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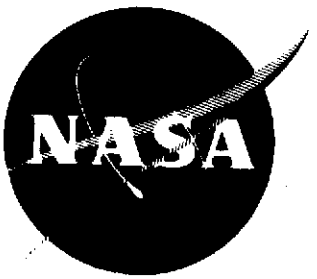

HIGH-TIP-SPEED, LOW-LOADING TRANSONIC FAN STAGE

(Part 2 - Data Compilation)

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

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16. Abstract

Tests were conducted on a high-tip-speed low-loading transonic fan stage to determine the performance and inlet flow distortion tolerance of the design. Test data were recorded for overall and blade element performance with both uniform and distorted inlet flows. A tabular summary of the data and a representative selection of the computer data reduction sheets are presented.

Details of the tests are reported in NASA CR-121263, High-Tip-Speed, Low-Loading Transonic Fan Stage (Part 3 - Final Report), dated February 1974.

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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 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	$\frac{W\sqrt{\theta}/\delta}{(W\sqrt{\theta}/\delta)_{des}}$	$\frac{T_{T12}-T_{T5}}{T_{T5}}$	Rotor			Stage		
				P_{T9}/P_{T5}	η_{ad}	η_{poly}	P_{T12}/P_{T5}	η_{ad}	η_{poly}
0.60	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	$\frac{W\sqrt{\theta}/\delta}{(W\sqrt{\theta}/\delta)_{des}}$	$\frac{T_{T12}-T_{T5}}{T_{T5}}$	Rotor			Stage		
				P_{T9}/P_{T5}	η_{ad}	η_{poly}	P_{T12}/P_{T5}	η_{ad}	η_{poly}
0.70	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, ^oR (^oK)
t	static temperature, ^oR (^oK)
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^0	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^{0}R (288.16^{0}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

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

$$i_m = \beta_{10} - \beta^*_{10} \qquad \text{(stator)}$$

δ^o deviation

$$\delta^o = \beta'_8 - \beta'^*_8 \qquad \text{(rotor)}$$

$$\delta^o = \beta_{11} - \beta^*_{11} \qquad \text{(stator)}$$

D diffusion factor

$$D = 1 - \frac{V'_8}{V'_6} + \frac{r_8 V_{\theta 8} - r_6 V_{\theta 6}}{(r_6 + r_8)\,\sigma V'_6} \qquad \text{(rotor)}$$

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

$\bar{\omega}$ loss coefficient

$$\bar{\omega} = \frac{\left(P'_8\right)_{id} - P'_8}{P'_6 - P_6} \qquad \text{(rotor)}$$

where $$\left(P'_8\right)_{id} = P'_6 \left\{ \left[1 + \left(\frac{\gamma - 1}{2} \right) \left(\frac{U_8^2}{a_{01}^2} \right) \right] \left[1 - \left(\frac{r_6}{r_8} \right)^2 \right] \right\}^{\gamma/(\gamma-1)}$$

and a_{01} = upstream total acoustic velocity

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

loss parameter

$$\frac{\bar{\omega} \cos \beta'_8}{2\sigma} \qquad \text{(rotor)}$$

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

η_{poly} polytropic efficiency

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

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

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

η_{ad} adiabatic efficiency

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

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

SM stall margin

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

$N/\sqrt{\theta}$ = 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:

ROTOR INLET TRAVERSE PLANE READING NUMBER 59 TIME 17H 4M 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
MERIDONAL 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	50.7662	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 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 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	5.3600	5.6800	5.9500
TOTAL PRESSURE	16.6092	16.6879	16.7474	16.9849	16.8916	16.9844	17.2063	17.3346	17.3039
STATIC PRESSURE	14.3810	14.2914	14.2081	14.2321	14.3057	14.2539	14.0962	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	31.5352	32.6752	34.2514
APPARENT MACH NO.	0.4337	0.4500	0.4634	0.4804	0.4658	0.4783	0.5084	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	434.5226
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	0.4660	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	0.0181	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	0.6000	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 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	17.2063	17.3346	17.3039
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
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	31.5332	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 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	3.0000	-13.4000	501.7000	187.8000	521.5000	14.4700	16.6100
.100	13.1600	-7.5000	1.0600	2.6000	-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	2.6000	-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	-.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					DISTORTION INDEX	0.000		
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
MERIDONAL 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	387.0806	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	4.7261	3.7118	2.9383
SURFACE INCIDENCE	2.8869	2.8266	2.7774	2.7945	2.3328	1.6392	1.0261	-0.0881	-1.1616
RELATIVE TOTAL PRESS	23.0553	22.7243	22.0184	20.7024	19.3044	18.0540	17.2309	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	15.0684
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	1.8530	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 IMMERSION	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	13.4800	-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	-.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	.4107	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 STATOR ANGLE 3.00

SPEED (RPM)	7586.4104					DISTORTION INDEX	0.000		
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	13.8083	13.8437	13.8414
WEDGE PRESSURE	13.8025	13.7609	13.7162	13.6893	13.6946	13.7486	13.8164	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	0.5707	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	0.5535	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 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	0.9267	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	0.0633	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	15.4245	15.3865	15.3226
WEDGE PRESSURE	15.6292	15.3485	15.8356	15.7583	15.7269	15.5854	15.4556	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	372.9063	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 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	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
.282	12.0000	-8.4000	1.1700	4.0000	-.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
.2822	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	.3662	395.4244	395.1329	15.1795
.1000	.4101	.0556	.0261	1.0080	9.3000	.3852	438.6242	437.0859	36.7031
.1500	.3855	.0052	.0024	3.2239	8.9000	.3917	444.6477	443.3961	33.3391
.2822	.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	403.4457	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
.2822	15.9669
.4702	15.9650
.6887	15.9629
.8500	15.9614
.9000	15.9609
.9372	15.9605

ROTOR INLET TRAVERSE PLANE READING NUMBER 63 TYPE 17H 59% SS 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	14.6849
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	317.8289	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	0.2785
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	0.5595	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	5.3630	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	0.6000	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 63 TIME 17H 59M 9S UNIFORM INLET FLOW STATOR ANGLE 3.00

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 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	.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					DISTORTION INDEX	0.000		
ACTUAL ORIFICE 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								
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	13.9019	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
MERIDONAL 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	13.9086	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	1020.7908	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	1.8165	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	578.7114	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	1034.9018	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
SOLIDITY	1.6480	1.6580	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									
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	558.6858	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									
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	215.1844	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	547.0813	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	0.6868	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= 67 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
OUTER WALL STATIC PRES= 14.590 HUB STATIC PRES= 14.640

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	5.1000	-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	2.6000	-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	.1683	.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					DISTORTION INDEX	0.000		
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	2.8618	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
MERIDONAL VELOCITY	470.4971	495.7453	491.7641	491.5676	489.2546	481.6911	469.9947	466.3030	458.2175
ABSOLUTE VELOCITY	471.6020	496.7635	492.7763	492.8534	490.6016	482.8104	471.2017	467.5548	459.4928
MACH NO.	0.4101	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	500.2353	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	-0.8469	-0.7495	-0.6347	-0.5585	-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	8.8069	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	0.0512	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	0.4036	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
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 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.)	28.8988	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	8.8069	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	607.8148	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	0.9766	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= 69 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
OUTER WALL STATIC PRES= 15.770 HUB STATIC PRES= 15.800

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	4.0000	-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	-.3000	-9.7000	584.8000	292.6000	527.6000	15.4200	18.5300
.689	9.4800	-9.8000	1.4700	-.9000	-7.7000	580.5000	312.1000	525.8000	15.3200	18.3700
.850	8.5900	-9.2000	1.6200	-.9000	-6.1000	598.7000	337.7000	525.2000	15.2600	18.5100
.900	8.2700	-9.1000	1.6700	-.7000	-5.3000	625.7000	359.8000	523.4000	15.0900	18.6200
.937	8.0200	-9.0000	1.7300	.1000	-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
MERIDONAL 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	599.3811
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	569.5960	592.4617
MERIDIONAL VELOCITY	460.2830	492.9349	465.8975	448.4871	438.4674	406.2578	425.5967	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	1.6400	1.6580	1.6790	1.6940	1.7300	1.7480	1.8580	1.9190	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									
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	15.8481	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
TOTAL TEMPERATURE	570.6246	568.8084	565.3513	570.0052	559.3847	556.8347	556.7328	556.0370	558.6850
ANGLE (DEG.)	33.7353	32.7121	31.7810	37.6023	36.2123	39.2102	39.5293	40.8122	42.8571
MACH NO.	0.5083	0.5433	0.5059	0.5065	0.4860	0.4789	0.5089	0.5138	0.5304
ABSOLUTE VELOCITY	578.3948	615.5985	574.2619	578.1358	551.2271	542.2934	574.8187	579.7325	599.3011
SWIRL VELOCITY	320.4020	331.9197	301.8605	352.5366	325.6411	341.8690	363.0949	375.0858	403.1679
AXIAL VELOCITY	479.7826	516.7805	487.2131	457.7410	444.7330	419.0223	440.0128	434.3551	434.5140
WEIGHT FLOW	10.6806	7.6310	12.7555	19.7227	22.2338	16.3934	8.2700	3.6389	5.3213

CALCULATING PLANE									
ANGLE (DEG.)	33.9035	32.6796	31.7123	36.8735	34.8551	37.6758	37.9423	39.1395	40.9523
MACH NO.	0.5067	0.5445	0.5083	0.5167	0.5032	0.4917	0.5185	0.5226	0.5393
SWIRL VELOCITY	321.5904	332.9286	303.0369	353.4178	325.6411	339.3446	358.4453	370.0968	396.6328
AXIAL VELOCITY	477.5147	517.9953	489.4210	470.1592	466.5725	438.4394	458.7374	453.7580	456.0364
ABSOLUTE VELOCITY	576.6942	616.9253	576.8319	589.2351	569.8016	556.1104	585.1695	589.2164	608.8115
WEIGHT FLOW	10.6883	7.6381	12.6710	19.7358	22.2643	16.3987	8.2734	3.6398	5.3296
MERIDIONAL VELOCITY	477.7010	518.3773	489.8156	470.4753	466.5754	439.5644	461.5246	457.4661	460.8635
STATIC TEMPERATURE	542.7679	536.9816	537.5786	541.1277	532.4211	531.1519	528.3185	527.2343	527.9730
STATIC PRESS.(ALT.)	15.8650	15.6692	16.0100	16.0484	15.9349	15.7766	15.6048	15.5417	15.4667
MCL INCIDENCE	4.9167	3.4237	2.1179	5.9283	1.2053	3.5625	3.7829	4.9494	6.7758
SUC SUR INCIDENCE	-1.5064	-3.1003	-4.4476	-0.3164	-4.9048	-2.6341	-2.6176	-1.5304	0.2023
RADIUS RATIO	0.9766	0.9534	0.9295	0.8804	0.7839	0.6868	0.6223	0.5901	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= 70 PCT DES SPD= 70.00 FAN INLET TOT TEMP= 518.688
OUTER WALL STATIC PRES= 16.460 HUB STATIC PRES= 16.450

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	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	338.0160	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	1498.1956	1528.1205	1519.2586	1533.1835	1525.6468	1529.5216	1534.5147	1537.3186	1543.4249
SWIRL VELOCITY	-38.7013	-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	623.3985	589.4790	589.5184	566.3996	572.8599	568.9905	569.5303	566.2889	556.0153
MERIDONAL 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	62.0393	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	-1.9072	-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	12.0005
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 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	580.0025	579.7741	581.5435	576.9704	568.1899	563.5262	561.2987	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	350.7388	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	427.1902	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	1007.8019	948.0848	843.2869	728.0248	652.9539	627.2663	602.8064
RELAT. TANG. VELOC.	694.8558	684.7739	628.7807	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	36.1139	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	3.8683	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	1.6488	1.6580	1.6708	1.6948	1.7300	1.7888	1.8540	1.9109	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 FLOW 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									
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	16.7003	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	448.0445	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	557.3013	549.6886	599.3762	570.8897	527.3929	525.8191	543.5472	546.2208	566.7937
WEIGHT FLOW	9.6308	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 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	4.1000	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	19.5000
.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	10.8085	0.9953	15.3236	13.9283	14.2160	14.5078	18.3281
WEIGHT FLOW	12.7040	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	1.0035	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
MERIDONAL VELOCITY	559.1296	583.4724	596.2289	592.7055	591.4736	584.9131	577.7952	570.1264	561.5466
ABSOLUTE VELOCITY	560.5879	584.8901	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	0.5505	0.5190	0.4085
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	720.9880	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	641.8382	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	700.1550	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	1.0387	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	5.3600	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	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	590.2925	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	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= 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 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	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	.2057	.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.							
IMMERSION(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	504.1527	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
MERIDONAL 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	0.9179	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 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	1.6400	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 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	561.9452	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	562.1644	550.6113	621.1938	527.9454	571.6870	553.1480	565.2253	563.3267	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
MCL INCIDENCE	2.8215	-0.4985	-1.3394	6.0436	-2.3105	-0.1941	0.6850	2.1856	9.5079
SUC SUR INCIDENCE	-3.6008	-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 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	4.6000	-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	-.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	.1763	.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	596.0292	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					DISTURTION INDEX		0.000	
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
MERIDONAL 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	10.1965	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	14.8013	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	458.5099	456.5983	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	516.4603	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 [illegible]

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 WALL STATIC PRES= 17.110 HUB STATIC PRES= 17.080

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	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	595.0888	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
MERIDONAL 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 STATOR 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	298.7084	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 3.00

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)

ROG 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 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	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	21.7600
.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	1.6800	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	.3896	.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	12.0589	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
MERIDONAL 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	0.6135	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	49.6440	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	0.9449	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 TEMP.	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 50M 57S 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)							
CORR. 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	14.1681	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	14.7814	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	0.7060	0.7213	0.6484
ABSOLUTE VELOCITY	802.3383	784.9189	787.1868	779.2560	758.4926	763.0723	791.6368	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	14.8872	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	791.6368	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	11.9360	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	0.6868	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= 103 PCT DES SPD= 90.00 FAN INLET TOT TEMP= 518.688
OUTER WALL STATIC PRES= 14.430 HUB STATIC PRES= 14.400

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	4.2000	-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	793.2081	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	0.5505	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 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	5.3600	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	15.5550	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	580.1833	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	1.8530	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 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	5.3600	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	714.6662	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 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	5.8300	-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	580.7852	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	564.6103	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	11.9483	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	12.3735	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	15.5046	14.3425	16.6137
AXIAL VELOCITY	587.9231	628.4446	646.0435	651.2269	651.7407	629.9726	590.5421	588.9144	567.1208
MERIDONAL 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	604.2949	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	777.9047	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	0.9085	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	11.8909
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	11.7010	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	(601.1357)
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	14.2168	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	0.4994	0.4994	0.5191	0.5596
STATIC PRESS.(ALT.)	17.9969	18.1107	18.2137	18.1884	17.8968	17.4860	17.1530	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
SOLIDITY	1.6400	1.6580	1.6700	1.6940	1.7300	1.7680	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 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	17.0734	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= 518.686
OUTER WALL STATIC PRES= 18.750 HUB STATIC PRES= 18.600

PCT IMMERSION	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	-.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	-.5600	797.2000	447.0000	546.3000	17.1400	22.0000
.850	8.5900	-9.2000	1.6200	2.1000	-.6800	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 STATOR 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	692.6064	672.6477	651.5823
MERIDONAL 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	12.3464	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	14.1609	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
ANGLE (DEG.)	14.2089	11.9758	17.8491	19.7927	26.5426	26.1519	27.7061	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	820.1208	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
DEVIATION	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	1.6580	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 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	820.1208	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 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	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	19.8600
.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	.9900	-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	6.8000	.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	12.3067	6.0230	7.5098
AXIAL VELOCITY	589.2754	606.0916	629.3971	657.5588	660.8939	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
MERIDONAL 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	0.6601	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	-2.6635	-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 3.

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	21.5387
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	16.1039	16.0939	16.4539	16.4807	16.3825	16.0675	16.0384
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	0.4252	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	1.6780	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 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	16.0065	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 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	4.9600	-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
MERIDONAL 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	692.6530	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	592.6057	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 TIP= 15% 25S 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	3.0200	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	17.0711	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	16.6254
TOTAL TEMPERATURE	625.5435	616.2169	606.9256	613.9876	601.0999	593.6005	589.0535	588.0586	589.0905
ANGLE (DEG.)	33.1361	31.7696	30.9926	38.6334	37.0343	38.6608	39.6369	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	32.9369	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	10.8630	4.7866	7.1162
AXIAL VELOCITY	691.2608	688.1938	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	10.8656	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	0.8987	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	0.1[illegible]	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	0.4863	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	0.5534
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 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	588.4486	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 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	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
.282	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	3.6000	-2.6000	745.9000	457.1000	542.9000	16.6200	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
.2822	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
.2822	.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	666.0131	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
.2822	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	

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	14.5815	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	12.0658	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	1.5545	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
MERIDONAL 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	0.6162	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	836.0360	789.4595	741.6286
RELAT. TANG. VELOC.	1462.1685	1411.2512	1366.3971	1254.3804	1114.0617	946.3971	818.3865	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	1052.6606	1017.2341	969.2886
RELATIVE MACH NO.	1.4954	1.4589	1.4284	1.3350	1.2206	1.0861	0.9779	0.9450	0.8986
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	11.4520
RADIUS RATIO	0.9736	0.9464	0.9179	0.8469	0.7495	0.6347	0.5595	0.5198	0.4985
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7010	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	794.4959	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	58.0124	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	0.0789	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	1.6580	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 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	17.2559
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	698.8502	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	4.0999	6.2999	7.2999	8.3000

STATOR INCIDENCE PLOTS (UNIFORM INLET FLOW)

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

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	5.9900	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	6.0600	-1.4400	824.4000	469.2000	563.6000	17.9600	25.1200
.282	12.0000	-8.4000	1.1700	6.1100	4.1700	777.9000	513.8000	575.7000	18.4300	24.7200
.470	10.8200	-10.1000	1.3000	5.0200	-.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	17.6500	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	634.5859	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	.3839	.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	25.5860

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					DISTORTION INDEX	0.000		
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	0.5058	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
MERIDONAL 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	11.3383	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	1030.4288	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	29.2357	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	0.5515	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 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	17.3263	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	1.6700	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 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)

RDG 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 IMMERSION	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 STATOR ANGLE 2.

SPEED (RPM)	12773.0806					DISTORTION INDEX	0.000		
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
MERIDONAL 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	0.6869	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	473.0789	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	0.5505	0.5196	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 10H 48M 1S UNIFORM INLET FLOW STATOR 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	32.1464	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	26.6932	26.8219	28.0888	28.4635	28.9428
APPARENT MACH NO.	0.7441	0.7589	0.7646	0.7170	0.7286	0.7292	0.7469	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	852.4365	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	15.0296	15.4014	15.4234	15.2888	14.9568
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	1.9640
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	852.4343	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	0.7849	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	-3.9230	-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 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	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
.282	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	583.2800	20.0700
.1500	12.8400	580.9400	20.2600
.2822	11.9700	589.5400	20.0200
.4702	10.8300	581.9500	20.2000
.6887	9.5700	582.1400	20.7980
.8500	8.6780	582.9200	20.3500
.9000	8.4000	583.8800	20.2200
.9372	8.1200	584.0680	18.6500

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	.2408	.2359	.1132	.0159	8.1700	.6409	752.4043	750.7761	49.6717
.1000	.1957	.0833	.0393	.4089	7.5700	.7138	864.6767	863.5219	43.0952
.1500	.2180	.0486	.0223	.8884	6.7300	.7247	814.5223	813.9595	30.8733
.2822	.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	12.8480
.6887	.1844	.1142	.0388	2.6139	7.6000	.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	827.6796	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
.2822	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 STATOR ANGLE 5.

SPEED (RPM)	12801.6495					DISTORTION INDEX	0.000		
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								
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	11.5448	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
MERIDONAL 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	736.6962	715.7621	709.8530
MACH NO.	0.6945	0.7146	0.7231	0.7076	0.7023	0.6939	0.6905	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	10.6933	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	5.8000	11.7000	15.0000	19.0000

ROTOR EXIT TRAVERSE PLANE READING NUMBER 108 TIME 11H 21M 34S UNIFORM INLET FLOW STATOR 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	5.3600	5.6800	5.9500
TOTAL PRESSURE	22.8274	22.5721	22.4424	21.7784	21.7599	22.5603	22.5160	22.3791	20.7200
STATIC PRESSURE	15.6813	15.4783	15.2560	15.0188	15.3187	15.5752	15.4099	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	590.7805	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	0.6758	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	665.1002	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	0.6967	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	0.8133	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	0.0140	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	0.6696	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	4.4000	7.2000	9.1000	13.6000	20.5000	25.1000	29.3000

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	590.7803	590.5467	589.2274
ANGLE (DEG.)	24.7924	23.6444	24.8349	34.0778	33.6852	34.5117	34.9312	36.3138	39.6540
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	464.5169	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	586.7876
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 IMMERSION	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	1.8800	-7.3000	825.2000	448.7000	536.3000	15.8800	22.5600
.850	8.5900	-9.2000	1.6200	1.2800	-7.4000	843.6000	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

RERUN 1/ 5/73 TIME 8-46- 7 ***** TRANSONIC FAN RIG - BLD 2 *****
POINT 6 READING 128 DATE12/15/72 PAMB 14.85 TAMB 514.6 TIME 9 19 20 PAGE 1

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

PT1 - PITOT STATIC RAKE

														AVERAGE	14.59(14.69)
25	14.55(14.65)	26	14.64(14.74)	27	14.63(14.74)	28	14.60(14.70)	29	14.57(14.67)	30	14.57(14.68)				
31	14.60(14.71)	32	14.57(14.68)	33	14.62(14.72)	34	14.59(14.69)	35	14.56(14.66)	36	0.00(0.00)				
37	14.55(14.65)	38	14.58(14.68)	39	14.56(14.67)	40	0.00(0.00)	41	14.57(14.68)	42	14.56(14.67)				
43	0.00(0.00)	44	14.57(14.67)	45	0.00(0.00)	46	14.61(14.71)	47	0.00(0.00)	48	14.62(14.73)				
49	0.00(0.00)	50	14.58(14.69)	51	14.56(14.67)	52	0.00(0.00)	53	14.62(14.73)						

PS1 - PITOT STATIC RAKE

														AVERAGE	13.23(13.33)
54	13.22(13.31)	55	13.24(13.33)	56	13.25(13.34)	57	13.25(13.34)	58	13.25(13.35)	59	13.26(13.35)				
60	13.26(13.35)	61	13.18(13.28)	62	13.21(13.31)	63	13.23(13.32)	64	13.23(13.33)	65	13.22(13.31)				
66	13.22(13.32)	67	0.00(0.00)	68	0.00(0.00)	69	13.20(13.30)	70	0.00(0.00)	71	13.21(13.31)				
72	13.21(13.31)	73	0.00(0.00)	74	13.23(13.32)	75	0.00(0.00)	76	13.21(13.31)	77	0.00(0.00)				
78	13.23(13.33)	79	13.24(13.33)	80	0.00(0.00)	81	13.25(13.35)	82	13.28(13.38)						

TT0 - INLET SCREEN TEMPERATURE

														AVERAGE	515.22(518.68)
2	514.95(518.42)	3	514.59(518.05)	4	514.83(518.29)	6	515.13(518.60)	9	515.01(518.48)	10	515.13(518.60)				
11	515.19(518.66)	14	515.31(518.78)	15	515.07(518.54)	16	515.49(518.96)	18	515.13(518.60)	21	515.85(519.32)				
22	515.85(519.32)	23	515.49(518.96)												

PSBW - BELLMOUTH WALL STATIC

														AVERAGE	13.19(13.29)
84	13.19(13.28)	86	13.20(13.29)												

STATIC PRESSURES

														AVERAGE	12.72(12.81)
PS30 - OUTERWALL	88	12.71(12.81)	90	12.72(12.81)											
PS3I - INNERWALL	92	12.66(12.75)	94	12.73(12.82)										AVERAGE	12.70(12.79)
PS40 - OUTERWALL	96	12.72(12.81)	98	12.70(12.80)										AVERAGE	12.71(12.80)
PS4I - INNERWALL	100	12.80(12.89)	102	12.79(12.88)										AVERAGE	12.79(12.88)
PS430 - OUTERWALL	104	12.77(12.86)	106	12.75(12.85)										AVERAGE	12.76(12.85)
PS43I - INNERWALL	108	13.02(13.11)	110	13.02(13.11)										AVERAGE	13.02(13.11)
PS460 - OUTERWALL	112	12.92(13.02)	114	12.93(13.02)										AVERAGE	12.93(13.02)
PS46I - INNERWALL	116	13.06(13.16)	118	13.06(13.15)										AVERAGE	13.06(13.15)
PS50 - OUTERWALL	120	12.37(12.46)	121	12.38(12.47)	122	12.37(12.46)	123	12.37(12.46)						AVERAGE	12.37(12.46)
PS5I - INNERWALL	124	12.72(12.81)	125	12.72(12.81)	126	12.72(12.81)	127	12.73(12.83)						AVERAGE	12.72(12.82)
PS550 - OUTERWALL	146	11.50(11.58)	147	11.53(11.62)	148	11.54(11.62)	149	11.55(11.63)						AVERAGE	11.53(11.61)
PS55I - INNERWALL	150	12.47(12.56)	151	12.52(12.61)	152	12.69(12.78)	153	12.51(12.61)						AVERAGE	12.55(12.64)
PS60 - OUTERWALL	154	11.14(11.23)	155	13.67(13.77)											
PS70 - OUTERWALL	156	11.02(11.10)	157	11.60(11.68)	158	12.31(12.40)	159	12.66(12.75)							
	160	13.62(13.72)	161	14.81(14.92)											
PS80 - OUTERWALL	162	16.25(16.36)	163	16.32(16.44)											
PS90 - OUTERWALL	164	16.31(16.43)	165	16.48(16.60)	166	15.76(15.87)	167	16.24(16.36)						AVERAGE	16.20(16.31)
PS9I - INNERWALL	168	14.85(14.95)	169	14.57(14.67)	170	14.85(14.96)	171	14.55(14.65)						AVERAGE	14.70(14.81)
PS100 - OUTERWALL	172	17.21(17.34)	173	16.59(16.72)	174	16.09(16.21)	175	15.89(16.00)						AVERAGE	16.45(16.57)
PS10I - INNERWALL	176	14.85(14.96)	177	14.44(14.54)	178	13.92(14.02)	179	13.14(13.23)						AVERAGE	14.09(14.19)
PS1020 - OUTERWALL	180	16.36(16.48)													
PS102I - INNERWALL	181	14.37(14.47)													
PS1040 - OUTERWALL	182	16.65(16.77)													
PS104I - INNERWALL	183	13.95(14.05)													
PS1060 - OUTERWALL	184	16.96(17.08)													
PS106I - INNERWALL	185	14.84(14.94)													
PS1080 - OUTERWALL	186	17.21(17.34)													
PS1081 - INNERWALL	187	15.64(15.75)													
PS110 - OUTERWALL	188	17.68(17.81)	189	17.56(17.69)	190	17.37(17.49)	191	17.26(17.38)						AVERAGE	17.47(17.60)
PS11I - INNERWALL	192	16.50(16.62)	193	16.37(16.49)	194	16.21(16.33)	195	15.83(15.94)						AVERAGE	16.23(16.34)
PS120 - OUTERWALL	196	17.26(17.38)	197	17.39(17.51)	198	17.46(17.59)	199	17.31(17.43)						AVERAGE	17.35(17.48)
PS121 - INNERWALL	200	17.29(17.42)	201	17.19(17.32)	202	17.23(17.35)	203	17.21(17.33)						AVERAGE	17.23(17.35)
PS130 - OUTERWALL	465	19.13(19.27)													
PS13I - INNERWALL	469	19.21(19.35)													

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)

ANGLE 136			ANGLE 320		
204	22.51	22.68	215	21.68	21.84
205	20.18	20.32	216	19.21	19.35
206	20.42	20.57	217	19.57	19.71
207	22.03	22.19	218	21.06	21.22
208	22.40	22.56	219	21.80	21.96
209	22.39	22.55	220	21.87	22.03
210	22.35	22.52	221	21.75	21.91
211	22.40	22.56	222	21.65	21.81
212	22.42	22.58	223	21.71	21.87
213	22.47	22.64	224	21.94	22.10
214	22.46	22.62	225	21.99	22.15

IMMERSION B - AVG 22.55(22.71)

ANGLE 72			ANGLE 248		
226	22.42	22.58	237	21.97	22.13
227	21.43	21.58	238	21.60	21.75
228	22.07	22.24	239	22.28	22.44
229	22.82	22.99	240	22.70	22.86
230	22.86	23.03	241	22.68	22.84
231	22.86	23.02	242	22.71	22.88
232	22.99	23.15	243	22.75	22.92
233	22.85	23.01	244	22.68	22.84
234	22.69	22.85	245	22.55	22.71
235	22.76	22.92	246	22.61	22.77
236	22.67	22.84	247	22.58	22.74

IMMERSION C - AVG 22.71(22.87)

ANGLE 168			ANGLE 352		
248	21.90	22.06	259	21.38	21.53
249	22.51	22.67	260	22.63	22.79
250	22.94	23.11	261	22.84	23.00
251	22.90	23.06	262	22.77	22.93
252	22.93	23.10	263	22.78	22.95
253	22.93	23.09	264	22.83	22.99
254	22.95	23.12	265	22.78	22.95
255	22.91	23.08	266	22.64	22.80
256	22.84	23.00	267	22.60	22.77
257	22.77	22.93	268	22.57	22.73
258	22.40	22.57	269	22.04	22.20

IMMERSION D - AVG 21.59(21.75)

ANGLE 96			ANGLE 280		
270	21.51	21.66	281	21.59	21.74
271	20.83	20.99	282	20.99	21.15
272	21.46	21.62	283	21.62	21.78
273	21.63	21.79	284	21.78	21.93
274	21.63	21.79	285	21.79	21.95
275	21.63	21.78	286	21.77	21.93
276	21.61	21.77	287	21.72	21.88
277	21.58	21.74	288	21.71	21.87
278	21.60	21.75	289	21.71	21.87
279	21.61	21.77	290	21.71	21.87
280	21.67	21.83	291	21.75	21.91

IMMERSION E - AVG 21.65(21.81)

ANGLE 40			ANGLE 216		
292	21.65	21.80	303	21.50	21.66
293	19.71	19.85	304	21.01	21.16
294	21.45	21.60	305	21.63	21.78
295	21.63	21.78	306	21.77	21.92
296	21.67	21.83	307	21.82	21.98
297	21.65	21.81	308	21.82	21.98
298	21.64	21.80	309	21.80	21.96
299	21.65	21.81	310	21.79	21.95
300	21.68	21.83	311	21.82	21.98
301	21.71	21.86	312	21.88	22.04
302	21.77	21.93	313	21.97	22.13

IMMERSION F - AVG 22.66(22.82)

ANGLE 72			ANGLE 248		
314	22.76	22.92	325	22.46	22.62
315	21.21	21.37	326	21.26	21.41
316	22.42	22.59	327	22.62	22.79
317	22.84	23.01	328	22.75	22.92
318	22.89	23.05	329	22.78	22.95
319	22.91	23.07	330	22.80	22.96
320	22.89	23.06	331	22.80	22.97
321	22.88	23.04	332	22.79	22.96
322	22.89	23.06	333	22.81	22.97
323	22.92	23.09	334	22.83	23.00
324	22.86	23.03	335	22.80	22.96

IMMERSION G - AVG 21.88(22.04)

ANGLE 168			ANGLE 352		
336	21.88	22.04	347	22.12	22.28
337	20.67	20.82	348	20.66	20.81
338	21.60	21.75	349	20.88	21.03
339	22.07	22.23	350	21.81	21.97
340	22.10	22.26	351	22.06	22.22
341	22.12	22.28	352	22.14	22.30
342	22.10	22.26	353	22.14	22.30
343	22.08	22.24	354	22.13	22.30
344	22.06	22.22	355	22.13	22.29
345	22.04	22.20	356	22.14	22.30
346	22.10	22.26	357	22.15	22.31

IMMERSION H - AVG 21.29(21.44)

ANGLE 96			ANGLE 280		
358	21.90	22.06	369	22.01	22.17
359	21.91	22.07	370	21.89	22.05
360	21.62	21.78	371	20.89	21.05
361	20.24	20.39	372	19.84	19.99
362	19.81	19.95	373	19.96	20.10
363	20.29	20.44	374	20.80	20.96
364	21.09	21.24	375	21.55	21.70
365	21.60	21.75	376	21.79	21.95
366	21.76	21.91	377	21.81	21.97
367	21.76	21.92	378	21.89	22.05
368	21.80	21.96	379	21.96	22.12

IMMERSION J - AVG 20.21(20.35)

ANGLE 40			ANGLE 216		
380	21.31	21.46	391	20.92	21.07
381	20.59	20.74	392	19.82	19.96
382	20.08	20.23	393	18.67	18.81
383	19.07	19.21	394	18.47	18.60
384	18.71	18.85	395	18.80	18.94
385	19.21	19.35	396	19.46	19.60
386	20.10	20.25	397	20.09	20.24
387	20.86	21.01	398	20.60	20.75
388	21.11	21.27	399	20.96	21.11
389	21.18	21.34	400	21.09	21.24
390	21.23	21.38	401	21.12	21.27

TT12 - STAGE EXIT TOTAL

IMMERSION A	IMMERSION B	IMMERSION C	IMMERSION D	IMMERSION 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)

IMMERSION F	IMMERSION G	IMMERSION H	IMMERSION 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

REFERENCE TEMPERATURES - ICE-BATH

520 491.750 521 491.812 522 491.566 523 491.628 524 491.689 525 491.628

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	1.4226	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
MERIDONAL 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	10.5899	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 128 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	16.2163	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	31.8267	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	569.6181	569.7386	626.7992	610.6003	588.7442	568.8320
ABSOLUTE VELOCITY	814.0692	801.3922	770.6423	729.0702	727.3930	787.4357	785.4456	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	934.5701	896.9235	862.5297
RELAT. TANG. VELOC.	1135.5514	1121.0541	1078.5457	919.4189	782.6377	572.0647	456.8663	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	16.5554	16.3811	16.0841
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	1.8530	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									
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	30.7273	26.2003	12.3929	5.2968	7.4580

CALCULATING PLANE									
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 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	5.8700	-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	4.6600	-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					DISTORTION INDEX	0.000		
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								
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	1.7863	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
MERIDONAL 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	1390.8955	1235.0912	1128.6136	1083.2554	1039.4800
RELATIVE MACH NO.	1.5998	1.5761	1.5391	1.4314	1.3050	1.1571	1.0567	1.0125	0.9705
MCL INCIDENCE	2.3658	1.5650	1.6546	2.2655	1.6132	1.3757	1.4936	0.8389	-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 8H 47M 4S UNIFORM INLET FLOW 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	39.3767	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	578.1742	548.1096

CALCULATING PLANE									
SWIRL VELOCITY	467.4549	380.0826	418.2893	464.5824	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	932.1838	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	1.6740	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 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 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	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	-8.4000	1.1700	4.8000	-.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

RERUN 1/ 5/73 TIME 8-42-17 ***** TRANSONIC FAN RIG - BLD 2 *****
POINT 4 READING 126 DATE12/15/72 PAMB 14.85 TAMB 513.1 TIME 8 43 56 PAGE 1

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	0.1677	0.8373	0.8485	4987.58
MIXING DUCT	0.1883	0.8346	0.8461	5003.40
TORQUEMETER	-0.0055	*******	*******	-147.88

STAGE ELEMENT PERFORMANCE

IMMERSION	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

PT1 - PITOT STATIC RAKE

													AVERAGE	14.58(14.69)
25	14.56(14.66)	26	14.63(14.73)	27	14.62(14.72)	28	14.59(14.69)	29	14.56(14.67)	30	14.57(14.67)			
31	14.59(14.70)	32	14.57(14.68)	33	14.62(14.73)	34	14.61(14.71)	35	14.58(14.68)	36	0.00(0.00)			
37	14.54(14.64)	38	14.58(14.69)	39	14.55(14.66)	40	0.00(0.00)	41	14.58(14.69)	42	14.58(14.68)			
43	0.00(0.00)	44	14.56(14.67)	45	0.00(0.00)	46	14.61(14.72)	47	0.00(0.00)	48	14.62(14.73)			
49	0.00(0.00)	50	14.58(14.69)	51	14.56(14.66)	52	0.00(0.00)	53	14.62(14.73)					

PS1 - PITOT STATIC RAKE

													AVERAGE	13.25(13.35)
54	13.24(13.33)	55	13.26(13.35)	56	13.27(13.36)	57	13.26(13.36)	58	13.27(13.37)	59	13.28(13.37)			
60	13.27(13.37)	61	13.20(13.30)	62	13.24(13.34)	63	13.25(13.35)	64	13.25(13.35)	65	13.24(13.34)			
66	13.24(13.34)	67	0.00(0.00)	68	0.00(0.00)	69	13.21(13.31)	70	0.00(0.00)	71	13.23(13.32)			
72	13.23(13.33)	73	0.00(0.00)	74	13.24(13.34)	75	0.00(0.00)	76	13.24(13.33)	77	0.00(0.00)			
78	13.25(13.35)	79	13.26(13.35)	80	0.00(0.00)	81	13.27(13.37)	82	13.30(13.40)					

TTO - INLET SCREEN TEMPERATURE

													AVERAGE	512.51(518.68)
2	512.30(518.47)	3	512.36(518.53)	4	512.42(518.59)	6	512.60(518.77)	9	512.48(518.65)	10	512.54(518.71)			
11	512.54(518.71)	14	512.48(518.65)	15	512.36(518.53)	16	512.72(518.89)	18	512.36(518.53)	21	512.78(518.95)			
22	512.66(518.83)	23	512.60(518.77)											

PSBW - BELLMOUTH WALL STATIC

													AVERAGE	13.21(13.31)
84	13.21(13.31)	86	13.22(13.32)											

STATIC PRESSURES

													AVERAGE	12.75(12.85)
PS30 - OUTERWALL	88	12.75(12.84)	90	12.76(12.85)										
PS31 - INNERWALL	92	12.69(12.78)	94	12.73(12.82)									AVERAGE	12.71(12.80)
PS40 - OUTERWALL	96	12.75(12.84)	98	12.74(12.83)									AVERAGE	12.75(12.84)
PS41 - INNERWALL	100	12.83(12.92)	102	12.82(12.91)									AVERAGE	12.83(12.92)
PS430 - OUTERWALL	104	12.80(12.90)	106	12.77(12.87)									AVERAGE	12.79(12.88)
PS43I - INNERWALL	108	13.05(13.14)	110	13.04(13.14)									AVERAGE	13.05(13.14)
PS460 - OUTERWALL	112	12.94(13.04)	114	12.93(13.03)									AVERAGE	12.94(13.03)
PS46I - INNERWALL	116	13.09(13.19)	118	13.10(13.19)									AVERAGE	13.10(13.19)
PS50 - OUTERWALL	120	12.43(12.52)	121	12.43(12.52)	122	12.41(12.50)	123	12.42(12.51)					AVERAGE	12.42(12.51)
PS51 - INNERWALL	124	12.77(12.86)	125	12.79(12.88)	126	12.79(12.88)	127	12.79(12.88)					AVERAGE	12.78(12.88)
PS550 - OUTERWALL	146	11.63(11.71)	147	11.63(11.71)	148	11.62(11.71)	149	11.62(11.71)					AVERAGE	11.63(11.71)
PS551 - INNERWALL	150	12.55(12.64)	151	12.63(12.72)	152	12.77(12.86)	153	12.60(12.69)					AVERAGE	12.64(12.73)
PS60 - OUTERWALL	154	11.32(11.40)	155	13.76(13.86)										
PS70 - OUTERWALL	156	11.84(11.93)	157	12.88(12.97)	158	13.08(13.17)	159	13.74(13.84)						
	160	17.43(17.56)	161	19.05(19.19)										
PS80 - OUTERWALL	162	19.29(19.43)	163	19.15(19.29)										
PS90 - OUTERWALL	164	19.07(19.21)	165	19.00(19.14)	166	18.22(18.35)	167	18.59(18.73)					AVERAGE	18.72(18.86)
PS91 - INNERWALL	168	16.27(16.39)	169	16.98(17.10)	170	16.42(16.54)	171	16.12(16.24)					AVERAGE	16.45(16.57)
PS100 - OUTERWALL	172	20.53(20.68)	173	19.52(19.66)	174	18.49(18.62)	175	17.58(17.71)					AVERAGE	19.03(19.17)
PS10I - INNERWALL	176	17.82(17.94)	177	17.09(17.21)	178	16.10(16.22)	179	14.01(14.11)					AVERAGE	16.25(16.37)
PS1020 - OUTERWALL	180	19.19(19.33)												
PS102I - INNERWALL	181	17.51(17.64)												
PS1040 - OUTERWALL	182	19.63(19.77)												
PS104I - INNERWALL	183	17.80(17.93)												
PS1060 - OUTERWALL	184	19.79(19.94)												
PS106I - INNERWALL	185	17.91(18.04)												
PS1080 - OUTERWALL	186	19.77(19.92)												
PS108I - INNERWALL	187	18.17(18.30)												
PS110 - OUTERWALL	188	20.30(20.45)	189	20.22(20.37)	190	19.98(20.13)	191	19.72(19.87)					AVERAGE	20.06(20.20)
PS11I - INNERWALL	192	18.78(18.92)	193	18.61(18.75)	194	18.53(18.67)	195	18.27(18.41)					AVERAGE	18.55(18.69)
PS120 - OUTERWALL	196	19.72(19.86)	197	20.15(20.29)	198	19.95(20.09)	199	19.93(20.07)					AVERAGE	19.94(20.08)
PS12I - INNERWALL	200	19.64(19.78)	201	19.71(19.86)	202	19.64(19.79)	203	19.60(19.75)					AVERAGE	19.65(19.79)
PS130 - OUTERWALL	465	21.76(21.92)												
PS13I - INNERWALL	469	20.80(20.95)												

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)

ANGLE 136			ANGLE 320		
204	26.60	26.80	215	25.38	25.56
205	23.71	23.89	216	22.29	22.45
206	22.14	22.30	217	21.72	21.88
207	23.36	23.53	218	23.00	23.17
208	25.23	25.41	219	24.69	24.87
209	26.32	26.52	220	25.35	25.53
210	26.58	26.77	221	25.35	25.54
211	26.54	26.73	222	25.32	25.51
212	26.50	26.69	223	25.50	25.69
213	26.55	26.74	224	25.71	25.89
214	26.62	26.82	225	25.84	26.03

IMMERSION B - AVG 25.37(25.55)

ANGLE 72			ANGLE 248		
226	25.88	26.06	237	26.16	26.35
227	24.40	24.58	238	23.25	23.42
228	23.61	23.79	239	24.38	24.56
229	25.15	25.33	240	25.41	25.59
230	25.65	25.84	241	25.65	25.84
231	25.78	25.97	242	25.61	25.79
232	25.75	25.93	243	25.53	25.71
233	25.69	25.88	244	25.61	25.80
234	25.74	25.93	245	25.69	25.88
235	25.77	25.96	246	25.69	25.87
236	25.85	26.03	247	26.07	26.26

IMMERSION C - AVG 25.05(25.24)

ANGLE 168			ANGLE 352		
248	24.69	24.87	259	23.29	23.46
249	24.64	24.82	260	23.50	23.68
250	25.41	25.59	261	25.14	25.33
251	25.43	25.61	262	25.34	25.52
252	25.25	25.43	263	25.32	25.50
253	25.17	25.36	264	25.23	25.41
254	25.13	25.32	265	25.14	25.32
255	25.13	25.32	266	25.14	25.32
256	25.16	25.35	267	25.17	25.35
257	25.20	25.39	268	25.16	25.34
258	25.29	25.47	269	24.83	25.01

IMMERSION D - AVG 24.34(24.52)

ANGLE 96			ANGLE 280		
270	24.68	24.86	281	24.51	24.68
271	23.12	23.29	282	23.06	23.23
272	23.23	23.40	283	23.51	23.68
273	24.36	24.54	284	24.42	24.60
274	24.68	24.86	285	24.60	24.78
275	24.71	24.89	286	24.58	24.76
276	24.63	24.81	287	24.56	24.74
277	24.59	24.77	288	24.57	24.74
278	24.59	24.77	289	24.59	24.77
279	24.59	24.77	290	24.55	24.73
280	24.61	24.79	291	24.53	24.71

IMMERSION E - AVG 24.97(25.15)

ANGLE 40			ANGLE 216		
292	25.17	25.36	303	25.03	25.21
293	22.16	22.32	304	22.83	22.99
294	24.48	24.66	305	24.11	24.28
295	25.19	25.37	306	25.14	25.33
296	25.28	25.46	307	25.27	25.45
297	25.30	25.48	308	25.29	25.48
298	25.29	25.47	309	25.27	25.45
299	25.29	25.48	310	25.25	25.44
300	25.30	25.48	311	25.24	25.43
301	25.28	25.47	312	25.24	25.42
302	25.28	25.47	313	25.21	25.39

IMMERSION F - AVG 23.69(23.87)

ANGLE 72			ANGLE 248		
314	23.95	24.12	325	24.14	24.31
315	22.81	22.98	326	22.59	22.76
316	22.09	22.25	327	22.10	22.26
317	23.61	23.78	328	23.45	23.62
318	23.92	24.09	329	23.89	24.07
319	23.94	24.11	330	23.99	24.16
320	23.92	24.09	331	24.02	24.20
321	23.91	24.08	332	24.07	24.24
322	23.95	24.13	333	24.15	24.33
323	23.99	24.17	334	24.19	24.37
324	23.97	24.14	335	24.20	24.37

IMMERSION G - AVG 21.88(22.04)

ANGLE 168			ANGLE 352		
336	22.70	22.87	347	22.94	23.11
337	21.78	21.94	348	22.09	22.25
338	20.77	20.92	349	20.97	21.12
339	20.79	20.94	350	20.89	21.04
340	20.31	20.46	351	21.60	21.75
341	20.70	20.85	352	22.22	22.38
342	21.21	21.36	353	22.51	22.67
343	21.65	21.81	354	22.68	22.84
344	22.02	22.18	355	22.77	22.94
345	22.24	22.40	356	22.84	23.01
346	22.27	22.44	357	22.89	23.05

IMMERSION H - AVG 21.78(21.94)

ANGLE 96			ANGLE 280		
358	22.68	22.84	369	22.65	22.81
359	22.81	22.97	370	22.43	22.59
360	22.49	22.65	371	21.59	21.75
361	21.31	21.47	372	20.64	20.79
362	20.51	20.66	373	20.26	20.41
363	20.50	20.65	374	20.49	20.64
364	20.88	21.04	375	20.95	21.11
365	21.45	21.61	376	21.58	21.74
366	22.03	22.19	377	22.11	22.27
367	22.33	22.49	378	22.40	22.56
368	22.55	22.72	379	22.55	22.71

IMMERSION J - AVG 21.19(21.35)

ANGLE 40			ANGLE 216		
380	22.36	22.52	391	22.14	22.30
381	21.63	21.78	392	21.25	21.41
382	21.40	21.56	393	20.27	20.42
383	20.49	20.64	394	19.90	20.05
384	19.99	20.14	395	19.88	20.03
385	19.98	20.13	396	20.08	20.23
386	20.25	20.40	397	20.39	20.54
387	20.82	20.97	398	20.88	21.03
388	21.42	21.57	399	21.48	21.64
389	21.95	22.11	400	21.99	22.15
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)	AVG 622.38(629.87)	AVG 614.45(621.85)	AVG 611.91(619.28)	AVG 607.84(615.16)
402 635.96(643.61)	409 630.32(637.91)	416 622.29(629.78)	423 609.64(616.98)	430 609.70(617.04)
403 622.18(629.66)	410 609.64(616.98)	417 611.26(618.62)	424 608.64(615.97)	431 606.91(614.21)
404 609.59(616.92)	411 624.38(631.90)	418 616.48(623.90)	425 616.70(624.12)	432 609.75(617.09)
405 630.10(637.68)	412 618.08(625.53)	419 611.59(618.95)	426 612.70(620.08)	433 607.13(614.44)
406 637.70(645.38)	413 620.41(627.88)	420 614.26(621.65)	427 615.20(622.61)	434 610.26(617.60)
407 629.11(636.68)	414 616.92(624.35)	421 612.43(619.80)	428 610.26(617.60)	435 603.72(610.99)
408 609.59(616.92)	415 621.73(629.22)	422 617.97(625.41)	429 616.20(623.62)	436 610.37(617.71)

IMMERSION F	IMMERSION G	IMMERSION H	IMMERSION J
AVG 593.49(600.63)	AVG 588.91(596.00)	AVG 590.27(597.38)	AVG 592.35(599.48)
437 609.64(616.98)	444 589.53(596.63)	451 590.61(597.72)	458 594.05(601.21)
438 590.27(597.37)	445 590.21(597.32)	452 592.19(599.32)	459 591.29(598.41)
439 596.99(604.17)	446 588.34(595.43)	453 588.00(595.08)	460 592.47(599.61)
440 594.22(601.38)	447 587.15(594.22)	454 587.04(594.11)	461 590.95(598.06)
441 592.47(599.61)	448 589.25(596.34)	455 589.82(596.92)	462 593.15(600.29)
442 593.49(600.64)	449 587.15(594.22)	456 590.21(597.32)	463 591.34(598.46)
443 596.25(603.43)	450 591.34(598.46)	457 590.83(597.95)	464 593.66(600.81)

TT14 - MIXING DUCT TEMPERATURES

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

FLOWS

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

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

REFERENCE TEMPERATURES -- ICE BATH

520 491.566 521 492.057 522 491.689 523 491.812 524 491.689 525 491.628

ROTOR INLET TRAVERSE PLANE READING NUMBER 126 TIME 9H 22M 28S UNIFORM INLET FLOW STATOR ANGLE 3.

SPEED (RPM)	12722.5747					DISTORTION INDEX	0.000		
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	10.3250	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
MERIDONAL 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 9H 22M 29S UNIFORM INLET FLOW STATOR ANGLE 3.00

MASS AVERAGED PT	25.1616	(25.3434)							
MASS AVERAGED TT	616.0846	(622.4784)							
TOTAL WEIGHT FLOW	154.1383	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	154.4528								
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	933.9164	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	0.8565	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	0.0787	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	0.6000	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 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)

RDG 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 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	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	824.8000	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	17.7780	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	.6000	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	615.1600	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
MERIDONAL 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	951.0837	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	0.5196	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 11H 34M 6S UNIFORM INLET FLOW STATOR ANGLE 3.00

MASS AVERAGED PT	21.6556	(21.9124)							
MASS AVERAGED TT	600.2447	(601.3956)							
TOTAL WEIGHT FLOW	164.3792	(PROBE INTEGRATION)							
CORR. TOTAL FLOW	166.1689								
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	21.8407	21.6501	21.5697	20.6621	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	602.1966	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	0.7998	0.7939	0.7495
ABSOLUTE VELOCITY	903.2599	872.0362	918.3576	828.0465	879.0685	881.4693	905.6319	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	1.0550	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	29.3000

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									
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	20.6621	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	0.7938	0.7939	0.7495
ABSOLUTE VELOCITY	903.2599	872.0359	918.3576	828.0463	879.0684	881.4691	905.6306	897.9697	851.3543
SWIRL VELOCITY	308.2916	290.4703	319.3586	408.2784	444.7350	466.7658	495.1467	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									
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)

RNG 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 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	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	8.3600	.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
MERIDONAL 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	963.7040	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	1517.2696	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	25.7092	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	0.5505	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 110 TIME 13F 28' 46S UNIFORM INLET FLOW STATOR ANGLE 3.00

MASS AVERAGED PT	22.1108	(22.3685)	
MASS AVERAGED TT	604.8094	(604.6541)	
TOTAL WEIGHT 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	33.7542	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	0.0122	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	0.6030	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
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 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	23.5143	23.2109	21.9687
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
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 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	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	-.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	530.6000	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	9.5700	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	717.0258	714.9792	54.1360
.1000	.1694	.0671	.0315	.1747	6.8900	.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	779.6603	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	10.6008	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	1.5865	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
MERIDONAL 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	1131.9138
RELATIVE MACH NO.	1.7836	1.7457	1.7063	1.5829	1.4417	1.2731	1.1561	1.1142	1.0641
MCL INCIDENCE	2.0931	1.8921	1.8026	2.6012	1.9905	1.8011	2.2028	1.3733	0.0860
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	467.1839	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	9.7262	9.7022	9.9676	10.0180	10.1480	10.2604	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 STATOR ANGLE 3.00

MASS AVERAGED PT	24.0224	(24.2852)							
MASS AVERAGED TT	623.0958	(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	0.6873	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	39.4480	39.9355	41.7875	47.4112
MACH NO.	0.7438	0.7103	0.6975	0.6387	0.6633	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	1.6480	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 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	17.1646	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	12.8034	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 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	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
.689	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	24.3100
.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	.3104	.0685	.0322	.6763	9.3200	.6497	764.6463	761.9422	68.2499
.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	25.3878
.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					DISTORTION INDEX	0.000		
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	824.5952	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	0.7301	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	0.5505	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 114 TIME 14H 5M 57S UNIFORM 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.							
IMMERSION (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	16.3334	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	0.7102	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	5.3630	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	17.8038	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	0.7102	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	530.0034	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	0.7267	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 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	5.1500	-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	22.0100

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	.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	.0548	.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	.0848	.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		
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		

DISTORTION INDEX 0.068

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
MERIDONAL 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	0.5595	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

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 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	557.4769	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	42.4160	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
PROFILE 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	15.6000
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	557.4768	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	524.6000	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	7.0100	.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		
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		

DISTORTION INDEX 0.043

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	0.3037	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
MERIDONAL 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

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 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.							
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	19.7904	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	0.0353	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
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	1.8560	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	0.4959	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

HUB RADIAL DIST. STATOR INCIDENCE PLOTS

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

PCT IMMERSION	IN RADIUS	EX BL ANG	SOLIDITY	EX FLO ANG	INC ANG S8	IN VEL	IN TANG VELOCITY	IN STAT TEMP	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	-.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	.4285	.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	.5913	.2925	.0901	.5037	2.2300	.3227	372.0319	371.1392	-25.7573
.9000	.5668	.2628	.0787	.4552	5.5600	.3118	359.3165	359.3005	-3.3864
.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					DISTORTION INDEX	0.115		
ACTUAL ORIFICE 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								
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
MERIDONAL 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	11.4160	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	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	13.5642	13.2328	13.1981	13.4215	13.7182	13.4281	13.2496	13.2393	13.2604
WEDGE PRESSURE	15.3072	14.9651	14.9726	15.2430	15.5753	15.1483	15.0075	15.0389	15.0615
TOTAL TEMPERATURE	574.4521	571.2875	570.0804	586.7406	578.8521	584.7406	585.4333	586.7691	587.7645
ANGLE	20.1846	21.6286	21.6915	28.8696	29.2105	37.7521	40.4824	41.2668	42.7161
APPARENT MACH NO.	0.6363	0.6414	0.6514	0.6554	0.6543	0.6355	0.6457	0.6561	0.6558

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	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
ANGLE	15.1886	12.9040	13.2585	18.2588	26.5354	27.7083	34.0442	34.5811	34.8636
APPARENT MACH NO.	0.6204	0.6883	0.6760	0.6721	0.6804	0.6342	0.6538	0.6758	0.6857

MEASURING PLANE									
MACH NO.	0.6271	0.6969	0.6842	0.6802	0.6888	0.6413	0.6614	0.6840	0.6942
ABSOLUTE VELOCITY	708.8246	779.6181	766.3599	773.1414	775.7344	730.6065	751.9414	776.2903	787.1317
SWIRL VELOCITY	243.7889	286.5573	282.5954	372.9910	378.5576	446.0191	484.5871	506.9267	528.0943
WEIGHT FLOW	13.5221	9.2513	16.0967	25.1550	29.7671	19.5129	9.1787	4.1509	6.0101
AXIAL VELOCITY	663.1492	722.7086	710.4405	676.5220	677.0580	576.0006	567.7341	577.6990	571.9710

CALCULATING PLANE									
SWIRL VELOCITY	242.1779	284.8312	281.2850	372.0631	378.9077	449.8435	491.5429	515.7760	540.4233
AXIAL VELOCITY	621.8329	675.0102	666.5637	643.5784	651.6210	552.8362	536.8030	542.7391	535.4619
ABSOLUTE VELOCITY	675.6572	738.6528	727.7888	744.7372	754.7592	715.6403	736.3268	760.3874	775.8687
MERIDIONAL VELOCITY	629.7591	680.5263	670.2353	644.1434	651.7640	555.5831	547.2246	557.6970	555.6712
ANGLE	21.2480	22.8480	22.8489	29.9947	30.1396	39.0851	42.4273	43.4887	45.2113
MACH NO.	0.5956	0.6570	0.6468	0.6530	0.6685	0.6271	0.6455	0.6687	0.6834
WEIGHT FLOW	13.5269	9.2567	16.1110	25.1341	29.7892	19.5278	9.1819	4.1525	6.0103
ROTOR TANG. VELOC.	1367.7145	1334.7859	1301.5642	1212.7913	1065.5942	937.6377	839.9164	805.7314	774.1075
RELAT. TANG. VELOC.	1125.5364	1049.9549	1020.2790	840.7280	706.6865	487.7943	348.3735	289.9554	233.6841
RELATIVE FLOW ANGLE	60.7723	57.0509	56.6987	52.5418	47.3154	41.2828	32.4817	27.4707	22.8089
RELATIVE VELOCITY	1289.7396	1251.2076	1220.7310	1059.1245	961.3540	739.3347	648.7054	628.5697	602.8090
RELATIVE MACH NO.	1.1370	1.1130	1.0849	0.9288	0.8515	0.6478	0.5696	0.5527	0.5309
DEVIATION	4.7723	0.7509	0.7987	1.3418	0.3153	2.5828	4.5817	4.5707	4.2089
AIR TURNING ANGLE	2.0631	4.2958	3.8011	6.5546	7.2388	16.9486	23.0391	26.4640	30.5965
ROTOR REL. MACH NO.	1.0661	1.0521	1.0329	0.9791	0.8955	0.7904	0.7184	0.6926	0.6686
IDEAL PRESS. RATIO	0.9568	0.9627	0.9711	0.9877	1.0041	1.0195	1.0383	1.0451	1.0545
ROTOR PRESS. RATIO	1.3263	1.2960	1.3123	1.3519	1.3683	1.4764	1.4746	1.4847	1.4926
ROTOR TEMP. RATIO	1.1059	1.1018	1.1011	1.1328	1.1145	1.1274	1.1281	1.1306	1.1311
ADIABATIC EFFY.	0.7923	0.7543	0.7977	0.6763	0.8174	0.9222	0.9142	0.9133	0.9226
POLYTR. EFFICIENCY	0.8004	0.7632	0.8054	0.6897	0.8253	0.9264	0.9188	0.9180	0.9269
TOTAL LOSS COEFF.	0.0899	0.1057	0.0894	0.1944	0.1076	0.0684	0.0904	0.0989	0.0979
SHOCK LOSS COEFF.	0.0114	0.0138	0.0201	0.0549	0.0531	0.0049	-0.0019	-0.0039	-0.0068
PROFILE LOSS COEFF.	0.0784	0.0919	0.0693	0.1395	0.0545	0.0634	0.0924	0.1029	0.1047
TOTAL LOSS PARAM.	0.0133	0.0173	0.0147	0.0349	0.0210	0.0143	0.0205	0.0229	0.0231
PROFILE LOSS PARAM.	0.0116	0.0150	0.0114	0.0250	0.0106	0.0133	0.0209	0.0239	0.0247
ROTOR DIFFUS. FACT.	0.2283	0.2354	0.2381	0.3172	0.3393	0.4167	0.4531	0.4581	0.4619
STATIC PRESS.	15.8147	14.7710	15.0310	15.2739	15.3892	15.2529	14.9932	14.8784	14.7087
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	1.7680	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 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	484.5867	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 IMMENSION	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	8.7000	-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
.0500	.2381	.2783	.1333	-.2574	9.1000	.5520	629.2970	627.1809	51.5636
.1000	.2730	.0442	.0208	.8319	9.4000	.5975	676.1901	673.7188	57.7581
.1500	.2887	.0782	.0358	1.0711	6.8000	.5961	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	667.6919	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 3

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 RADIAL 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	14.1967	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	15.7764	15.6750	15.5653
WEDGE PRESSURE	15.8790	15.6694	15.9051	16.4646	16.5399	16.2073	15.8658	15.7657	15.6617
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	0.9067	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	1.8580	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 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 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	5.1800	-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	517.3000	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	10.8380	584.5000	21.3000
.6887	9.5700	588.1000	19.9000
.8500	8.6700	587.2000	19.9500
.9000	8.4000	586.3000	19.8300
.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	.3541	.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	.0095	.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 0M 29S RADIAL INLET DISTORTION STATOR ANGLE 3

ROTOR SPEED	11599.1830					DISTORTION INDEX	0.099		
ACTUAL ORIFICE 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	517.7963	518.0917	518.6313
ANGLE	-0.2934	1.7470	1.7495	1.8436	1.6165	2.3135	2.1734	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
MERIDONAL 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	568.3368	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	577.9821	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	578.4095	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	1.6408	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 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	16.2650	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 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	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	8.6700	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	.1849	.0862	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	573.6679	26.8519
.6887	.5316	.1663	.0566	1.2042	7.7200	.4300	504.2077	504.1427	8.0957
.8500	.5193	.2845	.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	11.1151	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	16.2829
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

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 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.	0.2123	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
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 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 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	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

RERUN 2/ 7/73 TIME 8-48- 2 ***** TRANSONIC FAN RIG - BLD 2 *****
POINT 7 READING 220 DATE 2/ 1/73 PAMB 14.74 TAMB 523.6 TIME 12 21 18 PAGE 1

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

PT1 - PITOT STATIC RAKE

															AVERAGE	14.51(15.61)
25	0.00(0.00)	26	14.55(15.65)	27	0.00(0.00)	28	0.00(0.00)	29	14.49(15.59)	30	0.00(0.00)					
31	14.52(15.62)	32	0.00(0.00)	33	14.54(15.64)	34	0.00(0.00)	35	14.50(15.60)	36	0.00(0.00)					
37	14.48(15.58)	38	14.50(15.61)	39	14.49(15.59)	40	0.00(0.00)	41	14.48(15.58)	42	14.48(15.58)					
43	0.00(0.00)	44	14.48(15.58)	45	0.00(0.00)	46	14.52(15.62)	47	0.00(0.00)	48	14.57(15.67)					
49	0.00(0.00)	50	14.50(15.60)	51	0.00(0.00)	52	0.00(0.00)	53	14.53(15.64)							

PS1 - PITOT STATIC RAKE

															AVERAGE	13.45(14.47)
54	13.79(14.84)	55	0.00(0.00)	56	13.43(14.45)	57	0.00(0.00)	58	0.00(0.00)	59	13.43(14.45)					
60	0.00(0.00)	61	13.38(14.40)	62	0.00(0.00)	63	13.42(14.44)	64	0.00(0.00)	65	0.00(0.00)					
66	13.41(14.43)	67	0.00(0.00)	68	0.00(0.00)	69	0.00(0.00)	70	0.00(0.00)	71	13.40(14.42)					
72	13.40(14.42)	73	0.00(0.00)	74	13.42(14.44)	75	0.00(0.00)	76	13.41(14.43)	77	0.00(0.00)					
78	13.42(14.44)	79	0.00(0.00)	80	0.00(0.00)	81	13.44(14.46)	82	13.45(14.48)							

TT0 - INLET SCREEN TEMPERATURE

															AVERAGE	522.68(518.68)
2	522.63(518.63)	3	522.57(518.57)	4	522.69(518.69)	6	522.57(518.57)	9	522.57(518.57)	10	522.33(518.33)					
11	522.39(518.39)	14	522.57(518.57)	15	522.51(518.51)	16	522.63(518.63)	18	522.45(518.45)	21	523.82(519.81)					
22	523.11(519.10)	23	522.75(518.75)													

PS8W - BELLMOUTH WALL STATIC

															AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)													

STATIC PRESSURES

															AVERAGE	11.41(12.28)
PS30 - OUTERWALL	88	11.39(12.25)	90	11.43(12.30)												
PS3I - INNERWALL	92	11.39(12.25)	94	11.36(12.23)											AVERAGE	11.37(12.24)
PS40 - OUTERWALL	96	11.49(12.36)	98	11.51(12.39)											AVERAGE	11.50(12.38)
PS4I - INNERWALL	100	11.43(12.30)	102	11.43(12.29)											AVERAGE	11.43(12.30)
PS430 - OUTERWALL	104	11.67(12.56)	106	11.66(12.55)											AVERAGE	11.67(12.56)
PS43I - INNERWALL	108	11.50(12.38)	110	11.51(12.39)											AVERAGE	11.51(12.38)
PS460 - OUTERWALL	112	12.06(12.98)	114	12.06(12.98)											AVERAGE	12.06(12.98)
PS46I - INNERWALL	116	11.49(12.36)	118	11.50(12.37)											AVERAGE	11.49(12.37)
PS50 - OUTERWALL	120	11.57(12.45)	121	11.59(12.47)	122	11.56(12.43)	123	11.57(12.45)							AVERAGE	11.57(12.45)
PS5I - INNERWALL	124	11.22(12.08)	125	11.25(12.10)	126	11.25(12.10)	127	11.25(12.11)							AVERAGE	11.24(12.10)
PS550 - OUTERWALL	146	10.85(11.67)	147	10.84(11.66)	148	10.85(11.68)	149	10.85(11.68)							AVERAGE	10.85(11.67)
PS55I - INNERWALL	150	11.07(11.91)	151	11.11(11.95)	152	11.21(12.06)	153	11.13(11.97)							AVERAGE	11.13(11.97)
PS60 - OUTERWALL	154	10.58(11.38)	155	10.11(10.87)												
PS70 - OUTERWALL	156	10.27(11.05)	157	10.51(11.31)	158	11.15(12.00)	159	11.43(12.29)								
	160	12.59(13.55)	161	12.87(13.85)												
PS80 - OUTERWALL	162	15.25(16.41)	163	15.30(16.46)												
PS90 - OUTERWALL	164	15.48(16.66)	165	15.73(16.92)	166	14.87(16.00)	167	15.47(16.64)							AVERAGE	15.39(16.56)
PS9I - INNERWALL	168	13.88(14.93)	169	13.75(14.80)	170	13.93(14.98)	171	13.50(14.52)							AVERAGE	13.77(14.81)
PS100 - OUTERWALL	172	16.36(17.60)	173	15.91(17.11)	174	15.50(16.68)	175	15.24(16.40)							AVERAGE	15.75(16.95)
PS10I - INNERWALL	176	14.99(16.12)	177	14.25(15.33)	178	13.21(14.21)	179	10.71(11.52)							AVERAGE	13.29(14.30)
PS1020 - OUTERWALL	180	15.78(16.97)														
PS102I - INNERWALL	181	14.88(16.01)														
PS1040 - OUTERWALL	182	16.10(17.32)														
PS104I - INNERWALL	183	14.99(16.13)														
PS1060 - OUTERWALL	184	16.36(17.60)														
PS106I - INNERWALL	185	15.20(16.36)														
PS1080 - OUTERWALL	186	16.52(17.77)														
PS108I - INNERWALL	187	15.42(16.59)														
PS110 - OUTERWALL	188	16.98(18.27)	189	16.86(18.14)	190	16.67(17.94)	191	16.56(17.82)							AVERAGE	16.77(18.04)
PS11I - INNERWALL	192	15.94(17.15)	193	15.80(17.00)	194	15.71(16.90)	195	15.52(16.70)							AVERAGE	15.74(16.94)
PS120 - OUTERWALL	196	16.66(17.93)	197	16.78(18.05)	198	16.80(18.07)	199	16.63(17.90)							AVERAGE	16.72(17.99)
PS12I - INNERWALL	200	16.71(17.98)	201	16.70(17.96)	202	16.79(18.06)	203	16.65(17.92)							AVERAGE	16.71(17.98)
PS130 - OUTERWALL	465	18.44(19.84)														
PS13I - INNERWALL	469	18.10(19.47)														

PT5 - ROTOR INLET RAKE PS5 - SHROUD PS5 - HUB

ANGLE 251		ANGLE 071					
128	14.22(15.30)	129	14.30(15.39)	120	11.57(12.45)	124	11.22(12.08)
130	14.43(15.53)	131	14.46(15.56)	121	11.59(12.47)	125	11.25(12.10)
132	14.46(15.56)	133	14.49(15.59)	122	11.56(12.43)	126	11.25(12.10)
134	14.22(15.30)	135	14.24(15.33)	123	11.57(12.45)	127	11.25(12.11)
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)				

PTL2 - STAGE EXIT TOTAL

IMMERSION A - AVG 20.05(21.57)

ANGLE 136		ANGLE 320	
204	21.03(22.63)	215	20.15(21.68)
205	19.05(20.49)	216	18.16(19.54)
206	18.83(20.26)	217	18.21(19.59)
207	19.92(21.43)	218	19.54(21.02)
208	20.36(21.90)	219	20.38(21.92)
209	20.42(21.97)	220	20.46(22.01)
210	20.51(22.06)	221	20.11(21.63)
211	20.63(22.20)	222	19.82(21.32)
212	20.70(22.27)	223	19.94(21.45)
213	20.87(22.45)	224	20.15(21.68)
214	20.91(22.50)	225	20.20(21.74)

IMMERSION B - AVG 21.14(22.74)

ANGLE 72		ANGLE 248	
226	20.94(22.53)	237	20.76(22.34)
227	19.96(21.47)	238	19.95(21.46)
228	20.14(21.67)	239	20.68(22.25)
229	21.03(22.62)	240	21.20(22.81)
230	21.37(22.99)	241	21.08(22.68)
231	21.39(23.02)	242	21.12(22.73)
232	21.22(22.83)	243	21.45(23.08)
233	21.30(22.91)	244	21.65(23.29)
234	21.36(22.98)	245	21.81(23.46)
235	21.21(22.82)	246	21.87(23.53)
236	21.36(22.98)	247	21.61(23.25)

IMMERSION C - AVG 21.56(23.19)

ANGLE 168		ANGLE 352	
248	21.02(22.62)	259	20.40(21.95)
249	21.34(22.96)	260	21.47(23.10)
250	21.87(23.53)	261	21.63(23.27)
251	21.82(23.48)	262	21.60(23.24)
252	21.81(23.46)	263	21.69(23.34)
253	21.68(23.33)	264	21.71(23.35)
254	21.55(23.18)	265	21.58(23.22)
255	21.47(23.10)	266	21.56(23.20)
256	21.53(23.16)	267	21.65(23.29)
257	21.57(23.21)	268	21.55(23.18)
258	21.47(23.10)	269	21.06(22.66)

IMMERSION D - AVG 20.49(22.05)

ANGLE 96		ANGLE 280	
270	20.69(22.26)	281	20.38(21.92)
271	19.96(21.47)	282	19.93(21.44)
272	20.68(22.25)	283	20.70(22.27)
273	20.68(22.24)	284	20.71(22.28)
274	20.61(22.18)	285	20.59(22.15)
275	20.58(22.15)	286	20.49(22.05)
276	20.56(22.12)	287	20.39(21.94)
277	20.55(22.11)	288	20.35(21.89)
278	20.58(22.14)	289	20.33(21.87)
279	20.61(22.17)	290	20.33(21.87)
280	20.70(22.27)	291	20.42(21.97)

IMMERSION E - AVG 21.81(23.46)

ANGLE 40		ANGLE 216	
292	21.67(23.32)	303	21.64(23.28)
293	20.43(21.98)	304	20.92(22.51)
294	21.90(23.56)	305	22.01(23.68)
295	21.99(23.66)	306	22.08(23.75)
296	21.93(23.60)	307	22.05(23.73)
297	21.90(23.56)	308	22.04(23.71)
298	21.86(23.52)	309	21.99(23.66)
299	21.82(23.48)	310	21.96(23.63)
300	21.82(23.48)	311	21.93(23.59)
301	21.80(23.46)	312	21.89(23.55)
302	21.81(23.47)	313	21.87(23.53)

IMMERSION F - AVG 20.10(21.63)

ANGLE 72		ANGLE 248	
314	20.34(21.89)	325	20.38(21.92)
315	19.44(20.91)	326	19.56(21.04)
316	18.80(20.22)	327	19.20(20.66)
317	20.07(21.59)	328	20.17(21.70)
318	20.32(21.87)	329	20.27(21.80)
319	20.35(21.90)	330	20.31(21.85)
320	20.34(21.88)	331	20.34(21.88)
321	20.27(21.80)	332	20.35(21.89)
322	20.24(21.77)	333	20.30(21.84)
323	20.26(21.79)	334	20.26(21.79)
324	20.28(21.82)	335	14.73(15.84)

IMMERSION G - AVG 19.54(21.02)

ANGLE 168		ANGLE 352	
336	14.98(16.12)	347	20.14(21.66)
337	19.11(20.56)	348	19.08(20.53)
338	18.04(19.41)	349	17.96(19.32)
339	18.51(19.91)	350	18.86(20.29)
340	19.30(20.77)	351	19.75(21.25)
341	19.72(21.21)	352	19.92(21.43)
342	19.87(21.38)	353	19.95(21.47)
343	20.05(21.57)	354	20.03(21.55)
344	14.95(16.08)	355	20.03(21.55)
345	20.16(21.69)	356	20.05(21.57)
346	20.21(21.74)	357	20.14(21.66)

IMMERSION H - AVG 19.21(20.67)

ANGLE 96		ANGLE 280	
358	19.82(21.33)	369	19.82(21.33)
359	19.81(21.31)	370	19.81(21.32)
360	19.69(21.19)	371	19.45(20.92)
361	18.63(20.05)	372	18.49(19.89)
362	17.90(19.26)	373	17.76(19.10)
363	18.13(19.50)	374	17.84(19.19)
364	18.67(20.09)	375	18.39(19.79)
365	19.31(20.77)	376	19.19(20.65)
366	19.66(21.16)	377	19.67(21.17)
367	19.78(21.28)	378	19.84(21.34)
368	19.88(21.38)	379	19.87(21.38)

IMMERSION J - AVG 18.72(20.14)

ANGLE 40		ANGLE 216	
380	19.85(21.36)	391	19.93(21.44)
381	19.43(20.90)	392	19.17(20.63)
382	19.02(20.46)	393	17.90(19.26)
383	18.00(19.37)	394	17.31(18.63)
384	17.30(18.61)	395	17.28(18.59)
385	17.21(18.52)	396	17.59(18.92)
386	17.50(18.83)	397	18.03(19.40)
387	18.26(19.65)	398	18.58(19.99)
388	19.02(20.47)	399	19.14(20.60)
389	19.63(21.12)	400	19.51(20.99)
390	19.86(21.37)	401	19.73(21.23)

POINT 7 READING 220 ***** TRANSONIC FAN RIG ***** 12-21-18 2/ 1/73 PAGE 4

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

FLOWS

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

REFERENCE TEMPERATURES - ICE BATH

520 491.382 521 491.321 522 491.321 523 491.137 524 491.137 525 491.076

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	517.7369	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
MERIDONAL VELOCITY	801.6630	831.0127	823.5551	788.7241	840.0070	618.3587	599.1960	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	3.2708	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	500.3118	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	22.6143	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									
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	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

HUB 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 HUB STATIC PRES= 17.980

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	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	548.2000	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 7M 55S RADIAL INLET DISTORTION STATOR ANGLE %

ROTOR SPEED	12834.4901	
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	

DISTORTION INDEX 0.117

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
MERIDONAL 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	523.8861	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

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 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	440.5415	428.2905
ABSOLUTE VELOCITY	870.8753	816.4736	818.7522	779.1708	764.6572	750.6391	751.6300	735.4114	762.9997
MERIDIONAL VELOCITY	711.9937	680.8185	687.8241	585.0895	503.4472	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									
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	17.5568	17.9693	17.6398	18.1716	17.9889	17.4384	17.0832	16.9854	16.9030
WEDGE PRESSURE	17.7488	18.1302	17.8039	18.3048	18.1047	17.5398	17.1922	17.0818	17.0083
TOTAL TEMPERATURE	638.7090	625.6651	616.5056	625.2764	620.2436	623.5617	611.3793	607.8357	610.7205
ANGLE	33.6799	32.0723	31.3338	39.6360	47.8659	54.3312	50.9639	50.6685	53.1632
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	856.7235	807.3702	774.2294	754.4999	757.3351	740.6827	761.9195
SWIRL VELOCITY	503.3824	451.8895	444.6418	514.7122	574.1348	611.9918	585.2875	568.8462	605.3121
AXIAL VELOCITY	755.3656	721.1498	730.3374	621.3868	519.3946	439.2577	474.5703	466.1197	453.4402
WEIGHT FLOW	16.4131	10.7384	18.8516	26.5074	25.2357	16.1782	8.4659	3.7001	5.2736

CALCULATING PLANE									
ANGLE	33.9072	32.0502	30.9384	38.7366	46.3856	52.8173	49.9338	49.0949	51.4229
MACH NO.	0.7747	0.7342	0.7528	0.7055	0.6797	0.6498	0.6504	0.6411	0.6583
SWIRL VELOCITY	505.2495	453.2629	446.3746	515.9990	574.1348	607.4728	577.7925	561.2800	595.5001
AXIAL VELOCITY	750.6957	722.9683	743.7123	642.2385	546.0262	459.8180	484.9735	485.2918	474.0014
ABSOLUTE VELOCITY	905.9544	854.5997	868.7534	824.9601	793.0093	763.1914	756.8927	745.2448	764.8805
WEIGHT FLOW	16.4203	10.7404	18.8447	26.5289	25.2463	16.2071	8.3419	3.6947	5.2751
MERIDIONAL VELOCITY	750.9885	723.5015	744.3120	642.6702	546.0295	460.9979	487.9201	489.2575	479.0187
STATIC TEMPERATURE	570.6003	565.0318	553.9671	568.8987	567.9879	575.2041	563.8517	561.8120	562.1747
STATIC PRESS.	17.6235	17.9442	17.4489	17.9073	17.7196	17.3223	17.0942	16.9260	16.8635
MCL INCIDENCE	4.9204	2.7939	1.3433	7.7926	12.7359	18.7428	15.8471	14.9861	17.3572
SUC SUR INCIDENCE	-1.5027	-3.7297	-5.2215	1.5466	6.6256	12.5073	9.3738	8.4249	10.6729
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= 222 PCT DES SPD=100.00 FAN INLET TOT TEMP= 518.688
OUTER WALL STATIC PRES= 17.640 HUB STATIC PRES= 17.460

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	6.5300	-1.5000	905.9500	505.3000	570.6000	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
.282	12.0000	-8.4000	1.1700	3.9600	1.5400	824.9600	516.0000	568.9000	17.9100	24.9500
.470	10.8200	-10.1600	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	13.1580	614.7000	24.7600
.1500	12.8400	610.7000	24.9600
.2822	11.9700	615.5000	24.2700
.4702	10.8380	613.9000	22.7400
.6887	9.5700	612.4000	21.5200
.8500	8.6700	605.8000	20.6700
.9000	8.4800	605.8000	20.4280
.9372	8.1200	609.0000	20.1100

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	.3371	.2404	.1148	-.0311	10.9300	.6849	799.8844	794.6951	90.9656
.1000	.2386	.1177	.0553	.3987	10.0200	.7144	827.0497	823.2144	79.5565
.1500	.2478	.0553	.0253	-1.1910	8.1900	.7238	834.1779	832.5409	52.2331
.2822	.2613	.0966	.0412	.3929	9.3600	.6944	804.4545	804.8291	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	648.6134	647.8391	-31.6846
.8500	.4865	.3630	.1116	.2737	.9000	.4948	582.9015	580.4094	-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
.2822	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 ORIFICE 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	1.6639	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
MERIDONAL VELOCITY	406.7748	425.9566	416.5022	474.2514	577.3216	574.4092	565.8062	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	4.8056	0.1852	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	14.9535	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

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

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	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	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	1.0634	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	0.061		
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
MERIDONAL 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	547.7965	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	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

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 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)							
CORR. 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	15.2989	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	35.0559	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	1.6480	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 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	5.5000	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	8.1000	1.8900	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	18.8900
.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	.6974
.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
MERIDONAL 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	-1.6060	-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	13.0564	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	11.7010	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 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	5.3630	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	444.3939	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	0.3696	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	0.5756	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 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									
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	8.1607	3.6644	5.2445

CALCULATING PLANE									
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. STATOR 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 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	8.4200	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
.689	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	
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	

DISTORTION INDEX 0.137

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
MERIDONAL 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	13.7661	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	1.8540	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 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	759.7869	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 IMMERSION	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	13.4800	-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	9.5700	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	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	.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					DISTORTION INDEX	0.135		
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								
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	22.8783	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	11.7000	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 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	0.6269	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	1.1065	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									
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	592.8005	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									
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 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	5.9000	2.6000	783.9000	482.9000	568.8000	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	21.8700
.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	526.5000	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	82.7158
.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	10.0833
.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

C-3

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

ROTOR SPEED	11539.5334		DISTORTION INDEX 0.134
ACTUAL ORIFICE FLOW	128.1204		
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	0.5505	0.5198	0.4885
STREAMLINE SLOPE	-12.0000	-9.6000	-7.8000	-4.6000	0.2000	5.8000	11.7000	15.0000	19.0000

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 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	1.8580	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 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
OUTER WALL STATIC PRES= 18.500 HUB STATIC PRES= 18.230

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	.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	23.2600
.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	.6600	-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	21.3600
.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	.4068	.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 54S RADIAL INLET DISTORTION STATOR ANGLE 3

ROTOR SPEED	12858.0019					DISTORTION 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	0.6560	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	0.6460	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	817.5089	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	1189.5054	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	11.7000	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 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	5.3600	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	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	822.1568	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	21.8629	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	581.4159	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	822.1568	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 STATIC PRES= 15.460 HUB STATIC PRES= 15.290

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	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	7.6200	.6274	724.3509	723.3450	38.1621
.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	8.1035
.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	15.3136
.9000	15.3061
.9372	15.2981

RERUN 2/ 7/73 TIME 9-40-30 ***** TRANSONIC FAN RIG - BLD 2 *****
POINT 14 READING 252 DATE 2/ 2/73 PAMB 14.69 TAMB 526.1 TIME 13 19 21 PAGE 1

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
ORF TO BELL FLOW RATIO	= 1.0083	ORIFICE EQUIVALENT FLOW	= 151.2042	INLET TEMPERATURE	= 526.6452
ORF TO INLET FLOW RATIO	= 1.0396	BELLMOUTH EQUIVALENT FLOW	= 149.9459	BELLMOUTH TOTAL PRESSURE	= 14.4540
ORF 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 ORIFICE FLOW	= 51.4078	STAGE PRESSURE RATIO(MA)	= 1.5000
DISTORTION INDEX (RADIAL)	= 0.1612	OUTER ORIFICE 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 ***** TRANSONIC FAN RIG ***** 13-19-21 2/ 2/73 PAGE 2

PT1 - PITOT STATIC RAKE

														AVERAGE	14.45(15.60)
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)	30	0.00(0.00)				
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

														AVERAGE	13.34(14.40)
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)	59	13.32(14.38)				
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)	65	0.00(0.00)				
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)	71	13.28(14.34)				
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)	77	0.00(0.00)				
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)						

TT0 - INLET SCREEN TEMPERATURE

														AVERAGE	526.64(518.68)
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)	10	526.33(518.38)				
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)	21	527.10(519.14)				
22	526.81(518.85)	23	527.10(519.14)												

PS8W - BELLMOUTH WALL STATIC

														AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)												

STATIC PRESSURES

PS30 - OUTERWALL	88	11.29(12.19)	90	11.33(12.23)									AVERAGE	11.31(12.21)	
PS3I - 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)	
PS4I - 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)	
PS43I - 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)	
PS46I - 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)	
PS5I - 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)	
PS55I - 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)	
PS9I - 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)	
PS10I - 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)													
PS102I - INNERWALL	181	13.97(15.08)													
PS1040 - OUTERWALL	182	15.91(17.17)													
PS104I - INNERWALL	183	13.98(15.10)													
PS1060 - OUTERWALL	184	16.07(17.35)													
PS106I - INNERWALL	185	14.48(15.63)													
PS1080 - OUTERWALL	186	16.14(17.42)													
PS108I - 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)	
PS11I - 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)	
PS12I - 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)													
PS13I - 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)

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 B - AVG 20.43(22.06)

IMMERSION C - AVG 20.67(22.31)

IMMERSION D - AVG 20.59(22.23)

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	19.42(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 E - AVG 20.80(22.46)

IMMERSION F - AVG 20.47(22.10)

IMMERSION G - AVG 20.37(21.99)

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)

IMMERSION H - AVG 19.40(20.94)

IMMERSION J - AVG 18.22(19.67)

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 AVERAGE 610.54(601.31)

OUTERWALL

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

485 597.77(588.74) 488 598.45(589.41) 491 596.53(587.52) AVERAGE 597.59(588.56)

FLOWS

OUTER			
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			
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

REFERENCE TEMPERATURES - ICE BATH

520 491.995 521 492.057 522 492.118 523 491.812 524 491.750 525 491.750

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	11.7069	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
MERIDONAL 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	46.6269	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	11.7000	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 STATOR 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	3.0200	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	15.3143	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	0.6426
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	689.6822	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	0.8882	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	0.4455	0.4483	0.4817	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	5.3600	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	656.5452	598.8917	545.8767
WEIGHT FLOW	14.1179	9.1626	15.7122	24.2605	31.0922	23.7931	11.7238	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 INLET TOT TEMP= 518.688
OUTER WALL STATIC PRES= 17.630 HUB STATIC PRES= 17.420

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	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	11.6461	11.7769	11.8693
WEDGE PRESSURE	11.0908	11.0403	10.9569	11.0118	11.2726	11.4835	11.7068	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
MERIDONAL 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	803.7460	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	47.0661	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

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 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	592.8352	587.4756	593.7105
ANGLE	41.9873	38.8768	38.8852	41.5317	37.6648	39.0486	38.7956	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	0.7065	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 BAGLE *

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	592.8361	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	11.1337	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 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	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	-.2000	-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	.5353	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

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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     -2.7118
 APPARENT MACH NUMBER    0.3901      0.3891      0.3741      0.3633      0.3720      0.4552      0.4395      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

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 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    484.6149
 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

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
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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. 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    12.7360
 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

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 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     1.4072     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   549.5629   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     0.9662     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
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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. 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    777.8252    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

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 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         14.3657     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
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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   528.8839   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

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 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
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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. 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     0.5383     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     0.7166     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

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 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
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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. 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      0.5569      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

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 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         17.6534     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     14.0607     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

NOTE6 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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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	17.1500	17.0900	17.0700	17.0600
STATIC PRESSURE	14.8005	14.7500	14.6466	14.5109	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	577.4387	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	14.3896	14.4109	14.4577	14.5255	14.5755	14.6044	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	14.6899	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	612.7118	607.2816	599.6326	587.7093	566.4953	528.5891	474.3426	423.3677

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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. 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

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 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    463.9834    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 .
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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. 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    23.4185    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


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 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    10.1582     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   524.2287   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   402.0382   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

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
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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     3.3806     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    12.6561
 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     0.4535     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

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 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

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
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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    803.6184    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

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 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
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. 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    14.6407    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     0.6682     0.6627     0.6544
 RELATIVE FLOW ANGLE    54.2624    54.6536    54.5157    54.4364    54.5114    54.6290    54.4366    54.5267    54.5929

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 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
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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. 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    14.4186
 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

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 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    42.7362    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   614.6204   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
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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	15.6522	15.3219	15.2788	15.3000	15.3011	15.3026	15.3044
TOTAL TEMPERATURE	582.0000	586.5000	583.5000	577.5000	573.0000	570.0000	567.5000	566.0000	565.5000
MACH NUMBER	.4478	.4576	.4712	.4979	.4922	.4858	.4831	.4830	.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	17.8800	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	564.5000	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	495.2532	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	.4844	.4882	.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	.3653	.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	18.0000	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	.5035	.4941	.4890
CORRECTED VELOCITY	205.1215	336.6520	448.4828	535.6668	581.5217	574.8455	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	15.7569
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	537.5303	528.4757	525.1980	514.8225	494.1675	451.8223	375.1240	263.8706

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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    14.5886
 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

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 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    69.5454    69.7403    70.0741

NOTEE 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 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      0.3765      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

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 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     -2.2466     -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    881.5605    901.2112    964.0211
 RELATIVE MACH NUMBER    0.9446      0.9628      0.9314      0.8899      0.8547      0.8231      0.7935      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
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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. 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   370.7263   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

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 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         14.4322    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   522.3763   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
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NASA TRANSONIC FAN ROTOR EXIT    READING NO. 266   TIME  15H 49M 41S   CIRCUM. INLET DISTORTION   STATOR ANGLE  5.[illegible]

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. 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

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 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
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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. 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         18.0375     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    423.2884    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

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 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      0.4062      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    324.8735    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

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
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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   602.8308   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     0.5659     0.5704     0.5719
 RELATIVE FLOW ANGLE    55.8083    54.7386    54.8773    54.5835    54.6302    54.5618    54.5947    54.8143    54.8545

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 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    62.1992
 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
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FAN STATOR EXIT READING 200

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	16.5916
TOTAL TEMPERATURE	597.0000	602.5000	605.0000	605.0000	601.5000	587.5000	581.5000	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	16.5556	16.5567	16.5567	16.5745	16.5834	16.6002	16.6511	16.7266	16.8055
TOTAL TEMPERATURE	578.5000	575.2000	573.5000	575.2000	575.6000	575.2000	574.5000	577.5000	587.5000
MACH NUMBER	.4436	.4434	.4434	.4416	.4317	.4798	.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	431.8511	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	455.7581	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	16.7745	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	.2401	.1215
CORRECTED VELOCITY	438.8090	425.4626	421.8435	419.1550	415.3393	405.4505	335.6437	253.2695	140.2949

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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    0.4701     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

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 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   627.9060   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
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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      0.6186      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

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 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    520.8934    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

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
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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     14.3682     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

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 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      0.5446      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      0.6072      0.6054      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    588.9999    578.3019    574.9167    532.8729    534.8094    558.9809
 RELATIVE VELOCITY     982.4291   1001.1077   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

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. 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


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 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     19.8080     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

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. 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. 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         20.4702     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

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 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     572.0799    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

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. 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     36.0071    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     0.6966     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


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 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
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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	704.7636

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	18.1600	18.2000
STATIC PRESSURE	14.2645	14.2636	14.2870	14.3959	14.5425	14.6945	14.9355	15.1155	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	15.2858
TOTAL TEMPERATURE	570.0000	570.0000	569.0000	570.0000	570.0000	569.0000	567.0000	561.0000	555.0000
MACH NUMBER	.6658	.6784	.6804	.6661	.6407	.6073	.5505	.4776	.3323
CORRECTED VELOCITY	747.5879	760.5676	761.9264	747.9186	721.5680	686.0035	624.5771	542.8626	379.9263

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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


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 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     1.4086     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
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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   1381.0900   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


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 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
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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


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 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        11.3074     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    642.2888    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
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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       40.7468       40.0482       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      654.7091      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     1086.3115     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

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 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       19.9617       19.9038       20.0511       20.0266
 WEDGE PRESSURE          15.9075       15.5795       15.4333       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      584.9067      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
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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   0.0000     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         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


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 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     16.7284     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
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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   8.0000     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

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 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    703.8041    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

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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FAN STATOR EXIT READING 278

IMMERSION .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	.6511	.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

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	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

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	17.1500	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	690.1532	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	311.0815

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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


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 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
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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. 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   615.8462
 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

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 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     0.0265    -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     1.1102
 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
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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


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 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         14.2536    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 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. 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

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 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   624.1075   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  1000.9584  1019.2356  1068.4955  1084.7438  1090.9352  1098.0779  1097.2098
 RELATIVE MACH NUMBER    0.8360      0.8577     0.8585     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

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. 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

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 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 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. 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

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 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    460.8554    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
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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	.5535
CORRECTED VELOCITY	729.3118	715.9213	679.5200	639.5934	622.7025	598.1061	604.4120	630.4819	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	623.2817	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	.4947	.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	209.4638	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	251.4426	144.4091

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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


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 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                  -0.1314      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    708.5623    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      1.6181      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
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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   685.8821
 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

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 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         14.1144    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   716.6401   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
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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

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 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    622.7401    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. 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. 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. 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   1383.7465   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

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 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     10.5877     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
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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. 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        780.9077    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


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 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     13.5216     13.3431     13.1791     13.4140     14.0446     14.0597     13.2704     13.9279
 TOTAL TEMPERATURE     586.6251    583.4664    582.0479    578.6940    568.9255    608.4167    607.5947    609.3769    615.2860
 ABSOLUTE MACH NUMBER    0.7921      0.7899      0.7875      0.7703      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

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. 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     0.7267     0.7251     0.7286
 ABSOLUTE VELOCITY     796.8561   794.8628   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   828.8159   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

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 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    36.8206    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        672.8684   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

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
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FAN STATOR EXIT READING 283

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	.6895
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	670.5078	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	15.4886
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)	= 14.2280
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	= 90.7639	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

IMMERSION	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	591.48	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

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

															AVERAGE	
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(	14.94)	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	
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)		

TT0 - INLET SCREEN TEMPERATURE

											AVERAGE	
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	
84	0.00(	0.00)	86	0.00(	0.00)		

STATIC PRESSURES

															AVERAGE	
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)														

PT5 - ROTOR INLET RAKE PS5 - SHROUD PS5 - HUB

ANGLE 251			ANGLE 071								
128	14.22(	14.69)	129	13.99(	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)

ANGLE 136			ANGLE 320		
204	20.96(	21.65)	215	24.48(	25.29)
205	19.02(	19.64)	216	20.67(	21.35)
206	18.86(	19.48)	217	19.57(	20.21)
207	20.15(	20.82)	218	21.15(	21.84)
208	20.61(	21.29)	219	23.51(	24.28)
209	20.83(	21.52)	220	24.31(	25.11)
210	20.87(	21.56)	221	24.45(	25.25)
211	20.83(	21.52)	222	24.44(	25.24)
212	20.75(	21.44)	223	24.42(	25.23)
213	20.72(	21.41)	224	24.43(	25.23)
214	20.70(	21.38)	225	24.47(	25.28)

IMMERSION B - AVG 21.36(22.07)

ANGLE 72			ANGLE 248			ANGLE 168			ANGLE 352		
226	21.38(	22.08)	237	20.73(	21.41)	248	20.69(	21.37)	259	21.74(	22.45)
227	20.37(	21.04)	238	20.30(	20.97)	249	20.91(	21.60)	260	19.56(	20.21)
228	20.91(	21.59)	239	21.45(	22.16)	250	21.49(	22.20)	261	20.63(	21.31)
229	21.42(	22.13)	240	21.50(	22.21)	251	21.49(	22.19)	262	22.72(	23.47)
230	21.43(	22.13)	241	21.29(	21.99)	252	21.54(	22.25)	263	24.24(	25.04)
231	21.54(	22.24)	242	21.47(	22.18)	253	21.55(	22.26)	264	24.70(	25.51)
232	21.16(	21.86)	243	21.90(	22.62)	254	21.46(	22.17)	265	24.75(	25.57)
233	20.99(	21.68)	244	22.13(	22.86)	255	21.36(	22.07)	266	24.78(	25.60)
234	21.21(	21.91)	245	22.11(	22.84)	256	21.41(	22.12)	267	24.82(	25.64)
235	21.41(	22.12)	246	21.96(	22.69)	257	21.44(	22.15)	268	24.88(	25.69)
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)

ANGLE 96			ANGLE 280		
270	20.82(	21.51)	281	22.59(	23.33)
271	19.97(	20.63)	282	21.37(	22.07)
272	20.86(	21.54)	283	22.48(	23.21)
273	21.03(	21.72)	284	22.58(	23.33)
274	20.99(	21.68)	285	22.43(	23.17)
275	20.90(	21.58)	286	22.30(	23.03)
276	20.78(	21.47)	287	22.26(	22.99)
277	20.69(	21.37)	288	22.27(	23.00)
278	20.69(	21.37)	289	22.31(	23.04)
279	20.68(	21.36)	290	22.31(	23.05)
280	20.73(	21.41)	291	22.28(	23.01)

IMMERSION E - AVG 20.94(21.63)

ANGLE 40			ANGLE 216			ANGLE 72			ANGLE 248		
292	20.67(	21.35)	303	21.34(	22.05)	314	21.63(	22.34)	325	20.98(	21.67)
293	19.16(	19.79)	304	21.02(	21.71)	315	20.11(	20.77)	326	20.07(	20.73)
294	19.99(	20.65)	305	21.70(	22.41)	316	21.20(	21.89)	327	21.57(	22.28)
295	20.52(	21.20)	306	21.68(	22.40)	317	21.54(	22.24)	328	21.72(	22.43)
296	20.54(	21.21)	307	21.64(	22.35)	318	21.54(	22.25)	329	21.72(	22.43)
297	20.48(	21.15)	308	21.65(	22.36)	319	21.53(	22.23)	330	21.73(	22.44)
298	20.41(	21.09)	309	21.63(	22.34)	320	21.50(	22.21)	331	21.74(	22.45)
299	20.37(	21.04)	310	21.67(	22.38)	321	21.47(	22.17)	332	21.79(	22.51)
300	20.39(	21.06)	311	21.67(	22.38)	322	21.43(	22.13)	333	21.82(	22.54)
301	20.39(	21.06)	312	21.67(	22.38)	323	21.37(	22.07)	334	21.84(	22.55)
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)

ANGLE 168			ANGLE 352		
336	14.85(	15.34)	347	18.23(	18.83)
337	20.27(	20.93)	348	18.29(	18.85)
338	20.57(	21.24)	349	18.00(	18.59)
339	21.31(	22.01)	350	17.61(	18.19)
340	21.62(	22.33)	351	17.33(	17.90)
341	21.70(	22.41)	352	17.28(	17.85)
342	21.72(	22.44)	353	17.33(	17.90)
343	21.73(	22.44)	354	17.51(	18.08)
344	14.98(	15.48)	355	17.83(	18.41)
345	21.74(	22.46)	356	18.23(	18.83)
346	21.77(	22.48)	357	18.42(	19.03)

IMMERSION H - AVG 21.26(21.95)

ANGLE 96			ANGLE 280		
358	21.08(	21.78)	369	23.05(	23.81)
359	21.05(	21.74)	370	22.97(	23.72)
360	20.90(	21.59)	371	21.90(	22.62)
361	19.78(	20.43)	372	20.84(	21.53)
362	18.68(	19.29)	373	21.12(	21.81)
363	18.54(	19.15)	374	21.56(	22.27)
364	19.18(	19.81)	375	22.21(	22.94)
365	20.16(	20.82)	376	22.85(	23.60)
366	20.83(	21.51)	377	22.99(	23.74)
367	20.97(	21.66)	378	22.97(	23.72)
368	21.07(	21.77)	379	22.88(	23.63)

IMMERSION J - AVG 19.13(19.76)

ANGLE 40			ANGLE 216		
380	19.71(	20.36)	391	21.37(	22.07)
381	18.78(	19.40)	392	20.47(	21.14)
382	18.12(	18.72)	393	18.80(	19.41)
383	17.69(	18.27)	394	18.02(	18.62)
384	17.65(	18.23)	395	18.03(	18.62)
385	17.77(	18.35)	396	18.69(	19.31)
386	18.07(	18.67)	397	19.61(	20.26)
387	18.52(	19.13)	398	20.45(	21.13)
388	18.80(	19.42)	399	21.07(	21.76)
389	18.92(	19.54)	400	21.31(	22.01)
390	18.82(	19.44)	401	21.35(	22.05)

TT12 - STAGE EXIT TOTAL

IMMERSION A	IMMERSION B	IMMERSION C	IMMERSION D	IMMERSION E
AVG 602.48(602.26)	AVG 606.76(606.53)	AVG 601.79(601.55)	AVG 607.67(607.44)	AVG 596.47(596.25)
402 616.98(616.74)	409 612.04(611.80)	416 606.29(606.06)	423 609.64(609.41)	430 602.26(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)	429 631.58(631.34)	436 609.81(609.58)

IMMERSION F	IMMERSION G	IMMERSION H	IMMERSION 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				
475 620.52(620.28)	477 618.69(618.46)	479 600.86(600.64)	481 600.47(600.24)	AVERAGE 605.22(604.99)
INNERWALL				
485 596.08(595.86)	488 598.62(598.39)	491 595.07(594.84)		AVERAGE 610.14(609.91)
				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

REFERENCE TEMPERATURES - ICE BATH

520 491.444 521 491.382 522 491.382 523 491.321 524 491.321 525 491.014

RERUN 1/31/73 TIME 9-16-16 ***** TRANSONIC FAN RIG - BLD 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

IMMERSION	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

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

															AVERAGE	14.49(16.04)
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)	30	0.00(0.00)					
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)							

PS1 - PITOT STATIC RAKE

															AVERAGE	13.35(14.77)
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)							

TT0 - INLET SCREEN TEMPERATURE

															AVERAGE	518.85(518.68)
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)					
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

															AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)													

STATIC PRESSURES

															AVERAGE	11.83(13.09)
PS30 - OUTERWALL	88	11.43(12.65)	90	12.23(13.54)												
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(17.12)
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)														

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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(13.32)	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

IMMERSION A - AVG 20.71(22.93)

ANGLE 136		ANGLE 320	
204	21.17(23.43)	215	20.89(23.12)
205	19.15(21.19)	216	18.98(21.01)
206	18.52(20.50)	217	19.95(22.08)
207	19.82(21.94)	218	21.51(23.81)
208	20.69(22.90)	219	21.70(24.01)
209	21.00(23.24)	220	21.67(23.98)
210	21.02(23.26)	221	21.49(23.78)
211	20.93(23.17)	222	21.00(23.24)
212	20.92(23.15)	223	20.62(22.82)
213	21.10(23.35)	224	20.59(22.79)
214	21.15(23.41)	225	20.79(23.01)

IMMERSION B - AVG 21.44(23.73)

ANGLE 72		ANGLE 248	
226	21.69(24.00)	237	20.35(22.52)
227	20.51(22.70)	238	19.80(21.91)
228	18.67(20.67)	239	20.59(22.79)
229	19.37(21.43)	240	20.88(23.11)
230	21.18(23.44)	241	20.99(23.23)
231	22.34(24.72)	242	21.32(23.59)
232	22.55(24.96)	243	21.56(23.86)
233	22.73(25.15)	244	21.68(23.99)
234	22.93(25.38)	245	21.78(24.11)
235	23.09(25.56)	246	21.61(23.92)
236	23.26(25.74)	247	21.29(23.56)

IMMERSION C - AVG 23.34(25.83)

ANGLE 168		ANGLE 352	
248	20.79(23.01)	259	22.38(24.77)
249	20.95(23.19)	260	23.68(26.21)
250	21.41(23.69)	261	25.58(28.31)
251	21.39(23.67)	262	25.88(28.64)
252	21.48(23.77)	263	25.94(28.71)
253	21.45(23.74)	264	25.93(28.70)
254	21.43(23.72)	265	25.83(28.59)
255	21.39(23.67)	266	25.67(28.41)
256	21.35(23.63)	267	25.52(28.24)
257	21.33(23.60)	268	25.41(28.12)
258	21.32(23.59)	269	24.83(27.48)

IMMERSION D - AVG 20.59(22.74)

ANGLE 96		ANGLE 280	
270	20.59(22.79)	281	20.82(23.04)
271	19.42(21.49)	282	20.33(22.50)
272	19.80(21.92)	283	21.24(23.51)
273	20.46(22.64)	284	21.15(23.41)
274	20.52(22.71)	285	20.99(23.24)
275	20.53(22.72)	286	20.85(23.08)
276	20.49(22.68)	287	20.74(22.95)
277	20.41(22.59)	288	20.65(22.85)
278	20.37(22.54)	289	20.62(22.82)
279	20.37(22.54)	290	20.60(22.80)
280	20.43(22.61)	291	20.65(22.85)

IMMERSION E - AVG 21.57(23.87)

ANGLE 40		ANGLE 216	
292	22.96(25.42)	303	21.23(23.49)
293	21.21(23.48)	304	20.86(23.08)
294	19.26(21.32)	305	21.54(23.84)
295	18.86(20.87)	306	21.60(23.91)
296	19.79(21.91)	307	21.57(23.87)
297	21.34(23.62)	308	21.55(23.85)
298	22.41(24.81)	309	21.49(23.79)
299	23.03(25.48)	310	21.49(23.78)
300	23.22(25.69)	311	21.49(23.79)
301	23.31(25.80)	312	21.47(23.76)
302	23.41(25.91)	313	21.48(23.77)

IMMERSION F - AVG 20.07(22.21)

ANGLE 72		ANGLE 248	
314	19.70(21.80)	325	21.48(23.78)
315	19.18(21.22)	326	20.22(22.38)
316	18.48(20.45)	327	21.53(23.83)
317	17.84(19.74)	328	21.71(24.03)
318	17.70(19.59)	329	21.75(24.07)
319	17.84(19.75)	330	21.78(24.11)
320	18.16(20.10)	331	21.85(24.19)
321	18.59(20.57)	332	21.93(24.27)
322	19.02(21.05)	333	22.00(24.35)
323	19.34(21.41)	334	22.05(24.40)
324	19.37(21.44)	335	14.74(16.31)

IMMERSION G - AVG 21.39(23.67)

ANGLE 168		ANGLE 352	
336	14.86(16.44)	347	21.49(23.78)
337	20.40(22.57)	348	20.23(22.39)
338	20.10(22.24)	349	19.99(22.12)
339	20.85(23.08)	350	21.06(23.31)
340	21.32(23.59)	351	21.76(24.08)
341	21.50(23.80)	352	21.99(24.34)
342	21.52(23.82)	353	21.99(24.34)
343	21.55(23.85)	354	21.99(24.33)
344	14.99(16.60)	355	21.98(24.33)
345	21.55(23.85)	356	21.95(24.29)
346	21.56(23.86)	357	21.77(24.10)

IMMERSION H - AVG 20.01(22.15)

ANGLE 96		ANGLE 280	
358	20.22(22.37)	369	21.94(24.29)
359	20.14(22.29)	370	21.77(24.10)
360	19.78(21.89)	371	20.77(22.99)
361	18.63(20.62)	372	19.86(21.98)
362	17.69(19.58)	373	20.00(22.14)
363	17.39(19.25)	374	20.67(22.87)
364	17.49(19.36)	375	21.48(23.77)
365	17.84(19.75)	376	21.84(24.18)
366	18.54(20.52)	377	21.86(24.19)
367	19.18(21.23)	378	21.84(24.19)
368	19.62(21.71)	379	21.85(24.18)

IMMERSION J - AVG 18.50(20.48)

ANGLE 40		ANGLE 216	
380	17.62(19.50)	391	20.67(22.87)
381	17.44(19.30)	392	19.84(21.96)
382	17.64(19.53)	393	18.37(20.33)
383	17.60(19.47)	394	17.79(19.69)
384	17.56(19.44)	395	17.87(19.78)
385	17.52(19.40)	396	18.47(20.44)
386	17.55(19.42)	397	19.26(21.31)
387	17.67(19.56)	398	19.96(22.09)
388	17.94(19.75)	399	20.48(22.66)
389	18.14(20.08)	400	20.72(22.93)
390	18.39(20.36)	401	20.76(22.98)

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 609.32(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)	417 594.62(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 AVERAGE 603.98(603.79)

OUTERWALL

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

485 595.13(594.94) 488 598.45(598.26) 491 594.28(594.09) AVERAGE 595.95(595.76)

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

REFERENCE TEMPERATURES - ICE BATH

520 491.444 521 491.566 522 491.382 523 491.260 524 491.321 525 491.076

RERUN 1731/73 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
RAKE 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

IMMERSION	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

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

														AVERAGE	14.48(	15.99)
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)
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(	15.95)	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)		

PSI - PITOT STATIC RAKE

														AVERAGE	13.35(	14.73)
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)
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

														AVERAGE	519.51(	518.68)
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)
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

														AVERAGE	0.00(	0.00)
84	0.00(	0.00)	86	0.00(	0.00)											

STATIC PRESSURES

PS30 - OUTERWALL	88	11.69(	12.90)	90	12.12(	13.38)								AVERAGE	11.91(	13.14)
PS3I - 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)
PS4I - 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)
PS43I - 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)
PS46I - 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)
PS5I - 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)
PS55I - 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)
PS9I - 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)
PS10I - 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)													
PS102I - INNERWALL	181	14.36(	15.85)													
PS1040 - OUTERWALL	182	15.62(	17.23)													
PS104I - INNERWALL	183	14.31(	15.79)													
PS1060 - OUTERWALL	184	15.94(	17.59)													
PS106I - INNERWALL	185	14.80(	16.33)													
PS1080 - OUTERWALL	186	16.16(	17.84)													
PS108I - 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)
PS11I - 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)
PS12I - 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)													
PS13I - INNERWALL	469	17.94(	19.80)													

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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

IMMERSION A - AVG 20.13(22.21)

ANGLE 136		ANGLE 320	
204	21.44(23.65)	215	20.50(22.62)
205	19.27(21.26)	216	18.70(20.64)
206	18.61(20.54)	217	19.44(21.45)
207	19.52(21.54)	218	20.26(22.35)
208	20.68(22.82)	219	19.94(22.00)
209	20.87(23.02)	220	19.70(21.74)
210	20.63(22.77)	221	19.71(21.75)
211	20.53(22.65)	222	19.92(21.98)
212	20.67(22.81)	223	20.19(22.27)
213	20.92(23.08)	224	20.34(22.44)
214	20.98(23.15)	225	20.41(22.52)

IMMERSION B - AVG 22.58(24.91)

ANGLE 72		ANGLE 248	
226	25.47(28.10)	237	20.56(22.69)
227	23.35(25.77)	238	19.48(21.50)
228	19.96(22.02)	239	20.12(22.20)
229	20.90(23.06)	240	20.98(23.15)
230	23.57(26.01)	241	21.24(23.43)
231	24.99(27.58)	242	21.62(23.86)
232	25.11(27.71)	243	21.74(23.98)
233	25.04(27.62)	244	21.56(23.79)
234	25.06(27.65)	245	21.64(23.88)
235	25.05(27.64)	246	21.61(23.84)
236	25.10(27.69)	247	21.39(23.60)

IMMERSION C - AVG 21.51(23.73)

ANGLE 168		ANGLE 352	
248	20.47(22.59)	259	20.57(22.69)
249	21.19(23.38)	260	21.83(24.09)
250	21.44(23.66)	261	22.02(24.29)
251	21.30(23.50)	262	21.99(24.27)
252	21.39(23.60)	263	21.88(24.14)
253	21.38(23.59)	264	21.77(24.02)
254	21.25(23.45)	265	21.74(23.98)
255	21.21(23.40)	266	21.78(24.04)
256	21.31(23.52)	267	21.79(24.04)
257	21.26(23.46)	268	21.73(23.98)
258	21.13(23.31)	269	21.20(23.39)

IMMERSION D - AVG 21.78(24.03)

ANGLE 96		ANGLE 280	
270	23.44(25.86)	281	20.49(22.61)
271	21.61(23.85)	282	20.16(22.25)
272	19.80(21.85)	283	21.20(23.39)
273	21.01(23.18)	284	21.23(23.42)
274	22.84(25.20)	285	21.13(23.31)
275	23.37(25.78)	286	21.01(23.18)
276	23.37(25.78)	287	20.91(23.07)
277	23.42(25.84)	288	20.84(22.99)
278	23.59(26.03)	289	20.79(22.94)
279	23.68(26.13)	290	20.71(22.85)
280	23.72(26.17)	291	20.71(22.85)

IMMERSION E - AVG 22.11(24.39)

ANGLE 40		ANGLE 216	
292	23.41(25.84)	303	21.12(23.30)
293	21.16(23.35)	304	20.52(22.65)
294	20.86(23.02)	305	21.25(23.44)
295	22.14(24.43)	306	21.33(23.54)
296	22.94(25.31)	307	21.32(23.53)
297	23.29(25.70)	308	21.32(23.53)
298	23.50(25.93)	309	21.31(23.51)
299	23.67(26.12)	310	21.31(23.52)
300	23.82(26.29)	311	21.38(23.59)
301	23.90(26.37)	312	21.43(23.64)
302	23.96(26.43)	313	21.51(23.73)

IMMERSION F - AVG 20.29(22.39)

ANGLE 72		ANGLE 248	
314	20.66(22.79)	325	21.48(23.70)
315	19.65(21.68)	326	20.21(22.31)
316	18.60(20.53)	327	21.53(23.75)
317	17.86(19.71)	328	21.68(23.93)
318	17.73(19.56)	329	21.70(23.94)
319	17.90(19.75)	330	21.67(23.91)
320	18.34(20.24)	331	21.65(23.89)
321	19.08(21.05)	332	21.66(23.90)
322	19.97(22.03)	333	21.75(24.00)
323	20.67(22.81)	334	21.87(24.14)
324	20.54(22.66)	335	14.73(16.25)

IMMERSION G - AVG 21.38(23.59)

ANGLE 168		ANGLE 352	
336	14.85(16.38)	347	21.90(24.16)
337	20.03(22.10)	348	20.43(22.54)
338	19.33(21.33)	349	21.59(23.82)
339	19.91(21.97)	350	22.18(24.48)
340	20.45(22.57)	351	22.20(24.49)
341	20.77(22.92)	352	22.26(24.57)
342	20.92(23.09)	353	22.25(24.55)
343	20.97(23.14)	354	22.27(24.57)
344	14.98(16.53)	355	22.28(24.58)
345	21.00(23.17)	356	22.27(24.58)
346	21.00(23.17)	357	22.24(24.54)

IMMERSION H - AVG 19.26(21.25)

ANGLE 96		ANGLE 280	
358	17.57(19.39)	369	21.70(23.94)
359	17.60(19.42)	370	21.61(23.84)
360	17.62(19.44)	371	20.72(22.86)
361	17.55(19.36)	372	19.62(21.65)
362	17.48(19.28)	373	19.54(21.56)
363	17.43(19.23)	374	20.28(22.28)
364	17.42(19.22)	375	21.21(23.40)
365	17.42(19.22)	376	21.60(23.84)
366	17.44(19.24)	377	21.63(23.87)
367	17.44(19.25)	378	21.68(23.92)
368	17.52(19.33)	379	21.68(23.93)

IMMERSION J - AVG 19.36(21.36)

ANGLE 40		ANGLE 216	
380	19.36(21.36)	391	20.47(22.59)
381	19.26(21.25)	392	19.65(21.68)
382	19.16(21.14)	393	18.25(20.14)
383	18.54(20.46)	394	17.61(19.43)
384	18.03(19.90)	395	17.63(19.45)
385	17.94(19.79)	396	18.16(20.04)
386	18.19(20.07)	397	18.89(20.85)
387	19.03(20.99)	398	19.63(21.66)
388	19.97(22.03)	399	20.24(22.33)
389	21.13(23.31)	400	20.55(22.67)
390	21.87(24.13)	401	20.65(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(614.06)	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)	426 601.99(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 AVERAGE 606.13(605.17)

OUTERWALL

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

485 596.25(595.31) 488 598.22(597.28) 491 596.37(595.42) AVERAGE 596.95(596.00)

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

REFERENCE TEMPERATURES - ICE BATH

520 491.382 521 491.505 522 491.505 523 491.321 524 491.382 525 491.260

RERUN 1/31/73 TIME 9-20-10 ***** TRANSONIC FAN RIG - BLD 2 *****
POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 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)	= 12794.0944	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

IMMERSION	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

PT1 - PITOT STATIC RAKE

														AVERAGE	14.49(15.05)
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)				
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

														AVERAGE	13.36(13.87)
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)				
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)						

TT0 - INLET SCREEN TEMPERATURE

														AVERAGE	518.85(518.46)
2	518.79(518.62)	3	518.55(518.38)	4	518.61(518.44)	6	519.15(518.98)	9	519.09(518.92)	10	518.61(518.44)				
11	518.91(518.74)	14	518.79(518.62)	15	518.97(518.80)	16	518.79(518.62)	18	518.79(518.62)	21	519.09(518.92)				
22	518.67(518.50)	23	519.09(518.92)												

PSBW - BELLMOUTH WALL STATIC

														AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)												

STATIC PRESSURES

														AVERAGE	11.92(12.38)
PS30 - OUTERWALL	88	12.10(12.57)	90	11.74(12.19)											
PS3I - INNERWALL	92	12.13(12.60)	94	11.61(12.06)										AVERAGE	11.87(12.33)
PS40 - OUTERWALL	96	12.15(12.62)	98	11.83(12.29)										AVERAGE	11.99(12.45)
PS4I - INNERWALL	100	12.17(12.64)	102	11.88(12.34)										AVERAGE	12.03(12.49)
PS43D - OUTERWALL	104	12.27(12.74)	106	11.97(12.43)										AVERAGE	12.12(12.58)
PS43I - INNERWALL	108	12.43(12.91)	110	12.07(12.53)										AVERAGE	12.25(12.72)
PS460 - OUTERWALL	112	12.51(12.99)	114	12.28(12.76)										AVERAGE	12.40(12.87)
PS46I - INNERWALL	116	12.54(13.02)	118	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)
PS5I - 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)
PS55I - 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)
PS9I - 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)
PS10I - 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)													
PS102I - INNERWALL	181	15.34(15.93)													
PS1040 - OUTERWALL	182	15.73(16.34)													
PS104I - INNERWALL	183	15.62(16.22)													
PS1060 - OUTERWALL	184	16.02(16.64)													
PS106I - INNERWALL	185	15.88(16.49)													
PS1080 - OUTERWALL	186	16.24(16.86)													
PS108I - INNERWALL	187	16.09(16.71)													
PS11D - 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)
PS11I - 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)
PS12I - 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)													
PS13I - INNERWALL	469	18.10(18.80)													

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PT5 - ROTOR INLET RAKE PS5 - SHROUD PS5 - HUB

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)

ANGLE 136		ANGLE 320	
204	25.26(26.24)	215	20.23(21.01)
205	22.01(22.85)	216	18.70(19.43)
206	19.56(20.31)	217	19.19(19.93)
207	20.74(21.54)	218	19.70(20.46)
208	23.46(24.36)	219	19.77(20.53)
209	25.31(26.29)	220	19.80(20.56)
210	25.62(26.61)	221	19.81(20.57)
211	25.68(26.67)	222	20.04(20.82)
212	25.70(26.69)	223	20.38(21.16)
213	25.73(26.72)	224	20.57(21.37)
214	25.83(26.82)	225	20.59(21.38)

IMMERSION B - AVG 22.27(23.12)

ANGLE 72		ANGLE 248	
226	24.88(25.84)	237	20.73(21.53)
227	22.91(23.80)	238	19.84(20.61)
228	23.40(24.31)	239	20.84(21.65)
229	24.00(24.93)	240	21.33(22.15)
230	23.71(24.62)	241	21.21(22.03)
231	23.30(24.20)	242	21.40(22.22)
232	23.05(23.94)	243	21.66(22.49)
233	22.91(23.79)	244	21.52(22.35)
234	22.84(23.72)	245	21.55(22.38)
235	22.84(23.72)	246	21.72(22.56)
236	22.83(23.71)	247	21.68(22.52)

IMMERSION C - AVG 20.97(21.78)

ANGLE 168		ANGLE 352	
248	20.45(21.24)	259	20.29(21.07)
249	18.91(19.64)	260	21.26(22.08)
250	18.45(19.16)	261	21.33(22.15)
251	19.43(20.18)	262	21.28(22.10)
252	20.91(21.72)	263	21.26(22.08)
253	21.38(22.20)	264	21.25(22.07)
254	21.45(22.28)	265	21.15(21.96)
255	21.58(22.41)	266	21.09(21.91)
256	21.74(22.58)	267	21.16(21.97)
257	21.98(22.82)	268	21.20(22.02)
258	22.24(23.10)	269	20.69(21.49)

IMMERSION D - AVG 21.98(22.83)

ANGLE 96		ANGLE 280	
270	23.74(24.66)	281	20.60(21.40)
271	21.30(22.12)	282	20.02(20.79)
272	20.66(21.46)	283	20.89(21.70)
273	22.51(23.37)	284	20.99(21.80)
274	23.69(24.61)	285	20.96(21.77)
275	23.89(24.81)	286	20.86(21.66)
276	23.90(24.83)	287	20.78(21.58)
277	23.93(24.85)	288	20.73(21.53)
278	23.94(24.86)	289	20.69(21.49)
279	23.97(24.90)	290	20.65(21.44)
280	24.00(24.92)	291	20.66(21.45)

IMMERSION E - AVG 21.41(22.23)

ANGLE 40		ANGLE 216	
292	21.43(22.25)	303	21.15(21.96)
293	20.57(21.36)	304	20.22(21.00)
294	21.95(22.79)	305	21.13(21.95)
295	21.96(22.81)	306	21.23(22.05)
296	21.88(22.72)	307	21.21(22.03)
297	21.81(22.65)	308	21.22(22.04)
298	21.76(22.60)	309	21.20(22.02)
299	21.74(22.58)	310	21.24(22.06)
300	21.70(22.54)	311	21.31(22.13)
301	21.67(22.50)	312	21.33(22.15)
302	21.63(22.47)	313	21.36(22.18)

IMMERSION F - AVG 21.67(22.50)

ANGLE 72		ANGLE 248	
314	22.39(23.25)	325	21.48(22.30)
315	21.03(21.84)	326	20.16(20.94)
316	21.75(22.59)	327	21.37(22.19)
317	22.41(23.28)	328	21.51(22.33)
318	22.47(23.34)	329	21.49(22.32)
319	22.39(23.25)	330	21.45(22.27)
320	22.23(23.09)	331	21.41(22.24)
321	22.07(22.92)	332	21.40(22.23)
322	21.88(22.73)	333	21.37(22.19)
323	21.71(22.55)	334	21.46(22.29)
324	21.51(22.34)	335	14.70(15.27)

IMMERSION G - AVG 20.05(20.82)

ANGLE 168		ANGLE 352	
336	14.85(15.42)	347	21.55(22.38)
337	18.51(19.23)	348	20.07(20.84)
338	17.71(18.39)	349	20.92(21.72)
339	17.47(18.15)	350	21.61(22.44)
340	17.43(18.10)	351	21.62(22.46)
341	17.53(18.21)	352	21.66(22.50)
342	17.81(18.49)	353	21.66(22.50)
343	18.24(18.95)	354	21.62(22.46)
344	14.97(15.54)	355	21.66(22.50)
345	18.81(19.54)	356	21.70(22.54)
346	18.60(19.32)	357	21.75(22.59)

IMMERSION H - AVG 19.22(19.96)

ANGLE 96		ANGLE 280	
358	18.42(19.13)	369	21.39(22.22)
359	18.56(19.28)	370	21.36(22.18)
360	18.36(19.07)	371	20.61(21.41)
361	17.75(18.44)	372	19.44(20.19)
362	17.30(17.97)	373	19.03(19.76)
363	17.04(17.69)	374	18.58(20.93)
364	17.00(17.66)	375	20.49(21.28)
365	17.07(17.72)	376	21.02(21.83)
366	17.49(18.16)	377	21.19(22.01)
367	17.99(18.69)	378	21.29(22.11)
368	18.96(19.69)	379	21.38(22.20)

IMMERSION J - AVG 20.48(21.27)

ANGLE 40		ANGLE 216	
380	23.37(24.27)	391	20.14(20.92)
381	22.45(23.32)	392	19.25(19.99)
382	20.76(21.56)	393	18.06(18.75)
383	19.16(19.90)	394	17.64(18.32)
384	18.75(19.48)	395	17.75(18.43)
385	19.48(20.23)	396	18.27(18.98)
386	20.83(21.63)	397	18.86(19.59)
387	22.19(23.04)	398	19.34(20.08)
388	22.63(23.50)	399	19.74(20.54)
389	22.69(23.56)	400	20.06(20.83)
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 AVERAGE 604.21(604.01)

OUTERWALL

475 597.94(597.74) 477 597.49(597.29) 479 623.00(622.80) 481 619.03(618.82) AVERAGE 609.37(609.16)

INNERWALL

485 593.77(593.58) 488 597.10(596.90) 491 595.46(595.27) AVERAGE 595.44(595.25)

FLOWS

OUTER				
PRESSURE (PSIA)	493 15.90	494 15.96		AVG 15.93
DELTA PRESSURE (PSI)	497 1.49	498 1.52		AVG 1.51
TEMPERATURE (R)	500 609.48	501 609.70		AVG 609.59
INNER				
PRESSURE (PSIA)	503 15.85	504 15.86		AVG 15.85
DELTA PRESSURE (PSI)	507 2.54	508 2.53		AVG 2.53
TEMPERATURE (R)	510 592.47	511 592.81		AVG 592.64

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

REFERENCE TEMPERATURES - ICE BATH

520 491.382 521 491.505 522 491.444 523 491.382 524 491.444 525 491.321

RERON 1/31/73 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 58 PAGE 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	= 89.8335	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	0.7462	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

PTL - PITOT STATIC RAKE

															AVERAGE	14.49(14.93)
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)					
31	14.51(14.94)	32	0.00(0.00)	33	14.53(14.96)	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

															AVERAGE	13.36(13.75)
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)					
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)							

TTO - INLET SCREEN TEMPERATURE

															AVERAGE	518.79(518.68)
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)					
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)													

PSBW - BELLMOUTH WALL STATIC

															AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)													

STATIC PRESSURES

PS30 - OUTERWALL	88	12.23(12.60)	90	11.51(11.85)											AVERAGE	11.87(12.22)
PS3I - 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)
PS4I - 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)
PS43I - 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)
PS46I - 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)
PS5I - 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)
PS55I - 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)
PS9I - 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(16.13)
PS10I - 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)														
PS102I - INNERWALL	181	15.41(15.87)														
PS1040 - OUTERWALL	182	16.07(16.55)														
PS104I - INNERWALL	183	15.52(15.98)														
PS1060 - OUTERWALL	184	16.34(16.83)														
PS106I - INNERWALL	185	15.76(16.23)														
PS1080 - OUTERWALL	186	16.49(16.98)														
PS108I - 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)
PS11I - 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)
PS12I - 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)														
PS13I - INNERWALL	469	18.09(18.64)														

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PT5 - ROTOR INLET RAKE PS5 - SHROUD PS5 - HUB

ANGLE 251		ANGLE 071					
128	14.19(14.61)	129	14.20(14.62)	120	11.05(11.38)	124	12.41(12.78)
130	14.42(14.85)	131	14.25(14.68)	121	11.30(11.64)	125	12.14(12.50)
132	14.31(14.74)	133	14.00(14.42)	122	12.08(12.44)	126	11.27(11.61)
134	14.38(14.81)	135	14.45(14.88)	123	12.04(12.40)	127	12.43(12.80)
136	14.29(14.71)	137	14.47(14.90)				
138	13.94(14.36)	139	14.26(14.69)				
140	14.44(14.87)	141	14.10(14.53)				
142	14.03(14.45)	143	14.03(14.45)				
144	13.99(14.41)	145	14.01(14.43)				

PT12 - STAGE EXIT TOTAL

IMMERSION A - AVG 21.87(22.53)

ANGLE 136		ANGLE 320		ANGLE 72		ANGLE 248		ANGLE 168		ANGLE 352	
204	24.88(25.62)	215	20.28(20.89)	226	21.34(21.97)	237	21.01(21.64)	248	24.22(24.95)	259	20.43(21.05)
205	21.56(22.20)	216	18.42(18.97)	227	20.36(20.96)	238	19.79(20.38)	249	21.00(21.63)	260	21.20(21.83)
206	20.15(20.75)	217	18.43(18.98)	228	20.83(21.45)	239	20.30(20.91)	250	20.62(21.23)	261	21.45(22.10)
207	21.90(22.55)	218	19.79(20.38)	229	21.53(22.17)	240	21.17(21.80)	251	22.60(23.27)	262	21.47(22.11)
208	24.07(24.79)	219	20.34(20.95)	230	21.66(22.31)	241	21.35(21.98)	252	24.39(25.12)	263	21.38(22.02)
209	24.75(25.49)	220	20.28(20.89)	231	21.59(22.24)	242	21.13(21.76)	253	24.82(25.57)	264	21.28(21.91)
210	24.85(25.59)	221	20.08(20.68)	232	21.52(22.16)	243	21.29(21.93)	254	24.86(25.60)	265	21.22(21.86)
211	24.86(25.60)	222	19.91(20.51)	233	21.62(22.26)	244	21.59(22.24)	255	24.83(25.57)	266	21.20(21.84)
212	24.83(25.57)	223	20.04(20.64)	234	21.74(22.39)	245	21.72(22.37)	256	24.83(25.57)	267	21.23(21.87)
213	24.82(25.56)	224	20.27(20.87)	235	21.74(22.39)	246	21.67(22.32)	257	24.79(25.54)	268	21.26(21.90)
214	24.86(25.61)	225	20.46(21.07)	236	21.93(22.59)	247	21.93(22.59)	258	24.93(25.67)	269	20.94(21.57)

IMMERSION D - AVG 21.52(22.16)

ANGLE 96		ANGLE 280		ANGLE 40		ANGLE 216		ANGLE 72		ANGLE 248	
270	22.30(22.97)	281	20.71(21.32)	292	21.24(21.87)	303	20.56(21.17)	314	21.62(22.26)	325	21.32(21.96)
271	20.95(21.58)	282	20.05(20.65)	293	20.41(21.02)	304	19.18(19.75)	315	20.52(21.13)	326	20.02(20.62)
272	22.21(22.87)	283	20.88(21.51)	294	21.71(22.36)	305	19.51(20.10)	316	21.62(22.27)	327	21.06(21.69)
273	22.39(23.06)	284	21.11(21.74)	295	21.75(22.40)	306	20.28(20.89)	317	21.59(22.24)	328	21.23(21.86)
274	22.32(22.99)	285	21.13(21.76)	296	21.75(22.40)	307	20.37(20.98)	318	21.47(22.11)	329	21.23(21.86)
275	22.29(22.96)	286	21.05(21.67)	297	21.74(22.39)	308	20.38(20.99)	319	21.41(22.05)	330	21.14(21.77)
276	22.29(22.96)	287	20.98(21.61)	298	21.75(22.40)	309	20.36(20.96)	320	21.37(22.01)	331	21.06(21.69)
277	22.31(22.97)	288	20.92(21.54)	299	21.73(22.38)	310	20.40(21.01)	321	21.38(22.02)	332	21.03(21.66)
278	22.29(22.96)	289	20.89(21.52)	300	21.65(22.29)	311	20.50(21.11)	322	21.39(22.03)	333	21.03(21.65)
279	22.24(22.91)	290	20.85(21.47)	301	21.66(22.31)	312	20.56(21.18)	323	21.39(22.03)	334	20.96(21.59)
280	22.15(22.82)	291	20.87(21.50)	302	21.47(22.32)	313	20.64(21.26)	324	21.26(21.89)	335	14.72(15.16)

IMMERSION G - AVG 19.98(20.58)

ANGLE 168		ANGLE 352		ANGLE 96		ANGLE 280		ANGLE 40		ANGLE 216	
336	14.83(15.27)	347	21.72(22.37)	358	23.19(23.89)	369	21.00(21.63)	380	21.43(22.07)	391	18.95(19.51)
337	18.25(18.79)	348	20.37(20.98)	359	23.21(23.90)	370	21.01(21.63)	381	20.74(21.36)	392	18.26(18.81)
338	17.88(18.42)	349	20.50(21.11)	360	22.72(23.40)	371	20.57(21.19)	382	19.79(20.29)	393	17.67(18.20)
339	17.60(18.12)	350	21.47(22.11)	361	21.05(21.68)	372	19.55(20.13)	383	18.56(19.11)	394	17.51(18.03)
340	17.38(17.90)	351	21.70(22.35)	362	20.87(21.49)	373	18.73(19.29)	384	18.31(18.85)	395	17.51(18.04)
341	17.30(17.82)	352	21.73(22.38)	363	21.22(21.86)	374	18.84(19.41)	385	18.96(19.52)	396	17.67(18.20)
342	17.37(17.89)	353	21.70(22.35)	364	21.92(22.57)	375	19.67(20.26)	386	20.12(20.72)	397	17.86(18.39)
343	17.59(18.11)	354	21.69(22.34)	365	22.71(23.39)	376	20.59(21.19)	387	21.10(21.73)	398	18.13(18.67)
344	14.96(15.41)	355	21.69(22.34)	366	22.98(23.67)	377	20.86(21.49)	388	21.32(21.96)	399	18.40(18.95)
345	18.36(18.91)	356	21.68(22.33)	367	22.90(23.59)	378	20.91(21.53)	389	21.36(22.00)	400	18.51(19.06)
346	18.53(19.08)	357	21.70(22.35)	368	22.74(23.42)	379	20.94(21.57)	390	21.36(22.00)	401	18.60(19.16)

TTL2 - 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 600.38(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)	424 598.39(598.27)	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)	412 592.99(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

AVERAGE 606.10(605.98)

OUTERWALL

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

485 596.82(596.69) 488 597.10(596.97) 491 595.92(595.79)

AVERAGE 596.61(596.49)

FLOWS

OUTER				
PRESSURE (PSIA)	493 15.92	494 15.97		AVG 15.95
DELTA PRESSURE (PSI)	497 1.51	498 1.54		AVG 1.52
TEMPERATURE (R)	500 609.75	501 610.03		AVG 609.89
INNER				
PRESSURE (PSIA)	503 15.84	504 15.85		AVG 15.85
DELTA PRESSURE (PSI)	507 2.53	508 2.52		AVG 2.53
TEMPERATURE (R)	510 592.53	511 592.98		AVG 592.76
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

REFERENCE TEMPERATURES - ICE BATH

520 491.444 521 491.566 522 491.566 523 491.321 524 491.076 525 491.321

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 (3 30 5) 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	= 140.5760	AMBIENT TEMPERATURE	= 519.6681
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/P)	= 0.0818
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	592.57
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

PTI - PITOT STATIC RAKE

														AVERAGE	14.49(15.98)
25	0.00(0.00)	26	14.53(16.04)	27	0.00(0.00)	28	0.00(0.00)	29	14.47(15.97)	30	0.00(0.00)				
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)						

PSI - PITOT STATIC RAKE

														AVERAGE	13.35(14.75)
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)				
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)						

TTO - INLET SCREEN TEMPERATURE

														AVERAGE	518.56(518.68)
2	518.49(518.61)	3	518.31(518.43)	4	518.37(518.49)	6	518.67(518.79)	9	518.79(518.92)	10	518.25(518.37)				
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)												

PSBW - BELLMOUTH WALL STATIC

														AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)												

STATIC PRESSURES

PS30 - OUTERWALL	88	12.22(13.50)	90	11.49(12.68)										AVERAGE	11.85(13.09)
PS3I - 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)
PS4I - 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)
PS43I - 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)
PS46I - 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)
PS5I - 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)
PS55I - 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)
PS9I - 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)
PS10I - 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)													
PS102I - INNERWALL	181	14.74(16.28)													
PS1040 - OUTERWALL	182	16.95(18.71)													
PS104I - INNERWALL	183	15.06(16.62)													
PS1060 - OUTERWALL	184	17.07(18.85)													
PS106I - INNERWALL	185	15.00(16.56)													
PS1080 - OUTERWALL	186	17.11(18.89)													
PS108I - 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)
PS11I - 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)
PS12I - 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	445	18.42(20.33)													
PS13I - INNERWALL	449	18.09(19.98)													

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PT5 - 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(13.38)
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

IMMERSION A - AVG 20.76(22.92)

ANGLE 136		ANGLE 320		ANGLE 72		ANGLE 248		ANGLE 168		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	19.83(21.89)	238	20.41(22.53)	249	22.98(25.37)	260	21.12(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(23.56)
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	21.56(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)

IMMERSION B - AVG 21.66(23.80)

IMMERSION C - AVG 23.36(25.60)

IMMERSION D - AVG 20.75(22.92)

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	19.23(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(23.66)	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	21.42(23.71)	313	23.41(25.85)	324	21.61(23.75)	335	14.72(16.25)

IMMERSION E - AVG 21.35(23.57)

IMMERSION F - AVG 20.12(22.21)

IMMERSION G - AVG 21.46(23.70)

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	17.80(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	17.60(19.43)
341	21.98(24.27)	352	21.67(23.93)	363	20.42(22.54)	374	17.76(19.60)	385	19.34(20.25)	396	17.59(19.41)
342	22.11(24.42)	353	21.67(23.93)	364	21.16(23.36)	375	18.12(20.01)	386	19.30(21.31)	397	17.58(19.41)
343	22.12(24.43)	354	21.66(23.91)	365	21.76(24.03)	376	18.88(20.85)	387	20.33(22.45)	398	17.62(19.46)
344	14.97(16.53)	355	21.67(23.93)	366	21.89(24.17)	377	19.66(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	17.92(19.78)
346	21.91(24.19)	357	21.66(23.92)	368	21.87(24.15)	379	20.14(22.24)	390	20.82(23.10)	401	17.10(19.90)

IMMERSION H - AVG 20.31(22.43)

IMMERSION J - AVG 19.00(20.98)

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)	424 626.58(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)	452 609.48(609.62)	459 580.27(580.40)
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 AVERAGE 606.00(606.14)

OUTERWALL

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

485 596.03(596.17)	488 596.70(596.84)	491 595.75(595.88)	AVERAGE 596.16(596.30)

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)	500 609.87	501 610.42		AVG 610.14
INNER				
PRESSURE (PSIA)	503 15.83	504 15.84		AVG 15.83
DELTA PRESSURE (PSI)	507 2.51	508 2.49		AVG 2.50
TEMPERATURE (R)	510 592.47	511 592.87		AVG 592.67

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

REFERENCE TEMPERATURES - ICE BATH

520	491.444	521	491.382	522	491.566	523	491.260	524	491.260	525	491.137

RERUN 1731/73 TIME 9-26- 2 ***** 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)	= 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	596.81	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
335 336 344 399 404 405 408 410 423 431 433 437 438 462 541

PT1 - PITOT STATIC RAKE

															AVERAGE	14.49(15.95)
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)					
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

															AVERAGE	13.36(14.70)
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)					
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)							

TT0 - INLET SCREEN TEMPERATURE

															AVERAGE	519.37(518.48)
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)					
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

															AVERAGE	0.00(0.00)
84	0.00(0.00)	86	0.00(0.00)													

STATIC PRESSURES

															AVERAGE	11.93(13.13)
PS30 - OUTERWALL	88	12.11(13.33)	90	11.75(12.93)												
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)														

POINT 12 READING 284 ***** TRANSONIC FAN RIG ***** 13-31-52 2/ 8/73 PAGE 3

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(13.33)	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)

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 B - AVG 22.36(24.61)

IMMERSION C - AVG 21.43(23.59)

IMMERSION D - AVG 21.61(23.79)

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	21.28(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	21.99(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 E - AVG 22.12(24.35)

IMMERSION F - AVG 20.34(22.39)

IMMERSION G - AVG 21.36(23.51)

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	17.55(19.32)	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(20.84)
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(21.88)
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	21.11(24.01)

IMMERSION H - AVG 19.23(21.16)

IMMERSION J - AVG 19.60(21.57)

POINT 12 READING 284 ***** TRANSONIC FAN RIG ***** 13-31-52 2/ 8/73

TT12 - STAGE EXIT TOTAL

IMMERSION A	IMMERSION B	IMMERSION C	IMMERSION D	IMMERSION E
AVG 629.14(628.31)	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)	430 624.09(625.26)
403 658.11(657.24)	410 609.53(608.73)	417 648.03(647.17)	424 636.28(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(590.04)	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)	460 608.81(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

REFERENCE TEMPERATURES - ICE BATH

520 491.628 521 491.444 522 491.566 523 491.505 524 491.505 525 491.444

C-4

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	= 142.2085	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	= 518.9769
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

IMMERSION	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	16.7864

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

															AVERAGE	
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)		

PS1 - PITOT STATIC RAKE

															AVERAGE	
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)		

TTO - INLET SCREEN TEMPERATURE

											AVERAGE	
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)									

PSRW - BELLMOUTH WALL STATIC

						AVERAGE	
84	0.00(0.00)	86	0.00(	0.00)			

STATIC PRESSURES

															AVERAGE	
PS30	- OUTERWALL	88	11.89(	12.62)	90	11.87(	12.60)								AVERAGE	11.88(12.61)
PS3I	- 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)
PS4I	- 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)
PS43I	- 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)
PS46I	- 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)
PS5I	- 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)
PS55I	- 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)									
PS70	- OUTERWALL	156	10.85(	11.52)	157	11.17(	11.86)	158	12.02(	12.77)	159	12.80(	13.59)			
		160	13.84(	14.70)	161	14.85(	15.76)									
PS80	- OUTERWALL	162	15.52(	16.48)	163	15.91(	16.89)									
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)
PS9I	- 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)
PS10I	- 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)												
PS102I	- INNERWALL	181	14.38(	15.27)												
PS1040	- OUTERWALL	182	16.31(	17.31)												
PS104I	- INNERWALL	183	14.23(	15.11)												
PS1060	- OUTERWALL	184	16.52(	17.54)												
PS106I	- INNERWALL	185	14.71(	15.61)												
PS1080	- OUTERWALL	186	16.65(	17.68)												
PS108I	- INNERWALL	187	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)
PS11I	- 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)
PS12I	- 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)												
PS13I	- INNERWALL	469	16.08(	19.19)												

POINT 12 READING 284 ***** TRANSONIC FAN RIG ***** 13-31-52 27 8/73 PAGE 2

PT5 - ROTOR INLET RAKE PS5 - SHROUD PS5 - HUB

ANGLE 251		ANGLE 071					
128	13.70(14.54)	129	13.62(14.46)	120	11.66(12.38)	124	11.99(12.73)
130	13.70(14.55)	131	13.72(14.56)	121	11.69(12.41)	125	11.93(12.66)
132	13.73(14.58)	133	13.68(14.52)	122	11.81(12.54)	126	11.95(12.69)
134	13.71(14.56)	135	13.75(14.60)	123	11.67(12.39)	127	12.12(12.87)
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)

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)	237	21.55(22.88)	248	21.89(23.23)	259	20.85(22.13)
205	20.04(21.27)	216	18.90(20.07)	227	21.04(22.34)	238	20.29(21.54)	249	21.06(22.36)	260	21.43(22.75)
206	19.31(20.50)	217	19.00(20.17)	228	20.65(21.92)	239	20.35(21.61)	250	21.51(22.84)	261	21.94(23.30)
207	20.66(21.94)	218	20.15(21.39)	229	21.35(22.67)	240	21.08(22.39)	251	21.98(23.34)	262	22.26(23.64)
208	21.80(23.15)	219	20.81(22.09)	230	22.00(23.35)	241	21.69(23.03)	252	22.50(23.89)	263	22.49(23.87)
209	22.24(23.61)	220	20.94(22.24)	231	22.26(23.63)	242	22.05(23.41)	253	22.63(24.02)	264	22.52(23.91)
210	22.23(23.60)	221	20.95(22.24)	232	22.21(23.58)	243	22.25(23.63)	254	22.59(23.98)	265	22.46(23.84)
211	22.18(23.55)	222	20.94(22.23)	233	22.25(23.62)	244	22.32(23.70)	255	22.55(23.94)	266	22.43(23.81)
212	22.17(23.53)	223	20.99(22.28)	234	22.31(23.69)	245	22.37(23.75)	256	22.57(23.97)	267	22.45(23.83)
213	22.22(23.59)	224	21.05(22.35)	235	22.34(23.71)	246	22.35(23.73)	257	22.59(23.98)	268	22.40(23.78)
214	22.23(23.60)	225	21.13(22.43)	236	22.47(23.86)	247	22.25(23.62)	258	22.55(23.94)	269	21.99(23.35)

IMMERSION B - AVG 21.82(23.17)

IMMERSION C - AVG 22.22(23.59)

IMMERSION D - AVG 21.38(22.70)

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)	303	21.66(23.00)	314	21.37(22.69)	325	21.00(22.30)
271	20.55(21.82)	282	20.43(21.69)	293	20.35(21.61)	304	20.65(21.92)	315	20.24(21.49)	326	19.97(21.20)
272	20.81(22.10)	283	20.99(22.29)	294	20.89(22.18)	305	20.91(22.20)	316	20.75(22.03)	327	20.60(21.87)
273	21.39(22.71)	284	21.34(22.65)	295	21.12(22.43)	306	21.08(22.38)	317	20.73(22.00)	328	20.52(21.78)
274	21.76(23.10)	285	21.49(22.81)	296	21.37(22.68)	307	21.20(22.51)	318	20.67(21.95)	329	20.45(21.71)
275	21.81(23.15)	286	21.42(22.74)	297	21.61(22.95)	308	21.41(22.73)	319	20.68(21.96)	330	20.45(21.71)
276	21.76(23.11)	287	21.35(22.66)	298	21.78(23.12)	309	21.58(22.91)	320	20.74(22.02)	331	20.52(21.79)
277	21.75(23.09)	288	21.32(22.64)	299	21.89(23.24)	310	21.77(23.12)	321	20.86(22.15)	332	20.67(21.94)
278	21.76(23.11)	289	21.32(22.64)	300	21.92(23.27)	311	21.89(23.24)	322	21.02(22.32)	333	20.86(22.15)
279	21.76(23.11)	290	21.30(22.62)	301	21.94(23.30)	312	21.93(23.28)	323	21.12(22.43)	334	21.07(22.37)
280	21.76(23.10)	291	21.33(22.65)	302	21.99(23.34)	313	21.94(23.29)	324	21.01(22.31)	335	14.73(15.63)

IMMERSION E - AVG 21.47(22.79)

IMMERSION F - AVG 20.72(21.99)

IMMERSION G - AVG 20.68(21.96)

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)	369	21.03(22.33)	380	20.43(21.70)	391	19.96(21.21)
337	19.80(21.02)	348	19.99(21.22)	359	20.65(21.92)	370	20.96(22.24)	381	19.88(21.10)	392	19.30(20.49)
338	19.65(20.86)	349	20.10(21.34)	360	20.36(21.62)	371	20.27(21.52)	382	19.18(20.36)	393	18.22(19.35)
339	20.08(21.32)	350	20.81(22.09)	361	19.29(20.48)	372	19.34(20.54)	383	18.31(19.44)	394	17.76(18.45)
340	20.32(21.57)	351	21.01(22.31)	362	18.77(19.92)	373	19.10(20.28)	384	18.01(19.12)	395	17.74(18.83)
341	20.46(21.72)	352	21.08(22.38)	363	18.81(19.97)	374	19.44(20.64)	385	18.32(19.46)	396	18.11(19.22)
342	20.55(21.82)	353	21.08(22.38)	364	19.22(20.41)	375	20.08(21.32)	386	19.03(20.21)	397	18.62(19.77)
343	20.66(21.93)	354	21.10(22.40)	365	19.72(20.93)	376	20.60(21.87)	387	19.86(21.08)	398	19.15(20.33)
344	14.97(15.90)	355	21.16(22.46)	366	20.07(21.31)	377	20.81(22.09)	388	20.25(21.50)	399	19.82(21.10)
345	20.82(22.11)	356	21.21(22.52)	367	20.25(21.50)	378	20.89(22.18)	389	20.53(21.79)	400	19.99(21.23)
346	20.79(22.07)	357	21.22(22.53)	368	20.47(21.73)	379	20.92(22.21)	390	20.67(21.94)	401	20.19(21.43)

IMMERSION H - AVG 20.08(21.32)

IMMERSION J - AVG 19.34(20.53)

TTL2 - 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)	426 605.08(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 AVERAGE 605.62(605.28)

OUTERWALL

475 609.46(609.12) 477 608.95(608.61) 479 613.36(613.02) 481 612.08(611.74) AVERAGE 610.96(610.62)

INNERWALL

485 595.71(595.38) 488 597.67(597.34) 491 595.74(595.41) AVERAGE 596.37(596.04)

FLOWS

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
PRESSURE (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

REFERENCE TEMPERATURES - ICE BATH

520 491.452 521 491.478 522 491.487 523 491.338 524 491.329 525 491.224

***** TRANSONIC FAN RIG ***** BLD 2 - CIRCUMFERENTIAL DISTORTION

POINT 12 READING 284 DATE 2/ 8/73 PAMB 14.74 TAMB 519.6 TIME 13-31-52 PAGE -

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

	ANGULAR LOC	SCREEN ANGLE 0	45	90	135	180	225	270
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)	12.23(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(14.96)	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)
PS5S	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)
PS5H	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)

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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. 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

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 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

NOTE6 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 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    12.9001    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    10.3246    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


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 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
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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

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 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      0.5507      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    679.3085    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 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. 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    650.6610
 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

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 ABSOLUTE SCREEN ANGLE  180.0000    200.0000    220.0800    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

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. 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

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 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    971.6886    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

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. 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

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 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 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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FAN STATOR EXIT READING 284

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	16.3877	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	751.4343	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	17.5247
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	16.3900	16.4000	16.4050
TOTAL TEMPERATURE	620.0000	632.0000	630.0000	619.0000	606.0000	599.0000	597.0000	596.0000	595.5000
MACH NUMBER	.5444	.5893	.6318	.6652	.6581	.6387	.6349	.6342	.6338
CORRECTED VELOCITY	645.4408	702.0072	747.8347	777.3499	761.5701	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	481.7727	362.1973	233.1508

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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

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 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
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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

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 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
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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

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 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     11.1017     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     10.2077     10.3984
 TOTAL TEMPERATURE     518.2971    519.2438    518.6509    518.4532    518.8401    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    545.0850
 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
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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      0.6667      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   1200.7251   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


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 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     905.6065    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
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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

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 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      54.7669      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
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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. 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    770.6385    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

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 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         16.4014     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    734.9092    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.L. CONDITIONS, VELOCITY
UNITS IN FPS, ANGLE UNITS IN DEG. OF ARC, AND IMMERSION UNITS IN INCHES
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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	.5988	.5930	.5868
CORRECTED VELOCITY	794.0157	821.3253	801.2377	782.8626	769.4895	758.4537	754.7706	696.7618	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	17.7248	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	.5798	.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	.6111	.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	640.2798	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	18.2226	18.3066
TOTAL TEMPERATURE	588.0000	587.0000	587.0000	589.0000	589.0000	588.0000	585.0000	587.0000	592.0000
MACH NUMBER	.5060	.5041	.4867	.4283	.3683	.3460	.2977	.2571	.1509
CORRECTED VELOCITY	586.1164	583.4784	564.2955	500.0324	431.9761	406.1198	349.5996	279.7536	179.3784