666	15.9316	16.4019	16.5561	16.5327	16.4394
ANGLE	39.7648	40.1111	41.1088	42.5291	47.8711	48.5916	54.9607	60.4938	62.1892
APPARENT MACH NUMBER	0.4989	0.4936	0.4886	0.4864	0.4565	0.4916	0.4854	0.4551	0.4816
STATIC PRESSURE	15.4715	15.4873	15.4996	15.5174	15.7399	16.1290	16.2971	16.3363	16.1917
TOTAL TEMPERATURE	565.4395	564.7241	565.3618	564.0123	564.1236	578.6454	581.6184	585.3079	591.8090
ABSOLUTE MACH NUMBER	0.5254	0.5190	0.5130	0.5104	0.4758	0.5166	0.5091	0.4742	0.5047
ABSOLUTE VELOCITY	596.1948	588.9703	582.7760	579.2406	541.8800	593.4313	586.8097	550.1181	587.0168
AXIAL VELOCITY	458.2668	450.4289	439.0869	426.8500	363.4852	392.5000	336.9048	270.9406	273.7822
RELATIVE VELOCITY	652.2423	648.1177	637.5891	623.0949	573.4875	560.6828	496.7237	455.9234	425.8635
RELATIVE MACH NUMBER	0.5748	0.5712	0.5612	0.5490	0.5036	0.4880	0.4310	0.3930	0.3661
RELATIVE FLOW ANGLE	54.9067	55.2002	55.4448	55.5857	57.6316	55.0051	55.8515	59.2771	57.2623

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES.

FAN STATION EXIT READING 260

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	19.3000	19.3000	19.1000	18.7000	18.5500	18.5000	18.5500	18.8000	18.9500
STATIC PRESSURE	16.8500	16.8300	16.8000	16.7000	16.6445	16.6134	16.6134	16.6069	16.5912
TOTAL TEMPERATURE	597.0000	602.5000	605.0000	605.0000	601.5000	587.5000	561.5000	581.0000	579.2000
MACH NUMBER	.4447	.4467	.4521	.4053	.3966	.3950	.4000	.4247	.4399
CORRECTED VELOCITY	520.7233	525.3555	509.6934	479.2680	467.9460	460.7230	463.9907	491.4437	507.6375

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	18.9500	18.9500	18.9500	18.9500	18.8500	18.8000	18.9000	19.1000	19.2500
STATIC PRESSURE	16.5550	16.5567	16.5567	16.5745	16.5834	16.0602	16.6511	16.7266	16.8055
TOTAL TEMPERATURE	578.5000	575.2000	573.5000	575.2000	575.6000	575.2000	574.5000	577.5000	567.5000
MACH NUMBER	.4436	.4434	.4434	.4416	.4317	.4796	.4293	.4395	.4448
CORRECTED VELOCITY	511.3378	509.7549	509.0011	507.7598	496.9677	549.7201	493.7780	506.4455	516.6610

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	18.4000	18.4600	18.4600	18.4400	18.3500	18.3500	18.3500	18.3600	18.4000
STATIC PRESSURE	16.8500	16.8300	16.8000	16.7000	16.6251	16.5901	16.5901	16.5602	16.5601
TOTAL TEMPERATURE	574.5000	581.2000	587.0000	590.0000	588.0000	580.0000	573.0000	567.5000	566.0000
MACH NUMBER	.3568	.3658	.3694	.3790	.3782	.3823	.3823	.3868	.3909
CORRECTED VELOCITY	412.6698	425.2844	431.0511	443.4714	441.8438	443.4185	440.7346	443.6183	447.6199

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	18.4500	18.5000	18.5000	18.5500	18.6000	18.6200	18.3500	18.1000	18.2000
STATIC PRESSURE	16.5401	16.5451	16.5451	16.5551	16.5601	16.2740	16.6550	16.7499	16.8249
TOTAL TEMPERATURE	566.0000	565.0000	564.5000	563.0000	562.0000	561.6000	562.0000	565.6000	570.0000
MACH NUMBER	.3982	.4026	.4026	.4065	.4108	.4429	.3747	.3346	.3369
CORRECTED VELOCITY	455.7541	460.2606	460.0569	463.6607	468.0069	503.0634	428.0714	384.5940	388.6418

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	16.8600	16.8500	16.9000	18.2500	19.0500	18.8200	18.5400	18.4500	18.3500
STATIC PRESSURE	16.8500	16.8300	16.8000	16.7000	16.6047	16.5657	16.5657	16.5114	16.5276
TOTAL TEMPERATURE	564.0000	569.0000	573.0000	574.5000	574.5000	569.5000	564.5000	562.5000	562.0000
MACH NUMBER	.0291	.0412	.0921	.3584	.4474	.4308	.4043	.4014	.3895
CORRECTED VELOCITY	33.7832	48.0071	107.6551	414.4173	513.8052	493.3383	461.9057	457.8880	444.4642

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	18.3000	18.2000	18.1700	18.1500	18.1200	18.0000	17.6800	17.3500	17.0200
STATIC PRESSURE	16.5238	16.5328	16.5328	16.5347	16.5357	16.4979	16.6591	16.7743	16.8453
TOTAL TEMPERATURE	561.0000	560.0000	560.0000	560.0000	560.0000	560.0000	560.0000	560.0000	560.0000
MACH NUMBER	.3847	.3730	.3698	.3673	.3639	.3550	.2927	.2201	.1215
CORRECTED VELOCITY	438.8090	425.4626	421.8435	419.1550	415.3393	405.4505	335.6437	253.2695	140.2949

NASA TRANSONIC FAN ROTOR INLET READING NO. 276 TIME 11H 6M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11514.1850
 ACTUAL ORIFICE FLOW 134.6376
 THETA 0.9979
 DELTA 0.9515
 EQUIV. ROTOR SPEED 11526.2795
 PER CENT ROTOR SPEED 90.1829

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	12.6589	12.6909	12.6194	12.6289	12.5644	14.0522	14.2039	14.4681	14.4359
WEDGE PRESSURE	10.9255	10.6355	10.5379	10.4992	10.3761	10.7886	11.1100	11.2535	11.3364
ANGLE	16.0896	6.5462	2.8255	0.4496	-3.4495	-9.7177	-5.0142	-2.2647	-0.6813
APPARENT MACH NUMBER	0.4634	0.5087	0.5139	0.5204	0.5300	0.6261	0.6028	0.6099	0.5978
STATIC PRESSURE	10.8798	10.5516	10.4478	10.4006	10.2650	10.4463	10.8322	10.9503	11.0682
TOTAL TEMPERATURE	518.2087	519.0778	518.7086	518.8121	518.2424	516.1902	516.5986	517.2738	517.1614
ABSOLUTE MACH NUMBER	0.4781	0.5203	0.5264	0.5339	0.5451	0.6647	0.6343	0.6435	0.6278
ABSOLUTE VELOCITY	513.4739	566.0364	572.1236	579.9067	591.0930	709.7661	680.0060	689.5391	673.8793
AXIAL VELOCITY	483.3829	550.2121	558.9704	567.2178	577.1737	684.7162	662.7101	673.9669	659.1088
RELATIVE VELOCITY	1603.0893	1554.1011	1524.3496	1506.1518	1474.0573	1448.6855	1490.3496	1523.6355	1533.7066
RELATIVE MACH NUMBER	1.4678	1.4285	1.4025	1.3867	1.3594	1.3568	1.3902	1.4219	1.4288
RELATIVE FLOW ANGLE	72.8673	70.1026	69.4499	68.9428	68.1839	64.2101	65.5536	65.6666	66.2819

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.4417	14.4162	14.2971	14.4188	14.4570	14.3787	14.4533	14.4012	14.1013
WEDGE PRESSURE	11.4033	11.4137	11.4456	11.4907	11.5041	11.4849	11.5077	11.4952	11.3720
ANGLE	-0.2236	0.0618	0.1862	0.3531	0.3797	0.5998	1.3093	2.7763	7.2907
APPARENT MACH NUMBER	0.5907	0.5872	0.5727	0.5787	0.5806	0.5757	0.5799	0.5765	0.5628
STATIC PRESSURE	11.1539	11.1738	11.2417	11.2724	11.2804	11.2737	11.2858	11.2819	11.1900
TOTAL TEMPERATURE	517.3373	517.3594	516.6728	516.9835	516.8770	516.7662	516.9801	517.0287	516.2853
ABSOLUTE MACH NUMBER	0.6187	0.6143	0.5961	0.6035	0.6059	0.5998	0.6050	0.6008	0.5842
ABSOLUTE VELOCITY	664.9950	660.5879	641.9370	649.4934	651.8914	645.6509	651.0146	646.8898	629.7324
AXIAL VELOCITY	650.4586	646.1521	627.9068	635.2891	637.6328	631.5088	636.6294	632.0431	611.2037
RELATIVE VELOCITY	1534.6171	1535.6353	1528.9229	1533.8051	1535.1026	1534.6178	1544.0233	1556.6857	1591.5797
RELATIVE MACH NUMBER	1.4279	1.4281	1.4199	1.4252	1.4269	1.4256	1.4349	1.4459	1.4767
RELATIVE FLOW ANGLE	66.5718	66.7242	67.2246	67.0502	66.9918	67.1836	67.1433	67.4574	68.5651

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 276 TIME 11H 6M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11514.1850
 ACTUAL ORIFICE FLOW 134.6376
 THETA 0.9979
 DELTA 0.9515
 EQUIV. ROTOR SPEED 11526.2795
 PER CENT ROTOR SPEED 90.1829

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	13.9308	14.3699	14.3289	14.5210	14.3164	14.5003	14.3633	14.3248	14.2120
WEDGE PRESSURE	11.1475	11.2782	11.3542	11.4387	11.4245	11.4737	11.4839	11.4980	11.5354
ANGLE	7.5848	7.9880	9.0316	10.1411	10.9965	11.6193	12.9101	13.5230	14.6406
APPARENT MACH NUMBER	0.5732	0.5985	0.5861	0.5938	0.5769	0.5880	0.5744	0.5691	0.5541
STATIC PRESSURE	10.7879	10.8589	10.9601	11.0244	11.0482	11.0713	11.1109	11.1356	11.1988
TOTAL TEMPERATURE	513.9892	516.1048	516.6118	517.2357	517.5139	517.3111	517.1612	517.2958	517.7887
ABSOLUTE MACH NUMBER	0.6154	0.6453	0.6307	0.6397	0.6197	0.6329	0.6168	0.6106	0.5934
ABSOLUTE VELOCITY	659.5545	690.6117	676.4079	685.8185	666.1118	679.0440	662.9167	656.8597	639.8483
AXIAL VELOCITY	653.7485	683.8741	667.9863	675.0681	653.8467	665.0936	646.1254	638.6158	619.0409
RELATIVE VELOCITY	1338.6993	1361.3683	1362.3444	1378.5172	1373.7918	1387.6889	1388.7298	1390.1227	1388.5081
RELATIVE MACH NUMBER	1.2492	1.2722	1.2702	1.2859	1.2782	1.2933	1.2921	1.2923	1.2877
RELATIVE FLOW ANGLE	63.9706	63.3266	63.8793	63.9077	64.5472	64.3914	65.0481	65.3252	65.9702

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.2646	14.5431	13.5139	12.6555	12.6868	12.6367	12.6280	14.1631	14.2278
WEDGE PRESSURE	11.5679	11.6352	11.2915	10.8079	10.6664	10.6068	10.5322	10.7860	10.9469
ANGLE	17.4675	19.5179	27.4830	20.7874	15.7315	11.6041	7.4260	2.6183	5.3463
APPARENT MACH NUMBER	0.5553	0.5735	0.5131	0.4801	0.5039	0.5063	0.5157	0.6360	0.6234
STATIC PRESSURE	11.2284	11.2592	11.0246	10.5945	10.4264	10.3650	10.2798	10.2954	10.4809
TOTAL TEMPERATURE	517.0072	516.2423	517.2391	518.2637	528.8934	522.7143	522.4886	515.4228	515.2251
ABSOLUTE MACH NUMBER	0.5947	0.6157	0.5471	0.5103	0.5368	0.5396	0.5501	0.6905	0.6753
ABSOLUTE VELOCITY	640.7326	661.3053	592.5786	555.2733	584.1129	587.9426	598.6241	734.3836	719.4399
AXIAL VELOCITY	611.1563	623.2748	525.6823	519.1024	562.2052	575.8954	593.5713	733.5766	716.2714
RELATIVE VELOCITY	1412.5337	1443.5765	1453.0337	1379.5996	1361.0602	1330.5088	1301.7332	1334.4397	1353.2940
RELATIVE MACH NUMBER	1.3112	1.3441	1.3416	1.2678	1.2509	1.2211	1.1962	1.2548	1.2703
RELATIVE FLOW ANGLE	66.6025	66.6464	70.1100	69.3793	67.5553	66.5942	65.4867	61.2001	62.1075

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 276 TIME 11H 6M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11514.1850
 ACTUAL ORIFICE FLOW 134.6376
 THETA 0.9979
 DELTA 0.9515
 EQUIV. ROTOR SPEED 11526.2795
 PER CENT ROTOR SPEED 90.1829

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.0696	14.2682	14.5183	14.5188	14.2747	14.3404	14.5255	14.5339	14.5261
WEDGE PRESSURE	10.5806	10.8192	11.0507	11.1909	11.2327	11.3514	11.3845	11.4373	11.4833
ANGLE	-12.1737	-12.8107	-9.6270	-5.9530	-3.2081	-1.4723	0.1563	0.8072	1.7886
APPARENT MACH NUMBER	0.5566	0.6496	0.6366	0.6212	0.5951	0.5875	0.6002	0.5951	0.5892
STATIC PRESSURE	10.3171	10.1300	10.4361	10.6492	10.8068	10.9522	10.9309	11.0039	11.0726
TOTAL TEMPERATURE	515.9084	518.2153	517.8443	517.9167	517.4398	517.6660	517.9168	517.9932	517.7262
ABSOLUTE MACH NUMBER	0.5911	0.7245	0.7031	0.6803	0.6431	0.6325	0.6503	0.6430	0.6349
ABSOLUTE VELOCITY	636.3628	769.2042	748.3296	726.1783	689.3277	678.9467	696.7400	689.6053	681.3213
AXIAL VELOCITY	594.9275	717.5004	705.0997	689.7300	657.0243	647.8602	665.0369	658.1696	650.0332
RELATIVE VELOCITY	861.7593	937.5387	954.1053	972.9541	972.2428	979.9197	1005.7034	1006.1514	1008.4327
RELATIVE MACH NUMBER	0.8004	0.8830	0.8965	0.9115	0.9071	0.9129	0.9387	0.9382	0.9397
RELATIVE FLOW ANGLE	54.1230	51.2781	52.2515	53.3991	54.7019	55.2917	55.2865	55.5763	55.9681

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	12.0000
TOTAL PRESSURE	14.2122	14.3913	14.4029	14.1615	14.1169	14.1018	13.4069	12.7450	12.6806
WEDGE PRESSURE	11.4896	11.5527	11.5737	11.6138	11.5375	11.3398	11.0146	10.7099	10.5730
ANGLE	2.0103	3.2746	4.2522	9.0942	13.6783	23.1597	25.3839	12.0389	1.8719
APPARENT MACH NUMBER	0.5595	0.5690	0.5677	0.5398	0.5466	0.5667	0.5373	0.5046	0.5161
STATIC PRESSURE	11.1865	11.2174	11.2426	11.3620	11.2747	11.0186	10.7818	10.5527	10.3955
TOTAL TEMPERATURE	517.1552	517.5808	517.8061	517.4735	517.6328	517.6380	517.9585	518.3395	517.7474
ABSOLUTE MACH NUMBER	0.5948	0.6872	0.6854	0.5697	0.5758	0.6041	0.5666	0.5262	0.5403
ABSOLUTE VELOCITY	640.8962	653.6620	651.9788	615.7583	622.0003	650.5942	612.8612	571.7934	585.9110
AXIAL VELOCITY	611.3930	622.9927	620.7533	580.9999	578.3019	574.9167	532.8729	534.8094	558.9809
RELATIVE VELOCITY	982.4291	1001.1877	1007.5835	1018.3752	1055.4099	1141.2595	1124.6338	1007.6421	945.0361
RELATIVE MACH NUMBER	0.9118	0.9300	0.9357	0.9423	0.9770	1.0598	1.0398	0.9274	0.8715
RELATIVE FLOW ANGLE	56.8961	56.8971	57.1600	59.1329	60.1418	62.1765	63.6002	60.9238	58.2142

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 276 TIME 11H 6M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11514.1850
 ACTUAL ORIFICE FLOW 134.6376
 THETA 0.9979
 DELTA 0.9515
 EQUIV. ROTOR SPEED 11526.2795
 PER CENT ROTOR SPEED 90.1829

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	18.5117	18.5493	18.1120	17.3264	19.1175	19.5098	19.5677	19.8135	20.4276
WEDGE PRESSURE	14.0520	14.0621	13.9196	14.1731	15.0124	15.0754	14.9401	15.0661	15.0750
ANGLE	22.6155	24.4759	27.9004	35.2763	36.3651	35.6902	33.4535	28.4066	23.1361
APPARENT MACH NUMBER	0.6401	0.6417	0.6250	0.5435	0.5980	0.6184	0.6332	0.6382	0.6735
STATIC PRESSURE	13.3444	13.3450	13.2991	13.8706	14.4813	14.4395	14.2286	14.3194	14.1721
TOTAL TEMPERATURE	571.0853	568.1217	566.7448	559.4999	595.5007	602.0656	604.5989	607.1312	595.8507
ABSOLUTE MACH NUMBER	0.7001	0.7023	0.6792	0.5728	0.6427	0.6702	0.6905	0.6974	0.7421
ABSOLUTE VELOCITY	782.6639	782.8740	758.3940	643.3994	738.8067	772.0199	795.0499	803.9961	842.6914
AXIAL VELOCITY	720.4975	710.6189	668.5527	524.1275	593.6839	625.6877	661.8480	705.4263	772.8054
RELATIVE VELOCITY	1255.1877	1230.4079	1181.2167	1090.6574	1070.2160	1078.3890	1109.6075	1180.4507	1262.2686
RELATIVE MACH NUMBER	1.1229	1.1039	1.0579	0.9710	0.9311	0.9362	0.9637	1.0240	1.1117
RELATIVE FLOW ANGLE	60.0638	59.9116	60.4116	64.2608	60.9031	59.7973	59.1040	59.0566	58.4414

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	19.5372	19.3979	19.1762	19.0733	18.9622	18.9316	18.8666	18.9081	18.9258
WEDGE PRESSURE	14.5272	14.4700	14.2914	14.2076	14.1375	14.1625	14.1349	14.1537	14.1784
ANGLE	22.1912	20.0446	19.9400	19.0080	20.8389	20.7330	21.7298	21.4929	22.7847
APPARENT MACH NUMBER	0.6647	0.6609	0.6620	0.6626	0.6615	0.6575	0.6558	0.6568	0.6558
STATIC PRESSURE	13.6929	13.6540	13.4813	13.3999	13.3379	13.3768	13.3573	13.3712	13.3982
TOTAL TEMPERATURE	584.6439	576.4739	573.4200	571.8767	572.3095	571.3153	571.2837	570.6152	570.4970
ABSOLUTE MACH NUMBER	0.7312	0.7264	0.7278	0.7285	0.7272	0.7223	0.7201	0.7214	0.7202
ABSOLUTE VELOCITY	823.6102	813.1030	812.3000	811.9393	810.9327	805.2522	803.0382	803.8548	802.5691
AXIAL VELOCITY	760.4967	761.6776	761.4286	761.7205	755.7517	750.9814	743.8999	745.8699	737.9147
RELATIVE VELOCITY	1270.6476	1297.3331	1298.5327	1300.2234	1285.9365	1285.8772	1271.8164	1275.2290	1257.3836
RELATIVE MACH NUMBER	1.1280	1.1591	1.1634	1.1666	1.1532	1.1534	1.1405	1.1444	1.1283
RELATIVE FLOW ANGLE	59.0177	59.5018	59.5331	59.5561	59.4764	59.6337	59.5957	59.5966	59.5122

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 276 TIME 11H 6M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11514.1850
 ACTUAL DRIFICE FLOW 134.6376
 THETA 0.9979
 DELTA 0.9515
 EQUIV. ROTOR SPEED 11526.2795
 PER CENT ROTOR SPEED 90.1829

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	29.4702	20.3373	20.1424	20.0680	20.0385	20.0107	19.8214	19.6978	19.6497
WEDGE PRESSURE	15.2127	15.2043	15.0945	15.0342	14.9864	14.9310	14.8280	14.7397	14.7331
ANGLE	28.8830	27.9611	28.5327	27.4662	27.9175	27.9295	27.9759	28.7215	29.4765
APPARENT MACH NUMBER	0.6653	0.6583	0.6555	0.6559	0.6579	0.6606	0.6576	0.6572	0.6548
STATIC PRESSURE	14.0627	14.1229	14.0474	13.9879	13.9247	13.8478	13.7804	13.7016	13.7168
TOTAL TEMPERATURE	588.8024	581.8891	580.3357	578.5269	577.4943	575.8609	576.7204	574.5511	572.8954
ABSOLUTE MACH NUMBER	0.7526	0.7411	0.7365	0.7370	0.7403	0.7448	0.7398	0.7392	0.7354
ABSOLUTE VELOCITY	848.2876	831.7111	825.9693	825.2771	827.8433	831.1336	826.7738	824.6585	819.6278
AXIAL VELOCITY	742.7367	734.5907	725.6210	732.2229	731.4701	734.2962	730.1301	723.1673	713.5041
RELATIVE VELOCITY	1005.3134	1012.8193	1003.1740	1017.5574	1012.1951	1013.0719	1011.0581	1000.1838	988.3494
RELATIVE MACH NUMBER	0.8919	0.9024	0.8945	0.9088	0.9052	0.9078	0.9047	0.8966	0.8868
RELATIVE FLOW ANGLE	53.5413	54.0456	54.1195	54.2603	54.1446	54.0633	54.1639	54.1304	54.1726

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	19.5438	19.4904	19.1442	18.7134	17.9045	18.8990	19.3238	19.0201	19.4489
WEDGE PRESSURE	14.7160	14.6579	14.4777	14.2841	14.1971	14.5918	14.8071	14.4506	14.8317
ANGLE	30.0458	29.8252	31.7268	34.9901	39.1913	40.6571	40.4132	39.3256	35.2844
APPARENT MACH NUMBER	0.6498	0.6512	0.6446	0.6333	0.5854	0.6193	0.6287	0.6391	0.6346
STATIC PRESSURE	13.7457	13.6787	13.5668	13.4737	13.6547	13.8509	13.9972	13.5866	13.9816
TOTAL TEMPERATURE	572.8799	570.1432	568.2181	565.7210	557.2394	583.6374	588.0494	588.4677	595.8738
ABSOLUTE MACH NUMBER	0.7273	0.7296	0.7190	0.7014	0.6344	0.6814	0.6948	0.7103	0.7033
ABSOLUTE VELOCITY	810.8741	811.8475	799.8256	780.3257	706.2300	771.8574	788.6003	804.9483	802.6728
AXIAL VELOCITY	701.8849	704.2870	680.2774	639.2597	547.3399	585.5311	600.4130	622.6536	655.1946
RELATIVE VELOCITY	978.1202	981.3907	952.4522	904.4028	842.8430	827.2194	832.0134	848.9718	904.5036
RELATIVE MACH NUMBER	0.8773	0.8820	0.8562	0.8130	0.7571	0.7303	0.7330	0.7492	0.7925
RELATIVE FLOW ANGLE	54.3360	54.3339	54.4628	54.7448	56.9992	54.7067	54.1830	53.7416	54.0803

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 276 TIME 11H 6M 46S CIRCUM. INLET DISTORTION STATUR ANGLE 3.00 DEG

ROTOR SPEED 11514.1850
 ACTUAL ORIFICE FLOW 134.6376
 THETA 0.9979
 DELTA 0.9515
 EQUIV. ROTOR SPEED 11526.2795
 PER CENT ROTOR SPEED 90.1829

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	18.2271	18.0026	20.6991	21.3558	20.8742	20.3698	19.9900	19.9780	19.6645
WEDGE PRESSURE	14.2034	14.1770	15.7031	16.1731	15.8072	15.4934	15.2835	15.1823	14.9823
ANGLE	41.7826	36.0871	27.4120	33.7331	34.2301	33.0205	32.9697	32.9462	32.9611
APPARENT MACH NUMBER	0.6078	0.5944	0.6409	0.6430	0.6431	0.6377	0.6314	0.6388	0.6356
STATIC PRESSURE	13.5268	13.5500	14.8071	15.2382	14.8930	14.6265	14.4564	14.3274	14.1530
TOTAL TEMPERATURE	578.2198	584.5676	598.1418	594.3682	587.7349	580.4742	578.2153	580.3631	575.7252
ABSOLUTE MACH NUMBER	0.6669	0.6503	0.7088	0.7116	0.7117	0.7045	0.6956	0.7059	0.7019
ABSOLUTE VELOCITY	753.2955	740.0207	809.9089	810.2479	805.8282	793.5574	783.8414	794.8976	787.6464
AXIAL VELOCITY	556.2230	591.7629	709.0659	665.6619	658.2634	657.1824	649.5007	658.8330	652.7161
RELATIVE VELOCITY	651.6785	717.4034	851.5754	774.5031	766.2869	775.6227	771.8757	777.1433	773.6817
RELATIVE MACH NUMBER	0.5770	0.6305	0.7453	0.6802	0.6768	0.6886	0.6859	0.6902	0.6895
RELATIVE FLOW ANGLE	49.0217	49.9879	49.7227	48.8247	48.8392	49.2293	49.4252	49.2137	49.3515

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	19.5549	19.5639	19.4332	19.2574	19.1381	18.9563	18.4227	17.1664	18.0881
WEDGE PRESSURE	14.9108	14.9042	14.8233	14.7014	14.6336	14.5121	14.3831	14.2348	14.4785
ANGLE	32.9300	33.0322	33.7215	34.2802	35.1393	36.5760	39.6636	44.7196	45.4918
APPARENT MACH NUMBER	0.6346	0.6357	0.6342	0.6332	0.6312	0.6298	0.6053	0.5242	0.5730
STATIC PRESSURE	14.0898	14.0788	14.0090	13.8981	13.8422	13.7334	13.7070	13.8020	13.9111
TOTAL TEMPERATURE	572.9067	573.0514	573.8756	572.4504	569.1151	567.7563	562.6038	552.6733	574.9141
ABSOLUTE MACH NUMBER	0.7007	0.7021	0.7001	0.6988	0.6964	0.6945	0.6639	0.5670	0.6242
ABSOLUTE VELOCITY	784.4409	785.9580	784.5442	782.2672	777.4824	774.6646	739.9796	633.4055	706.5519
AXIAL VELOCITY	650.2824	650.8046	644.6297	638.6454	628.3343	615.0675	563.7089	446.0703	491.0133
RELATIVE VELOCITY	772.6268	772.0583	763.0212	755.1983	742.6472	723.8479	673.3303	590.8475	593.5907
RELATIVE MACH NUMBER	0.6901	0.6896	0.6809	0.6746	0.6652	0.6489	0.6041	0.5289	0.5244
RELATIVE FLOW ANGLE	49.4186	49.3751	49.3116	49.2839	49.2702	49.1484	49.5688	52.4641	49.9085

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

FAN STATOR EXIT READING 276

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	18.9000	19.3000	19.4000	19.3000	19.0000	18.7000	18.5500	18.5300	18.5200
STATIC PRESSURE	15.1609	15.0700	14.8767	14.5734	14.2836	14.1336	14.1691	14.2334	14.2445
TOTAL TEMPERATURE	600.5000	602.5000	601.0000	595.0000	586.0000	573.0000	571.0000	571.0000	571.0000
MACH NUMBER	.5701	.6052	.6277	.6464	.6517	.6453	.6325	.6256	.6240
CORRECTED VELOCITY	664.3074	703.5882	727.0038	743.2804	743.1905	728.2423	713.6592	706.4667	704.7638

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	18.0000	18.0000	18.0000	18.0000	18.4500	18.3200	18.2000	18.1000	18.2000
STATIC PRESSURE	14.2645	14.2636	14.2870	14.3959	14.5425	14.6945	14.9355	15.1153	15.1664
TOTAL TEMPERATURE	573.0000	570.0000	568.0000	570.0000	570.0000	569.0000	566.0000	578.0000	595.0000
MACH NUMBER	.5861	.5862	.5841	.5741	.5931	.5702	.5390	.5188	.5171
CORRECTED VELOCITY	665.9984	664.3438	660.9101	651.4498	671.6542	646.7610	611.7293	596.2102	603.0259

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	18.6500	19.3000	19.9000	19.9000	19.8000	19.6500	19.5000	19.3500	19.2500
STATIC PRESSURE	15.1998	15.0700	14.8651	14.5501	14.2253	14.0753	14.1302	14.2101	14.2251
TOTAL TEMPERATURE	585.5000	587.5000	586.0000	581.0000	578.0000	577.0000	576.5000	575.5000	572.0000
MACH NUMBER	.5486	.6052	.6592	.6841	.7039	.7072	.6942	.6790	.6718
CORRECTED VELOCITY	632.6045	694.7746	751.1143	773.7019	792.0441	794.7683	781.1796	764.8593	755.1222

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	19.2500	19.2500	19.2500	19.2000	19.1300	19.0300	18.5000	17.9000	18.2000
STATIC PRESSURE	14.2451	14.2053	14.2054	14.3104	14.4803	14.6751	14.9549	15.1697	15.2247
TOTAL TEMPERATURE	571.0000	571.0000	569.0000	567.0000	564.5000	562.0000	562.0000	570.0000	581.0000
MACH NUMBER	.6702	.6735	.6734	.6618	.6435	.6208	.5598	.4920	.5115
CORRECTED VELOCITY	752.7822	756.1240	754.7894	741.5235	720.9575	695.8266	631.6673	562.9766	589.7458

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	16.1500	17.0000	18.1000	19.5000	20.4000	20.6000	20.5000	20.1500	19.6000
STATIC PRESSURE	15.2405	15.0700	14.8528	14.5257	14.1642	14.0142	14.0895	14.1857	14.2047
TOTAL TEMPERATURE	563.0000	574.0000	582.0000	590.0000	589.0000	585.0000	580.0000	575.0000	571.0000
MACH NUMBER	.2889	.4185	.5391	.6625	.7411	.7627	.7520	.7262	.6941
CORRECTED VELOCITY	333.6559	483.6214	620.3737	757.1201	837.8127	856.7661	842.3052	812.7248	777.2750

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	19.1500	19.2500	19.2500	19.1500	19.0000	18.8000	18.4000	17.8000	16.5000
STATIC PRESSURE	14.2247	14.1442	14.1199	14.2208	14.4151	14.6547	14.9753	15.2267	15.2856
TOTAL TEMPERATURE	570.0000	570.0000	569.0000	570.0000	570.0000	569.0000	567.0000	561.0000	555.0000
MACH NUMBER	.6658	.6794	.6804	.6661	.6407	.6073	.5505	.4776	.3323
CORRECTED VELOCITY	747.5879	760.5676	761.9264	747.9186	721.5680	686.0035	624.5771	542.8026	379.9263

NASA TRANSONIC FAN ROTOR INLET READING NO. 278 TIME 11H 23M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11497.4980
 ACTUAL ORIFICE FLOW 131.6912
 THETA 0.9990
 DELTA 0.9535
 EQUIV. ROTOR SPEED 11502.9094
 PER CENT ROTOR SPEED 90.0000

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	12.8253	12.7910	12.7086	12.7802	12.7092	14.0481	14.3057	14.4816	14.4090
WEDGE PRESSURE	11.0260	10.8205	10.8125	10.9538	11.0463	11.2157	11.3186	11.4582	11.5203
ANGLE	14.4565	3.8822	0.7039	-1.8316	-10.1937	-6.9605	-3.6870	-1.6841	-0.0471
APPARENT MACH NUMBER	0.4697	0.4947	0.4859	0.4745	0.4520	0.5763	0.5881	0.5881	0.5744
STATIC PRESSURE	10.9759	10.7529	10.7525	10.9009	11.0068	11.0082	11.0783	11.2150	11.3113
TOTAL TEMPERATURE	517.7837	522.0323	522.0204	522.7242	522.1994	517.1313	516.8905	517.0645	517.4841
ABSOLUTE MACH NUMBER	0.4768	0.5041	0.4944	0.4820	0.4578	0.6005	0.6154	0.6154	0.5982
ABSOLUTE VELOCITY	520.2860	550.8411	540.7949	528.2015	502.5497	646.6130	661.4029	661.4550	644.5287
AXIAL VELOCITY	493.4680	537.6206	528.9389	516.4063	484.1363	628.0206	645.6684	646.7332	630.4438
RELATIVE VELOCITY	1592.8095	1522.7239	1491.5588	1465.4707	1387.7918	1456.1067	1495.5346	1516.3144	1525.8722
RELATIVE MACH NUMBER	1.4599	1.3935	1.3637	1.3374	1.2644	1.3523	1.3916	1.4107	1.4163
RELATIVE FLOW ANGLE	72.4256	70.1530	70.0724	70.1884	70.3716	66.2058	66.1847	66.4408	67.1010

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.5193	14.4399	14.3191	14.4453	14.4709	14.4247	14.4554	14.4227	14.1469
WEDGE PRESSURE	11.5556	11.5843	11.5824	11.5614	11.5447	11.5700	11.5717	11.5682	11.5485
ANGLE	0.0168	0.1431	0.2080	0.3215	0.3778	0.6093	0.8865	2.4873	5.9014
APPARENT MACH NUMBER	0.5804	0.5699	0.5588	0.5730	0.5773	0.5701	0.5727	0.5701	0.5462
STATIC PRESSURE	11.3314	11.3841	11.4054	11.3547	11.3288	11.3695	11.3654	11.3677	11.3963
TOTAL TEMPERATURE	517.4504	517.5718	517.2647	517.4966	517.5877	517.3316	517.5633	517.6275	517.5761
ABSOLUTE MACH NUMBER	0.6057	0.5927	0.5794	0.5965	0.6017	0.5930	0.5962	0.5930	0.5643
ABSOLUTE VELOCITY	651.9842	639.0622	625.3816	642.8412	648.1049	639.2157	642.5732	639.4162	610.3236
AXIAL VELOCITY	637.7368	625.0953	611.7118	628.7842	633.9288	625.2137	628.4592	624.8796	593.9585
RELATIVE VELOCITY	1529.6759	1525.4593	1520.3796	1528.8275	1531.6370	1530.1316	1534.3124	1548.6350	1567.3826
RELATIVE MACH NUMBER	1.4210	1.4149	1.4006	1.4187	1.4220	1.4196	1.4237	1.4364	1.4493
RELATIVE FLOW ANGLE	66.9154	67.2699	67.6414	67.1947	67.0652	67.3285	67.2785	67.5832	68.8231

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 278 TIME 11H 23M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11497.4980
 ACTUAL ORIFICE FLOW 131.6912
 THETA 0.9990
 DELTA 0.9535
 EQUIV. ROTOR SPEED 11502.9094
 PER CENT ROTOR SPEED 90.0000

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	13.8468	14.3771	14.3108	14.5216	14.3358	14.5111	14.3427	14.3180	14.3060
WEDGE PRESSURE	11.3833	11.4186	11.4456	11.5588	11.5191	11.5705	11.5149	11.5699	11.6091
ANGLE	8.7037	9.2372	9.8455	10.8282	11.4198	11.8942	13.1817	13.6670	14.5155
APPARENT MACH NUMBER	0.5364	0.5831	0.5739	0.5802	0.5677	0.5780	0.5689	0.5601	0.5544
STATIC PRESSURE	11.0795	11.0289	11.0748	11.1707	11.1590	11.1870	11.1526	11.2220	11.2698
TOTAL TEMPERATURE	516.6578	516.7727	516.5959	516.9190	516.7454	517.1253	516.8127	517.2226	518.0907
ABSOLUTE MACH NUMBER	0.5733	0.6271	0.6162	0.6237	0.6089	0.6210	0.6103	0.6002	0.5937
ABSOLUTE VELOCITY	618.9251	672.9842	662.0453	669.6825	654.8361	667.1265	656.2090	646.4052	640.3864
AXIAL VELOCITY	611.7648	664.2217	652.2603	657.7239	641.8383	652.7689	638.8859	628.0700	619.9133
RELATIVE VELOCITY	1323.1660	1360.7467	1359.4862	1373.1680	1369.0241	1361.0900	1385.3442	1383.1409	1386.4067
RELATIVE MACH NUMBER	1.2257	1.2680	1.2655	1.2789	1.2731	1.2856	1.2884	1.2844	1.2854
RELATIVE FLOW ANGLE	65.1856	63.9805	64.3680	64.4053	64.8804	64.7013	65.2410	65.5767	65.9079

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.2252	14.4974	13.3305	12.8272	12.7940	12.7001	12.6853	14.1554	14.3373
WEDGE PRESSURE	11.6586	11.7985	11.4329	10.9758	10.8857	11.0883	11.0601	11.3871	11.4293
ANGLE	16.9401	19.2229	25.7036	18.6087	12.6115	8.4278	4.5026	2.7403	7.1772
APPARENT MACH NUMBER	0.5407	0.5504	0.4734	0.4771	0.4858	0.4445	0.4468	0.5662	0.5783
STATIC PRESSURE	11.3407	11.4605	11.2153	10.7627	10.6637	10.9084	10.8783	11.0343	11.0499
TOTAL TEMPERATURE	518.2480	518.7757	519.3280	520.1557	522.7782	528.5008	528.1796	520.6141	518.0339
ABSOLUTE MACH NUMBER	0.5782	0.5892	0.5029	0.5069	0.5167	0.4711	0.4736	0.6072	0.6213
ABSOLUTE VELOCITY	624.7828	636.2625	548.1946	552.8085	564.3259	519.6065	522.1102	655.4864	668.0573
AXIAL VELOCITY	597.6435	600.7584	493.9290	523.8818	550.6817	513.9680	520.4704	654.7014	662.7870
RELATIVE VELOCITY	1396.0228	1422.1830	1406.8902	1360.8617	1322.8656	1264.8710	1235.5482	1289.4995	1338.6535
RELATIVE MACH NUMBER	1.2919	1.3171	1.2907	1.2479	1.2112	1.1469	1.1209	1.1945	1.2451
RELATIVE FLOW ANGLE	66.8231	67.0989	70.6542	68.9443	67.3981	67.8852	67.1560	63.0812	63.6582

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 278 TIME 11H 23M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11497.4980
 ACTUAL ORIFICE FLOW 131.6912
 THETA 0.9990
 DELTA 0.9535
 EQUIV. ROTOR SPEED 11502.9094
 PER CENT ROTOR SPEED 90.0000

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.2245	14.3761	14.4625	14.4581	14.2334	14.4112	14.5466	14.5353	14.5358
WEDGE PRESSURE	11.0906	11.1425	11.3424	11.4963	11.4803	11.5408	11.4859	11.5541	11.5819
ANGLE	-15.2704	-13.0059	-8.7347	-4.3578	-1.4349	-0.1309	0.7717	1.3386	1.8736
APPARENT MACH NUMBER	0.5076	0.6143	0.5994	0.5816	0.5626	0.5722	0.5907	0.5820	0.5789
STATIC PRESSURE	10.9219	10.6359	10.8941	11.1154	11.1683	11.1940	11.0687	11.1697	11.2087
TOTAL TEMPERATURE	517.9478	518.2891	518.0227	517.7720	516.9403	517.6823	517.7546	517.6106	517.7298
ABSOLUTE MACH NUMBER	0.5299	0.6703	0.6492	0.6244	0.5988	0.6116	0.6370	0.6250	0.6207
ABSOLUTE VELOCITY	575.3112	716.6881	695.6697	670.9452	644.7835	658.0962	683.4595	671.3964	667.2144
AXIAL VELOCITY	531.3887	668.0370	656.9904	638.7305	615.2709	628.1520	652.3091	640.6894	636.5468
RELATIVE VELOCITY	802.0166	901.4223	927.3457	949.5762	956.7288	976.1499	1000.8316	997.1242	998.5552
RELATIVE MACH NUMBER	0.7387	0.8431	0.8654	0.8837	0.8885	0.9072	0.9328	0.9282	0.9290
RELATIVE FLOW ANGLE	55.2338	52.1737	53.4161	54.8274	56.0299	56.0134	55.6735	56.0531	56.2630

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	12.0000
TOTAL PRESSURE	14.2328	14.3922	14.4544	14.1877	14.1406	14.0620	13.1961	12.8344	12.8741
WEDGE PRESSURE	11.5861	11.6736	11.6819	11.6954	11.6284	11.4935	11.2261	11.0520	11.1316
ANGLE	2.0736	2.9335	3.8209	8.3153	12.7805	22.2030	21.5836	-5.1794	0.1021
APPARENT MACH NUMBER	0.5501	0.5550	0.5599	0.5325	0.5359	0.5445	0.4861	0.4670	0.4605
STATIC PRESSURE	11.3874	11.3788	11.3725	11.4604	11.3861	11.2321	11.0957	10.9504	11.0376
TOTAL TEMPERATURE	517.6135	518.1890	518.5215	518.0898	518.5084	518.2449	518.1700	518.7904	518.9584
ABSOLUTE MACH NUMBER	0.5827	0.5890	0.5953	0.5606	0.5649	0.5756	0.5037	0.4816	0.4740
ABSOLUTE VELOCITY	629.0222	635.7367	642.2808	606.8788	611.4830	622.2103	548.4848	525.7357	517.9085
AXIAL VELOCITY	600.0441	606.0869	611.8158	573.7107	570.4434	553.3882	489.7765	499.9475	494.3438
RELATIVE VELOCITY	974.1208	985.3361	996.7007	1005.6353	1040.5359	1111.4532	1050.0575	929.3677	889.5811
RELATIVE MACH NUMBER	0.9025	0.9130	0.9239	0.9290	0.9613	1.0283	0.9645	0.8513	0.8142
RELATIVE FLOW ANGLE	57.1641	57.2013	57.2550	59.1338	60.1291	62.4523	63.9572	60.5952	59.7925

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS. VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 278 TIME 11H 23M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11497.4980
 ACTUAL ORIFICE FLOW 131.6912
 THETA 0.9990
 DELTA 0.9535
 EQUIV. ROTOR SPEED 11502.9094
 PER CENT ROTOR SPEED 90.0000

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	19.8157	19.9972	19.7328	19.5282	21.9524	22.4563	22.3020	22.4455	22.7398
WEDGE PRESSURE	15.4429	15.5165	15.5110	16.0815	17.2872	17.4938	17.0748	17.2690	16.6569
ANGLE	22.3339	29.2273	32.2077	40.3871	42.7270	42.9155	48.7468	40.8482	31.0260
APPARENT MACH NUMBER	0.6077	0.6132	0.5967	0.5341	0.5945	0.6084	0.6300	0.6240	0.6823
STATIC PRESSURE	14.8484	14.8904	14.9685	15.7680	16.6947	16.8167	16.2831	16.5067	15.6177
TOTAL TEMPERATURE	585.3124	582.6285	584.1274	581.9515	619.4790	627.3634	629.9132	636.6841	629.3560
ABSOLUTE MACH NUMBER	0.6556	0.6630	0.6410	0.5614	0.6381	0.6566	0.6860	0.6778	0.7531
ABSOLUTE VELOCITY	746.0377	752.0670	729.9211	643.7924	748.3684	773.1900	806.5751	801.9418	877.3550
AXIAL VELOCITY	688.1710	694.7091	616.1763	489.4490	548.7914	565.2732	609.9309	612.7288	750.0545
RELATIVE VELOCITY	1249.6914	1161.6045	1121.9131	1032.2898	985.6117	979.6514	1006.3115	1016.3396	1152.7290
RELATIVE MACH NUMBER	1.0983	1.0241	0.9852	0.9002	0.8404	0.8319	0.8559	0.8590	0.9895
RELATIVE FLOW ANGLE	61.0816	60.5144	61.1457	64.5611	60.8124	59.9345	58.6979	58.8335	56.8645

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	21.3072	20.3315	20.0500	20.0227	19.9464	19.9417	19.9838	20.0511	20.0266
WEDGE PRESSURE	15.9075	15.5795	15.4393	15.3738	15.3562	15.3785	15.3798	15.4724	15.4811
ANGLE	28.3304	27.2794	24.9981	26.7530	26.3821	26.0213	27.9050	27.2606	27.6979
APPARENT MACH NUMBER	0.6600	0.6287	0.6231	0.6262	0.6229	0.6221	0.6184	0.6201	-0.6178
STATIC PRESSURE	15.0146	14.8638	14.7561	14.6818	14.6837	14.7097	14.7313	14.8106	14.8311
TOTAL TEMPERATURE	600.0442	590.8437	586.1577	584.8228	585.4728	583.1010	584.9057	583.7171	584.4458
ABSOLUTE MACH NUMBER	0.7253	0.6843	0.6766	0.6809	0.6763	0.6752	0.6701	0.6724	0.6694
ABSOLUTE VELOCITY	828.3254	779.5709	768.5257	772.0428	767.7642	765.0022	760.9153	762.5572	759.8811
AXIAL VELOCITY	727.2919	691.1045	694.6873	687.6278	686.0225	685.6651	670.7467	676.1349	671.1062
RELATIVE VELOCITY	1183.8634	1190.6877	1219.2915	1196.6163	1200.8949	1205.2347	1179.8759	1188.5664	1182.4724
RELATIVE MACH NUMBER	1.0367	1.0452	1.0735	1.0553	1.0579	1.0637	1.0391	1.0481	1.0417
RELATIVE FLOW ANGLE	58.3537	59.7879	60.2484	60.0367	60.1829	60.2849	60.3029	60.2866	60.3439

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 278 TIME 11H 23M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11497.4980
 ACTUAL ORIFICE FLOW 131.6912
 THETA 0.9990
 DELTA 0.9535
 EQUIV. ROTOR SPEED 11502.9094
 PER CENT ROTOR SPEED 90.0000

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0800	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	21.1828	20.6351	20.5013	20.6234	20.7381	20.6995	20.6718	20.6144	20.5782
WEDGE PRESSURE	15.6606	15.7029	15.6386	15.6556	15.6639	15.6739	15.6126	15.6089	15.5820
ANGLE	35.7581	33.0109	32.9789	32.2455	31.8625	31.8972	31.8224	32.8356	33.4910
APPARENT MACH NUMBER	0.6715	0.6371	0.6342	0.6401	0.6461	0.6431	0.6462	0.6432	0.6431
STATIC PRESSURE	14.4132	14.7809	14.7452	14.7108	14.6649	14.7013	14.6160	14.6400	14.6151
TOTAL TEMPERATURE	608.0846	587.2010	584.7951	582.1852	581.5841	581.8790	582.5380	581.1595	580.6731
ABSOLUTE MACH NUMBER	0.7627	0.7073	0.7027	0.7119	0.7214	0.7167	0.7216	0.7167	0.7167
ABSOLUTE VELOCITY	872.4445	800.9446	794.6161	802.2625	811.5853	806.9303	812.4007	806.5018	806.1003
AXIAL VELOCITY	707.9561	671.6204	666.5551	678.5030	689.2671	685.0557	690.2592	677.6217	672.2410
RELATIVE VELOCITY	912.5743	934.1646	933.1982	944.8881	952.3886	950.7597	953.1432	937.8282	928.7559
RELATIVE MACH NUMBER	0.7978	0.8249	0.8253	0.8385	0.8466	0.8444	0.8466	0.8335	0.8257
RELATIVE FLOW ANGLE	52.1951	54.2843	54.4616	54.3174	54.1045	54.2246	54.0869	54.1489	54.1013

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	20.4224	20.3706	20.1300	19.9105	19.3036	21.1288	21.5305	21.1932	21.1667
WEDGE PRESSURE	15.5657	15.5614	15.4407	15.3669	15.5815	16.5852	16.7204	16.3312	16.1436
ANGLE	33.6756	33.9162	35.6540	38.8475	43.3333	45.8445	47.2650	48.1661	44.3291
APPARENT MACH NUMBER	0.6352	0.6324	0.6274	0.6198	0.5618	0.5986	0.6116	0.6219	0.6345
STATIC PRESSURE	14.6682	14.6851	14.6046	14.5838	15.1002	15.8757	15.9311	15.4853	15.2190
TOTAL TEMPERATURE	579.5700	577.4940	577.1034	576.1379	570.3802	600.7567	606.0057	610.7886	610.9846
ABSOLUTE MACH NUMBER	0.7042	0.7001	0.6929	0.6821	0.6029	0.6524	0.6705	0.6850	0.7032
ABSOLUTE VELOCITY	792.6358	786.9912	779.3601	767.5568	681.4354	752.3833	774.8532	793.2968	812.5967
AXIAL VELOCITY	659.5990	653.0643	633.2485	597.7680	495.6446	524.1035	525.8106	529.0968	581.2666
RELATIVE VELOCITY	923.3475	918.9605	894.2204	849.9296	792.2075	756.7212	737.0629	724.2556	778.4688
RELATIVE MACH NUMBER	0.8204	0.8175	0.7950	0.7553	0.7009	0.6562	0.6378	0.6254	0.6737
RELATIVE FLOW ANGLE	54.4583	54.5990	54.6942	54.8794	57.9666	55.2923	54.4951	53.8491	53.2507

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 278 TIME 11H 23M 46S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11497.4980
 ACTUAL ORIFICE FLOW 131.6912
 THETA 0.9990
 DELTA 0.9535
 EQUIV. ROTOR SPEED 11502.9094
 PER CENT ROTOR SPEED 90.0000

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	0.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	19.1475	18.7528	20.5373	21.0380	20.6989	20.3237	20.2888	20.1769	20.0743
WEDGE PRESSURE	16.0927	15.6044	15.8772	16.1125	15.8807	15.7549	15.7021	15.6462	15.5852
ANGLE	53.7646	47.0557	33.3265	35.5239	35.8479	35.2219	35.1664	35.3139	35.5859
APPARENT MACH NUMBER	0.5046	0.5193	0.6178	0.6294	0.6272	0.6143	0.6164	0.6139	0.6124
STATIC PRESSURE	15.6509	15.1419	15.0786	15.2501	15.0405	14.9771	14.9182	14.8755	14.8237
TOTAL TEMPERATURE	588.5274	590.8164	601.6035	595.1455	584.5081	580.3773	580.9111	580.6587	578.4773
ABSOLUTE MACH NUMBER	0.5446	0.5614	0.6794	0.6940	0.6912	0.6751	0.6777	0.6746	0.6727
ABSOLUTE VELOCITY	629.1686	648.6726	781.4906	792.4838	782.5451	763.1546	766.1611	762.8148	759.4563
AXIAL VELOCITY	369.6074	438.3161	644.9885	637.4881	627.0009	616.1436	618.9833	615.1866	610.4587
RELATIVE VELOCITY	490.2167	565.6126	765.8841	743.7090	735.4657	735.1382	737.0289	733.8866	729.2522
RELATIVE MACH NUMBER	0.4243	0.4895	0.6659	0.6513	0.6496	0.6503	0.6519	0.6490	0.6460
RELATIVE FLOW ANGLE	52.5008	51.7390	49.4019	48.9006	49.0550	49.5372	49.4797	49.5329	49.5720

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	19.9930	19.9356	19.8934	19.6767	19.6073	19.4524	18.9894	17.9825	19.3934
WEDGE PRESSURE	15.5322	15.5223	15.4916	15.4258	15.4121	15.4409	15.5636	15.8930	16.2889
ANGLE	35.5690	35.7695	36.4864	37.1658	37.8691	39.7787	43.7204	51.0418	55.9279
APPARENT MACH NUMBER	0.6116	0.6088	0.6086	0.6001	0.5967	0.5840	0.5408	0.4238	0.5055
STATIC PRESSURE	14.7767	14.7788	14.7502	14.7213	14.7214	14.7966	15.0489	15.6166	15.8396
TOTAL TEMPERATURE	577.4149	576.8725	578.8347	576.9217	573.4532	572.8067	568.9865	561.5114	584.2226
ABSOLUTE MACH NUMBER	0.6717	0.6682	0.6680	0.6574	0.6532	0.6376	0.5861	0.4535	0.5457
ABSOLUTE VELOCITY	757.7021	753.7169	754.7748	742.5797	735.9953	719.3296	662.9485	516.2319	628.0388
AXIAL VELOCITY	609.1747	604.4849	599.9547	585.1595	574.6494	547.0831	474.7219	322.3168	349.8959
RELATIVE VELOCITY	728.7650	724.7872	716.5300	703.8941	693.0306	664.7811	605.3430	532.9867	466.5053
RELATIVE MACH NUMBER	0.6460	0.6425	0.6341	0.6231	0.6151	0.5892	0.5352	0.4682	0.4053
RELATIVE FLOW ANGLE	49.6126	49.6764	49.5651	49.7644	49.8406	50.0535	51.4069	58.3905	52.6454

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FAN STATOR EXIT READING 278

IMMERSSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	21.0500	21.6000	21.7000	21.5000	20.9000	20.1500	19.9500	19.9500	19.9200
STATIC PRESSURE	17.0580	16.9891	16.7934	16.4411	16.0642	15.9342	15.9877	16.0044	16.0022
TOTAL TEMPERATURE	630.0000	620.0000	607.0000	593.0000	590.0000	588.0000	586.0000	586.0000	585.0000
MACH NUMBER	.5564	.5959	.6164	.6311	.6248	.5889	.5714	.5700	.5682
CORRECTED VELOCITY	664.6622	703.1143	717.9679	725.3749	716.8660	677.2598	657.2580	655.7535	653.2198

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	19.9000	19.8600	19.8500	19.8000	19.7500	19.6700	19.7500	20.0000	20.4500
STATIC PRESSURE	16.0022	16.0467	16.0912	16.1445	16.2423	16.3336	16.4850	16.7062	16.9781
TOTAL TEMPERATURE	584.0000	586.0000	586.0000	585.0000	588.0000	602.0000	617.0000	629.0000	633.0000
MACH NUMBER	.5669	.5604	.5559	.5479	.5360	.5222	.5147	.5136	.5225
CORRECTED VELOCITY	651.2090	645.3337	640.5067	631.2746	619.8392	611.9029	611.0307	615.6901	627.7666

IMMERSSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	20.2000	20.7500	21.1000	21.0500	20.5500	20.4000	20.5500	20.6500	20.6500
STATIC PRESSURE	17.0192	16.9502	16.7701	16.4450	16.1148	15.9848	16.0149	16.0199	16.0100
TOTAL TEMPERATURE	609.0000	604.0000	593.0000	585.0000	583.0000	585.0000	585.0000	584.0000	582.0000
MACH NUMBER	.5012	.5454	.5823	.6045	.5997	.6007	.6076	.6133	.6141
CORRECTED VELOCITY	591.9079	638.6398	673.0031	692.1917	685.9142	688.1446	695.5150	700.9919	700.6167

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	20.6500	20.6500	20.6000	20.5500	20.4600	20.3000	19.7000	19.3000	19.6500
STATIC PRESSURE	16.0100	16.0351	16.0601	16.1251	16.2151	16.2753	16.3606	16.5507	16.9004
TOTAL TEMPERATURE	581.0000	580.0000	578.0000	575.0000	575.0000	580.0000	590.0000	601.0000	608.0000
MACH NUMBER	.6141	.6121	.6071	.5989	.5861	.5708	.5220	.4737	.4691
CORRECTED VELOCITY	700.0145	697.3337	690.8154	680.3241	666.6780	653.2574	605.5707	557.1949	555.1727

IMMERSSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	17.1500	17.1500	17.5500	20.0000	21.0500	20.8500	20.6300	20.4000	20.3000
STATIC PRESSURE	16.9704	16.9095	16.7457	16.4491	16.1677	16.0377	16.0434	16.0362	16.0181
TOTAL TEMPERATURE	595.0000	598.0000	596.0000	585.0000	573.0000	573.0000	578.0000	575.0000	574.0000
MACH NUMBER	.1227	.1422	.2598	.5359	.6257	.6239	.6103	.5966	.5917
CORRECTED VELOCITY	146.5874	170.1837	308.9142	618.1519	707.4070	705.5026	694.1532	677.8819	672.1262

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	20.0000	19.9500	19.9000	19.8400	19.7000	19.4300	19.0000	18.4000	17.6500
STATIC PRESSURE	16.0181	16.0228	16.0276	16.1047	16.1866	16.2142	16.2303	16.3879	16.8189
TOTAL TEMPERATURE	574.0000	574.0000	573.0000	573.0000	572.0000	566.0000	566.0000	577.0000	588.0000
MACH NUMBER	.5722	.5685	.5647	.5541	.5373	.5150	.4798	.4101	.2634
CORRECTED VELOCITY	651.3476	647.3572	642.7694	631.3949	612.7160	585.5915	547.3685	475.2212	311.0813

NASA TRANSONIC FAN ROTOR INLET READING NO. 280 TIME 11H 51M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11530.7460
 ACTUAL ORIFICE FLOW 121.0167
 THETA 1.0023
 DELTA 0.9614
 EQUIV. ROTOR SPEED 11517.2991
 PER CENT ROTOR SPEED 90.1126

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	13.0989	13.0662	13.1530	13.1252	13.1929	14.2233	14.2345	14.3846	14.4010
WEDGE PRESSURE	11.3693	11.3532	11.4711	11.7112	11.8633	12.6395	12.6737	12.4609	12.3140
ANGLE	7.3283	-1.6470	-7.2988	-13.7902	-21.1122	-18.3807	-8.3627	-2.0780	0.1182
APPARENT MACH NUMBER	0.4543	0.4525	0.4464	0.4067	0.3925	0.4141	0.4106	0.4575	0.4782
STATIC PRESSURE	11.3274	11.3124	11.4334	11.6923	11.8490	12.6157	12.6515	12.4128	12.2517
TOTAL TEMPERATURE	524.4370	527.8553	526.7921	529.5546	531.4115	526.9854	530.0568	528.7849	527.2047
ABSOLUTE MACH NUMBER	0.4603	0.4584	0.4518	0.4097	0.3947	0.4174	0.4138	0.4637	0.4860
ABSOLUTE VELOCITY	506.1751	505.8173	498.3547	454.6342	439.3294	461.8186	459.2688	511.9007	534.6526
AXIAL VELOCITY	491.2424	494.5684	483.6833	432.4124	402.0133	429.6051	444.6594	500.3992	522.9682
RELATIVE VELOCITY	1535.2293	1463.4817	1414.8585	1355.5627	1299.0905	1320.0435	1398.1842	1461.8639	1488.0322
RELATIVE MACH NUMBER	1.3961	1.3263	1.2828	1.2216	1.1673	1.1932	1.2598	1.3243	1.3528
RELATIVE FLOW ANGLE	71.8858	70.9407	70.7358	71.9382	72.4444	71.5970	71.9893	70.7128	70.2368

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.4583	14.4491	14.4838	14.4252	14.4890	14.4497	14.5001	14.4520	14.3117
WEDGE PRESSURE	12.1526	11.9645	11.8889	11.7962	11.7909	11.7662	11.7492	11.7561	11.7370
ANGLE	0.6303	1.3626	2.1924	1.2572	0.9979	1.1144	1.4922	2.7017	4.4951
APPARENT MACH NUMBER	0.5043	0.5261	0.5385	0.5438	0.5505	0.5497	0.5564	0.5511	0.5398
STATIC PRESSURE	12.0632	11.8427	11.7464	11.6453	11.6272	11.6045	11.5744	11.5918	11.5941
TOTAL TEMPERATURE	524.7077	522.7038	521.7811	520.5490	520.6496	520.6240	520.3442	520.9462	521.2480
ABSOLUTE MACH NUMBER	0.5152	0.5406	0.5552	0.5614	0.5695	0.5684	0.5765	0.5701	0.5567
ABSOLUTE VELOCITY	563.8254	589.0239	603.4723	609.1373	617.3741	616.3156	624.3695	618.2103	604.6940
AXIAL VELOCITY	551.4725	575.9966	589.8716	595.6888	603.7956	602.7386	610.5274	604.0579	589.7389
RELATIVE VELOCITY	1503.3730	1519.9886	1533.7020	1527.3250	1528.3102	1528.9788	1536.0228	1544.8887	1555.5423
RELATIVE MACH NUMBER	1.3738	1.3952	1.4111	1.4078	1.4098	1.4103	1.4184	1.4248	1.4322
RELATIVE FLOW ANGLE	69.4432	68.8232	68.5355	68.2613	68.0064	68.0499	67.8857	68.2117	68.8143

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 280 TIME 11H 51M 29S CIRCUM. INLET DISTORTION STATDR ANGLE 3.00 DEG

ROTOR SPEED 11530.7460
 ACTUAL ORIFICE FLOW 121.0167
 THETA 1.0823
 DELTA 0.9614
 EQUIV. ROTOR SPEED 11517.2991
 PER CENT ROTOR SPEED 90.1126

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.2707	14.3350	14.3851	14.4937	14.3582	14.4569	14.3969	14.3236	14.3847
WEDGE PRESSURE	12.3874	12.2499	12.1703	12.0870	11.9743	11.9461	11.8792	11.8680	11.8887
ANGLE	10.8270	11.7775	13.1408	13.1497	13.3161	13.2093	13.9295	14.2373	14.7497
APPARENT MACH NUMBER	0.4541	0.4791	0.4945	0.5159	0.5158	0.5291	0.5312	0.5253	0.5288
STATIC PRESSURE	12.1753	12.0093	11.9101	11.7971	11.6872	11.6391	11.5706	11.5691	11.5837
TOTAL TEMPERATURE	531.9187	530.0681	529.0264	526.9377	527.5086	526.5735	524.6916	526.1370	526.1411
ABSOLUTE MACH NUMBER	0.4817	0.5092	0.5263	0.5503	0.5502	0.5651	0.5675	0.5608	0.5648
ABSOLUTE VELOCITY	532.4216	560.4370	577.7267	601.3505	601.6172	616.4234	617.7154	611.7034	615.0462
AXIAL VELOCITY	522.9163	548.6096	562.5692	585.5520	585.4117	600.0827	599.5190	592.8848	595.5220
RELATIVE VELOCITY	1293.1599	1316.8203	1338.0583	1352.8046	1354.3319	1362.7960	1369.5944	1368.2714	1375.1377
RELATIVE MACH NUMBER	1.1699	1.1965	1.2191	1.2379	1.2387	1.2495	1.2583	1.2544	1.2613
RELATIVE FLOW ANGLE	67.9821	67.3817	67.1954	66.5940	66.6226	66.2336	66.3584	66.5715	66.5834

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.2229	14.4500	13.1056	13.1504	13.0455	13.0141	12.9775	14.1705	14.2772
WEDGE PRESSURE	11.8827	11.9703	11.5836	11.3016	11.4595	11.8537	12.0621	12.7088	12.7393
ANGLE	16.0245	17.8809	19.9711	12.5377	3.5850	0.8265	-4.1423	-1.3308	9.3243
APPARENT MACH NUMBER	0.5132	0.5255	0.4236	0.4702	0.4342	0.3677	0.3249	0.3974	0.4068
STATIC PRESSURE	11.6017	11.6683	11.4170	11.0983	11.2841	11.7324	11.9680	12.5527	12.5736
TOTAL TEMPERATURE	526.7728	525.7561	525.8618	524.1114	529.6902	540.7613	542.6184	547.7095	543.2550
ABSOLUTE MACH NUMBER	0.5473	0.5611	0.4482	0.4993	0.4599	0.3876	0.3420	0.4197	0.4299
ABSOLUTE VELOCITY	598.1790	611.8233	494.0999	546.9822	508.2757	435.4580	386.1468	473.2951	482.3974
AXIAL VELOCITY	574.9071	582.2413	464.3649	533.9105	507.2535	435.4341	385.1170	473.1414	475.9981
RELATIVE VELOCITY	1373.8993	1397.6131	1334.8334	1314.7367	1224.4992	1167.1751	1122.9197	1171.5130	1254.6631
RELATIVE MACH NUMBER	1.2571	1.2818	1.2109	1.2002	1.1080	1.0391	0.9948	1.0390	1.1182
RELATIVE FLOW ANGLE	67.2923	67.3826	70.8174	67.8972	67.4971	69.5403	71.0693	68.0067	69.2233

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 280 TIME 11H 51M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11530.7460
 ACTUAL ORIFICE FLOW 121.0167
 THETA 1.0023
 DELTA 0.9614
 EQUIV. ROTOR SPEED 11517.2991
 PER CENT ROTOR SPEED 90.1126

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	14.0134	14.5488	14.4688	14.4453	14.3868	14.5809	14.3451	14.4123	14.4710
WEDGE PRESSURE	11.7825	11.9539	12.2352	12.3060	12.2704	12.2023	12.0574	11.9856	11.9414
ANGLE	-21.3327	-16.1573	-9.5630	-2.1774	1.4307	2.2376	2.5164	2.4671	2.6759
APPARENT MACH NUMBER	0.5038	0.5372	0.4952	0.4839	0.4821	0.5108	0.5043	0.5199	0.5311
STATIC PRESSURE	11.6112	11.7017	12.0752	12.1670	12.1347	12.0097	11.8811	11.7756	11.7051
TOTAL TEMPERATURE	521.2501	521.5535	521.5898	521.1596	521.8634	521.7260	521.0445	520.7395	520.6920
ABSOLUTE MACH NUMBER	0.5252	0.5664	0.5148	0.5012	0.4991	0.5337	0.5258	0.5450	0.5588
ABSOLUTE VELOCITY	572.3435	614.8191	561.7483	547.3950	545.5847	581.3526	572.8432	592.3983	606.5141
AXIAL VELOCITY	511.8928	565.6167	529.3882	522.1452	520.6134	554.5161	546.2990	564.9673	578.3435
RELATIVE VELOCITY	750.1876	815.7420	843.3299	892.0476	917.2667	945.6428	942.2380	954.5060	965.3499
RELATIVE MACH NUMBER	0.6884	0.7516	0.7729	0.8168	0.8391	0.8682	0.8649	0.8781	0.8894
RELATIVE FLOW ANGLE	54.4400	54.0044	56.6689	58.4821	59.2634	58.4360	58.7246	58.1967	57.8853

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	372.0000
TOTAL PRESSURE	14.2536	14.5035	14.5196	14.3017	14.2088	14.0885	13.1689	13.2127	13.2222
WEDGE PRESSURE	11.9374	11.9572	11.9241	11.9217	11.9146	11.7571	11.5835	11.5433	11.7438
ANGLE	3.3510	3.8074	4.0101	7.5797	11.3441	19.4379	6.1345	-3.4725	-11.9135
APPARENT MACH NUMBER	0.5096	0.5324	0.5378	0.5165	0.5078	0.5149	0.4319	0.4434	0.4150
STATIC PRESSURE	11.7514	11.7173	11.6708	11.7207	11.7330	11.5625	11.5187	11.4663	11.6947
TOTAL TEMPERATURE	520.3737	520.6168	520.4202	520.0888	520.8241	520.4678	521.0041	521.3657	521.5739
ABSOLUTE MACH NUMBER	0.5323	0.5604	0.5673	0.5407	0.5301	0.5387	0.4414	0.4545	0.4224
ABSOLUTE VELOCITY	579.1876	608.1391	615.0146	587.6914	577.1374	585.8447	484.6874	498.6312	464.7320
AXIAL VELOCITY	551.9737	579.3019	585.7223	556.4814	541.0477	529.9334	460.2192	475.1476	434.8573
RELATIVE VELOCITY	952.4510	974.9712	981.1295	988.7122	1007.5917	1067.2694	911.8484	855.4121	779.6883
RELATIVE MACH NUMBER	0.8754	0.8985	0.9050	0.9098	0.9255	0.9815	0.8305	0.7797	0.7086
RELATIVE FLOW ANGLE	58.7359	58.0981	57.9765	59.4739	60.6395	62.5167	62.1317	59.8034	59.7017

NOTE: ALL PRESSURE UNITS IN PSI AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS. VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 280 TIME 11H 51M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11530.7460
 ACTUAL ORIFICE FLOW 121.0167
 THETA 1.0023
 DELTA 0.9614
 EQUIV. ROTOR SPEED 11517.2991
 PER CENT ROTOR SPEED 90.1126

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	22.2987	22.2621	22.0773	22.1597	24.4641	25.3063	24.7183	24.7737	22.7608
WEDGE PRESSURE	17.3175	17.3822	17.4965	18.1621	19.3069	19.7335	19.5342	19.2805	17.6739
ANGLE	34.8954	36.1416	37.8026	44.7196	47.2458	47.9679	48.5835	47.3445	39.4281
APPARENT MACH NUMBER	0.6121	0.6054	0.5862	0.5409	0.5919	0.6073	0.5902	0.6098	0.6126
STATIC PRESSURE	16.6249	16.7265	16.9403	17.7841	18.6611	18.9774	18.8910	18.5254	16.9652
TOTAL TEMPERATURE	605.3735	604.6352	604.7326	605.7813	643.7210	654.2391	658.7052	669.4186	649.8121
ABSOLUTE MACH NUMBER	0.6617	0.6525	0.6271	0.5696	0.6345	0.6551	0.6323	0.6585	0.6622
ABSOLUTE VELOCITY	765.0533	754.8698	727.6941	665.8538	758.8307	787.7796	765.0167	800.6311	792.9988
AXIAL VELOCITY	626.1343	608.3222	573.8133	472.3578	514.3705	526.6927	505.3662	541.6954	611.3508
RELATIVE VELOCITY	1090.5730	1074.1569	1054.1478	982.3249	928.4703	912.4848	909.7081	918.3358	1028.4443
RELATIVE MACH NUMBER	0.9432	0.9285	0.9084	0.8404	0.7764	0.7588	0.7519	0.7554	0.8588
RELATIVE FLOW ANGLE	60.0587	60.3969	61.3613	64.2470	60.9354	59.9262	60.8683	59.3843	59.1899

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	22.1966	22.3189	21.9553	22.3162	22.4138	22.3371	22.4105	22.1627	22.0875
WEDGE PRESSURE	17.4632	17.2089	17.0235	17.1518	17.2111	17.1492	17.1938	17.2417	17.2114
ANGLE	41.4030	40.6151	41.4921	40.0829	36.5306	35.3497	34.8986	34.3301	34.3925
APPARENT MACH NUMBER	0.5959	0.6213	0.6143	0.6252	0.6262	0.6264	0.6273	0.6100	0.6079
STATIC PRESSURE	16.8576	16.4661	16.3306	16.3868	16.4367	16.3762	16.4135	16.5648	16.5476
TOTAL TEMPERATURE	649.5611	632.4295	627.7573	624.1875	613.6747	610.8909	608.1795	606.7090	606.1961
ABSOLUTE MACH NUMBER	0.6399	0.6741	0.6645	0.6794	0.6809	0.6812	0.6823	0.6587	0.6559
ABSOLUTE VELOCITY	768.1587	795.2712	782.8629	795.8320	790.7685	789.2818	788.7407	762.7725	759.4800
AXIAL VELOCITY	575.1325	602.5687	584.7417	607.7520	634.0900	642.3853	645.4952	628.5145	625.3371
RELATIVE VELOCITY	1003.5709	1011.8997	1000.9504	1019.2356	1068.4955	1084.7438	1090.9352	1098.0779	1097.2098
RELATIVE MACH NUMBER	0.8360	0.8577	0.8505	0.8702	0.9201	0.9362	0.9437	0.9483	0.9476
RELATIVE FLOW ANGLE	60.1039	59.1458	59.6267	59.1119	59.2323	59.2851	59.3067	60.1346	60.2403

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 280 TIME 11H 51M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11530.7460
 ACTUAL ORIFICE FLOW 121.0167
 THETA 1.0023
 DELTA 0.9614
 EQUIV.ROTOR SPEED 11517.2991
 PER CENT ROTOR SPEED 90.1126

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	20.6839	20.1220	21.5004	21.7580	21.4464	20.8891	20.4996	20.3482	20.3337
WEDGE PRESSURE	17.8782	17.6243	17.0682	17.2881	16.9852	16.6318	16.4536	16.4084	16.3709
ANGLE	64.5895	58.8204	38.5914	36.9285	40.4466	41.9123	41.6391	41.0878	40.8432
APPARENT MACH NUMBER	0.4612	0.4394	0.5840	0.5829	0.5871	0.5801	0.5694	0.5632	0.5653
STATIC PRESSURE	17.4912	17.2880	16.3563	16.5717	16.2643	15.9533	15.8222	15.8014	15.7576
TOTAL TEMPERATURE	603.6486	602.0610	606.5767	604.7134	599.1012	592.0199	588.0962	584.2686	584.4525
ABSOLUTE MACH NUMBER	0.4954	0.4709	0.6376	0.6362	0.6413	0.6328	0.6198	0.6122	0.6147
ABSOLUTE VELOCITY	582.4376	554.0941	740.1011	737.4341	739.5499	726.1337	709.9146	699.5206	702.3752
AXIAL VELOCITY	249.1091	285.5054	572.2669	582.8832	557.0770	535.1029	525.3400	521.9657	526.0028
RELATIVE VELOCITY	390.2673	454.3339	686.9936	706.0889	664.2760	642.3956	641.2229	645.0476	648.6711
RELATIVE MACH NUMBER	0.3320	0.3861	0.5918	0.6091	0.5761	0.5598	0.5598	0.5645	0.5677
RELATIVE FLOW ANGLE	56.9925	57.4003	49.7108	49.9659	49.5206	49.7115	50.1796	50.5284	50.4693

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	20.3554	20.2570	20.1375	20.0916	20.0207	19.8343	19.6943	19.0778	20.9561
WEDGE PRESSURE	16.3847	16.3866	16.3236	16.3155	16.3844	16.5467	16.8215	17.6138	17.8444
ANGLE	40.7988	40.8290	41.0439	41.0184	41.7344	43.8324	48.9876	60.8827	66.0706
APPARENT MACH NUMBER	0.5656	0.5589	0.5561	0.5536	0.5429	0.5155	0.4800	0.3397	0.4848
STATIC PRESSURE	15.7699	15.7942	15.7414	15.7406	15.8369	16.0657	16.4170	17.4325	17.4039
TOTAL TEMPERATURE	585.1516	583.4956	583.9126	581.4854	580.5008	581.2999	580.1839	577.7844	595.5660
ABSOLUTE MACH NUMBER	0.6151	0.6071	0.6038	0.6010	0.5886	0.5571	0.5167	0.3613	0.5221
ABSOLUTE VELOCITY	703.1785	693.6546	690.4355	685.9774	672.1867	638.8133	594.3293	420.2264	608.1296
AXIAL VELOCITY	526.9498	519.5809	515.5239	512.3892	496.6990	456.5989	387.0492	203.6238	245.9450
RELATIVE VELOCITY	649.4064	646.5953	643.2914	642.5153	631.1932	601.9995	544.5663	500.4251	365.8641
RELATIVE MACH NUMBER	0.5681	0.5659	0.5626	0.5629	0.5527	0.5250	0.4734	0.4302	0.3141
RELATIVE FLOW ANGLE	50.4506	50.7244	50.8007	50.9379	51.3108	52.3359	54.1210	67.5057	55.6231

NOTE: ALL PRESSURE UNITS IN PSLA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS. VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 280 TIME 11H 51M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 11530.7460
 ACTUAL ORIFICE FLOW 121.0167
 THETA 1.0023
 DELTA 0.9614
 EQUIV. ROTOR SPEED 11517.2991
 PER CENT ROTOR SPEED 90.1126

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	22.2922	21.4424	21.1342	21.3433	21.3174	21.5033	21.6725	21.6696	21.5956
WEDGE PRESSURE	16.9023	16.5421	16.2597	16.4039	16.4590	16.4837	16.5883	16.6089	16.5756
ANGLE	63.2127	49.7852	42.6726	41.4678	40.9705	39.9582	39.6942	39.1921	39.4490
APPARENT MACH NUMBER	0.6418	0.6206	0.6238	0.6250	0.6194	0.6282	0.6301	0.6284	0.6267
STATIC PRESSURE	15.8669	15.6945	15.4042	15.5323	15.6232	15.5854	15.6712	15.7026	15.6835
TOTAL TEMPERATURE	644.3188	631.2452	606.6785	595.8329	592.4119	591.0949	591.0834	591.6530	591.5991
ABSOLUTE MACH NUMBER	0.7146	0.6832	0.6878	0.6895	0.6815	0.6941	0.6968	0.6943	0.6919
ABSOLUTE VELOCITY	846.6114	804.3641	793.5864	788.3020	777.6548	789.9254	792.6700	790.5548	787.9267
AXIAL VELOCITY	381.5491	519.3316	583.4596	590.6797	587.1492	605.4692	609.9122	612.6858	608.4103
RELATIVE VELOCITY	506.4354	703.4912	802.4357	818.6183	824.5428	839.4680	843.3984	850.0374	846.2145
RELATIVE MACH NUMBER	0.4275	0.5975	0.6955	0.7160	0.7226	0.7376	0.7413	0.7466	0.7430
RELATIVE FLOW ANGLE	53.0042	53.5632	53.9774	54.1861	54.5444	54.1975	54.1257	54.2155	54.2833

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	21.6258	21.5467	21.3848	21.3773	21.0827	23.3487	23.5928	23.2740	23.5203
WEDGE PRESSURE	16.6353	16.6491	16.6123	16.6958	17.1128	18.4730	18.4712	18.3657	17.8651
ANGLE	39.5709	39.3925	40.4509	42.5965	48.1173	49.5792	53.4017	59.0997	57.3496
APPARENT MACH NUMBER	0.6240	0.6184	0.6117	0.6050	0.5542	0.5885	0.6020	0.5920	0.6397
STATIC PRESSURE	15.7590	15.8102	15.8194	15.9422	16.6155	17.7483	17.6580	17.6236	16.7923
TOTAL TEMPERATURE	591.2976	588.7296	588.4111	588.1263	586.1879	618.8346	625.8956	633.6518	638.5971
ABSOLUTE MACH NUMBER	0.6880	0.6801	0.6707	0.6613	0.5934	0.6386	0.6572	0.6434	0.7112
ABSOLUTE VELOCITY	783.7107	773.7983	763.8086	753.7453	680.5954	748.1037	772.9983	762.6033	839.2090
AXIAL VELOCITY	604.0947	597.9857	581.2116	554.8457	454.3608	485.0581	468.8554	391.6275	452.7586
RELATIVE VELOCITY	844.0891	845.4853	830.4976	801.6604	738.3994	710.5588	656.9510	584.8759	592.4985
RELATIVE MACH NUMBER	0.7410	0.7431	0.7293	0.7033	0.6438	0.6066	0.5585	0.4934	0.5021
RELATIVE FLOW ANGLE	54.4083	54.7281	55.0130	55.3108	58.3935	55.6796	54.9488	56.1928	52.6133

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

FAN STATOR EXIT READING 280

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	23.5500	23.1000	22.3000	21.6000	21.3500	21.2000	21.4000	21.7600	22.0200
STATIC PRESSURE	18.3500	18.2109	18.0309	17.9000	17.8412	17.8480	17.9281	17.9281	17.8625
TOTAL TEMPERATURE	645.0000	651.0000	654.0000	653.0000	647.0000	622.0000	618.0000	616.0000	613.0000
MACH NUMBER	.6078	.5929	.5594	.5251	.5130	.5020	.5093	.5334	.5335
CORRECTED VELOCITY	729.3118	715.9213	679.5200	639.5934	622.7025	598.1061	604.4120	630.4619	651.2790

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	22.0500	21.7500	21.6800	21.6200	21.6000	21.7000	22.0500	23.1000	23.5500
STATIC PRESSURE	17.7580	17.7858	17.8036	17.8303	17.8781	17.9514	18.0945	18.2945	18.4123
TOTAL TEMPERATURE	609.0000	607.0000	606.0000	605.0000	605.0000	604.0000	604.0000	614.0000	634.0000
MACH NUMBER	.5648	.5439	.5380	.5320	.5269	.5276	.5390	.5870	.6035
CORRECTED VELOCITY	661.6530	637.5398	630.4802	623.2617	617.5848	617.9124	630.5449	688.7745	718.3067

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	21.1000	21.3000	21.4000	21.3500	21.1000	21.0000	21.1000	21.3000	21.5000
STATIC PRESSURE	18.3500	18.2498	18.0698	17.9000	17.8101	17.8052	17.8504	17.8504	17.8203
TOTAL TEMPERATURE	612.0000	619.0000	626.0000	630.0000	628.0000	614.0000	596.0000	590.0000	589.0000
MACH NUMBER	.4511	.4751	.4976	.5082	.4981	.4913	.4447	.5088	.5249
CORRECTED VELOCITY	535.6284	566.1103	594.9626	608.9569	596.5250	582.1885	577.3407	590.0116	607.1626

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	21.6000	21.5500	21.5000	21.5000	21.4600	21.4000	20.9000	20.7700	20.9000
STATIC PRESSURE	17.7152	17.7352	17.7453	17.7603	17.8004	17.8853	18.0751	18.2751	18.3851
TOTAL TEMPERATURE	589.0000	588.0000	587.0000	586.0000	585.0000	584.0000	585.0000	593.0000	604.0000
MACH NUMBER	.5398	.5350	.5309	.5297	.5238	.5128	.4602	.4315	.4319
CORRECTED VELOCITY	623.5335	617.7139	612.7211	610.8816	603.9299	591.4040	533.8122	505.1493	510.2752

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	18.3500	18.3000	18.5000	21.0000	22.0000	21.6000	21.0500	20.6500	20.4000
STATIC PRESSURE	18.3500	18.2905	18.1105	17.9000	17.7776	17.7604	17.7689	17.7689	17.7551
TOTAL TEMPERATURE	590.0000	599.0000	604.0000	607.0000	607.0000	596.0000	588.0000	583.0000	581.0000
MACH NUMBER	.0000	.0272	.1746	.4832	.5603	.5363	.4980	.4683	.4498
CORRECTED VELOCITY	.0000	32.5777	209.4636	569.6860	655.5544	623.2955	577.1222	541.8906	520.4481

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	20.2500	20.3000	20.3500	20.3000	20.1500	19.8000	19.2500	18.8500	18.5500
STATIC PRESSURE	17.6704	17.6823	17.6842	17.6870	17.7189	17.8161	18.0547	18.2547	18.3566
TOTAL TEMPERATURE	579.0000	578.0000	577.0000	580.0000	580.0000	578.0000	577.0000	578.0000	582.0000
MACH NUMBER	.4455	.4485	.4524	.4481	.4325	.3913	.3040	.2146	.1224
CORRECTED VELOCITY	514.7663	517.6290	521.4625	518.0306	500.7299	453.7141	354.2722	251.4476	144.4091

NASA TRANSONIC FAN ROTOR INLET READING NO. 283 TIME 13H 34M 50S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12759.4842
 ACTUAL ORIFICE FLOW 142.1225
 THETA 1.0031
 DELTA 0.9415
 EQUIV. ROTOR SPEED 12739.7066
 PER CENT ROTOR SPEED 99.6769

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	12.3743	12.3442	12.2763	12.3107	12.2366	13.9736	14.3618	14.3526	14.1910
WEDGE PRESSURE	10.3319	9.8840	9.7482	9.7027	9.6076	10.1673	10.6020	10.7374	10.8056
ANGLE	16.5965	6.3176	2.5039	0.2743	-4.4150	-9.8399	-4.6257	-1.7859	-1.0676
APPARENT MACH NUMBER	0.5141	0.5724	0.5834	0.5931	0.5980	0.6894	0.6729	0.6573	0.6362
STATIC PRESSURE	10.2434	9.7083	9.5523	9.4846	9.3796	9.5655	10.0703	10.2813	10.4280
TOTAL TEMPERATURE	518.2882	517.9130	517.8191	517.4843	517.0772	515.9592	516.7043	516.2888	516.9995
ABSOLUTE MACH NUMBER	0.5266	0.5958	0.6094	0.6218	0.6281	0.7560	0.7304	0.7070	0.6782
ABSOLUTE VELOCITY	572.1053	642.4179	655.9980	668.1484	674.1291	797.5954	773.7702	750.9292	723.4704
AXIAL VELOCITY	537.2386	624.7272	641.0767	653.5407	657.5252	769.1749	754.5023	734.1782	707.5434
RELATIVE VELOCITY	1782.3085	1727.0497	1695.2955	1677.3897	1629.7701	1607.5036	1663.9874	1688.5492	1685.3843
RELATIVE MACH NUMBER	1.6405	1.6019	1.5750	1.5611	1.5185	1.5238	1.5708	1.5898	1.5799
RELATIVE FLOW ANGLE	72.8729	69.7052	68.8638	68.2817	67.5860	63.9332	65.1296	66.0345	66.7717

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.1626	14.3444	14.1798	14.3969	14.4039	14.3826	14.3896	14.3411	14.0027
WEDGE PRESSURE	10.8744	10.9129	10.8965	10.9861	11.0209	10.9913	10.9872	10.9756	10.8694
ANGLE	-9.1314	0.2120	0.0911	0.3529	0.5510	0.6775	1.4232	3.1432	7.1751
APPARENT MACH NUMBER	0.6260	0.6372	0.6250	0.6336	0.6303	0.6318	0.6328	0.6300	0.6125
STATIC PRESSURE	10.5298	10.5277	10.5546	10.6115	10.6567	10.6229	10.6153	10.6140	10.5687
TOTAL TEMPERATURE	517.1149	517.5044	517.3432	517.4315	517.6767	517.2263	517.6243	517.3551	516.8681
ABSOLUTE MACH NUMBER	0.6646	0.6796	0.6633	0.6747	0.6703	0.6723	0.6737	0.6699	0.6468
ABSOLUTE VELOCITY	710.2410	725.2112	709.0953	720.3441	716.2448	717.8594	719.5022	715.6158	692.5591
AXIAL VELOCITY	694.7188	709.3592	693.5991	704.5901	700.5623	702.1253	703.5716	698.9703	672.3467
RELATIVE VELOCITY	1690.3107	1700.4689	1692.2782	1699.9498	1700.3823	1702.4761	1711.4222	1728.4628	1759.8762
RELATIVE MACH NUMBER	1.5817	1.5936	1.5830	1.5922	1.5914	1.5944	1.6025	1.6101	1.6437
RELATIVE FLOW ANGLE	67.2089	66.9032	67.2657	67.0361	67.1590	67.1386	67.2038	67.5389	68.6658

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 283 TIME 13H 34M 50S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12759.4842
 ACTUAL ORIFICE FLOW 142.1225
 THETA 1.0031
 DELTA 0.9415
 EQUIV. ROTOR SPEED 12739.7066
 PER CENT ROTOR SPEED 99.6769

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.2276	14.2131	14.3348	14.5315	14.2997	14.5235	14.2479	14.3650	14.2965
WEDGE PRESSURE	10.7299	10.8013	10.9081	11.0168	11.0048	11.0770	11.0163	11.0425	11.0690
ANGLE	7.6733	7.9757	8.8112	10.0292	10.6229	11.6518	12.8932	14.0323	15.5447
APPARENT MACH NUMBER	0.6477	0.6385	0.6369	0.6414	0.6231	0.6342	0.6174	0.6245	0.6157
STATIC PRESSURE	10.2105	10.3035	10.4095	10.5013	10.5371	10.5780	10.5624	10.5697	10.6171
TOTAL TEMPERATURE	517.3865	516.1396	516.8115	516.7433	516.3427	516.7689	516.7531	516.3752	517.6945
ABSOLUTE MACH NUMBER	0.7049	0.6936	0.6917	0.6971	0.6750	0.6883	0.6680	0.6766	0.6659
ABSOLUTE VELOCITY	749.7513	737.9013	736.5083	741.7550	719.8774	733.1973	713.3245	721.5525	711.9591
AXIAL VELOCITY	742.9977	730.7241	727.7773	730.3813	707.5025	718.0503	695.3036	699.9849	685.0821
RELATIVE VELOCITY	1495.7849	1491.7098	1499.3791	1514.9554	1507.1719	1525.6988	1524.9847	1541.1717	1549.0066
RELATIVE MACH NUMBER	1.4064	1.4022	1.4082	1.4239	1.4132	1.4323	1.4281	1.4453	1.4489
RELATIVE FLOW ANGLE	63.5841	63.9007	64.1077	64.2596	64.8525	64.7956	65.4888	65.5719	66.1158

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	360.0000	380.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.1144	14.5266	13.2504	12.2743	12.3958	12.3490	12.3562	14.1119	14.1773
WEDGE PRESSURE	11.0966	11.2113	10.7365	10.1148	9.9329	9.7709	9.7656	10.1750	10.4638
ANGLE	18.1829	19.9325	27.7020	20.7991	15.7880	12.0952	7.2604	1.4460	4.9975
APPARENT MACH NUMBER	0.5963	0.6196	0.5564	0.5330	0.5714	0.5880	0.5895	0.6997	0.6731
STATIC PRESSURE	10.6890	10.7437	10.4196	9.8496	9.6157	9.4281	9.4202	9.4902	9.8668
TOTAL TEMPERATURE	517.1680	517.6758	518.4290	517.4183	517.4821	516.9149	517.1577	515.5265	516.5552
ABSOLUTE MACH NUMBER	0.6427	0.6707	0.5960	0.5695	0.6133	0.6329	0.6347	0.7745	0.7385
ABSOLUTE VELOCITY	688.7546	716.6481	642.9876	615.4928	659.6361	678.8652	680.7461	814.7011	781.3527
AXIAL VELOCITY	654.3296	673.6770	569.1915	575.3546	634.7192	663.7603	675.2514	814.3970	778.3401
RELATIVE VELOCITY	1557.1550	1591.9581	1601.5034	1529.0120	1516.7467	1495.6818	1450.8378	1465.7349	1486.2630
RELATIVE MACH NUMBER	1.4532	1.4900	1.4848	1.4148	1.4102	1.3945	1.3527	1.3935	1.4047
RELATIVE FLOW ANGLE	67.2065	67.0622	70.4335	69.3783	67.2910	66.0681	65.0407	60.9413	62.3583

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 283 TIME 13H 34M 50S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12759.4842
 ACTUAL ORIFICE FLOW 142.1225
 THETA 1.0031
 DELTA 0.9415
 EQUIV. ROTOR SPEED 12739.7066
 PER CENT ROTOR SPEED 99.6769

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.0287	14.3730	14.4833	14.5119	14.2119	14.2252	14.5265	14.5075	14.5146
WEDGE PRESSURE	10.1454	10.5876	10.7976	10.9202	10.9178	11.0232	11.0798	11.1171	11.1505
ANGLE	-14.0328	-13.2300	-10.4738	-6.2556	-3.5682	-1.5418	0.3164	0.9980	1.8762
APPARENT MACH NUMBER	0.6085	0.6753	0.6614	0.6504	0.6253	0.6146	0.6341	0.6284	0.6253
STATIC PRESSURE	9.7084	9.7195	10.0234	10.2190	10.3695	10.5209	10.4790	10.5435	10.5906
TOTAL TEMPERATURE	517.7790	518.1438	518.0312	518.1333	517.1417	517.4082	518.2193	517.3948	518.1039
ABSOLUTE MACH NUMBER	0.6620	0.7688	0.7445	0.7258	0.6863	0.6707	0.6992	0.6908	0.6863
ABSOLUTE VELOCITY	708.1178	811.3655	788.1895	770.4055	731.4815	716.4500	744.7673	736.0262	732.1436
AXIAL VELOCITY	657.4496	755.6567	740.8818	731.3604	696.9664	683.6265	710.8714	702.4408	698.4907
RELATIVE VELOCITY	938.4367	1008.0505	1021.9277	1052.4645	1052.6528	1061.3644	1097.1200	1097.2935	1102.4606
RELATIVE MACH NUMBER	0.8773	0.9552	0.9652	0.9915	0.9876	0.9936	1.0300	1.0298	1.0334
RELATIVE FLOW ANGLE	53.7224	51.8557	52.7819	53.9445	55.2524	55.9885	55.8304	56.1515	56.4249

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	12.0000
TOTAL PRESSURE	14.2071	14.3222	14.2544	14.0943	14.0380	13.9838	13.2482	12.4355	12.3654
WEDGE PRESSURE	11.1138	11.1661	11.1726	11.1715	11.0856	10.9019	10.5283	10.1665	10.0099
ANGLE	2.2912	3.6027	5.1388	9.6641	14.3819	23.4801	25.6472	13.2125	1.7683
APPARENT MACH NUMBER	0.6027	0.6069	0.6002	0.5858	0.5906	0.6070	0.5823	0.5441	0.5577
STATIC PRESSURE	10.6686	10.6920	10.7276	10.7854	10.6836	10.4388	10.1769	9.9360	9.7504
TOTAL TEMPERATURE	517.8961	518.4859	518.6022	518.0637	518.3121	518.1264	519.0637	518.1219	518.0716
ABSOLUTE MACH NUMBER	0.6537	0.6598	0.6502	0.6301	0.6368	0.6598	0.6254	0.5752	0.5925
ABSOLUTE VELOCITY	708.1006	706.4741	697.1202	676.8139	683.6204	706.2844	672.7860	621.7368	639.1376
AXIAL VELOCITY	667.7600	673.1160	662.9641	637.6514	633.8089	622.7481	583.7888	579.0859	609.7930
RELATIVE VELOCITY	1084.2864	1099.8895	1106.4672	1129.1045	1170.7332	1255.0996	1242.8826	1116.8011	1039.8946
RELATIVE MACH NUMBER	1.0125	1.0272	1.0321	1.0512	1.0906	1.1726	1.1554	1.0333	0.9640
RELATIVE FLOW ANGLE	57.1697	57.3339	57.8823	59.3890	60.4390	62.5339	63.7986	61.4877	58.4356

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. 5-L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 283 TIME 13H 34M 50S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12759.4842
 ACTUAL DRIFICE FLOW 142.1225
 THETA 1.0031
 DELTA 0.9415
 EQUIV.ROTOR SPEED 12739.7066
 PER CENT ROTOR SPEED 99.6769

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	19.5994	19.3856	19.0054	17.9549	20.1696	20.9564	21.0381	21.4510	22.3868
WEDGE PRESSURE	14.3588	14.1880	14.0605	14.3223	15.3720	15.6396	15.2785	15.6014	15.9384
ANGLE	21.3932	22.7462	27.7096	34.9851	36.1822	35.4109	33.0407	27.5006	23.9086
APPARENT MACH NUMBER	0.6819	0.6830	0.6706	0.5776	0.6354	0.6606	0.6920	0.6904	0.7141
STATIC PRESSURE	13.4640	13.2990	13.2300	13.9022	14.6267	14.7597	14.2805	14.5903	14.7855
TOTAL TEMPERATURE	579.2965	578.0084	578.1534	573.6328	608.7908	618.2758	622.6149	628.7081	611.0938
ABSOLUTE MACH NUMBER	0.7526	0.7540	0.7384	0.6158	0.6936	0.7260	0.7653	0.7633	0.7934
ABSOLUTE VELOCITY	841.4472	841.9464	826.4219	696.9627	801.0321	841.4290	885.4217	887.5481	905.9125
AXIAL VELOCITY	781.2813	774.3367	729.7955	569.7865	645.1895	684.3108	740.5522	785.2635	825.9475
RELATIVE VELOCITY	1403.0344	1303.7465	1310.1220	1214.0093	1189.4042	1199.2029	1236.2384	1321.4662	1380.0479
RELATIVE MACH NUMBER	1.2549	1.2392	1.1707	1.0726	1.0299	1.0347	1.0686	1.1364	1.2087
RELATIVE FLOW ANGLE	60.8102	60.6902	60.8018	64.7864	61.4451	60.2098	58.9955	59.1986	59.0185

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	20.9834	20.4316	20.2650	20.2057	20.1712	20.0673	19.9686	20.0156	19.9508
WEDGE PRESSURE	15.2248	14.8468	14.7096	14.7080	14.6451	14.5340	14.4823	14.5040	14.4671
ANGLE	20.4675	18.5877	19.8863	19.2962	20.6105	20.8266	21.6841	20.6735	21.0669
APPARENT MACH NUMBER	0.6929	0.6912	0.6924	0.6892	0.6921	0.6949	0.6933	0.6943	0.6935
STATIC PRESSURE	14.2257	13.8803	13.7465	13.7593	13.6875	13.5713	13.5299	13.5459	13.5150
TOTAL TEMPERATURE	593.1831	585.7454	585.1107	581.9749	582.9055	581.3168	579.6658	578.7840	579.4325
ABSOLUTE MACH NUMBER	0.7665	0.7643	0.7658	0.7618	0.7655	0.7690	0.7670	0.7682	0.7672
ABSOLUTE VELOCITY	865.5174	857.8999	859.0047	852.6552	857.0290	859.3566	856.1897	856.7452	856.2369
AXIAL VELOCITY	808.5843	810.7951	805.4796	802.4453	799.9099	800.9456	793.3877	799.3156	796.7650
RELATIVE VELOCITY	1422.0317	1447.2940	1428.8486	1435.7369	1417.8774	1415.3009	1402.1092	1416.8971	1411.0765
RELATIVE MACH NUMBER	1.2593	1.2894	1.2739	1.2828	1.2664	1.2665	1.2561	1.2705	1.2644
RELATIVE FLOW ANGLE	60.2976	60.6631	60.5099	60.7202	60.4911	60.4145	60.4174	60.4923	60.4697

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 283 TIME 13H 34M 50S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12759.4842
 ACTUAL ORIFICE FLOW 142.1225
 THETA 1.0031
 DELTA 0.9415
 EQUIV. ROTOR SPEED 12739.7066
 PER CENT ROTOR SPEED 99.6769

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	22.0711	20.3420	20.5934	20.9857	20.9720	21.0144	21.0028	20.8628	20.6121
WEDGE PRESSURE	16.0614	15.0172	15.1279	15.3076	15.2952	15.2804	15.2285	15.1268	15.0355
ANGLE	30.2707	29.8229	28.9893	28.3830	29.3472	28.9739	29.8424	29.4201	30.5552
APPARENT MACH NUMBER	0.6896	0.6731	0.6788	0.6869	0.6871	0.6904	0.6937	0.6937	0.6868
STATIC PRESSURE	14.5738	13.8041	13.8460	13.9211	13.9077	13.8555	13.7673	13.6753	13.6741
TOTAL TEMPERATURE	608.5216	603.7775	596.5634	594.9954	592.1582	589.8880	593.1456	590.2496	587.3644
ABSOLUTE MACH NUMBER	0.7936	0.7655	0.7751	0.7889	0.7892	0.7950	0.8009	0.8009	0.7888
ABSOLUTE VELOCITY	904.2269	872.1974	876.6819	889.4121	887.6011	891.7529	900.0823	897.8971	883.6214
AXIAL VELOCITY	780.9877	756.6584	766.8112	782.4633	773.6599	780.1091	780.6975	782.0738	760.8909
RELATIVE VELOCITY	1082.0509	1080.3021	1093.7531	1106.2588	1091.3959	1098.1134	1087.3917	1093.1476	1072.3348
RELATIVE MACH NUMBER	0.9497	0.9482	0.9670	0.9812	0.9704	0.9790	0.9676	0.9751	0.9572
RELATIVE FLOW ANGLE	54.1810	54.9908	54.9651	54.7267	54.6669	54.6084	54.3220	54.4175	54.6405

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	20.5614	20.4052	20.0880	19.5120	18.5734	19.9008	20.2651	20.4454	20.8999
WEDGE PRESSURE	14.9729	14.8758	14.6626	14.3682	14.2051	15.0144	15.1428	14.7639	15.2819
ANGLE	31.8442	30.9438	32.1872	35.0972	39.0144	42.4725	42.6666	40.7107	35.7725
APPARENT MACH NUMBER	0.6888	0.6875	0.6861	0.6760	0.6310	0.6476	0.6590	0.6984	0.6842
STATIC PRESSURE	13.5954	13.5210	13.3431	13.1791	13.4140	14.0446	14.0597	13.2784	13.9279
TOTAL TEMPERATURE	586.6251	583.4664	582.8479	578.6940	568.9255	608.4167	607.5947	609.3769	615.2860
ABSOLUTE MACH NUMBER	0.7921	0.7899	0.7875	0.7783	0.6980	0.7237	0.7422	0.8109	0.7843
ABSOLUTE VELOCITY	886.4099	881.8243	878.3441	858.7205	779.0370	826.8950	850.9357	922.2892	899.7007
AXIAL VELOCITY	752.9640	756.2861	743.3249	702.5613	605.2829	609.9023	625.6840	699.0853	729.9419
RELATIVE VELOCITY	1053.7194	1066.0895	1046.7093	999.6112	936.3283	888.7543	886.5616	923.3896	996.8425
RELATIVE MACH NUMBER	0.9417	0.9550	0.9384	0.8966	0.8390	0.7778	0.7732	0.8119	0.8690
RELATIVE FLOW ANGLE	54.4499	54.6467	54.6181	54.8978	57.1184	55.5391	54.7864	52.8698	53.7851

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 283 TIME 13H 34M 50S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12759.4842
 ACTUAL ORIFICE FLOW 142.1225
 THETA 1.0031
 DELTA 0.9415
 EQUIV. ROTOR SPEED 12739.7066
 PER CENT ROTOR SPEED 99.6769

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	18.9629	18.7859	21.6641	22.3522	22.1646	21.5712	21.0388	20.8317	20.6935
WEDGE PRESSURE	14.4946	14.4017	16.1629	16.7540	16.5882	16.1435	15.7840	15.6438	15.5064
ANGLE	43.0713	36.8489	29.8503	34.1684	34.2102	33.7737	33.7435	33.9659	34.3825
APPARENT MACH NUMBER	0.6318	0.6282	0.6609	0.6554	0.6571	0.6572	0.6542	0.6531	0.6556
STATIC PRESSURE	13.7088	13.6358	15.1206	15.7091	15.5424	15.1255	14.8064	14.6815	14.5375
TOTAL TEMPERATURE	595.7495	601.0938	614.2385	606.9678	602.1600	596.2463	591.1323	591.1670	588.8866
ABSOLUTE MACH NUMBER	0.6970	0.6925	0.7358	0.7283	0.7307	0.7307	0.7257	0.7251	0.7286
ABSOLUTE VELOCITY	796.0561	794.0628	848.9020	836.1016	835.2945	831.2344	823.5832	822.0195	823.9872
AXIAL VELOCITY	576.0617	628.9169	726.5852	683.4812	682.4913	682.5878	676.5376	673.5389	671.9056
RELATIVE VELOCITY	693.2760	775.1419	887.9499	825.5456	824.6670	820.8159	826.1753	822.6433	817.9307
RELATIVE MACH NUMBER	0.6070	0.6753	0.7696	0.7191	0.7214	0.7286	0.7290	0.7257	0.7233
RELATIVE FLOW ANGLE	49.7813	50.4532	50.2142	49.8838	49.8947	50.0323	50.1934	50.1978	50.1043

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	20.5594	20.3551	20.2279	20.0477	19.6920	19.6079	18.9265	17.3037	18.5907
WEDGE PRESSURE	15.3942	15.2867	15.2161	15.0097	14.7900	14.6822	14.4207	14.2404	14.6570
ANGLE	34.1353	34.3550	34.7610	35.2897	36.0206	36.8902	39.7756	45.4293	48.1452
APPARENT MACH NUMBER	0.6565	0.6530	0.6510	0.6566	0.6528	0.6564	0.6356	0.5350	0.5929
STATIC PRESSURE	14.4272	14.3469	14.2917	14.0662	13.8814	13.7602	13.6227	13.7829	14.0141
TOTAL TEMPERATURE	585.4430	584.1309	584.5231	581.9473	577.0488	575.7747	571.0211	559.4777	586.7845
ABSOLUTE MACH NUMBER	0.7298	0.7250	0.7224	0.7299	0.7248	0.7297	0.7018	0.5794	0.6485
ABSOLUTE VELOCITY	822.8041	817.0095	814.5992	820.4959	811.8903	815.9228	784.3412	650.3791	739.5040
AXIAL VELOCITY	672.0684	666.4291	661.3041	661.8975	649.1261	645.2392	596.5533	452.4690	489.5561
RELATIVE VELOCITY	820.7241	815.6115	809.3826	804.6389	791.8532	781.8061	733.6943	643.3409	615.9003
RELATIVE MACH NUMBER	0.7280	0.7238	0.7178	0.7158	0.7070	0.6992	0.6565	0.5732	0.5401
RELATIVE FLOW ANGLE	50.1601	50.2549	50.2565	50.0655	50.1632	49.9725	50.3935	54.4067	51.0298

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FAN STATOR EXIT READING 2R3

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	20.0000	20.5000	20.7000	20.4500	19.9400	19.3500	19.1700	19.2500	19.3700
STATIC PRESSURE	15.4466	15.1956	14.8781	14.4781	14.1814	14.0781	14.0781	14.0781	14.0981
TOTAL TEMPERATURE	617.0000	620.0000	617.0000	610.0000	598.0000	588.0000	586.0000	586.0000	584.0000
MACH NUMBER	.6189	.6683	.7034	.7201	.7151	.6897	.6790	.6838	.6893
CORRECTED VELOCITY	725.1559	780.3069	815.7330	828.5514	815.2019	782.1887	769.8058	774.7535	779.0710

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	19.5500	19.2500	19.1000	19.0400	19.0000	19.0500	19.1000	19.1500	19.3500
STATIC PRESSURE	14.2584	14.1117	14.1330	14.2240	14.3761	14.5980	14.9055	15.1897	15.3931
TOTAL TEMPERATURE	587.0000	584.0000	582.0000	581.0000	580.0000	579.0000	577.0000	586.0000	610.0000
MACH NUMBER	.6869	.6811	.6703	.6591	.6440	.6286	.6059	.5850	.5811
CORRECTED VELOCITY	778.6496	770.6086	758.1432	745.8609	729.4189	712.6547	687.5199	670.5076	679.9242

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	19.4500	20.3000	21.0000	21.0500	20.3000	20.0500	20.1000	20.1500	20.1100
STATIC PRESSURE	15.4699	15.1801	14.8004	14.4004	14.1153	14.0004	14.0004	14.0004	14.0204
TOTAL TEMPERATURE	609.0000	610.0000	608.0000	603.0000	599.0000	597.0000	597.0000	595.0000	591.0000
MACH NUMBER	.5814	.6580	.7250	.7569	.7396	.7351	.7377	.7404	.7367
CORRECTED VELOCITY	679.6259	763.0274	832.3299	861.6502	841.1261	835.0830	837.8271	839.1444	832.5880

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	20.0000	19.9500	19.8800	19.8000	19.6700	19.5000	18.9000	18.2500	18.6000
STATIC PRESSURE	14.1107	13.9756	13.9658	14.0608	14.2556	14.5552	14.9249	15.2597	15.4398
TOTAL TEMPERATURE	591.0000	588.0000	584.0000	582.0000	578.0000	575.0000	575.0000	583.0000	598.0000
MACH NUMBER	.7238	.7316	.7285	.7167	.6941	.6601	.5907	.5121	.5227
CORRECTED VELOCITY	819.4154	825.2137	819.3111	805.9013	780.0070	743.0452	670.3154	589.9670	609.1991

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	16.1000	17.2000	18.3000	19.4000	20.1000	20.2500	20.2500	20.1500	20.0000
STATIC PRESSURE	15.4943	15.1638	14.7189	14.3189	14.0461	13.9189	13.9189	13.9189	13.9389
TOTAL TEMPERATURE	574.0000	594.0000	603.0000	606.0000	606.0000	598.0000	594.0000	591.0000	585.0000
MACH NUMBER	.2347	.4281	.5665	.6732	.7342	.7519	.7519	.7466	.7371
CORRECTED VELOCITY	273.7029	501.5721	660.0652	776.6980	840.4970	852.9783	850.1208	842.6467	828.7217

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	19.7500	19.8000	19.7000	19.5000	19.2500	19.0000	18.7000	18.2000	16.7000
STATIC PRESSURE	13.9560	13.8331	13.7907	13.8898	14.1293	14.5104	14.9453	15.3330	15.8886
TOTAL TEMPERATURE	584.0000	583.0000	581.0000	580.0000	579.0000	578.0000	579.0000	573.0000	564.0000
MACH NUMBER	.7222	.7345	.7323	.7134	.6796	.6327	.5750	.5010	.3298
CORRECTED VELOCITY	812.8214	824.6545	821.0644	801.1165	765.8246	716.3841	655.8819	572.7451	379.1960

RERUN 1/31/73 TIME 9-14-19 ***** TRANSONIC FAN RIG - BLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13 25 32 PAGE 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12857.0354	ORIFICE ACTUAL FLOW = 142.5138	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12854.6023	BELLMOUTH ACTUAL FLOW = 140.9698	AMBIENT TEMPERATURE = 519.6881
PERCENT EQUIVALENT SPEED = 100.5758	INLET FLOW (STA 5) = 152.0746	INLET TOTAL PRESSURE (MA) = 14.2780
ORF TO BELL FLOW RATIO = 1.0109	ORIFICE EQUIVALENT FLOW = 147.2285	INLET TEMPERATURE = 518.8847
ORF TO INLET FLOW RATIO = 0.9371	BELLMOUTH EQUIVALENT FLOW = 145.6334	BELLMOUTH TOTAL PRESSURE = 14.4935
ORF TO EXIT FLOW RATIO = 0.9347	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0183
EQVT. FLOW PER ANN. AREA = 41.5547	EXIT FLOW (STA 12) = 152.4589	EXIT TOTAL PRESSURE (MA) = 21.3250
EQVT. FLOW PER FRON. AREA = 32.6811	MIXING DUCT TEMPERATURE = 605.2221	EXIT TEMPERATURE (STA 12) = 599.3326
PERCENT DESIGN EQVT. FLOW = 99.5386	INNER ORIFICE FLOW = 51.7498	STAGE PRESSURE RATIO (MA) = 1.4987
DISTORTION INDEX (RADIAL) = 0.0357	OUTER ORIFICE FLOW = 90.7659	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7515

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1550	0.7891	0.8008	3898.51
MIXING DUCT	0.1663	0.7350	0.7497	4185.10
TORQUEMETER	-0.0059	*****	*****	-149.50

STAGE ELEMENT PERFORMANCE

IMMERSSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5410	1.5018	1.5811	1.5124	1.4722	1.5069	1.3634	1.4942	1.3448
TEMPERATURE RISE	0.1611	0.1693	0.1597	0.1711	0.1495	0.1418	0.1399	0.1366	0.1434
ADIABATIC EFFICIENCY	0.8146	0.7259	0.8736	0.7317	0.7801	0.8750	0.6609	0.8883	0.6148
POLYTROPIC EFFICIENCY	0.8255	0.7411	0.8815	0.7468	0.7917	0.8820	0.6754	0.8944	0.6305
TOTAL PRESSURE	21.9255	21.3687	22.4973	21.5199	20.9478	21.4415	19.3992	21.2607	19.1347
TOTAL TEMPERATURE	602.48	606.76	601.79	607.67	596.47	592.49	591.43	589.80	593.32
STATIC PRESSURE	16.8715	16.8674	16.8634	16.8524	16.8376	16.8217	16.8104	16.8067	16.8032

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 161.0943	PRESSURE RATIO = 11.3446	TURBINE GAS FLOW = 0.5363
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0216	TURBINE AIR FLOW = 24.8233
INLET TOTAL TEMPERATURE = 1602.9788	SPECIFIC HEAT = 0.2734	TURBINE TOTAL FLOW = 25.3597
EXIT TOTAL TEMPERATURE = 1114.5826	TURBINE EFFICIENCY = 0.6682	BEARING TEMP NO. 1 = 609.5704

RAO ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

PT1 - PITOT STATIC RAKE

										AVERAGE	14.49	(14.97)					
25	0.00	(0.00)	26	14.52	(15.00)	27	0.00	(0.00)	28	0.00	(0.00)	29	14.47	(14.95)	30	0.00	(0.00)
31	14.50	(14.98)	32	0.00	(0.00)	33	14.52	(15.00)	34	0.00	(0.00)	35	14.48	(14.96)	36	0.00	(0.00)
37	14.46	(14.93)	38	14.49	(14.96)	39	14.46	(14.94)	40	0.00	(0.00)	41	14.47	(14.94)	42	14.47	(14.94)
43	0.00	(0.00)	44	14.46	(14.94)	45	0.00	(0.00)	46	14.51	(14.98)	47	0.00	(0.00)	48	14.53	(15.01)
49	0.00	(0.00)	50	14.48	(14.95)	51	0.00	(0.00)	52	0.00	(0.00)	53	14.52	(14.99)			

PS1 - PITOT STATIC RAKE

										AVERAGE	13.34	(13.78)					
54	13.73	(14.18)	55	0.00	(0.00)	56	13.32	(13.76)	57	0.00	(0.00)	58	0.00	(0.00)	59	13.33	(13.76)
60	0.00	(0.00)	61	13.27	(13.71)	62	0.00	(0.00)	63	13.32	(13.75)	64	0.00	(0.00)	65	0.00	(0.00)
66	13.31	(13.75)	67	0.00	(0.00)	68	0.00	(0.00)	69	0.00	(0.00)	70	0.00	(0.00)	71	13.28	(13.72)
72	13.28	(13.72)	73	0.00	(0.00)	74	13.32	(13.75)	75	0.00	(0.00)	76	13.31	(13.74)	77	0.00	(0.00)
78	13.31	(13.75)	79	0.00	(0.00)	80	0.00	(0.00)	81	13.33	(13.77)	82	13.35	(13.79)			

TTD - INLET SCREEN TEMPERATURE

										AVERAGE	518.88	(518.68)					
2	518.91	(518.72)	3	518.67	(518.48)	4	518.55	(518.36)	6	519.03	(518.84)	9	519.33	(519.14)	10	518.67	(518.48)
11	518.85	(518.66)	14	519.03	(518.84)	15	518.79	(518.60)	16	518.85	(518.66)	18	518.79	(518.60)	21	519.21	(519.02)
22	518.73	(518.54)	23	518.85	(518.66)												

PSBW - BELLMOUTH WALL STATIC

										AVERAGE	0.00	(0.00)		
84	0.00	(0.00)	86	0.00	(0.00)									

STATIC PRESSURES

PS30 - OUTERWALL	88	11.44	(11.81)	90	12.24	(12.64)				AVERAGE	11.84	(12.23)			
PS31 - INNERWALL	92	11.46	(11.83)	94	12.22	(12.62)				AVERAGE	11.84	(12.23)			
PS40 - OUTERWALL	96	11.44	(11.81)	98	12.27	(12.68)				AVERAGE	11.85	(12.24)			
PS41 - INNERWALL	100	11.55	(11.93)	102	12.31	(12.72)				AVERAGE	11.93	(12.32)			
PS430 - OUTERWALL	104	11.43	(11.81)	106	12.35	(12.75)				AVERAGE	11.89	(12.28)			
PS431 - INNERWALL	108	11.62	(12.00)	110	12.56	(12.97)				AVERAGE	12.09	(12.49)			
PS460 - OUTERWALL	112	11.51	(11.88)	114	12.57	(12.99)				AVERAGE	12.04	(12.44)			
PS461 - INNERWALL	116	11.57	(11.95)	118	12.64	(13.05)				AVERAGE	12.10	(12.50)			
PS50 - OUTERWALL	120	12.08	(12.48)	121	12.04	(12.44)	122	10.99	(11.35)	123	11.53	(11.91)	AVERAGE	11.66	(12.04)
PS51 - INNERWALL	124	11.26	(11.63)	125	12.33	(12.74)	126	12.37	(12.78)	127	11.87	(12.26)	AVERAGE	11.96	(12.35)
PS550 - OUTERWALL	146	11.28	(11.66)	147	11.16	(11.52)	148	10.35	(10.69)	149	10.99	(11.36)	AVERAGE	10.95	(11.31)
PS551 - INNERWALL	150	11.21	(11.58)	151	12.13	(12.52)	152	12.28	(12.69)	153	11.82	(12.21)	AVERAGE	11.86	(12.25)
PS60 - OUTERWALL	154	10.65	(11.00)	155	10.22	(10.56)									
PS70 - OUTERWALL	156	11.09	(11.46)	157	10.79	(11.15)	158	13.14	(13.57)	159	11.96	(12.35)			
	160	15.28	(15.78)	161	13.54	(13.99)									
PS80 - OUTERWALL	162	15.74	(16.26)	163	15.33	(15.83)									
PS90 - OUTERWALL	164	15.33	(15.84)	165	15.59	(16.10)	166	17.14	(17.70)	167	15.64	(16.16)	AVERAGE	15.93	(16.45)
PS91 - INNERWALL	168	13.63	(14.08)	169	13.86	(14.31)	170	14.16	(14.63)	171	14.16	(14.63)	AVERAGE	13.95	(14.41)
PS100 - OUTERWALL	172	16.08	(16.61)	173	15.46	(15.97)	174	14.97	(15.46)	175	14.83	(15.31)	AVERAGE	15.33	(15.84)
PS101 - INNERWALL	176	14.34	(14.81)	177	13.96	(14.41)	178	13.55	(13.99)	179	12.86	(13.28)	AVERAGE	13.67	(14.12)
PS1020 - OUTERWALL	180	15.10	(15.60)												
PS1021 - INNERWALL	181	13.79	(14.24)												
PS1040 - OUTERWALL	182	15.46	(15.97)												
PS1041 - INNERWALL	183	13.56	(14.01)												
PS1060 - OUTERWALL	184	15.88	(16.41)												
PS1061 - INNERWALL	185	14.22	(14.69)												
PS1080 - OUTERWALL	186	16.25	(16.79)												
PS1081 - INNERWALL	187	14.75	(15.23)												
PS110 - OUTERWALL	188	16.69	(17.24)	189	16.63	(17.18)	190	16.43	(16.97)	191	16.28	(16.82)	AVERAGE	16.51	(17.05)
PS111 - INNERWALL	192	15.46	(15.97)	193	15.26	(15.76)	194	14.92	(15.42)	195	14.85	(15.33)	AVERAGE	15.12	(15.62)
PS120 - OUTERWALL	196	17.19	(17.75)	197	16.58	(17.13)	198	16.47	(17.01)	199	17.24	(17.81)	AVERAGE	16.87	(17.43)
PS121 - INNERWALL	200	17.30	(17.87)	201	16.44	(16.98)	202	16.44	(16.98)	203	17.00	(17.56)	AVERAGE	16.79	(17.35)
PS130 - OUTERWALL	465	18.21	(18.81)												
PS131 - INNERWALL	469	18.17	(18.76)												

PTS - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HJB

ANGLE 251		ANGLE 071					
128	14.22(14.69)	129	13.98(14.44)	120	12.08(12.48)	124	11.26(11.63)
130	14.20(14.66)	131	14.33(14.81)	121	12.04(12.44)	125	12.33(12.74)
132	14.07(14.53)	133	14.28(14.75)	122	10.99(11.35)	126	12.37(12.78)
134	14.29(14.76)	135	14.47(14.95)	123	11.53(11.91)	127	11.87(12.26)
136	14.44(14.91)	137	14.11(14.57)				
138	14.07(14.54)	139	14.38(14.86)				
140	14.20(14.67)	141	14.04(14.50)				
142	13.92(14.38)	143	13.94(14.40)				
144	13.79(14.25)	145	13.94(14.39)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 21.92(22.64)		IMMERSION B - AVG 21.36(22.07)		IMMERSION C - AVG 22.49(23.23)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352						
204	20.96(21.65)	215	24.48(25.29)	226	21.38(22.08)	237	20.73(21.41)	248	20.69(21.37)	259	21.74(22.45)
205	19.02(19.64)	216	20.67(21.35)	227	20.37(21.04)	238	20.30(20.97)	249	20.91(21.60)	260	19.56(20.21)
206	18.86(19.48)	217	19.57(20.21)	228	20.91(21.59)	239	21.45(22.16)	250	21.49(22.20)	261	20.63(21.31)
207	20.15(20.82)	218	21.15(21.84)	229	21.42(22.13)	240	21.50(22.21)	251	21.49(22.19)	262	22.72(23.47)
208	20.61(21.29)	219	23.51(24.28)	230	21.43(22.13)	241	21.29(21.99)	252	21.54(22.25)	263	24.24(25.04)
209	20.83(21.52)	220	24.31(25.11)	231	21.54(22.24)	242	21.47(22.18)	253	21.55(22.26)	264	24.70(25.51)
210	20.87(21.56)	221	24.45(25.25)	232	21.16(21.86)	243	21.90(22.62)	254	21.46(22.17)	265	24.75(25.57)
211	20.83(21.52)	222	24.44(25.24)	233	20.99(21.68)	244	22.13(22.86)	255	21.36(22.07)	266	24.78(25.60)
212	20.75(21.44)	223	24.42(25.23)	234	21.21(21.91)	245	22.11(22.84)	256	21.41(22.12)	267	24.82(25.64)
213	20.72(21.41)	224	24.43(25.23)	235	21.41(22.12)	246	21.96(22.69)	257	21.44(22.15)	268	24.88(25.69)
214	20.70(21.38)	225	24.47(25.28)	236	21.37(22.07)	247	21.31(22.01)	258	21.22(21.92)	269	24.74(25.56)

IMMERSION D - AVG 21.51(22.22)		IMMERSION E - AVG 20.94(21.63)		IMMERSION F - AVG 21.44(22.14)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248						
270	20.82(21.51)	281	22.59(23.33)	292	20.67(21.35)	303	21.34(22.05)	314	21.63(22.34)	325	20.98(21.67)
271	19.97(20.63)	282	21.37(22.07)	293	19.16(19.79)	304	21.02(21.71)	315	20.11(20.77)	326	20.07(20.73)
272	20.86(21.54)	283	22.48(23.21)	294	19.99(20.65)	305	21.70(22.41)	316	21.20(21.89)	327	21.57(22.28)
273	21.03(21.72)	284	22.58(23.33)	295	20.52(21.28)	306	21.68(22.40)	317	21.54(22.24)	328	21.72(22.43)
274	20.99(21.68)	285	22.43(23.17)	296	20.54(21.21)	307	21.64(22.35)	318	21.54(22.25)	329	21.72(22.43)
275	20.90(21.58)	286	22.30(23.03)	297	20.48(21.15)	308	21.65(22.36)	319	21.53(22.23)	330	21.73(22.44)
276	20.78(21.47)	287	22.26(22.99)	298	20.41(21.09)	309	21.63(22.34)	320	21.50(22.21)	331	21.74(22.45)
277	20.69(21.37)	288	22.27(23.00)	299	20.37(21.04)	310	21.67(22.38)	321	21.47(22.17)	332	21.79(22.51)
278	20.69(21.37)	289	22.31(23.04)	300	20.39(21.06)	311	21.67(22.38)	322	21.43(22.13)	333	21.82(22.54)
279	20.68(21.36)	290	22.31(23.05)	301	20.39(21.06)	312	21.67(22.38)	323	21.37(22.07)	334	21.84(22.55)
280	20.73(21.41)	291	22.28(23.01)	302	20.45(21.13)	313	21.65(22.36)	324	21.29(21.99)	335	14.73(15.21)

IMMERSION G - AVG 19.39(20.03)		IMMERSION H - AVG 21.26(21.95)		IMMERSION J - AVG 19.13(19.76)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	14.85(15.34)	347	18.23(18.83)	358	21.08(21.78)	369	23.05(23.81)	380	19.71(20.36)	391	21.37(22.07)
337	20.27(20.93)	348	18.25(18.85)	359	21.05(21.74)	370	22.97(23.72)	381	18.78(19.40)	392	20.47(21.14)
338	20.57(21.24)	349	18.00(18.59)	360	20.90(21.59)	371	21.90(22.62)	382	18.12(18.72)	393	18.80(19.41)
339	21.31(22.01)	350	17.61(18.19)	361	19.78(20.43)	372	20.84(21.53)	383	17.69(18.27)	394	18.02(18.62)
340	21.62(22.33)	351	17.33(17.90)	362	18.68(19.29)	373	21.12(21.81)	384	17.65(18.23)	395	18.03(18.62)
341	21.70(22.41)	352	17.28(17.85)	363	18.54(19.15)	374	21.56(22.27)	385	17.77(18.35)	396	18.69(19.31)
342	21.72(22.44)	353	17.33(17.90)	364	19.18(19.81)	375	22.21(22.94)	386	18.07(18.67)	397	19.61(20.26)
343	21.73(22.44)	354	17.51(18.08)	365	20.16(20.82)	376	22.85(23.60)	387	18.52(19.13)	398	20.45(21.13)
344	14.98(15.48)	355	17.83(18.41)	366	20.83(21.51)	377	22.99(23.74)	388	18.89(19.42)	399	21.07(21.74)
345	21.74(22.46)	356	18.23(18.83)	367	20.97(21.66)	378	22.97(23.72)	389	18.92(19.54)	400	21.31(22.01)
346	21.77(22.48)	357	18.42(19.03)	368	21.07(21.77)	379	22.88(23.63)	390	18.82(19.44)	401	21.35(22.05)

TT12 - STAGE EXIT TOTAL

IMMERSTION A		IMMERSTION B		IMMERSTION C		IMMERSTION D		IMMERSTION E	
AVG	602.48(602.26)	AVG	606.76(606.53)	AVG	601.79(601.56)	AVG	607.67(607.44)	AVG	606.47(606.25)
402	616.98(616.74)	409	612.04(611.80)	416	606.29(606.06)	423	609.64(609.41)	430	602.24(602.04)
403	597.83(597.60)	410	609.59(609.36)	417	595.36(595.13)	424	600.92(600.69)	431	609.53(609.30)
404	609.64(609.41)	411	594.11(593.89)	418	591.51(591.29)	425	600.25(600.02)	432	594.56(594.34)
405	609.64(609.41)	412	638.03(637.79)	419	627.30(627.06)	426	628.56(628.32)	433	609.64(609.41)
406	602.04(601.81)	413	595.92(595.69)	420	590.55(590.33)	427	599.52(599.29)	434	590.55(590.33)
407	603.39(603.16)	414	594.22(594.00)	421	591.46(591.23)	428	605.18(604.95)	435	593.15(592.93)
408	609.64(609.41)	415	640.05(639.80)	422	636.50(636.26)	429	631.59(631.34)	436	609.81(609.58)

IMMERSTION F		IMMERSTION G		IMMERSTION H		IMMERSTION J	
AVG	592.49(592.26)	AVG	591.48(591.26)	AVG	589.80(589.58)	AVG	593.32(593.09)
437	609.64(609.41)	444	601.14(600.92)	451	601.42(601.20)	458	605.06(604.84)
438	609.59(609.36)	445	594.05(593.83)	452	609.53(609.30)	459	603.72(603.49)
439	592.81(592.59)	446	589.53(589.31)	453	584.54(584.32)	460	587.32(587.10)
440	617.86(617.63)	447	623.06(622.82)	454	618.75(618.51)	461	617.20(616.96)
441	585.79(585.57)	448	585.79(585.57)	455	586.24(586.02)	462	589.14(588.91)
442	589.25(589.03)	449	581.69(581.47)	456	581.47(581.25)	463	583.74(583.52)
443	584.20(583.98)	450	577.30(577.08)	457	577.59(577.37)	464	578.39(578.17)

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE	605.22(604.99)
475	620.52(620.28)	477	618.69(618.46)	479	600.86(600.64)
INNERWALL				AVERAGE	610.14(609.91)
485	596.08(595.86)	488	598.62(598.39)	491	595.07(594.84)
				AVERAGE	596.59(596.36)

FLOWS

OUTER					
PRESSURE (PSIA)	493	15.95	494	15.99	AVG 15.97
DELTA PRESSURE (PSI)	497	1.54	498	1.57	AVG 1.55
TEMPERATURE (R)	500	609.70	501	609.64	AVG 609.67
INNER					
PRESSURE (PSIA)	503	15.81	504	15.82	AVG 15.82
DELTA PRESSURE (PSI)	507	2.46	508	2.45	AVG 2.46
TEMPERATURE (R)	510	592.76	511	593.21	AVG 592.98

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 316.42	619 236.37
DELTA PRESSURE (PSI)	623 5.02	620 2.36
TEMPERATURE (R)	624 564.25	621 532.57

REFERENCE PRESSURES

512	-2.498	513	8.013	514	8.006	515	8.018	516	8.052	517	8.047	518	4.007	519	7.998
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REFERENCE TEMPERATURES - ICE BATH

520	491.444	521	491.382	522	491.382	523	491.321	524	491.321	525	491.014
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RUN 1/31/73 TIME 9-16-16 ***** TRANSONIC FAN RIG - RLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13 26 33 PAGE 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM)	= 12870.2972	ORIFICE ACTUAL FLOW	= 142.7006	AMBIENT PRESSURE	= 14.7495
EQUIVALENT SPEED (RPM)	= 12868.2834	BELLMOUTH ACTUAL FLOW	= 140.9516	AMBIENT TEMPERATURE	= 519.6891
PERCENT EQUIVALENT SPEED	= 100.6829	INLET FLOW (STA 5)	= 119.4108	INLET TOTAL PRESSURE (MA)	= 13.2789
ORF TO BELL FLOW RATIO	= 1.0124	ORIFICE EQUIVALENT FLOW	= 157.9534	INLET TEMPERATURE	= 518.8506
ORF TO INLET FLOW RATIO	= 1.1950	BELLMOUTH EQUIVALENT FLOW	= 156.0174	BELLMOUTH TOTAL PRESSURE	= 14.4964
ORF TO EXIT FLOW RATIO	= 0.9594	INLET EQUIVALENT FLOW	= 0.0000	DELTA PRESSURE (DP/P)	= 0.0839
EQVT. FLOW PER ANN. AREA	= 44.5818	EXIT FLOW (STA 12)	= 148.7255	EXIT TOTAL PRESSURE (MA)	= 21.1680
EQVT. FLOW PER FRON. AREA	= 35.0618	MIXING DUCT TEMPERATURE	= 603.9884	EXIT TEMPERATURE (STA 12)	= 603.9078
PERCENT DESIGN EQVT. FLOW	= 106.7895	INNER ORIFICE FLOW	= 51.8558	STAGE PRESSURE RATIO (MA)	= 1.5941
DISTORTION INDEX (RADIAL)	= 0.0163	OUTER ORIFICE FLOW	= 90.8448	TORQUEMETER READING	= 0.0
INNER DISCHARGE VALVE	= 26.0000	OUTER DISCHARGE VALVE	= 26.0000	P599	= 14.7514

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1639	0.8675	0.8759	4128.17
MIXING DUCT	0.1640	0.8667	0.8752	4132.10
TORQUEMETER	-0.0059	*****	*****	-149.65

STAGE ELEMENT PERFORMANCE

IMMERSSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5603	1.6151	1.7578	1.5477	1.6244	1.5116	1.6111	1.5073	1.3938
TEMPERATURE RISE	0.1829	0.1860	0.1743	0.1793	0.1637	0.1382	0.1377	0.1360	0.1438
ADIABATIC EFFICIENCY	0.7389	0.7869	1.0006	0.7392	0.9061	0.9050	1.0584	0.9133	0.6908
POLYTROPIC EFFICIENCY	0.7546	0.8007	1.0005	0.7547	0.9123	0.9104	1.0546	0.9181	0.7049
TOTAL PRESSURE	20.7194	21.4474	23.3428	20.5530	21.5714	20.0727	21.3946	20.0156	18.5089
TOTAL TEMPERATURE	613.78	615.38	609.32	611.91	603.81	590.57	590.31	589.41	593.47
STATIC PRESSURE	16.8117	16.8071	16.8025	16.7903	16.7737	16.7559	16.7431	16.7391	16.7352

TURBINE PERFORMANCE

INLET TOTAL PRESSURE	= 160.8222	PRESSURE RATIO	= 11.3255	TURBINE GAS FLOW	= 0.3584
EXIT TOTAL PRESSURE	= 14.2000	FUEL TO AIR RATIO	= 0.0144	TURBINE AIR FLOW	= 24.8823
INLET TOTAL TEMPERATURE	= 1581.8206	SPECIFIC HEAT	= 0.2686	TURBINE TOTAL FLOW	= 25.2407
EXIT TOTAL TEMPERATURE	= 1098.6326	TURBINE EFFICIENCY	= 0.6617	BEARING TEMP NO. 1	= 609.5704

RAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

PTI - PITOT STATIC RAKE

25	0.00(0.00)	26	14.53(16.08)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(16.02)	AVERAGE	14.49(16.04)
31	14.50(16.05)	32	0.00(0.00)	33	14.51(16.06)	34	0.00(0.00)	35	14.48(16.03)	36	0.00(0.00)
37	14.46(16.01)	38	14.49(16.04)	39	14.47(16.02)	40	0.00(0.00)	41	14.47(16.01)	42	14.47(16.01)
43	0.00(0.00)	44	14.47(16.01)	45	0.00(0.00)	46	14.50(16.05)	47	0.00(0.00)	48	14.54(16.09)
49	0.00(0.00)	50	14.48(16.03)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(16.07)		

PSJ - PITOT STATIC RAKE

54	13.74(15.20)	55	0.00(0.00)	56	13.33(14.75)	57	0.00(0.00)	58	0.00(0.00)	59	13.33(14.75)
60	0.00(0.00)	61	13.27(14.69)	62	0.00(0.00)	63	13.32(14.74)	64	0.00(0.00)	65	0.00(0.00)
66	13.32(14.74)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.28(14.70)
72	13.29(14.71)	73	0.00(0.00)	74	13.32(14.74)	75	0.00(0.00)	76	13.31(14.73)	77	0.00(0.00)
78	13.32(14.74)	79	0.00(0.00)	80	0.00(0.00)	81	13.34(14.77)	82	13.36(14.79)		

TTD - INLET SCREEN TEMPERATURE

2	518.79(518.63)	3	518.79(518.63)	4	518.67(518.51)	6	519.03(518.87)	9	518.91(518.75)	10	518.67(518.51)	AVERAGE	518.85(518.68)
11	518.79(518.63)	14	518.79(518.63)	15	518.73(518.57)	16	518.79(518.63)	18	518.85(518.69)	21	519.15(518.99)		
22	518.79(518.63)	23	519.03(518.87)										

PSBW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)									AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	11.43(12.65)	90	12.23(13.54)								AVERAGE	11.83(13.09)
PS31 - INNERWALL	92	11.49(12.71)	94	12.21(13.51)								AVERAGE	11.85(13.11)
PS40 - OUTERWALL	96	11.42(12.64)	98	12.29(13.60)								AVERAGE	11.85(13.12)
PS41 - INNERWALL	100	11.54(12.77)	102	12.34(13.66)								AVERAGE	11.94(13.21)
PS430 - OUTERWALL	104	11.39(12.60)	106	12.37(13.70)								AVERAGE	11.88(13.15)
PS431 - INNERWALL	108	11.60(12.84)	110	12.59(13.93)								AVERAGE	12.10(13.39)
PS460 - OUTERWALL	112	11.45(12.67)	114	12.60(13.95)								AVERAGE	12.02(13.31)
PS461 - INNERWALL	116	11.56(12.79)	118	12.68(14.03)								AVERAGE	12.12(13.41)
PS50 - OUTERWALL	120	12.04(13.32)	121	12.09(13.38)	122	11.81(13.07)	123	10.91(12.07)				AVERAGE	11.71(12.96)
PS51 - INNERWALL	124	11.21(12.41)	125	11.61(12.84)	126	12.41(13.74)	127	12.27(13.58)				AVERAGE	11.88(13.14)
PS550 - OUTERWALL	146	11.28(12.49)	147	11.24(12.44)	148	11.01(12.19)	149	10.21(11.30)				AVERAGE	10.94(12.10)
PS551 - INNERWALL	150	11.07(12.25)	151	11.66(12.90)	152	12.29(13.60)	153	12.08(13.37)				AVERAGE	11.78(13.03)
PS60 - OUTERWALL	154	10.71(11.85)	155	10.34(11.44)									
PS70 - OUTERWALL	156	10.50(11.63)	157	10.88(12.05)	158	11.49(12.72)	159	11.77(13.02)					
	160	12.63(13.98)	161	13.45(14.88)									
PS80 - OUTERWALL	162	14.92(16.52)	163	14.97(16.57)									
PS90 - OUTERWALL	164	15.31(16.95)	165	15.59(17.26)	166	14.73(16.31)	167	18.22(20.16)				AVERAGE	15.96(17.67)
PS91 - INNERWALL	168	16.02(17.73)	169	13.69(15.15)	170	14.10(15.61)	171	13.87(15.35)				AVERAGE	14.42(15.96)
PS100 - OUTERWALL	172	15.90(17.59)	173	15.52(17.18)	174	15.24(16.87)	175	15.21(16.84)				AVERAGE	15.47(17.17)
PS101 - INNERWALL	176	14.38(15.92)	177	13.93(15.42)	178	13.41(14.85)	179	12.48(13.81)				AVERAGE	13.55(15.00)
PS1020 - OUTERWALL	180	15.36(17.00)											
PS1021 - INNERWALL	181	13.96(15.45)											
PS1040 - OUTERWALL	182	15.58(17.24)											
PS1041 - INNERWALL	183	13.81(15.29)											
PS1060 - OUTERWALL	184	15.89(17.58)											
PS1061 - INNERWALL	185	14.40(15.94)											
PS1080 - OUTERWALL	186	16.15(17.87)											
PS1081 - INNERWALL	187	14.88(16.47)											
PS110 - OUTERWALL	188	16.67(18.44)	189	16.51(18.28)	190	16.36(18.11)	191	16.28(18.02)				AVERAGE	16.46(18.21)
PS111 - INNERWALL	192	15.55(17.21)	193	15.36(17.00)	194	15.06(16.67)	195	14.96(16.56)				AVERAGE	15.23(16.86)
PS120 - OUTERWALL	196	17.62(19.50)	197	16.77(18.57)	198	16.56(18.33)	199	16.30(18.03)				AVERAGE	16.81(18.61)
PS121 - INNERWALL	200	17.49(19.36)	201	16.59(18.36)	202	16.44(18.20)	203	16.38(18.12)				AVERAGE	16.73(18.51)
PS130 - OUTERWALL	465	18.31(20.26)											
PS131 - INNERWALL	469	18.02(19.94)											

POINT 12 READING 284

***** TRANSONIC FAN RIG *****

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PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	14.22(15.74)	129	12.36(13.68)	120	12.04(13.37)	124	11.71(12.41)
130	14.17(15.68)	131	12.26(13.57)	121	12.09(13.38)	125	11.61(12.84)
132	14.43(15.98)	133	12.35(13.67)	122	11.81(13.07)	126	12.41(13.74)
134	14.08(15.59)	135	12.32(13.64)	123	10.91(12.07)	127	12.27(13.58)
136	14.37(15.91)	137	12.20(13.50)				
138	14.46(16.00)	139	12.10(13.39)				
140	14.24(15.76)	141	12.12(13.41)				
142	14.33(15.86)	143	12.22(13.52)				
144	13.77(15.24)	145	12.95(14.33)				

PT12 - STAGE EXIT TOTAL

IMMERSSION A - AVG 20.71(22.93)		IMMERSSION B - AVG 21.44(23.73)		IMMERSSION C - AVG 23.34(25.83)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352						
204	21.17(23.43)	215	20.89(23.12)	226	21.69(24.00)	237	20.35(22.52)	248	20.79(23.01)	259	22.38(24.77)
205	19.15(21.19)	216	18.98(21.01)	227	20.51(22.70)	238	19.80(21.91)	249	20.95(23.19)	260	23.68(26.21)
206	18.52(20.50)	217	19.95(22.08)	228	18.67(20.67)	239	20.59(22.79)	250	21.41(23.69)	261	25.58(28.31)
207	19.82(21.94)	218	21.51(23.81)	229	19.37(21.43)	240	20.88(23.11)	251	21.39(23.67)	262	25.88(28.64)
208	20.69(22.90)	219	21.70(24.01)	230	21.18(23.44)	241	20.99(23.23)	252	21.48(23.77)	263	25.94(28.71)
209	21.00(23.24)	220	21.67(23.98)	231	22.34(24.72)	242	21.37(23.59)	253	21.45(23.74)	264	25.93(28.70)
210	21.02(23.26)	221	21.49(23.78)	232	22.55(24.96)	243	21.56(23.86)	254	21.43(23.72)	265	25.83(28.59)
211	20.93(23.17)	222	21.00(23.24)	233	22.73(25.15)	244	21.68(23.99)	255	21.39(23.67)	266	25.67(28.41)
212	20.92(23.15)	223	20.62(22.82)	234	22.93(25.38)	245	21.78(24.11)	256	21.35(23.63)	267	25.52(28.24)
213	21.10(23.35)	224	20.59(22.79)	235	23.09(25.56)	246	21.61(23.92)	257	21.33(23.60)	268	25.41(28.12)
214	21.15(23.41)	225	20.79(23.01)	236	23.25(25.74)	247	21.29(23.56)	258	21.32(23.59)	269	24.83(27.48)

IMMERSSION D - AVG 20.55(22.74)		IMMERSSION E - AVG 21.57(23.87)		IMMERSSION F - AVG 20.07(22.21)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248						
270	20.59(22.79)	281	20.82(23.04)	292	22.96(25.42)	303	21.23(23.49)	314	19.70(21.80)	325	21.48(23.78)
271	19.42(21.49)	282	20.33(22.50)	293	21.21(23.48)	304	20.86(23.08)	315	19.18(21.22)	326	20.22(22.38)
272	19.80(21.92)	283	21.24(23.51)	294	19.26(21.32)	305	21.54(23.84)	316	18.48(20.45)	327	21.53(23.83)
273	20.46(22.64)	284	21.15(23.41)	295	18.86(20.87)	306	21.60(23.91)	317	17.84(19.74)	328	21.71(24.03)
274	20.52(22.71)	285	20.99(23.24)	296	19.79(21.91)	307	21.57(23.87)	318	17.70(19.59)	329	21.75(24.07)
275	20.53(22.72)	286	20.85(23.08)	297	21.34(23.62)	308	21.55(23.85)	319	17.84(19.75)	330	21.78(24.11)
276	20.49(22.68)	287	20.74(22.95)	298	22.41(24.81)	309	21.49(23.79)	320	18.16(20.10)	331	21.85(24.19)
277	20.41(22.59)	288	20.65(22.85)	299	23.03(25.48)	310	21.49(23.78)	321	18.59(20.57)	332	21.93(24.27)
278	20.37(22.54)	289	20.62(22.82)	300	23.22(25.69)	311	21.49(23.79)	322	19.02(21.05)	333	22.00(24.35)
279	20.37(22.54)	290	20.60(22.80)	301	23.31(25.80)	312	21.47(23.76)	323	19.34(21.41)	334	22.05(24.40)
280	20.43(22.61)	291	20.65(22.85)	302	23.41(25.91)	313	21.48(23.77)	324	19.37(21.44)	335	14.74(16.31)

IMMERSSION G - AVG 21.39(23.67)		IMMERSSION H - AVG 20.01(22.15)		IMMERSSION J - AVG 18.50(20.48)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	14.86(16.44)	347	21.49(23.78)	358	20.22(22.37)	369	21.94(24.29)	380	17.67(19.50)	391	20.67(22.97)
337	20.40(22.57)	348	20.23(22.39)	359	20.14(22.29)	370	21.77(24.10)	381	17.44(19.30)	392	19.84(21.96)
338	20.10(22.24)	349	19.99(22.12)	360	19.78(21.89)	371	20.77(22.99)	382	17.64(19.53)	393	18.37(20.33)
339	20.85(23.08)	350	21.06(23.31)	361	18.63(20.62)	372	19.86(21.98)	383	17.60(19.47)	394	17.79(19.69)
340	21.32(23.59)	351	21.76(24.08)	362	17.69(19.58)	373	20.00(22.14)	384	17.86(19.44)	395	17.87(19.79)
341	21.50(23.80)	352	21.99(24.34)	363	17.39(19.25)	374	20.67(22.87)	385	17.52(19.40)	396	18.47(20.44)
342	21.52(23.82)	353	21.99(24.34)	364	17.49(19.36)	375	21.48(23.77)	386	17.55(19.42)	397	19.26(21.31)
343	21.55(23.85)	354	21.99(24.33)	365	17.84(19.75)	376	21.84(24.18)	387	17.67(19.56)	398	19.96(22.09)
344	14.99(16.60)	355	21.98(24.33)	366	18.54(20.52)	377	21.84(24.19)	388	17.84(19.75)	399	20.48(22.44)
345	21.55(23.85)	356	21.95(24.29)	367	19.18(21.27)	378	21.84(24.19)	389	18.14(20.08)	400	20.72(22.33)
346	21.56(23.86)	357	21.77(24.10)	368	19.62(21.71)	379	21.85(24.18)	390	19.39(20.36)	401	20.76(22.89)

TT12 - STAGE EXIT TOTAL

IMMERSION A	IMMERSION B	IMMERSION C	IMMERSION D	IMMERSION E
AVG 613.78(613.59)	AVG 615.38(615.19)	AVG 609.37(609.13)	AVG 611.91(611.72)	AVG 603.81(603.62)
402 605.74(605.55)	409 601.14(600.96)	416 597.83(597.64)	423 609.64(609.45)	430 603.83(603.64)
403 596.25(596.07)	410 609.64(609.45)	417 594.42(594.43)	424 598.62(598.43)	431 609.64(609.45)
404 609.59(609.40)	411 593.89(593.70)	418 589.65(589.46)	425 599.01(598.82)	432 592.64(592.46)
405 609.48(609.28)	412 599.12(598.93)	419 593.10(592.91)	426 601.26(601.07)	433 609.59(609.40)
406 599.74(599.55)	413 595.30(595.11)	420 590.55(590.37)	427 597.83(597.64)	434 588.23(588.05)
407 653.16(652.95)	414 646.29(646.09)	421 644.39(644.19)	428 636.72(636.52)	435 617.86(617.67)
408 609.64(609.45)	415 669.57(669.36)	422 658.92(658.71)	429 645.37(645.17)	436 634.97(634.77)

IMMERSION F	IMMERSION G	IMMERSION H	IMMERSION J
AVG 590.57(590.39)	AVG 590.31(590.12)	AVG 589.41(589.23)	AVG 593.47(593.29)
437 609.64(609.45)	444 593.15(592.97)	451 592.30(592.12)	458 595.92(595.73)
438 609.64(609.45)	445 591.46(591.27)	452 609.59(609.40)	459 599.68(599.50)
439 590.44(590.25)	446 587.95(587.76)	453 582.89(582.71)	460 585.68(585.49)
440 590.21(590.03)	447 593.94(593.76)	454 594.96(594.77)	461 596.53(596.35)
441 580.73(580.54)	448 582.95(582.77)	455 583.57(583.39)	462 586.30(586.12)
442 587.95(587.76)	449 583.06(582.88)	456 584.37(584.19)	463 585.11(584.93)
443 610.14(609.95)	450 611.70(611.51)	457 610.37(610.18)	464 609.64(609.45)

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL					AVERAGE 603.98(603.79)
475 607.24(607.05)	477 607.52(607.33)	479 609.87(609.67)	481 609.64(609.45)		AVERAGE 608.57(608.38)
INNERWALL					AVERAGE 595.95(595.76)
485 595.13(594.94)	488 598.45(598.26)	491 594.28(594.09)			

FLOWS

OUTER					
PRESSURE (PSIA)	493 15.94	494 15.99			AVG 15.97
DELTA PRESSURE (PSI)	497 1.54	498 1.58			AVG 1.56
TEMPERATURE (R)	500 609.70	501 609.70			AVG 609.70
INNER					
PRESSURE (PSIA)	503 15.81	504 15.84			AVG 15.82
DELTA PRESSURE (PSI)	507 2.47	508 2.46			AVG 2.47
TEMPERATURE (R)	510 593.04	511 592.98			AVG 593.01

TURBINE FLOWS

GAS	AIR	
PRESSURE (PSIA)	622 313.67	619 237.21
DELTA PRESSURE (PSI)	623 2.25	620 2.37
TEMPERATURE (R)	624 563.90	621 532.46

REFERENCE PRESSURES

512 -2.496	513 8.013	514 8.012	515 8.018	516 8.052	517 8.047	518 4.016	519 8.009
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REFERENCE TEMPERATURES - ICE BATH

520 491.444	521 491.566	522 491.382	523 491.260	524 491.321	525 491.076
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RERUN 1731773 TIME 9-18-13 ***** TRANSONIC FAN RIG - BLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13 27 32 PAGE 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED
 1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12767.5157	ORIFICE ACTUAL FLOW = 141.9111	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12757.4113	BELLMOUTH ACTUAL FLOW = 140.4589	AMBIENT TEMPERATURE = 519.6881
PERCENT EQUIVALENT SPEED = 99.8154	INLET FLOW (STA 5) = 119.7130	INLET TOTAL PRESSURE (MA) = 13.3191
ORF TO BELL FLOW RATIO = 1.0103	ORIFICE EQUIVALENT FLOW = 156.7050	INLET TEMPERATURE = 519.5102
ORF TO INLET FLOW RATIO = 1.1854	BELLMOUTH EQUIVALENT FLOW = 155.1014	BELLMOUTH TOTAL PRESSURE = 14.4953
ORF TO EXIT FLOW RATIO = 0.9433	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0811
EQVT. FLOW PER ANN. AREA = 44.2294	EXIT FLOW (STA 12) = 150.4276	EXIT TOTAL PRESSURE (MA) = 21.3220
EQVT. FLOW PER FRON. AREA = 34.7846	MIXING DUCT TEMPERATURE = 606.1370	EXIT TEMPERATURE (STA 12) = 608.5768
PERCENT DESIGN EQVT. FLOW = 105.9454	INNER ORIFICE FLOW = 51.8039	STAGE PRESSURE RATIO(MA) = 1.6008
DISTORTION INDEX (RADIAL) = 0.0190	OUTER ORIFICE FLOW = 90.1072	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7516

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
MAKE RAKES	0.1714	0.8374	0.8478	4299.85
MIXING DUCT	0.1667	0.8611	0.8699	4181.55
TORQUEMETER	-0.0059	*****	*****	-148.46

STAGE ELEMENT PERFORMANCE

IMMERSTION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5117	1.6956	1.6149	1.6353	1.6601	1.5237	1.6057	1.4462	1.4538
TEMPERATURE RISE	0.2040	0.1959	0.1838	0.1855	0.1644	0.1477	0.1434	0.1425	0.1526
ADIABATIC EFFICIENCY	0.6123	0.8285	0.7961	0.8108	0.9457	0.8639	1.0083	0.7788	0.7378
POLYTROPIC EFFICIENCY	0.6340	0.8407	0.8094	0.8234	0.9494	0.8717	1.0078	0.7900	0.7512
TOTAL PRESSURE	20.1349	22.5846	21.5103	21.7813	22.1119	20.2954	21.3866	19.2634	19.3644
TOTAL TEMPERATURE	625.49	621.31	615.02	615.91	604.93	596.27	594.03	593.56	598.83
STATIC PRESSURE	16.9725	16.9613	16.9501	16.9201	16.8793	16.8357	16.8044	16.7944	16.7848

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 161.5025	PRESSURE RATIO = 11.3734	TURBINE GAS FLOW = 0.4498
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0181	TURBINE AIR FLOW = 24.7446
INLET TOTAL TEMPERATURE = 1604.6500	SPECIFIC HEAT = 0.2715	TURBINE TOTAL FLOW = 25.1945
EXIT TOTAL TEMPERATURE = 1114.5826	TURBINE EFFICIENCY = 0.6658	BEARING TEMP NO. 1 = 609.5704

RAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

PTI - PITOT STATIC RAKE

25	0.00(0.00)	26	14.52(16.02)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(15.97)	30	0.00(0.00)	AVERAGE	14.49(15.99)
31	14.51(16.01)	32	0.00(0.00)	33	14.51(16.01)	34	0.00(0.00)	35	14.48(15.98)	36	0.00(0.00)		
37	14.46(15.96)	38	14.49(15.99)	39	14.47(15.97)	40	0.00(0.00)	41	14.46(15.96)	42	14.46(15.96)		
43	0.00(0.00)	44	14.47(15.96)	45	0.00(0.00)	46	14.50(16.00)	47	0.00(0.00)	48	14.54(16.04)		
49	0.00(0.00)	50	14.48(15.98)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(16.02)				

PS1 - PITOT STATIC RAKE

54	13.74(15.16)	55	0.00(0.00)	56	13.34(14.72)	57	0.00(0.00)	58	0.00(0.00)	59	13.34(14.72)	AVERAGE	13.35(14.73)
60	0.00(0.00)	61	13.28(14.66)	62	0.00(0.00)	63	13.33(14.71)	64	0.00(0.00)	65	0.00(0.00)		
66	13.33(14.70)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.29(14.66)		
72	13.29(14.67)	73	0.00(0.00)	74	13.32(14.70)	75	0.00(0.00)	76	13.31(14.69)	77	0.00(0.00)		
78	13.32(14.70)	79	0.00(0.00)	80	0.00(0.00)	81	13.34(14.72)	82	13.37(14.75)				

TTO - INLET SCREEN TEMPERATURE

2	519.33(518.51)	3	519.45(518.63)	4	519.39(518.57)	6	519.69(518.87)	9	519.57(518.75)	10	519.27(518.45)	AVERAGE	519.51(518.68)
11	519.21(518.39)	14	519.57(518.75)	15	519.57(518.75)	16	519.57(518.75)	18	519.33(518.51)	21	519.93(519.11)		
22	519.45(518.63)	23	519.69(518.87)										

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)									AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	11.69(12.90)	90	12.12(13.38)								AVERAGE	11.91(13.14)
PS31 - INNERWALL	92	11.71(12.92)	94	12.06(13.31)								AVERAGE	11.88(13.11)
PS40 - OUTERWALL	96	11.75(12.97)	98	12.21(13.47)								AVERAGE	11.98(13.22)
PS41 - INNERWALL	100	11.76(12.97)	102	12.24(13.51)								AVERAGE	12.00(13.24)
PS430 - OUTERWALL	104	11.87(13.09)	106	12.31(13.59)								AVERAGE	12.09(13.34)
PS431 - INNERWALL	108	11.97(13.21)	110	12.50(13.80)								AVERAGE	12.24(13.50)
PS460 - OUTERWALL	112	12.18(13.44)	114	12.55(13.84)								AVERAGE	12.36(13.64)
PS461 - INNERWALL	116	12.01(13.25)	118	12.63(13.93)								AVERAGE	12.32(13.59)
PS50 - OUTERWALL	120	11.68(12.89)	121	12.10(13.35)	122	11.97(13.21)	123	11.06(12.20)				AVERAGE	11.70(12.91)
PS51 - INNERWALL	124	11.83(13.05)	125	11.23(12.39)	126	12.42(13.71)	127	12.38(13.66)				AVERAGE	11.96(13.20)
PS550 - OUTERWALL	146	11.12(12.27)	147	11.30(12.47)	148	11.17(12.32)	149	10.41(11.49)				AVERAGE	11.00(12.14)
PS551 - INNERWALL	150	11.77(12.99)	151	11.17(12.32)	152	12.31(13.58)	153	12.17(13.43)				AVERAGE	11.85(13.08)
PS60 - OUTERWALL	154	10.90(12.03)	155	10.50(11.58)									
PS70 - OUTERWALL	156	10.70(11.81)	157	11.02(12.16)	158	11.74(12.95)	159	11.98(13.22)					
	160	12.94(14.28)	161	13.64(15.05)									
PS80 - OUTERWALL	162	14.84(16.37)	163	15.07(16.63)									
PS90 - OUTERWALL	164	15.53(17.14)	165	15.64(17.25)	166	14.67(16.19)	167	18.05(19.92)				AVERAGE	15.97(17.62)
PS91 - INNERWALL	168	15.41(17.00)	169	13.88(15.31)	170	13.98(15.42)	171	13.60(15.01)				AVERAGE	14.22(15.69)
PS100 - OUTERWALL	172	15.99(17.65)	173	15.54(17.15)	174	15.21(16.78)	175	15.16(16.72)				AVERAGE	15.48(17.08)
PS101 - INNERWALL	176	14.66(16.17)	177	14.10(15.56)	178	13.45(14.85)	179	12.24(13.50)				AVERAGE	13.61(15.02)
PS1020 - OUTERWALL	180	15.37(16.96)											
PS1021 - INNERWALL	181	14.36(15.85)											
PS1040 - OUTERWALL	182	15.62(17.23)											
PS1041 - INNERWALL	183	14.31(15.79)											
PS1060 - OUTERWALL	184	15.94(17.59)											
PS1061 - INNERWALL	185	14.80(16.33)											
PS1080 - OUTERWALL	186	16.16(17.84)											
PS1081 - INNERWALL	187	15.21(16.79)											
PS110 - OUTERWALL	188	16.68(18.40)	189	16.55(18.26)	190	16.40(18.09)	191	16.30(17.98)				AVERAGE	16.48(18.18)
PS111 - INNERWALL	192	15.85(17.49)	193	15.65(17.27)	194	15.37(16.96)	195	15.27(16.85)				AVERAGE	15.53(17.14)
PS120 - OUTERWALL	196	17.60(19.42)	197	17.39(19.18)	198	16.63(18.34)	199	16.30(17.99)				AVERAGE	16.98(18.73)
PS121 - INNERWALL	200	17.18(18.96)	201	17.14(18.92)	202	16.49(18.19)	203	16.26(17.95)				AVERAGE	16.77(18.50)
PS130 - OUTERWALL	465	18.44(20.35)											
PS131 - INNERWALL	469	17.94(19.80)											

POINT 12' READING 284

***** TRANSONIC FAN RIG *****

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PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	14.20(15.67)	129	12.40(13.68)	120	11.68(12.89)	124	11.83(13.05)
130	14.38(15.87)	131	12.33(13.60)	121	12.10(13.35)	125	11.23(12.39)
132	14.32(15.80)	133	12.30(13.57)	122	11.97(13.21)	126	12.42(13.71)
134	14.46(15.96)	135	12.33(13.60)	123	11.06(12.20)	127	12.38(13.66)
136	14.07(15.53)	137	12.27(13.54)				
138	14.45(15.95)	139	12.22(13.49)				
140	14.43(15.93)	141	12.42(13.70)				
142	14.41(15.90)	143	12.31(13.59)				
144	13.97(15.42)	145	12.49(13.78)				

PT12 - STAGE EXIT TOTAL

IMMERSTION A - AVG 20.13(22.21)		IMMERSTION B - AVG 22.58(24.91)		IMMERSTION C - AVG 21.51(23.73)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 16R	ANGLE 352						
204	21.44(23.65)	215	20.50(22.62)	226	25.47(28.10)	237	20.56(22.69)	248	20.47(22.59)	259	20.57(22.69)
205	19.27(21.26)	216	18.70(20.64)	227	23.35(25.77)	238	19.48(21.50)	249	21.19(23.38)	260	21.83(24.09)
206	18.61(20.54)	217	19.44(21.45)	228	19.96(22.02)	239	20.12(22.20)	250	21.44(23.66)	261	22.02(24.29)
207	19.52(21.54)	218	20.26(22.35)	229	20.90(23.06)	240	20.98(23.15)	251	21.30(23.50)	262	21.99(24.27)
208	20.68(22.82)	219	19.94(22.00)	230	23.57(26.01)	241	21.24(23.43)	252	21.39(23.60)	263	21.88(24.14)
209	20.87(23.02)	220	19.70(21.74)	231	24.99(27.58)	242	21.62(23.86)	253	21.38(23.59)	264	21.77(24.02)
210	20.63(22.77)	221	19.71(21.75)	232	25.11(27.71)	243	21.74(23.98)	254	21.25(23.45)	265	21.74(23.98)
211	20.53(22.65)	222	19.92(21.98)	233	25.04(27.62)	244	21.56(23.79)	255	21.21(23.40)	266	21.78(24.04)
212	20.67(22.81)	223	20.19(22.27)	234	25.06(27.65)	245	21.64(23.88)	256	21.31(23.52)	267	21.79(24.04)
213	20.92(23.08)	224	20.34(22.44)	235	25.05(27.64)	246	21.61(23.84)	257	21.26(23.46)	268	21.73(23.98)
214	20.98(23.15)	225	20.41(22.52)	236	25.10(27.69)	247	21.39(23.60)	258	21.13(23.31)	269	21.20(23.39)
IMMERSTION D - AVG 21.78(24.03)		IMMERSTION E - AVG 22.11(24.39)		IMMERSTION F - AVG 20.29(22.39)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248						
270	23.44(25.86)	281	20.49(22.61)	292	23.41(25.84)	303	21.12(23.30)	314	20.66(22.79)	325	21.48(23.70)
271	21.61(23.85)	282	20.16(22.25)	293	21.16(23.35)	304	20.52(22.65)	315	19.65(21.68)	326	20.21(22.31)
272	19.80(21.85)	283	21.20(23.39)	294	20.86(23.02)	305	21.25(23.44)	316	18.60(20.53)	327	21.53(23.75)
273	21.01(23.18)	284	21.23(23.42)	295	22.14(24.43)	306	21.33(23.54)	317	17.86(19.71)	328	21.68(23.93)
274	22.84(25.20)	285	21.13(23.31)	296	22.94(25.31)	307	21.32(23.53)	318	17.73(19.56)	329	21.70(23.94)
275	23.37(25.78)	286	21.01(23.18)	297	23.29(25.70)	308	21.32(23.53)	319	17.91(19.75)	330	21.67(23.91)
276	23.37(25.78)	287	20.91(23.07)	298	23.50(25.93)	309	21.31(23.51)	320	18.34(20.24)	331	21.65(23.89)
277	23.42(25.84)	288	20.84(22.99)	299	23.67(26.12)	310	21.31(23.52)	321	19.08(21.05)	332	21.66(23.90)
278	23.59(26.03)	289	20.79(22.94)	300	23.82(26.29)	311	21.38(23.59)	322	19.97(22.03)	333	21.75(24.00)
279	23.68(26.13)	290	20.71(22.85)	301	23.90(26.37)	312	21.43(23.64)	323	20.67(22.81)	334	21.87(24.14)
280	23.72(26.17)	291	20.71(22.85)	302	23.96(26.43)	313	21.51(23.73)	324	20.54(22.66)	335	14.73(16.25)
IMMERSTION G - AVG 21.38(23.59)		IMMERSTION H - AVG 19.26(21.25)		IMMERSTION J - AVG 19.36(21.36)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	14.85(16.38)	347	21.90(24.16)	358	17.57(19.39)	369	21.70(23.94)	380	19.36(21.36)	391	20.47(22.59)
337	20.03(22.10)	348	20.43(22.54)	359	17.60(19.42)	370	21.61(23.84)	381	19.26(21.25)	392	19.65(21.68)
338	19.33(21.33)	349	21.59(23.82)	360	17.62(19.44)	371	20.72(22.86)	382	19.16(21.14)	393	18.25(20.14)
339	19.91(21.97)	350	22.18(24.48)	361	17.55(19.36)	372	19.62(21.65)	383	18.54(20.46)	394	17.61(19.43)
340	20.45(22.57)	351	22.20(24.49)	362	17.48(19.28)	373	19.54(21.56)	384	18.03(19.90)	395	17.63(19.45)
341	20.77(22.92)	352	22.26(24.57)	363	17.43(19.23)	374	20.28(22.28)	385	17.94(19.79)	396	18.16(20.04)
342	20.92(23.09)	353	22.25(24.55)	364	17.42(19.22)	375	21.21(23.40)	386	18.19(20.07)	397	18.89(20.85)
343	20.97(23.14)	354	22.27(24.57)	365	17.42(19.22)	376	21.60(23.84)	387	19.03(20.99)	398	19.63(21.66)
344	14.98(16.53)	355	22.28(24.58)	366	17.44(19.24)	377	21.63(23.87)	388	19.97(22.03)	399	20.24(22.33)
345	21.00(23.17)	356	22.27(24.58)	367	17.44(19.25)	378	21.68(23.92)	389	21.13(23.31)	400	20.55(22.67)
346	21.00(23.17)	357	22.24(24.54)	368	17.52(19.33)	379	21.68(23.93)	390	21.87(24.13)	401	20.68(22.79)

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG 625.49(624.50)	AVG 621.31(620.33)	AVG 615.02(614.05)	AVG 615.91(614.94)	AVG 604.93(603.98)					
402 605.57(604.61)	409 601.70(600.75)	416 598.50(597.56)	423 609.64(608.68)	430 599.52(598.57)					
403 595.46(594.52)	410 609.59(608.62)	417 593.72(592.78)	424 597.04(596.10)	431 609.64(608.68)					
404 609.53(608.57)	411 594.11(593.17)	418 589.99(589.05)	425 599.74(598.79)	432 591.63(590.69)					
405 609.59(608.62)	412 595.75(594.80)	419 588.46(587.53)	426 601.98(601.03)	433 609.64(608.68)					
406 632.95(631.95)	413 631.03(630.03)	420 629.17(628.17)	427 618.86(617.88)	434 594.22(593.28)					
407 669.94(668.88)	414 658.38(657.34)	421 656.39(655.35)	428 646.40(645.38)	435 634.26(633.26)					
408 609.64(608.68)	415 652.67(651.64)	422 640.75(639.74)	429 629.82(628.83)	436 615.54(614.56)					

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG 596.27(595.33)	AVG 594.03(593.09)	AVG 593.56(592.62)	AVG 598.83(597.88)				
437 609.64(608.68)	444 590.67(589.73)	451 590.04(589.11)	458 592.42(591.48)				
438 609.64(608.68)	445 590.04(589.11)	452 609.59(608.62)	459 597.04(596.10)				
439 589.87(588.94)	446 585.45(584.52)	453 582.61(581.68)	460 587.66(586.73)				
440 594.34(593.40)	447 591.51(590.58)	454 591.34(590.41)	461 593.32(592.38)				
441 574.38(573.47)	448 576.21(575.30)	455 578.21(577.30)	462 579.64(578.72)				
442 615.37(614.40)	449 608.64(607.68)	456 608.14(607.17)	463 608.36(607.40)				
443 610.31(609.35)	450 616.64(615.67)	457 619.69(618.71)	464 622.29(621.30)				

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE 606.13(605.17)
475 599.96(599.02)	477 599.46(598.51)	479 623.66(622.68)	481 622.56(621.58)	AVERAGE 611.41(610.44)
INNERWALL				AVERAGE 596.95(596.00)
485 596.25(595.31)	488 598.22(597.28)	491 596.37(595.42)		

FLOWS

OUTER			
PRESSURE (PSIA)	493 15.92	494 15.98	AVG 15.95
DELTA PRESSURE (PSI)	497 1.51	498 1.56	AVG 1.53
TEMPERATURE (R)	500 610.26	501 611.03	AVG 610.64
INNER			
PRESSURE (PSIA)	503 15.81	504 15.84	AVG 15.82
DELTA PRESSURE (PSI)	507 2.46	508 2.46	AVG 2.46
TEMPERATURE (R)	510 593.38	511 593.77	AVG 593.58

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 318.62	619 236.93
DELTA PRESSURE (PSI)	623 3.50	620 2.34
TEMPERATURE (R)	624 563.90	621 532.46

REFERENCE PRESSURES

512 -2.501	513 8.016	514 8.003	515 8.009	516 8.052	517 8.034	518 4.016	519 8.005
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REFERENCE TEMPERATURES - ICE BATH

520 491.382	521 491.505	522 491.505	523 491.321	524 491.382	525 491.260
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RERUN 1/31/73 TIME 9-20-10 ***** TRANSONIC FAN RIG - BLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMR 519.6 TIME 13 28 39 PAGE 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12784.0944	ORIFICE ACTUAL FLOW = 141.8801	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12781.9920	BELLMOUTH ACTUAL FLOW = 140.4573	AMBIENT TEMPERATURE = 519.6881
PERCENT EQUIVALENT SPEED = 100.0077	INLET FLOW (STA 5) = 147.3109	INLET TOTAL PRESSURE (MA) = 14.1507
ORF TO BELL FLOW RATIO = 1.0101	ORIFICE EQUIVALENT FLOW = 147.3713	INLET TEMPERATURE = 518.8591
ORF TO INLET FLOW RATIO = 0.9631	BELLMOUTH EQUIVALENT FLOW = 145.8934	BELLMOUTH TOTAL PRESSURE = 14.4970
ORF TO EXIT FLOW RATIO = 0.9097	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0238
EQVT. FLOW PER ANN. AREA = 41.5950	EXIT FLOW (STA 12) = 155.9531	EXIT TOTAL PRESSURE (MA) = 21.4580
EQVT. FLOW PER FRON. AREA = 32.7128	MIXING DUCT TEMPERATURE = 604.2170	EXIT TEMPERATURE (STA 12) = 602.9393
PERCENT DESIGN EQVT. FLOW = 99.6351	INNER ORIFICE FLOW = 52.5226	STAGE PRESSURE RATIO (MA) = 1.5163
DISTORTION INDEX (RADIAL) = 0.0407	OUTER ORIFICE FLOW = 89.3574	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7516

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1620	0.7779	0.7905	4057.10
MIXING DUCT	0.1645	0.7662	0.7795	4119.01
TORQUEMETER	-0.0059	*****	*****	-148.65

STAGE ELEMENT PERFORMANCE

IMMERSTION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5588	1.5738	1.4824	1.5536	1.5132	1.5313	1.4171	1.3583	1.4478
TEMPERATURE RISE	0.1960	0.1762	0.1646	0.1723	0.1556	0.1385	0.1459	0.1466	0.1576
ADIABATIC EFFICIENCY	0.6878	0.7831	0.7215	0.7765	0.8059	0.9330	0.7167	0.6226	0.7060
POLYTROPIC EFFICIENCY	0.7066	0.7965	0.7365	0.7899	0.8168	0.9369	0.7303	0.6385	0.7209
TOTAL PRESSURE	22.0588	22.2707	20.9779	21.9852	21.4139	21.6701	20.0542	19.2219	20.4876
TOTAL TEMPERATURE	620.57	610.29	604.29	608.29	599.61	590.75	594.56	594.94	600.66
STATIC PRESSURE	16.7862	16.7844	16.7825	16.7774	16.7705	16.7632	16.7579	16.7562	16.7546

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 159.4616	PRESSURE RATIO = 11.2296	TURBINE GAS FLOW = 0.4185
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0168	TURBINE AIR FLOW = 24.8789
INLET TOTAL TEMPERATURE = 1581.2640	SPECIFIC HEAT = 0.2700	TURBINE TOTAL FLOW = 25.2975
EXIT TOTAL TEMPERATURE = 1099.2032	TURBINE EFFICIENCY = 0.6645	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

POINT 12 READING 284

***** TRANSDUCER FAIL RIG *****

12-22-33

27 2/77

0.000 2

PT1 - PITOT STATIC RAKE

25	0.00(0.00)	26	14.53(15.09)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(15.03)	30	0.00(0.00)	AVERAGE	14.44(15.05)
31	14.51(15.07)	32	0.00(0.00)	33	14.52(15.08)	34	0.00(0.00)	35	14.48(15.04)	36	0.00(0.00)		
37	14.46(15.02)	38	14.49(15.05)	39	14.47(15.03)	40	0.00(0.00)	41	14.47(15.02)	42	14.47(15.02)		
43	0.00(0.00)	44	14.47(15.03)	45	0.00(0.00)	46	14.51(15.07)	47	0.00(0.00)	48	14.54(15.10)		
49	0.00(0.00)	50	14.48(15.04)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(15.08)				

PS1 - PITOT STATIC RAKE

54	13.74(14.27)	55	0.00(0.00)	56	13.34(13.85)	57	0.00(0.00)	58	0.00(0.00)	59	13.34(13.85)	AVERAGE	13.36(13.87)
60	0.00(0.00)	61	13.29(13.80)	62	0.00(0.00)	63	13.33(13.85)	64	0.00(0.00)	65	0.00(0.00)		
66	13.33(13.84)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.29(13.80)		
72	13.29(13.80)	73	0.00(0.00)	74	13.33(13.85)	75	0.00(0.00)	76	13.32(13.83)	77	0.00(0.00)		
78	13.33(13.84)	79	0.00(0.00)	80	0.00(0.00)	81	13.35(13.86)	82	13.37(13.88)				

TTD - INLET SCREEN TEMPERATURE

2	518.79(518.62)	3	518.55(518.38)	4	518.61(518.44)	5	519.15(518.98)	6	519.09(518.92)	7	518.61(518.44)	AVERAGE	518.85(518.68)
11	518.91(518.74)	12	518.79(518.62)	13	518.97(518.80)	14	518.79(518.62)	15	518.79(518.62)	16	519.09(518.92)		
22	518.67(518.50)	23	519.09(518.92)										

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	85	0.00(0.00)	86	0.00(0.00)							AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	12.10(12.57)	89	11.74(12.19)								AVERAGE	11.92(12.38)
PS31 - INNERWALL	92	12.13(12.60)	93	11.61(12.06)								AVERAGE	11.87(12.33)
PS40 - OUTERWALL	96	12.15(12.62)	97	11.83(12.29)								AVERAGE	11.99(12.45)
PS41 - INNERWALL	100	12.17(12.64)	101	11.88(12.34)								AVERAGE	12.03(12.49)
PS430 - OUTERWALL	104	12.27(12.74)	105	11.97(12.43)								AVERAGE	12.12(12.58)
PS431 - INNERWALL	108	12.43(12.91)	109	12.07(12.53)								AVERAGE	12.25(12.72)
PS460 - OUTERWALL	112	12.51(12.99)	113	12.28(12.76)								AVERAGE	12.40(12.87)
PS461 - INNERWALL	116	12.54(13.02)	117	12.14(12.61)								AVERAGE	12.34(12.82)
PS50 - OUTERWALL	120	10.96(11.38)	121	12.03(12.49)	122	12.07(12.54)	123	11.93(12.39)				AVERAGE	11.75(12.20)
PS51 - INNERWALL	124	12.29(12.77)	125	11.41(11.85)	126	12.09(12.56)	127	12.45(12.93)				AVERAGE	12.06(12.52)
PS550 - OUTERWALL	146	10.33(10.73)	147	11.28(11.71)	148	11.27(11.71)	149	11.17(11.60)				AVERAGE	11.01(11.44)
PS551 - INNERWALL	150	12.03(12.50)	151	11.42(11.86)	152	12.23(12.70)	153	12.16(12.63)				AVERAGE	11.96(12.42)
PS60 - OUTERWALL	154	11.00(11.42)	155	10.53(10.93)									
PS70 - OUTERWALL	156	10.76(11.17)	157	11.26(11.69)	158	11.73(12.18)	159	12.12(12.58)					
		160	13.02(13.52)	161	14.05(14.59)								
PS80 - OUTERWALL	162	14.81(15.38)	163	15.07(15.65)									
PS90 - OUTERWALL	164	18.14(18.84)	165	15.62(16.22)	166	14.70(15.27)	167	15.23(15.82)				AVERAGE	15.92(16.54)
PS91 - INNERWALL	168	14.45(15.00)	169	15.90(16.51)	170	13.76(14.29)	171	13.64(14.17)				AVERAGE	14.44(14.99)
PS100 - OUTERWALL	172	16.07(16.69)	173	15.59(16.19)	174	15.20(15.78)	175	15.06(15.64)				AVERAGE	15.48(16.08)
PS101 - INNERWALL	176	15.80(16.41)	177	15.24(15.83)	178	14.75(15.31)	179	13.74(14.27)				AVERAGE	14.88(15.46)
PS1020 - OUTERWALL	180	15.44(16.03)											
PS1021 - INNERWALL	181	15.34(15.93)											
PS1040 - OUTERWALL	182	15.73(16.34)											
PS1041 - INNERWALL	183	15.62(16.22)											
PS1060 - OUTERWALL	184	16.02(16.64)											
PS1061 - INNERWALL	185	15.88(16.49)											
PS1080 - OUTERWALL	186	16.24(16.86)											
PS1081 - INNERWALL	187	16.09(16.71)											
PS110 - OUTERWALL	188	16.70(17.35)	189	16.57(17.20)	190	16.42(17.05)	191	16.31(16.94)				AVERAGE	16.50(17.14)
PS111 - INNERWALL	192	16.60(17.24)	193	16.40(17.04)	194	16.29(16.92)	195	16.15(16.78)				AVERAGE	16.36(16.99)
PS120 - OUTERWALL	196	16.30(16.93)	197	17.73(18.41)	198	16.77(17.42)	199	16.33(16.96)				AVERAGE	16.78(17.43)
PS121 - INNERWALL	200	16.68(17.32)	201	17.37(18.04)	202	16.64(17.28)	203	16.31(16.94)				AVERAGE	16.75(17.39)
PS130 - OUTERWALL	465	18.43(19.14)											
PS131 - INNERWALL	469	18.10(18.80)											

POINT 12 READING 284

***** TRANSONIC FAN RIG *****

13-28-39 2/ 8/73

PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HJR

ANGLE 251		ANGLE 071					
128	14.06(14.60)	129	14.23(14.78)	120	10.96(11.38)	124	12.29(12.77)
130	14.13(14.68)	131	14.28(14.83)	121	12.03(12.49)	125	11.41(11.85)
132	14.42(14.98)	133	13.92(14.45)	122	12.07(12.54)	126	12.09(12.56)
134	14.14(14.69)	135	14.09(14.63)	123	11.93(12.39)	127	12.45(12.93)
136	14.10(14.64)	137	14.40(14.96)				
138	14.18(14.73)	139	13.94(14.47)				
140	14.24(14.79)	141	14.36(14.91)				
142	13.93(14.46)	143	14.05(14.59)				
144	13.78(14.31)	145	13.64(14.17)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 22.05(22.90)		IMMERSION B - AVG 22.27(23.12)		IMMERSION C - AVG 20.97(21.79)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 24R	ANGLE 16R	ANGLE 352						
204	25.26(26.24)	215	20.23(21.01)	226	24.88(25.84)	237	20.73(21.53)	248	20.45(21.24)	259	20.29(21.07)
205	22.01(22.85)	216	18.70(19.43)	227	22.91(23.80)	238	19.84(20.61)	249	18.91(19.64)	260	21.26(22.08)
206	19.56(20.31)	217	19.19(19.93)	228	23.40(24.31)	239	20.84(21.65)	250	18.45(19.16)	261	21.33(22.15)
207	20.74(21.54)	218	19.70(20.46)	229	24.00(24.93)	240	21.33(22.15)	251	19.43(20.18)	262	21.28(22.10)
208	23.46(24.36)	219	19.77(20.53)	230	23.71(24.62)	241	21.21(22.03)	252	20.91(21.72)	263	21.26(22.08)
209	25.31(26.29)	220	19.80(20.56)	231	23.30(24.20)	242	21.40(22.22)	253	21.38(22.20)	264	21.25(22.07)
210	25.62(26.61)	221	19.81(20.57)	232	23.05(23.94)	243	21.66(22.49)	254	21.45(22.28)	265	21.15(21.96)
211	25.68(26.67)	222	20.04(20.82)	233	22.91(23.79)	244	21.52(22.35)	255	21.58(22.41)	266	21.09(21.91)
212	25.70(26.69)	223	20.38(21.16)	234	22.84(23.72)	245	21.55(22.38)	256	21.74(22.58)	267	21.16(21.97)
213	25.73(26.72)	224	20.57(21.37)	235	22.84(23.72)	246	21.72(22.56)	257	21.98(22.82)	268	21.20(22.02)
214	25.83(26.82)	225	20.59(21.38)	236	22.83(23.71)	247	21.68(22.52)	258	22.24(23.10)	269	20.69(21.49)

IMMERSION D - AVG 21.98(22.83)		IMMERSION E - AVG 21.41(22.23)		IMMERSION F - AVG 21.67(22.50)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 24R						
270	23.74(24.66)	281	20.60(21.40)	292	21.43(22.25)	303	21.15(21.96)	314	22.39(23.25)	325	21.48(22.30)
271	21.30(22.12)	282	20.02(20.79)	293	20.57(21.36)	304	20.22(21.00)	315	21.03(21.84)	326	20.16(20.94)
272	20.66(21.46)	283	20.89(21.70)	294	21.95(22.79)	305	21.13(21.95)	316	21.75(22.59)	327	21.37(22.19)
273	22.51(23.37)	284	20.99(21.80)	295	21.96(22.81)	306	21.23(22.05)	317	22.41(23.28)	328	21.51(22.33)
274	23.69(24.61)	285	20.96(21.77)	296	21.88(22.72)	307	21.21(22.03)	318	22.47(23.34)	329	21.49(22.32)
275	23.89(24.81)	286	20.86(21.66)	297	21.81(22.65)	308	21.22(22.04)	319	22.39(23.25)	330	21.45(22.27)
276	23.90(24.83)	287	20.78(21.58)	298	21.76(22.60)	309	21.20(22.02)	320	22.23(23.09)	331	21.41(22.24)
277	23.93(24.85)	288	20.73(21.53)	299	21.74(22.58)	310	21.24(22.06)	321	22.07(22.92)	332	21.40(22.23)
278	23.94(24.86)	289	20.69(21.49)	300	21.70(22.54)	311	21.31(22.13)	322	21.88(22.73)	333	21.37(22.19)
279	23.97(24.90)	290	20.65(21.44)	301	21.67(22.50)	312	21.33(22.15)	323	21.71(22.55)	334	21.46(22.29)
280	24.00(24.92)	291	20.66(21.45)	302	21.63(22.47)	313	21.36(22.18)	324	21.51(22.34)	335	14.70(15.27)

IMMERSION G - AVG 20.05(20.82)		IMMERSION H - AVG 19.22(19.96)		IMMERSION J - AVG 20.48(21.27)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	14.85(15.42)	347	21.55(22.38)	358	18.42(19.13)	369	21.39(22.22)	380	23.37(24.27)	391	20.14(20.92)
337	18.51(19.23)	348	20.07(20.84)	359	18.56(19.28)	370	21.36(22.18)	381	22.45(23.32)	392	19.25(19.99)
338	17.71(18.39)	349	20.92(21.72)	360	18.36(19.07)	371	20.61(21.41)	382	20.76(21.56)	393	18.06(18.75)
339	17.47(18.15)	350	21.61(22.44)	361	17.75(18.44)	372	19.44(20.19)	383	19.16(19.90)	394	17.64(18.32)
340	17.43(18.10)	351	21.62(22.46)	362	17.30(17.97)	373	19.03(19.76)	384	18.75(19.48)	395	17.75(18.43)
341	17.53(18.21)	352	21.66(22.50)	363	17.04(17.69)	374	19.58(20.33)	385	19.48(20.23)	396	18.27(18.98)
342	17.81(18.49)	353	21.66(22.50)	364	17.00(17.66)	375	20.49(21.28)	386	20.83(21.63)	397	18.86(19.59)
343	18.24(18.95)	354	21.62(22.46)	365	17.07(17.72)	376	21.02(21.83)	387	22.19(23.04)	398	19.34(20.08)
344	14.97(15.54)	355	21.66(22.50)	366	17.49(18.16)	377	21.19(22.01)	388	22.63(23.50)	399	19.74(20.54)
345	18.81(19.54)	356	21.70(22.54)	367	17.99(18.69)	378	21.29(22.11)	389	22.69(23.56)	400	20.06(20.83)
346	18.60(19.32)	357	21.75(22.59)	368	18.96(19.69)	379	21.38(22.20)	390	22.65(23.52)	401	20.24(21.02)

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG	620.57(620.36)	AVG	610.29(610.09)	AVG	604.29(604.09)	AVG	608.29(608.09)	AVG	599.61(599.41)
402	606.41(606.21)	409	601.59(601.39)	416	596.14(595.94)	423	609.59(609.39)	430	595.97(595.78)
403	592.93(592.73)	410	609.64(609.44)	417	592.70(592.50)	424	596.42(596.23)	431	609.59(609.39)
404	609.64(609.44)	411	594.34(594.14)	418	590.04(589.85)	425	596.08(595.89)	432	588.29(588.09)
405	609.36(609.16)	412	592.02(591.83)	419	586.98(586.79)	426	599.91(599.71)	433	609.64(609.44)
406	663.16(662.94)	413	652.46(652.24)	420	644.83(644.62)	427	641.35(641.14)	434	622.89(622.69)
407	629.71(629.51)	414	619.47(619.26)	421	609.36(609.16)	428	612.26(612.06)	435	598.62(598.42)
408	609.64(609.44)	415	607.08(606.88)	422	600.19(599.99)	429	607.08(606.88)	436	596.59(596.39)

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG	590.75(590.56)	AVG	594.56(594.37)	AVG	594.94(594.74)	AVG	600.66(600.46)
437	609.64(609.44)	444	588.00(587.81)	451	589.87(589.68)	458	593.10(592.90)
438	609.64(609.44)	445	588.74(588.55)	452	609.42(609.22)	459	592.53(592.34)
439	580.61(580.42)	446	575.70(575.51)	453	577.76(577.57)	460	583.35(583.15)
440	592.08(591.88)	447	588.46(588.26)	454	586.19(585.99)	461	589.25(589.06)
441	606.13(605.93)	448	603.50(603.30)	455	604.56(604.36)	462	604.84(604.64)
442	599.74(599.54)	449	610.76(610.56)	456	617.48(617.27)	463	621.35(621.14)
443	590.27(590.07)	450	595.58(595.38)	457	593.15(592.96)	464	595.92(595.72)

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE 604.21(604.01)			
475	597.94(597.74)	477	597.49(597.29)	479	623.00(622.80)	481	619.03(618.82)
INNERWALL				AVERAGE 609.37(609.16)			
485	593.77(593.58)	488	597.10(596.90)	491	595.46(595.27)	AVERAGE 595.44(595.25)	

FLOWS

OUTER				AVG 15.93			
PRESSURE (PSIA)	493	15.90	494	15.96	AVG 1.51		
DELTA PRESSURE (PSI)	497	1.49	498	1.52	AVG 609.59		
TEMPERATURE (R)	500	609.48	501	609.70	AVG 15.85		
INNER				AVG 2.53			
PRESSURE (PSIA)	503	15.85	504	15.86	AVG 592.64		
DELTA PRESSURE (PSI)	507	2.54	508	2.53			
TEMPERATURE (R)	510	592.47	511	592.81			

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 316.42	619 236.65
DELTA PRESSURE (PSI)	623 3.05	620 2.37
TEMPERATURE (R)	624 564.83	621 532.93

REFERENCE PRESSURES

512	-2.499	513	8.023	514	8.009	515	7.996	516	8.069	517	8.059	518	4.015	519	7.995
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REFERENCE TEMPERATURES - ICE BATH

520	491.382	521	491.505	522	491.444	523	491.382	524	491.444	525	491.321
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RERON 1/31773 TIME 9-22-7 ***** TRANSONIC FAN RIG - BLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13 29 50 2200 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12813.9350	ORIFICE ACTUAL FLOW = 142.2995	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12812.6200	BELLMOUTH ACTUAL FLOW = 140.7234	AMBIENT TEMPERATURE = 519.6881
PERCENT EQUIVALENT SPEED = 100.2474	INLET FLOW (STA 5) = 152.8430	INLET TOTAL PRESSURE (MA) = 14.2695
ORF TO BELL FLOW RATIO = 1.0112	ORIFICE EQUIVALENT FLOW = 146.5676	INLET TEMPERATURE = 518.7949
ORF TO INLET FLOW RATIO = 0.9310	BELLMOUTH EQUIVALENT FLOW = 144.9443	BELLMOUTH TOTAL PRESSURE = 14.4992
ORF TO EXIT FLOW RATIO = 0.9353	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0158
EQVT. FLOW PER ANN. AREA = 41.3682	EXIT FLOW (STA 12) = 152.1344	EXIT TOTAL PRESSURE (MA) = 21.3161
EQVT. FLOW PER FRON. AREA = 32.5344	MIXING DUCT TEMPERATURE = 606.1086	EXIT TEMPERATURE (STA 12) = 603.0524
PERCENT DESIGN EQVT. FLOW = 99.0918	INNER ORIFICE FLOW = 52.4659	STAGE PRESSURE RATIO (MA) = 1.4938
DISTORTION INDEX (RADIAL) = 0.0286	OUTER ORIFICE FLOW = 89.8325	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7514

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1624	0.7466	0.7605	4077.69
MIXING DUCT	0.1683	0.7204	0.7357	4226.24
TORQUEMETER	-0.0059	*****	*****	-149.00

STAGE ELEMENT PERFORMANCE

IMMERSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5331	1.4942	1.5798	1.5085	1.4654	1.4855	1.4008	1.4926	1.3631
TEMPERATURE RISE	0.1783	0.1852	0.1682	0.1746	0.1572	0.1437	0.1431	0.1462	0.1521
ADIABATIC EFFICIENCY	0.7262	0.6548	0.8278	0.7120	0.7322	0.8313	0.7051	0.8275	0.6072
POLYTROPIC EFFICIENCY	0.7421	0.6736	0.8385	0.7281	0.7442	0.8404	0.7188	0.8370	0.6239
TOTAL PRESSURE	21.8778	21.3222	22.5430	21.5260	20.9114	21.1978	19.9894	21.2992	19.4513
TOTAL TEMPERATURE	611.33	614.87	606.07	609.40	600.38	593.39	593.05	594.68	597.72
STATIC PRESSURE	16.8988	16.8968	16.8947	16.8892	16.8817	16.8736	16.8679	16.8660	16.8643

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 161.3665	PRESSURE RATIO = 11.3638	TURBINE GAS FLOW = 0.5156
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0207	TURBINE AIR FLOW = 24.8878
INLET TOTAL TEMPERATURE = 1599.6368	SPECIFIC HEAT = 0.2728	TURBINE TOTAL FLOW = 25.4034
EXIT TOTAL TEMPERATURE = 1110.0302	TURBINE EFFICIENCY = 0.6697	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

PT1 - PITOT STATIC RAKE

25	0.00(0.00)	26	14.53(14.97)	27	0.00(0.00)	28	0.00(0.00)	29	14.48(14.91)	30	0.00(0.00)	AVERAGE	14.49(14.93)
31	14.51(14.94)	32	0.00(0.00)	33	14.53(14.94)	34	0.00(0.00)	35	14.48(14.91)	36	0.00(0.00)		
37	14.46(14.89)	38	14.49(14.92)	39	14.45(14.89)	40	0.00(0.00)	41	14.48(14.91)	42	14.48(14.91)		
43	0.00(0.00)	44	14.48(14.91)	45	0.00(0.00)	46	14.51(14.95)	47	0.00(0.00)	48	14.54(14.97)		
49	0.00(0.00)	50	14.48(14.91)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(14.95)				

PS1 - PITOT STATIC RAKE

54	13.74(14.15)	55	0.00(0.00)	56	13.34(13.73)	57	0.00(0.00)	58	0.00(0.00)	59	13.34(13.73)	AVERAGE	13.36(13.75)
60	0.00(0.00)	61	13.28(13.68)	62	0.00(0.00)	63	13.33(13.73)	64	0.00(0.00)	65	0.00(0.00)		
66	13.32(13.72)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.30(13.69)		
72	13.30(13.69)	73	0.00(0.00)	74	13.33(13.73)	75	0.00(0.00)	76	13.31(13.71)	77	0.00(0.00)		
78	13.32(13.72)	79	0.00(0.00)	80	0.00(0.00)	81	13.34(13.74)	82	13.36(13.76)				

TTD - INLET SCREEN TEMPERATURE

2	518.85(518.75)	3	518.85(518.75)	4	518.61(518.51)	6	518.97(518.87)	9	518.97(518.87)	10	518.79(518.69)	AVERAGE	518.79(518.68)
11	518.55(518.45)	14	518.97(518.87)	15	518.61(518.51)	16	518.73(518.63)	18	518.67(518.57)	21	519.09(518.99)		
22	518.55(518.45)	23	518.79(518.69)										

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)									AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	12.23(12.60)	90	11.51(11.85)								AVERAGE	11.87(12.22)
PS31 - INNERWALL	92	12.23(12.59)	94	11.50(11.84)								AVERAGE	11.86(12.22)
PS40 - OUTERWALL	96	12.28(12.65)	98	11.49(11.84)								AVERAGE	11.89(12.24)
PS41 - INNERWALL	100	12.34(12.71)	102	11.59(11.93)								AVERAGE	11.96(12.32)
PS430 - OUTERWALL	104	12.39(12.76)	106	11.45(11.79)								AVERAGE	11.92(12.28)
PS431 - INNERWALL	108	12.58(12.96)	110	11.66(12.01)								AVERAGE	12.12(12.48)
PS460 - OUTERWALL	112	12.60(12.97)	114	11.55(11.90)								AVERAGE	12.07(12.43)
PS461 - INNERWALL	116	12.66(13.04)	118	11.62(11.96)								AVERAGE	12.14(12.50)
PS50 - OUTERWALL	120	11.05(11.38)	121	11.30(11.64)	122	12.08(12.44)	123	12.04(12.40)				AVERAGE	11.62(11.96)
PS51 - INNERWALL	124	12.41(12.78)	125	12.14(12.50)	126	11.27(11.61)	127	12.43(12.80)				AVERAGE	12.06(12.42)
PS550 - OUTERWALL	146	10.44(10.75)	147	10.73(11.05)	148	11.30(11.64)	149	11.21(11.54)				AVERAGE	10.92(11.24)
PS551 - INNERWALL	150	12.11(12.47)	151	11.98(12.34)	152	11.76(12.11)	153	12.15(12.51)				AVERAGE	12.00(12.36)
PS60 - OUTERWALL	154	10.98(11.30)	155	10.68(11.00)									
PS70 - OUTERWALL	156	10.97(11.30)	157	11.43(11.77)	158	12.07(12.43)	159	12.35(12.72)					
	160	13.20(13.60)	161	14.23(14.66)									
PS80 - OUTERWALL	162	14.96(15.40)	163	15.30(15.76)									
PS90 - OUTERWALL	164	17.64(18.17)	165	15.85(16.32)	166	14.84(15.28)	167	15.20(15.66)				AVERAGE	15.88(16.36)
PS91 - INNERWALL	168	14.04(14.46)	169	15.14(15.59)	170	13.66(14.07)	171	13.60(14.01)				AVERAGE	14.11(14.53)
PS100 - OUTERWALL	172	16.36(16.85)	173	15.82(16.29)	174	15.35(15.81)	175	15.13(15.58)				AVERAGE	15.66(16.15)
PS101 - INNERWALL	176	15.95(16.43)	177	15.62(16.09)	178	15.46(15.92)	179	15.36(15.82)				AVERAGE	15.60(16.07)
PS1020 - OUTERWALL	180	15.75(16.22)											
PS1021 - INNERWALL	181	15.41(15.87)											
PS1040 - OUTERWALL	182	16.07(16.55)											
PS1041 - INNERWALL	183	15.52(15.98)											
PS1060 - OUTERWALL	184	16.34(16.83)											
PS1061 - INNERWALL	185	15.76(16.23)											
PS1080 - OUTERWALL	186	16.49(16.98)											
PS1081 - INNERWALL	187	16.07(16.55)											
PS110 - OUTERWALL	188	16.98(17.49)	189	16.84(17.34)	190	16.65(17.15)	191	16.53(17.03)				AVERAGE	16.75(17.25)
PS111 - INNERWALL	192	16.75(17.25)	193	16.56(17.06)	194	16.29(16.78)	195	16.27(16.76)				AVERAGE	16.47(16.96)
PS120 - OUTERWALL	196	16.26(16.75)	197	17.47(17.99)	198	17.35(17.86)	199	16.50(17.00)				AVERAGE	16.90(17.40)
PS121 - INNERWALL	200	16.44(16.93)	201	17.17(17.68)	202	17.36(17.88)	203	16.47(16.96)				AVERAGE	16.86(17.36)
PS130 - OUTERWALL	465	18.44(18.99)											
PS131 - INNERWALL	469	18.09(18.64)											

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG 611.33(611.21)	AVG 614.87(614.75)	AVG 606.07(605.95)	AVG 609.40(609.27)	AVG 600.39(600.26)					
402 602.10(601.97)	409 597.15(597.03)	416 593.72(593.59)	423 609.64(609.52)	430 594.11(593.99)					
403 594.73(594.61)	410 609.64(609.52)	417 593.43(593.31)	424 592.39(592.27)	431 609.59(609.46)					
404 609.64(609.52)	411 647.16(647.03)	418 644.18(644.04)	425 631.47(631.34)	432 603.67(603.54)					
405 609.64(609.52)	412 592.98(592.86)	419 587.10(586.98)	426 600.54(600.51)	433 609.48(609.35)					
406 652.03(651.89)	413 637.87(637.73)	420 625.54(625.41)	427 621.68(621.55)	434 611.87(611.74)					
407 607.08(606.95)	414 596.70(596.58)	421 595.86(595.74)	428 604.34(604.21)	435 592.47(592.35)					
408 609.31(609.18)	415 597.15(597.03)	422 595.92(595.79)	429 606.96(606.84)	436 595.52(595.40)					

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG 593.39(593.26)	AVG 593.05(592.93)	AVG 594.68(594.55)	AVG 597.72(597.60)				
437 609.64(609.52)	444 584.43(584.31)	451 584.60(584.48)	458 589.82(589.70)				
438 609.59(609.46)	445 583.35(583.23)	452 609.64(609.52)	459 587.21(587.09)				
439 589.65(589.53)	446 586.02(585.90)	453 587.04(586.92)	460 587.15(587.03)				
440 588.46(588.34)	447 585.90(585.78)	454 585.62(585.50)	461 590.78(590.66)				
441 610.42(610.30)	448 617.81(617.68)	455 619.19(619.06)	462 620.13(620.00)				
442 591.80(591.67)	449 595.86(595.74)	456 599.68(599.56)	463 603.27(603.15)				
443 592.36(592.24)	450 595.86(595.74)	457 595.35(595.23)	464 595.46(595.34)				

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE 606.10(605.98)
475 603.50(603.37)	477 603.50(603.37)	479 620.96(620.83)	481 618.64(618.51)	AVERAGE 611.65(611.52)
INNERWALL				AVERAGE 596.61(596.49)
485 596.82(596.69)	488 597.10(596.97)	491 595.92(595.79)		

FLOWS

OUTER				AVG 15.95
PRESSURE (PSIA)	493 15.92	494 15.97		AVG 1.52
DELTA PRESSURE (PSI)	497 1.51	498 1.54		AVG 609.89
TEMPERATURE (R)	500 609.75	501 610.03		
INNER				AVG 15.85
PRESSURE (PSIA)	503 15.84	504 15.85		AVG 2.53
DELTA PRESSURE (PSI)	507 2.53	508 2.52		AVG 592.76
TEMPERATURE (R)	510 592.53	511 592.98		
TURBINE FLOWS				
	GAS	AIR		
PRESSURE (PSIA)	622 314.77	619 237.00		
DELTA PRESSURE (PSI)	623 4.66	620 2.38		
TEMPERATURE (R)	624 564.60	621 533.88		

REFERENCE PRESSURES

512 -2.499	513 8.016	514 8.009	515 8.009	516 8.052	517 8.047	518 4.016	519 7.992
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REFERENCE TEMPERATURES - ICE BATH

520 491.444	521 491.566	522 491.566	523 491.321	524 491.076	525 491.321
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RERUN 1/31/73 TIME 9-24-4 ***** TRANSONIC FAN RIG - BLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13 30 51 PAGE 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12797.3562	ORIFICE ACTUAL FLOW = 142.1457	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12798.8424	BELLMOUTH ACTUAL FLOW = 140.5750	AMBIENT TEMPERATURE = 519.6381
PERCENT EQUIVALENT SPEED = 100.1395	INLET FLOW (STA 5) = 117.5890	INLET TOTAL PRESSURE (MA) = 13.3101
ORF TO BELL FLOW RATIO = 1.0111	ORIFICE EQUIVALENT FLOW = 156.9279	INLET TEMPERATURE = 518.5676
ORF TO INLET FLOW RATIO = 1.2088	BELLMOUTH EQUIVALENT FLOW = 155.1983	BELLMOUTH TOTAL PRESSURE = 14.4962
ORF TO EXIT FLOW RATIO = 0.9519	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P1) = 0.0218
EQVT. FLOW PER ANN. AREA = 44.2923	EXIT FLOW (STA 12) = 149.3157	EXIT TOTAL PRESSURE (MA) = 21.2037
EQVT. FLOW PER FRON. AREA = 34.8341	MIXING DUCT TEMPERATURE = 606.0022	EXIT TEMPERATURE (STA 12) = 605.1263
PERCENT DESIGN EQVT. FLOW = 106.0961	INNER ORIFICE FLOW = 52.1720	STAGE PRESSURE RATIO (MA) = 1.5930
DISTORTION INDEX (RADIAL) = 0.0224	OUTER ORIFICE FLOW = 89.9736	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7513

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1669	0.8507	0.8601	4184.96
MIXING DUCT	0.1686	0.8421	0.8521	4227.49
TORQUEMETER	-0.0059	*****	*****	-148.80

STAGE ELEMENT PERFORMANCE

IMMERSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5600	1.6200	1.7556	1.5597	1.6044	1.5119	1.6130	1.5262	1.4280
TEMPERATURE RISE	0.1882	0.1749	0.1754	0.1854	0.1610	0.1540	0.1387	0.1432	0.1427
ADIABATIC EFFICIENCY	0.7176	0.8429	0.9921	0.7283	0.8961	0.8122	1.0533	0.8953	0.7496
POLYTROPIC EFFICIENCY	0.7346	0.8532	0.9927	0.7447	0.9028	0.8228	1.0499	0.9013	0.7618
TOTAL PRESSURE	20.7645	21.5629	23.3678	20.7599	21.3551	20.1238	21.4694	20.3151	19.0068
TOTAL TEMPERATURE	616.20	609.27	609.54	614.72	602.09	598.46	590.52	592.82	597.57
STATIC PRESSURE	16.8368	16.8328	16.8287	16.8179	16.8031	16.7873	16.7760	16.7723	16.7689

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 161.0943	PRESSURE RATIO = 11.3446	TURBINE GAS FLOW = 0.3605
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0145	TURBINE AIR FLOW = 24.7507
INLET TOTAL TEMPERATURE = 1602.4217	SPECIFIC HEAT = 0.2694	TURBINE TOTAL FLOW = 25.1112
EXIT TOTAL TEMPERATURE = 1114.5826	TURBINE EFFICIENCY = 0.6605	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

PT1 - PITOT STATIC RAKE

25	0.00(0.00)	26	14.53(16.04)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(15.98)	30	0.00(0.00)	AVERAGE	14.49(16.00)
31	14.50(16.02)	32	0.00(0.00)	33	14.51(16.02)	34	0.00(0.00)	35	14.47(15.98)	36	0.00(0.00)		
37	14.46(15.97)	38	14.49(16.00)	39	14.46(15.97)	40	0.00(0.00)	41	14.48(15.99)	42	14.47(15.98)		
43	0.00(0.00)	44	14.47(15.98)	45	0.00(0.00)	46	14.51(16.02)	47	0.00(0.00)	48	14.54(16.05)		
49	0.00(0.00)	50	14.48(15.99)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(16.04)				

PS1 - PITOT STATIC RAKE

54	13.74(15.17)	55	0.00(0.00)	56	13.33(14.72)	57	0.00(0.00)	58	0.00(0.00)	59	13.33(14.72)	AVERAGE	13.35(14.75)
60	0.00(0.00)	61	13.29(14.67)	62	0.00(0.00)	63	13.32(14.71)	64	0.00(0.00)	65	0.00(0.00)		
66	13.32(14.71)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.30(14.69)		
72	13.30(14.68)	73	0.00(0.00)	74	13.33(14.72)	75	0.00(0.00)	76	13.31(14.70)	77	0.00(0.00)		
78	13.32(14.71)	79	0.00(0.00)	80	0.00(0.00)	81	13.34(14.73)	82	13.36(14.75)				

TT0 - INLET SCREEN TEMPERATURE

2	518.49(518.61)	3	518.31(518.43)	4	518.37(518.49)	5	518.67(518.79)	6	518.79(518.92)	7	518.25(518.37)	AVERAGE	518.56(518.68)
11	518.55(518.67)	14	518.91(519.03)	15	518.55(518.67)	16	518.55(518.67)	18	518.49(518.61)	21	519.09(519.21)		
22	518.31(518.43)	23	518.49(518.61)										

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)									AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	12.22(13.50)	90	11.49(12.68)								AVERAGE	11.85(13.09)
PS31 - INNERWALL	92	12.22(13.49)	94	11.52(12.72)								AVERAGE	11.87(13.10)
PS40 - OUTERWALL	96	12.29(13.57)	98	11.46(12.66)								AVERAGE	11.88(13.12)
PS41 - INNERWALL	100	12.37(13.65)	102	11.56(12.77)								AVERAGE	11.97(13.21)
PS430 - OUTERWALL	104	12.41(13.70)	106	11.40(12.59)								AVERAGE	11.90(13.14)
PS431 - INNERWALL	108	12.62(13.93)	110	11.63(12.84)								AVERAGE	12.12(13.38)
PS460 - OUTERWALL	112	12.62(13.93)	114	11.48(12.68)								AVERAGE	12.05(13.31)
PS461 - INNERWALL	116	12.71(14.03)	118	11.57(12.78)								AVERAGE	12.14(13.40)
PS50 - OUTERWALL	120	11.85(13.08)	121	10.98(12.13)	122	12.05(13.30)	123	12.11(13.37)				AVERAGE	11.75(12.97)
PS51 - INNERWALL	124	12.46(13.76)	125	12.34(13.62)	126	11.23(12.40)	127	12.12(13.38)				AVERAGE	12.04(13.29)
PS550 - OUTERWALL	146	11.09(12.25)	147	10.36(11.44)	148	11.29(12.46)	149	11.29(12.47)				AVERAGE	11.01(12.16)
PS551 - INNERWALL	150	12.16(13.43)	151	12.05(13.31)	152	11.41(12.60)	153	12.10(13.36)				AVERAGE	11.93(13.17)
PS60 - OUTERWALL	154	10.97(12.11)	155	10.34(11.42)									
PS70 - OUTERWALL	156	11.03(12.18)	157	11.40(12.59)	158	12.23(13.50)	159	12.68(14.00)					
		160	13.29(14.68)	161	16.06(17.74)								
PS80 - OUTERWALL	162	15.19(16.77)	163	16.82(18.57)									
PS90 - OUTERWALL	164	15.75(17.39)	165	17.85(19.70)	166	14.94(16.49)	167	15.20(16.79)				AVERAGE	15.93(17.59)
PS91 - INNERWALL	168	14.07(15.53)	169	14.39(15.89)	170	16.06(17.73)	171	13.58(15.00)				AVERAGE	14.53(16.04)
PS100 - OUTERWALL	172	17.16(18.95)	173	16.63(18.36)	174	16.00(17.66)	175	15.33(16.92)				AVERAGE	16.28(17.97)
PS101 - INNERWALL	176	14.75(16.28)	177	14.00(15.46)	178	12.77(14.10)	179	10.65(11.76)				AVERAGE	13.04(14.40)
PS1020 - OUTERWALL	180	16.60(18.33)											
PS1021 - INNERWALL	181	14.74(16.28)											
PS1040 - OUTERWALL	182	16.95(18.71)											
PS1041 - INNERWALL	183	15.06(16.62)											
PS1060 - OUTERWALL	184	17.07(18.85)											
PS1061 - INNERWALL	185	15.00(16.56)											
PS1080 - OUTERWALL	186	17.11(18.89)											
PS1081 - INNERWALL	187	15.17(16.75)											
PS110 - OUTERWALL	188	17.54(19.37)	189	17.36(19.17)	190	17.20(18.99)	191	17.04(18.81)				AVERAGE	17.28(19.08)
PS111 - INNERWALL	192	15.73(17.37)	193	15.48(17.09)	194	15.57(17.20)	195	15.37(16.97)				AVERAGE	15.54(17.16)
PS120 - OUTERWALL	196	16.33(18.03)	197	16.43(18.14)	198	17.89(19.76)	199	16.69(18.43)				AVERAGE	16.84(18.59)
PS121 - INNERWALL	200	16.44(18.16)	201	16.39(18.10)	202	17.54(19.37)	203	16.66(18.40)				AVERAGE	16.76(18.51)
PS130 - OUTERWALL	465	18.42(20.33)											
PS131 - INNERWALL	469	18.09(19.98)											

POINT 12 READING 284

***** TRANSONIC FAN RIG *****

13-30-51

2/ 2/78

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PTS - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	12.59(13.90)	129	13.97(15.43)	120	11.85(13.08)	124	12.46(13.76)
130	12.29(13.57)	131	14.14(15.61)	121	10.98(12.13)	125	12.34(13.62)
132	12.28(13.56)	133	14.48(15.98)	122	12.05(13.30)	126	11.23(12.40)
134	12.32(13.60)	135	14.14(15.61)	123	12.11(13.37)	127	12.12(13.39)
136	12.27(13.54)	137	14.24(15.73)				
138	12.27(13.54)	139	14.42(15.92)				
140	12.37(13.66)	141	14.41(15.91)				
142	12.53(13.83)	143	14.35(15.85)				
144	13.17(14.54)	145	13.87(15.31)				

PT12 - STAGE EXIT TOTAL

IMMERSSION A - AVG 20.76(22.92)				IMMERSSION B - AVG 21.56(23.80)				IMMERSSION C - AVG 23.36(25.60)			
ANGLE 136		ANGLE 320		ANGLE 77		ANGLE 248		ANGLE 158		ANGLE 352	
204	21.88(24.16)	215	20.23(22.34)	226	20.81(22.98)	237	22.37(24.70)	248	25.59(28.25)	259	20.23(22.33)
205	19.92(21.99)	216	18.28(20.19)	227	19.93(21.89)	238	20.41(22.53)	249	22.98(25.37)	260	21.21(23.32)
206	19.82(21.89)	217	18.07(19.96)	228	20.45(22.58)	239	19.08(21.07)	250	25.35(27.99)	261	21.34(23.54)
207	21.60(23.85)	218	19.36(21.37)	229	21.19(23.40)	240	20.31(22.43)	251	25.95(28.66)	262	21.41(23.64)
208	22.28(24.60)	219	20.32(22.44)	230	21.17(23.37)	241	22.02(24.31)	252	25.98(28.69)	263	21.66(23.80)
209	22.26(24.58)	220	20.67(22.82)	231	21.02(23.21)	242	22.71(25.07)	253	25.94(28.64)	264	21.45(23.68)
210	22.07(24.36)	221	20.66(22.81)	232	21.04(23.23)	243	22.95(25.34)	254	25.82(28.50)	265	21.31(23.53)
211	21.90(24.18)	222	20.37(22.49)	233	21.22(23.43)	244	23.06(25.46)	255	25.69(28.37)	266	21.31(23.53)
212	21.70(23.96)	223	20.15(22.24)	234	21.20(23.41)	245	23.19(25.60)	256	25.59(28.25)	267	21.37(23.59)
213	21.55(23.80)	224	20.15(22.25)	235	21.17(23.37)	246	23.27(25.70)	257	25.50(28.16)	268	21.18(23.39)
214	21.42(23.65)	225	20.30(22.42)	236	21.43(23.66)	247	23.41(25.85)	258	25.51(28.17)	269	20.80(22.96)
IMMERSSION D - AVG 20.75(22.92)				IMMERSSION E - AVG 21.35(23.57)				IMMERSSION F - AVG 20.12(22.21)			
ANGLE 96		ANGLE 280		ANGLE 40		ANGLE 216		ANGLE 72		ANGLE 248	
270	20.99(23.18)	281	20.64(22.79)	292	20.97(23.15)	303	23.07(25.47)	314	21.78(24.05)	325	19.67(21.71)
271	20.51(22.64)	282	19.84(21.91)	293	19.99(22.07)	304	21.60(23.85)	315	20.62(22.77)	326	19.27(21.24)
272	21.27(23.49)	283	20.34(22.46)	294	21.26(23.47)	305	19.33(21.34)	316	21.80(24.07)	327	18.48(20.41)
273	21.22(23.43)	284	20.78(22.94)	295	21.36(23.58)	306	18.63(20.57)	317	21.87(24.15)	328	17.89(19.75)
274	21.04(23.23)	285	20.84(23.00)	296	21.39(23.61)	307	19.09(21.08)	318	21.85(24.13)	329	17.66(19.50)
275	20.92(23.10)	286	20.78(22.94)	297	21.37(23.60)	308	20.21(22.32)	319	21.81(24.08)	330	17.68(19.53)
276	20.82(22.99)	287	20.70(22.85)	298	21.39(23.61)	309	21.41(23.64)	320	21.77(24.04)	331	17.90(19.77)
277	20.80(22.97)	288	20.68(22.83)	299	21.43(23.63)	310	22.62(24.97)	321	21.71(23.97)	332	18.24(20.13)
278	20.80(22.97)	289	20.68(22.84)	300	21.44(23.67)	311	23.22(25.63)	322	21.70(23.96)	333	18.67(20.61)
279	20.78(22.94)	290	20.68(22.83)	301	21.44(23.67)	312	23.43(25.87)	323	21.64(23.90)	334	19.13(21.12)
280	20.69(22.85)	291	20.73(22.89)	302	21.48(23.71)	313	23.41(25.85)	324	21.61(23.85)	335	14.72(16.25)
IMMERSSION G - AVG 21.46(23.70)				IMMERSSION H - AVG 20.31(22.43)				IMMERSSION I - AVG 19.09(20.98)			
ANGLE 168		ANGLE 352		ANGLE 96		ANGLE 280		ANGLE 40		ANGLE 216	
336	14.84(16.39)	347	21.78(24.04)	358	22.15(24.46)	369	20.41(22.54)	380	20.86(23.03)	391	17.76(19.61)
337	20.60(22.74)	348	20.56(22.70)	359	22.13(24.44)	370	20.31(22.42)	381	20.32(22.44)	392	17.60(19.65)
338	20.25(22.36)	349	20.02(22.11)	360	21.58(23.83)	371	19.62(21.67)	382	19.52(21.55)	393	17.77(19.62)
339	21.04(23.23)	350	21.14(23.34)	361	20.13(22.23)	372	18.55(20.48)	383	19.38(20.29)	394	17.71(19.56)
340	21.60(23.85)	351	21.56(23.80)	362	20.02(22.11)	373	17.86(19.72)	384	17.93(19.80)	395	17.80(19.43)
341	21.98(24.27)	352	21.67(23.93)	363	20.42(22.54)	374	17.78(19.60)	385	19.34(20.25)	396	17.58(19.41)
342	22.11(24.42)	353	21.67(23.93)	364	21.16(23.36)	375	18.12(20.01)	386	19.31(21.31)	397	17.58(19.41)
343	22.12(24.43)	354	21.64(23.91)	365	21.76(24.03)	376	18.88(20.55)	387	20.33(22.45)	398	17.42(19.46)
344	14.97(16.53)	355	21.67(23.93)	366	21.89(24.17)	377	19.48(21.73)	388	20.71(22.86)	399	17.75(19.60)
345	22.02(24.31)	356	21.67(23.92)	367	21.86(24.14)	378	20.08(22.17)	389	20.84(23.01)	400	17.52(19.78)
346	21.91(24.19)	357	21.64(23.92)	368	21.87(24.15)	379	20.14(22.24)	390	20.92(23.10)	401	17.10(19.48)

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG 616.20(616.35)	AVG 609.27(609.41)	AVG 609.54(609.68)	AVG 614.72(614.87)	AVG 602.09(602.23)					
402 598.84(598.98)	409 592.36(592.50)	416 594.51(594.64)	423 609.64(609.78)	430 589.53(589.67)					
403 634.75(634.90)	410 609.64(609.78)	417 635.19(635.34)	424 625.58(626.73)	431 609.64(609.78)					
404 609.59(609.73)	411 658.33(658.48)	418 651.16(651.31)	425 643.36(643.51)	432 627.63(627.77)					
405 609.59(609.73)	412 592.64(592.78)	419 586.42(586.55)	426 598.90(599.04)	433 609.64(609.78)					
406 610.59(610.73)	413 602.71(602.85)	420 595.30(595.43)	427 601.65(601.79)	434 594.00(594.14)					
407 602.10(602.24)	414 592.47(592.61)	421 591.91(592.05)	428 601.37(601.51)	435 593.55(593.68)					
408 609.59(609.73)	415 594.62(594.76)	422 594.17(594.31)	429 605.74(605.88)	436 595.07(595.21)					

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG 598.46(598.60)	AVG 590.52(590.66)	AVG 592.82(592.96)	AVG 592.57(592.71)				
437 609.64(609.78)	444 578.21(578.35)	451 579.58(579.72)	458 582.89(583.03)				
438 609.64(609.78)	445 580.33(580.46)	452 509.48(609.62)	459 580.77(580.90)				
439 609.70(609.84)	446 606.46(606.60)	453 606.74(606.88)	460 606.13(606.27)				
440 584.43(584.56)	447 582.38(582.51)	454 580.50(580.63)	461 584.31(584.45)				
441 587.04(587.18)	448 593.72(593.85)	455 594.90(595.04)	462 600.47(600.61)				
442 595.58(595.72)	449 593.55(593.68)	456 594.90(595.04)	463 598.62(598.76)				
443 590.50(590.63)	450 594.39(594.53)	457 593.21(593.35)	464 592.19(592.33)				

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL				AVERAGE 606.00(606.14)			
475 612.43(612.57)	477 612.54(612.68)	479 611.37(611.51)	481 610.48(610.62)	AVERAGE 611.70(611.84)			
INNERWALL				AVERAGE 596.16(596.30)			
485 596.03(596.17)	488 596.70(596.84)	491 595.75(595.88)					

FLOWS

OUTER				AVG 15.95			
PRESSURE (PSIA)	493 15.93	494 15.97		AVG 1.53			
DELTA PRESSURE (PSI)	497 1.51	498 1.54		AVG 610.14			
TEMPERATURE (R)	500 609.87	501 610.42					
INNER				AVG 15.83			
PRESSURE (PSIA)	503 15.83	504 15.84		AVG 2.50			
DELTA PRESSURE (PSI)	507 2.51	508 2.49		AVG 592.67			
TEMPERATURE (R)	510 592.47	511 592.87					

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 313.12	619 236.72
DELTA PRESSURE (PSI)	623 2.28	620 2.35
TEMPERATURE (R)	624 564.42	621 533.88

REFERENCE PRESSURES

512 -2.496	513 8.003	514 8.016	515 8.000	516 8.052	517 8.042	518 4.012	519 8.002
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REFERENCE TEMPERATURES - ICE BATH

520 491.444	521 491.382	522 491.566	523 491.260	524 491.260	525 491.137
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RERUN 1731773 TIME 9-26- 2 ***** TRANSONIC FAN RIG - BLD 2 *****
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STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12810.6180	ORIFICE ACTUAL FLOW = 141.9942	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12802.1692	BELLMOUTH ACTUAL FLOW = 140.3590	AMBIENT TEMPERATURE = 519.6881
PERCENT EQUIVALENT SPEED = 100.1656	INLET FLOW (STA 5) = 119.0564	INLET TOTAL PRESSURE (MA) = 13.3507
ORF TO BELL FLOW RATIO = 1.0116	ORIFICE EQUIVALENT FLOW = 156.4049	INLET TEMPERATURE = 519.3732
ORF TO INLET FLOW RATIO = 1.1926	BELLMOUTH EQUIVALENT FLOW = 154.6037	BELLMOUTH TOTAL PRESSURE = 14.4979
ORF TO EXIT FLOW RATIO = 0.9403	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0791
EQVT. FLOW PER ANN. AREA = 44.1447	EXIT FLOW (STA 12) = 150.9935	EXIT TOTAL PRESSURE (MA) = 21.2919
EQVT. FLOW PER FRON. AREA = 34.7180	MIXING DUCT TEMPERATURE = 607.6727	EXIT TEMPERATURE (STA 12) = 606.4219
PERCENT DESIGN EQVT. FLOW = 105.7426	INNER ORIFICE FLOW = 52.0841	STAGE PRESSURE RATIO (MA) = 1.5948
DISTORTION INDEX (RADIAL) = 0.0161	OUTER ORIFICE FLOW = 89.9100	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7514

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1676	0.8493	0.8589	4204.44
MIXING DUCT	0.1700	0.8372	0.8475	4265.12
TORQUEMETER	-0.0059	*****	*****	-148.96

STAGE ELEMENT PERFORMANCE

IMMERSION	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5244	1.6749	1.6053	1.6189	1.6569	1.5238	1.6002	1.4405	1.4681
TEMPERATURE RISE	0.2113	0.1799	0.1807	0.1794	0.1579	0.1433	0.1478	0.1451	0.1500
ADIABATIC EFFICIENCY	0.6037	0.8800	0.7992	0.8201	0.9808	0.8908	0.9706	0.7560	0.7713
POLYTROPIC EFFICIENCY	0.6263	0.8883	0.8121	0.8318	0.9821	0.8971	0.9725	0.7682	0.7833
TOTAL PRESSURE	20.3531	22.3622	21.4329	21.6136	22.1216	20.3445	21.3648	19.2320	19.6003
TOTAL TEMPERATURE	629.14	612.85	613.23	612.59	601.40	593.81	596.17	594.75	597.31
STATIC PRESSURE	16.9078	16.9010	16.8942	16.8760	16.8512	16.8247	16.8056	16.7996	16.7938

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 160.8222	PRESSURE RATIO = 11.3255	TURBINE GAS FLOW = 0.5003
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0202	TURBINE AIR FLOW = 24.7234
INLET TOTAL TEMPERATURE = 1601.3078	SPECIFIC HEAT = 0.2726	TURBINE TOTAL FLOW = 25.2237
EXIT TOTAL TEMPERATURE = 1116.2888	TURBINE EFFICIENCY = 0.6622	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

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***** TRANSDUCER PAN RIG *****

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PTI - PITOT STATIC RAKE

25	0.00(0.00)	26	14.53(15.99)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(15.93)	30	0.00(0.00)	AVERAGE	14.49(15.95)
31	14.51(15.97)	32	0.00(0.00)	33	14.52(15.98)	34	0.00(0.00)	35	14.48(15.94)	36	0.00(0.00)		
37	14.46(15.92)	38	14.49(15.95)	39	14.44(15.89)	40	0.00(0.00)	41	14.49(15.95)	42	14.49(15.95)		
43	0.00(0.00)	44	14.48(15.94)	45	0.00(0.00)	46	14.51(15.97)	47	0.00(0.00)	48	14.54(16.00)		
49	0.00(0.00)	50	14.48(15.94)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(15.98)				

PS1 - PITOT STATIC RAKE

54	13.74(15.13)	55	0.00(0.00)	56	13.34(14.68)	57	0.00(0.00)	58	0.00(0.00)	59	13.34(14.68)	AVERAGE	13.36(14.70)
60	0.00(0.00)	61	13.29(14.63)	62	0.00(0.00)	63	13.33(14.67)	64	0.00(0.00)	65	0.00(0.00)		
66	13.33(14.67)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.30(14.64)		
72	13.30(14.64)	73	0.00(0.00)	74	13.33(14.67)	75	0.00(0.00)	76	13.32(14.66)	77	0.00(0.00)		
78	13.33(14.67)	79	0.00(0.00)	80	0.00(0.00)	81	13.35(14.69)	82	13.37(14.72)				

TTO - INLET SCREEN TEMPERATURE

2	519.51(518.83)	3	519.33(518.65)	4	519.27(518.59)	6	519.57(518.89)	9	519.51(518.83)	10	519.15(518.47)	AVERAGE	519.37(518.68)
11	519.09(518.41)	14	519.81(519.13)	15	519.09(518.41)	16	519.03(518.35)	18	519.45(518.77)	21	519.93(519.25)		
22	519.03(518.35)	23	519.33(518.65)										

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)									AVERAGE	0.00(0.00)
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STATIC PRESSURES

PS30 - OUTERWALL	88	12.11(13.33)	90	11.75(12.93)								AVERAGE	11.93(13.13)
PS31 - INNERWALL	92	12.07(13.28)	94	11.67(12.85)								AVERAGE	11.87(13.07)
PS40 - OUTERWALL	96	12.21(13.44)	98	11.78(12.97)								AVERAGE	12.00(13.21)
PS41 - INNERWALL	100	12.27(13.50)	102	11.75(12.93)								AVERAGE	12.01(13.22)
PS430 - OUTERWALL	104	12.34(13.59)	106	11.84(13.03)								AVERAGE	12.09(13.31)
PS431 - INNERWALL	108	12.52(13.79)	110	11.96(13.17)								AVERAGE	12.24(13.48)
PS460 - OUTERWALL	112	12.57(13.83)	114	12.17(13.40)								AVERAGE	12.37(13.62)
PS461 - INNERWALL	116	12.65(13.92)	118	12.00(13.21)								AVERAGE	12.32(13.57)
PS50 - OUTERWALL	120	12.00(13.21)	121	11.25(12.38)	122	11.71(12.89)	123	12.11(13.33)				AVERAGE	11.77(12.95)
PS51 - INNERWALL	124	12.45(13.70)	125	12.45(13.70)	126	11.83(13.02)	127	11.33(12.48)				AVERAGE	12.01(13.23)
PS550 - OUTERWALL	146	11.16(12.28)	147	10.68(11.76)	148	11.12(12.25)	149	11.33(12.47)				AVERAGE	11.07(12.19)
PS551 - INNERWALL	150	12.15(13.37)	151	12.16(13.38)	152	11.60(12.77)	153	11.37(12.52)				AVERAGE	11.82(13.01)
PS60 - OUTERWALL	154	10.24(11.27)	155	10.70(11.78)									
PS70 - OUTERWALL	156	10.88(11.97)	157	11.42(12.57)	158	11.77(12.95)	159	16.72(18.41)					
	160	16.55(18.22)	161	18.95(20.85)									
PS80 - OUTERWALL	162	18.20(20.04)	163	18.82(20.72)									
PS90 - OUTERWALL	164	15.29(16.83)	165	18.03(19.85)	166	15.14(16.66)	167	15.29(16.84)				AVERAGE	15.94(17.54)
PS91 - INNERWALL	168	13.87(15.27)	169	13.95(15.35)	170	15.05(16.57)	171	13.83(15.23)				AVERAGE	14.18(15.60)
PS100 - OUTERWALL	172	20.16(22.19)	173	18.97(20.88)	174	17.66(19.44)	175	16.48(18.14)				AVERAGE	18.32(20.16)
PS101 - INNERWALL	176	13.68(15.06)	177	13.37(14.71)	178	13.20(14.53)	179	13.08(14.40)				AVERAGE	13.33(14.67)
PS1020 - OUTERWALL	180	18.49(20.35)											
PS1021 - INNERWALL	181	13.04(14.35)											
PS1040 - OUTERWALL	182	18.73(20.61)											
PS1041 - INNERWALL	183	11.72(12.90)											
PS1060 - OUTERWALL	184	18.52(20.39)											
PS1061 - INNERWALL	185	12.88(14.17)											
PS1080 - OUTERWALL	186	18.15(19.98)											
PS1081 - INNERWALL	187	13.85(15.24)											
PS110 - OUTERWALL	188	18.57(20.44)	189	18.47(20.33)	190	18.21(20.04)	191	17.98(19.79)				AVERAGE	18.31(20.15)
PS111 - INNERWALL	192	15.17(16.70)	193	14.93(16.44)	194	14.75(16.24)	195	14.35(15.79)				AVERAGE	14.80(16.29)
PS120 - OUTERWALL	196	16.42(18.07)	197	16.32(17.96)	198	17.68(19.47)	199	17.22(18.96)				AVERAGE	16.91(18.61)
PS121 - INNERWALL	200	16.49(18.15)	201	16.12(17.75)	202	17.27(19.01)	203	17.25(18.99)				AVERAGE	16.78(18.47)
PS130 - OUTERWALL	465	18.32(20.16)											
PS131 - INNERWALL	469	18.12(19.95)											

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***** TRANSONIC FAN RIG *****

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PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071					
128	12.40(13.65)	129	14.19(15.62)	120	12.00(13.21)	124	12.45(13.70)
130	12.33(13.57)	131	14.41(15.87)	121	11.25(12.38)	125	12.45(13.70)
132	12.29(13.53)	133	14.42(15.87)	122	11.71(12.89)	126	11.83(13.02)
134	12.31(13.55)	135	14.47(15.93)	123	12.11(13.23)	127	11.33(12.48)
136	12.33(13.57)	137	14.16(15.58)				
138	12.40(13.65)	139	14.46(15.91)				
140	12.36(13.61)	141	14.46(15.92)				
142	12.27(13.51)	143	14.45(15.91)				
144	12.27(13.51)	145	14.16(15.58)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 20.35(22.40)		IMMERSION B - AVG 22.36(24.61)		IMMERSION C - AVG 21.43(23.59)							
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352						
204	21.02(23.14)	215	20.70(22.79)	226	20.96(23.07)	237	25.12(27.66)	248	20.93(23.04)	259	20.28(22.33)
205	19.35(21.30)	216	18.53(20.39)	227	19.96(21.97)	238	22.39(24.65)	249	21.47(23.63)	260	21.34(23.49)
206	19.66(21.64)	217	18.35(20.19)	228	20.33(22.38)	239	20.08(22.10)	250	21.81(24.01)	261	21.26(23.40)
207	20.91(23.02)	218	19.29(21.24)	229	21.04(23.16)	240	21.43(23.58)	251	21.71(23.90)	262	21.08(23.20)
208	20.82(22.92)	219	20.08(22.10)	230	21.25(23.39)	241	23.76(26.16)	252	21.83(24.03)	263	21.15(23.29)
209	20.67(22.75)	220	20.18(22.22)	231	21.02(23.13)	242	24.69(27.18)	253	21.96(24.06)	264	21.26(23.41)
210	20.53(22.60)	221	20.44(22.49)	232	21.02(23.14)	243	24.68(27.17)	254	21.84(24.05)	265	21.19(23.32)
211	20.55(22.62)	222	20.89(23.00)	233	21.24(23.38)	244	24.68(27.17)	255	21.79(23.99)	266	21.14(23.27)
212	20.60(22.68)	223	21.13(23.26)	234	21.20(23.34)	245	24.63(27.11)	256	21.78(23.98)	267	21.24(23.38)
213	20.68(22.77)	224	21.01(23.13)	235	21.06(23.18)	246	24.60(27.08)	257	21.81(24.01)	268	21.14(23.27)
214	20.67(22.76)	225	20.87(22.97)	236	21.39(23.54)	247	24.75(27.25)	258	21.51(23.68)	269	20.73(22.82)

IMMERSION D - AVG 21.61(23.79)		IMMERSION E - AVG 22.12(24.35)		IMMERSION F - AVG 20.34(22.39)							
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248						
270	20.47(22.54)	281	22.14(24.37)	292	21.05(23.17)	303	23.17(25.50)	314	21.83(24.03)	325	20.60(22.68)
271	20.11(22.14)	282	21.26(23.41)	293	19.97(21.98)	304	21.15(23.28)	315	20.55(22.62)	326	19.85(21.85)
272	21.08(23.21)	283	19.92(21.93)	294	21.19(23.32)	305	21.88(24.09)	316	21.82(24.02)	327	18.67(20.55)
273	21.09(23.22)	284	21.51(23.67)	295	21.28(23.42)	306	22.80(25.09)	317	21.96(24.18)	328	17.88(19.69)
274	20.90(23.01)	285	22.94(25.25)	296	21.78(23.43)	307	23.20(25.53)	318	21.96(24.17)	329	17.62(19.40)
275	20.77(22.86)	286	23.11(25.44)	297	21.27(23.41)	308	23.55(25.93)	319	21.91(24.11)	330	17.69(19.48)
276	20.69(22.77)	287	23.05(25.38)	298	21.23(23.36)	309	23.66(26.05)	320	21.80(24.00)	331	18.06(19.88)
277	20.66(22.75)	288	23.17(25.51)	299	21.22(23.36)	310	23.68(26.07)	321	21.74(23.93)	332	18.61(20.49)
278	20.65(22.74)	289	23.26(25.60)	300	21.24(23.38)	311	23.64(26.02)	322	21.78(23.98)	333	19.37(21.33)
279	20.62(22.70)	290	23.32(25.67)	301	21.25(23.39)	312	23.59(25.97)	323	21.75(23.94)	334	20.21(22.25)
280	20.59(22.66)	291	23.41(25.77)	302	21.32(23.47)	313	23.52(25.89)	324	21.62(23.80)	335	14.73(16.21)

IMMERSION G - AVG 21.36(23.51)		IMMERSION H - AVG 19.23(21.16)		IMMERSION I - AVG 19.60(21.57)							
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216						
336	14.84(16.33)	347	21.35(23.51)	358	21.86(24.07)	369	17.74(19.53)	380	20.69(22.78)	391	20.48(22.54)
337	20.54(22.61)	348	20.04(22.06)	359	21.85(24.06)	370	17.73(19.52)	381	20.13(22.16)	392	19.80(21.79)
338	21.72(23.91)	349	19.68(21.66)	360	21.59(23.76)	371	17.65(19.43)	382	19.33(21.28)	393	18.64(20.51)
339	22.36(24.62)	350	20.57(22.64)	361	20.11(22.14)	372	17.65(19.52)	383	18.24(20.08)	394	18.02(19.83)
340	22.44(24.70)	351	20.91(23.01)	362	19.33(21.28)	373	17.46(19.22)	384	17.85(19.65)	395	17.78(19.57)
341	22.44(24.70)	352	20.98(23.10)	363	19.62(21.59)	374	17.42(19.17)	385	18.27(20.11)	396	17.91(19.71)
342	22.42(24.68)	353	20.98(23.09)	364	20.39(22.44)	375	17.41(19.16)	386	19.17(21.10)	397	18.29(20.13)
343	22.42(24.68)	354	20.98(23.10)	365	21.06(23.18)	376	17.43(19.19)	387	20.16(22.19)	398	18.93(20.86)
344	14.97(16.48)	355	20.98(23.10)	366	21.32(23.47)	377	17.46(19.22)	388	20.53(22.57)	399	19.88(21.89)
345	22.28(24.52)	356	20.99(23.10)	367	21.40(23.56)	378	17.48(19.24)	389	20.61(22.68)	400	20.91(23.01)
346	22.17(24.41)	357	21.01(23.13)	368	21.50(23.67)	379	17.57(19.34)	390	20.65(22.73)	401	21.81(24.01)

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG 629.14(629.31)	AVG 612.85(612.04)	AVG 613.23(612.43)	AVG 612.59(611.78)	AVG 601.40(600.61)					
402 658.81(657.94)	409 651.05(650.20)	416 646.46(645.60)	423 609.53(608.73)	430 626.09(625.26)					
403 658.11(657.24)	410 609.53(608.73)	417 648.03(647.17)	424 636.29(635.44)	431 609.31(608.50)					
404 609.64(608.84)	411 621.40(620.58)	418 611.59(610.78)	425 611.70(610.90)	432 601.42(600.63)					
405 609.64(608.84)	412 609.64(608.84)	419 609.64(608.84)	426 604.34(603.54)	433 609.64(608.84)					
406 601.93(601.13)	413 597.27(596.48)	420 590.83(590.06)	427 600.92(600.13)	434 593.21(592.43)					
407 601.87(601.08)	414 592.25(591.47)	421 592.87(592.09)	428 602.04(601.25)	435 590.78(590.00)					
408 609.59(608.78)	415 598.84(598.05)	422 596.53(595.75)	429 606.57(605.77)	436 595.46(594.68)					

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG 593.81(593.03)	AVG 596.17(595.38)	AVG 594.75(593.97)	AVG 597.31(596.52)				
437 609.64(608.84)	444 593.04(592.26)	451 592.19(591.41)	458 591.91(591.13)				
438 609.59(608.78)	445 610.09(609.28)	452 609.64(608.84)	459 609.64(608.84)				
439 599.23(598.44)	446 609.81(609.01)	453 608.69(607.89)	460 609.81(608.00)				
440 572.60(571.85)	447 576.27(575.51)	454 578.44(577.68)	461 581.18(580.42)				
441 591.80(591.02)	448 591.80(591.02)	455 592.81(592.03)	462 596.82(596.03)				
442 595.07(594.28)	449 590.83(590.06)	456 592.76(591.97)	463 595.18(594.40)				
443 592.14(591.35)	450 591.23(590.45)	457 589.36(588.59)	464 589.31(588.53)				

TT14 - MIXING DUCT TEMPERATURES

				AVERAGE 607.67(606.87)			
OUTERWALL							
475 624.60(623.78)	477 623.44(622.62)	479 603.78(602.98)	481 603.78(602.98)	AVERAGE 613.90(613.09)			
INNERWALL							
485 595.92(595.13)	488 597.49(596.70)	491 597.32(596.53)	AVERAGE 596.91(596.12)				

FLOWS

OUTER							
PRESSURE (PSIA)	493 15.93	494 15.97	AVG 15.95				
DELTA PRESSURE (PSI)	497 1.51	498 1.54	AVG 1.53				
TEMPERATURE (R)	500 611.09	501 610.98	AVG 611.03				
INNER							
PRESSURE (PSIA)	503 15.83	504 15.84	AVG 15.83				
DELTA PRESSURE (PSI)	507 2.50	508 2.48	AVG 2.49				
TEMPERATURE (R)	510 593.83	511 594.28	AVG 594.05				

TURBINE FLOWS

	GAS	AIR
PRESSURE (PSIA)	622 313.39	619 236.30
DELTA PRESSURE (PSI)	623 4.41	620 2.35
TEMPERATURE (R)	624 564.48	621 534.12

REFERENCE PRESSURES

512 -2.498	513 8.023	514 8.012	515 8.000	516 8.043	517 8.034	518 4.016	519 7.998
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REFERENCE TEMPERATURES - ICE BATH

520 491.628	521 491.444	522 491.566	523 491.505	524 491.505	525 491.444
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290

RERUN 1/31/73 TIME 9-28-5 ***** TRANSONIC FAN RIG - BLD 2 *****
 POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13 31 52 PAGE 1

STATOR EXIT - CIRCUM AND RADIAL MASS AVERAGED

1/REV - 90 DEGREE CIRCUMFERENTIAL DISTORTION

***** OVERALL PERFORMANCE *****

MECHANICAL SPEED (RPM) = 12814.4035	ORIFICE ACTUAL FLOW = 142.2095	AMBIENT PRESSURE = 14.7495
EQUIVALENT SPEED (RPM) = 12810.8385	BELLMOUTH ACTUAL FLOW = 140.6423	AMBIENT TEMPERATURE = 519.6881
PERCENT EQUIVALENT SPEED = 100.2334	INLET FLOW (STA 5) = 119.0564	INLET TOTAL PRESSURE (MA) = 13.8422
ORF TO BELL FLOW RATIO = 1.0111	ORIFICE EQUIVALENT FLOW = 151.0219	INLET TEMPERATURE = 518.9760
ORF TO INLET FLOW RATIO = 1.1944	BELLMOUTH EQUIVALENT FLOW = 149.3597	BELLMOUTH TOTAL PRESSURE = 14.4965
ORF TO EXIT FLOW RATIO = 0.9356	INLET EQUIVALENT FLOW = 0.0000	DELTA PRESSURE (DP/P) = 0.0451
EQVT. FLOW PER ANN. AREA = 42.6254	EXIT FLOW (STA 12) = 151.9956	EXIT TOTAL PRESSURE (MA) = 21.2361
EQVT. FLOW PER FRON. AREA = 33.5231	MIXING DUCT TEMPERATURE = 605.6225	EXIT TEMPERATURE (STA 12) = 604.3697
PERCENT DESIGN EQVT. FLOW = 102.1032	INNER ORIFICE FLOW = 52.0943	STAGE PRESSURE RATIO (MA) = 1.5341
DISTORTION INDEX (RADIAL) = 0.0000	OUTER ORIFICE FLOW = 90.1141	TORQUEMETER READING = 0.0
INNER DISCHARGE VALVE = 26.0000	OUTER DISCHARGE VALVE = 26.0000	P599 = 14.7515

	TEMPERATURE RISE	ADIABATIC EFFICIENCY	POLYTROPIC EFFICIENCY	HORSEPOWER
WAKE RAKES	0.1645	0.7889	0.8012	4130.26
MIXING DUCT	0.1669	0.7774	0.7904	4191.11
TORQUEMETER	-0.0059	*****	*****	-149.00

STAGE ELEMENT PERFORMANCE

INMERSON	A	B	C	D	E	F	G	H	J
PRESSURE RATIO	1.5250	1.5767	1.6054	1.5448	1.5513	1.4969	1.4946	1.4508	1.3972
TEMPERATURE RISE	0.1894	0.1816	0.1729	0.1785	0.1588	0.1439	0.1424	0.1425	0.1486
ADIABATIC EFFICIENCY	0.6744	0.7629	0.8355	0.7393	0.8398	0.8475	0.8530	0.7858	0.6736
POLYTROPIC EFFICIENCY	0.6931	0.7776	0.8461	0.7547	0.8494	0.8559	0.8611	0.7968	0.6886
TOTAL PRESSURE	21.1101	21.8257	22.2234	21.3844	21.4740	20.7213	20.6889	20.0823	19.3406
TOTAL TEMPERATURE	617.31	613.25	608.73	611.63	601.41	593.67	592.83	592.94	596.10
STATIC PRESSURE	16.8693	16.8644	16.8595	16.8462	16.8281	16.8089	16.7950	16.7906	16.7844

TURBINE PERFORMANCE

INLET TOTAL PRESSURE = 160.8805	PRESSURE RATIO = 11.3296	TURBINE GAS FLOW = 0.5003
EXIT TOTAL PRESSURE = 14.2000	FUEL TO AIR RATIO = 0.0202	TURBINE AIR FLOW = 24.7234
INLET TOTAL TEMPERATURE = 1596.2965	SPECIFIC HEAT = 0.2724	TURBINE TOTAL FLOW = 25.2237
EXIT TOTAL TEMPERATURE = 1109.7000	TURBINE EFFICIENCY = 0.6670	BEARING TEMP NO. 1 = 609.5704

BAD ITEMS THAT WERE NOT USED IN CALCULATIONS

335 336 344 399 404 405 408 410 423 431 433 437 438 452 541

PTI - PITOT STATIC RAKE

25	0.00(0.00)	26	14.53(15.42)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(15.37)	30	0.00(0.00)
31	14.51(15.40)	32	0.00(0.00)	33	14.52(15.41)	34	0.00(0.00)	35	14.48(15.37)	36	0.00(0.00)
37	14.46(15.35)	38	14.49(15.38)	39	14.46(15.35)	40	0.00(0.00)	41	14.47(15.37)	42	14.47(15.36)
43	0.00(0.00)	44	14.47(15.36)	45	0.00(0.00)	46	14.51(15.40)	47	0.00(0.00)	48	14.54(15.43)
49	0.00(0.00)	50	14.48(15.38)	51	0.00(0.00)	52	0.00(0.00)	53	14.52(15.41)	AVERAGE 14.49(15.36)	

PS1 - PITOT STATIC RAKE

54	13.74(14.59)	55	0.00(0.00)	56	13.33(14.16)	57	0.00(0.00)	58	0.00(0.00)	59	13.33(14.16)
60	0.00(0.00)	61	13.28(14.10)	62	0.00(0.00)	63	13.33(14.15)	64	0.00(0.00)	65	0.00(0.00)
66	13.32(14.14)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.29(14.11)
72	13.29(14.11)	73	0.00(0.00)	74	13.32(14.15)	75	0.00(0.00)	76	13.31(14.13)	77	0.00(0.00)
78	13.32(14.14)	79	0.00(0.00)	80	0.00(0.00)	81	13.34(14.17)	82	13.36(14.19)	AVERAGE 13.35(14.18)	

TTO - INLET SCREEN TEMPERATURE

2	518.96(518.67)	3	518.85(518.57)	4	518.79(518.50)	6	519.16(518.87)	9	519.17(518.88)	10	518.78(518.49)
11	518.85(518.57)	14	519.13(518.84)	15	518.91(518.62)	16	518.91(518.62)	18	518.91(518.63)	21	519.36(519.07)
22	518.79(518.51)	23	519.04(518.75)	AVERAGE 518.97(518.68)							

PSRW - BELLMOUTH WALL STATIC

84	0.00(0.00)	86	0.00(0.00)	AVERAGE 0.00(0.00)							
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STATIC PRESSURES

PS30 - OUTERWALL	88	11.89(12.62)	90	11.87(12.60)	AVERAGE		11.88(12.61)				
PS31 - INNERWALL	92	11.90(12.63)	94	11.83(12.56)	AVERAGE		11.86(12.59)				
PS40 - OUTERWALL	96	11.94(12.67)	98	11.90(12.64)	AVERAGE		11.92(12.66)				
PS41 - INNERWALL	100	12.00(12.74)	102	11.95(12.69)	AVERAGE		11.98(12.71)				
PS430 - OUTERWALL	104	12.01(12.75)	106	11.96(12.69)	AVERAGE		11.98(12.72)				
PS431 - INNERWALL	108	12.19(12.94)	110	12.14(12.89)	AVERAGE		12.17(12.92)				
PS460 - OUTERWALL	112	12.20(12.96)	114	12.17(12.92)	AVERAGE		12.19(12.94)				
PS461 - INNERWALL	116	12.24(13.00)	118	12.18(12.93)	AVERAGE		12.21(12.97)				
PS50 - OUTERWALL	120	11.66(12.38)	121	11.69(12.41)	122	11.81(12.54)	123	11.67(12.39)	AVERAGE		11.71(12.43)
PS51 - INNERWALL	124	11.99(12.73)	125	11.93(12.66)	126	11.95(12.68)	127	12.12(12.87)	AVERAGE		12.00(12.74)
PS550 - OUTERWALL	146	10.96(11.64)	147	10.96(11.64)	148	11.07(11.76)	149	10.95(11.62)	AVERAGE		10.99(11.66)
PS551 - INNERWALL	150	11.79(12.51)	151	11.79(12.52)	152	11.98(12.72)	153	11.98(12.72)	AVERAGE		11.89(12.62)
PS60 - OUTERWALL	154	10.78(11.44)	155	10.47(11.12)	AVERAGE		10.62(11.28)				
PS70 - OUTERWALL	156	10.85(11.52)	157	11.17(11.86)	158	12.02(12.77)	159	12.80(13.59)	AVERAGE		11.96(12.62)
	160	13.84(14.70)	161	14.85(15.76)	AVERAGE		14.34(15.20)				
PS80 - OUTERWALL	162	15.52(16.48)	163	15.91(16.89)	AVERAGE		15.71(16.64)				
PS90 - OUTERWALL	164	16.14(17.14)	165	16.31(17.32)	166	15.17(16.10)	167	16.12(17.12)	AVERAGE		15.93(16.92)
PS91 - INNERWALL	168	14.50(15.39)	169	14.40(15.29)	170	14.40(15.28)	171	13.76(14.60)	AVERAGE		14.26(15.14)
PS100 - OUTERWALL	172	16.82(17.86)	173	16.22(17.22)	174	15.66(16.63)	175	15.31(16.26)	AVERAGE		16.00(16.99)
PS101 - INNERWALL	176	14.79(15.71)	177	14.32(15.20)	178	13.80(14.65)	179	12.91(13.71)	AVERAGE		13.96(14.82)
PS1020 - OUTERWALL	180	16.01(17.00)	AVERAGE		16.01(17.00)						
PS1021 - INNERWALL	181	14.38(15.27)	AVERAGE		14.38(15.27)						
PS1040 - OUTERWALL	182	16.31(17.31)	AVERAGE		16.31(17.31)						
PS1041 - INNERWALL	183	14.23(15.11)	AVERAGE		14.23(15.11)						
PS1060 - OUTERWALL	184	16.52(17.54)	AVERAGE		16.52(17.54)						
PS1061 - INNERWALL	185	14.71(15.61)	AVERAGE		14.71(15.61)						
PS1080 - OUTERWALL	186	16.65(17.68)	AVERAGE		16.65(17.68)						
PS1081 - INNERWALL	187	15.15(16.08)	AVERAGE		15.15(16.08)						
PS110 - OUTERWALL	188	17.12(18.18)	189	16.99(18.04)	190	16.81(17.85)	191	16.67(17.70)	AVERAGE		16.90(17.94)
PS111 - INNERWALL	192	15.87(16.85)	193	15.66(16.63)	194	15.47(16.42)	195	15.32(16.26)	AVERAGE		15.58(16.54)
PS120 - OUTERWALL	196	16.82(17.85)	197	16.96(18.00)	198	17.05(18.10)	199	16.65(17.68)	AVERAGE		16.87(17.91)
PS121 - INNERWALL	200	16.86(17.90)	201	16.75(17.78)	202	16.88(17.93)	203	16.62(17.64)	AVERAGE		16.78(17.81)
PS130 - OUTERWALL	465	18.37(19.50)	AVERAGE		18.37(19.50)						
PS131 - INNERWALL	469	16.08(17.19)	AVERAGE		16.08(17.19)						

POINT 12 READING 284

***** TRANSONIC FAN RIG *****

13-31-52

21 8/72

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PT5 - ROTOR INLET RAKE

PS5 - SHROUD

PS5 - HUB

ANGLE 251		ANGLE 071	
128	13.70(14.54)	129	13.62(14.46)
130	13.70(14.55)	131	13.72(14.54)
132	13.73(14.58)	133	13.68(14.52)
134	13.71(14.56)	135	13.75(14.60)
136	13.70(14.54)	137	13.69(14.54)
138	13.68(14.53)	139	13.68(14.53)
140	13.75(14.60)	141	13.70(14.55)
142	13.63(14.47)	143	13.62(14.46)
144	13.54(14.37)	145	13.59(14.42)

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 21.11(22.41)		IMMERSION B - AVG 21.82(23.17)		IMMERSION C - AVG 22.22(23.89)	
ANGLE 136	ANGLE 320	ANGLE 72	ANGLE 248	ANGLE 168	ANGLE 352
204	22.37(23.75)	215	21.05(22.34)	226	22.36(23.74)
205	20.04(21.27)	216	18.90(20.07)	227	21.04(22.34)
206	19.31(20.50)	217	19.00(20.17)	228	20.65(21.92)
207	20.66(21.94)	218	20.15(21.39)	229	21.35(22.67)
208	21.80(23.15)	219	20.81(22.09)	230	22.00(23.35)
209	22.24(23.61)	220	20.94(22.24)	231	22.26(23.63)
210	22.23(23.60)	221	20.95(22.24)	232	22.21(23.58)
211	22.18(23.55)	222	20.94(22.23)	233	22.25(23.62)
212	22.17(23.53)	223	20.99(22.28)	234	22.31(23.69)
213	22.22(23.59)	224	21.05(22.35)	235	22.34(23.71)
214	22.23(23.60)	225	21.13(22.43)	236	22.47(23.86)
				237	21.55(22.88)
				238	20.29(21.64)
				239	20.35(21.61)
				240	21.08(22.39)
				241	21.69(23.03)
				242	22.05(23.41)
				243	22.25(23.63)
				244	22.32(23.70)
				245	22.37(23.75)
				246	22.35(23.73)
				247	22.25(23.62)
				248	21.89(23.23)
				249	21.06(22.36)
				250	21.61(22.84)
				251	21.98(23.34)
				252	22.60(23.89)
				253	22.63(24.02)
				254	22.59(23.98)
				255	22.55(23.94)
				256	22.57(23.97)
				257	22.59(23.98)
				258	22.55(23.94)
				259	20.85(22.13)
				260	21.43(22.75)
				261	21.94(23.30)
				262	22.26(23.64)
				263	22.49(23.97)
				264	22.52(23.91)
				265	22.46(23.84)
				266	22.43(23.81)
				267	22.45(23.83)
				268	22.40(23.78)
				269	21.99(23.35)

IMMERSION D - AVG 21.38(22.70)		IMMERSION E - AVG 21.47(22.79)		IMMERSION F - AVG 20.72(21.99)	
ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216	ANGLE 72	ANGLE 248
270	21.77(23.11)	281	21.14(22.45)	292	21.68(23.01)
271	20.55(21.82)	282	20.43(21.69)	293	20.35(21.61)
272	20.81(22.10)	283	20.99(22.29)	294	20.89(22.18)
273	21.39(22.71)	284	21.34(22.65)	295	21.12(22.43)
274	21.76(23.10)	285	21.49(22.81)	296	21.37(22.68)
275	21.81(23.15)	286	21.42(22.74)	297	21.61(22.95)
276	21.76(23.11)	287	21.35(22.66)	298	21.78(23.12)
277	21.75(23.09)	288	21.32(22.64)	299	21.89(23.24)
278	21.76(23.11)	289	21.32(22.64)	300	21.92(23.27)
279	21.76(23.11)	290	21.30(22.62)	301	21.94(23.30)
280	21.76(23.10)	291	21.33(22.65)	302	21.99(23.34)
				303	21.66(23.00)
				304	20.65(21.92)
				305	20.91(22.20)
				306	21.08(22.38)
				307	21.20(22.51)
				308	21.41(22.73)
				309	21.58(22.91)
				310	21.77(23.12)
				311	21.89(23.24)
				312	21.93(23.28)
				313	21.94(23.29)
				314	21.37(22.69)
				315	20.74(21.49)
				316	20.76(22.03)
				317	20.73(22.00)
				318	20.67(21.95)
				319	20.68(21.96)
				320	20.74(22.02)
				321	20.86(22.15)
				322	21.02(22.32)
				323	21.12(22.43)
				324	21.01(22.31)
				325	21.00(22.30)
				326	19.97(21.20)
				327	20.60(21.87)
				328	20.52(21.78)
				329	20.45(21.71)
				330	20.45(21.71)
				331	20.52(21.79)
				332	20.67(21.94)
				333	20.84(22.15)
				334	21.07(22.37)
				335	19.73(18.43)

IMMERSION G - AVG 20.68(21.96)		IMMERSION H - AVG 20.08(21.32)		IMMERSION I - AVG 19.34(20.53)	
ANGLE 168	ANGLE 352	ANGLE 96	ANGLE 280	ANGLE 40	ANGLE 216
336	14.84(15.75)	347	21.14(22.45)	358	20.64(21.92)
337	19.80(21.02)	348	19.99(21.22)	359	20.65(21.92)
338	19.65(20.86)	349	20.10(21.34)	360	20.36(21.62)
339	20.08(21.32)	350	20.81(22.09)	361	19.29(20.48)
340	20.32(21.57)	351	21.01(22.31)	362	18.77(19.92)
341	20.46(21.72)	352	21.08(22.38)	363	18.91(19.97)
342	20.55(21.82)	353	21.08(22.38)	364	19.22(20.41)
343	20.66(21.93)	354	21.10(22.40)	365	19.72(20.93)
344	14.97(15.90)	355	21.16(22.46)	366	20.07(21.31)
345	20.82(22.11)	356	21.21(22.52)	367	20.25(21.50)
346	20.79(22.07)	357	21.22(22.53)	368	20.47(21.72)
				369	21.03(22.33)
				370	20.96(22.26)
				371	20.27(21.52)
				372	19.34(20.64)
				373	19.10(20.28)
				374	19.44(20.64)
				375	20.08(21.32)
				376	20.60(21.87)
				377	20.81(22.09)
				378	20.69(22.18)
				379	20.92(22.21)
				380	20.43(21.70)
				381	19.88(21.10)
				382	19.18(20.36)
				383	19.31(19.44)
				384	18.91(19.12)
				385	17.74(18.82)
				386	18.11(19.22)
				387	19.62(19.77)
				388	19.86(21.08)
				389	19.98(21.10)
				390	19.99(21.23)
				391	20.18(21.42)

TT12 - STAGE EXIT TOTAL

IMMERSION A		IMMERSION B		IMMERSION C		IMMERSION D		IMMERSION E	
AVG 617.31(616.96)	AVG 613.25(612.90)	AVG 608.73(608.39)	AVG 611.63(611.29)	AVG 601.41(601.08)					
402 613.49(613.15)	409 608.15(607.81)	416 604.78(604.44)	423 609.53(609.19)	430 601.62(601.28)					
403 610.01(609.67)	410 609.53(609.19)	417 607.65(607.31)	424 607.75(607.41)	431 609.31(608.97)					
404 609.64(609.30)	411 614.76(614.42)	418 609.73(609.39)	425 611.66(611.32)	432 599.98(599.64)					
405 609.64(609.30)	412 602.88(602.55)	419 597.00(596.67)	426 605.02(604.75)	433 609.64(609.30)					
406 623.20(622.86)	413 616.08(615.73)	420 609.54(609.20)	427 611.69(611.35)	434 599.28(598.95)					
407 623.89(623.54)	414 614.26(613.91)	421 611.75(611.41)	428 615.47(615.13)	435 602.96(602.62)					
408 609.59(609.25)	415 622.85(622.51)	422 617.57(617.22)	429 619.02(618.67)	436 606.14(605.80)					

IMMERSION F		IMMERSION G		IMMERSION H		IMMERSION J	
AVG 593.67(593.34)	AVG 592.88(592.55)	AVG 592.94(592.61)	AVG 596.10(595.77)				
437 609.64(609.30)	444 589.81(589.48)	451 590.00(589.67)	458 593.02(592.69)				
438 609.59(609.25)	445 591.15(590.82)	452 609.64(609.30)	459 595.73(595.40)				
439 593.19(592.86)	446 591.56(591.23)	453 590.04(589.71)	460 592.30(591.97)				
440 591.42(591.10)	447 591.65(591.32)	454 590.83(590.50)	461 593.23(592.90)				
441 590.90(590.57)	448 593.11(592.78)	455 594.21(593.88)	462 596.76(596.43)				
442 596.39(596.06)	449 594.91(594.58)	456 596.97(596.64)	463 599.38(599.04)				
443 595.70(595.37)	450 597.53(597.20)	457 596.96(596.63)	464 597.60(597.27)				

TT14 - MIXING DUCT TEMPERATURES

OUTERWALL						AVFRAGE 605.62(605.28)
475 609.46(609.12)	477 608.95(608.61)	479 613.36(613.02)	481 612.08(611.74)			AVFRAGE 610.96(610.62)
INNERWALL						AVFRAGE 596.37(596.04)
485 595.71(595.38)	488 597.67(597.34)	491 595.74(595.41)				

FLWS

OUTER						
PRESSURE (PSIA)	493 15.93	494 15.97			AVG 15.95	
DELTA PRESSURE (PSI)	497 1.52	498 1.55			AVG 1.53	
TEMPERATURE (R)	500 609.98	501 610.21			AVG 610.10	
INNER						
PRESSURE (PSIA)	503 15.83	504 15.84			AVG 15.83	
DELTA PRESSURE (PSI)	507 2.50	508 2.49			AVG 2.49	
TEMPERATURE (R)	510 592.93	511 593.27			AVG 593.10	
TURBINE FLOWS		GAS	AIR			
PRFSSURE (PSIA)	622 315.20	619 236.74				
DELTA PRESSURE (PSI)	623 3.60	620 2.36				
TEMPERATURE (R)	624 564.34	621 533.18				

REFERENCE PRESSURES

512 -2.498	513 8.015	514 8.010	515 8.007	516 8.053	517 8.044	518 4.014	519 8.000
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REFERENCE TEMPERATURES - ICE BATH

520 491.452	521 491.478	522 491.487	523 491.338	524 491.329	525 491.224
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POINT 12 READING 284

***** TRANSONIC FAN RIG ***** RLD 2 - CIRCUMFERENTIAL DISTORTION
DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13-31-52 PAGE 5

CIRCUMFERENTIAL DISTORTION

AVERAGE DISTORTION INDEX 0.143 MAX AVG TOTAL PRESS 14.359 MIN AVG TOTAL PRESS 12.297
INDIVIDUAL DISTORTION INDEX 0.163 MAX IND TOTAL PRESS 14.477 MIN IND TOTAL PRESS 12.105

		SCREEN ANGLE						
		0	45	90	135	180	225	270
ANGULAR LOC								
PT5 IMM A	251	14.22(15.10)	14.22(15.10)	14.20(15.08)	14.06(14.93)	14.19(15.06)	12.59(13.37)	12.40(13.16)
	071	13.98(14.84)	12.36(13.12)	12.40(13.17)	14.23(15.11)	14.20(15.08)	13.97(14.84)	14.19(15.07)
B	251	14.20(15.07)	14.17(15.04)	14.38(15.27)	14.13(15.00)	14.42(15.31)	12.27(13.05)	12.33(13.09)
	071	14.33(15.22)	12.26(13.02)	12.33(13.09)	14.28(15.16)	14.25(15.13)	14.14(15.01)	14.41(15.30)
C	251	14.07(14.94)	14.43(15.33)	14.32(15.20)	14.42(15.31)	14.31(15.19)	12.23(13.03)	12.29(13.05)
	071	14.28(15.17)	12.35(13.12)	12.30(13.06)	13.92(14.78)	14.00(14.86)	14.48(15.37)	14.42(15.31)
D	251	14.29(15.17)	14.08(14.95)	14.46(15.35)	14.14(15.01)	14.38(15.27)	12.32(13.08)	12.31(13.07)
	071	14.47(15.36)	12.32(13.08)	12.33(13.09)	14.09(14.95)	14.45(15.34)	14.14(15.01)	14.47(15.37)
E	251	14.44(15.33)	14.37(15.26)	14.07(14.94)	14.10(14.97)	14.29(15.17)	12.27(13.02)	12.33(13.09)
	071	14.11(14.98)	12.20(12.95)	12.27(13.03)	14.40(15.29)	14.47(15.36)	14.24(15.12)	14.16(15.03)
F	251	14.07(14.94)	14.46(15.35)	14.45(15.34)	14.18(15.05)	13.94(14.80)	12.27(13.02)	12.40(13.17)
	071	14.38(15.27)	12.10(12.85)	12.22(12.98)	13.94(14.80)	14.26(15.14)	14.42(15.31)	14.46(15.35)
G	251	14.20(15.08)	14.24(15.11)	14.43(15.33)	14.24(15.12)	14.44(15.33)	12.37(13.13)	12.36(13.12)
	071	14.04(14.91)	12.12(12.86)	12.42(13.18)	14.36(15.24)	14.10(14.97)	14.41(15.30)	14.46(15.35)
H	251	13.92(14.78)	14.33(15.21)	14.41(15.30)	13.93(14.79)	14.03(14.90)	12.53(13.30)	12.27(13.03)
	071	13.94(14.80)	12.22(12.97)	12.31(13.07)	14.05(14.92)	14.03(14.90)	14.35(15.24)	14.45(15.34)
J	251	13.79(14.64)	13.77(14.62)	13.97(14.83)	13.78(14.63)	13.99(14.86)	13.17(13.98)	12.27(13.03)
	071	13.94(14.80)	12.95(13.75)	12.49(13.26)	13.64(14.49)	14.01(14.87)	13.87(14.73)	14.16(15.03)
PSSS	141	12.08(12.82)	12.04(12.78)	11.68(12.40)	10.96(11.63)	11.05(11.73)	11.85(12.58)	12.00(12.74)
	231	12.04(12.78)	12.09(12.84)	12.10(12.85)	12.03(12.77)	11.30(12.00)	10.98(11.66)	11.25(11.94)
	321	10.99(11.67)	11.81(12.54)	11.97(12.71)	12.07(12.82)	12.08(12.82)	12.05(12.79)	11.71(12.43)
	051	11.53(12.25)	10.91(11.58)	11.06(11.74)	11.93(12.66)	12.04(12.78)	12.11(12.86)	12.11(12.86)
PSSH	021	11.26(11.95)	11.21(11.90)	11.83(12.56)	12.29(13.05)	12.41(13.17)	12.46(13.23)	12.45(13.22)
	086	12.33(13.09)	11.61(12.32)	11.23(11.92)	11.41(12.11)	12.14(12.89)	12.34(13.10)	12.45(13.21)
	201	12.37(13.13)	12.41(13.18)	12.42(13.19)	12.09(12.84)	11.27(11.96)	11.23(11.93)	11.83(12.56)
	291	11.87(12.60)	12.27(13.03)	12.38(13.14)	12.45(13.21)	12.43(13.19)	12.12(12.87)	11.33(12.03)

NASA TRANSONIC FAN ROTOR INLET READING NO. 284 TIME 13H 55M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12774.2578
 ACTUAL DRIFICE FLOW 140.9948
 THETA 1.0005
 DELTA 0.9418
 EQUIV. ROTOR SPEED 12770.6653
 PER CENT ROTOR SPEED 99.9191

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	12.3052	12.3595	12.3155	12.3945	12.3232	14.0162	14.3906	14.3582	14.1767
WEDGE PRESSURE	10.3051	9.9157	9.8416	9.9019	9.8962	10.4936	10.7402	10.7825	10.8057
ANGLE	15.4521	5.5043	1.0910	-0.2026	-5.0700	-8.9079	-3.9460	-1.3032	-0.6836
APPARENT MACH NUMBER	0.5097	0.5698	0.5750	0.5754	0.5685	0.6564	0.6601	0.6528	0.6349
STATIC PRESSURE	10.2226	9.7444	9.6618	9.7202	9.7276	10.0521	10.2697	10.3437	10.4324
TOTAL TEMPERATURE	518.6729	519.2851	519.2133	519.0378	519.0874	517.6094	518.2173	518.5811	517.9576
ABSOLUTE MACH NUMBER	0.5214	0.5927	0.5990	0.5995	0.5911	0.7057	0.7112	0.7007	0.6765
ABSOLUTE VELOCITY	567.0450	640.0633	646.4094	646.7682	638.3542	750.6321	756.3758	746.4851	722.5217
AXIAL VELOCITY	535.4270	623.3134	632.1743	632.6310	622.0665	725.7495	738.1689	729.9917	706.6846
RELATIVE VELOCITY	1771.9035	1719.7148	1678.6678	1665.6820	1612.7253	1605.2386	1666.9200	1693.8850	1690.9106
RELATIVE MACH NUMBER	1.6295	1.5925	1.5557	1.5440	1.4934	1.5091	1.5673	1.5900	1.5833
RELATIVE FLOW ANGLE	72.8329	69.6681	68.9432	68.7796	68.4788	65.1932	65.6426	66.2226	66.8647

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.1249	14.2683	14.1683	14.3903	14.4198	14.3820	14.3772	14.2359	14.0091
WEDGE PRESSURE	10.8280	10.9140	10.8931	10.9676	11.0083	10.9957	10.9657	10.9254	10.8563
ANGLE	-0.1898	0.1961	0.1041	0.4180	0.6485	0.8087	1.4696	2.7618	6.3197
APPARENT MACH NUMBER	0.6280	0.6306	0.6244	0.6350	0.6330	0.6312	0.6342	0.6266	0.6145
STATIC PRESSURE	10.4782	10.5522	10.5533	10.5883	10.6348	10.6291	10.5897	10.5771	10.5494
TOTAL TEMPERATURE	517.9873	518.5322	517.7103	517.6788	518.5099	518.9125	518.6424	518.1403	518.1713
ABSOLUTE MACH NUMBER	0.6672	0.6708	0.6624	0.6767	0.6740	0.6716	0.6755	0.6654	0.6495
ABSOLUTE VELOCITY	713.4133	717.2939	708.5447	722.4643	720.4050	718.3195	721.9692	711.7250	696.1211
AXIAL VELOCITY	697.8200	701.6154	693.0604	706.6587	704.6193	702.5554	705.9703	695.3982	676.9488
RELATIVE VELOCITY	1692.6058	1698.5172	1693.8048	1703.1946	1704.8676	1705.7374	1714.6404	1724.1675	1754.4650
RELATIVE MACH NUMBER	1.5830	1.5884	1.5837	1.5953	1.5950	1.5948	1.6043	1.6120	1.6371
RELATIVE FLOW ANGLE	67.1455	67.1057	67.2999	67.0150	67.0946	67.1652	67.1726	67.5922	68.4728

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 284 TIME 13H 55M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12774.2578
 ACTUAL ORIFICE FLOW 140.9948
 THETA 1.0005
 DELTA 0.9418
 EQUIV. ROTOR SPEED 12770.6653
 PER CENT ROTOR SPEED 99.9191

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.2145	14.2481	14.3464	14.5297	14.3064	14.5336	14.2589	14.3813	14.3181
WEDGE PRESSURE	10.7660	10.8245	10.9253	11.0433	11.0261	11.1091	11.0523	11.0562	11.0841
ANGLE	7.9526	8.2272	9.1244	10.2999	10.7936	11.7890	12.9031	13.9766	15.3829
APPARENT MACH NUMBER	0.6426	0.6389	0.6360	0.6384	0.6213	0.6315	0.6143	0.6244	0.6158
STATIC PRESSURE	10.2592	10.3244	10.4283	10.5347	10.5621	10.6156	10.6045	10.5832	10.6312
TOTAL TEMPERATURE	517.9370	517.3234	517.8449	517.5885	517.9712	518.3013	518.4334	518.2591	518.6579
ABSOLUTE MACH NUMBER	0.6986	0.6941	0.6906	0.6934	0.6728	0.6851	0.6642	0.6765	0.6661
ABSOLUTE VELOCITY	744.0007	739.1983	736.1497	738.7533	718.8623	731.1077	710.8079	722.7098	712.8329
AXIAL VELOCITY	736.8059	731.5515	726.7958	726.8100	706.1067	715.6484	692.8314	701.2774	687.2604
RELATIVE VELOCITY	1496.3833	1496.2824	1503.5462	1517.0093	1509.4372	1526.9370	1524.6692	1542.6380	1549.3326
RELATIVE MACH NUMBER	1.4051	1.4050	1.4105	1.4240	1.4127	1.4308	1.4248	1.4440	1.4479
RELATIVE FLOW ANGLE	63.7837	63.9443	64.2004	64.3996	64.9290	64.8873	65.5613	65.5527	66.0777

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.0873	14.5002	12.9921	12.4024	12.4921	12.4358	12.3449	14.1493	14.1373
WEDGE PRESSURE	11.0525	11.2174	10.6969	10.1445	9.9637	10.1506	10.1141	10.4253	10.5728
ANGLE	17.8255	19.5081	26.8587	19.1506	14.2341	9.8593	5.4220	2.5799	5.9229
APPARENT MACH NUMBER	0.5989	0.6167	0.5342	0.5434	0.5776	0.5464	0.5412	0.6751	0.6577
STATIC PRESSURE	10.6406	10.7569	10.4146	9.8639	9.6341	9.8657	9.8376	9.8230	10.0264
TOTAL TEMPERATURE	517.8398	518.1436	518.9015	517.3987	518.5091	521.6959	520.9912	516.2093	517.4363
ABSOLUTE MACH NUMBER	0.6459	0.6672	0.5709	0.5813	0.6205	0.5846	0.5787	0.7411	0.7180
ABSOLUTE VELOCITY	692.3049	713.4942	617.8045	627.4467	667.5460	633.3768	626.9928	783.6192	762.3998
AXIAL VELOCITY	659.0370	672.5030	551.1339	592.6948	647.0185	623.9895	624.1535	782.7818	758.2886
RELATIVE VELOCITY	1557.6788	1587.2391	1577.9552	1525.1727	1509.3240	1449.1473	1404.9707	1461.9768	1486.1616
RELATIVE MACH NUMBER	1.4533	1.4842	1.4583	1.4131	1.4031	1.3376	1.2969	1.3827	1.3996
RELATIVE FLOW ANGLE	67.0664	67.0370	70.7464	68.7626	66.7952	66.7028	66.0460	61.8331	62.9667

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 284 TIME 13H 55M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12774.2578
 ACTUAL ORIFICE FLOW 140.9948
 THETA 1.0005
 DELTA 0.9418
 EQUIV. ROTOR SPEED 12770.6653
 PER CENT ROTOR SPEED 99.9191

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.1500	14.3588	14.4790	14.4874	14.2062	14.2494	14.5222	14.5115	14.5087
WEDGE PRESSURE	10.3807	10.6847	10.8752	10.9849	10.9572	11.0627	11.0977	11.1325	11.1543
ANGLE	-16.4674	-12.7946	-9.3956	-5.1733	-2.5136	-0.8638	0.5122	1.2209	1.8571
APPARENT MACH NUMBER	0.5910	0.6636	0.6526	0.6413	0.6204	0.6122	0.6318	0.6271	0.6244
STATIC PRESSURE	10.0026	9.9019	10.1610	10.3430	10.4308	10.5693	10.5079	10.5649	10.5988
TOTAL TEMPERATURE	518.4596	520.1604	519.5045	519.1122	518.9895	519.0949	519.3748	519.4820	519.3526
ABSOLUTE MACH NUMBER	0.6374	0.7482	0.7295	0.7107	0.6791	0.6673	0.6957	0.6888	0.6849
ABSOLUTE VELOCITY	684.3374	793.4210	774.9886	756.5910	725.7512	714.3134	742.2625	735.5730	731.7068
AXIAL VELOCITY	628.6576	740.1328	730.6703	719.4854	692.1231	681.7424	708.4646	701.9602	698.0807
RELATIVE VELOCITY	902.3362	1001.9467	1025.0450	1054.5388	1059.3060	1066.7384	1097.8658	1099.6685	1102.6860
RELATIVE MACH NUMBER	0.8405	0.9449	0.9649	0.9906	0.9912	0.9966	1.0291	1.0297	1.0322
RELATIVE FLOW ANGLE	53.8741	52.2636	53.2479	54.4431	55.6078	56.1957	55.9387	56.2269	56.4458

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	12.0000
TOTAL PRESSURE	14.1652	14.3118	14.2470	14.1039	14.0821	13.9251	12.9342	12.4077	12.4240
WEDGE PRESSURE	11.0902	11.1760	11.1739	11.1644	11.0770	10.8970	10.5240	10.2513	10.2763
ANGLE	2.4126	3.7732	4.9605	9.3985	13.8501	22.9690	22.9180	7.4074	-0.0666
APPARENT MACH NUMBER	0.6016	0.6049	0.5994	0.5875	0.5956	0.6022	0.5597	0.5293	0.5277
STATIC PRESSURE	10.6425	10.7106	10.7324	10.7718	10.6549	10.4546	10.2692	10.0522	10.0801
TOTAL TEMPERATURE	518.5174	519.1680	518.8827	518.2632	519.2117	519.4399	518.9603	519.3105	519.8009
ABSOLUTE MACH NUMBER	0.6523	0.6569	0.6491	0.6325	0.6438	0.6531	0.5836	0.5566	0.5546
ABSOLUTE VELOCITY	699.0551	704.0722	696.1756	679.3885	691.1865	700.5177	630.6750	603.5019	601.7422
AXIAL VELOCITY	666.7100	670.7102	662.2319	640.4569	642.1948	619.8435	558.2386	571.6587	574.3631
RELATIVE VELOCITY	1085.3375	1100.4136	1105.0403	1129.5206	1173.0679	1247.6478	1191.9712	1061.9340	1002.6007
RELATIVE MACH NUMBER	1.0127	1.0267	1.0303	1.0517	1.0927	1.1632	1.1030	0.9795	0.9241
RELATIVE FLOW ANGLE	57.2361	57.4394	57.8775	59.2880	60.1640	62.5036	63.8650	60.5781	59.0288

NOTE: ALL PRESSURE UNITS IN PSI AND TEMPERATURE UNITS IN DEG. RANKINE. CORRECTED TO NASA STD. S.E. CONDITIONS. VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 284 TIME 13H 55M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12774.2578
 ACTUAL ORIFICE FLOW 140.9948
 THETA 1.0005
 DELTA 0.9418
 EQUIV. ROTOR SPEED 12770.6653
 PER CENT ROTOR SPEED 99.9191

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	21.4179	21.3644	21.2073	20.8553	23.9525	25.1139	24.8416	25.1863	24.7352
WEDGE PRESSURE	16.1339	16.0935	16.0826	16.7814	18.2217	18.8519	18.1761	18.5061	17.4272
ANGLE	26.4741	28.3276	32.5581	40.8703	42.5710	42.6829	40.9690	38.3217	32.8404
APPARENT MACH NUMBER	0.6494	0.6494	0.6414	0.5661	0.6378	0.6539	0.6837	0.6790	0.7258
STATIC PRESSURE	15.2739	15.2356	15.2647	16.3407	17.3217	17.8258	17.0349	17.3703	15.7825
TOTAL TEMPERATURE	593.8800	595.0140	597.0031	596.5799	642.0244	652.9422	656.4197	666.4697	650.6410
ABSOLUTE MACH NUMBER	0.7122	0.7122	0.7019	0.6009	0.6969	0.7177	0.7549	0.7489	0.8281
ABSOLUTE VELOCITY	810.5611	811.3500	801.9808	694.6841	826.0280	855.5684	897.7950	898.1299	970.5938
AXIAL VELOCITY	723.6882	712.4057	674.3981	524.3465	607.2555	627.8469	676.6472	703.2217	813.6215
RELATIVE VELOCITY	1327.2320	1301.2677	1241.4271	1145.6429	1098.1163	1092.3390	1114.4950	1155.9187	1249.7017
RELATIVE MACH NUMBER	1.1662	1.1423	1.0866	0.9910	0.9265	0.9164	0.9371	0.9639	1.0663
RELATIVE FLOW ANGLE	61.3205	61.2229	61.4098	65.3372	60.9794	60.0311	58.6548	58.6031	56.8494

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	22.6866	22.1645	21.9770	21.6059	21.5416	21.3767	21.4133	21.5296	21.5994
WEDGE PRESSURE	16.3607	16.2158	16.1711	16.0530	16.0471	15.9997	16.0798	16.1569	16.1800
ANGLE	27.8137	26.1347	26.8935	23.6202	23.8126	23.0031	24.1246	25.7407	27.1557
APPARENT MACH NUMBER	0.6999	0.6836	0.6769	0.6656	0.6626	0.6570	0.6531	0.6539	0.6560
STATIC PRESSURE	15.2522	15.1976	15.1869	15.1271	15.1350	15.1145	15.2068	15.2765	15.2891
TOTAL TEMPERATURE	622.2893	608.8924	602.4483	595.1318	595.6515	594.3179	592.7707	592.8625	593.9768
ABSOLUTE MACH NUMBER	0.7753	0.7547	0.7464	0.7323	0.7285	0.7216	0.7168	0.7178	0.7204
ABSOLUTE VELOCITY	895.4950	864.7341	851.6737	832.1261	828.5923	820.5759	814.5620	815.5845	819.0719
AXIAL VELOCITY	790.0402	774.3073	757.6166	760.3491	756.0095	753.2637	741.4213	732.7317	726.9254
RELATIVE VELOCITY	1319.2967	1339.7413	1326.5420	1370.7962	1367.4365	1377.4682	1360.7160	1338.1673	1318.6048
RELATIVE MACH NUMBER	1.1423	1.1693	1.1626	1.2064	1.2023	1.2114	1.1975	1.1777	1.1598
RELATIVE FLOW ANGLE	59.0040	59.8941	60.1889	60.9056	60.9851	61.2504	61.3375	61.2187	61.0547

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 284 TIME 13H 55M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12774.2578
 ACTUAL ORIFICE FLOW 140.9948
 THETA 1.0005
 DELTA 0.9418
 EQUIV. ROTOR SPEED 12770.6653
 PER CENT ROTOR SPEED 99.9191

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	23.0319	22.0910	21.7899	21.8937	22.0936	22.0382	21.9058	21.9057	21.7811
WEDGE PRESSURE	16.2939	16.1239	16.0608	16.1257	16.2251	16.2102	16.1144	16.1049	16.1093
ANGLE	37.7055	34.2825	33.5179	32.5130	32.1997	32.2002	32.5114	32.8066	34.4160
APPARENT MACH NUMBER	0.7212	0.6862	0.6750	0.6758	0.6792	0.6773	0.6772	0.6779	0.6710
STATIC PRESSURE	14.1840	14.6715	14.7433	14.7937	14.8462	14.8537	14.7670	14.7507	14.8315
TOTAL TEMPERATURE	627.5943	605.1067	601.5858	601.4083	600.7296	598.2082	601.0974	599.1574	597.7009
ABSOLUTE MACH NUMBER	0.8622	0.7877	0.7686	0.7700	0.7757	0.7726	0.7724	0.7735	0.7619
ABSOLUTE VELOCITY	987.6366	895.7352	873.7207	875.0146	880.3378	875.3330	877.2627	877.0013	864.1504
AXIAL VELOCITY	781.3576	740.0928	728.4058	737.8447	744.9099	740.6706	739.7538	737.0951	712.8599
RELATIVE VELOCITY	986.4819	1019.8412	1026.8294	1042.0935	1047.9559	1046.8240	1042.6090	1038.1407	1011.6295
RELATIVE MACH NUMBER	0.8612	0.8969	0.9032	0.9170	0.9234	0.9239	0.9180	0.9157	0.8919
RELATIVE FLOW ANGLE	51.6171	54.0305	54.6478	54.6986	54.5926	54.7177	54.6421	54.6234	54.8277

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	21.8520	21.8254	21.5668	21.2197	20.7055	23.3447	23.9561	23.4850	23.4396
WEDGE PRESSURE	16.1080	16.1276	15.9878	15.8694	16.1778	17.7988	18.0337	17.3116	17.2099
ANGLE	35.0916	34.9671	37.0419	40.0647	45.9401	49.3933	50.5575	50.0194	47.3877
APPARENT MACH NUMBER	0.6748	0.6720	0.6683	0.6580	0.6044	0.6350	0.6504	0.6751	0.6797
STATIC PRESSURE	14.7879	14.8370	14.7485	14.7446	15.4506	16.7750	16.8392	15.8908	15.7424
TOTAL TEMPERATURE	597.7741	594.8977	594.6195	591.8682	588.1368	627.9532	637.2217	642.3465	645.0850
ABSOLUTE MACH NUMBER	0.7684	0.7636	0.7574	0.7405	0.6605	0.7040	0.7283	0.7688	0.7765
ABSOLUTE VELOCITY	870.7635	863.8809	857.3681	838.1641	752.9940	824.5366	856.5249	902.8452	912.8809
AXIAL VELOCITY	712.4629	707.9085	684.3236	641.4425	523.6264	536.6491	544.1430	580.0920	618.0380
RELATIVE VELOCITY	1002.7470	1003.4010	971.6086	925.1798	846.4692	790.3374	769.9517	775.3059	817.0210
RELATIVE MACH NUMBER	0.8848	0.8870	0.8583	0.8173	0.7426	0.6748	0.6547	0.6602	0.6950
RELATIVE FLOW ANGLE	54.6045	54.7954	54.8409	55.2645	58.2578	55.8217	54.7489	53.1944	52.8928

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NASA TRANSONIC FAN ROTOR EXIT READING NO. 284 TIME 13H 55M 29S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12774.2578
 ACTUAL ORIFICE FLOW 140.9948
 THETA 1.0005
 DELTA 0.9418
 EQUIV. ROTOR SPEED 12770.6653
 PER CENT ROTOR SPEED 99.9191

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	20.4265	20.2806	21.7342	22.5206	22.1646	21.4863	21.0742	21.0905	20.7946
WEDGE PRESSURE	16.6739	16.4435	16.4222	17.0251	16.6712	16.2665	16.1075	16.0888	15.9199
ANGLE	58.9295	51.4855	34.9127	37.4302	37.2506	35.8718	34.6588	35.1543	35.6746
APPARENT MACH NUMBER	0.5466	0.5559	0.6459	0.6452	0.6512	0.6434	0.6318	0.6342	0.6298
STATIC PRESSURE	16.1067	15.8579	15.4563	16.0276	15.6574	15.3239	15.2339	15.2053	15.0658
TOTAL TEMPERATURE	616.2358	617.0313	623.5748	613.7614	603.1473	595.5311	593.1333	595.4651	591.5807
ABSOLUTE MACH NUMBER	0.5928	0.6036	0.7155	0.7146	0.7227	0.7121	0.6971	0.7001	0.6945
ABSOLUTE VELOCITY	697.1037	709.3543	833.8594	826.3923	827.6777	811.6005	794.3992	799.0583	790.7150
AXIAL VELOCITY	358.0733	438.6994	675.7226	648.9698	651.5006	650.0889	645.6840	645.6553	634.8966
RELATIVE VELOCITY	481.9166	572.5184	815.3284	778.9867	781.7759	794.2869	803.9701	799.2031	789.5909
RELATIVE MACH NUMBER	0.4098	0.4872	0.6996	0.6735	0.6826	0.6969	0.7055	0.7002	0.6936
RELATIVE FLOW ANGLE	52.9048	52.0523	49.8546	49.7048	49.6987	50.2079	50.7400	50.5742	50.7063

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	20.7237	20.5082	20.6271	20.4865	20.0890	20.1733	19.6186	18.3709	20.0234
WEDGE PRESSURE	15.8909	15.8548	15.8779	15.7918	15.7281	15.8527	15.9794	16.5061	16.7066
ANGLE	35.9298	36.5772	36.9415	37.9675	38.9415	40.4357	45.3630	55.4786	60.6298
APPARENT MACH NUMBER	0.6279	0.6177	0.6231	0.6214	0.6018	0.5971	0.5495	0.3941	0.5154
STATIC PRESSURE	15.0471	15.0575	15.0560	14.9819	15.0031	15.1409	15.4277	16.2677	16.2214
TOTAL TEMPERATURE	588.8921	586.0415	588.4697	587.0142	583.3153	584.4488	581.0135	575.3912	593.5561
ABSOLUTE MACH NUMBER	0.6921	0.6794	0.6861	0.6839	0.6596	0.6537	0.5962	0.4204	0.5569
ABSOLUTE VELOCITY	786.3706	771.2861	779.8882	776.6625	748.8789	743.4777	680.5958	485.8195	645.2839
AXIAL VELOCITY	629.4295	612.3761	616.3378	605.6085	576.2797	560.1246	474.0371	273.7571	315.1319
RELATIVE VELOCITY	784.8494	771.7614	769.7432	755.5469	735.5533	715.4341	645.9457	582.5674	474.4813
RELATIVE MACH NUMBER	0.6907	0.6798	0.6772	0.6653	0.6478	0.6290	0.5658	0.5042	0.4095
RELATIVE FLOW ANGLE	50.7800	51.0786	50.8244	50.7949	51.4338	51.4534	53.2459	64.4417	55.9449

NOTE: ALL PRESSURE UNITS IN PSLA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

FAN STATOR EXIT READING 2R4

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	23.9000	23.8000	23.6000	23.4000	22.6000	21.7000	21.2000	21.0000	21.0000
STATIC PRESSURE	17.6726	17.6672	17.5617	16.9567	16.4664	16.3677	16.3822	16.4000	16.4089
TOTAL TEMPERATURE	649.0000	652.0000	659.0000	650.0000	623.0000	610.0000	603.0000	599.0000	595.0000
MACH NUMBER	.6711	.6666	.6637	.6942	.6881	.6463	.6182	.6050	.6043
CORRECTED VELOCITY	802.4554	799.3362	800.4418	828.3443	804.3818	751.8343	717.0500	700.3923	697.3098

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	21.0000	21.0000	21.1000	21.2000	21.2000	21.2000	21.2000	21.3000	22.2000
STATIC PRESSURE	16.4267	16.4589	16.5000	16.5445	16.6480	16.8569	17.1034	17.3445	17.5207
TOTAL TEMPERATURE	594.0000	594.0000	594.0000	594.0000	594.0000	594.0000	594.0000	595.0000	640.0000
MACH NUMBER	.6029	.6004	.6033	.6059	.5979	.5818	.5625	.5498	.5912
CORRECTED VELOCITY	695.2431	692.5627	695.6520	698.4214	689.8912	672.4512	651.4734	638.1768	708.5763

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	21.5000	22.2000	22.8000	22.8000	22.1000	21.6000	21.5000	21.5000	21.5000
STATIC PRESSURE	17.5755	17.5506	17.4256	16.9451	16.5247	16.4149	16.3400	16.4000	16.4050
TOTAL TEMPERATURE	620.0000	632.0000	630.0000	619.0000	606.0000	599.0000	597.0000	596.0000	595.0000
MACH NUMBER	.5444	.5893	.6318	.6652	.6581	.6387	.6349	.6342	.6338
CORRECTED VELOCITY	645.4408	702.0072	747.8347	777.3499	741.5701	736.5825	731.3194	729.9135	729.2107

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	21.4000	21.3000	21.2000	21.2000	21.1000	21.1000	20.9000	20.3000	20.5000
STATIC PRESSURE	16.4151	16.4550	16.5000	16.5251	16.6052	16.8102	17.0801	17.3251	17.4703
TOTAL TEMPERATURE	595.0000	594.5000	594.0000	593.5000	593.0000	591.0000	590.0000	597.0000	610.0000
MACH NUMBER	.6273	.6186	.6093	.6073	.5952	.5792	.5448	.4812	.4835
CORRECTED VELOCITY	722.0317	712.3374	702.0734	699.7223	686.3332	667.9742	630.0643	563.3118	571.9698

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	17.5500	17.6000	17.9000	21.0000	22.3000	21.9000	21.4000	21.2000	21.1000
STATIC PRESSURE	17.4737	17.4284	17.2831	16.9328	16.5858	16.4434	16.3981	16.4000	16.4009
TOTAL TEMPERATURE	592.0000	604.0000	608.0000	618.0000	618.0000	597.0000	594.0000	594.0000	592.0000
MACH NUMBER	.0789	.1184	.2244	.5632	.6643	.6531	.6286	.6169	.6109
CORRECTED VELOCITY	94.0600	142.3869	269.7876	665.3223	775.7874	750.6912	722.7758	710.2317	702.6321

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	21.0000	20.8000	20.6000	20.5000	20.3000	19.8000	19.2000	18.5000	17.9000
STATIC PRESSURE	16.4028	16.4509	16.5000	16.5047	16.5604	16.7614	17.0557	17.3047	17.4133
TOTAL TEMPERATURE	590.5000	590.0000	589.0000	587.0000	585.0000	583.0000	581.0000	578.0000	577.0000
MACH NUMBER	.6047	.5887	.5721	.5652	.5473	.4937	.4148	.3104	.1988
CORRECTED VELOCITY	695.1701	677.6702	659.1896	650.6216	630.0568	570.4578	461.7727	362.1973	233.1508

NASA TRANSONIC FAN ROTOR INLET READING NO. 285 TIME 14H 16M 24S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12764.9212
 ACTUAL ORIFICE FLOW 138.3533
 THETA 1.0017
 DELTA 0.9442
 EQUIV. ROTOR SPEED 12753.7165
 PER CENT ROTOR SPEED 99.7865

PROBE NO. 1 - NASA 4 PARAMETER, S/N 032 LOCATION - STA. 5.5, 046 DEG., IMMERSION 0.84

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	314.0000	334.0000	354.0000	14.0000	34.0000	54.0000	74.0000	94.0000	114.0000
TOTAL PRESSURE	12.4198	12.4406	12.4498	12.5217	12.5259	13.9605	14.3488	14.3877	14.1797
WEDGE PRESSURE	10.2923	10.0374	9.9669	10.1047	10.6141	11.1549	11.1263	11.0741	11.0689
ANGLE	13.3353	2.9140	0.3058	-1.9088	-12.5216	-9.4815	-1.3380	-0.2109	0.1645
APPARENT MACH NUMBER	0.5250	0.5622	0.5726	0.5620	0.4921	0.5752	0.6138	0.6230	0.6054
STATIC PRESSURE	10.1891	9.8779	9.7895	9.9446	10.5508	10.9508	10.8142	10.7334	10.7846
TOTAL TEMPERATURE	519.6764	519.2982	519.5349	519.5531	520.6676	518.7946	518.7164	518.1428	517.8035
ABSOLUTE MACH NUMBER	0.5393	0.5835	0.5961	0.5832	0.5011	0.5992	0.6485	0.6606	0.6376
ABSOLUTE VELOCITY	585.9517	630.7921	643.6729	630.6512	547.0757	646.3416	695.4999	707.0524	684.0472
AXIAL VELOCITY	558.3357	616.2445	629.5987	616.5424	522.9240	623.9466	680.1242	691.5971	669.0967
RELATIVE VELOCITY	1763.3927	1689.3439	1668.6077	1641.4032	1517.2704	1567.5546	1671.6845	1688.7020	1683.2819
RELATIVE MACH NUMBER	1.6231	1.5627	1.5454	1.5180	1.3899	1.4533	1.5588	1.5779	1.5690
RELATIVE FLOW ANGLE	72.0635	69.5481	68.9061	68.9929	70.5904	67.8573	67.4159	67.2815	67.8846

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	134.0000	154.0000	174.0000	194.0000	214.0000	234.0000	254.0000	274.0000	294.0000
TOTAL PRESSURE	14.3808	14.3416	14.2507	14.3780	14.3877	14.3658	14.4208	14.1742	14.1087
WEDGE PRESSURE	11.0505	11.0085	10.9823	11.0288	10.9873	10.9861	10.9655	10.9366	10.9218
ANGLE	0.3313	0.3816	0.3039	0.5067	0.5513	0.6825	1.2669	1.9898	5.6502
APPARENT MACH NUMBER	0.6250	0.6264	0.6215	0.6272	0.6326	0.6309	0.6379	0.6199	0.6159
STATIC PRESSURE	10.7035	10.6584	10.6494	10.6751	10.6160	10.6208	10.5762	10.6101	10.6088
TOTAL TEMPERATURE	518.4376	518.5143	517.9093	518.0146	517.7934	517.5910	517.6286	517.5456	517.6054
ABSOLUTE MACH NUMBER	0.6633	0.6651	0.6586	0.6662	0.6734	0.6712	0.6804	0.6566	0.6513
ABSOLUTE VELOCITY	709.9138	711.6881	704.9066	712.4493	719.3972	717.0131	726.1027	702.7016	697.4662
AXIAL VELOCITY	694.3896	696.1215	689.4937	696.8548	703.6455	701.2969	710.0696	686.9495	679.0526
RELATIVE VELOCITY	1695.8565	1697.1616	1693.4416	1698.8624	1702.3361	1702.7591	1713.2081	1710.7679	1747.1318
RELATIVE MACH NUMBER	1.5846	1.5861	1.5823	1.5887	1.5937	1.5939	1.6055	1.5986	1.6315
RELATIVE FLOW ANGLE	67.2855	67.2504	67.4006	67.2493	67.0925	67.1662	67.0365	67.6813	68.3298

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 285 TIME 14H 16M 24S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12764.9212
 ACTUAL ORIFICE FLOW 138.3533
 THETA 1.0017
 DELTA 0.9442
 EQUIV. ROTOR SPEED 12753.7165
 PER CENT ROTOR SPEED 99.7865

PROBE NO. 2 - U.S. 4 PARAMETER, S/N 003 LOCATION - STA. 5.5, 260 DEG., IMMERSION 3.87

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000	240.0000	260.0000
TOTAL PRESSURE	14.3468	14.3049	14.2862	14.5306	14.3370	14.5273	14.2719	14.3513	14.3511
WEDGE PRESSURE	11.0935	10.9957	11.0074	11.0827	11.0903	11.1416	11.0756	11.0992	11.1280
ANGLE	10.0715	9.6078	10.3153	11.1024	11.5196	12.2048	13.3177	14.0604	15.3748
APPARENT MACH NUMBER	0.6173	0.6246	0.6217	0.6341	0.6168	0.6274	0.6128	0.6170	0.6138
STATIC PRESSURE	10.6366	10.5247	10.5432	10.5835	10.6347	10.6574	10.6304	10.6428	10.6783
TOTAL TEMPERATURE	517.8327	517.2951	517.7619	517.8184	517.2127	518.0070	517.9643	517.5166	517.4970
ABSOLUTE MACH NUMBER	0.6679	0.6767	0.6732	0.6883	0.6673	0.6801	0.6624	0.6676	0.6637
ABSOLUTE VELOCITY	713.9731	722.2789	719.1496	733.9010	712.9707	726.0338	708.7224	713.4515	709.5948
AXIAL VELOCITY	702.9338	712.1096	707.4884	720.1278	698.5723	709.5869	689.6275	692.0408	684.1649
RELATIVE VELOCITY	1498.5489	1499.0843	1504.1461	1521.1739	1512.0270	1526.9724	1526.5049	1536.5848	1546.3181
RELATIVE MACH NUMBER	1.4018	1.4046	1.4081	1.4266	1.4152	1.4304	1.4269	1.4378	1.4463
RELATIVE FLOW ANGLE	64.8688	64.5899	64.8086	64.6660	65.2016	65.0746	65.6870	65.7534	66.1322

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000	60.0000	80.0000
TOTAL PRESSURE	14.1305	14.4808	12.9861	12.6075	12.6146	12.6116	12.5057	14.2125	14.2240
WEDGE PRESSURE	11.0999	11.2182	10.7145	10.2304	10.1000	10.5734	10.7886	11.3022	11.2831
ANGLE	17.4592	19.0878	25.0879	16.9486	11.2433	5.9259	1.9075	2.8612	8.0583
APPARENT MACH NUMBER	0.5974	0.6149	0.5312	0.5544	0.5725	0.5081	0.4641	0.5815	0.5847
STATIC PRESSURE	10.6898	10.7620	10.4361	9.9314	9.7755	10.3301	10.5934	10.9201	10.8945
TOTAL TEMPERATURE	517.5911	518.2103	519.1183	518.1099	518.5971	525.2883	531.1457	521.2631	518.3308
ABSOLUTE MACH NUMBER	0.6440	0.6650	0.5675	0.5938	0.6145	0.5415	0.4926	0.6252	0.6290
ABSOLUTE VELOCITY	690.2989	711.4579	614.5068	640.4586	661.6243	591.3961	543.6053	673.9341	675.8949
AXIAL VELOCITY	658.4649	672.3084	556.5081	612.6108	648.8922	588.2038	543.2743	673.0572	669.1852
RELATIVE VELOCITY	1552.2770	1581.2869	1561.6621	1514.7022	1477.6906	1390.2189	1332.4721	1404.0760	1456.2108
RELATIVE MACH NUMBER	1.4483	1.4782	1.4424	1.4044	1.3726	1.2730	1.2076	1.3025	1.3553
RELATIVE FLOW ANGLE	67.0128	66.9656	70.3854	67.9786	66.2915	67.0658	67.8174	64.3878	65.3184

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS; VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR INLET READING NO. 285 TIME 14H 16M 24S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12764.9212
 ACTUAL ORIFICE FLOW 138.3533
 THETA 1.0017
 DELTA 0.9442
 EQUIV. ROTOR SPEED 12753.7165
 PER CENT ROTOR SPEED 99.7865

PROBE NO. 3 - NASA 4 PARAMETER, S/N 030 LOCATION - STA. 5.5, 328 DEG., IMMERSION 7.43

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	32.0000	52.0000	72.0000	92.0000	112.0000	132.0000	152.0000	172.0000	192.0000
TOTAL PRESSURE	13.5229	14.4221	14.4339	14.4111	14.1667	14.4113	14.5184	14.5169	14.5111
WEDGE PRESSURE	10.7762	11.0240	11.1495	11.1986	11.1818	11.2427	11.1749	11.1861	11.1941
ANGLE	-21.1976	-14.0513	-9.6197	-4.2565	-1.0209	0.0387	1.0468	1.6449	2.0191
APPARENT MACH NUMBER	0.5787	0.6315	0.6186	0.6111	0.5912	0.6061	0.6230	0.6216	0.6202
STATIC PRESSURE	10.4296	10.4397	10.6227	10.7045	10.7739	10.7689	10.6255	10.6428	10.6573
TOTAL TEMPERATURE	519.6439	520.3438	520.2723	519.7285	518.1556	519.3192	519.2109	518.5067	518.1598
ABSOLUTE MACH NUMBER	0.6205	0.6953	0.6764	0.6657	0.6377	0.6587	0.6828	0.6808	0.6788
ABSOLUTE VELOCITY	668.2260	742.5183	724.0348	713.1178	684.3725	705.9194	729.5532	727.1145	724.9029
AXIAL VELOCITY	598.1545	689.3375	682.2219	678.9605	653.1398	673.8006	696.2535	693.7711	691.5292
RELATIVE VELOCITY	847.1513	958.0385	990.9569	1034.7588	1045.4384	1068.7842	1093.5725	1097.2241	1099.0162
RELATIVE MACH NUMBER	0.7866	0.8971	0.9258	0.9660	0.9741	0.9973	1.0235	1.0274	1.0292
RELATIVE FLOW ANGLE	53.5085	52.9901	54.1986	55.4943	56.7941	56.5559	56.2958	56.4782	56.6065

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	212.0000	232.0000	252.0000	272.0000	292.0000	312.0000	332.0000	352.0000	12.0000
TOTAL PRESSURE	14.1522	14.3616	14.3193	14.1229	14.0833	13.8995	12.7359	12.6493	12.5827
WEDGE PRESSURE	11.1357	11.2052	11.1915	11.1818	11.1817	10.9231	10.6310	10.4195	10.5577
ANGLE	2.2610	3.6835	4.5530	8.9460	12.7971	21.2308	16.1280	1.6728	-6.2960
APPARENT MACH NUMBER	0.5952	0.6060	0.6038	0.5872	0.5929	0.5968	0.5145	0.5336	0.5069
STATIC PRESSURE	10.7130	10.7336	10.7301	10.7898	10.6899	10.5020	10.4558	10.2877	10.3984
TOTAL TEMPERATURE	518.2971	519.2438	518.6509	518.4532	518.8481	518.0734	517.5254	519.1304	519.1749
ABSOLUTE MACH NUMBER	0.6433	0.6585	0.6553	0.6321	0.6400	0.6455	0.5383	0.5620	0.5290
ABSOLUTE VELOCITY	690.0140	705.6669	702.2032	679.0420	687.1300	692.1012	583.7365	608.8343	575.0687
AXIAL VELOCITY	658.1520	672.2918	668.3262	640.9516	640.9749	619.3976	537.0948	580.9074	545.8850
RELATIVE VELOCITY	1077.5196	1100.2898	1105.3075	1125.2509	1161.4350	1228.1021	1110.4584	1020.3617	936.6649
RELATIVE MACH NUMBER	1.0045	1.0267	1.0316	1.0475	1.0818	1.1455	1.0241	0.9418	0.8616
RELATIVE FLOW ANGLE	57.3842	57.3753	57.6470	59.1731	59.9641	62.1484	63.1277	59.1861	58.5929

NOTES--ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 285 TIME 14H 16M 24S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12764.9212
 ACTUAL ORIFICE FLOW 138.3533
 THETA 1.0017
 DELTA 0.9442
 EQUIV. ROTOR SPEED 12753.7165
 PER CENT ROTOR SPEED 99.7865

PROBE NO. 4 - NASA 4 PARAMETER, S/N 031 LOCATION - STA. 9.0, 104 DEG., IMMERSION 0.64

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	256.0000	276.0000	296.0000	316.0000	336.0000	356.0000	16.0000	36.0000	56.0000
TOTAL PRESSURE	22.7792	22.6314	22.4965	22.4116	25.6343	26.8890	26.9025	26.9055	25.4715
WEDGE PRESSURE	17.0615	17.1062	17.1615	17.9542	19.6760	20.2263	19.9796	20.1088	17.9621
ANGLE	32.0550	32.0654	35.4102	41.9855	44.4041	45.0444	45.9407	45.6235	35.9930
APPARENT MACH NUMBER	0.6562	0.6454	0.6343	0.5721	0.6270	0.6515	0.6657	0.6593	0.7250
STATIC PRESSURE	16.1213	16.2123	16.3371	17.4550	18.7860	19.1384	18.8235	18.9861	16.3013
TOTAL TEMPERATURE	608.2423	608.9216	610.4032	610.6807	652.4297	664.6585	678.6365	692.9007	673.4734
ABSOLUTE MACH NUMBER	0.7207	0.7073	0.6920	0.6086	0.6819	0.7148	0.7335	0.7244	0.8253
ABSOLUTE VELOCITY	829.0706	815.5362	800.4199	711.1486	816.2139	859.9162	889.4358	888.5321	984.3977
AXIAL VELOCITY	701.0426	689.5199	650.9650	527.6654	582.1622	606.6028	617.5519	620.4333	794.7832
RELATIVE VELOCITY	1248.3599	1247.7374	1280.7251	1127.5110	1073.0708	1055.8607	1037.5068	1042.5095	1197.2362
RELATIVE MACH NUMBER	1.0852	1.0822	1.0381	0.9649	0.8965	0.8777	0.8557	0.8500	1.0038
RELATIVE FLOW ANGLE	60.6039	60.9961	61.4586	64.8500	61.4419	60.0424	59.1566	59.1606	56.3368

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	76.0000	96.0000	116.0000	136.0000	156.0000	176.0000	196.0000	216.0000	236.0000
TOTAL PRESSURE	23.6616	22.8563	22.6568	22.6854	22.6948	22.5720	22.5542	22.8637	22.6581
WEDGE PRESSURE	17.1151	16.8776	16.7561	16.7312	16.7674	16.7364	16.8349	17.0618	17.0026
ANGLE	32.6454	32.6118	32.3521	30.4998	30.5517	30.9219	30.8116	29.7897	29.9709
APPARENT MACH NUMBER	0.6967	0.6730	0.6712	0.6743	0.6723	0.6681	0.6603	0.6606	0.6540
STATIC PRESSURE	15.9733	15.8699	15.7642	15.7257	15.7693	15.7598	15.8887	16.1015	16.0757
TOTAL TEMPERATURE	642.6702	625.0102	619.3382	614.1317	611.4269	606.0241	604.6579	605.3954	603.8917
ABSOLUTE MACH NUMBER	0.7712	0.7414	0.7392	0.7431	0.7406	0.7354	0.7257	0.7260	0.7179
ABSOLUTE VELOCITY	905.6865	862.1829	855.9259	856.4368	851.9370	842.8016	831.8361	832.7164	823.2454
AXIAL VELOCITY	760.8001	724.5905	721.4015	736.1662	731.9089	721.2972	712.7289	720.9221	711.4347
RELATIVE VELOCITY	1244.5142	1241.7851	1245.3092	1272.9109	1271.7549	1265.6011	1266.4744	1281.3188	1277.9923
RELATIVE MACH NUMBER	1.0598	1.0679	1.0755	1.1045	1.1055	1.1043	1.1049	1.1172	1.1145
RELATIVE FLOW ANGLE	58.4794	59.6558	59.8364	59.8778	59.9993	60.2407	60.5518	60.5572	60.8177

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 285 TIME 14H 16M 24S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12764.9212
 ACTUAL ORIFICE FLOW 138.3533
 THETA 1.0017
 DELTA 0.9442
 EQUIV. ROTOR SPEED 12753.7165
 PER CENT ROTOR SPEED 99.7865

PROBE NO. 5 - NASA 4 PARAMETER, S/N 033 LOCATION - STA. 9.0, 300 DEG., IMMERSION 3.02

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000	180.0000	200.0000	220.0000
TOTAL PRESSURE	22.8106	21.2971	22.0165	22.6639	22.8486	22.7652	22.8607	22.6714	22.7519
WEDGE PRESSURE	15.9825	15.9790	16.2793	16.6426	16.7393	16.7458	16.8425	16.8234	16.8590
ANGLE	47.8835	40.0195	38.6524	36.2446	36.2124	36.3407	35.2344	36.5252	37.4832
APPARENT MACH NUMBER	0.7319	0.6543	0.6713	0.6793	0.6819	0.6773	0.6755	0.6671	0.6688
STATIC PRESSURE	13.6748	14.8832	14.9844	15.2272	15.2838	15.3449	15.4547	15.5320	15.5462
TOTAL TEMPERATURE	653.6592	622.9840	608.6361	602.4208	601.9502	602.6347	605.9160	603.1465	603.2712
ABSOLUTE MACH NUMBER	0.8877	0.7345	0.7625	0.7758	0.7804	0.7725	0.7695	0.7555	0.7583
ABSOLUTE VELOCITY	1033.6409	853.5081	872.5634	881.7337	885.9812	878.4904	877.7686	861.5497	864.4698
AXIAL VELOCITY	693.1856	653.6187	681.4062	711.0939	714.8138	707.6062	716.9352	692.3136	685.9618
RELATIVE VELOCITY	820.2962	926.3784	948.8658	986.6783	987.9061	984.6748	1001.2439	979.2471	965.3763
RELATIVE MACH NUMBER	0.7045	0.7972	0.8292	0.8682	0.8702	0.8659	0.8777	0.8587	0.8468
RELATIVE FLOW ANGLE	49.7993	54.7933	54.3155	54.2186	54.1105	54.2969	54.3943	54.7389	54.6024

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000	0.0000	20.0000	40.0000
TOTAL PRESSURE	22.5951	22.7827	22.5276	22.4537	22.2576	24.9924	25.4456	24.8104	25.3779
WEDGE PRESSURE	16.8214	16.8715	16.7595	16.8152	17.3606	19.0831	19.1781	18.5983	18.7245
ANGLE	37.4153	37.5414	39.6601	42.6390	49.1102	50.6635	53.1802	56.6538	56.8103
APPARENT MACH NUMBER	0.6633	0.6695	0.6642	0.6564	0.6067	0.6333	0.6490	0.6555	0.6742
STATIC PRESSURE	15.5718	15.5499	15.5057	15.6398	16.5659	18.0022	17.9237	17.3094	17.2007
TOTAL TEMPERATURE	602.6523	601.3029	602.7086	601.7766	600.2298	636.6702	646.2839	656.3832	663.0951
ABSOLUTE MACH NUMBER	0.7492	0.7595	0.7506	0.7379	0.6636	0.7013	0.7261	0.7365	0.7672
ABSOLUTE VELOCITY	854.7672	864.2535	856.1852	842.4886	763.9186	827.3572	860.1610	878.0661	915.4623
AXIAL VELOCITY	678.8784	685.2551	659.1088	619.7477	500.0553	524.4304	515.4860	482.6647	501.1294
RELATIVE VELOCITY	965.1120	964.4766	931.9575	887.0462	802.6171	771.1719	729.8880	674.9546	666.3513
RELATIVE MACH NUMBER	0.8460	0.8475	0.8170	0.7769	0.6973	0.6537	0.6161	0.5661	0.5584
RELATIVE FLOW ANGLE	54.8754	54.6051	54.7296	55.0581	58.0746	55.7813	54.7659	54.4298	53.0537

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.L. CONDITIONS, VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

NASA TRANSONIC FAN ROTOR EXIT READING NO. 285 TIME 14M 16M 24S CIRCUM. INLET DISTORTION STATOR ANGLE 3.00 DEG

ROTOR SPEED 12764.9212
 ACTUAL ORIFICE FLOW 138.3533
 THETA 1.0017
 DELTA 0.9442
 EQUIV. ROTOR SPEED 12753.7165
 PER CENT ROTOR SPEED 99.7865

PROBE NO. 6 - U.S. 4 PARAMETER, S/N 022 LOCATION - STA. 9.0, 352 DEG., IMMERSION 5.68

ABSOLUTE SCREEN ANGLE	0.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
RELATIVE SCREEN ANGLE	8.0000	28.0000	48.0000	68.0000	88.0000	108.0000	128.0000	148.0000	168.0000
TOTAL PRESSURE	21.2310	21.2077	22.2835	23.0986	22.7155	21.8923	21.4442	21.2147	20.7906
WEDGE PRESSURE	17.5772	17.5470	17.0409	17.5917	17.3299	16.8901	16.6530	16.4914	16.3673
ANGLE	63.8392	58.2978	39.3348	37.3424	39.4738	39.0514	38.4815	38.1963	38.0239
APPARENT MACH NUMBER	0.5267	0.5276	0.6314	0.6363	0.6342	0.6203	0.6122	0.6109	0.5948
STATIC PRESSURE	17.0362	17.0045	16.1197	16.6151	16.3786	16.0289	15.8406	15.6924	15.6417
TOTAL TEMPERATURE	618.7669	625.6097	629.8758	621.0530	608.9288	598.6320	596.2631	593.8623	589.2668
ABSOLUTE MACH NUMBER	0.5699	0.5710	0.6965	0.7028	0.7000	0.6826	0.6724	0.6708	0.6509
ABSOLUTE VELOCITY	673.1776	678.0302	817.7989	818.7744	807.9243	782.8971	770.6395	767.4280	743.5355
AXIAL VELOCITY	295.7760	354.5655	625.8829	643.7242	617.1208	601.5420	596.7706	596.5784	579.3409
RELATIVE VELOCITY	429.8292	492.3210	750.0471	777.0157	744.9931	742.9479	746.8033	749.5543	745.3213
RELATIVE MACH NUMBER	0.3639	0.4146	0.6388	0.6669	0.6455	0.6478	0.6516	0.6552	0.6524
RELATIVE FLOW ANGLE	54.9966	53.7611	49.6614	49.8653	49.8687	50.5117	50.8808	50.9929	51.6541

ABSOLUTE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
RELATIVE SCREEN ANGLE	188.0000	208.0000	228.0000	248.0000	268.0000	288.0000	308.0000	328.0000	348.0000
TOTAL PRESSURE	20.7564	20.9549	20.9526	20.7159	20.5277	20.5368	19.9693	19.1457	20.5555
WEDGE PRESSURE	16.4914	16.4870	16.4937	16.4009	16.4465	16.5504	16.8990	17.5768	17.5160
ANGLE	37.9697	38.5811	38.8839	39.9604	40.8998	42.8100	48.6594	64.5309	65.1628
APPARENT MACH NUMBER	0.5900	0.5956	0.5949	0.5875	0.5718	0.5640	0.4943	0.3517	0.4837
STATIC PRESSURE	15.6937	15.7531	15.7621	15.7030	15.8066	15.9351	16.4599	17.3820	17.0862
TOTAL TEMPERATURE	587.6512	590.4203	591.3607	589.5944	585.5743	588.1609	584.9434	585.7325	596.0312
ABSOLUTE MACH NUMBER	0.6449	0.6518	0.6510	0.6419	0.6227	0.6132	0.5329	0.3742	0.5208
ABSOLUTE VELOCITY	736.2641	745.2321	744.9708	734.2474	711.4878	702.9167	614.4570	437.7892	606.9666
AXIAL VELOCITY	574.0907	576.3152	573.7282	556.9821	532.3811	510.7850	402.7458	187.6433	254.1541
RELATIVE VELOCITY	744.1767	738.7739	734.9892	718.9553	702.9072	678.3400	609.5590	549.2824	443.1750
RELATIVE MACH NUMBER	0.6519	0.6461	0.6422	0.6285	0.6152	0.5917	0.5286	0.4695	0.3803
RELATIVE FLOW ANGLE	51.8649	51.5541	51.5333	51.7472	52.3751	52.5366	56.0830	70.8297	59.7310

NOTE: ALL PRESSURE UNITS IN PSIA AND TEMPERATURE UNITS IN DEG. RANKINE CORRECTED TO NASA STD. S.E. CONDITIONS. VELOCITY UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES

FAN STATOR EXIT READING 285

IMMERSION .6530

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	24.4000	24.9300	24.4000	23.7500	23.1600	22.6500	22.3000	22.2500	22.2000
STATIC PRESSURE	18.3391	18.4281	18.3048	17.9836	17.5577	17.4109	17.5000	17.5391	17.5836
TOTAL TEMPERATURE	671.0000	680.0000	679.0000	669.0000	649.0000	628.0000	619.0000	616.0000	613.0000
MACH NUMBER	.6519	.6715	.6542	.6431	.6416	.6247	.5488	.5930	.5868
CORRECTED VELOCITY	794.0157	821.3253	801.2377	782.8626	769.4895	738.4537	704.7706	696.7616	688.2699

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	22.2000	22.2000	22.2000	22.2500	22.3000	22.4000	22.6000	22.8500	23.5000
STATIC PRESSURE	17.5836	17.6303	17.6781	17.7246	17.7726	17.8726	18.0712	18.2467	18.3623
TOTAL TEMPERATURE	610.0000	608.0000	606.0000	607.0000	607.0000	607.0000	607.0000	628.0000	654.0000
MACH NUMBER	.5868	.5834	.5708	.5793	.5787	.5772	.5744	.5761	.6043
CORRECTED VELOCITY	686.5837	681.6730	676.6701	676.6675	676.0203	674.3793	671.2458	684.7333	730.6154

IMMERSION 2.9730

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	22.1500	22.2500	22.1700	22.0300	21.9000	21.8500	22.2000	22.6000	22.6000
STATIC PRESSURE	18.3002	18.3504	18.2154	17.9253	17.5849	17.4498	17.5000	17.5002	17.5253
TOTAL TEMPERATURE	628.0000	636.0000	636.0000	627.0000	617.0000	611.0000	607.0000	605.0000	604.0000
MACH NUMBER	.5295	.5320	.5373	.5508	.5688	.5760	.5930	.6156	.6139
CORRECTED VELOCITY	632.3267	639.1978	645.2625	655.8896	670.5956	675.2650	691.6246	715.0153	712.4920

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	22.5500	22.4500	22.3500	22.3000	22.4000	22.2600	21.8000	21.4500	21.7000
STATIC PRESSURE	17.5253	17.5603	17.6004	17.6354	17.6755	17.7755	18.0401	18.2351	18.3351
TOTAL TEMPERATURE	604.0000	603.0000	602.0000	600.0000	600.0000	600.0000	601.0000	608.0000	618.0000
MACH NUMBER	.5111	.6029	.5943	.5889	.5917	.5761	.5272	.4873	.4966
CORRECTED VELOCITY	709.4934	700.1067	690.1886	683.1188	686.2160	669.3039	616.0312	574.9410	590.2070

IMMERSION 5.4030

RELATIVE SCREEN ANGLE	.0000	20.0000	40.0000	60.0000	80.0000	100.0000	120.0000	140.0000	160.0000
TOTAL PRESSURE	18.3000	18.3000	18.6000	21.3000	23.0500	22.5000	21.9000	21.5000	21.1500
STATIC PRESSURE	18.2595	18.2689	18.1218	17.8642	17.6134	17.4905	17.5000	17.4595	17.4642
TOTAL TEMPERATURE	600.0000	610.0000	620.0000	624.0000	618.0000	608.0000	599.0000	592.0000	589.0000
MACH NUMBER	.0563	.0493	.1933	.5077	.6320	.6108	.5752	.5535	.5303
CORRECTED VELOCITY	67.5071	59.5850	234.7982	605.6560	740.4732	711.5184	667.7569	640.2796	613.2515

RELATIVE SCREEN ANGLE	180.0000	200.0000	220.0000	240.0000	260.0000	280.0000	300.0000	320.0000	340.0000
TOTAL PRESSURE	20.8000	20.8000	20.6000	19.9000	19.3000	19.2000	19.1500	18.9500	18.6000
STATIC PRESSURE	17.4642	17.4870	17.5189	17.5418	17.5737	17.6737	18.0076	18.2228	18.3066
TOTAL TEMPERATURE	588.0000	587.0000	587.0000	589.0000	589.0000	588.0000	585.0000	587.0000	542.0000
MACH NUMBER	.5060	.5041	.4867	.4283	.3683	.3460	.2477	.2371	.1509
CORRECTED VELOCITY	586.1164	583.4784	564.2955	500.0324	431.9761	406.1198	349.5496	279.7536	179.3784