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DESIGN OF A ROTOR INCORPORATING SPLITTER VANES FOR A HIGH PRESSURE RATIO SUPERSONIC AXIAL COMPRESSOR STAGE

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This report describes a redesign of the rotor of a supersonic axial compressor stage. The original design operated with excessive deviation angles as incidence increased at part speed, and the compressor was never able to recover from this condition. The redesign incorporated "splitter vanes" consisting of reduced chord airfoils extending full span in the downstream half of each passage defined by the principal airfoils. A complete aerodynamic description of the stage is presented along with the detailed

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geometry of the new rotor, both on streamsurfaces and on manufacturing (Cartesian) planes.

PREFACE

This interim report was prepared by Dr. Arthur J. Wennerstrom and Capt George R. Frost of the Fluid Dynamics Facilities Research Laboratory, Aerospace Research Laboratories (AFSC), Wright-Patterson Air Force Base, Ohio. The work herein reported was accomplished between 1 November 1971 and 30 March 1972.

The report presents results from a portion of the effort of the Fluid Machinery Research Group supervised by Dr. Arthur J. Wennerstrom and was conducted under Work Unit 09 of Project 7065, "Aerospace Simulation Techniques Research," under the over-all direction of Mr. Elmer G. Johnson, Director.

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SECTION I

INTRODUCTION

The experimental performance of a high pressure ratio, single stage, supersonic axial-flow compressor designed for a stage total-pressure ratio of 3.0 was reported in Reference 1. The performance of this compressor was seriously deficient, and the greatest weakness of the design was concluded to be insufficient control of rotor deviation angles over the operating range. To gain better control of rotor outlet flow angles without simultaneously reducing throat area and causing significant increases in diffusion losses and weight, a partial blade termed a "splitter vane" was conceived. The objective of this configuration is to provide high solidity locally where there is appreciable camber combined with blade angles approaching axial, without introducing additional throat blockage or flow guidance in regions where it is unnecessary or detrimental. This basic design concept has been used on centrifugal impellers for years where similar conditions sometimes exist. However, the authors are unaware of any previously reported tests of such a configuration incorporated into an axial compressor or turbine.

The design of the original configuration without splitter vanes is presented in detail in Reference 2. The purpose of this report is to present information relevant to the redesign of the compressor rotor incorporating splitter vanes. This report is arranged in approximately the same format as Reference 2, and most data which were left unchanged are identified, but not presented again. Section II of this report identifies over-all design criteria, most of which were unmodified, and also discusses the philosophical choices defining splitter vane geometry. The aerodynamic calculation method is briefly reviewed in Section III, and one error discovered in the original design calculation is corrected. An intra-blade flow analysis through the rotor is presented in Section IV. Finally, Section V presents complete details of the revised geometry, including streamsurface and manufacturing-plane blade geometry.

SECTION II

DESIGN CRITERIA

1. OVER-ALL CRITERIA

Nearly all of the design criteria discussed in Section II of Reference 2 were retained for this redesign. Since this redesign effects only the rotor, the remainder of the flowpath, including the stator, was geometrically unchanged. Also, since the original configuration operated so far from its design point, the data presented in Reference 1 did not appear to offer a sound basis for revising any of the original aerodynamic correlations related to losses, deviation angles, boundary-layer blockages, etc. Consequently, the design total pressure ratio and radial and axial distributions of losses, deviation, and boundary-layer blockage were identical to those of the original design. It was thereby assumed that the effect of adding splitter vanes to the rotor might be to make the original calculations and assumptions approximately correct. The rotor hub flowpath was redefined to offset the effect of splitter-vane metal blockage, while retaining the original leading- and trailing-edge radii. The polynomial camber line used in the original rotor design was employed again, but with one small change. The second derivative of the camber line at the trailing edge was reduced from 50 percent of its peak value, used originally, to 25 percent to reduce further the likelihood of excessive deviation angles. The number of principal blades on the rotor and the axial chord of these blades were identical to those of the original design. Consequently, rotor solidity, ignoring the splitter vanes, changed only slightly as a result of slight changes in camber line shape producing changes in true chord. The thickness distribution used was identical to the original design. Further details concerning the general properties of this camber line and thickness distribution are given in Reference 3.

2. SPLITTER-VANE CONCEPTUAL DEFINITION

In principal, it might be possible to do a credible job of optimizing splitter-vane geometry analytically by one of the time-dependent or finite element cascade analysis methods currently undergoing development. However, at the time of this design, between November 1971 and March 1972, neither the opportunity nor the time was available. Consequently, most of the decisions effecting splitter-vane geometry were made on the basis of engineering judgement. These decisions included determination of chord length, camber-line shape, incidence, circumferential spacing relative to the main blades, and thickness.

Chord length was chosen according to the following considerations and assumptions:

a. The trailing edges of the splitter vanes should lie in the same plane as the trailing edges of the principal blades.

b. The leading edges should lie in a region of subsonic flow.

c. The leading edges should not be so close to the main passage shock as to have a significant influence on shock shape; a region of readjustment should exist between the splitter vane leading edge and the main passage shock.

d. The leading edges of the splitter vanes should lie sufficiently far forward in the passage as to offer good guidance to the flow in that region of the passage where the camber-line radius of curvature is a minimum.

These four points led to the decision to place the splitter-vane leading edge exactly half way, measured on the axial projection, between the leading and trailing-edge planes of the principal blades.

Various reasons were postulated for setting the splitter vanes at positive incidence, and also at negative incidence. However, no convincing case could be made for favoring one direction with respect to the other, and the local flow direction in the passage could not be defined with sufficient certainty from data available. Consequently, the splitter-vane camber line was made identical to the principal blade camber line in the same region. This automatically fixed the incidence angle at some small, probably positive, value.

The splitter vanes were circumferentially positioned exactly midway between principal blades. Because of unequal boundary-layer development on the suction and pressure surfaces of the principal blades, and probably some flow separation, this is not necessarily an optimum position. However, there was insufficient justification for picking any other location.

The chordwise thickness distribution and the radial distribution of maximum thickness were both defined purely from stress considerations. A chordwise thickness distribution corresponding to a double-circular-arc section of equal camber was distributed symmetrically about the splitter-vane camber line. Maximum thickness varied from 8.0 percent (splitter) chord at the hub to 4.0 percent chord at the tip.

A splitter-vane span other than full radial span was never contemplated. The high hub/tip radius ratio and low aspect ratio of the rotor made this structurally feasible. The high aerodynamic loading, peaking at the tip, made it aerodynamically desirable. Part-span shrouds were not required and were not used.

SECTION III

AERODYNAMIC CALCULATION METHOD

1. DETAILS UNCHANGED FROM THE ORIGINAL DESIGN

The basic approach used to determine the aerodynamic design of the modified rotor was unchanged from the original design presented in Reference 2. In brief, this consisted of calculating the axisymmetric flow field according to the "streamline curvature" method of analysis. The geometric parameters defining the rotor airfoils were specified, and an incidence distribution for the principal blades was assumed. Using the relative air angles entering and leaving the rotor determined from the original design (as a first approximation) and using the original distributions of deviation angle in the rotor trailing edge plane and of nondimensional internal deviation along streamsurfaces, the relative flow angles within the rotor were determined at each computing station, for each streamsurface. The equations of momentum, continuity, energy, and state were then solved simultaneously for the entire flow field, with relative flow angle within the rotor specified as the primary controlling variable.

The principal objective of the aerodynamic redesign was to determine the revised rotor hub flowpath which would compensate for the additional blade blockage caused by the splitter vanes and allow the original optimization criterion to be met. This criterion was a static pressure distribution along streamsurfaces within the rotor which rose smoothly with minimum slope over most of the airfoil and decreased to zero at the trailing edge, in deference to the "Kutta" condition. The parameters which were varied to achieve this objective were rotor hub flowpath coordinates and rotor incidence.

2 CORRECTION OF THE CONTINUITY EQUATION

The continuity equation used in the original design analysis lacked a term which took into account the effect of nonradial computing stations. This was Eq (10) of Reference 2. The effect of this was felt only in the stator since sloping stations were used only in the region downstream of the rotor trailing-edge plane and upstream of the stator trailing-edge plane. The corrected equation used in this redesign is

$$W = \int_{hub}^{case} C_m \cos\phi (1-\tan\phi\tan\alpha) w dA \qquad (1)$$

where

W	is the flow rate
C_m	is the meridional velocity
ϕ	is the streamsurface slope angle
α	is the angle made by the computing station with the radial direction, positive values indicating an increase in radius with axial distance
w	is the specific weight
A	is the flow area normal to the axis.

The term $(1-\tan\phi\tan\alpha)$ was missing in the original expression. The magnitude of this error was approximately three percent. Consequently, since the original stator would be employed again with the redesigned rotor, the new rotor was designed for 29 lb/sec flow versus 30 lb/sec for the original.

SECTION IV

RESULTS OF THE INTRA-BLADE FLOW ANALYSIS

The iterations performed in adjusting rotor incidence and hub flowpath coordinates ultimately led to somewhat better results than were achieved for the original design in terms of rotor incidence and static pressure distributions. The new incidence distribution for the rotor is compared with the original distribution in Figure 1. The meridional static pressure distributions at hub, mid, and casing are shown in Figure 2 for the redesigned configuration. The correction to the continuity equation and the reduction in design flow from 30 to 29 lb/sec were approximately self-compensating in the stator as the meridional static pressure distribution through the stator varied only slightly from the original. Because of the reduced flow, the new design total pressure ratio is 3.352 for the rotor and 3.056 for the stage with adiabatic efficiencies of 0.895 and 0.815, respectively. The computer printout of the final results achieved through this procedure is presented in the following pages.

ARF AXIAL COMPRESSOR PROGRAM RMH3

JOB TITLE =INTRA-BLADE FLOW ANALYSIS WITH RESEARCH ROTOR PLUS SPLITTER

NUMBER OF STATIONS = 17
NUMBER OF STREAMLINES = 15
NUMBER OF BLADING DATA RADII = 15
NUMBER OF INLET CONDITION DATA RADII = 1
IFSIMP = 1 (2 -S.R.E. .NE.2 -L.S.Q. STREAMLINES,NPOINT = IFSIMP+2)
MAXIMUM NUMBER OF PASSES PER CYCLE = 30
IFBL = 1 (1 -BLOCKAGE HELD AT DATA VALUES 2 -ANNULUS WALL B.L. CALCULATED)
ITER = 2 (1 -PRINT ALL VELOCITIES DURING ITERATIONS 2 -NORMAL OPTION)
NPLOT = 31 (FIRST PASS DURING WHICH CASCADE ANALYSIS IS PRINTED)
INCPO = 1 (INCREMENT FOR ABOVE)
NPRIT = 31 (FIRST PASS DURING WHICH VELOCITY TRIANGLE DATA IS PRINTED)
INCPRI = 1 (INCREMENT FOR ABOVE)
IFTYPE = 1 (0 -ALL STATIONS UPRIGHT,ALL SOLUTIONS SUBSONIC 1 -STATION LEAN ANGLES AND SOLUTION TYPES SPECIFIED)
CONTINUITY TOLERANCE = .0002
FRACTION OF INLET BLOCKAGE ON HUB = .5000
GAS CONSTANT = 53.3200
SPECIFIC HEAT = .24000
FIRST VISCOSITY COEFFICIENT =0.
SECOND VISCOSITY COEFFICIENT =0.

STATION-TO-STATION CHANGES ARE PRESCRIBED THUS

STATION 2 FOLLOWS A BLADE FREE SPACE

STATION 3 FOLLOWS A BLADE FREE SPACE

STATION 4 FOLLOWS A BLADE FREE SPACE

STATION 5 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 20371.4 RPM

IBETA2 =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
6.9866	-60.324	.9918	.12266
7.0443	-60.800	.9907	.11467
7.1929	-61.415	.9897	.10867
7.3217	-61.931	.9883	.10394
7.4607	-62.396	.9869	.09974
7.5999	-62.937	.9854	.09617
7.7397	-63.289	.9838	.09318
7.8799	-63.768	.9819	.09050
8.0211	-64.299	.9799	.08864
8.1640	-64.383	.9776	.08630
8.3088	-65.527	.9751	.08594
8.4564	-66.235	.9721	.08555
8.6074	-66.394	.9684	.08568
8.7623	-67.771	.9625	.08615
8.9231	-68.515	.9527	.09665

IANCHR(I) = 1

STATION 5 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 20371.4 RPM

IBETA2 =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.0871	-54.396	.9836	.15165
7.2111	-55.287	.9815	.14530
7.3352	-56.030	.9793	.14018
7.4588	-56.674	.9766	.13576
7.5820	-57.260	.9739	.13184
7.7051	-57.815	.9707	.12817
7.8282	-58.371	.9673	.12504
7.9512	-58.951	.9637	.12215
8.0748	-59.580	.9596	.12036
8.1994	-60.264	.9550	.11858
8.3253	-61.013	.9500	.11771
8.4530	-61.825	.9442	.11764
8.5835	-62.694	.9366	.11422
8.7175	-63.545	.9248	.11915
8.8562	-64.340	.9054	.11984

IANGHR(I) = 2

STATION 2 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 20371.4 RPM

IBETA2 =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.2700	-44.527	.9760	.20836
7.3759	-45.421	.9736	.19695
7.4809	-46.274	.9701	.18715
7.5846	-47.076	.9660	.17888
7.6865	-47.832	.9614	.17166
7.7865	-48.554	.9563	.16513
7.8842	-49.243	.9510	.15950
7.9823	-49.891	.9458	.15419
8.0793	-50.731	.9397	.15016
8.2187	-51.534	.9318	.14656
8.3246	-52.401	.9252	.14416
8.4356	-53.319	.9163	.14275
8.5422	-54.297	.9047	.14233
8.6647	-55.305	.8873	.14225
8.7494	-56.292	.8581	.14220

IANGHR(I) = 3

STATION 3 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 20371.4 RPM

IBETA2 =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.2700	-31.529	.9681	.16500
7.3231	-32.143	.9644	.15501
7.3833	-33.134	.9599	.14656
7.4537	-34.729	.9544	.13967
7.5327	-36.167	.9485	.13377
7.6157	-35.385	.9421	.12953
7.7036	-36.742	.9352	.12381
7.8340	-37.642	.9274	.11927
7.9245	-38.315	.9190	.11547
8.0127	-39.198	.9097	.11220
8.1113	-39.991	.8996	.10930
8.2175	-40.671	.8895	.10801
8.3071	-41.464	.8723	.10669
8.5110	-42.264	.8491	.10601
8.7225	-43.066	.8109	.10507

IANGHR(I) = 4

STATION 4 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 20371.4 RPM

IBETA2 =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.5585	-25.612	.9591	.04437
7.6197	-26.841	.9536	.04309
7.6839	-28.092	.9477	.04195
7.7508	-29.314	.9409	.04100
7.8204	-30.461	.9336	.04024
7.8926	-31.488	.9257	.03956
7.9674	-32.443	.9171	.03892
8.0442	-33.158	.9074	.03836
8.1233	-33.856	.8972	.03752
8.2047	-34.467	.8859	.03690
8.2882	-34.971	.8732	.03638
8.3739	-35.368	.8594	.03534
8.4623	-35.627	.8392	.03545
8.5549	-35.775	.8105	.03496
8.6556	-35.791	.7636	.03437

IANCHR(I) = 5

STATION 10 FOLLOWS A BLADE FREE SPACE

IBEND(I) = 6

RADIUS	'Z'
7.5000	2.2250
7.6000	2.3350
7.8000	2.2450
8.2000	2.4050
8.4000	2.3500
8.6000	2.2250

STATION 11 FOLLOWS A BLADE FREE SPACE

IBEND(I) = 16

RADIUS	'Z'
7.5272	2.5129
7.6965	2.6117
7.7472	2.6398
7.8033	2.7702
7.9720	2.8412
8.0381	2.8834
8.0349	2.9262
8.0733	2.9463
8.1427	2.9491
8.2142	2.9343
8.2873	2.8996
8.3624	2.8442
8.4401	2.7656
8.5220	2.6591
8.6114	2.5153

STATION 12 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 0.0 RPM

IBETA2 =1 IFTHIC =0 IFCAM =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.7326	30.347	.9692	.09244
7.7880	30.775	.9710	.08751
7.8435	30.703	.9723	.08310
7.8992	30.667	.9732	.07929
7.9550	30.700	.9743	.07606
8.0127	30.719	.9753	.07341
8.0706	30.769	.9765	.07140
8.1290	30.850	.9776	.07007
8.1880	30.951	.9785	.06945
8.2477	31.113	.9795	.06960
8.3078	31.313	.9805	.07060
8.3684	31.620	.9814	.07257
8.4309	32.121	.9823	.07579
8.4955	33.153	.9827	.08106
8.5638	34.175	.9828	.08811

IANGHR(I) = 1

IREAD(I) = 15

RADIUS	'Z'
7.7326	3.0659
7.7880	3.1401
7.8435	3.2061
7.8992	3.2634
7.9550	3.3114
8.0127	3.3491
8.0706	3.3759
8.1290	3.3908
8.1880	3.3931
8.2477	3.3818
8.3078	3.3560
8.3684	3.3144
8.4309	3.2554
8.4955	3.1756
8.5638	3.0679

STATION 13 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 0.0 RPM

IFTWA2 =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.7467	17.894	.9384	.09796
7.7971	17.991	.9418	.09252
7.8495	17.794	.9443	.08819
7.9039	17.724	.9462	.08475
7.9602	17.677	.9481	.08069
8.0183	17.639	.9504	.07786
8.0778	17.627	.9528	.07570
8.1382	17.643	.9550	.07425
8.1993	17.696	.9569	.07354
8.2608	17.784	.9589	.07353
8.3226	17.882	.9609	.07455

8.3442	18.068	.9630	.07640
8.4457	18.356	.9647	.07929
8.5073	18.342	.9655	.08359
8.5692	19.525	.9656	.08948

IANCHR(I) = 2

IPEND(I) = 15

RADIUS	'Z'
7.7467	3.6189
7.7971	3.6684
7.8495	3.7124
7.9039	3.7506
7.9602	3.7826
8.0183	3.8077
8.0778	3.8255
8.1382	3.8355
8.1993	3.8370
8.2609	3.8295
8.3225	3.8123
8.3842	3.7846
8.4457	3.7453
8.5073	3.6921
8.5692	3.6202

STATION 14 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 0.0 RPM

IRETAP =1 IFTHIC =0 IFCAX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREVL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.7077	6.449	.9077	.06945
7.7662	6.327	.9128	.06593
7.8256	6.210	.9165	.06277
7.8853	6.106	.9194	.06000
7.9452	6.015	.9223	.05763
8.0112	5.938	.9256	.05569
8.0754	5.880	.9292	.05419
8.1397	5.846	.9324	.05317
8.2026	5.838	.9355	.05265
8.2665	5.850	.9384	.05255
8.3302	5.913	.9416	.05319
8.3933	6.005	.9447	.05431
8.4559	6.147	.9472	.05606
8.5181	6.378	.9482	.05852
8.5797	6.638	.9484	.06196

IANCHR(I) = 3

IPEND(I) = 15

RADIUS	'Z'
7.7077	4.1720
7.7662	4.1967
7.8256	4.2187

7.9863	4.2379
7.9482	4.2539
8.[illegible]112	4.2664
8.[illegible]749	4.2753
8.[illegible]397	4.2803
8.2026	4.2810
8.2655	4.2773
8.3302	4.2687
8.3933	4.2548
8.4559	4.2351
8.5181	4.2085
8.5797	4.1726

STATION 15 FOLLOWS A BLADE DESCRIBED BY THE FOLLOWING AND ROTATING AT 0.0 RPM

IPETA2 =1 IFTHIC =0 IFCMX =0 IFMACH =0 IFREYN =0 ILOSS =4 IFMLOS =0 IFLVSI =0 IFPROF =0 IFREYL =0

RADIUS	RELATIVE FLOW ANGLE	ACTUAL/IDEAL RELATIVE PTOTAL	BLOCKAGE FRACTION
7.6419	0.000	.8767	.00959
7.7420	0.000	.8837	.00952
7.8133	0.000	.8886	.00945
7.8756	-0.000	.8926	.00938
7.9445	0.000	.8964	.00931
8.0106	-0.000	.9011	.00924
8.0767	0.000	.9057	.00918
8.1425	0.000	.9100	.00911
8.2083	0.000	.9141	.00904
8.2732	0.000	.9180	.00897
8.3379	0.000	.9221	.00890
8.4017	-0.000	.9263	.00883
8.4643	0.000	.9296	.00876
8.5274	0.000	.9310	.00870
8.5891	-0.000	.9312	.00864

IANCHP(I) = 4

STATION 16 FOLLOWS A BLADE FREE SPACE

STATION 17 FOLLOWS A BLADE ROW SPACE

ANNULUS GEOMETRY SPECIFICATION AND SOLUTION TYPE INDICATORS

STATION NUMBER	AXIAL LOCATION	HUB RADIUS	CASING RADIUS	LEAN ANGLE	BLOCK AGE	INACHI (0 -SUBSONIC 1 -SUPERSONIC)
1	-1.0000	6.0586	9.0900	0.000	0.0000	0
2	-1.0000	6.3746	9.0900	-0.000	-0.0000	0
3	-.4000	6.6016	9.0500	-0.000	-0.0000	0
4	0.0000	6.7586	8.9980	-0.000	-0.0000	0
5	.4000	6.9065	8.9231	-0.000	-0.0000	1
6	.8000	7.0471	8.8562	-0.000	-0.0000	-0
7	1.2000	7.2700	8.7894	-0.000	-0.0000	-0
8	1.6000	7.4500	8.7225	-0.000	-0.0000	-0
9	2.0000	7.5585	8.6556	-0.000	-0.0000	-0
10	2.2000	7.5840	8.6279	0.000	0.0000	-0
11	2.5000	7.6272	8.6114	-0.000	-0.0000	-0
12	3.1000	7.7326	8.5638	-0.000	-0.0000	-0
13	3.7000	7.7467	8.5692	-0.000	-0.0000	0
14	4.2000	7.7077	8.5797	-0.000	-0.0000	-0
15	4.7250	7.6819	8.5891	-0.000	-0.0000	-0
16	5.4000	7.6819	8.5891	-0.000	-0.0000	-0
17	7.0000	7.6920	8.5890	-0.000	-0.0000	-0

FLOW = 29.00
FRACTIONS OF INLET BETWEEN HUB AND EACH STREAMLINE

0.0000 .0714 .1429 .2143 .2857 .3571 .4286 .5000 .5714
.6429 .7143 .7857 .8571 .9286 1.0000

INLET CONDITIONS

RADIUS	TOTAL TEMPERATURE	TOTAL PRESSURE	FLOW ANGLE
1.0000	518.70	2116.0	0.00

OUTPUT FROM PASS 20
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STATION 1
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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	6.0646	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	20.932	0.00	.0714	1
2	6.2543	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	19.292	0.00	.0714	2
3	6.5004	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	17.609	0.00	.0714	3
4	6.7161	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	15.897	0.00	.0714	4
5	6.9318	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	14.166	0.00	.0714	5
6	7.1475	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	12.430	0.00	.0714	6
7	7.3636	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	10.703	0.00	.0714	7
8	7.5793	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	9.009	0.00	.0714	8
9	7.7950	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	7.366	0.00	.0714	9
10	8.0111	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	5.794	0.00	.0714	10
11	8.2268	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	4.322	0.00	.0714	11
12	8.4425	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	2.975	0.00	.0714	12
13	8.6582	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	1.785	0.00	.0714	13
14	8.8743	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	.782	0.00	.0714	14
15	9.0900	414.030	414.030	0.000	518.7	504.4	2116.00	1919.11	.3762	0.000	0.000	0.00	.0714	15

STATION 2
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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	6.3746	453.456	453.456	0.000	518.7	501.6	2116.00	1881.45	.4132	0.000	20.813	-205.70	.0703	1
2	6.5644	456.899	453.393	0.000	518.7	501.3	2116.00	1878.02	.4164	0.000	19.092	-121.46	.0703	2
3	6.7543	459.999	459.999	0.000	518.7	501.1	2116.00	1874.92	.4194	0.000	17.315	-81.63	.0702	3
4	6.9440	462.585	462.585	0.000	518.7	500.9	2116.00	1872.32	.4218	0.000	15.510	-61.44	.0701	4
5	7.1338	464.563	464.565	0.000	518.7	500.7	2116.00	1870.32	.4237	0.000	13.692	-49.72	.0701	5
6	7.3239	465.882	465.882	0.000	518.7	500.6	2116.00	1868.99	.4249	0.000	11.873	-41.98	.0700	6
7	7.5143	466.468	466.468	0.000	518.7	500.6	2116.00	1868.39	.4255	0.000	10.062	-36.21	.0700	7
8	7.7062	466.256	466.256	0.000	518.7	500.6	2116.00	1868.61	.4253	0.000	8.275	-31.47	.0700	8
9	7.8984	465.169	465.169	0.000	518.7	500.7	2116.00	1869.71	.4242	0.000	6.523	-27.30	.0700	9
10	8.0922	463.113	463.113	0.000	518.7	500.8	2116.00	1871.79	.4223	0.000	4.815	-23.52	.0701	10
11	8.2872	459.994	459.994	0.000	518.7	501.1	2116.00	1874.93	.4193	0.000	3.182	-20.09	.0702	11
12	8.4840	455.705	455.705	0.000	518.7	501.4	2116.00	1879.21	.4153	0.000	1.633	-17.05	.0703	12
13	8.6831	450.148	450.148	0.000	518.7	501.8	2116.00	1884.72	.4101	0.000	.195	-14.41	.0704	13
14	8.8832	443.237	443.237	0.000	518.7	502.3	2116.00	1891.48	.4036	0.000	-1.095	-12.21	.0706	14
15	9.0900	435.165	435.165	0.000	518.7	502.9	2116.00	1899.28	.3960	0.000	0.000	-10.58	.0708	15

STATION 3

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIONL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	6.6016	501.903	501.903	0.000	518.7	497.7	2116.00	1831.34	.4591	0.000	21.148	43.51	.0698	1
2	6.7703	509.403	509.403	0.000	518.7	497.1	2116.00	1823.22	.4662	0.000	19.024	218.85	.0688	2
3	6.9338	515.043	515.043	0.000	518.7	496.6	2116.00	1817.05	.4715	0.000	16.976	-153.22	.0686	3
4	7.1072	519.329	519.329	0.000	518.7	496.3	2116.00	1812.33	.4757	0.000	14.979	-73.92	.0685	4
5	7.2760	522.539	522.539	0.000	518.7	496.0	2116.00	1808.77	.4788	0.000	13.086	-53.43	.0684	5
6	7.4455	524.748	524.748	0.000	518.7	495.8	2116.00	1806.32	.4809	0.000	11.042	-42.37	.0683	6
7	7.6161	525.906	525.906	0.000	518.7	495.7	2115.00	1805.02	.4820	0.000	9.073	-34.34	.0683	7
8	7.7875	525.880	525.880	0.000	518.7	495.7	2116.00	1805.05	.4820	0.000	7.104	-27.96	.0683	8
9	7.9603	524.505	524.505	0.000	518.7	495.8	2116.00	1806.59	.4807	0.000	5.134	-22.82	.0683	9
10	8.1350	521.598	521.598	0.000	518.7	496.1	2116.00	1809.82	.4779	0.000	3.165	-18.70	.0684	10
11	8.3116	516.982	516.982	0.000	518.7	496.5	2116.00	1814.92	.4735	0.000	1.208	-15.38	.0686	11
12	8.4906	510.443	510.443	0.000	518.7	497.0	2116.00	1822.09	.4672	0.000	-.736	-12.63	.0688	12
13	8.6727	501.679	501.679	0.000	518.7	497.8	2116.00	1831.55	.4583	0.000	-2.674	-10.26	.0690	13
14	8.8589	490.144	490.144	0.000	518.7	498.7	2116.00	1843.88	.4479	0.000	-4.632	-8.11	.0693	14
15	9.0500	474.855	474.855	0.000	518.7	499.9	2115.00	1859.83	.4334	0.000	-6.654	-6.12	.0698	15

STATION 4

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIONL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	6.7586	572.416	572.416	0.000	518.7	491.4	2116.00	1751.39	.5269	0.000	20.869	-21.79	.0668	1
2	6.9036	572.955	572.955	0.000	518.7	491.4	2116.00	1750.74	.5275	0.000	18.893	-64.77	.0668	2
3	7.0604	575.005	575.005	0.000	518.7	491.2	2116.00	1749.30	.5295	0.000	16.938	301.84	.0668	3
4	7.2131	577.946	577.946	0.000	518.7	490.9	2116.00	1744.79	.5323	0.000	14.969	79.15	.0667	4
5	7.3658	581.179	581.179	0.000	518.7	490.6	2116.00	1740.91	.5355	0.000	12.956	69.37	.0666	5
6	7.5216	584.140	584.140	0.000	518.7	490.3	2116.00	1737.34	.5383	0.000	10.885	98.88	.0665	6
7	7.6776	586.322	586.322	0.000	518.7	490.1	2116.00	1734.71	.5405	0.000	8.751	780.84	.0664	7
8	7.8345	587.256	587.256	0.000	518.7	490.0	2116.00	1733.56	.5414	0.000	6.563	-89.35	.0664	8
9	7.9927	586.616	586.616	0.000	518.7	490.1	2116.00	1734.35	.5408	0.000	4.333	-38.63	.0664	9
10	8.1529	584.129	584.129	0.000	518.7	490.3	2116.00	1737.36	.5383	0.000	2.076	-24.11	.0665	10
11	8.3143	579.722	579.722	0.000	518.7	490.7	2116.00	1742.66	.5340	0.000	-.183	-17.73	.0666	11
12	8.4791	573.512	573.512	0.000	518.7	491.3	2116.00	1750.08	.5280	0.000	-2.425	-14.67	.0668	12
13	8.6462	565.912	565.912	0.000	518.7	492.0	2116.00	1759.09	.5206	0.000	-4.636	-13.62	.0670	13
14	8.8166	557.715	557.715	0.000	518.7	492.8	2116.00	1769.70	.5127	0.000	-6.823	-14.88	.0673	14
15	8.9900	550.298	550.298	0.000	518.7	493.5	2116.00	1777.31	.5055	0.000	-9.013	-24.07	.0675	15

STATION 5

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGNTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	6.9065	515.316	453.215	245.234	572.9	541.4	2972.57	2438.35	.5397	25.535	22.324	6.22	.0845	1
2	7.0441	512.815	456.517	236.576	572.2	540.9	2936.03	2428.24	.5377	24.752	20.632	6.44	.0842	2
3	7.1925	512.948	463.353	243.295	571.7	540.4	2944.11	2417.78	.5381	23.999	18.808	6.69	.0839	3
4	7.3212	514.582	469.419	248.191	571.4	540.0	2934.53	2407.04	.5397	23.310	16.864	6.94	.0836	4
5	7.4601	515.892	532.337	237.509	571.1	539.5	2925.74	2395.97	.5423	22.644	14.803	7.14	.0833	5
6	7.5934	519.318	574.214	232.021	570.9	539.0	2916.73	2384.47	.5444	22.002	12.632	7.28	.0830	6
7	7.7312	521.185	578.471	226.356	570.5	538.4	2905.99	2372.43	.5453	21.371	10.358	7.38	.0826	7
8	7.8796	522.048	581.058	220.493	570.1	537.9	2892.71	2359.85	.5473	20.761	7.995	7.48	.0823	8
9	8.0279	521.363	583.338	214.045	569.5	537.4	2876.04	2346.81	.5470	20.150	5.556	7.64	.0819	9
10	8.1640	519.011	585.537	207.183	568.8	536.9	2856.08	2333.57	.5452	19.555	3.053	7.97	.0815	10
11	8.3090	514.744	581.324	199.932	567.9	536.4	2833.15	2320.70	.5417	18.979	.505	8.66	.0811	11
12	8.4550	508.431	577.129	192.640	566.9	536.1	2808.02	2309.00	.5362	18.459	-2.066	10.13	.0808	12
13	8.6073	500.280	570.797	185.814	566.1	536.1	2782.43	2299.52	.5291	18.032	-4.625	13.57	.0805	13
14	8.7632	491.029	562.650	180.931	565.7	536.6	2758.78	2293.34	.5207	17.826	-7.129	24.82	.0802	14
15	8.9231	482.023	553.535	179.708	566.2	538.0	2740.15	2291.31	.5121	17.985	-9.495	0.00	.0799	15

STATION 5 IS AT THE EXIT OF A BLADE ROW ROTATING AT 20371.4 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1		-54.526	-60.024	1330.890	1111.231	1.2251	.9746	.0140	.835	0.0000	.2605	1201.5	1227.8	1
2		-54.991	-60.738	1355.248	1140.562	1.2476	1.0008	.0156	.842	0.0000	.2446	1228.2	1252.3	2
3		-55.387	-61.413	1380.589	1170.241	1.2712	1.0273	.0159	.848	0.0000	.2300	1255.1	1276.9	3
4		-55.739	-61.929	1406.921	1199.437	1.2955	1.0534	.0196	.853	0.0000	.2165	1282.3	1301.5	4
5		-56.078	-62.394	1432.743	1228.510	1.3201	1.0795	.0206	.857	0.0000	.2037	1309.6	1325.2	5
6		-56.402	-62.835	1459.134	1257.720	1.3443	1.1056	.0225	.862	0.0000	.1914	1337.1	1351.0	6
7		-66.753	-67.247	1485.476	1286.969	1.3693	1.1317	.0244	.866	0.0000	.1795	1364.9	1375.8	7
8		-67.137	-63.787	1511.912	1315.491	1.3935	1.1578	.0268	.871	0.0000	.1678	1392.8	1400.8	8
9		-67.567	-64.298	1537.226	1345.025	1.4171	1.1841	.0292	.875	0.0000	.1563	1420.9	1425.9	9
10		-68.050	-64.833	1562.646	1374.191	1.4401	1.2103	.0319	.879	0.0000	.1449	1449.4	1451.4	10
11		-68.585	-65.528	1587.786	1403.334	1.4627	1.2365	.0349	.884	0.0000	.1338	1478.1	1477.1	11
12		-69.170	-66.237	1612.775	1432.215	1.4848	1.2623	.0385	.888	0.0000	.1233	1507.4	1503.4	12
13		-69.788	-66.946	1637.924	1460.577	1.5068	1.2873	.0429	.892	0.0000	.1135	1537.1	1530.2	13
14		-70.413	-67.773	1663.625	1487.382	1.5293	1.3108	.0502	.894	0.0000	.1048	1567.4	1557.9	14
15		-71.000	-68.519	1690.275	1511.440	1.5527	1.3298	.0623	.894	0.0000	.0976	1598.2	1586.3	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.4048	.1045	.9752	1.4048	.1045	.9752
2	1.3970	.1031	.9715	1.3970	.1031	.9715
3	1.3914	.1022	.9682	1.3914	.1022	.9682
4	1.3868	.1016	.9636	1.3868	.1016	.9636
5	1.3827	.1011	.9591	1.3827	.1011	.9591
6	1.3784	.1006	.9542	1.3784	.1006	.9542
7	1.3733	.0999	.9488	1.3733	.0999	.9488
8	1.3671	.0991	.9423	1.3671	.0991	.9423
9	1.3592	.0979	.9352	1.3592	.0979	.9352
10	1.3498	.0965	.9267	1.3498	.0965	.9267
11	1.3389	.0948	.9171	1.3389	.0948	.9171
12	1.3270	.0930	.9053	1.3270	.0930	.9053
13	1.3149	.0913	.8908	1.3149	.0913	.8908
14	1.3038	.0905	.8692	1.3138	.0905	.8692
15	1.2950	.0916	.8353	1.2950	.0916	.9363

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.3545	1.3545
DELTA T ON T	.0973	.0973
ISEN. EFFICY.	.9305	.9305

STATION 6
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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGNTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.0871	739.962	533.743	506.183	624.8	574.3	3994.67	3064.23	.6274	43.162	24.430	88.33	.0992	1
2	7.2099	737.123	542.255	499.310	625.2	580.0	3994.89	3071.41	.6246	42.639	22.468	-324.14	.0993	2
3	7.3329	736.185	545.571	494.280	625.9	583.9	4001.82	3079.84	.6234	42.175	20.347	-49.80	.0994	3
4	7.4556	736.240	549.051	490.952	627.0	587.9	4014.51	3090.28	.6231	41.803	18.119	-26.82	.0996	4
5	7.5783	737.232	552.442	488.644	628.3	591.0	4031.97	3103.04	.6233	41.494	15.814	-18.93	.0998	5
6	7.7010	738.569	555.214	487.506	629.9	594.3	4052.92	3118.11	.6237	41.285	13.452	-15.26	.1001	6
7	7.8239	739.943	557.136	488.888	631.4	596.8	4075.59	3135.24	.6239	41.143	11.045	-13.38	.1004	7
8	7.9469	740.336	558.114	486.419	633.1	597.5	4098.15	3153.91	.6233	41.073	8.605	-12.59	.1007	8
9	8.0706	739.609	557.576	485.927	634.8	599.2	4118.60	3173.57	.6213	41.072	6.128	-12.52	.1010	9
10	8.1956	737.680	555.534	485.186	636.4	601.1	4135.71	3193.63	.6191	41.133	3.608	-13.14	.1013	10
11	8.3219	734.923	551.969	485.855	637.9	603.0	4148.01	3213.36	.6151	41.238	1.046	-14.80	.1016	11
12	8.4503	726.944	544.751	482.103	639.3	605.1	4154.69	3232.15	.6095	41.405	-1.566	-18.30	.1019	12
13	8.5815	722.721	539.978	480.700	640.8	607.3	4155.97	3249.44	.6034	41.692	-4.222	-26.12	.1020	13
14	8.7155	716.953	531.430	481.903	643.1	609.3	4154.37	3264.90	.5959	42.256	-6.893	-50.50	.1020	14
15	8.8502	713.211	524.859	489.331	647.0	614.7	4155.13	3278.25	.5919	43.322	-9.488	1667.50	.1017	15

STATION 5 IS AT THE EXIT OF A BLADE ROW ROTATING AT 20371.4 RPM.

STREAM -LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM -LINE
1	-60.024	-54.39[illegible]		1111.236	927.995	.9745	.7951	.0291	.834	0.0000	.3063	1227.8	1259.9	1
2	-60.798	-55.278		1169.655	951.987	1.0003	.8067	.0319	.835	0.0000	.2961	1252.3	1281.7	2
3	-61.413	-56.017		1170.231	976.366	1.0273	.8265	.0349	.834	0.0000	.2869	1276.9	1303.6	3
4	-61.92[illegible]	-56.657		1199.421	993.913	1.0533	.8451	.0385	.833	0.0000	.2793	1301.5	1325.4	4
5	-62.393	-57.242		1228.586	1029.954	1.0795	.8529	.0419	.831	0.0000	.2729	1326.2	1347.2	5
6	-62.835	-57.739		1257.684	1041.780	1.1055	.8795	.0459	.828	0.0000	.2676	1351.0	1369.0	6
7	-63.286	-58.351		1286.821	1061.374	1.1317	.8953	.0500	.825	0.0000	.2633	1375.8	1390.9	7
8	-63.766	-58.929		1315.930	1081.419	1.1578	.9105	.0542	.822	0.0000	.2596	1400.8	1412.8	8
9	-64.297	-59.557		1344.963	1100.446	1.1840	.9251	.0590	.818	0.0000	.2563	1425.9	1434.7	9
10	-64.881	-60.242		1374.113	1119.268	1.2102	.9395	.0644	.815	0.0000	.2529	1451.4	1457.0	10
11	-65.527	-60.992		1403.260	1138.225	1.2364	.9538	.0701	.811	0.0000	.2492	1477.1	1479.4	11
12	-66.236	-61.808		1432.163	1157.297	1.2622	.9682	.0767	.808	0.0000	.2449	1503.4	1502.2	12
13	-66.996	-62.688		1460.973	1175.373	1.2873	.9818	.0854	.805	0.0000	.2397	1530.2	1525.6	13
14	-67.774	-63.578		1487.455	1192.024	1.3104	.9928	.0994	.801	0.0000	.2341	1557.9	1549.6	14
15	-68.517	-64.448		1511.604	1202.558	1.3299	.9980	.1228	.796	0.0000	.2284	1586.3	1574.4	15

OVERALL PERFORMANCE PARAMETERS

STREAM -LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.3438	.0905	.9715	1.8873	.2046	.9723
2	1.3514	.0927	.9690	1.8873	.2053	.9690
3	1.3593	.0949	.9656	1.8912	.2067	.9653
4	1.3681	.0973	.9619	1.8973	.2088	.9611
5	1.3781	.1000	.9587	1.9055	.2112	.9570
6	1.3895	.1032	.9546	1.9154	.2142	.9523
7	1.4025	.1067	.9504	1.9261	.2173	.9473
8	1.4167	.1105	.9458	1.9367	.2205	.9421
9	1.4320	.1146	.9424	1.9464	.2237	.9362
10	1.4483	.1189	.9378	1.9545	.2269	.9295
11	1.4641	.1233	.9328	1.9603	.2298	.9224
12	1.4796	.1277	.9272	1.9635	.2325	.9140
13	1.4935	.1321	.9191	1.9641	.2354	.9030
14	1.5059	.1369	.9061	1.9633	.2398	.8860
15	1.5164	.1427	.8844	1.9637	.2474	.8589

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.4299	1.9358
DELTA T ON T	.1145	.2229
ISEN. EFFICY.	.9387	.9308

STATION 7

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	VELOCITIES MERIDNL.	VELOCITIES TANGENTL.	TEMPERATURES TOTAL	TEMPERATURES STATIC	PRESSURES TOTAL	PRESSURES STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.2700	922.571	615.322	687.398	666.5	595.7	4969.29	3353.30	.7714	48.167	24.488	-73.85	.1056	1
2	7.3750	921.791	621.119	681.109	667.3	596.6	4977.03	3362.44	.7702	47.638	21.746	-18.16	.1057	2
3	7.4792	921.165	624.116	677.513	668.6	598.0	4993.49	3378.10	.7697	47.349	19.852	-11.62	.1059	3
4	7.5829	920.936	625.299	676.109	670.4	599.8	5018.83	3399.57	.7674	47.236	16.378	-9.26	.1063	4
5	7.6867	921.191	625.396	675.377	672.5	601.9	5052.43	3425.90	.7662	47.243	13.733	-8.28	.1067	5
6	7.7907	921.628	624.571	677.996	675.0	604.3	5092.22	3456.81	.7653	47.349	11.159	-7.76	.1073	6
7	7.8954	922.618	623.000	680.511	677.7	606.8	5135.94	3488.84	.7643	47.526	8.652	-7.71	.1078	7
8	8.0005	923.172	620.461	683.574	680.5	609.6	5180.42	3523.31	.7630	47.771	6.221	-7.98	.1084	8
9	8.1059	923.139	617.165	686.508	683.4	612.5	5223.24	3558.56	.7612	48.045	3.851	-8.59	.1090	9
10	8.2145	922.220	612.630	689.329	686.3	615.5	5251.81	3593.85	.7595	48.372	1.524	-9.62	.1095	10
11	8.3236	920.220	606.905	691.717	689.1	618.6	5294.61	3628.45	.7550	48.737	-.763	-11.26	.1100	11
12	8.4348	917.469	599.797	694.256	692.0	622.0	5321.93	3662.02	.7507	49.175	-3.031	-13.92	.1104	12
13	8.5437	914.346	590.334	698.194	695.4	625.8	5344.41	3694.25	.7453	49.783	-5.285	-18.79	.1107	13
14	8.6665	912.580	577.105	706.931	700.1	630.8	5366.75	3724.90	.7415	50.774	-7.491	-31.98	.1108	14
15	8.7894	916.227	559.812	727.621	708.1	638.2	5408.42	3752.99	.7401	52.575	-9.488	-1667.50	.1103	15

STATION 7 IS AT THE EXIT OF A BLADE ROW ROTATING AT 20371.4 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1		-54.393	-44.527	927.045	863.095	.7860	.7216	.0442	.931	0.0000	.1874	1259.9	1292.4	1
2		-55.276	-45.414	951.956	884.308	.8065	.7393	.0473	.929	0.0000	.1773	1281.7	1311.1	2
3		-56.015	-46.252	975.035	902.731	.8265	.7533	.0520	.925	0.0000	.1713	1303.6	1329.6	3
4		-56.657	-47.063	998.696	917.935	.8451	.7649	.0575	.919	0.0000	.1681	1325.4	1348.8	4
5		-57.242	-47.818	1020.953	931.343	.8629	.7747	.0631	.912	0.0000	.1664	1347.2	1366.5	5
6		-57.795	-48.541	1041.795	943.339	.8795	.7831	.0690	.905	0.0000	.1656	1369.0	1385.8	6
7		-58.352	-49.250	1061.912	954.403	.8953	.7906	.0753	.899	0.0000	.1652	1390.9	1403.6	7
8		-58.931	-49.970	1081.477	964.653	.9105	.7973	.0821	.892	0.0000	.1648	1412.8	1422.3	8
9		-59.560	-50.720	1100.524	974.315	.9252	.8038	.0890	.886	0.0000	.1643	1434.7	1441.2	9
10		-60.246	-51.525	1119.362	984.563	.9395	.8099	.0967	.880	0.0000	.1635	1457.8	1460.3	10
11		-60.995	-52.393	1138.334	994.527	.9539	.8160	.1051	.874	0.0000	.1624	1479.4	1479.7	11
12		-61.811	-53.314	1157.417	1003.364	.9683	.8215	.1148	.867	0.0000	.1613	1502.2	1499.5	12
13		-62.684	-54.293	1176.003	1011.558	.9819	.8252	.1276	.860	0.0000	.1604	1525.6	1519.7	13
14		-63.581	-55.304	1192.165	1013.344	.9929	.8238	.1474	.850	0.0000	.1606	1549.6	1540.7	14
15		-64.444	-56.292	1202.747	1003.341	.9981	.8105	.1814	.834	0.0000	.1630	1574.4	1562.5	15

OVERALL PERFORMANCE PARAMETERS

STREAM -LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.2440	.0867	.9646	2.3484	.2850	.9668
2	1.2459	.0873	.9638	2.3521	.2864	.9658
3	1.2478	.0881	.9579	2.3599	.2890	.9615
4	1.2502	.0892	.9519	2.3719	.2924	.9566
5	1.2531	.0904	.9449	2.3877	.2965	.9515
6	1.2564	.0919	.9385	2.4067	.3013	.9460
7	1.2602	.0938	.9316	2.4272	.3065	.9402
8	1.2641	.0958	.9233	2.4482	.3120	.9337
9	1.2682	.0980	.9159	2.4686	.3175	.9271
10	1.2723	.1004	.9077	2.4887	.3231	.9196
11	1.2764	.1028	.8985	2.5082	.3285	.9113
12	1.2810	.1052	.8878	2.5151	.3342	.9016
13	1.2850	.1082	.8742	2.5257	.3407	.8891
14	1.2918	.1087	.8564	2.5361	.3497	.8705
15	1.2997	.1044	.8287	2.5622	.3651	.8401

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.2681	2.4543
DELTA T ON T	.0772	.3173
ISEN. EFFICY.	.9094	.9208

STATION 8
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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.4500	1141.729	720.475	885.698	713.9	606.4	6270.13	3519.95	.9469	50.873	19.831	-2.69	.1090	1
2	7.5289	1140.244	710.230	892.036	717.4	609.2	6353.53	3583.42	.9428	51.474	17.023	-2.90	.1103	2
3	7.6090	1137.294	698.552	897.468	720.9	613.1	6427.74	3647.39	.9373	52.104	14.374	-3.21	.1116	3
4	7.6905	1134.305	686.369	903.076	724.2	617.1	6498.58	3710.32	.9318	52.764	11.877	-3.62	.1128	4
5	7.7735	1132.293	675.049	909.054	727.8	621.1	6571.74	3771.56	.9272	53.404	9.518	-4.16	.1139	5
6	7.8585	1131.232	664.782	915.657	731.6	625.1	6648.30	3830.71	.9236	54.020	7.289	-4.86	.1149	6
7	7.9454	1132.169	655.649	922.966	735.7	629.0	6729.25	3887.74	.9212	54.609	5.171	-5.79	.1159	7
8	8.0339	1133.749	647.065	930.952	740.0	633.1	6811.42	3942.53	.9196	55.199	3.154	-7.04	.1168	8
9	8.1243	1136.125	639.083	939.336	744.5	637.1	6894.67	3995.31	.9185	55.771	1.218	-8.79	.1176	9
10	8.2167	1138.824	631.031	948.008	749.2	641.3	6976.23	4046.37	.9177	56.351	-.660	-11.44	.1183	10
11	8.3111	1141.529	622.903	956.955	754.1	645.6	7056.44	4095.86	.9171	56.939	-2.496	-15.85	.1190	11
12	8.4079	1145.770	613.395	967.747	759.5	650.3	7138.51	4144.31	.9159	57.632	-4.317	-24.50	.1195	12
13	8.5074	1150.925	600.840	981.641	765.9	655.6	7223.95	4192.49	.9173	58.530	-6.132	-47.86	.1199	13
14	8.6113	1159.765	578.824	1004.496	7 4.8	662.9	7324.56	4242.00	.9192	60.061	-7.912	-186.99	.1200	14
15	8.7225	1178.982	536.543	1049.319	789.6	674.1	7474.53	4294.76	.9264	62.914	-9.495	0.00	.1195	15

STATION 3 IS AT THE EXIT OF A BLADE ROW ROTATING AT 20371.4 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1		-44.516	-31.328	862.942	843.453	.7215	.6395	.0610	.977	0.0000	.1200	1292.4	1324.4	1
2		-45.405	-32.141	844.674	838.780	.7391	.6935	.0659	.948	0.0000	.1502	1311.1	1338.4	2
3		-46.256	-33.031	802.631	833.700	.7533	.6371	.0718	.924	0.0000	.1746	1329.6	1352.7	3
4		-47.059	-34.056	917.874	828.456	.7644	.6806	.0790	.903	0.0000	.1933	1348.8	1367.2	4
5		-47.817	-35.005	931.323	824.133	.7747	.6748	.0864	.885	0.0000	.2072	1366.5	1381.9	5
6		-48.542	-35.935	943.355	820.726	.7831	.6599	.0941	.870	0.0000	.2172	1385.0	1397.8	6
7		-49.252	-36.742	954.448	818.250	.7907	.6558	.1021	.857	0.0000	.2241	1403.6	1412.5	7
8		-49.973	-37.542	964.720	816.074	.7974	.6519	.1110	.845	0.0000	.2287	1422.3	1428.2	8
9		-50.724	-38.316	974.896	814.332	.8033	.6585	.1202	.836	0.0000	.2315	1441.2	1444.3	9
10		-51.529	-39.100	984.751	813.128	.8100	.6553	.1302	.826	0.0000	.2334	1460.3	1460.7	10
11		-52.397	-39.882	994.621	811.962	.8161	.6521	.1408	.816	0.0000	.2347	1479.7	1477.5	11
12		-53.319	-40.674	1004.057	809.770	.8215	.6472	.1536	.805	0.0000	.2362	1499.5	1494.7	12
13		-54.295	-41.467	1011.676	801.331	.8253	.6390	.1697	.793	0.0000	.2394	1519.7	1512.4	13
14		-55.310	-42.270	1013.990	782.215	.8239	.6200	.1952	.771	0.0000	.2473	1540.7	1538.9	14
15		-56.300	-43.056	1003.545	734.654	.8107	.5774	.2381	.732	0.0000	.2671	1562.5	1558.6	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.2618	.0711	.9651	2.9032	.3754	.9663
2	1.2765	.0751	.9612	3.0025	.3831	.9628
3	1.2972	.0780	.9582	3.0377	.3895	.9585
4	1.2949	.0803	.9534	3.0712	.3962	.9534
5	1.3007	.0822	.9493	3.1057	.4031	.9479
6	1.3056	.0839	.9427	3.1419	.4105	.9420
7	1.3102	.0856	.9369	3.1802	.4184	.9359
8	1.3145	.0874	.9331	3.2190	.4267	.9288
9	1.3200	.0894	.9224	3.2584	.4354	.9214
10	1.3258	.0917	.9147	3.2969	.4444	.9133
11	1.3329	.0943	.9070	3.3343	.4538	.9046
12	1.3413	.0975	.8974	3.3735	.4642	.8943
13	1.3517	.1013	.8870	3.4141	.4765	.8814
14	1.3649	.1067	.8701	3.4615	.4938	.8613
15	1.3941	.1191	.8445	3.5324	.5223	.8307

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.3215	3.2453
DELTA T ON T	.0984	.4357
ISEN. EFFICY.	.9167	.9158

STATION 9

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.5536	1246.410	788.016	965.496	734.7	603.4	5868.81	3485.63	1.0338	50.785	9.745	-2.10	.1080	1
2	7.6196	1233.331	799.377	946.476	736.7	610.1	5895.13	3562.11	1.0190	51.624	8.934	-2.95	.1095	2
3	7.6841	1222.084	747.629	966.716	738.5	614.2	5911.22	3624.15	1.0063	52.283	7.933	-4.23	.1107	3
4	7.7510	1212.650	733.494	966.427	740.4	618.0	5921.85	3675.98	.9955	52.840	6.816	-6.33	.1116	4
5	7.8206	1205.380	720.214	966.557	742.4	621.5	6933.97	3720.08	.9857	53.309	5.625	-10.40	.1123	5
6	7.8929	1200.614	713.594	967.493	744.8	624.8	6952.62	3758.39	.9802	53.723	4.366	-20.49	.1128	6
7	7.9679	1198.377	702.576	970.822	747.5	628.1	5980.04	3792.39	.9758	54.107	3.090	-102.19	.1132	7
8	8.0446	1198.220	696.251	979.153	750.8	631.4	7014.56	3822.87	.9731	54.473	1.817	41.65	.1136	8
9	8.1247	1199.583	690.274	991.080	754.6	634.8	7053.11	3850.72	.9716	54.870	.517	19.57	.1138	9
10	8.2052	1202.612	685.109	983.383	758.7	638.3	7098.75	3876.79	.9714	55.272	-.805	13.62	.1139	10
11	8.2897	1207.574	679.892	997.988	763.5	642.1	7153.05	3901.52	.9725	55.735	-2.118	10.52	.1140	11
12	8.3744	1214.725	673.642	1010.923	769.2	645.4	7217.63	3925.46	.9750	56.320	-3.461	8.72	.1139	12
13	8.4527	1224.463	662.969	1029.456	776.5	651.7	7293.65	3949.72	.9788	57.219	-4.862	7.64	.1137	13
14	8.5553	1238.218	639.457	1050.313	787.1	659.6	7387.22	3977.09	.9839	58.906	-6.386	7.28	.1131	14
15	8.6556	1261.173	584.435	1117.557	805.0	672.6	7529.25	4014.24	.9923	62.391	-8.250	9.27	.1119	15

STATION 9 IS AT THE EXIT OF A BLADE ROW ROTATING AT 20371.4 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1		-31.339	-25.512	943.538	873.881	.6995	.7246	.0800	1.036	0.0000	-.0245	1324.4	1343.7	1
2		-32.151	-26.844	836.673	858.147	.6935	.7090	.0875	1.023	0.0000	-.0157	1338.4	1354.6	2
3		-33.090	-28.096	833.793	847.498	.6872	.6978	.0952	1.016	0.0000	-.0172	1352.7	1366.0	3
4		-34.065	-29.319	828.540	840.095	.6805	.6896	.1038	1.014	0.0000	-.0255	1367.2	1377.9	4
5		-35.012	-30.468	824.200	835.583	.6749	.6840	.1126	1.014	0.0000	-.0383	1381.9	1388.3	5
6		-35.909	-31.496	820.771	833.109	.6699	.6802	.1217	1.015	0.0000	-.0538	1397.0	1403.1	6
7		-36.743	-32.365	818.264	831.971	.6658	.6775	.1313	1.017	0.0000	-.0709	1412.5	1415.4	7
8		-37.541	-33.163	816.063	831.754	.6619	.6755	.1413	1.019	0.0000	-.0888	1428.2	1430.1	8
9		-38.313	-33.956	814.494	831.259	.6585	.6733	.1527	1.021	0.0000	-.1071	1444.3	1444.2	9
10		-39.094	-34.771	813.063	831.026	.6552	.6712	.1643	1.022	0.0000	-.1255	1460.7	1459.7	10
11		-39.886	-35.974	811.771	829.731	.6520	.6682	.1771	1.022	0.0000	-.1436	1477.5	1473.5	11
12		-40.669	-35.360	809.653	826.017	.6471	.6630	.1919	1.021	0.0000	-.1624	1494.7	1488.7	12
13		-41.456	-35.626	801.666	815.647	.6389	.6520	.2116	1.017	0.0000	-.1832	1512.4	1504.5	13
14		-42.255	-35.775	782.030	788.185	.6193	.6263	.2422	1.008	0.0000	-.2112	1530.9	1520.9	14
15		-43.051	-35.791	734.371	720.557	.5772	.5670	.2933	.981	0.0000	-.2579	1550.6	1538.7	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.0955	.0291	.9059	3.2461	.4135	.9597
2	1.0852	.0269	.8774	3.2586	.4203	.9545
3	1.0752	.0247	.8481	3.2662	.4238	.9488
4	1.0651	.0223	.8137	3.2712	.4274	.9424
5	1.0551	.0201	.7693	3.2763	.4313	.9355
6	1.0458	.0180	.7158	3.2857	.4359	.9281
7	1.0373	.0162	.6493	3.2987	.4413	.9202
8	1.0298	.0145	.5755	3.3150	.4475	.9118
9	1.0230	.0135	.4838	3.3332	.4547	.9023
10	1.0176	.0126	.3940	3.3548	.4627	.8924
11	1.0137	.0125	.3115	3.3805	.4719	.8814
12	1.0111	.0125	.2469	3.4110	.4829	.8689
13	1.0096	.0139	.1974	3.4469	.4970	.8528
14	1.0096	.0159	.1535	3.4911	.5175	.8291
15	1.0073	.0194	.1073	3.5583	.5519	.7916

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.0342	3.3524
DELTA T ON T	.0172	.4612
ISEN. EFFICY.	.5619	.8946

STATION 10
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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIONL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.5840	1208.239	730.371	962.496	734.7	613.2	5868.81	3647.54	.9957	52.888	7.385	9.51	.1116	1
2	7.6493	1212.206	735.736	963.398	736.7	614.5	6895.13	3652.06	.9979	52.632	6.937	14.94	.1115	2
3	7.7142	1215.076	740.844	963.100	738.5	615.7	6911.22	3654.87	.9993	52.432	6.404	18.95	.1113	3
4	7.7815	1217.623	745.382	962.815	740.4	617.0	6921.86	3656.21	1.0003	52.254	5.888	20.45	.1111	4
5	7.8493	1219.670	749.243	963.182	742.4	618.6	6933.97	3660.92	1.0007	52.158	5.129	21.72	.1110	5
6	7.9179	1221.974	749.737	964.948	744.3	620.5	6952.62	3669.15	1.0011	52.154	4.391	19.91	.1109	6
7	7.9882	1225.859	751.611	968.406	747.6	622.6	6990.04	3676.90	1.0026	52.184	3.627	17.60	.1108	7
8	8.0593	1230.012	751.929	973.413	750.8	624.9	7014.56	3688.80	1.0041	52.315	2.813	16.88	.1107	8
9	8.1317	1234.105	749.914	980.124	754.6	627.8	7053.11	3704.24	1.0051	52.580	1.957	13.72	.1107	9
10	8.2056	1237.343	745.438	988.300	758.7	631.1	7098.75	3726.15	1.0056	52.972	1.069	11.49	.1107	10
11	8.2816	1241.732	737.758	998.805	763.5	635.2	7153.05	3755.13	1.0055	53.549	.045	9.91	.1109	11
12	8.3601	1247.443	728.650	1012.513	769.2	639.7	7217.63	3784.43	1.0055	54.260	-1.024	8.33	.1110	12
13	8.4422	1254.193	712.736	1031.957	776.5	645.6	7293.65	3820.78	1.0073	55.367	-2.256	6.69	.1110	13
14	8.5303	1263.601	682.421	1063.480	787.1	654.3	7387.22	3866.31	1.0091	57.312	-3.799	5.85	.1108	14
15	8.6279	1284.386	626.392	1121.285	805.0	667.7	7529.26	3912.15	1.0143	60.811	-5.784	3.28	.1099	15

STATION 11

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.6272	1273.041	633.260	957.223	734.7	599.9	6858.81	3376.64	1.0607	48.757	9.164	9.81	.1056	1
2	7.6993	1287.558	651.163	957.195	736.7	598.8	6895.13	3336.11	1.0736	48.024	8.611	11.55	.1045	2
3	7.7646	1296.989	675.929	956.520	738.5	599.6	6911.22	3310.95	1.0818	47.516	7.940	14.33	.1037	3
4	7.8357	1302.685	694.535	955.284	740.4	599.2	6921.85	3298.91	1.0860	47.230	7.194	18.59	.1033	4
5	7.9014	1306.201	709.073	955.928	742.4	600.4	6933.97	3297.30	1.0878	47.105	6.401	23.67	.1030	5
6	7.9663	1308.904	720.652	959.151	744.8	602.2	6952.62	3303.49	1.0885	47.121	5.629	31.40	.1029	6
7	8.0309	1311.563	729.116	963.271	747.6	604.4	6980.04	3315.68	1.0887	47.261	4.867	41.18	.1029	7
8	8.0956	1314.238	737.304	968.833	750.9	607.1	7014.56	3332.67	1.0885	47.505	4.089	50.18	.1030	8
9	8.1609	1316.873	744.132	975.579	754.6	610.3	7053.11	3354.30	1.0877	47.877	3.306	66.26	.1031	9
10	8.2272	1318.593	749.344	985.647	758.7	613.9	7098.75	3381.79	1.0863	48.360	2.488	115.06	.1033	10
11	8.2951	1320.753	753.131	997.099	763.5	618.3	7153.05	3417.40	1.0839	49.021	1.555	326.35	.1037	11
12	8.3654	1321.694	755.391	1011.786	769.2	623.8	7217.63	3465.38	1.0799	49.954	.519	-134.41	.1042	12
13	8.4394	1321.779	755.615	1032.199	776.5	631.1	7293.65	3528.44	1.0737	51.345	-.663	-42.28	.1049	13
14	8.5196	1321.178	752.214	1054.730	787.1	641.9	7397.22	3615.39	1.0642	53.697	-2.052	-23.01	.1056	14
15	8.6114	1320.322	693.612	1123.331	805.0	659.9	7529.26	3753.65	1.0489	58.299	-3.734	-13.30	.1067	15

STATION 12

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.7326	1039.037	514.325	528.149	734.7	646.4	6657.25	4251.05	.8258	30.847	6.167	-3.41	.1233	1
2	7.7680	1018.350	496.950	521.054	736.7	650.4	6695.18	4327.12	.8149	30.775	5.557	-3.37	.1248	2
3	7.8436	1003.414	482.722	512.398	738.5	654.7	6719.80	4406.92	.8003	30.708	4.943	-3.46	.1262	3
4	7.8995	987.556	469.265	504.000	740.4	658.2	6736.40	4485.07	.7849	30.687	4.369	-3.73	.1276	4
5	7.9559	973.032	457.349	497.189	742.4	663.4	6755.81	4556.95	.7715	30.701	3.872	-4.19	.1288	5
6	8.0129	963.642	450.596	492.363	744.8	667.4	6780.94	4618.92	.7613	30.719	3.461	-4.94	.1298	6
7	8.0705	959.043	448.048	490.623	747.6	671.0	6816.05	4668.66	.7555	30.769	3.118	-6.15	.1305	7
8	8.1291	959.108	448.436	491.324	750.8	674.3	6857.45	4704.87	.7538	30.950	2.814	-8.31	.1309	8
9	8.1881	963.420	451.150	495.635	754.6	677.3	6901.43	4727.45	.7555	30.961	2.515	-12.99	.1309	9
10	8.2478	972.594	457.684	502.570	758.7	679.9	6953.24	4737.10	.7612	31.113	2.174	-30.23	.1307	10
11	8.3079	986.376	468.697	512.539	763.5	682.5	7013.59	4735.56	.7705	31.314	1.743	91.77	.1301	11
12	8.3688	1004.140	483.066	526.455	769.2	685.3	7083.39	4726.00	.7823	31.620	1.165	18.25	.1293	12
13	8.4309	1025.146	503.211	545.100	776.5	689.0	7164.56	4713.92	.7970	32.122	.375	10.25	.1283	13
14	8.4955	1048.255	527.013	573.266	787.1	695.7	7259.43	4709.82	.8110	33.153	-.690	7.35	.1270	14
15	8.5638	1075.288	559.438	604.580	805.0	703.5	7399.76	4733.00	.8251	34.175	-2.187	5.77	.1253	15

STATION 12 IS AT THE EXIT OF A BLADE ROW ROTATING AT 0.0 RPM.

STREAM-LINE	RELATIVE GAS ANGLES GPT.IN. INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1	48.757	30.947	1273.041	1030.035	1.0607	.8268	.0606	.809	0.0000	.2503	0.0	0.0	1
2	48.024	30.775	1237.558	1018.350	1.0735	.8149	.0562	.791	0.0000	.2784	0.0	0.0	2
3	47.518	30.708	1236.989	1003.414	1.0819	.8003	.0532	.774	0.0000	.3043	0.0	0.0	3
4	47.230	30.697	1302.695	987.556	1.0860	.7949	.0512	.758	0.0000	.3273	0.0	0.0	4
5	47.135	30.701	1306.201	973.832	1.0873	.7715	.0490	.746	0.0000	.3463	0.0	0.0	5
6	47.121	30.719	1308.804	963.342	1.0885	.7613	.0470	.736	0.0000	.3605	0.0	0.0	6
7	47.261	30.769	1311.553	959.045	1.0887	.7555	.0448	.731	0.0000	.3692	0.0	0.0	7
8	47.505	30.850	1314.238	959.108	1.0885	.7538	.0427	.730	0.0000	.3727	0.0	0.0	8
9	47.877	30.951	1316.675	963.420	1.0877	.7555	.0410	.732	0.0000	.3713	0.0	0.0	9
10	48.360	31.113	1318.693	972.594	1.0863	.7612	.0391	.737	0.0000	.3647	0.0	0.0	10
11	49.021	31.314	1320.753	986.376	1.0839	.7705	.0373	.747	0.0000	.3529	0.0	0.0	11
12	49.954	31.620	1321.634	1004.140	1.0793	.7828	.0358	.760	0.0000	.3360	0.0	0.0	12
13	51.345	32.122	1321.770	1025.146	1.0737	.7970	.0343	.776	0.0000	.3149	0.0	0.0	13
14	53.697	33.153	1321.178	1048.255	1.0642	.8110	.0339	.793	0.0000	.2902	0.0	0.0	14
15	58.299	34.179	1320.322	1076.284	1.0489	.8251	.0343	.815	0.0000	.2594	0.0	0.0	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	.9692	0.0000	0.0000	3.1461	.4165	.9295
2	.9710	0.0000	0.0000	3.1541	.4203	.9265
3	.9723	0.0000	0.0000	3.1757	.4238	.9224
4	.9732	0.0000	0.0000	3.1935	.4274	.9170
5	.9743	0.0000	0.0000	3.1927	.4313	.9114
6	.9753	0.0000	0.0000	3.2045	.4359	.9052
7	.9765	0.0000	0.0000	3.2212	.4413	.8987
8	.9775	0.0000	0.0000	3.2404	.4476	.8915
9	.9785	0.0000	0.0000	3.2615	.4547	.8832
10	.9795	0.0000	0.0000	3.2851	.4627	.8744
11	.9805	0.0000	0.0000	3.3145	.4719	.8646
12	.9814	0.0001	0.0000	3.3475	.4829	.8532
13	.9823	0.0001	0.0000	3.3839	.4970	.8382
14	.9827	0.0000	0.0000	3.4307	.5175	.8153
15	.9828	0.0000	0.0000	3.4971	.5519	.7787

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	.9778	3.2782
DELTA T ON T	0.0000	.4612
ISEN. EFFICY.	0.0000	.8751

STATION 13

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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	VELOCITIES MERIDNL.	VELOCITIES TANGENTL.	TEMPERATURES TOTAL	TEMPERATURES STATIC	PRESSURES TOTAL	PRESSURES STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.7467	779.323	741.214	240.741	734.7	684.2	6445.69	5021.84	.6080	17.993	-1.289	-5.76	.137[illegible]	1
2	7.7974	774.118	736.685	237.803	736.7	685.9	6493.95	5080.46	.6028	17.891	-1.151	-7.00	.1387	2
3	7.8500	767.908	731.173	234.653	738.5	689.5	6526.42	5129.76	.5968	17.793	-.951	-8.68	.1395	3
4	7.9046	762.239	726.063	232.038	740.4	692.0	6549.65	5170.08	.5913	17.723	-.679	-10.30	.1401	4
5	7.9612	759.546	723.688	231.621	742.4	694.4	6574.37	5201.99	.5882	17.676	-.348	-13.70	.1405	5
6	8.0193	761.495	725.695	230.745	744.8	696.5	6608.10	5225.24	.5883	17.639	.017	-16.95	.1407	6
7	8.0789	767.815	731.754	232.513	747.6	699.5	6650.90	5243.74	.5928	17.627	.384	-20.23	.1408	7
8	8.1392	777.267	740.707	235.578	750.8	700.6	6699.15	5255.39	.5993	17.643	.727	-23.08	.1407	8
9	8.2001	788.698	751.418	239.616	754.6	702.8	6749.31	5262.12	.6071	17.687	1.031	-25.32	.1404	9
10	8.2616	803.106	764.808	245.045	758.7	705.0	6807.14	5264.59	.6172	17.766	1.279	-27.43	.1400	10
11	8.3231	820.508	780.856	251.955	763.5	707.5	6873.48	5263.28	.6295	17.883	1.452	-30.35	.1395	11
12	8.3845	841.262	799.774	260.929	769.2	710.3	6950.66	5258.56	.6442	18.069	1.526	-36.03	.1388	12
13	8.4460	864.997	820.928	272.574	775.5	714.2	7036.23	5250.59	.6605	18.368	1.477	-52.72	.1379	13
14	8.5075	892.911	844.550	289.872	787.1	720.8	7132.37	5239.61	.6787	18.944	1.260	-240.80	.1363	14
15	8.5692	932.098	876.480	311.573	805.0	732.7	7270.26	5228.86	.7027	19.528	.825	59.85	.1338	15

STATION 13 IS AT THE EXIT OF A BLADE ROW ROTATING AT 0.0 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1		30.647	17.933	1030.035	779.329	.8268	.6080	.1211	.757	0.0000	.3285	0.0	0.0	1
2		30.775	17.891	1018.350	774.118	.8149	.6028	.1127	.760	0.0000	.3182	0.0	0.0	2
3		30.708	17.793	1003.414	767.908	.8003	.5968	.1069	.765	0.0000	.3126	0.0	0.0	3
4		30.687	17.723	987.556	762.239	.7849	.5913	.1027	.772	0.0000	.3044	0.0	0.0	4
5		30.701	17.676	973.632	759.546	.7715	.5882	.0989	.780	0.0000	.2935	0.0	0.0	5
6		30.719	17.639	963.942	761.496	.7613	.5888	.0944	.790	0.0000	.2810	0.0	0.0	6
7		30.769	17.627	959.045	767.815	.7555	.5928	.0898	.801	0.0000	.2679	0.0	0.0	7
8		30.850	17.643	959.108	777.267	.7533	.5993	.0857	.810	0.0000	.2558	0.0	0.0	8
9		30.961	17.687	963.420	788.698	.7555	.6071	.0821	.819	0.0000	.2460	0.0	0.0	9
10		31.113	17.766	972.594	803.106	.7612	.6172	.0785	.826	0.0000	.2381	0.0	0.0	10
11		31.314	17.883	986.376	820.508	.7705	.6295	.0748	.832	0.0000	.2317	0.0	0.0	11
12		31.620	18.069	1004.140	841.262	.7823	.6442	.0712	.838	0.0000	.2260	0.0	0.0	12
13		32.122	18.368	1025.146	864.997	.7970	.6605	.0684	.844	0.0000	.2191	0.0	0.0	13
14		33.153	18.944	1048.255	892.911	.8118	.6787	.0676	.852	0.0000	.2079	0.0	0.0	14
15		34.175	19.528	1076.298	932.098	.8251	.7027	.0686	.866	0.0000	.1860	0.0	0.0	15

OVERALL PERFORMANCE PARAMETERS

STREAM -LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	.9682	0.0000	0.0000	3.0462	.4165	.8992
2	.9699	0.0000	0.0000	3.0693	.4203	.8979
3	.9712	0.0000	0.0000	3.0843	.4238	.8952
4	.9723	0.0000	0.0000	3.0953	.4274	.8910
5	.9731	0.0000	0.0000	3.1070	.4313	.8864
6	.9745	0.0000	0.0000	3.1229	.4359	.8817
7	.9754	0.0000	0.0000	3.1431	.4413	.8765
8	.9769	0.0000	0.0000	3.1659	.4476	.8704
9	.9780	0.0000	0.0000	3.1397	.4547	.8636
10	.9790	0.0000	0.0000	3.2170	.4627	.8561
11	.9800	0.0000	0.0000	3.2483	.4719	.8475
12	.9813	0.0000	0.0000	3.2843	.4829	.8374
13	.9821	0.0000	0.0000	3.3252	.4970	.8236
14	.9825	0.0000	0.0000	3.3707	.5175	.8013
15	.9825	0.0000	0.0000	3.4353	.5519	.7657

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	.9771	3.2836
DELTA T ON T	0.0000	.4612
ISEN. EFFICY.	0.0000	.8551

STATION 14
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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.7077	588.792	585.065	66.130	734.7	705.9	6234.62	5418.67	.4523	6.449	-3.353	23.30	.1448	1
2	7.7668	606.048	602.357	66.779	736.7	706.2	6294.20	5426.10	.4654	6.326	-2.639	22.50	.1441	2
3	7.8258	617.590	613.908	66.784	738.5	705.8	6334.59	5431.24	.4741	6.208	-2.008	23.56	.1441	3
4	7.8878	626.336	622.786	66.593	740.4	707.7	6364.50	5434.64	.4805	6.103	-1.429	26.16	.1448	4
5	7.9501	635.053	632.455	66.611	742.4	708.7	6395.90	5436.66	.4875	6.012	-.898	38.67	.1439	5
6	8.0131	648.564	645.097	67.065	744.8	709.8	6436.14	5437.54	.4968	5.935	-.423	38.47	.1437	6
7	8.0767	664.318	660.925	68.038	747.6	710.9	6486.54	5437.51	.5085	5.878	-.013	52.16	.1435	7
8	8.1404	681.198	677.656	69.376	750.8	712.2	6541.80	5436.66	.5209	5.845	.329	78.64	.1432	8
9	8.2041	698.979	695.353	71.100	754.6	713.9	6598.70	5435.09	.5339	5.838	.608	145.19	.1428	9
10	8.2677	718.136	714.333	73.326	758.7	715.8	6661.88	5432.79	.5479	5.861	.827	512.80	.1424	10
11	8.3310	739.954	736.016	76.240	763.5	717.9	6735.64	5429.74	.5636	5.914	.987	-554.10	.1418	11
12	8.3939	764.041	759.947	79.945	769.2	720.6	6819.70	5425.87	.5808	6.006	1.086	-235.81	.1412	12
13	8.4562	790.047	785.504	84.608	776.5	724.6	6918.62	5421.00	.5998	6.149	1.127	-182.64	.1403	13
14	8.5182	818.713	813.651	90.955	787.1	731.3	7004.57	5414.76	.6178	6.378	1.114	-183.46	.1389	14
15	8.5797	859.027	853.268	99.303	805.0	743.5	7140.75	5408.03	.6429	6.638	1.032	-277.54	.1364	15

STATION 14 IS AT THE EXIT OF A BLADE ROW ROTATING AT 0.0 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1	17.993	5.449		779.329	588.792	.6080	.4523	.1815	.756	0.0000	.2787	0.0	0.0	1
2	17.891	6.329		774.119	606.048	.6023	.4654	.1688	.783	0.0000	.2445	0.0	0.0	2
3	17.793	6.209		767.903	617.830	.5969	.4741	.1601	.804	0.0000	.2159	0.0	0.0	3
4	17.723	6.103		762.239	626.336	.5913	.4805	.1538	.822	0.0000	.1918	0.0	0.0	4
5	17.676	6.012		759.545	635.253	.5882	.4875	.1479	.837	0.0000	.1710	0.0	0.0	5
6	17.639	5.935		761.496	648.564	.5889	.4968	.1415	.852	0.0000	.1529	0.0	0.0	6
7	17.627	5.875		767.615	664.318	.5928	.5085	.1346	.865	0.0000	.1377	0.0	0.0	7
8	17.643	5.845		777.267	681.198	.5993	.5209	.1286	.876	0.0000	.1256	0.0	0.0	8
9	17.687	5.833		788.698	698.379	.6071	.5339	.1229	.886	0.0000	.1163	0.0	0.0	9
10	17.766	5.851		803.105	718.136	.6172	.5478	.1175	.894	0.0000	.1090	0.0	0.0	10
11	17.833	5.914		820.503	739.354	.6295	.5636	.1117	.902	0.0000	.1034	0.0	0.0	11
12	18.069	6.006		841.262	764.041	.6442	.5803	.1063	.909	0.0000	.0989	0.0	0.0	12
13	18.368	6.142		864.997	790.047	.6605	.5990	.1023	.913	0.0000	.0954	0.0	0.0	13
14	18.344	6.375		882.911	818.719	.6787	.6178	.1015	.917	0.0000	.0925	0.0	0.0	14
15	19.528	6.533		932.098	859.027	.7027	.6429	.1029	.922	0.0000	.0878	0.0	0.0	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	.9573	0.0000	0.0000	2.9465	.4165	.8680
2	.9692	0.0000	0.0000	2.9746	.4203	.8688
3	.9705	0.0000	0.0000	2.9937	.4238	.8675
4	.9717	0.0000	0.0000	3.0073	.4274	.8646
5	.9723	0.0000	0.0000	3.0225	.4313	.8613
6	.9740	0.0000	0.0000	3.0417	.4359	.8579
7	.9753	0.0000	0.0000	3.0655	.4413	.8542
8	.9764	0.0000	0.0000	3.0912	.4475	.8496
9	.9777	0.0000	0.0000	3.1185	.4547	.8439
10	.9787	0.0000	0.0000	3.1493	.4627	.8375
11	.9799	0.0000	0.0000	3.1832	.4719	.8304
12	.9810	0.0000	0.0000	3.2224	.4829	.8215
13	.9319	0.0000	0.0000	3.2649	.4970	.8088
14	.9521	0.0000	0.0000	3.3103	.5175	.7874
15	.9522	0.0000	0.0000	3.3746	.5519	.7525

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	.9767	3.1296
DELTA T ON T	0.0000	.4612
ISEN. EFFICY.	0.0000	.8350

STATION 15

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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.5819	493.595	493.535	0.000	734.7	714.4	6021.88	5459.68	.3768	0.000	-1.469	13.17	.1433	1
2	7.7486	525.189	525.189	0.000	736.7	713.8	6093.68	5454.25	.4012	0.000	-1.102	17.57	.1433	2
3	7.8144	546.284	546.284	0.000	738.5	713.7	6143.27	5449.87	.4172	0.000	-.789	24.19	.1432	3
4	7.8802	561.132	561.132	0.000	740.4	714.2	6179.17	5446.56	.4285	0.000	-.585	36.10	.1430	4
5	7.9462	576.264	576.264	0.000	742.4	714.8	6217.98	5444.31	.4399	0.000	-.243	54.57	.1429	5
6	8.0124	593.815	593.815	0.000	744.8	715.4	6266.02	5443.14	.4530	0.000	-.011	286.09	.1427	6
7	8.0795	613.354	613.354	0.000	747.6	716.3	6322.79	5443.02	.4677	0.000	.186	-236.85	.1425	7
8	8.1441	633.423	633.423	0.000	750.8	717.5	6384.08	5443.88	.4826	0.000	.348	-84.78	.1423	8
9	8.2094	653.445	653.445	0.000	754.6	719.0	6447.93	5445.63	.4973	0.000	.474	-55.79	.1420	9
10	8.2744	674.256	674.256	0.000	758.7	720.8	6517.21	5448.20	.5125	0.000	.566	-43.95	.1417	10
11	8.3397	697.123	697.123	0.000	763.5	723.0	6596.29	5451.48	.5291	0.000	.624	-38.83	.1414	11
12	8.4023	722.176	722.176	0.000	769.2	725.8	6685.93	5455.36	.5470	0.000	.648	-35.13	.1410	12
13	8.4652	748.102	748.102	0.000	776.5	729.9	6790.30	5459.68	.5651	0.000	.639	-34.88	.1403	13
14	8.5275	775.412	775.412	0.000	787.1	737.1	6877.52	5464.26	.5829	0.000	.602	-34.32	.1390	14
15	8.5891	813.826	813.826	0.000	805.0	749.8	7011.26	5469.02	.6065	0.000	.536	-36.07	.1368	15

STATION 15 IS AT THE EXIT OF A BLADE ROW ROTATING AT 0.0 RPM.

STREAM-LINE	RELATIVE GAS ANGLES OPT.IN.	INLET	OUTLET	RELATIVE VELOCITIES INLET	OUTLET	RELATIVE MACH NO.S INLET	OUTLET	LOSS COEFF	DE HALL NUMBER	DIFFUS FACTOR	DELTA P UPON Q	BLADE SPEEDS INLET	OUTLET	STREAM-LINE
1		6.449	0.000	588.792	493.535	.4523	.3768	.2425	.838	0.0000	.0503	0.0	0.0	1
2		6.326	0.000	606.048	525.189	.4654	.4012	.2252	.867	0.0000	.0324	0.0	0.0	2
3		6.208	0.000	617.590	546.284	.4741	.4172	.2133	.884	0.0000	.0206	0.0	0.0	3
4		6.103	0.000	626.336	561.132	.4805	.4285	.2050	.896	0.0000	.0128	0.0	0.0	4
5		6.012	0.000	635.953	576.264	.4875	.4399	.1969	.906	0.0000	.0080	0.0	0.0	5
6		5.935	0.000	648.564	593.815	.4968	.4530	.1881	.916	0.0000	.0056	0.0	0.0	6
7		5.878	0.000	664.319	613.354	.5083	.4677	.1794	.923	0.0000	.0053	0.0	0.0	7
8		5.845	0.000	681.199	633.423	.5209	.4826	.1712	.930	0.0000	.0065	0.0	0.0	8
9		5.833	0.000	698.979	653.445	.5339	.4973	.1636	.935	0.0000	.0091	0.0	0.0	9
10		5.841	0.000	718.136	674.256	.5478	.5125	.1565	.939	0.0000	.0125	0.0	0.0	10
11		5.914	0.000	739.954	697.123	.5636	.5291	.1496	.942	0.0000	.0166	0.0	0.0	11
12		6.006	0.000	764.041	722.176	.5808	.5470	.1417	.945	0.0000	.0212	0.0	0.0	12
13		6.148	0.000	790.047	748.102	.5990	.5651	.1364	.947	0.0000	.0260	0.0	0.0	13
14		6.378	0.000	818.719	775.412	.6178	.5828	.1351	.947	0.0000	.0311	0.0	0.0	14
15		6.638	0.000	859.027	813.826	.6429	.6065	.1372	.947	0.0000	.0352	0.0	0.0	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	.9658	0.0000	0.0000	2.8453	.4165	.8357
2	.9681	0.0000	0.0000	2.8798	.4203	.8369
3	.9699	0.0000	0.0000	2.9032	.4238	.8394
4	.9709	0.0000	0.0000	2.9202	.4274	.8377
5	.9722	0.0000	0.0000	2.9356	.4313	.8359
6	.9735	0.0000	0.0000	2.9613	.4359	.8339
7	.9747	0.0000	0.0000	2.9891	.4413	.8315
8	.9760	0.0000	0.0000	3.0171	.4476	.8283
9	.9772	0.0000	0.0000	3.0472	.4547	.8239
10	.9783	0.0000	0.0000	3.0803	.4627	.8188
11	.9793	0.0000	0.0000	3.1173	.4719	.8129
12	.9805	0.0000	0.0000	3.1597	.4829	.8054
13	.9814	0.0000	0.0000	3.2043	.4970	.7937
14	.9819	0.0000	0.0000	3.2502	.5175	.7733
15	.9819	0.0000	0.0000	3.3134	.5519	.7391

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	.9762	3.0555
DELTA T ON T	0.0000	.4612
ISEN. EFFICY.	0.0000	.8145

STATION 16

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GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIDNL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.6819	488.928	488.928	0.000	734.7	714.8	5921.88	5469.91	.3732	0.000	.000	61999.99	.1435	1
2	7.7486	513.464	513.464	0.000	736.7	714.4	6083.68	5469.90	.3959	0.000	.001	*1480.15	.1436	2
3	7.8146	537.913	537.913	0.000	738.5	714.5	6143.27	5469.90	.4107	0.000	.012	-3051.61	.1436	3
4	7.8806	551.703	551.703	0.000	740.4	715.0	6179.17	5469.91	.4210	0.000	.030	-3102.46	.1435	4
5	7.9470	565.174	565.174	0.000	742.4	715.7	6217.90	5469.94	.4319	0.000	.052	-1785.65	.1433	5
6	8.0134	583.545	583.545	0.000	744.8	716.4	6256.82	5470.00	.4449	0.000	.074	-1258.41	.1432	6
7	8.0798	603.328	603.328	0.000	747.6	717.3	6322.79	5470.09	.4597	0.000	.091	-1010.91	.1430	7
8	8.1456	623.975	623.975	0.000	750.8	718.4	6384.08	5470.20	.4751	0.000	.104	-892.30	.1428	8
9	8.2110	644.844	644.844	0.000	754.6	719.9	6447.93	5470.32	.4904	0.000	0.000	-845.21	.1425	9
10	8.2759	666.741	666.741	0.000	758.7	721.7	6517.21	5470.47	.5065	0.000	.108	-857.04	.1422	10
11	8.3401	690.862	690.862	0.000	763.5	723.8	6596.23	5470.61	.5240	0.000	.099	-934.41	.1418	11
12	8.4035	717.304	717.304	0.000	769.2	726.4	6685.99	5470.74	.5431	0.000	.083	-1110.92	.1413	12
13	8.4661	744.679	744.679	0.000	776.5	730.4	6780.30	5470.86	.5623	0.000	.060	-1512.94	.1405	13
14	8.5280	773.419	773.419	0.000	787.1	737.4	6877.52	5470.93	.5812	0.000	.032	-2765.48	.1392	14
15	8.5891	813.262	813.262	0.000	805.0	749.9	7011.25	5470.97	.6050	0.000	-.000	*2000.03	.1368	15

STATION 17

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIONL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.6820	488.994	483.994	0.000	734.7	714.8	6021.88	5469.76	.3732	0.000	.004	0.00	.1435	1
2	7.7437	518.527	518.527	0.000	736.7	714.4	6093.68	5469.76	.3959	0.000	.003	0.00	.1436	2
3	7.8147	537.976	537.976	0.000	738.5	714.4	6143.27	5469.75	.4107	0.000	.003	0.00	.1436	3
4	7.8807	551.772	551.772	0.000	740.4	715.0	6179.17	5469.75	.4211	0.000	.002	0.00	.1435	4
5	7.9470	566.257	566.257	0.000	742.4	715.7	6217.90	5469.73	.4319	0.000	.002	0.00	.1433	5
6	8.0135	583.653	583.653	0.000	744.8	716.4	6266.02	5469.72	.4450	0.000	.002	0.00	.1432	6
7	8.0798	603.467	603.467	0.000	747.6	717.3	6322.79	5469.71	.4599	0.000	.001	0.00	.1430	7
8	8.1456	624.151	624.151	0.000	750.8	718.4	6384.08	5469.71	.4752	0.000	.001	0.00	.1428	8
9	8.2113	645.062	645.062	0.000	754.6	719.9	6447.93	5469.70	.4906	0.000	0.000	0.00	.1425	9
10	8.2759	667.002	667.002	0.000	758.7	721.7	6517.21	5469.70	.5067	0.000	-.000	0.00	.1421	10
11	8.3401	691.163	691.163	0.000	763.5	723.7	6596.29	5469.69	.5243	0.000	-.001	0.00	.1417	11
12	8.4034	717.639	717.639	0.000	769.2	726.3	6685.99	5469.69	.5434	0.000	-.002	0.00	.1412	12
13	8.4660	745.029	745.029	0.000	775.5	730.3	6790.30	5469.69	.5625	0.000	-.002	0.00	.1405	13
14	8.5279	773.792	773.792	0.000	787.1	737.3	6877.52	5469.69	.5815	0.000	-.003	0.00	.1391	14
15	8.5890	813.631	813.631	0.000	805.0	749.9	7011.25	5469.69	.6063	0.000	-.004	0.00	.1368	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.0000	0.0000	0.0000	2.8459	.4165	.9357
2	1.0000	0.0000	0.0000	2.8798	.4203	.8389
3	1.0000	0.0000	0.0000	2.9032	.4238	.8394
4	1.0000	0.0000	0.0000	2.9202	.4274	.8377
5	1.0000	0.0000	0.0000	2.9335	.4313	.8358
6	1.0000	0.0000	0.0000	2.9613	.4359	.9339
7	1.0000	0.0000	0.0000	2.9881	.4413	.8315
8	1.0000	0.0000	0.0000	3.0171	.4476	.8283
9	1.0000	0.0000	0.0000	3.0472	.4547	.8239
10	1.0000	0.0000	0.0000	3.0800	.4627	.8188
11	1.0000	0.0000	0.0000	3.1173	.4719	.8128
12	1.0000	0.0000	0.0000	3.1597	.4829	.8054
13	1.0000	0.0000	0.0000	3.2043	.4970	.7937
14	1.0000	0.0000	0.0000	3.2502	.5175	.7733
15	1.0000	0.0000	0.0000	3.3134	.5519	.7391

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.0000	3.0555
DELTA T ON T	0.0000	.4612
ISEN. EFFICY.	0.0000	.8145

SECTION V

REVISED ROTOR GEOMETRY

1. GENERAL CHARACTERISTICS

Since the principal purpose of this redesign was to incorporate splitter vanes into the compressor rotor, making as few other changes as possible and practical, many of the general characteristics of the original rotor were adopted without change. These unchanged characteristics included the design speed, number of principal blades, the type of camber line, the section thickness distributions, and the geometry of the blade/platform fillet.

The airfoil sections were defined on 15 streamsurfaces (not tangent cones), and stacked close to the centroids of the manufacturing sections on Cartesian planes. Some of the streamsurface sections were shifted slightly in the meridional direction away from centroid stacking in order to cause the rotor leading and trailing edges to lie in radial planes. This was done for convenience since the stress penalty was minor. The manufacturing sections were determined by mathematically passing a spline through common points on all streamsurface sections and determining the intersections of these splines with Cartesian planes normal to the stacking axis. The original method used to make this transformation contained a small error related to streamsurface meridional slope. If a streamsurface was cylindrical, the error was zero. However, at the hub and tip of the rotor, where the maximum slopes were encountered, the streamsurface metal angles had errors approaching one degree, open at the tip and closed at the hub. This was reported in Reference 1, and the corrected method used for this design was reported in Reference 3.

The revised coordinates of the rotor hub flowpath are presented in Table I. The rotor stack axis is located at an axial coordinate of 0.982 inches, measured from the same origin as was used to define the annulus geometry. For further details of the annulus geometry, see Reference 2. The new rotor solidity distribution is compared with the original distribution in Figure 3. Also shown is an "effective" solidity distribution computed according to

$$\sigma_{eff} = \frac{(Ch)_p + (Ch)_s}{2\pi\bar{r}/N} \qquad (2)$$

STATION 17

GENERAL FLOW PARAMETERS

LOCATION	RADIUS	VELOCITIES ABSOLUTE	MERIONL.	TANGENTL.	TEMPERATURES TOTAL	STATIC	PRESSURES TOTAL	STATIC	MACH NUMBER	WHIRL ANGLE	SLOPE ANGLE	RAD.OF CURVTRE.	STATIC DENSITY	LOCATION
1	7.6820	485.994	485.994	0.000	734.7	714.8	6821.88	5469.76	.3732	0.000	.004	0.00	.1435	1
2	7.7487	518.527	518.527	0.000	736.7	714.4	6893.68	5469.76	.3959	0.000	.003	0.00	.1436	2
3	7.8147	537.976	537.976	0.000	738.5	714.4	6143.27	5469.75	.4107	0.000	.003	0.00	.1436	3
4	7.8807	551.772	551.772	0.000	740.4	715.0	6179.17	5469.75	.4211	0.000	.002	0.00	.1435	4
5	7.9470	566.257	566.257	0.000	742.4	715.7	6217.90	5469.73	.4319	0.000	.002	0.00	.1433	5
6	8.0135	583.653	583.653	0.000	744.5	716.4	6256.02	5469.72	.4450	0.000	.002	0.00	.1432	6
7	8.0734	603.467	603.467	0.000	747.6	717.3	6322.79	5469.71	.4539	0.000	.001	0.00	.1430	7
8	8.1456	624.151	624.151	0.000	750.8	718.4	6384.33	5469.71	.4752	0.000	.001	0.00	.1428	8
9	8.2110	645.062	645.062	0.000	754.6	719.9	6447.93	5469.70	.4906	0.000	0.000	0.00	.1425	9
10	8.2759	667.002	667.002	0.000	758.7	721.7	6517.21	5469.70	.5067	0.000	-.000	0.00	.1421	10
11	8.3401	691.163	691.163	0.000	763.5	723.7	6596.29	5469.69	.5243	0.000	-.001	0.00	.1417	11
12	8.4034	717.639	717.639	0.000	769.2	726.3	6695.99	5469.69	.5434	0.000	-.002	0.00	.1412	12
13	8.4660	745.029	745.029	0.000	775.5	730.3	6796.30	5469.69	.5625	0.000	-.002	0.00	.1405	13
14	8.5279	773.792	773.792	0.000	787.1	737.3	6877.52	5469.69	.5815	0.000	-.003	0.00	.1391	14
15	8.5890	811.631	811.631	0.000	805.0	749.9	7011.25	5469.69	.6063	0.000	-.004	0.00	.1368	15

OVERALL PERFORMANCE PARAMETERS

STREAM-LINE	STATION-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY	INLET-TO-STATION-PARAMETERS PRESSURE RATIO	DELTA T ON T	ISENTROPIC EFFICIENCY
1	1.0000	0.0000	0.0000	2.8459	.4165	.8357
2	1.0000	0.0000	0.0000	2.8738	.4203	.8389
3	1.0000	0.0000	0.0000	2.9032	.4238	.8394
4	1.0000	0.0000	0.0000	2.9202	.4274	.8377
5	1.0000	0.0000	0.0000	2.9335	.4313	.8358
6	1.0000	0.0000	0.0000	2.9613	.4359	.8339
7	1.0000	0.0000	0.0000	2.9981	.4413	.8315
8	1.0000	0.0000	0.0000	3.0171	.4476	.8283
9	1.0000	0.0000	0.0000	3.0472	.4547	.8239
10	1.0000	0.0000	0.0000	3.0800	.4627	.8195
11	1.0000	0.0000	0.0000	3.1173	.4719	.8128
12	1.0000	0.0000	0.0000	3.1597	.4829	.8054
13	1.0000	0.0000	0.0000	3.2043	.4970	.7937
14	1.0000	0.0000	0.0000	3.2502	.5175	.7733
15	1.0000	0.0000	0.0000	3.3134	.5519	.7391

MEAN PARAMETERS	STATION-TO-STATION	INLET-TO-STATION
PRESSURE RATIO	1.0000	3.8555
DELTA T ON T	0.0000	.4612
ISEN. EFFICY.	0.0000	.8145

where $(Ch)_p$ is the principal blade chord
$(Ch)_s$ is the splitter vane chord
$\bar{r}$ is the average streamline radius
N is the number of principal blades
σ_{eff} is the "effective" solidity

The usefulness of such an "effective" solidity remains to be determined.

2. PRINCIPAL BLADE COORDINATES

The first group of computer output on the following pages concerns the coordinates of the principal blades as determined according to Reference 3. Except for the normalized data defining the streamsurface blade sections, all dimensions are in inches. On the first few pages appear sundry constants and a definition of the 15 streamsurfaces. The streamsurfaces are defined at eight axial locations which coincide with eight of the computing stations used for the aerodynamic design calculations. The origin for the axial locations of the stations is the same as was used for the aerodynamic analyses. The input data printout is completed with a table defining the geometry of each section. Next are shown details of the 15 streamsurface sections. Only the "normalized" data have been reproduced; the equivalent dimensional data would be derived by scaling the nondimensional quantities by the meridional chord of the section. Finally, details of 11 manufacturing sections through the blade are shown. These plane sections, perpendicular to the stack axis, are spaced 0.25 inch apart, and extend slightly beyond the blade in both directions. The "Z" coordinate is measured along the stack axis from the machine axis. The origin for the section coordinates is the stack axis. The "X" direction is parallel to the machine axis, and "X" increases in the direction of flow. The "Y" direction is perpendicular to the "X" direction, and the "Y" coordinate decreases in the direction of rotation. "XS" and "YS" define the suction surface of the section, and "XP" and "YP" define the pressure surface. "XSEMI" and "YSEMI" define the leading edge radius. The trailing edge is a straight line joining the pressure and suction surfaces. Figure 4 shows superimposed plots of developed streamsurface sections. Figure 5 shows a similar view of the manufacturing sections. The slightly larger change of section visible in Figure 5 is due to extrapolation of the airfoil beyond the hub and casing.

3. SPLITTER VANE COORDINATES

The computer printout describing the principal blades is immediately followed by similar output describing the splitter vanes. The coordinates were computed by using the computer program modifications described in Reference 4. These coordinates are referred to the same stack axis axial location as the

principal blades. However, the splitter vane stack axis is circumferentially rotated exactly six degrees (one-half of the principal blade spacing) from the adjacent principal blade stack axis. The leading and trailing edges of the splitter vane streamsurface sections are defined by circular arcs. Figure 6 shows superimposed plots of the developed streamsurface sections. Figure 7 presents a similar view of the manufacturing sections.

USAF - ARL(ARF) HIGH MACH NUMBER COMPRESSOR BLADE PROGRAM

TITLE	= ROTOR BLADE
NUMBER OF STREAMSURFACES	= 15
NUMBER OF STATIONS	= 8
NUMBER OF CONSTANT-Z PLANES	= 11
NUMBER OF BLADE DATA POINTS	= 8
NUMBER OF POINTS ON SURFACES	= 50
NUMBER OF BLADES IN BLADE ROW	= 30
ISTAK	= 2
IPUNCH	= 0
ISECN	= 0
IFCORD	= 0
IFPLOT	= 0
IPRINT	= 0
ZINNER	= 6.5000
ZOUTER	= 9.0000
SCALE	= 2.5000
STACKX	= .9820
PLTSZE	= 12.0000

STREAMSURFACE GEOMETRY SPECIFICATION

COMPUTING STATION 1 NUMBER OF DESCRIBING POINTS= 2 IFANGS(1)= 0

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
-.4000	-0.0000	1	6.6016
-.4000	100.0000	2	6.7703
		3	6.9389
		4	7.1072
		5	7.2760
		6	7.4455
		7	7.6161
		8	7.7875
		9	7.9603
		10	8.1350
		11	8.3116
		12	8.4905
		13	8.6727
		14	8.8589
		15	9.0500

COMPUTING STATION 2 NUMBER OF DESCRIBING POINTS= 2 IFANGS(2)= 1

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
0.0000	-0.0000	1	6.7586
0.0000	100.0000	2	6.9086
		3	7.0634
		4	7.2131
		5	7.3668
		6	7.5215
		7	7.6776
		8	7.8345
		9	7.9927
		10	8.1523
		11	8.3148
		12	8.4791
		13	8.6462
		14	8.8166
		15	8.9900

COMPUTING STATION 3 NUMBER OF DESCRIBING POINTS= 2 IFANGS(3)= 1

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
.4000	-0.0030	1	6.9066
.4000	100.0000	2	7.0443
		3	7.1829
		4	7.3217
		5	7.4607
		6	7.5993
		7	7.7397
		8	7.8799
		9	8.0211
		10	8.1640
		11	8.3088
		12	8.4564
		13	8.6074
		14	8.7629
		15	8.9231

COMPUTING STATION 4 NUMBER OF DESCRIBING POINTS= 2 IFANGS(4)= 1

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
.8000	-0.0000	1	7.0871
.8000	100.0000	2	7.2111
		3	7.3352
		4	7.4588
		5	7.5820
		6	7.7051
		7	7.8282
		8	7.9512
		9	8.0748
		10	8.1994
		11	8.3253
		12	8.4530
		13	8.5835
		14	8.7175
		15	8.8562

COMPUTING STATION 5 NUMBER OF DESCRIBING POINTS= 2 IFANGS(5)= 1

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
1.2000	-0.0000	1	7.2700
1.2000	100.0000	2	7.3754
		3	7.4806
		4	7.5846
		5	7.6885
		6	7.7926
		7	7.8972
		8	8.0023
		9	8.1083
		10	8.2157
		11	8.3246
		12	8.4355
		13	8.5492
		14	8.6667
		15	8.7894

COMPUTING STATION 6 NUMBER OF DESCRIBING POINTS= 2 IFANGS(6)= 1

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
1.6000	-0.0000	1	7.4500
1.6000	100.0000	2	7.5291
		3	7.6093
		4	7.6907
		5	7.7731
		6	7.8587
		7	7.9455
		8	8.0340
		9	8.1243
		10	8.2167
		11	8.3110
		12	8.4076
		13	8.5071
		14	8.6110
		15	8.7225

COMPUTING STATION 7 NUMBER OF DESCRIBING POINTS= 2 IFANGS(7)= 1

DESCRIPTION X	R	STREAMLINE NUMBER	RADII
2.0000	-0.0000	1	7.5585
2.0000	100.0000	2	7.6197
		3	7.6839
		4	7.7504
		5	7.8204
		6	7.8926
		7	7.9673
		8	8.0442
		9	8.1233
		10	8.2047
		11	8.2882
		12	8.3739
		13	8.4623
		14	8.5549
		15	8.6556

COMPUTING STATION 8 NUMBER OF DESCRIBING POINTS= 2 IFANGS(8)= 0

DESCRIPTION X	DESCRIPTION R	STREAMLINE NUMBER	RADII
2.3600	-8.0000	1	7.5840
2.3600	100.0000	2	7.6483
		3	7.7142
		4	7.7815
		5	7.8493
		6	7.9179
		7	7.9882
		8	8.0593
		9	8.1317
		10	8.2056
		11	8.2816
		12	8.3601
		13	8.4422
		14	8.5303
		15	8.6279

SECTION GEOMETRY SPECIFICATION

STREAMLINE NUMBER	INLET ANGLE	OUTLET ANGLE	Y2 LE/ MAX VALUE	Y2 TE/ MAX VALUE	LE RADIUS /CHORD	MAX THICK /CHORD	TE THICK /2*CHORD	POINT OF MAX THICK	CHORD OR AXIAL CO	X STACK OFFSET	Y STACK OFFSET
1.00	-60.993	-12.720	0.0000	.2500	.00175	.04857	.00809	.7000	2.1592	0.000000	0.000000
3.00	-62.012	-15.253	0.0000	.2500	.00171	.04536	.00756	.7000	2.0995	.009800	0.000000
5.00	-62.889	-17.781	0.0000	.2500	.00167	.04243	.00707	.7000	2.0548	.012300	0.000000
7.00	-63.579	-19.780	0.0000	.2500	.00163	.03970	.00662	.7000	2.0241	.012600	0.000000
9.00	-64.470	-21.203	0.0000	.2500	.00159	.03731	.00622	.7000	2.0065	.014200	0.000000
11.00	-65.570	-22.108	0.0000	.2500	.00156	.03503	.00584	.7000	2.0014	.019500	0.000000
13.00	-66.882	-22.317	0.0000	.2500	.00153	.03317	.00553	.7000	2.0088	.029700	0.000000
15.00	-68.245	-21.833	0.0000	.2500	.00150	.03129	.00521	.7000	2.0278	.044600	0.000000

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 1

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-60.393	(BLADE INLET ANGLE.)
BETA2	=-12.720	(BLADE OUTLET ANGLE.)
YZERO	= .00175	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .04857	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00309	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.1532	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO BLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.4532

STAGGER ANGLE =-46.628

CAMBER ANGLE =-48.273

SECTION AREA = .07417

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .49325
YBAR = -.69725

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00509
IY = .00427
IXY = -.00452

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 42.408

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .00923 (AT 42.408 WITH 'X' AXIS)
IPY = .00014 (AT 42.408 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00254	0.00000	-60.393	.00509	.00477	.00123	.00032	-.00123
2	.01514	-.02271	-60.984	.00751	.01842	-.02089	.01185	-.02453
3	.02773	-.04540	-60.957	.00994	.03207	-.04299	.02339	-.04781
4	.04032	-.06806	-60.914	.01235	.04572	-.06506	.03493	-.07106
5	.05292	-.09067	-60.853	.01475	.05936	-.08708	.04647	-.09427
6	.06551	-.11322	-60.775	.01714	.07299	-.10904	.05803	-.11740
7	.07810	-.13569	-60.681	.01950	.08660	-.13091	.06960	-.14046
8	.09070	-.15806	-60.570	.02184	.10021	-.15270	.08118	-.16343
9	.10329	-.18033	-60.443	.02415	.11379	-.17437	.09279	-.18629
10	.11588	-.20247	-60.300	.02643	.12736	-.19593	.10440	-.20902
11	.12843	-.22448	-60.141	.02867	.14091	-.21734	.11604	-.23152
12	.14107	-.24634	-59.965	.03087	.15443	-.23861	.12770	-.25407
13	.15366	-.26804	-59.773	.03303	.16793	-.25972	.13939	-.27636
14	.16626	-.28957	-59.565	.03515	.18141	-.28066	.15110	-.29847
15	.17885	-.31091	-59.340	.03722	.19486	-.30142	.16284	-.32039

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19144	-.33205	-59.099	.03923	.20827	-.32137	.17461	-.34212
17	.20404	-.35298	-58.841	.04120	.22166	-.34233	.18641	-.36364
18	.21663	-.37370	-58.566	.04310	.23502	-.36246	.19824	-.38494
19	.22922	-.39419	-58.275	.04495	.24834	-.38237	.21010	-.40601
20	.24182	-.41444	-57.966	.04674	.26163	-.40204	.22200	-.42683
21	.25441	-.43444	-57.639	.04847	.27488	-.42147	.23394	-.44741
22	.26700	-.45418	-57.295	.05014	.28810	-.44064	.24591	-.46773
23	.27960	-.47366	-56.932	.05174	.30127	-.45954	.25792	-.48777
24	.29219	-.49286	-56.551	.05327	.31441	-.47818	.26996	-.50754
25	.30479	-.51178	-56.152	.05474	.32751	-.49654	.28205	-.52703
26	.31737	-.53042	-55.734	.05615	.34058	-.51461	.29417	-.54622
27	.32997	-.54875	-55.296	.05748	.35360	-.53239	.30634	-.56511
28	.34256	-.56678	-54.838	.05875	.36658	-.54986	.31855	-.58370
29	.35515	-.58450	-54.361	.05995	.37952	-.56704	.33079	-.60197
30	.36775	-.60191	-53.863	.06109	.39241	-.58390	.34308	-.61992
31	.38034	-.61899	-53.344	.06215	.40527	-.60044	.35541	-.63755
32	.39293	-.63575	-52.804	.06315	.41809	-.61666	.36778	-.65484
33	.40553	-.65218	-52.243	.06408	.43086	-.63256	.38020	-.67180
34	.41812	-.66827	-51.660	.06494	.44359	-.64813	.39265	-.68841
35	.43071	-.68402	-51.055	.06574	.45628	-.66336	.40515	-.70469
36	.44331	-.69943	-50.428	.06649	.46893	-.67826	.41769	-.72061
37	.45590	-.71450	-49.778	.06714	.48153	-.69282	.43027	-.73618
38	.46849	-.72921	-49.105	.06775	.49410	-.70704	.44289	-.75139
39	.48109	-.74358	-48.409	.06829	.50663	-.72091	.45555	-.76625
40	.49368	-.75759	-47.690	.06879	.51911	-.73444	.46825	-.78074
41	.50627	-.77125	-46.948	.06920	.53156	-.74763	.48099	-.79487
42	.51887	-.78455	-46.183	.06956	.54396	-.76047	.49377	-.80863
43	.53146	-.79750	-45.394	.06987	.55633	-.77297	.50659	-.82203
44	.54405	-.81009	-44.583	.07012	.56865	-.78512	.51944	-.83506
45	.55665	-.82232	-43.749	.07031	.58096	-.79692	.53234	-.84772
46	.56924	-.83420	-42.893	.07045	.59322	-.80839	.54526	-.86001
47	.58183	-.84572	-42.014	.07054	.60544	-.81951	.55823	-.87193
48	.59443	-.85689	-41.115	.07058	.61763	-.83030	.57122	-.88348
49	.60702	-.86770	-40.195	.07057	.62979	-.84075	.58425	-.89466
50	.61961	-.87817	-39.256	.07050	.64192	-.85087	.59731	-.90547
51	.63221	-.88829	-38.298	.07038	.65401	-.86067	.61040	-.91590
52	.64480	-.89806	-37.324	.07018	.66608	-.87015	.62352	-.92597
53	.65739	-.90749	-36.333	.06992	.67811	-.87933	.63668	-.93566
54	.66999	-.91659	-35.328	.06958	.69010	-.88820	.64987	-.94497
55	.68258	-.92534	-34.311	.06917	.70207	-.89678	.66309	-.95391
56	.69517	-.93377	-33.283	.06866	.71401	-.90507	.67633	-.96248
57	.70777	-.94188	-32.247	.06808	.72593	-.91309	.68960	-.97067
58	.72036	-.94967	-31.205	.06740	.73782	-.92084	.70290	-.97849
59	.73295	-.95714	-30.159	.06663	.74968	-.92833	.71622	-.98594
60	.74555	-.96430	-29.112	.06576	.76154	-.93558	.72955	-.99303
61	.75814	-.97117	-28.067	.06479	.77339	-.94258	.74290	-.99975
62	.77073	-.97774	-27.026	.06372	.78521	-.94935	.75626	-1.00612
63	.78333	-.98402	-25.993	.06255	.79703	-.95591	.76962	-1.01213
64	.79592	-.99002	-24.971	.06125	.80885	-.96225	.78299	-1.01779
65	.80851	-.99575	-23.963	.05987	.82067	-.96839	.79635	-1.02310
66	.82111	-1.00122	-22.973	.05836	.83249	-.97435	.80972	-1.02808
67	.83370	-1.00643	-22.002	.05674	.84433	-.98013	.82307	-1.03273
68	.84629	-1.01140	-21.056	.05499	.85617	-.98574	.83641	-1.03705
69	.85889	-1.01613	-20.137	.05313	.86803	-.99119	.84974	-1.04107
70	.87148	-1.02063	-19.248	.05113	.87991	-.99650	.86305	-1.04477
71	.88407	-1.02493	-18.393	.04901	.89180	-1.00167	.87634	-1.04818

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89667	-1.02901	-17.575	.04676	.90372	-1.00573	.88961	-1.05130
73	.90925	-1.03291	-16.797	.04437	.91567	-1.01167	.90285	-1.05414
74	.92185	-1.03662	-16.052	.04184	.92764	-1.01652	.91606	-1.05672
75	.93445	-1.04016	-15.373	.03916	.93964	-1.02128	.92925	-1.05904
76	.94704	-1.04355	-14.734	.03634	.95163	-1.02598	.94242	-1.06112
77	.95963	-1.04679	-14.146	.03337	.96371	-1.03061	.95555	-1.06297
78	.97222	-1.04990	-13.613	.03025	.97578	-1.03520	.96867	-1.06460
79	.98482	-1.05289	-13.137	.02696	.98788	-1.03977	.98175	-1.06602
80	.99741	-1.05578	-12.720	.02351	1.00000	-1.04432	.99482	-1.06725

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 2

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-61.524	(BLADE INLET ANGLE.)
BETA2	=-13.976	(BLADE OUTLET ANGLE.)
YZERO	= .00173	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .04694	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00782	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.1291	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO BLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.4763

STAGGER ANGLE =-47.480

CAMBER ANGLE =-47.547

SECTION AREA = .07393

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .49192
YBAR = -.71346

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .08538
IY = .00425
IXY = -.08454

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 41.531

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .00949 (AT 41.531 WITH 'X' AXIS)
IPY = .00014 (AT 41.531 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00255	0.00000	-61.524	.00511	.00480	.00122	.00031	-.00122
2	.01514	-.02321	-61.515	.00749	.01844	-.02142	.01185	-.02500
3	.02774	-.04640	-61.489	.00987	.03207	-.04404	.02340	-.04876
4	.04033	-.06956	-61.446	.01224	.04570	-.06663	.03495	-.07249
5	.05292	-.09267	-61.386	.01460	.05933	-.08917	.04651	-.09617
6	.06551	-.11571	-61.311	.01694	.07294	-.11165	.05807	-.11978
7	.07810	-.13868	-61.213	.01927	.08654	-.13404	.06965	-.14332
8	.09069	-.16155	-61.110	.02156	.10013	-.15634	.08125	-.16676
9	.10328	-.18431	-60.986	.02383	.11370	-.17853	.09286	-.19009
10	.11587	-.20695	-60.846	.02607	.12725	-.20060	.10449	-.21330
11	.12846	-.22945	-60.691	.02827	.14079	-.22253	.11613	-.23637
12	.14105	-.25180	-60.519	.03043	.15430	-.24431	.12780	-.25929
13	.15364	-.27399	-60.332	.03256	.16778	-.26593	.13950	-.28204
14	.16623	-.29600	-60.123	.03463	.18125	-.28737	.15122	-.30462
15	.17882	-.31782	-59.909	.03666	.19468	-.30863	.16296	-.32701

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19141	-.33945	-59.673	.03864	.20809	-.32969	.17474	-.34920
17	.20400	-.36086	-59.421	.04057	.22147	-.35055	.18654	-.37118
18	.21659	-.38206	-59.153	.04244	.23481	-.37118	.19838	-.39294
19	.22918	-.40302	-58.867	.04425	.24812	-.39158	.21025	-.41446
20	.24178	-.42375	-58.565	.04601	.26140	-.41175	.22215	-.43574
21	.25437	-.44422	-58.246	.04770	.27465	-.43167	.23408	-.45677
22	.26696	-.46443	-57.910	.04934	.28786	-.45132	.24606	-.47754
23	.27955	-.48437	-57.556	.05091	.30103	-.47072	.25807	-.49803
24	.29214	-.50404	-57.184	.05241	.31416	-.48984	.27011	-.51824
25	.30473	-.52342	-56.794	.05386	.32726	-.50867	.28220	-.53817
26	.31732	-.54251	-56.385	.05523	.34032	-.52722	.29432	-.55780
27	.32991	-.56130	-55.957	.05654	.35333	-.54547	.30648	-.57712
28	.34250	-.57978	-55.510	.05778	.36631	-.56342	.31869	-.59614
29	.35509	-.59795	-55.043	.05896	.37925	-.58106	.33093	-.61484
30	.36768	-.61580	-54.556	.06007	.39215	-.59838	.34321	-.63321
31	.38027	-.63332	-54.050	.06111	.40501	-.61538	.35554	-.65126
32	.39286	-.65052	-53.522	.06209	.41782	-.63206	.36790	-.66897
33	.40545	-.66738	-52.973	.06300	.43060	-.64841	.38031	-.68634
34	.41804	-.68390	-52.404	.06384	.44333	-.66443	.39275	-.70337
35	.43063	-.70008	-51.812	.06462	.45603	-.68010	.40524	-.72005
36	.44322	-.71591	-51.199	.06533	.46868	-.69544	.41777	-.73638
37	.45582	-.73140	-50.563	.06599	.48130	-.71044	.43033	-.75235
38	.46841	-.74653	-49.905	.06658	.49387	-.72509	.44294	-.76797
39	.48100	-.76130	-49.224	.06710	.50640	-.73939	.45559	-.78322
40	.49359	-.77572	-48.521	.06757	.51890	-.75335	.46827	-.79810
41	.50618	-.78979	-47.794	.06798	.53136	-.76695	.48100	-.81262
42	.51877	-.80349	-47.045	.06833	.54377	-.78021	.49376	-.82677
43	.53136	-.81683	-46.273	.06863	.55616	-.79311	.50656	-.84055
44	.54395	-.82981	-45.478	.06887	.56850	-.80567	.51940	-.85396
45	.55654	-.84244	-44.661	.06905	.58081	-.81788	.53227	-.86699
46	.56913	-.85470	-43.822	.06918	.59308	-.82974	.54518	-.87965
47	.58172	-.86660	-42.961	.06927	.60532	-.84126	.55812	-.89195
48	.59431	-.87815	-42.079	.06930	.61753	-.85243	.57109	-.90387
49	.60690	-.88934	-41.177	.06928	.62971	-.86327	.58410	-.91541
50	.61949	-.90018	-40.255	.06921	.64185	-.87377	.59713	-.92659
51	.63208	-.91066	-39.314	.06908	.65397	-.88394	.61020	-.93738
52	.64467	-.92080	-38.356	.06888	.66605	-.89379	.62330	-.94781
53	.65727	-.93059	-37.383	.06861	.67809	-.90333	.63644	-.95785
54	.66986	-.94004	-36.394	.06827	.69011	-.91256	.64960	-.96752
55	.68245	-.94915	-35.393	.06785	.70209	-.92150	.66280	-.97681
56	.69504	-.95793	-34.381	.06735	.71405	-.93014	.67602	-.98572
57	.70763	-.96638	-33.360	.06676	.72598	-.93850	.68927	-.99426
58	.72022	-.97451	-32.332	.06608	.73789	-.94659	.70255	-1.00243
59	.73281	-.98233	-31.300	.06532	.74978	-.95442	.71584	-1.01023
60	.74540	-.98983	-30.267	.06445	.76164	-.96199	.72916	-1.01756
61	.75799	-.99702	-29.234	.06349	.77349	-.96932	.74249	-1.02473
62	.77058	-1.00392	-28.205	.06243	.78533	-.97641	.75583	-1.03143
63	.78317	-1.01053	-27.183	.06127	.79717	-.98328	.76918	-1.03778
64	.79576	-1.01686	-26.171	.06001	.80899	-.98993	.78253	-1.04378
65	.80835	-1.02291	-25.172	.05863	.82082	-.99638	.79588	-1.04944
66	.82094	-1.02869	-24.189	.05715	.83265	-1.00263	.80924	-1.05476
67	.83353	-1.03422	-23.226	.05555	.84449	-1.00870	.82258	-1.05974
68	.84612	-1.03950	-22.286	.05383	.85633	-1.01460	.83592	-1.06441
69	.85871	-1.04455	-21.372	.05200	.86819	-1.02033	.84924	-1.06876
70	.87131	-1.04936	-20.488	.05004	.88006	-1.02592	.86255	-1.07280
71	.88390	-1.05396	-19.637	.04797	.89196	-1.03137	.87584	-1.07655

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89649	-1.05835	-18.822	.04576	.90387	-1.03669	.88910	-1.08001
73	.90909	-1.06255	-18.047	.04342	.91580	-1.04190	.90235	-1.08319
74	.92167	-1.06656	-17.314	.04095	.92776	-1.04701	.91557	-1.08610
75	.93426	-1.07040	-16.627	.03834	.93974	-1.05203	.92877	-1.08877
76	.94685	-1.07408	-15.983	.03559	.95175	-1.05698	.94195	-1.09119
77	.95944	-1.07762	-15.402	.03269	.96378	-1.06186	.95510	-1.09338
78	.97203	-1.08102	-14.869	.02965	.97583	-1.06670	.96823	-1.09535
79	.98462	-1.08431	-14.393	.02645	.98791	-1.07150	.98133	-1.09712
80	.99721	-1.08749	-13.976	.02309	1.00000	-1.07628	.99442	-1.09870

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 3

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-62.012	(BLADE INLET ANGLE.)
BETA2	=-15.253	(BLADE OUTLET ANGLE.)
YZERO	= .00171	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .04536	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00756	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0995	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO BLADES HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.4992

STAGGER ANGLE =-48.285

CAMBER ANGLE =-46.759

SECTION AREA = .07363

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .49078
YBAR = -.72913

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00556
IY = .00423
IXY = -.00475

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 40.707

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .00975 (AT 40.707 WITH 'X' AXIS)
IPY = .00104 (AT 40.707 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00256	0.00000	-62.312	.00513	.00483	.00120	.00030	-.00120
2	.01513	-.02368	-62.003	.00747	.01845	-.02193	.01186	-.02544
3	.02774	-.04735	-61.973	.00980	.03207	-.04505	.02341	-.04965
4	.04033	-.07098	-61.936	.01213	.04568	-.06813	.03498	-.07384
5	.05232	-.09457	-61.873	.01444	.05928	-.09116	.04655	-.09797
6	.06550	-.11809	-61.804	.01674	.07283	-.11413	.05813	-.12204
7	.07804	-.14152	-61.714	.01902	.08647	-.13702	.06972	-.14603
8	.09068	-.16487	-61.608	.02127	.10004	-.15981	.08132	-.16992
9	.10327	-.18810	-61.487	.02350	.11359	-.18249	.09294	-.19371
10	.11585	-.21120	-61.350	.02569	.12713	-.20505	.10458	-.21735
11	.12844	-.23417	-61.194	.02785	.14065	-.22746	.11624	-.24088
12	.14103	-.25699	-61.030	.02997	.15414	-.24973	.12792	-.26425
13	.15362	-.27964	-60.847	.03205	.16762	-.27184	.13962	-.28745
14	.16621	-.30212	-60.648	.03409	.18107	-.29377	.15135	-.31048
15	.17880	-.32441	-60.434	.03608	.19449	-.31551	.16310	-.33331

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19133	-.34650	-60.203	.03802	.20788	-.33705	.17489	-.35594
17	.20397	-.36837	-59.957	.03991	.22125	-.35938	.18670	-.37836
18	.21656	-.39002	-59.695	.04175	.23458	-.37969	.19854	-.40056
19	.22915	-.41144	-59.416	.04352	.24784	-.40037	.21041	-.42252
20	.24174	-.43262	-59.121	.04525	.26115	-.42101	.22232	-.44423
21	.25432	-.45354	-58.810	.04691	.27439	-.44139	.23426	-.46569
22	.26691	-.47420	-58.481	.04851	.28759	-.46152	.24624	-.48688
23	.27950	-.49459	-58.135	.05005	.30075	-.48138	.25825	-.50780
24	.29209	-.51470	-57.771	.05153	.31388	-.50096	.27029	-.52844
25	.30468	-.53452	-57.390	.05294	.32697	-.52026	.28238	-.54879
26	.31726	-.55405	-56.990	.05429	.34003	-.53926	.29450	-.56884
27	.32985	-.57327	-56.572	.05557	.35304	-.55797	.30666	-.58858
28	.34244	-.59219	-56.136	.05679	.36602	-.57637	.31886	-.60801
29	.35503	-.61079	-55.680	.05794	.37895	-.59446	.33110	-.62712
30	.36762	-.62907	-55.204	.05902	.39185	-.61223	.34338	-.64591
31	.38020	-.64702	-54.709	.06004	.40471	-.62967	.35570	-.66436
32	.39279	-.66463	-54.194	.06100	.41753	-.64679	.36806	-.68249
33	.40538	-.68191	-53.658	.06188	.43030	-.66358	.38046	-.70025
34	.41797	-.69885	-53.101	.06271	.44304	-.68003	.39289	-.71768
35	.43056	-.71544	-52.523	.06347	.45574	-.69614	.40537	-.73475
36	.44314	-.73169	-51.923	.06417	.46840	-.71190	.41789	-.75148
37	.45573	-.74758	-51.302	.06480	.48102	-.72732	.43044	-.76784
38	.46832	-.76311	-50.659	.06538	.49360	-.74239	.44304	-.78384
39	.48091	-.77829	-49.993	.06589	.50614	-.75711	.45567	-.79947
40	.49350	-.79311	-49.305	.06635	.51865	-.77148	.46834	-.81474
41	.50609	-.80757	-48.595	.06674	.53112	-.78550	.48105	-.82964
42	.51867	-.82166	-47.862	.06708	.54355	-.79916	.49380	-.84417
43	.53126	-.83539	-47.107	.06737	.55594	-.81247	.50658	-.85832
44	.54385	-.84876	-46.330	.06760	.56831	-.82542	.51940	-.87210
45	.55644	-.86177	-45.530	.06778	.58062	-.83803	.53225	-.88551
46	.56903	-.87441	-44.709	.06790	.59291	-.85028	.54514	-.89854
47	.58161	-.88669	-43.866	.06798	.60517	-.86218	.55806	-.91119
48	.59420	-.89861	-43.002	.06800	.61739	-.87374	.57101	-.92347
49	.60679	-.91017	-42.118	.06798	.62958	-.88495	.58399	-.93538
50	.61938	-.92137	-41.214	.06790	.64175	-.89583	.59701	-.94691
51	.63197	-.93222	-40.292	.06777	.65389	-.90637	.61005	-.95806
52	.64455	-.94272	-39.352	.06757	.66598	-.91659	.62313	-.96884
53	.65714	-.95286	-38.397	.06730	.67804	-.92649	.63624	-.97924
54	.66973	-.96267	-37.426	.06695	.69007	-.93608	.64938	-.98925
55	.68232	-.97213	-36.443	.06653	.70205	-.94537	.66256	-.99889
56	.69491	-.98126	-35.449	.06603	.71405	-.95436	.67576	-1.00816
57	.70749	-.99006	-34.444	.06545	.72600	-.96307	.68898	-1.01704
58	.72008	-.99853	-33.433	.06478	.73793	-.97150	.70224	-1.02556
59	.73267	-1.00668	-32.417	.06401	.74983	-.97966	.71551	-1.03370
60	.74526	-1.01452	-31.393	.06316	.76171	-.98756	.72881	-1.04147
61	.75785	-1.02205	-30.381	.06221	.77353	-.99522	.74211	-1.04888
62	.77043	-1.02928	-29.366	.06116	.78543	-1.00253	.75544	-1.05593
63	.78302	-1.03622	-28.357	.06001	.79727	-1.00981	.76877	-1.06262
64	.79561	-1.04287	-27.357	.05876	.80911	-1.01678	.78211	-1.06897
65	.80820	-1.04925	-26.370	.05741	.82095	-1.02353	.79545	-1.07497
66	.82079	-1.05536	-25.398	.05595	.83279	-1.03009	.80879	-1.08053
67	.83337	-1.06120	-24.445	.05437	.84462	-1.03645	.82212	-1.08595
68	.84596	-1.06680	-23.513	.05269	.85647	-1.04265	.83545	-1.09096
69	.85855	-1.07216	-22.608	.05089	.86833	-1.04867	.84877	-1.09555
70	.87114	-1.07729	-21.731	.04897	.88020	-1.05454	.86207	-1.10004
71	.88373	-1.08220	-20.886	.04694	.89209	-1.06027	.87536	-1.10413

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89631	-1.09690	-20.077	.04478	.90400	-1.06597	.88863	-1.10793
73	.90890	-1.09141	-19.306	.04249	.91593	-1.07135	.90188	-1.11146
74	.92143	-1.08572	-18.578	.04007	.92787	-1.07673	.91511	-1.11472
75	.93408	-1.09987	-17.894	.03752	.93984	-1.08202	.92831	-1.11773
76	.94667	-1.10386	-17.258	.03484	.95183	-1.08722	.94150	-1.12049
77	.95925	-1.10770	-16.674	.03202	.96385	-1.09236	.95466	-1.12303
78	.97184	-1.11140	-16.143	.02905	.97588	-1.09745	.96780	-1.12535
79	.98443	-1.11499	-15.668	.02593	.98793	-1.10250	.98093	-1.12747
80	.99702	-1.11847	-15.253	.02267	1.00000	-1.10753	.99404	-1.12940

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 4

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-62.431	(BLADE INLET ANGLE.)
BETA2	=-16.530	(BLADE OUTLET ANGLE.)
YZERO	= .00169	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .04337	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00731	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0751	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.5203

STAGGER ANGLE =-49.017

CAMBER ANGLE =-45.881

SECTION AREA = .07322

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48934
YBAR = -.74351

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00592
IY = .00420
IXY = -.00485

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 39.971

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .00998 (AT 39.971 WITH 'X' AXIS)
IPY = .00013 (AT 39.971 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00257	0.00000	-62.431	.00514	.00485	.00119	.00029	-.00119
2	.01516	-.02410	-62.422	.00743	.01845	-.02238	.01186	-.02582
3	.02774	-.04819	-62.398	.00972	.03205	-.04594	.02343	-.05044
4	.04033	-.07224	-62.357	.01200	.04564	-.06946	.03501	-.07502
5	.05291	-.09624	-62.300	.01427	.05923	-.09293	.04660	-.09956
6	.06550	-.12018	-62.227	.01652	.07281	-.11633	.05819	-.12403
7	.07808	-.14403	-62.139	.01875	.08637	-.13965	.06979	-.14842
8	.09067	-.16779	-62.036	.02096	.09993	-.16288	.08141	-.17271
9	.10325	-.19144	-61.917	.02314	.11346	-.18599	.09305	-.19689
10	.11584	-.21496	-61.783	.02529	.12698	-.20898	.10470	-.22094
11	.12843	-.23835	-61.635	.02741	.14048	-.23184	.11637	-.24486
12	.14101	-.26158	-61.471	.02949	.15397	-.25454	.12806	-.26862
13	.15360	-.28465	-61.291	.03153	.16742	-.27707	.13977	-.29222
14	.16618	-.30753	-61.097	.03352	.18086	-.29943	.15151	-.31564
15	.17877	-.33023	-60.887	.03547	.19426	-.32160	.16327	-.33886

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19135	-.35273	-60.662	.03737	.20764	-.34358	.17506	-.36189
17	.20394	-.37502	-60.421	.03923	.22100	-.36533	.18688	-.38470
18	.21653	-.39708	-60.165	.04102	.23432	-.38687	.19873	-.40728
19	.22911	-.41890	-59.893	.04277	.24761	-.40817	.21061	-.42963
20	.24170	-.44048	-59.604	.04445	.26087	-.42924	.22252	-.45173
21	.25429	-.46181	-59.299	.04608	.27409	-.45004	.23447	-.47357
22	.26687	-.48287	-58.978	.04765	.28729	-.47059	.24645	-.49515
23	.27946	-.50366	-58.640	.04916	.30044	-.49087	.25846	-.51645
24	.29204	-.52417	-58.285	.05061	.31356	-.51087	.27051	-.53747
25	.30462	-.54439	-57.912	.05199	.32665	-.53058	.28260	-.55820
26	.31721	-.56431	-57.522	.05331	.33970	-.55000	.29472	-.57863
27	.32980	-.58393	-57.113	.05457	.35271	-.56912	.30688	-.59875
28	.34238	-.60324	-56.687	.05576	.36568	-.58793	.31908	-.61855
29	.35497	-.62223	-56.241	.05689	.37861	-.60642	.33132	-.63803
30	.36755	-.64090	-55.777	.05795	.39151	-.62460	.34360	-.65719
31	.38014	-.65923	-55.293	.05895	.40437	-.64245	.35591	-.67601
32	.39272	-.67724	-54.789	.05988	.41719	-.65997	.36826	-.69450
33	.40531	-.69490	-54.266	.06075	.42997	-.67716	.38065	-.71264
34	.41790	-.71222	-53.722	.06156	.44271	-.69401	.39308	-.73043
35	.43048	-.72919	-53.157	.06230	.45541	-.71051	.40555	-.74787
36	.44307	-.74581	-52.572	.06298	.46807	-.72667	.41806	-.76495
37	.45565	-.76208	-51.965	.06361	.48070	-.74249	.43060	-.78168
38	.46824	-.77799	-51.337	.06417	.49329	-.75795	.44319	-.79803
39	.48082	-.79354	-50.687	.06467	.50584	-.77305	.45581	-.81403
40	.49341	-.80873	-50.015	.06511	.51835	-.78781	.46846	-.82965
41	.50599	-.82355	-49.321	.06550	.53083	-.80221	.48116	-.84490
42	.51858	-.83801	-48.605	.06583	.54327	-.81625	.49389	-.85978
43	.53117	-.85211	-47.867	.06611	.55568	-.82994	.50665	-.87428
44	.54375	-.86584	-47.108	.06633	.56805	-.84327	.51945	-.88841
45	.55634	-.87920	-46.326	.06650	.58039	-.85624	.53229	-.90216
46	.56892	-.89220	-45.523	.06662	.59269	-.86887	.54515	-.91554
47	.58151	-.90484	-44.699	.06669	.60496	-.88114	.55805	-.92854
48	.59409	-.91711	-43.855	.06671	.61720	-.89306	.57098	-.94117
49	.60668	-.92902	-42.990	.06669	.62942	-.90464	.58394	-.95341
50	.61926	-.94058	-42.107	.06661	.64160	-.91587	.59693	-.96529
51	.63185	-.95178	-41.204	.06647	.65374	-.92677	.60996	-.97678
52	.64444	-.96262	-40.285	.06627	.66586	-.93734	.62301	-.98789
53	.65702	-.97311	-39.349	.06600	.67794	-.94759	.63610	-.99863
54	.66961	-.98326	-38.399	.06566	.69000	-.95753	.64922	-1.00899
55	.68219	-.99306	-37.436	.06525	.70202	-.96716	.66236	-1.01896
56	.69478	-1.00253	-36.461	.06474	.71402	-.97650	.67554	-1.02856
57	.70736	-1.01166	-35.477	.06416	.72598	-.98554	.68875	-1.03779
58	.71995	-1.02047	-34.485	.06349	.73792	-.99430	.70198	-1.04664
59	.73254	-1.02896	-33.488	.06274	.74984	-1.00279	.71523	-1.05512
60	.74512	-1.03713	-32.488	.06189	.76174	-1.01102	.72850	-1.06323
61	.75771	-1.04499	-31.488	.06095	.77363	-1.01900	.74179	-1.07098
62	.77029	-1.05255	-30.490	.05992	.78549	-1.02673	.75509	-1.07836
63	.78288	-1.05981	-29.498	.05879	.79735	-1.03423	.76840	-1.08539
64	.79546	-1.06679	-28.514	.05756	.80920	-1.04150	.78173	-1.09208
65	.80805	-1.07349	-27.542	.05622	.82105	-1.04856	.79505	-1.09841
66	.82063	-1.07992	-26.584	.05479	.83289	-1.05542	.80838	-1.10441
67	.83322	-1.08609	-25.644	.05324	.84474	-1.06209	.82170	-1.11008
68	.84581	-1.09200	-24.726	.05159	.85659	-1.06858	.83502	-1.11543
69	.85839	-1.09768	-23.832	.04982	.86846	-1.07489	.84833	-1.12047
70	.87098	-1.10313	-22.965	.04794	.88033	-1.08106	.86162	-1.12520
71	.88356	-1.10835	-22.131	.04594	.89222	-1.08707	.87491	-1.12963

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89615	-1.11337	-21.338	.04383	.98412	-1.09295	.88818	-1.13378
73	.90873	-1.11818	-20.568	.04159	.91604	-1.09872	.90143	-1.13765
74	.92132	-1.12282	-19.846	.03923	.92798	-1.10437	.91466	-1.14126
75	.93391	-1.12727	-19.169	.03673	.93994	-1.10993	.92787	-1.14462
76	.94643	-1.13157	-18.539	.03411	.95191	-1.11540	.94107	-1.14774
77	.95908	-1.13572	-17.960	.03135	.96391	-1.12081	.95424	-1.15063
78	.97165	-1.13973	-17.433	.02846	.97592	-1.12616	.96740	-1.15331
79	.98425	-1.14363	-16.962	.02542	.98796	-1.13147	.98054	-1.15578
80	.99693	-1.14742	-16.550	.02223	1.00000	-1.13676	.99367	-1.15807

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 5

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-62.809	(BLADE INLET ANGLE.)
BETA2	=-17.731	(BLADE OUTLET ANGLE.)
YZERO	= .00167	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .04243	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00707	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0548	(CHORD OR MERIDIONAL CHORD) OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.5414

STAGGER ANGLE =-49.636

CAMBER ANGLE =-45.029

SECTION AREA = .07271

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48924
YBAR = -.75699

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00615
IY = .00416
IXY = -.00493

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 39.300

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01013 (AT 39.300 WITH 'X' AXIS)
IPY = .00013 (AT 39.300 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00257	0.00000	-62.309	.00515	.00486	.00118	.00028	-.00118
2	.01516	-.02449	-62.801	.00739	.01845	-.02230	.01187	-.02618
3	.02774	-.04897	-62.777	.00963	.03202	-.04676	.02346	-.05117
4	.04032	-.07341	-62.736	.01156	.04560	-.07069	.03505	-.07612
5	.05291	-.09780	-62.681	.01408	.05916	-.09456	.04665	-.10103
6	.06549	-.12212	-62.610	.01629	.07272	-.11837	.05826	-.12587
7	.07808	-.14636	-62.523	.01847	.08627	-.14210	.06988	-.15063
8	.09065	-.17051	-62.422	.02064	.09980	-.16573	.08151	-.17529
9	.10324	-.19454	-62.306	.02277	.11332	-.18925	.09316	-.19984
10	.11583	-.21845	-62.175	.02488	.12683	-.21265	.10483	-.22426
11	.12841	-.24222	-62.029	.02695	.14031	-.23590	.11651	-.24854
12	.14093	-.26584	-61.869	.02894	.15377	-.25901	.12821	-.27267
13	.15353	-.28929	-61.693	.03098	.16721	-.28195	.13994	-.29664
14	.16615	-.31256	-61.503	.03293	.18063	-.30471	.15169	-.32042
15	.17874	-.33564	-61.298	.03484	.19402	-.32728	.16346	-.34401

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19133	-.35852	-61.077	.03671	.20739	-.34965	.17526	-.36740
17	.20391	-.38119	-60.841	.03852	.22073	-.37180	.18709	-.39057
18	.21649	-.40363	-60.590	.04028	.23404	-.39374	.19895	-.41352
19	.22903	-.42583	-60.324	.04199	.24732	-.41544	.21084	-.43622
20	.24165	-.44779	-60.042	.04364	.26056	-.43689	.22276	-.45868
21	.25424	-.46949	-59.743	.04523	.27378	-.45910	.23471	-.48089
22	.26683	-.49093	-59.429	.04677	.28696	-.47904	.24669	-.50282
23	.27941	-.51209	-59.098	.04825	.30011	-.49970	.25871	-.52448
24	.29200	-.53297	-58.750	.04966	.31322	-.52009	.27077	-.54586
25	.30458	-.55356	-58.386	.05102	.32630	-.54019	.28286	-.56694
26	.31716	-.57386	-58.004	.05231	.33934	-.56000	.29498	-.58772
27	.32975	-.59384	-57.604	.05354	.35235	-.57950	.30714	-.60819
28	.34233	-.61352	-57.187	.05470	.36532	-.59870	.31934	-.62834
29	.35491	-.63287	-56.751	.05581	.37825	-.61758	.33158	-.64817
30	.36750	-.65191	-56.297	.05685	.39114	-.63613	.34385	-.66758
31	.38008	-.67061	-55.824	.05782	.40400	-.65436	.35616	-.68665
32	.39266	-.68897	-55.332	.05874	.41682	-.67226	.36851	-.70567
33	.40525	-.70699	-54.820	.05959	.42960	-.68983	.38089	-.72416
34	.41783	-.72467	-54.288	.06038	.44234	-.70705	.39332	-.74229
35	.43041	-.74200	-53.736	.06111	.45505	-.72393	.40578	-.76007
36	.44300	-.75897	-53.163	.06177	.46772	-.74046	.41828	-.77749
37	.45558	-.77559	-52.570	.06238	.48035	-.75664	.43081	-.79455
38	.46816	-.79185	-51.956	.06293	.49294	-.77246	.44339	-.81125
39	.48075	-.80775	-51.320	.06342	.50550	-.78794	.45599	-.82757
40	.49333	-.82329	-50.663	.06385	.51802	-.80305	.46864	-.84353
41	.50591	-.83846	-49.985	.06423	.53051	-.81781	.48132	-.85911
42	.51850	-.85327	-49.285	.06455	.54296	-.83221	.49403	-.87432
43	.53108	-.86771	-48.564	.06482	.55538	-.84626	.50678	-.88915
44	.54367	-.88178	-47.821	.06504	.56776	-.85994	.51957	-.90361
45	.55625	-.89548	-47.057	.06520	.58011	-.87327	.53238	-.91769
46	.56883	-.90882	-46.272	.06532	.59243	-.88624	.54523	-.93139
47	.58142	-.92179	-45.466	.06538	.60472	-.89886	.55811	-.94472
48	.59400	-.93440	-44.639	.06540	.61698	-.91113	.57102	-.95767
49	.60659	-.94664	-43.794	.06537	.62920	-.92305	.58396	-.97024
50	.61917	-.95853	-42.929	.06529	.64140	-.93462	.59693	-.98243
51	.63175	-.97006	-42.046	.06516	.65357	-.94586	.60993	-.99425
52	.64433	-.98123	-41.146	.06495	.66570	-.95677	.62296	-1.00568
53	.65692	-.99205	-40.230	.06469	.67781	-.96735	.63603	-1.01674
54	.66950	-1.00252	-39.299	.06435	.68988	-.97762	.64912	-1.02742
55	.68208	-1.01265	-38.355	.06393	.70192	-.98758	.66225	-1.03771
56	.69467	-1.02243	-37.399	.06344	.71393	-.99724	.67540	-1.04763
57	.70725	-1.03189	-36.434	.06286	.72592	-1.00660	.68858	-1.05718
58	.71983	-1.04101	-35.461	.06220	.73788	-1.01568	.70179	-1.06635
59	.73242	-1.04982	-34.483	.06146	.74982	-1.02449	.71502	-1.07515
60	.74500	-1.05830	-33.501	.06063	.76173	-1.03303	.72827	-1.08358
61	.75759	-1.06648	-32.519	.05970	.77363	-1.04131	.74154	-1.09165
62	.77017	-1.07435	-31.539	.05868	.78552	-1.04934	.75482	-1.09936
63	.78275	-1.08193	-30.563	.05757	.79739	-1.05714	.76812	-1.10671
64	.79534	-1.08921	-29.596	.05636	.80925	-1.06471	.78142	-1.11372
65	.80792	-1.09622	-28.639	.05506	.82111	-1.07207	.79473	-1.12038
66	.82050	-1.10296	-27.696	.05363	.83297	-1.07922	.80804	-1.12670
67	.83309	-1.10944	-26.770	.05211	.84482	-1.08617	.82135	-1.13270
68	.84567	-1.11566	-25.864	.05049	.85668	-1.09294	.83466	-1.13838
69	.85825	-1.12164	-24.982	.04876	.86855	-1.09954	.84796	-1.14374
70	.87084	-1.12739	-24.128	.04692	.88043	-1.10598	.86125	-1.14880
71	.88342	-1.13292	-23.303	.04496	.89231	-1.11227	.87453	-1.15356

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89600	-1.13823	-22.513	.04289	.90421	-1.11843	.88779	-1.15804
73	.90859	-1.14335	-21.759	.04070	.91613	-1.12445	.90104	-1.16225
74	.92117	-1.14828	-21.046	.03838	.92805	-1.13037	.91428	-1.16620
75	.93375	-1.15304	-20.376	.03595	.94001	-1.13619	.92750	-1.16989
76	.94634	-1.15764	-19.752	.03339	.95198	-1.14182	.94070	-1.17335
77	.95892	-1.16208	-19.178	.03069	.96396	-1.14729	.95388	-1.17658
78	.97150	-1.16639	-18.656	.02786	.97596	-1.15319	.96705	-1.17959
79	.98403	-1.17058	-18.190	.02490	.98798	-1.15876	.98020	-1.18241
80	.99667	-1.17467	-17.781	.02180	1.00000	-1.16429	.99334	-1.18505

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 6

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-63.185	(BLADE INLET ANGLE.)
BETA2	=-18.860	(BLADE OUTLET ANGLE.)
YZERO	= .00165	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .04103	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00684	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0378	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.5616

STAGGER ANGLE =-58.317

CAMBER ANGLE =-44.326

SECTION AREA = .67214

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48846
YBAR = -.77827

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .08637
IY = .08413
IXY = -.08500

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 38.664

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01037 (AT 38.664 WITH 'X' AXIS)
IPY = .00813 (AT 38.664 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00258	0.00000	-63.185	.00515	.00488	.00116	.00028	-.00116
2	.01516	-.02489	-63.177	.00735	.01844	-.02323	.01188	-.02655
3	.02774	-.04976	-63.154	.00954	.03200	-.04761	.02348	-.05192
4	.04032	-.07468	-63.114	.01173	.04555	-.07195	.03509	-.07725
5	.05290	-.09939	-63.060	.01390	.05910	-.09624	.04671	-.10254
6	.06549	-.12411	-62.990	.01606	.07264	-.12046	.05833	-.12775
7	.07807	-.14875	-62.905	.01819	.08617	-.14460	.06997	-.15289
8	.09065	-.17329	-62.806	.02031	.09968	-.16865	.08162	-.17793
9	.10323	-.19772	-62.692	.02240	.11318	-.19258	.09328	-.20286
10	.11581	-.22202	-62.564	.02446	.12667	-.21639	.10496	-.22766
11	.12840	-.24618	-62.421	.02649	.14013	-.24005	.11666	-.25232
12	.14098	-.27019	-62.263	.02848	.15358	-.26357	.12838	-.27682
13	.15356	-.29403	-62.091	.03043	.16701	-.28691	.14011	-.30116
14	.16614	-.31770	-61.904	.03234	.18041	-.31008	.15188	-.32531
15	.17872	-.34117	-61.703	.03421	.19379	-.33306	.16366	-.34928

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19131	-.36443	-61.487	.03603	.20714	-.35593	.17547	-.37303
17	.20389	-.38748	-61.255	.03781	.22046	-.37833	.18731	-.39657
18	.21647	-.41031	-61.009	.03953	.23376	-.40073	.19918	-.41989
19	.22905	-.43289	-60.748	.04120	.24702	-.42293	.21108	-.44296
20	.24163	-.45523	-60.471	.04281	.26026	-.44488	.22301	-.46578
21	.25422	-.47731	-60.179	.04437	.27346	-.46628	.23497	-.48835
22	.26680	-.49913	-59.870	.04588	.28664	-.48762	.24696	-.51064
23	.27938	-.52067	-59.546	.04732	.29978	-.50808	.25898	-.53266
24	.29196	-.54192	-59.205	.04871	.31288	-.52946	.27104	-.55439
25	.30454	-.56289	-58.847	.05003	.32595	-.54995	.28313	-.57583
26	.31712	-.58355	-58.473	.05130	.33899	-.57014	.29526	-.59696
27	.32971	-.60391	-58.081	.05250	.35199	-.59003	.30743	-.61779
28	.34229	-.62395	-57.672	.05364	.36495	-.60960	.31963	-.63829
29	.35487	-.64367	-57.245	.05472	.37788	-.62886	.33186	-.65847
30	.36745	-.66306	-56.799	.05573	.39077	-.64780	.34413	-.67832
31	.38003	-.68212	-56.336	.05669	.40363	-.66640	.35644	-.69783
32	.39262	-.70084	-55.853	.05758	.41644	-.68468	.36879	-.71700
33	.40520	-.71922	-55.351	.05841	.42922	-.70261	.38117	-.73582
34	.41778	-.73725	-54.829	.05918	.44197	-.72020	.39359	-.75429
35	.43036	-.75493	-54.288	.05989	.45468	-.73745	.40605	-.77241
36	.44294	-.77225	-53.727	.06055	.46735	-.75434	.41854	-.79016
37	.45553	-.78922	-53.145	.06114	.47999	-.77088	.43107	-.80755
38	.46811	-.80582	-52.543	.06167	.49259	-.78707	.44363	-.82457
39	.48069	-.82206	-51.920	.06215	.50515	-.80289	.45623	-.84123
40	.49327	-.83793	-51.276	.06257	.51768	-.81836	.46886	-.85751
41	.50585	-.85344	-50.611	.06294	.53017	-.83347	.48153	-.87341
42	.51844	-.86858	-49.925	.06325	.54263	-.84822	.49424	-.88894
43	.53102	-.88335	-49.217	.06351	.55506	-.86261	.50697	-.90409
44	.54360	-.89775	-48.489	.06372	.56746	-.87664	.51974	-.91887
45	.55618	-.91178	-47.739	.06388	.57982	-.89030	.53254	-.93326
46	.56876	-.92544	-46.969	.06399	.59215	-.90361	.54538	-.94728
47	.58134	-.93874	-46.178	.06405	.60445	-.91656	.55824	-.96091
48	.59393	-.95166	-45.367	.06407	.61672	-.92916	.57113	-.97417
49	.60651	-.96423	-44.537	.06404	.62897	-.94140	.58405	-.98705
50	.61909	-.97643	-43.688	.06396	.64118	-.95330	.59700	-.99955
51	.63167	-.98826	-42.820	.06382	.65335	-.96486	.60998	-1.01167
52	.64425	-.99974	-41.935	.06361	.66551	-.97608	.62300	-1.02341
53	.65684	-1.01087	-41.036	.06335	.67763	-.98698	.63604	-1.03476
54	.66942	-1.02165	-40.121	.06301	.68972	-.99756	.64912	-1.04574
55	.68200	-1.03208	-39.193	.06260	.70178	-1.00782	.66222	-1.05634
56	.69458	-1.04217	-38.253	.06211	.71381	-1.01778	.67535	-1.06655
57	.70716	-1.05192	-37.304	.06154	.72581	-1.02745	.68852	-1.07640
58	.71975	-1.06134	-36.346	.06089	.73779	-1.03682	.70170	-1.08586
59	.73233	-1.07044	-35.383	.06016	.74974	-1.04592	.71491	-1.09496
60	.74491	-1.07922	-34.416	.05933	.76168	-1.05474	.72814	-1.10369
61	.75749	-1.08768	-33.448	.05842	.77359	-1.06331	.74139	-1.11205
62	.77007	-1.09584	-32.481	.05742	.78549	-1.07162	.75466	-1.12006
63	.78266	-1.10370	-31.519	.05632	.79738	-1.07970	.76793	-1.12771
64	.79524	-1.11128	-30.564	.05513	.80925	-1.08754	.78122	-1.13501
65	.80782	-1.11857	-29.619	.05384	.82112	-1.09516	.79451	-1.14197
66	.82040	-1.12558	-28.687	.05246	.83299	-1.10258	.80781	-1.14859
67	.83298	-1.13234	-27.772	.05097	.84486	-1.10979	.82111	-1.15489
68	.84556	-1.13884	-26.876	.04938	.85673	-1.11682	.83440	-1.16086
69	.85815	-1.14510	-26.004	.04768	.86860	-1.12367	.84769	-1.16652
70	.87073	-1.15112	-25.157	.04588	.88048	-1.13036	.86098	-1.17188
71	.88331	-1.15692	-24.341	.04396	.89237	-1.13689	.87425	-1.17694

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89583	-1.18251	-23.557	.04193	.90427	-1.14329	.88751	-1.18173
73	.90847	-1.16789	-22.810	.03979	.91619	-1.14955	.90076	-1.18623
74	.92105	-1.17309	-22.102	.03754	.92812	-1.15570	.91399	-1.19048
75	.93364	-1.17812	-21.437	.03516	.94006	-1.16175	.92721	-1.19448
76	.94622	-1.18298	-20.818	.03266	.95202	-1.16772	.94042	-1.19824
77	.95880	-1.18769	-20.248	.03003	.96400	-1.17360	.95361	-1.20178
78	.97138	-1.19226	-19.730	.02727	.97599	-1.17943	.96678	-1.20510
79	.98397	-1.19672	-19.266	.02438	.98799	-1.18521	.97994	-1.20823
80	.99655	-1.20107	-18.860	.02136	1.00000	-1.19096	.99310	-1.21117

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 7

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2200	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-63.579	(BLADE INLET ANGLE.)
BETA2	=-19.780	(BLADE OUTLET ANGLE.)
YZERO	= .00163	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03370	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00562	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0241	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.5313

STAGGER ANGLE =-50.929

CAMBER ANGLE =-43.799

SECTION AREA = .07162

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48753
YBAR = -.73385

SECOND MOMENTS OF AREA ABOUT CENTROID

Ix = .00651
Iy = .00409
Ixy = -.00507

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 38.038

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01057 (AT 38.038 WITH 'X' AXIS)
IPY = .00012 (AT 38.038 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00258	0.00000	-63.579	.00516	.00439	.00115	.00027	-.00115
2	.01519	-.02532	-63.571	.00731	.01843	-.02369	.01189	-.02694
3	.02774	-.05062	-63.548	.00946	.03197	-.04851	.02351	-.05272
4	.04032	-.07588	-63.509	.01160	.04551	-.07330	.03513	-.07847
5	.05290	-.10110	-63.455	.01373	.05904	-.09803	.04676	-.10416
6	.06549	-.12625	-63.387	.01584	.07256	-.12270	.05840	-.12979
7	.07806	-.15131	-63.304	.01793	.08607	-.14728	.07005	-.15534
8	.09064	-.17628	-63.205	.02001	.09957	-.17177	.08171	-.18079
9	.10322	-.20113	-63.094	.02205	.11306	-.19614	.09339	-.20612
10	.11581	-.22585	-62.968	.02407	.12653	-.22039	.10508	-.23133
11	.12839	-.25044	-62.827	.02605	.13998	-.24449	.11679	-.25639
12	.14097	-.27487	-62.673	.02801	.15341	-.26844	.12852	-.28130
13	.15355	-.29913	-62.503	.02992	.16682	-.29222	.14028	-.30603
14	.16613	-.32321	-62.320	.03180	.18021	-.31582	.15205	-.33059
15	.17871	-.34709	-62.122	.03363	.19357	-.33923	.16385	-.35495

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19129	-.37077	-61.910	.03541	.20491	-.36243	.17567	-.37910
17	.20387	-.39423	-61.683	.03715	.22022	-.38542	.18752	-.40304
18	.21645	-.41746	-61.441	.03883	.23351	-.40818	.19948	-.42674
19	.22903	-.44045	-61.184	.04047	.24676	-.43078	.21138	-.45021
20	.24161	-.46319	-60.912	.04205	.25999	-.45297	.22324	-.47342
21	.25419	-.48568	-60.624	.04359	.27318	-.47499	.23520	-.49637
22	.26677	-.50789	-60.321	.04505	.28634	-.49674	.24728	-.51904
23	.27935	-.52982	-60.003	.04646	.29948	-.51821	.25923	-.54144
24	.29194	-.55147	-59.668	.04782	.31257	-.53940	.27138	-.56355
25	.30452	-.57283	-59.316	.04912	.32564	-.56029	.28340	-.58536
26	.31710	-.59387	-58.949	.05035	.33867	-.58089	.29553	-.60686
27	.32968	-.61461	-58.564	.05153	.35166	-.60118	.30769	-.62805
28	.34226	-.63503	-58.161	.05265	.36462	-.62115	.31998	-.64892
29	.35484	-.65513	-57.742	.05370	.37754	-.64080	.33213	-.66946
30	.36742	-.67490	-57.304	.05469	.39043	-.66013	.34441	-.68967
31	.38000	-.69433	-56.848	.05563	.40329	-.67912	.35671	-.70954
32	.39258	-.71342	-56.373	.05650	.41610	-.69777	.36916	-.72906
33	.40516	-.73216	-55.880	.05731	.42888	-.71609	.38144	-.74823
34	.41774	-.75055	-55.368	.05806	.44163	-.73405	.39385	-.76705
35	.43032	-.76859	-54.835	.05876	.45434	-.75167	.40631	-.78551
36	.44290	-.78627	-54.284	.05939	.46701	-.76893	.41879	-.80360
37	.45548	-.80358	-53.712	.05997	.47965	-.78584	.43132	-.82133
38	.46807	-.82053	-53.119	.06049	.49226	-.80238	.44387	-.83868
39	.48065	-.83712	-52.507	.06095	.50483	-.81857	.45647	-.85567
40	.49323	-.85333	-51.873	.06136	.51736	-.83439	.46909	-.87227
41	.50581	-.86918	-51.219	.06172	.52986	-.84985	.48175	-.88850
42	.51839	-.88465	-50.544	.06202	.54233	-.86494	.49444	-.90435
43	.53097	-.89975	-49.847	.06227	.55477	-.87967	.50717	-.91982
44	.54355	-.91447	-49.130	.06247	.56717	-.89403	.51993	-.93491
45	.55613	-.92882	-48.392	.06263	.57954	-.90803	.53272	-.94962
46	.56871	-.94280	-47.634	.06273	.59189	-.92167	.54554	-.96394
47	.58129	-.95641	-46.855	.06279	.60420	-.93494	.55839	-.97788
48	.59387	-.96965	-46.056	.06280	.61648	-.94786	.57126	-.99144
49	.60645	-.98252	-45.238	.06277	.62874	-.96042	.58417	-1.00462
50	.61903	-.99502	-44.401	.06268	.64096	-.97263	.59711	-1.01741
51	.63161	-1.00716	-43.546	.06254	.65316	-.98450	.61007	-1.02983
52	.64420	-1.01894	-42.674	.06234	.66532	-.99602	.62307	-1.04186
53	.65678	-1.03036	-41.786	.06207	.67746	-1.00722	.63610	-1.05350
54	.66936	-1.04143	-40.883	.06173	.68956	-1.01809	.64915	-1.06476
55	.68194	-1.05214	-39.966	.06132	.70163	-1.02864	.66224	-1.07564
56	.69452	-1.06252	-39.038	.06084	.71368	-1.03889	.67536	-1.08614
57	.70710	-1.07255	-38.100	.06028	.72570	-1.04883	.68850	-1.09626
58	.71969	-1.08225	-37.153	.05963	.73769	-1.05848	.70167	-1.10601
59	.73225	-1.09162	-36.208	.05898	.74966	-1.06785	.71487	-1.11538
60	.74484	-1.10066	-35.243	.05809	.76160	-1.07694	.72808	-1.12439
61	.75742	-1.10940	-34.285	.05719	.77353	-1.08577	.74131	-1.13302
62	.77000	-1.11782	-33.327	.05621	.78544	-1.09434	.75456	-1.14130
63	.78259	-1.12594	-32.374	.05513	.79734	-1.10267	.76783	-1.14922
64	.79516	-1.13378	-31.427	.05395	.80923	-1.11076	.78110	-1.15679
65	.80775	-1.14132	-30.489	.05269	.82111	-1.11862	.79438	-1.16402
66	.82033	-1.14859	-29.564	.05133	.83299	-1.12627	.80766	-1.17091
67	.83291	-1.15560	-28.655	.04986	.84486	-1.13376	.82095	-1.17748
68	.84549	-1.16235	-27.766	.04830	.85674	-1.14038	.83424	-1.18372
69	.85807	-1.16885	-26.898	.04664	.86862	-1.14805	.84752	-1.18955
70	.87065	-1.17511	-26.057	.04487	.88050	-1.15496	.86079	-1.19527
71	.88323	-1.18115	-25.244	.04300	.89240	-1.16171	.87406	-1.20060

POINT NUMBER	MEANLINE DATA X Y ANGLE THICKNESS	SURFACE COORDINATE DATA XS YS	XP YP
72	.89541-1.14699-24.464 .04102	.90430-1.16331	.88732-1.20565
73	.90833-1.13261-23.720 .03892	.91622-1.17479	.90056-1.21042
74	.92097-1.11804-23.015 .03672	.92815-1.19114	.91379-1.21494
75	.93355-1.20336-22.352 .03440	.94004-1.18739	.92701-1.21920
76	.94611-1.20839-21.735 .03196	.95208-1.19355	.94022-1.22323
77	.95871-1.21353-21.166 .02939	.96402-1.19963	.95341-1.22704
78	.97129-1.21814-20.649 .02671	.97603-1.20564	.96659-1.23063
79	.98383-1.22282-20.196 .02389	.98800-1.21161	.97975-1.23403
80	.99645-1.22739-19.783 .02094	1.00000-1.21754	.99291-1.23725

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 8

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2530	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-64.003	(BLADE INLET ANGLE.)
BETA2	=-28.556	(BLADE OUTLET ANGLE.)
YZERO	= .00161	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03948	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00642	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7830	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.8137	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.6030

STAGGER ANGLE =-51.541

CAMBER ANGLE =-43.447

SECTION AREA = .07129

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48638
YBAR = -.79819

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .08687
IY = .00407
IXY = -.00516

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 37.402

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01001 (AT 37.402 WITH 'X' AXIS)
IPY = .00092 (AT 37.402 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00258	0.00000	-64.003	.00516	.00490	.00113	.00026	-.00113
2	.01516	-.02579	-63.995	.00727	.01843	-.02420	.01189	-.02739
3	.02774	-.05157	-63.972	.00938	.03196	-.04951	.02352	-.05363
4	.04032	-.07731	-63.934	.01149	.04548	-.07479	.03516	-.07983
5	.05290	-.10300	-63.881	.01358	.05900	-.10001	.04680	-.10599
6	.06548	-.12862	-63.814	.01566	.07250	-.12516	.05845	-.13207
7	.07805	-.15416	-63.732	.01772	.08600	-.15024	.07012	-.15808
8	.09064	-.17959	-63.636	.01975	.09949	-.17521	.08179	-.18398
9	.10322	-.20492	-63.526	.02176	.11296	-.20006	.09348	-.20977
10	.11580	-.23011	-63.402	.02375	.12642	-.22479	.10518	-.23543
11	.12838	-.25516	-63.264	.02570	.13985	-.24938	.11690	-.26094
12	.14095	-.28005	-63.112	.02762	.15327	-.27381	.12864	-.28630
13	.15354	-.30477	-62.945	.02950	.16667	-.29806	.14040	-.31148
14	.16612	-.32931	-62.765	.03134	.18005	-.32214	.15219	-.33648
15	.17873	-.35365	-62.570	.03313	.19340	-.34602	.16399	-.36128

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19123	-.37779	-62.361	.03489	.20673	-.36459	.17582	-.38587
17	.20386	-.40169	-62.133	.03659	.22003	-.38814	.18768	-.41024
18	.21644	-.42537	-61.900	.03825	.23331	-.41636	.19957	-.43438
19	.22902	-.44881	-61.647	.03985	.24655	-.43934	.21148	-.45827
20	.24160	-.47199	-61.379	.04141	.25977	-.46207	.22342	-.48191
21	.25418	-.49491	-61.096	.04291	.27296	-.48454	.23540	-.50528
22	.26675	-.51756	-60.798	.04435	.28611	-.50674	.24740	-.52838
23	.27934	-.53992	-60.484	.04574	.29924	-.52865	.25944	-.55119
24	.29192	-.56199	-60.155	.04707	.31233	-.55028	.27150	-.57371
25	.30450	-.58377	-59.809	.04834	.32539	-.57161	.28361	-.59592
26	.31708	-.60524	-59.447	.04955	.33841	-.59264	.29574	-.61783
27	.32966	-.62639	-59.068	.05070	.35140	-.61336	.30791	-.63942
28	.34224	-.64722	-58.672	.05179	.36436	-.63375	.32011	-.66068
29	.35482	-.66772	-58.258	.05283	.37728	-.65382	.33235	-.68162
30	.36740	-.68789	-57.827	.05380	.39016	-.67356	.34463	-.70221
31	.37998	-.70771	-57.374	.05471	.40302	-.69297	.35693	-.72246
32	.39256	-.72719	-56.911	.05557	.41583	-.71203	.36928	-.74236
33	.40514	-.74632	-56.424	.05636	.42861	-.73074	.38166	-.76191
34	.41771	-.76510	-55.919	.05710	.44136	-.74910	.39407	-.78109
35	.43029	-.78351	-55.395	.05777	.45407	-.76710	.40652	-.79991
36	.44287	-.80156	-54.851	.05839	.46675	-.78475	.41900	-.81837
37	.45545	-.81924	-54.287	.05895	.47939	-.80203	.43152	-.83645
38	.46803	-.83655	-53.703	.05946	.49200	-.81895	.44407	-.85415
39	.48061	-.85349	-53.099	.05991	.50457	-.83551	.45666	-.87148
40	.49319	-.87006	-52.474	.06031	.51711	-.85169	.46928	-.88843
41	.50577	-.88625	-51.828	.06065	.52962	-.86751	.48193	-.90499
42	.51835	-.90207	-51.162	.06095	.54209	-.88296	.49462	-.92118
43	.53093	-.91750	-50.474	.06119	.55453	-.89803	.50734	-.93697
44	.54351	-.93256	-49.766	.06138	.56694	-.91274	.52008	-.95238
45	.55608	-.94724	-49.037	.06153	.57932	-.92707	.53286	-.96741
46	.56867	-.96154	-48.287	.06162	.59167	-.94104	.54567	-.98204
47	.58125	-.97546	-47.517	.06168	.60400	-.95464	.55851	-.99629
48	.59383	-.98901	-46.728	.06168	.61629	-.96787	.57138	-1.01015
49	.60641	-1.00219	-45.919	.06164	.62855	-.98075	.58427	-1.02363
50	.61899	-1.01499	-45.090	.06156	.64079	-.99325	.59720	-1.03672
51	.63157	-1.02743	-44.243	.06141	.65300	-1.00543	.61015	-1.04943
52	.64415	-1.03950	-43.380	.06120	.66517	-1.01726	.62313	-1.06174
53	.65673	-1.05121	-42.500	.06093	.67732	-1.02874	.63615	-1.07367
54	.66931	-1.06255	-41.605	.06060	.68943	-1.03990	.64919	-1.08521
55	.68189	-1.07355	-40.696	.06019	.70151	-1.05073	.66227	-1.09636
56	.69447	-1.08419	-39.773	.05970	.71357	-1.06125	.67537	-1.10714
57	.70705	-1.09449	-38.843	.05914	.72560	-1.07146	.68851	-1.11753
58	.71963	-1.10446	-37.903	.05850	.73760	-1.08138	.70166	-1.12754
59	.73221	-1.11408	-36.956	.05778	.74959	-1.09100	.71484	-1.13717
60	.74479	-1.12339	-36.004	.05697	.76154	-1.10034	.72805	-1.14643
61	.75737	-1.13237	-35.051	.05609	.77348	-1.10941	.74127	-1.15533
62	.76995	-1.14104	-34.099	.05511	.78540	-1.11822	.75450	-1.16386
63	.78253	-1.14941	-33.148	.05404	.79731	-1.12678	.76776	-1.17203
64	.79511	-1.15747	-32.205	.05289	.80920	-1.13510	.78102	-1.17985
65	.80769	-1.16526	-31.270	.05164	.82109	-1.14319	.79429	-1.18732
66	.82027	-1.17276	-30.347	.05030	.83298	-1.15105	.80756	-1.19446
67	.83285	-1.17999	-29.440	.04886	.84486	-1.15871	.82084	-1.20126
68	.84543	-1.18696	-28.552	.04733	.85674	-1.16618	.83412	-1.20775
69	.85801	-1.19368	-27.685	.04569	.86862	-1.17345	.84740	-1.21391
70	.87059	-1.20016	-26.844	.04395	.88051	-1.18055	.86066	-1.21978
71	.88317	-1.20642	-26.031	.04212	.89241	-1.18749	.87393	-1.22534

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89575	-1.21246	-25.251	.04018	.90432	-1.19429	.88718	-1.23063
73	.90833	-1.21829	-24.586	.03813	.91624	-1.20094	.90042	-1.23554
74	.92091	-1.22393	-23.793	.03597	.92817	-1.20747	.91365	-1.24039
75	.93349	-1.22939	-23.135	.03378	.94011	-1.21389	.92687	-1.24489
76	.94607	-1.23468	-22.517	.03132	.95207	-1.22022	.94007	-1.24915
77	.95863	-1.23982	-21.946	.02881	.96403	-1.22646	.95326	-1.25319
78	.97123	-1.24483	-21.428	.02619	.97601	-1.23264	.96644	-1.25702
79	.98381	-1.24978	-20.963	.02344	.98800	-1.23876	.9796	-1.26065
80	.99633	-1.25447	-20.556	.02057	1.00000	-1.24484	.99278	-1.26418

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 9

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-64.470	(BLADE INLET ANGLE.)
BETA2	=-21.293	(BLADE OUTLET ANGLE.)
YZERO	= .00159	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03731	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00622	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0065	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.6256

STAGGER ANGLE =-52.171

CAMBER ANGLE =-43.267

SECTION AREA = .07109

LOCATION OF CENTROID RELATIVE TO LEADING ED.

XBAR = .48434
YBAR = -.01372

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00717
IY = .00405
IXY = -.00526

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 36.738

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01110 (AT 36.738 WITH 'X' AXIS)
IPY = .00012 (AT 36.738 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00254	0.00000	-64.470	.00517	.00492	.00111	.00025	-.00111
2	.01515	-.02633	-64.462	.00725	.01844	-.02477	.01189	-.02790
3	.02774	-.05265	-64.440	.00933	.03195	-.05064	.02353	-.05466
4	.04032	-.07893	-64.402	.01140	.04546	-.07647	.03518	-.08139
5	.05290	-.10516	-64.350	.01346	.05897	-.10225	.04683	-.10807
6	.06549	-.13132	-64.284	.01551	.07247	-.12735	.05850	-.13468
7	.07806	-.15739	-64.203	.01753	.08595	-.15338	.07017	-.16121
8	.09064	-.18336	-64.109	.01954	.09943	-.17910	.08185	-.18753
9	.10322	-.20922	-64.001	.02152	.11289	-.20450	.09355	-.21394
10	.11580	-.23494	-63.878	.02347	.12633	-.22975	.10526	-.24011
11	.12833	-.26052	-63.742	.02539	.13976	-.25490	.11699	-.26614
12	.14085	-.28594	-63.592	.02728	.15317	-.27987	.12874	-.29200
13	.15334	-.31118	-63.429	.02913	.16656	-.30467	.14051	-.31770
14	.16611	-.33624	-63.251	.03094	.17993	-.32927	.15230	-.34320
15	.17869	-.36109	-63.059	.03271	.19327	-.35368	.16411	-.36850

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19127	-.34573	-62.853	.03443	.20659	-.37788	.17595	-.39359
17	.20395	-.41015	-62.633	.03611	.21983	-.40185	.18782	-.41845
18	.21643	-.43434	-62.399	.03774	.23315	-.42559	.19971	-.44308
19	.22901	-.45827	-62.150	.03931	.24639	-.44909	.21163	-.46745
20	.24153	-.48195	-61.886	.04084	.25960	-.47232	.22358	-.49157
21	.25417	-.50536	-61.607	.04231	.27274	-.49530	.23556	-.51542
22	.26675	-.52849	-61.314	.04373	.28593	-.51799	.24757	-.53898
23	.27933	-.55133	-61.004	.04[illegible]	.29905	-.54040	.25961	-.56226
24	.29191	-.57388	-60.679	.04[illegible]	.31213	-.56252	.27168	-.58524
25	.30449	-.59612	-60.339	.04[illegible]	.32519	-.58433	.28379	-.60791
26	.31707	-.61805	-59.981	.04[illegible]	.33821	-.60584	.29592	-.63027
27	.32964	-.63966	-59.608	.04[illegible]	.35119	-.62703	.30810	-.65230
28	.34222	-.66095	-59.217	.05103	.36415	-.64789	.32030	-.67401
29	.35480	-.68189	-58.809	.05205	.37706	-.66842	.33254	-.69537
30	.36738	-.70250	-58.384	.05300	.38995	-.68861	.34482	-.71639
31	.37996	-.72276	-57.941	.05389	.40280	-.70846	.35712	-.73706
32	.39254	-.74267	-57.479	.05473	.41561	-.72796	.36947	-.75738
33	.40512	-.76222	-57.000	.05550	.42839	-.74711	.38185	-.77733
34	.41770	-.78141	-56.501	.05622	.44114	-.76589	.39426	-.79692
35	.43028	-.80023	-55.983	.05688	.45385	-.78432	.40671	-.81614
36	.44286	-.81868	-55.445	.05748	.46653	-.80238	.41919	-.83498
37	.45544	-.83676	-54.888	.05803	.47917	-.82007	.43170	-.85345
38	.46802	-.85446	-54.311	.05852	.49178	-.83739	.44425	-.87153
39	.48060	-.87178	-53.713	.05896	.50436	-.85434	.45683	-.88923
40	.49317	-.88873	-53.095	.05934	.51690	-.87091	.46945	-.90654
41	.50575	-.90529	-52.456	.05968	.52941	-.88710	.48210	-.92347
42	.51833	-.92146	-51.796	.05996	.54189	-.90292	.49478	-.94000
43	.53091	-.93725	-51.116	.06019	.55434	-.91836	.50749	-.95614
44	.54349	-.95266	-50.414	.06037	.56675	-.93342	.52023	-.97189
45	.55607	-.96768	-49.691	.06051	.57914	-.94811	.53300	-.98725
46	.56865	-.98231	-48.949	.06060	.59150	-.96242	.54580	-1.00221
47	.58123	-.99657	-48.185	.06064	.60383	-.97635	.55863	-1.01678
48	.59381	-1.01044	-47.401	.06064	.61613	-.98991	.57149	-1.03096
49	.60639	-1.02393	-46.597	.06060	.62840	-1.00311	.58437	-1.04475
50	.61897	-1.03704	-45.774	.06051	.64065	-1.01594	.59729	-1.05814
51	.63155	-1.04978	-44.933	.06035	.65286	-1.02841	.61023	-1.07114
52	.64412	-1.06214	-44.074	.06014	.66504	-1.04054	.62321	-1.08375
53	.65670	-1.07414	-43.199	.05987	.67720	-1.05231	.63621	-1.09596
54	.66928	-1.08577	-42.307	.05953	.68932	-1.06376	.64925	-1.10778
55	.68186	-1.09704	-41.402	.05911	.70141	-1.07487	.66232	-1.11921
56	.69444	-1.10795	-40.484	.05863	.71347	-1.08565	.67541	-1.13025
57	.70702	-1.11851	-39.555	.05807	.72551	-1.09613	.68853	-1.14090
58	.71960	-1.12873	-38.617	.05743	.73752	-1.10630	.70168	-1.15117
59	.73218	-1.13861	-37.671	.05671	.74951	-1.11617	.71485	-1.16106
60	.74476	-1.14816	-36.721	.05591	.76147	-1.12575	.72804	-1.17057
61	.75734	-1.15738	-35.767	.05503	.77342	-1.13506	.74126	-1.17970
62	.76992	-1.16628	-34.814	.05406	.78535	-1.14409	.75449	-1.18846
63	.78250	-1.17488	-33.863	.05301	.79725	-1.15287	.76773	-1.19688
64	.79508	-1.18317	-32.918	.05186	.80917	-1.16140	.78098	-1.20494
65	.80765	-1.19117	-31.981	.05063	.82106	-1.16969	.79425	-1.21264
66	.82023	-1.19888	-31.056	.04931	.83295	-1.17776	.80752	-1.22000
67	.83281	-1.20632	-30.146	.04789	.84484	-1.18561	.82079	-1.22703
68	.84539	-1.21350	-29.254	.04636	.85673	-1.19326	.83406	-1.23373
69	.85797	-1.22042	-28.383	.04473	.86862	-1.20072	.84733	-1.24011
70	.87055	-1.22709	-27.537	.04301	.88051	-1.20799	.86059	-1.24619
71	.88313	-1.23354	-26.720	.04120	.89241	-1.21510	.87385	-1.25197

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89571	-1.23976	-25.935	.03937	.90432	-1.22206	.88710	-1.25747
73	.90829	-1.24578	-25.185	.03737	.91624	-1.22887	.90034	-1.26268
74	.92087	-1.25160	-24.473	.03525	.92817	-1.23555	.91357	-1.26764
75	.93345	-1.25723	-23.804	.03303	.94011	-1.24212	.92678	-1.27234
76	.94603	-1.26270	-23.181	.03070	.95207	-1.24859	.93998	-1.27681
77	.95861	-1.26801	-22.606	.02826	.96404	-1.25497	.95317	-1.28105
78	.97118	-1.27318	-22.082	.02570	.97602	-1.26127	.96635	-1.28509
79	.98376	-1.27822	-21.614	.02302	.98800	-1.26752	.97952	-1.28892
80	.99634	-1.28315	-21.203	.02022	1.00000	-1.27373	.99269	-1.29258

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 10

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-64.990	(BLADE INLET ANGLE.)
BETA2	=-21.729	(BLADE OUTLET ANGLE.)
YZERO	= .00157	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03613	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00602	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0024	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.6503

STAGGER ANGLE =-52.835

CAMBER ANGLE =-43.262

SECTION AREA = .07099

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48315
YBAR = -.03086

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00753
IY = .00404
IXY = -.00538

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 36.026

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01144 (AT 36.026 WITH 'X' AXIS)
IPY = .00012 (AT 36.026 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00260	0.00000	-64.990	.00520	.00495	.00110	.00024	-.00110
2	.01518	-.02696	-64.983	.00725	.01846	-.02543	.01189	-.02849
3	.02775	-.05390	-64.960	.00930	.03197	-.05193	.02354	-.05587
4	.04033	-.08081	-64.923	.01134	.04547	-.07840	.03520	-.08321
5	.05291	-.10766	-64.872	.01337	.05896	-.10482	.04686	-.11050
6	.06549	-.13444	-64.807	.01538	.07245	-.13117	.05853	-.13771
7	.07807	-.16113	-64.728	.01738	.08593	-.15742	.07021	-.16484
8	.09065	-.18772	-64.635	.01935	.09939	-.18358	.08190	-.19187
9	.10323	-.21419	-64.528	.02131	.11284	-.20961	.09361	-.21877
10	.11581	-.24053	-64.408	.02323	.12628	-.23551	.10533	-.24554
11	.12839	-.26671	-64.274	.02512	.13970	-.26126	.11707	-.27216
12	.14096	-.29273	-64.126	.02698	.15310	-.28685	.12883	-.29862
13	.15354	-.31858	-63.965	.02880	.16648	-.31226	.14061	-.32490
14	.16612	-.34423	-63.789	.03058	.17984	-.33748	.15240	-.35098
15	.17870	-.36968	-63.601	.03232	.19318	-.36249	.16423	-.37686

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19123	-.33491	-63.398	.03402	.20649	-.38729	.17607	-.40252
17	.20386	-.41991	-63.181	.03566	.21977	-.41186	.18794	-.42795
18	.21644	-.44466	-62.950	.03727	.23303	-.43619	.19984	-.45314
19	.22902	-.46917	-62.705	.03882	.24626	-.46027	.21177	-.47807
20	.24159	-.49341	-62.445	.04032	.25947	-.48409	.22372	-.50274
21	.25417	-.51738	-62.170	.04176	.27264	-.50763	.23571	-.52713
22	.26675	-.54106	-61.880	.04316	.28578	-.53089	.24772	-.55123
23	.27933	-.56445	-61.575	.04449	.29889	-.55386	.25977	-.57504
24	.29191	-.58754	-61.254	.04577	.31198	-.57653	.27184	-.59855
25	.30449	-.61032	-60.918	.04700	.32502	-.59889	.28395	-.62174
26	.31707	-.63277	-60.566	.04816	.33804	-.62094	.29609	-.64460
27	.32965	-.65490	-60.197	.04927	.35102	-.64265	.30827	-.66714
28	.34222	-.67669	-59.811	.05032	.36397	-.66404	.32048	-.68934
29	.35480	-.69814	-59.408	.05131	.37689	-.68508	.33272	-.71119
30	.36738	-.71924	-58.988	.05224	.38977	-.70578	.34500	-.73270
31	.37996	-.73999	-58.550	.05311	.40261	-.72613	.35731	-.75384
32	.39254	-.76037	-58.094	.05392	.41543	-.74612	.36965	-.77462
33	.40512	-.78039	-57.619	.05468	.42821	-.76575	.38203	-.79503
34	.41770	-.80004	-57.126	.05538	.44095	-.78501	.39444	-.81507
35	.43028	-.81932	-56.613	.05602	.45366	-.80390	.40689	-.83473
36	.44286	-.83821	-56.081	.05661	.46634	-.82242	.41937	-.85401
37	.45543	-.85673	-55.529	.05714	.47899	-.84056	.43188	-.87290
38	.46801	-.87486	-54.957	.05761	.49160	-.85832	.44443	-.89140
39	.48059	-.89260	-54.365	.05803	.50417	-.87569	.45701	-.90951
40	.49317	-.90995	-53.752	.05840	.51672	-.89268	.46962	-.92722
41	.50575	-.92691	-53.119	.05872	.52923	-.90929	.48226	-.94453
42	.51833	-.94348	-52.463	.05899	.54172	-.92551	.49494	-.96145
43	.53091	-.95965	-51.787	.05921	.55417	-.94134	.50764	-.97797
44	.54348	-.97543	-51.090	.05938	.56659	-.95678	.52038	-.99408
45	.55606	-.99082	-50.372	.05951	.57898	-.97184	.53315	-1.00980
46	.56864	-1.00581	-49.633	.05959	.59134	-.98652	.54594	-1.02511
47	.58122	-1.02042	-48.872	.05963	.60368	-1.00081	.55876	-1.04003
48	.59380	-1.03463	-48.092	.05962	.61599	-1.01471	.57161	-1.05454
49	.60638	-1.04845	-47.291	.05957	.62826	-1.02824	.58449	-1.06865
50	.61895	-1.06188	-46.471	.05947	.64051	-1.04140	.59740	-1.08236
51	.63154	-1.07493	-45.631	.05931	.65273	-1.05419	.61034	-1.09567
52	.64411	-1.08760	-44.774	.05909	.66492	-1.06663	.62331	-1.10857
53	.65669	-1.09989	-43.899	.05881	.67708	-1.07870	.63630	-1.12106
54	.66927	-1.11181	-43.008	.05846	.68921	-1.09043	.64933	-1.13319
55	.68185	-1.12336	-42.102	.05804	.70131	-1.10183	.66239	-1.14489
56	.69443	-1.13454	-41.183	.05756	.71338	-1.11289	.67548	-1.15620
57	.70701	-1.14537	-40.252	.05699	.72542	-1.12362	.68860	-1.16712
58	.71959	-1.15585	-39.311	.05635	.73744	-1.13404	.70174	-1.17765
59	.73217	-1.16597	-38.362	.05564	.74943	-1.14416	.71490	-1.18779
60	.74474	-1.17576	-37.407	.05484	.76140	-1.15398	.72809	-1.19754
61	.75732	-1.18521	-36.449	.05396	.77335	-1.16351	.74129	-1.20692
62	.76990	-1.19434	-35.490	.05300	.78529	-1.17277	.75452	-1.21592
63	.78248	-1.20316	-34.534	.05196	.79721	-1.18175	.76775	-1.22456
64	.79506	-1.21166	-33.581	.05083	.80912	-1.19049	.78100	-1.23283
65	.80764	-1.21986	-32.637	.04961	.82102	-1.19897	.79426	-1.24075
66	.82022	-1.22777	-31.704	.04831	.83291	-1.20722	.80752	-1.24832
67	.83280	-1.23541	-30.785	.04692	.84480	-1.21525	.82079	-1.25556
68	.84537	-1.24277	-29.884	.04543	.85669	-1.22307	.83406	-1.26246
69	.85795	-1.24987	-29.004	.04386	.86859	-1.23069	.84732	-1.26904
70	.87053	-1.25672	-28.149	.04219	.88048	-1.23812	.86058	-1.27531
71	.88311	-1.26333	-27.322	.04042	.89239	-1.24538	.87383	-1.28129

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89569	-1.26972	-26.527	.03856	.90430	-1.25247	.88708	-1.28697
73	.90827	-1.27589	-25.768	.03659	.91622	-1.25942	.90031	-1.29237
74	.92085	-1.28187	-25.047	.03453	.92816	-1.26623	.91354	-1.29751
75	.93343	-1.28765	-24.369	.03236	.94010	-1.27291	.92675	-1.30239
76	.94600	-1.29327	-23.736	.03009	.95206	-1.27950	.93995	-1.30704
77	.95859	-1.29872	-23.153	.02771	.96403	-1.28598	.95314	-1.31146
78	.97116	-1.30403	-22.621	.02521	.97601	-1.29239	.96631	-1.31567
79	.98374	-1.30921	-22.146	.02260	.98800	-1.29874	.97948	-1.31958
80	.99632	-1.31427	-21.729	.01989	1.00000	-1.30504	.99264	-1.32351

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 11

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-65.570	(BLADE INLET ANGLE.)
BETA2	=-22.108	(BLADE OUTLET ANGLE.)
YZERO	= .00156	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03503	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00984	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7030	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0014	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO BLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.6775

STAGGER ANGLE =-53.539

CAMBER ANGLE =-43.462

SECTION AREA = .07116

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .48097
YBAR = -.84937

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00735
IY = .00404
IXY = -.00554

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 35.262

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01167 (AT 35.262 WITH 'X' AXIS)
IPY = .00013 (AT 35.262 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00262	0.00000	-65.570	.00523	.00500	.00108	.00023	-.00108
2	.01520	-.02769	-65.563	.00726	.01950	-.02618	.01189	-.02919
3	.02777	-.05536	-65.541	.00929	.03200	-.05343	.02355	-.05728
4	.04035	-.08299	-65.504	.01131	.04550	-.08064	.03521	-.08533
5	.05293	-.11056	-65.454	.01331	.05899	-.10730	.04688	-.11333
6	.06551	-.13807	-65.390	.01531	.07247	-.13488	.05855	-.14125
7	.07809	-.16548	-65.312	.01728	.08594	-.16187	.07024	-.16909
8	.09067	-.19278	-65.220	.01923	.09940	-.18875	.08193	-.19681
9	.10324	-.21997	-65.115	.02116	.11294	-.21551	.09365	-.22442
10	.11582	-.24701	-64.996	.02306	.12627	-.24214	.10537	-.25189
11	.12840	-.27390	-64.864	.02493	.13963	-.26861	.11712	-.27920
12	.14098	-.30062	-64.719	.02675	.15308	-.29491	.12888	-.30634
13	.15356	-.32716	-64.560	.02856	.16645	-.32103	.14066	-.33330
14	.16614	-.35350	-64.387	.03032	.17981	-.34695	.15247	-.36006
15	.17871	-.37963	-64.201	.03204	.19314	-.37266	.16429	-.38661

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19129	-.40554	-64.001	.03371	.20644	-.39815	.17614	-.41293
17	.20387	-.43121	-63.788	.03534	.21972	-.42341	.18802	-.43902
18	.21645	-.45664	-63.560	.03692	.23298	-.44842	.19992	-.46485
19	.22903	-.48180	-63.318	.03845	.24621	-.47317	.21185	-.49043
20	.24161	-.50669	-63.061	.03992	.25940	-.49765	.22381	-.51573
21	.25419	-.53130	-62.790	.04135	.27257	-.52184	.23580	-.54075
22	.26676	-.55561	-62.504	.04272	.28571	-.54575	.24782	-.56548
23	.27934	-.57963	-62.203	.04403	.29882	-.56936	.25987	-.58990
24	.29192	-.60333	-61.886	.04529	.31190	-.59266	.27195	-.61400
25	.30450	-.62671	-61.554	.04649	.32494	-.61564	.28406	-.63779
26	.31708	-.64977	-61.206	.04764	.33795	-.63829	.29620	-.66124
27	.32966	-.67248	-60.841	.04873	.35093	-.66061	.30838	-.68435
28	.34223	-.69485	-60.460	.04975	.36388	-.68259	.32059	-.70712
29	.35481	-.71687	-60.061	.05072	.37679	-.70421	.33284	-.72953
30	.36739	-.73853	-59.645	.05163	.38967	-.72549	.34511	-.75158
31	.37997	-.75983	-59.212	.05249	.40251	-.74639	.35743	-.77326
32	.39255	-.78075	-58.760	.05328	.41533	-.76693	.36977	-.79457
33	.40513	-.80130	-58.290	.05402	.42810	-.78710	.38215	-.81550
34	.41771	-.82147	-57.801	.05470	.44085	-.80689	.39456	-.83604
35	.43028	-.84125	-57.293	.05532	.45356	-.82630	.40701	-.85619
36	.44286	-.86064	-56.765	.05589	.46624	-.84532	.41949	-.87596
37	.45544	-.87964	-56.217	.05640	.47888	-.86396	.43200	-.89532
38	.46802	-.89824	-55.649	.05686	.49149	-.88220	.44455	-.91428
39	.48060	-.91645	-55.060	.05727	.50407	-.90005	.45712	-.93285
40	.49318	-.93425	-54.450	.05763	.51662	-.91750	.46973	-.95100
41	.50575	-.95165	-53.820	.05793	.52913	-.93455	.48237	-.96875
42	.51833	-.96865	-53.168	.05819	.54162	-.95120	.49505	-.98609
43	.53091	-.98524	-52.494	.05839	.55407	-.96746	.50775	-1.00301
44	.54349	-1.00142	-51.799	.05855	.56650	-.98332	.52048	-1.01953
45	.55607	-1.01720	-51.083	.05867	.57889	-.99878	.53325	-1.03563
46	.56865	-1.03258	-50.345	.05874	.59126	-1.01384	.54604	-1.05132
47	.58122	-1.04755	-49.585	.05876	.60360	-1.02851	.55885	-1.06660
48	.59380	-1.06213	-48.805	.05875	.61591	-1.04278	.57170	-1.08147
49	.60638	-1.07630	-48.003	.05869	.62819	-1.05666	.58457	-1.09593
50	.61896	-1.09007	-47.182	.05857	.64044	-1.07016	.59748	-1.10997
51	.63154	-1.10345	-46.340	.05840	.65266	-1.08329	.61041	-1.12361
52	.64412	-1.11643	-45.480	.05818	.66486	-1.09604	.62338	-1.13683
53	.65670	-1.12903	-44.602	.05788	.67702	-1.10842	.63637	-1.14964
54	.66927	-1.14124	-43.706	.05753	.68915	-1.12045	.64940	-1.16204
55	.68185	-1.15308	-42.795	.05710	.70125	-1.13213	.66246	-1.17403
56	.69443	-1.16454	-41.870	.05661	.71332	-1.14346	.67554	-1.18561
57	.70701	-1.17563	-40.932	.05604	.72537	-1.15446	.68865	-1.19680
58	.71959	-1.18635	-39.983	.05539	.73738	-1.16513	.70179	-1.20758
59	.73217	-1.19673	-39.025	.05467	.74938	-1.17549	.71495	-1.21796
60	.74474	-1.20675	-38.060	.05388	.76135	-1.18554	.72814	-1.22795
61	.75732	-1.21643	-37.092	.05300	.77331	-1.19529	.74134	-1.23756
62	.76990	-1.22577	-36.121	.05205	.78524	-1.20475	.75456	-1.24679
63	.78248	-1.23479	-35.152	.05101	.79716	-1.21393	.76780	-1.25564
64	.79505	-1.24349	-34.187	.04989	.80907	-1.22285	.78104	-1.26412
65	.80764	-1.25188	-33.229	.04868	.82098	-1.23152	.79430	-1.27224
66	.82021	-1.25997	-32.281	.04740	.83287	-1.23994	.80756	-1.28001
67	.83279	-1.26777	-31.347	.04602	.84476	-1.24812	.82082	-1.28743
68	.84537	-1.27530	-30.431	.04456	.85666	-1.25609	.83409	-1.29451
69	.85795	-1.28256	-29.535	.04301	.86855	-1.26385	.84735	-1.30127
70	.87053	-1.28956	-28.664	.04137	.88045	-1.27141	.86061	-1.30770
71	.88311	-1.29631	-27.822	.03964	.89236	-1.27879	.87386	-1.31384

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89569	-1.30284	-27.011	.03781	.90427	-1.28599	.88710	-1.31968
73	.90825	-1.30914	-26.235	.03589	.91620	-1.29305	.90033	-1.32524
74	.92084	-1.31524	-25.500	.03387	.92813	-1.29995	.91355	-1.33052
75	.93342	-1.32114	-24.807	.03175	.94008	-1.30673	.92676	-1.33555
76	.94600	-1.32687	-24.161	.02953	.95204	-1.31340	.93996	-1.34034
77	.95859	-1.33243	-23.565	.02721	.96402	-1.31996	.95314	-1.34490
78	.97116	-1.33785	-23.021	.02478	.97600	-1.32645	.96631	-1.34925
79	.98373	-1.34313	-22.535	.02224	.98800	-1.33286	.97947	-1.35340
80	.99631	-1.34829	-22.108	.01959	1.00000	-1.33922	.99263	-1.35737

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 12

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-56.209	(BLADE INLET ANGLE.)
BETA2	=-22.311	(BLADE OUTLET ANGLE.)
YZERO	= .00155	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03407	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00568	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0034	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO BLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.7079

STAGGER ANGLE =-54.277

CAMBER ANGLE =-43.834

SECTION AREA = .07176

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .47839
YBAR = -.87124

SECOND MOMENTS OF AREA ABOUT CENTROID

IXX = .03849
IYY = .00406
IXY = -.00573

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 34.445

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01242 (AT 34.445 WITH 'X' AXIS)
IPY = .00013 (AT 34.445 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00264	0.00000	-66.209	.00526	.00505	.00106	.00022	-.00106
2	.01922	-.02853	-66.202	.00730	.01859	-.02706	.01186	-.03000
3	.02774	-.05704	-66.188	.00931	.03205	-.05515	.02354	-.05892
4	.04037	-.08558	-66.144	.01132	.04555	-.08322	.03520	-.08779
5	.05295	-.11392	-66.095	.01332	.05904	-.11122	.04686	-.11661
6	.06553	-.14225	-66.031	.01530	.07252	-.13915	.05854	-.14536
7	.07811	-.17058	-65.955	.01726	.08593	-.16698	.07023	-.17401
8	.09064	-.19863	-65.864	.01920	.09945	-.19470	.08192	-.20256
9	.10326	-.22663	-65.761	.02112	.11293	-.22230	.09363	-.23097
10	.11594	-.25458	-65.644	.02301	.12632	-.24975	.10536	-.25924
11	.12842	-.28220	-65.514	.02487	.13974	-.27705	.11710	-.28735
12	.14101	-.30973	-65.370	.02669	.15313	-.30417	.12887	-.31529
13	.15359	-.33707	-65.214	.02844	.16650	-.33110	.14065	-.34304
14	.16615	-.36420	-65.044	.03022	.17995	-.35782	.15245	-.37058
15	.17873	-.39112	-64.860	.03193	.19319	-.38434	.16428	-.39790

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19131	-.41780-04.003	.03359		.20649	-.41062	.17613	-.42499
17	.20183	-.44424-04.452	.03520		.21977	-.43665	.18801	-.45183
18	.21047	-.47043-04.227	.03677		.23392	-.46243	.19991	-.47842
19	.22905	-.49634-03.985	.03829		.24625	-.48735	.21184	-.50474
20	.24162	-.52197-03.735	.03975		.25945	-.51118	.22380	-.53077
21	.25420	-.54732-03.467	.04115		.27261	-.53412	.23579	-.55651
22	.26673	-.57236-03.185	.04251		.28575	-.56277	.24781	-.58194
23	.27915	-.59708-02.887	.04381		.29886	-.58710	.25986	-.60707
24	.29194	-.62149-02.574	.04505		.31193	-.61111	.27194	-.63188
25	.30452	-.64556-02.246	.04624		.32499	-.63479	.28405	-.65632
26	.31703	-.66929-01.901	.04737		.33791	-.65813	.29620	-.68044
27	.32967	-.69267-01.540	.04844		.35096	-.68113	.30839	-.70421
28	.34225	-.71570-01.162	.04945		.36391	-.70377	.32059	-.72762
29	.35481	-.73836-00.768	.05041		.37682	-.72605	.33284	-.75066
30	.36741	-.76065-00.356	.05130		.38970	-.74796	.34512	-.77333
31	.37993	-.78256-59.926	.05213		.40254	-.76950	.35743	-.79562
32	.39255	-.80409-59.479	.05291		.41535	-.79065	.36977	-.81752
33	.40514	-.82523-59.011	.05363		.42813	-.81142	.38215	-.83903
34	.41772	-.84597-58.525	.05430		.44087	-.83180	.39457	-.86014
35	.43029	-.86632-58.020	.05490		.45359	-.85178	.40701	-.88086
36	.44281	-.88626-57.495	.05546		.46626	-.87136	.41949	-.90116
37	.45546	-.90579-56.949	.05595		.47890	-.89054	.43200	-.92105
38	.46803	-.92492-56.383	.05640		.49152	-.90931	.44455	-.94053
39	.48061	-.94363-55.797	.05679		.50409	-.92767	.45713	-.95959
40	.49318	-.96193-55.189	.05713		.51664	-.94562	.46974	-.97824
41	.50577	-.97981-54.559	.05742		.52916	-.96317	.48238	-.99646
42	.51835	-.99728-53.908	.05766		.54164	-.98029	.49505-1.01426
43	.51042-1.01432-53.234		.05785		.55410	-.99701	.50775-1.03163
44	.54350-1.13095-52.539		.05800		.56652-1.01331		.52048-1.04858
45	.55603-1.04715-51.821		.05810		.57892-1.02920		.53324-1.06511
46	.56900-1.06294-51.082		.05816		.59126-1.04467		.54603-1.08121
47	.5812-1.07831-50.320		.05817		.60352-1.05974		.55885-1.09689
48	.59341-1.09326-49.536		.05814		.61593-1.07439		.57170-1.11213
49	.60639-1.10780-48.730		.05807		.62822-1.08865		.58457-1.12695
50	.61947-1.12193-47.903		.05794		.64047-1.10250		.59747-1.14135
51	.63155-1.13565-47.056		.05776		.65263-1.11597		.61041-1.15532
52	.64413-1.14896-46.188		.05752		.66483-1.12915		.62337-1.16897
53	.65671-1.16187-45.301		.05721		.67704-1.14175		.63637-1.18199
54	.66924-1.17438-44.397		.05684		.68917-1.15417		.64940-1.19469
55	.68170-1.18650-43.475		.05640		.70127-1.16604		.66246-1.20697
56	.69444-1.19824-42.534		.05590		.71334-1.17754		.67555-1.21883
57	.70703-1.20959-41.597		.05532		.72536-1.18830		.68866-1.23027
58	.71960-1.22056-40.624		.05469		.73739-1.19882		.70180-1.24131
59	.73219-1.23117-39.651		.05394		.74934-1.21040		.71497-1.25193
60	.74479-1.24141-38.670		.05313		.76135-1.22067		.72815-1.26219
61	.75733-1.25130-37.683		.05225		.77330-1.23063		.74136-1.27198
62	.76991-1.26085-36.694		.05129		.78524-1.24029		.75458-1.28141
63	.78243-1.27005-35.705		.05026		.79715-1.24965		.76782-1.29046
64	.79507-1.27893-34.719		.04914		.80906-1.25873		.78107-1.29913
65	.80764-1.29749-33.740		.04794		.82096-1.26755		.79433-1.30742
66	.82022-1.29574-32.770		.04666		.83285-1.27612		.80759-1.31536
67	.83280-1.30369-31.814		.04530		.84474-1.28444		.82086-1.32293
68	.84539-1.31135-30.874		.04386		.85663-1.29253		.83413-1.33017
69	.85796-1.31873-29.956		.04232		.86852-1.30039		.84739-1.33707
70	.87054-1.32585-29.062		.04071		.88042-1.30806		.86065-1.34364
71	.88311-1.33271-28.196		.03900		.89233-1.31553		.87390-1.34990

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89563	-1.33934	-27.362	.03721	.90424	-1.32262	.88714	-1.35586
73	.90827	-1.34574	-26.565	.03532	.91617	-1.32994	.90037	-1.36153
74	.92085	-1.35192	-25.809	.03334	.92811	-1.33691	.91359	-1.36693
75	.93343	-1.35791	-25.094	.03127	.94006	-1.34375	.92680	-1.37206
76	.94600	-1.36371	-24.429	.02910	.95202	-1.35046	.93999	-1.37695
77	.95859	-1.36934	-23.913	.02683	.96400	-1.35707	.95317	-1.38161
78	.97116	-1.37482	-23.253	.02445	.97599	-1.36358	.96633	-1.38605
79	.98374	-1.38015	-22.752	.02198	.98799	-1.37002	.97949	-1.39029
80	.99632	-1.38537	-22.311	.01940	1.00000	-1.37640	.99264	-1.39434

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 13

P	= 0.0000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-66.842	(BLADE INLET ANGLE.)
BETA2	=-22.317	(BLADE OUTLET ANGLE.)
YZERO	= .00163	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03317	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00553	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0000	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO A BLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.7395

STAGGER ANGLE =-55.029

CAMBER ANGLE =-44.565

SECTION AREA = .07259

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .47544
YBAR = -.09403

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00910
IY = .00409
IXY = -.00536

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 33.602

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01300 (AT 33.602 WITH 'X' AXIS)
IPY = .00019 (AT 33.602 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00266	0.00000	-66.882	.00532	.00511	.00104	.00021	-.00104
2	.01524	-.02946	-66.875	.00734	.01861	-.02802	.01187	-.03090
3	.02742	-.05890	-66.853	.00935	.03212	-.05706	.02352	-.06074
4	.04043	-.08830	-66.818	.01136	.04562	-.08607	.03518	-.09054
5	.05297	-.11764	-66.769	.01335	.05911	-.11501	.04684	-.12027
6	.06555	-.14690	-66.707	.01533	.07259	-.14387	.05851	-.14993
7	.07813	-.17607	-66.631	.01729	.08607	-.17264	.07020	-.17950
8	.09071	-.20512	-66.542	.01922	.09953	-.20129	.08189	-.20894
9	.10329	-.23404	-66.448	.02114	.11297	-.22981	.09360	-.23826
10	.11587	-.26280	-66.325	.02302	.12641	-.25818	.10533	-.26743
11	.12844	-.29141	-66.197	.02487	.13982	-.28639	.11707	-.29643
12	.14102	-.31983	-66.056	.02669	.15322	-.31441	.12883	-.32524
13	.15360	-.34805	-65.901	.02847	.16659	-.34224	.14061	-.35386
14	.16618	-.37606	-65.733	.03021	.17995	-.36986	.15241	-.38227
15	.17876	-.40385	-65.552	.03190	.19328	-.39725	.16424	-.41045

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19134	-.43139	-65.359	.03356	.20659	-.42440	.17609	-.43839
17	.20391	-.45868	-65.149	.03516	.21987	-.45130	.18796	-.46607
18	.21649	-.48571	-64.927	.03672	.23312	-.47793	.19986	-.49349
19	.22907	-.51245	-64.691	.03822	.24635	-.50428	.21179	-.52062
20	.24165	-.53890	-64.441	.03967	.25954	-.53034	.22375	-.54746
21	.25423	-.56505	-64.176	.04107	.27271	-.55610	.23574	-.57400
22	.26681	-.59088	-63.897	.04241	.28585	-.58155	.24776	-.60021
23	.27939	-.61639	-63.603	.04370	.29896	-.60668	.25981	-.62611
24	.29196	-.64156	-63.293	.04493	.31203	-.63147	.27189	-.65166
25	.30454	-.66639	-62.967	.04610	.32507	-.65591	.28401	-.67687
26	.31712	-.69086	-62.625	.04722	.33808	-.68001	.29615	-.70172
27	.32970	-.71497	-62.268	.04827	.35106	-.70374	.30833	-.72621
28	.34224	-.73871	-61.894	.04927	.36401	-.72711	.32055	-.75032
29	.35485	-.76207	-61.502	.05021	.37692	-.75009	.33279	-.77405
30	.36743	-.78505	-61.093	.05109	.38979	-.77270	.34507	-.79739
31	.38001	-.80763	-60.665	.05191	.40264	-.79491	.35738	-.82034
32	.39259	-.82981	-60.220	.05267	.41545	-.81673	.36973	-.84289
33	.40517	-.85159	-59.756	.05337	.42822	-.83815	.38211	-.86503
34	.41775	-.87295	-59.272	.05402	.44096	-.85915	.39453	-.88676
35	.43032	-.89391	-58.769	.05461	.45367	-.87975	.40698	-.90806
36	.44290	-.91444	-58.245	.05515	.46635	-.89993	.41946	-.92895
37	.45548	-.93455	-57.701	.05563	.47899	-.91969	.43197	-.94941
38	.46806	-.95423	-57.136	.05605	.49160	-.93903	.44452	-.96944
39	.48064	-.97349	-56.550	.05643	.50418	-.95794	.45710	-.98904
40	.49322	-.99231	-55.941	.05675	.51672	-.97642	.46971	-1.00820
41	.50579	-1.01078	-55.311	.05703	.52924	-.99447	.48235	-1.02693
42	.51837	-1.02866	-54.659	.05725	.54172	-1.01210	.49502	-1.04522
43	.53095	-1.04618	-53.983	.05743	.55419	-1.02929	.50772	-1.06306
44	.54353	-1.06326	-53.285	.05756	.56660	-1.04605	.52046	-1.08047
45	.55611	-1.07991	-52.563	.05765	.57899	-1.06239	.53322	-1.09743
46	.56869	-1.09612	-51.819	.05769	.59136	-1.07829	.54601	-1.11395
47	.58126	-1.11190	-51.051	.05769	.60370	-1.09376	.55883	-1.13003
48	.59384	-1.12724	-50.260	.05765	.61601	-1.10882	.57168	-1.14567
49	.60642	-1.14216	-49.447	.05756	.62829	-1.12345	.58455	-1.16087
50	.61900	-1.15664	-48.611	.05742	.64054	-1.13766	.59746	-1.17563
51	.63159	-1.17070	-47.753	.05722	.65276	-1.15147	.61040	-1.18994
52	.64415	-1.18434	-46.874	.05696	.66494	-1.16487	.62337	-1.20381
53	.65673	-1.19757	-45.975	.05664	.67710	-1.17788	.63637	-1.21725
54	.66931	-1.21037	-45.056	.05625	.68922	-1.19051	.64940	-1.23024
55	.68189	-1.22277	-44.118	.05580	.70131	-1.20274	.66247	-1.24280
56	.69447	-1.23477	-43.164	.05527	.71337	-1.21461	.67556	-1.25493
57	.70705	-1.24637	-42.194	.05468	.72541	-1.22611	.68868	-1.26662
58	.71962	-1.25758	-41.211	.05401	.73742	-1.23725	.70183	-1.27789
59	.73220	-1.26840	-40.216	.05328	.74940	-1.24806	.71500	-1.28874
60	.74478	-1.27885	-39.212	.05246	.76136	-1.25853	.72820	-1.29918
61	.75736	-1.28893	-38.202	.05158	.77331	-1.26867	.74141	-1.30920
62	.76994	-1.29865	-37.187	.05061	.78523	-1.27849	.75464	-1.31881
63	.78252	-1.30802	-36.171	.04957	.79715	-1.28801	.76789	-1.32803
64	.79509	-1.31705	-35.158	.04846	.80905	-1.29724	.78114	-1.33686
65	.80767	-1.32574	-34.149	.04726	.82094	-1.30619	.79441	-1.34530
66	.82025	-1.33412	-33.150	.04599	.83283	-1.31486	.80768	-1.35337
67	.83283	-1.34218	-32.164	.04464	.84471	-1.32328	.82095	-1.36107
68	.84541	-1.34994	-31.194	.04321	.85660	-1.33146	.83422	-1.36842
69	.85799	-1.35741	-30.245	.04169	.86849	-1.33940	.84749	-1.37542
70	.87056	-1.36461	-29.320	.04009	.88038	-1.34713	.86075	-1.38209
71	.88314	-1.37155	-28.424	.03841	.89229	-1.35465	.87400	-1.38844

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.89572	-1.37823	-27.560	.03665	.90420	-1.36199	.88724	-1.39448
73	.90830	-1.38468	-26.734	.03479	.91613	-1.36914	.90047	-1.40022
74	.92089	-1.39091	-25.949	.03285	.92807	-1.37514	.91369	-1.40568
75	.93346	-1.39693	-25.208	.03082	.94002	-1.38098	.92689	-1.41087
76	.94603	-1.40275	-24.517	.02870	.95199	-1.38670	.94008	-1.41581
77	.95861	-1.40841	-23.878	.02648	.96397	-1.39230	.95325	-1.42051
78	.97119	-1.41390	-23.297	.02417	.97597	-1.40280	.96641	-1.42499
79	.98377	-1.41924	-22.775	.02175	.98798	-1.40921	.97956	-1.42927
80	.99635	-1.42446	-22.317	.01924	1.00000	-1.41557	.99269	-1.43336

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 14

P	= 0.000	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2500	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-67.563	(BLADE INLET ANGLE.)
BETA2	=-22.129	(BLADE OUTLET ANGLE.)
YZERO	= .00151	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03224	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00537	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0174	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO A BLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.7725

STAGGER ANGLE =-55.763

CAMBER ANGLE =-45.434

SECTION AREA = .07334

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .47222
YBAR = -.01759

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .00975
IY = .00412
IXY = -.00619

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 32.758

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01373 (AT 32.758 WITH 'X' AXIS)
IPY = .00014 (AT 32.758 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00269	0.00000	-67.563	.00537	.00517	.00102	.00020	-.00102
2	.01526	-.03046	-67.556	.00738	.01869	-.02905	.01185	-.03187
3	.02784	-.06098	-67.535	.00939	.03219	-.05910	.02350	-.06269
4	.04042	-.09129	-67.500	.01139	.04568	-.08911	.03516	-.09347
5	.05300	-.12163	-67.452	.01338	.05918	-.11906	.04682	-.12419
6	.06558	-.15188	-67.391	.01535	.07265	-.14893	.05849	-.15483
7	.07815	-.18203	-67.316	.01730	.08614	-.17870	.07018	-.18537
8	.09074	-.21206	-67.228	.01923	.09960	-.20834	.08187	-.21579
9	.10332	-.24196	-67.128	.02114	.11305	-.23785	.09358	-.24606
10	.11589	-.27169	-67.014	.02302	.12649	-.26720	.10530	-.27619
11	.12847	-.30126	-66.888	.02486	.13991	-.29638	.11704	-.30614
12	.14105	-.33064	-66.748	.02667	.15330	-.32537	.12880	-.33590
13	.15363	-.35981	-66.596	.02844	.16669	-.35415	.14058	-.36545
14	.16621	-.38875	-66.430	.03017	.18004	-.38272	.15238	-.39479
15	.17879	-.41747	-66.251	.03186	.19337	-.41105	.16421	-.42388

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19137	-.44593	-66.059	.03350	.20664	-.43913	.17606	-.45272
17	.20395	-.47412	-65.851	.03509	.21996	-.46695	.18794	-.48130
18	.21653	-.50204	-65.634	.03664	.23321	-.49448	.19984	-.50960
19	.22910	-.52967	-65.400	.03813	.24644	-.52173	.21177	-.53760
20	.24168	-.55699	-65.153	.03957	.25964	-.54867	.22373	-.56530
21	.25426	-.58399	-64.891	.04095	.27280	-.57530	.23572	-.59268
22	.26684	-.61067	-64.614	.04228	.28594	-.60160	.24774	-.61973
23	.27942	-.63700	-64.323	.04355	.29905	-.62757	.25979	-.64644
24	.29200	-.66299	-64.016	.04477	.31212	-.65318	.27184	-.67280
25	.30458	-.68862	-63.693	.04593	.32516	-.67844	.28394	-.69879
26	.31715	-.71387	-63.354	.04703	.33817	-.70333	.29614	-.72442
27	.32973	-.73875	-62.999	.04806	.35115	-.72784	.30832	-.74956
28	.34231	-.76324	-62.627	.04904	.36403	-.75197	.32054	-.77452
29	.35489	-.78734	-62.238	.04996	.37703	-.77570	.33279	-.79898
30	.36747	-.81103	-61.831	.05083	.38987	-.79904	.34507	-.82303
31	.38005	-.83432	-61.406	.05163	.40272	-.82196	.35738	-.84667
32	.39263	-.85714	-60.962	.05237	.41552	-.84447	.36973	-.86989
33	.40521	-.87963	-60.493	.05306	.42830	-.86657	.38212	-.89259
34	.41779	-.90165	-60.017	.05369	.44104	-.88823	.39454	-.91506
35	.43037	-.92323	-59.514	.05426	.45374	-.90947	.40699	-.93699
36	.44296	-.94438	-58.991	.05477	.46640	-.93027	.41947	-.95849
37	.45552	-.96509	-58.447	.05524	.47906	-.95063	.43199	-.97954
38	.46810	-.98535	-57.882	.05565	.49167	-.97055	.44454	-1.00014
39	.48069	-1.00516	-57.295	.05600	.50424	-.99003	.45712	-1.02029
40	.49326	-1.02453	-56.685	.05631	.51679	-1.00906	.46973	-1.03999
41	.50584	-1.04344	-56.052	.05656	.52930	-1.02764	.48238	-1.05923
42	.51842	-1.06190	-55.396	.05677	.54178	-1.04578	.49505	-1.07802
43	.53100	-1.07990	-54.717	.05693	.55423	-1.06346	.50776	-1.09634
44	.54357	-1.09745	-54.014	.05705	.56666	-1.08069	.52049	-1.11421
45	.55615	-1.11454	-53.286	.05712	.57905	-1.09747	.53326	-1.13162
46	.56873	-1.13118	-52.535	.05715	.59141	-1.11380	.54605	-1.14857
47	.58131	-1.14737	-51.759	.05714	.60375	-1.12969	.55887	-1.16505
48	.59388	-1.16311	-50.959	.05708	.61606	-1.14513	.57172	-1.18108
49	.60647	-1.17839	-50.135	.05697	.62833	-1.16013	.58460	-1.19665
50	.61905	-1.19323	-49.287	.05681	.64059	-1.17471	.59752	-1.21176
51	.63163	-1.20763	-48.416	.05659	.65279	-1.18845	.61046	-1.22641
52	.64421	-1.22159	-47.521	.05632	.66497	-1.20257	.62344	-1.24060
53	.65679	-1.23511	-46.605	.05599	.67712	-1.21598	.63645	-1.25434
54	.66936	-1.24820	-45.668	.05557	.68924	-1.22873	.64949	-1.26761
55	.68194	-1.26086	-44.710	.05510	.70132	-1.24128	.66255	-1.28044
56	.69452	-1.27310	-43.734	.05455	.71333	-1.25339	.67566	-1.29281
57	.70710	-1.28493	-42.741	.05395	.72541	-1.26512	.68879	-1.30474
58	.71968	-1.29635	-41.732	.05327	.73741	-1.27646	.70195	-1.31623
59	.73226	-1.30737	-40.711	.05252	.74933	-1.28747	.71513	-1.32728
60	.74484	-1.31800	-39.678	.05170	.76134	-1.29811	.72833	-1.33790
61	.75741	-1.32825	-38.637	.05081	.77324	-1.30840	.74155	-1.34809
62	.76998	-1.33812	-37.591	.04984	.78519	-1.31837	.75479	-1.35786
63	.78257	-1.34762	-36.542	.04880	.79710	-1.32801	.76805	-1.36722
64	.79515	-1.35676	-35.494	.04768	.80899	-1.33735	.78131	-1.37617
65	.80773	-1.36556	-34.450	.04649	.82084	-1.34639	.79458	-1.38473
66	.82031	-1.37402	-33.415	.04523	.83276	-1.35515	.80785	-1.39290
67	.83299	-1.38216	-32.392	.04389	.84464	-1.36363	.82113	-1.40069
68	.84547	-1.38999	-31.385	.04247	.85653	-1.37185	.83441	-1.40812
69	.85805	-1.39751	-30.398	.04098	.86841	-1.37984	.84768	-1.41519
70	.87062	-1.40475	-29.436	.03941	.88031	-1.38759	.86094	-1.42191
71	.88320	-1.41172	-28.503	.03775	.89221	-1.39513	.87419	-1.42830

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
72	.83579	-1.41842	-27.604	.03602	.90413	-1.40246	.88744	-1.43438
73	.90835	-1.42487	-26.742	.03421	.91506	-1.40950	.90066	-1.44015
74	.92094	-1.43110	-25.923	.03231	.92800	-1.41657	.91388	-1.44563
75	.93352	-1.43711	-25.150	.03032	.93996	-1.42338	.92708	-1.45083
76	.94610	-1.44292	-24.428	.02825	.95194	-1.43006	.94026	-1.45578
77	.95869	-1.44854	-23.761	.02609	.96393	-1.43660	.95342	-1.46048
78	.97126	-1.45400	-23.153	.02384	.97594	-1.44304	.96657	-1.46496
79	.98383	-1.45930	-22.608	.02149	.98796	-1.44939	.97970	-1.46922
80	.99641	-1.46448	-22.129	.01905	1.00000	-1.45566	.99283	-1.47330

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 15

P	= 0.0010	(D2YDX2 OF MEANLINE AT LEADING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
Q	= .2590	(D2YDX2 OF MEANLINE AT TRAILING EDGE AS A FRACTION OF ITS MAXIMUM VALUE.)
BETA1	=-69.246	(BLADE INLET ANGLE.)
BETA2	=-21.833	(BLADE OUTLET ANGLE.)
YZERO	= .03150	(BLADE LEADING EDGE RADIUS AS A FRACTION OF CHORD.)
T	= .03129	(BLADE MAXIMUM THICKNESS AS A FRACTION OF CHORD.)
YONE	= .00521	(BLADE TRAILING EDGE HALF-THICKNESS AS A FRACTION OF CHORD.)
Z	= .7000	(LOCATION OF MAXIMUM THICKNESS AS A FRACTION OF MEAN LINE.)
CORD	= 2.0278	(CHORD OR MERIDIONAL CHORD OF SECTION.)

NORMALISED RESULTS - ALL THE FOLLOWING REFER TO ABLADE HAVING A MERIDIONAL CHORD PROJECTION OF UNITY

BLADE CHORD = 1.8071

STAGGER ANGLE =-56.513

CAMBER ANGLE =-46.413

SECTION AREA = .07403

LOCATION OF CENTROID RELATIVE TO LEADING EDGE

XBAR = .45331
YBAR = -.94214

SECOND MOMENTS OF AREA ABOUT CENTROID

IX = .01046
IY = .00414
IXY = -.00642

ANGLE OF INCLINATION OF (ONE) PRINCIPAL AXIS TO 'X' AXIS = 31.306

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID

IPX = .01446 (AT 31.906 WITH 'X' AXIS)
IPY = .00015 (AT 31.906 WITH 'Y' AXIS)

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.00271	0.00000	-68.246	.00542	.00523	.00100	.00019	-.00100
2	.01529	-.03152	-69.239	.00743	.01874	-.03014	.01184	-.03290
3	.02787	-.06302	-68.218	.00943	.03225	-.06127	.02349	-.06477
4	.04045	-.09447	-68.184	.01142	.04575	-.09235	.03515	-.09660
5	.05303	-.12586	-68.137	.01340	.05925	-.12337	.04681	-.12836
6	.06561	-.15717	-68.076	.01536	.07274	-.15430	.05848	-.16004
7	.07819	-.18837	-68.003	.01731	.08621	-.18513	.07016	-.19161
8	.09077	-.21944	-67.916	.01923	.09964	-.21583	.08186	-.22306
9	.10335	-.25037	-67.817	.02113	.11313	-.24638	.09356	-.25436
10	.11593	-.28114	-67.705	.02300	.12657	-.27678	.10529	-.28550
11	.12851	-.31172	-67.580	.02483	.13993	-.30699	.11703	-.31646
12	.14109	-.34211	-67.442	.02663	.15339	-.33700	.12879	-.34722
13	.15367	-.37229	-67.292	.02839	.16676	-.36681	.14057	-.37777
14	.16625	-.40223	-67.129	.03011	.18012	-.39639	.15237	-.40808
15	.17882	-.43192	-66.952	.03179	.19345	-.42570	.15420	-.43815

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
16	.19140	-.46136	-66.762	.03342	.20676	-.45476	.17605	-.46795
17	.20398	-.43851	-66.559	.03588	.22004	-.48355	.18793	-.49749
18	.21655	-.51938	-66.342	.03653	.23329	-.51285	.19983	-.52671
19	.22914	-.54794	-66.111	.03881	.24652	-.54024	.21177	-.55563
20	.24172	-.57618	-65.867	.03944	.25972	-.56812	.22373	-.58424
21	.25430	-.60409	-65.607	.04081	.27288	-.59566	.23572	-.61252
22	.26688	-.63166	-65.334	.04212	.28602	-.62287	.24774	-.64045
23	.27946	-.65887	-65.045	.04338	.29912	-.64972	.25980	-.66802
24	.29204	-.68572	-64.740	.04457	.31220	-.67621	.27189	-.69523
25	.30462	-.71219	-64.421	.04571	.32524	-.70232	.28400	-.72206
26	.31720	-.73827	-64.085	.04679	.33824	-.72805	.29616	-.74850
27	.32979	-.76396	-63.732	.04781	.35122	-.75338	.30834	-.77454
28	.34236	-.78925	-63.363	.04877	.36416	-.77832	.32056	-.80018
29	.35494	-.81412	-62.976	.04969	.37707	-.80284	.33281	-.82541
30	.36752	-.83857	-62.571	.05052	.38994	-.82694	.34510	-.85021
31	.38010	-.86260	-62.148	.05130	.40278	-.85061	.35742	-.87458
32	.39268	-.88618	-61.706	.05202	.41559	-.87386	.36977	-.89851
33	.40526	-.90933	-61.245	.05269	.42835	-.89666	.38216	-.92201
34	.41784	-.93203	-60.764	.05330	.44109	-.91902	.39458	-.94505
35	.43042	-.95428	-60.262	.05385	.45380	-.94092	.40704	-.96764
36	.44300	-.97607	-59.740	.05435	.46647	-.96238	.41953	-.98977
37	.45553	-.99740	-59.196	.05479	.47911	-.98337	.43205	-1.01143
38	.46816	-1.01827	-58.629	.05518	.49171	-1.00391	.44460	-1.03263
39	.48074	-1.03867	-58.041	.05552	.50429	-1.02397	.45718	-1.05336
40	.49331	-1.05859	-57.429	.05580	.51683	-1.04357	.46980	-1.07362
41	.50589	-1.07805	-56.794	.05604	.52934	-1.06270	.48245	-1.09340
42	.51847	-1.09703	-56.134	.05623	.54182	-1.08136	.49513	-1.11270
43	.53105	-1.11554	-55.450	.05638	.55427	-1.09955	.50784	-1.13152
44	.54363	-1.13357	-54.742	.05647	.56669	-1.11727	.52058	-1.14987
45	.55621	-1.15113	-54.008	.05653	.57908	-1.13452	.53334	-1.16774
46	.56879	-1.16821	-53.249	.05654	.59145	-1.15129	.54614	-1.18513
47	.58137	-1.18482	-52.464	.05652	.60378	-1.16760	.55896	-1.20203
48	.59395	-1.20096	-51.653	.05644	.61608	-1.18345	.57182	-1.21846
49	.60653	-1.21662	-50.817	.05632	.62836	-1.19883	.58470	-1.23441
50	.61911	-1.23182	-49.956	.05614	.64060	-1.21376	.59762	-1.24988
51	.63169	-1.24656	-49.070	.05590	.65281	-1.22825	.61057	-1.26487
52	.64427	-1.26084	-48.159	.05560	.66498	-1.24229	.62356	-1.27938
53	.65685	-1.27466	-47.224	.05524	.67712	-1.25590	.63657	-1.29342
54	.66943	-1.28803	-46.266	.05482	.68923	-1.26908	.64962	-1.30698
55	.68201	-1.30096	-45.287	.05433	.70131	-1.28185	.66270	-1.32007
56	.69459	-1.31345	-44.286	.05378	.71336	-1.29420	.67581	-1.33269
57	.70717	-1.32550	-43.267	.05315	.72539	-1.30615	.68895	-1.34485
58	.71975	-1.33713	-42.230	.05246	.73738	-1.31771	.70212	-1.35655
59	.73233	-1.34834	-41.179	.05170	.74935	-1.32889	.71531	-1.36780
60	.74491	-1.35914	-40.114	.05087	.76129	-1.33969	.72852	-1.37859
61	.75749	-1.36954	-39.040	.04997	.77322	-1.35014	.74175	-1.38895
62	.77007	-1.37955	-37.958	.04900	.78513	-1.36023	.75500	-1.39886
63	.78265	-1.38917	-36.872	.04796	.79703	-1.36999	.76826	-1.40835
64	.79523	-1.39842	-35.786	.04685	.80892	-1.37942	.78153	-1.41742
65	.80780	-1.40731	-34.703	.04566	.82080	-1.38854	.79481	-1.42608
66	.82038	-1.41585	-33.627	.04441	.83268	-1.39736	.80809	-1.43434
67	.83296	-1.42405	-32.563	.04308	.84456	-1.40589	.82137	-1.44220
68	.84554	-1.43192	-31.514	.04163	.85644	-1.41415	.83465	-1.44969
69	.85812	-1.43948	-30.486	.04021	.86832	-1.42215	.84792	-1.45681
70	.87070	-1.44674	-29.482	.03867	.88022	-1.42991	.86119	-1.46357
71	.88328	-1.45371	-28.508	.03704	.89212	-1.43743	.87444	-1.46998

POINT NUMBER	MEANLINE DATA X Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS YS	XP YP
72	.89586-1.46041	-27.568	.03535	.90404-1.44474	.88768-1.47607
73	.90844-1.46685	-26.667	.03357	.91597-1.45185	.90091-1.48185
74	.92102-1.47305	-25.809	.03172	.92793-1.45877	.91412-1.48732
75	.93360-1.47902	-25.000	.02978	.93989-1.46552	.92731-1.49252
76	.94619-1.48478	-24.240	.02776	.95188-1.47213	.94048-1.49744
77	.95878-1.49036	-23.545	.02566	.96389-1.47859	.95363-1.50212
78	.97136-1.49575	-22.907	.02347	.97591-1.48494	.96677-1.50656
79	.98392-1.50099	-22.335	.02120	.98795-1.49119	.97989-1.51080
80	.99650-1.50610	-21.833	.01883	1.00000-1.49736	.99300-1.51484

BLADE SURFACE GEOMETRY IN CARTESIAN COORDINATES AT SPECIFIED VALUES OF 'Z'

SECTION NUMBER 1 'Z' = 6.5000

SECTION PROPERTIES

SECTION AREA		=	3.6488E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	5.2922E-02
	YBAR	=	-3.3379E-03
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	9.3309E-02
	IY	=	9.6833E-02
	IXY	=	-8.5579E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.7571E-01 (AT 43.92 DEGREES TO 'X' AXIS)
	IPY	=	4.4309E-03 (AT 43.92 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	2.7467E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.72091E-01	1.45155E+00	-9.81073E-01	1.44573E+00
2	-9.44281E-01	1.40532E+00	-9.57636E-01	1.39667E+00
3	-9.16404E-01	1.35915E+00	-9.34151E-01	1.34764E+00
4	-8.88470E-01	1.31307E+00	-9.10613E-01	1.29868E+00
5	-8.60491E-01	1.26712E+00	-8.87020E-01	1.24982E+00
6	-8.32492E-01	1.22133E+00	-8.63372E-01	1.20110E+00
7	-8.04454E-01	1.17574E+00	-8.39668E-01	1.15256E+00
8	-7.76429E-01	1.13036E+00	-8.15910E-01	1.10422E+00
9	-7.48409E-01	1.08526E+00	-7.92100E-01	1.05612E+00
10	-7.20422E-01	1.04044E+00	-7.68239E-01	1.00829E+00
11	-6.92494E-01	9.95931E-01	-7.44329E-01	9.60765E-01
12	-6.64610E-01	9.51785E-01	-7.20374E-01	9.13569E-01
13	-6.36822E-01	9.09013E-01	-6.96378E-01	8.66732E-01
14	-6.09136E-01	8.64641E-01	-6.72344E-01	8.20283E-01
15	-5.81575E-01	8.21713E-01	-6.48290E-01	7.74255E-01
16	-5.54194E-01	7.79238E-01	-6.24215E-01	7.28672E-01
17	-5.26976E-01	7.37239E-01	-6.00125E-01	6.83557E-01
18	-4.99737E-01	6.95755E-01	-5.76030E-01	6.38934E-01
19	-4.72729E-01	6.54790E-01	-5.51930E-01	5.94827E-01
20	-4.45956E-01	6.14356E-01	-5.27825E-01	5.51257E-01
21	-4.19125E-01	5.74517E-01	-5.03695E-01	5.08250E-01
22	-3.92522E-01	5.35250E-01	-4.79575E-01	4.65823E-01
23	-3.66040E-01	4.96585E-01	-4.55431E-01	4.23991E-01
24	-3.39673E-01	4.58548E-01	-4.31255E-01	3.82774E-01
25	-3.13415E-01	4.21156E-01	-4.07040E-01	3.42189E-01
26	-2.87259E-01	3.84418E-01	-3.82781E-01	3.02256E-01
27	-2.61200E-01	3.48354E-01	-3.58470E-01	2.62999E-01
28	-2.35231E-01	3.12995E-01	-3.34100E-01	2.24421E-01
29	-2.09344E-01	2.78338E-01	-3.09659E-01	1.85540E-01
30	-1.83531E-01	2.44399E-01	-2.85154E-01	1.49370E-01
31	-1.57790E-01	2.11204E-01	-2.60565E-01	1.12934E-01
32	-1.32123E-01	1.78758E-01	-2.35882E-01	7.72403E-02
33	-1.06539E-01	1.47072E-01	-2.11098E-01	4.22986E-02
34	-9.10927E-02	1.15158E-01	-1.86204E-01	8.12113E-03

POINT NO	XS	YS	XP	YP
35	-5.5[illegible]E-02	8.60399E-02	-1.61194E-01	-2.52759E-02
36	-4.04[illegible]E-02	5.67134E-02	-1.36069E-01	-5.78774E-02
37	-5.32062E-03	2.81964E-02	-1.10835E-01	-8.96805E-02
38	1.96[illegible]E-02	5.03706E-04	-8.55080E-02	-1.20675E-01
39	+.44[illegible]E-02	-2.63645E-02	-6.00965E-02	-1.50847E-01
40	5.90473E-02	-5.24122E-02	-3.46091E-02	-1.80185E-01
41	9.34526E-02	-7.75233E-02	-9.06464E-03	-2.08682E-01
42	1.17[illegible]E-01	-1.01991E-01	1.65215E-02	-2.36316E-01
43	1.41[illegible]E-01	-1.2[illegible]E-01	4.21326E-02	-2.63109E-01
44	1.65[illegible]E-01	-1.44156E-01	6.77502E-02	-2.[illegible]040E-01
45	1.8[illegible]E-01	-1.6[illegible]E-01	9.33541E-02	-3.141[illegible]E-01
46	2.11[illegible]E-01	-1.9[illegible]E-01	1.18[illegible]E-01	-3.38285E-01
47	2.34[illegible]E-01	-2.1[illegible]E-01	1.44[illegible]E-01	-3.61571E-01
48	2.57[illegible]E-01	-2.3[illegible]E-01	1.69[illegible]E-01	-3.839[illegible]E-01
49	2.79[illegible]E-01	-2.4[illegible]E-01	1.95[illegible]E-01	-4.05457E-01
50	3.01[illegible]E-01	-2.6[illegible]E-01	2.20[illegible]E-01	-4.26030E-01
51	3.23[illegible]E-01	-2.8[illegible]E-01	2.45[illegible]E-01	-4.45670E-01
52	3.44[illegible]E-01	-2.99[illegible]E-01	2.70[illegible]E-01	-4.64353E-01
53	3.65[illegible]E-01	-3.1[illegible]E-01	2.94[illegible]E-01	-4.82[illegible]E-01
54	3.86[illegible]E-01	-3.26772E-01	3.19[illegible]E-01	-4.99[illegible]E-01
55	4.07223E-01	-3.3[illegible]E-01	3.43[illegible]E-01	-5.[illegible]33E-01
56	4.27772E-01	-3.52156E-01	3.67622E-01	-5.29227E-01
57	4.48143E-01	-3.6[illegible]E-01	3.[illegible]E-01	-5.42857E-01
58	4.68[illegible]E-01	-3.7[illegible]E-01	4.15[illegible]E-01	-5.55420E-01
59	4.88[illegible]E-01	-3.9[illegible]E-01	4.39553E-01	-5.6[illegible]E-01
60	5.08973E-01	-3.93096E-01	4.63413E-01	-5.77233E-01
61	5.29[illegible]E-01	-4.01341E-01	4.87[illegible]E-01	-5.86440E-01
62	5.49[illegible]E-01	-4.08[illegible]E-01	5.11141E-01	-5.94487E-01
63	5.70135E-01	-4.15529E-01	5.35088E-01	-6.01339E-01
64	5.90[illegible]E-01	-4.21498E-01	5.59152E-01	-6.06986E-01
65	6.11[illegible]E-01	-4.25736E-01	5.83391E-01	-6.11406E-01
66	6.33124E-01	-4.31270E-01	6.07865E-01	-6.14569E-01
67	6.54827E-01	-4.35123E-01	6.32637E-01	-6.16467E-01
68	6.77053E-01	-4.38323E-01	6.57757E-01	-6.17097E-01
69	6.99[illegible]E-01	-4.41905E-01	6.83269E-01	-6.[illegible]412E-01
70	7.23[illegible]E-01	-4.42919E-01	7.09218E-01	-6.14449E-01
71	7.47[illegible]E-01	-4.44413E-01	7.35691E-01	-6.11205E-01
72	7.71414E-01	-4.45452E-01	7.62[illegible]E-01	-6.[illegible]691E-01
73	7.97[illegible]E-01	-4.46111E-01	7.90146E-01	-6.[illegible]946E-01
74	8.23[illegible]E-01	-4.[illegible]476E-01	8.18[illegible]E-01	-5.94014E-01
75	8.50572E-01	-4.46649E-01	8.47[illegible]E-01	-5.[illegible]61E-01
76	8.78[illegible]E-01	-4.46743E-01	8.76548E-01	-5.76866E-01
77	9.07[illegible]E-01	-4.46[illegible]E-01	9.06697E-01	-5.66843E-01
78	9.37[illegible]E-01	-4.47233E-01	9.37[illegible]E-01	-5.56021E-01
79	9.68[illegible]E-01	-4.47928E-01	9.69037E-01	-5.44548E-01
80	9.99[illegible]E-01	-4.49146E-01	1.00118E+00	-5.32584E-01

POINT NO	XSEMI	YSEMI
1	-3.81073E-01	1.44573E+00
2	-3.81312E-01	1.44624E+00
3	-3.81500E-01	1.44678E+00
4	-3.81533E-01	1.44733E+00
5	-3.81712E-01	1.44790E+00
6	-3.81734E-01	1.44848E+00
7	-3.81639E-01	1.44905E+00
8	-3.81609E-01	1.44963E+00

POINT NO	XSEMI	YSEMI
9	-9.81464E-01	1.45019E+00
10	-9.81265E-01	1.45074E+00
11	-9.81014E-01	1.45126E+00
12	-9.80716E-01	1.45176E+00
13	-9.80371E-01	1.45222E+00
14	-9.79986E-01	1.45264E+00
15	-9.79563E-01	1.45302E+00
16	-9.79107E-01	1.45335E+00
17	-9.78624E-01	1.45363E+00
18	-9.78119E-01	1.45385E+00
19	-9.77596E-01	1.45402E+00
20	-9.77063E-01	1.45413E+00
21	-9.76524E-01	1.45417E+00
22	-9.75986E-01	1.45416E+00
23	-9.75454E-01	1.45409E+00
24	-9.74935E-01	1.45396E+00
25	-9.74434E-01	1.45376E+00
26	-9.73956E-01	1.45352E+00
27	-9.73508E-01	1.45322E+00
28	-9.73092E-01	1.45287E+00
29	-9.72715E-01	1.45247E+00
30	-9.72380E-01	1.45203E+00
31	-9.72091E-01	1.45155E+00

SECTION NUMBER 2 'Z' = 6.7500

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SECTION PROPERTIES

SECTION AREA		=	3.4975E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.2160E-02
	YBAR	=	-8.5134E-03
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	9.7028E-02
	IY	=	8.2750E-02
	IXY	=	-8.5788E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.7597E-01 (AT 42.62 DEGREES TO 'X' AXIS)
	IPY	=	3.8040E-03 (AT 42.62 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	2.3095E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71814E-01	1.47847E+00	-9.60893E-01	1.47295E+00
2	-9.44210E-01	1.43131E+00	-9.57537E-01	1.42320E+00
3	-9.16569E-01	1.38421E+00	-9.34154E-01	1.37349E+00
4	-8.88896E-01	1.33721E+00	-9.10740E-01	1.32384E+00
5	-8.61203E-01	1.29034E+00	-8.87291E-01	1.27431E+00
6	-8.33496E-01	1.24363E+00	-8.63802E-01	1.22491E+00
7	-8.05785E-01	1.19712E+00	-8.40274E-01	1.17569E+00
8	-7.78081E-01	1.15084E+00	-8.16702E-01	1.12668E+00
9	-7.50395E-01	1.10483E+00	-7.93088E-01	1.07792E+00
10	-7.22740E-01	1.05911E+00	-7.69429E-01	1.02943E+00

POINT NO	XS	YS	XP	YP
11	-5.95129E-01	1.01371E+00	-7.45726E-01	9.81243E-01
12	-5.67578E-01	9.63658E-01	-7.21981E-01	9.33389E-01
13	-5.40191E-01	9.23986E-01	-6.98196E-01	8.85894E-01
14	-5.12714E-01	8.79714E-01	-6.74376E-01	8.38788E-01
15	-5.85433E-01	8.35882E-01	-6.50530E-01	7.92103E-01
16	-5.54273E-01	7.92502E-01	-6.26656E-01	7.45861E-01
17	-5.31238E-01	7.49596E-01	-6.02761E-01	7.00085E-01
18	-5.04327E-01	7.07199E-01	-5.78850E-01	6.54800E-01
19	-4.77534E-01	6.65321E-01	-5.54925E-01	6.10028E-01
20	-4.50860E-01	6.23980E-01	-5.30986E-01	5.65790E-01
21	-4.24309E-01	5.83207E-01	-5.07021E-01	5.22113E-01
22	-3.97871E-01	5.41016E-01	-4.83047E-01	4.79012E-01
23	-3.71542E-01	5.03420E-01	-4.59042E-01	4.36503E-01
24	-3.45317E-01	4.64447E-01	-4.34998E-01	3.94605E-01
25	-3.19191E-01	4.25113E-01	-4.10912E-01	3.53335E-01
26	-2.93159E-01	3.86429E-01	-3.86776E-01	3.12715E-01
27	-2.67215E-01	3.51411E-01	-3.62584E-01	2.72762E-01
28	-2.41353E-01	3.15089E-01	-3.38332E-01	2.33485E-01
29	-2.15568E-01	2.79463E-01	-3.14008E-01	1.94900E-01
30	-1.89853E-01	2.44548E-01	-2.89615E-01	1.57020E-01
31	-1.64204E-01	2.10365E-01	-2.65137E-01	1.19868E-01
32	-1.38622E-01	1.75924E-01	-2.40568E-01	8.34506E-02
33	-1.13115E-01	1.44232E-01	-2.15900E-01	4.77784E-02
34	-8.75918E-02	1.12302E-01	-1.91125E-01	1.28629E-02
35	-6.23545E-02	8.11542E-02	-1.66238E-01	-2.12804E-02
36	-3.71447E-02	5.07879E-02	-1.41239E-01	-5.46383E-02
37	-1.20365E-02	2.12163E-02	-1.16130E-01	-8.72073E-02
38	1.29449E-02	-7.54477E-03	-9.09245E-02	-1.18975E-01
39	3.77853E-02	-3.55034E-02	-6.56277E-02	-1.49937E-01
40	6.24421E-02	-6.26489E-02	-4.02476E-02	-1.80075E-01
41	8.70142E-02	-8.89739E-02	-1.47979E-02	-2.09380E-01
42	1.11372E-01	-1.14473E-01	1.07094E-02	-2.37854E-01
43	1.35543E-01	-1.39135E-01	3.62613E-02	-2.65490E-01
44	1.59513E-01	-1.62959E-01	6.18434E-02	-2.92279E-01
45	1.83272E-01	-1.85942E-01	8.74399E-02	-3.18215E-01
46	2.06776E-01	-2.04042E-01	1.13033E-01	-3.43293E-01
47	2.30028E-01	-2.23375E-01	1.38604E-01	-3.67495E-01
48	2.53025E-01	-2.43812E-01	1.64132E-01	-3.90825E-01
49	2.75777E-01	-2.63396E-01	1.89592E-01	-4.13278E-01
50	2.98291E-01	-2.83130E-01	2.14961E-01	-4.34837E-01
51	3.20578E-01	-3.05022E-01	2.40218E-01	-4.55491E-01
52	3.42647E-01	-3.23079E-01	2.65355E-01	-4.75229E-01
53	3.64507E-01	-3.39306E-01	2.90370E-01	-4.94031E-01
54	3.86148E-01	-3.54716E-01	3.15277E-01	-5.11879E-01
55	4.07709E-01	-3.69320E-01	3.40192E-01	-5.27762E-01
56	4.29049E-01	-3.83128E-01	3.64926E-01	-5.44666E-01
57	4.50321E-01	-3.96152E-01	3.89493E-01	-5.59561E-01
58	4.71521E-01	-4.08402E-01	4.14105E-01	-5.73446E-01
59	4.92628E-01	-4.19887E-01	4.38681E-01	-5.86308E-01
60	5.13750E-01	-4.30623E-01	4.63241E-01	-5.98098E-01
61	5.34900E-01	-4.40623E-01	4.87806E-01	-6.08835E-01
62	5.56102E-01	-4.49902E-01	5.12404E-01	-6.18491E-01
63	5.77415E-01	-4.58474E-01	5.37068E-01	-6.27044E-01
64	5.98837E-01	-4.66355E-01	5.61834E-01	-6.34485E-01
65	6.20574E-01	-4.73562E-01	5.86745E-01	-6.40802E-01
66	6.42528E-01	-4.80120E-01	6.11347E-01	-6.45972E-01
67	6.64737E-01	-4.86053E-01	6.37187E-01	-6.49993E-01

POINT NO	XS	YS	XP	YP
68	6.87486E-01	-4.91388E-01	6.62802E-01	-6.52857E-01
69	7.10642E-01	-4.96159E-01	6.88725E-01	-6.54556E-01
70	7.34194E-01	-5.00407E-01	7.14988E-01	-6.55098E-01
71	7.58259E-01	-5.04178E-01	7.41625E-01	-6.54492E-01
72	7.82896E-01	-5.07528E-01	7.68672E-01	-6.52752E-01
73	8.08120E-01	-5.10520E-01	7.96160E-01	-6.49911E-01
74	8.34006E-01	-5.13229E-01	8.24121E-01	-6.46010E-01
75	8.60577E-01	-5.15740E-01	8.52580E-01	-6.41104E-01
76	8.87863E-01	-5.18148E-01	8.81557E-01	-6.35260E-01
77	9.15877E-01	-5.20563E-01	9.11065E-01	-6.28573E-01
78	9.44621E-01	-5.23104E-01	9.41103E-01	-6.21147E-01
79	9.74090E-01	-5.25898E-01	9.71663E-01	-6.13106E-01
80	1.00422E+00	-5.29091E-01	1.00272E+00	-6.04576E-01

POINT NO	XSEMI	YSEMI
1	-9.80893E-01	1.47295E+00
2	-9.81126E-01	1.47346E+00
3	-9.81306E-01	1.47399E+00
4	-9.81432E-01	1.47454E+00
5	-9.81502E-01	1.47510E+00
6	-9.81516E-01	1.47567E+00
7	-9.81473E-01	1.47624E+00
8	-9.81375E-01	1.47680E+00
9	-9.81221E-01	1.47735E+00
10	-9.81014E-01	1.47788E+00
11	-9.80756E-01	1.47839E+00
12	-9.80449E-01	1.47887E+00
13	-9.80098E-01	1.47932E+00
14	-9.79706E-01	1.47972E+00
15	-9.79277E-01	1.48009E+00
16	-9.78816E-01	1.48040E+00
17	-9.78328E-01	1.48066E+00
18	-9.77818E-01	1.48087E+00
19	-9.77293E-01	1.48102E+00
20	-9.76757E-01	1.48112E+00
21	-9.76217E-01	1.48115E+00
22	-9.75678E-01	1.48112E+00
23	-9.75146E-01	1.48104E+00
24	-9.74628E-01	1.48090E+00
25	-9.74129E-01	1.48070E+00
26	-9.73654E-01	1.48044E+00
27	-9.73209E-01	1.48014E+00
28	-9.72798E-01	1.47978E+00
29	-9.72426E-01	1.47938E+00
30	-9.72097E-01	1.47894E+00
31	-9.71814E-01	1.47847E+00

SECTION NUMBER 3 'Z' = 7.0000

SECTION PROPERTIES

SECTION AREA		=	3.3494E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	3.1513E-02
	YBAR	=	-1.2689E-02
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.0034E-01
	IY	=	7.8915E-02
	IXY	=	-8.5617E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.7537E-01 (AT 41.42 DEGREES TO 'X' AXIS)
	IPY	=	3.2865E-03 (AT 41.42 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	1.3334E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-3.71302E-01	1.50428E+00	-3.81050E-01	1.49903E+00
2	-3.44506E-01	1.45637E+00	-3.57775E-01	1.44874E+00
3	-3.17035E-01	1.40850E+00	-3.34483E-01	1.39849E+00
4	-2.89648E-01	1.36072E+00	-3.11171E-01	1.34829E+00
5	-2.62203E-01	1.31306E+00	-2.87934E-01	1.29819E+00
6	-2.34756E-01	1.26555E+00	-2.64471E-01	1.24823E+00
7	-2.07318E-01	1.21822E+00	-2.41079E-01	1.19843E+00
8	-1.79896E-01	1.17111E+00	-2.17656E-01	1.14883E+00
9	-1.52500E-01	1.12425E+00	-1.94200E-01	1.09947E+00
10	-1.25142E-01	1.07768E+00	-1.70710E-01	1.05037E+00
11	-9.78831E-02	1.03141E+00	-1.47186E-01	1.00156E+00
12	-6.70578E-02	9.85486E-01	-1.23627E-01	9.53088E-01
13	-5.43336E-02	9.39934E-01	-7.00033E-02	9.04966E-01
14	-5.16236E-02	8.94776E-01	-6.76413E-02	8.57227E-01
15	-5.89239E-02	8.51048E-01	-6.52764E-02	8.09904E-01
16	-5.62387E-02	8.09768E-01	-6.29086E-02	7.63017E-01
17	-5.35514E-02	7.61957E-01	-6.05382E-02	7.16592E-01
18	-5.08910E-02	7.13648E-01	-5.81656E-02	6.70653E-01
19	-4.82334E-02	6.75855E-01	-5.57907E-02	6.25221E-01
20	-4.55351E-02	6.33596E-01	-5.34135E-02	5.80319E-01
21	-4.29491E-02	5.91900E-01	-5.10338E-02	5.35974E-01
22	-4.03219E-02	5.50782E-01	-4.86514E-01	4.92200E-01
23	-3.77044E-02	5.10256E-01	-4.62649E-01	4.49014E-01
24	-3.50951E-02	4.70346E-01	-4.38741E-01	4.06435E-01
25	-3.24967E-02	4.31071E-01	-4.14783E-01	3.64481E-01
26	-2.99058E-02	3.92439E-01	-3.90771E-01	3.23173E-01
27	-2.73229E-02	3.54468E-01	-3.66699E-01	2.82525E-01
28	-2.47476E-02	3.17184E-01	-3.42563E-01	2.42549E-01
29	-2.21793E-02	2.80588E-01	-3.18356E-01	2.03259E-01
30	-1.96175E-02	2.44696E-01	-2.94075E-01	1.64670E-01
31	-1.70618E-02	2.09526E-01	-2.69709E-01	1.26802E-01
32	-1.45122E-02	1.75089E-01	-2.45254E-01	8.96610E-02
33	-1.19691E-02	1.41392E-01	-2.20702E-01	5.32582E-02
34	-9.43310E-02	1.08446E-01	-1.96046E-01	1.76047E-02
35	-6.90514E-02	7.62585E-02	-1.71283E-01	-1.72849E-02

POINT NO	XS	YS	XP	YP
36	-4.38952E-02	4.43625E-02	-1.46408E-01	-5.13993E-02
37	-1.87523E-02	1.42363E-02	-1.21426E-01	-8.47342E-02
38	6.24930E-03	-1.55993E-02	-9.63409E-02	-1.17281E-01
39	3.11418E-02	-4.46424E-02	-7.11589E-02	-1.49027E-01
40	5.59158E-02	-7.23856E-02	-4.58860E-02	-1.79965E-01
41	3.05659E-02	-1.00325E-01	-2.05312E-02	-2.10089E-01
42	1.05080E-01	-1.26954E-01	4.89729E-03	-2.39392E-01
43	1.29450E-01	-1.52768E-01	3.03900E-02	-2.67871E-01
44	1.53666E-01	-1.77761E-01	5.59367E-02	-2.95518E-01
45	1.77719E-01	-2.01936E-01	8.15257E-02	-3.22330E-01
46	2.01542E-01	-2.25289E-01	1.07144E-01	-3.48302E-01
47	2.25254E-01	-2.47820E-01	1.32778E-01	-3.73419E-01
48	2.48733E-01	-2.69521E-01	1.58412E-01	-3.97686E-01
49	2.72023E-01	-2.90398E-01	1.84028E-01	-4.21099E-01
50	2.95131E-01	-3.10454E-01	2.09609E-01	-4.43645E-01
51	3.18061E-01	-3.29700E-01	2.35141E-01	-4.65313E-01
52	3.40821E-01	-3.48144E-01	2.60617E-01	-4.86095E-01
53	3.63417E-01	-3.65793E-01	2.86035E-01	-5.05978E-01
54	3.85871E-01	-3.82661E-01	3.11404E-01	-5.24945E-01
55	4.08135E-01	-3.98759E-01	3.36734E-01	-5.42991E-01
56	4.30406E-01	-4.14100E-01	3.62031E-01	-5.60105E-01
57	4.52520E-01	-4.28697E-01	3.87303E-01	-5.76265E-01
58	4.74558E-01	-4.42563E-01	4.12559E-01	-5.91471E-01
59	4.96542E-01	-4.55708E-01	4.37810E-01	-6.05710E-01
60	5.18527E-01	-4.68151E-01	4.63068E-01	-6.18954E-01
61	5.40531E-01	-4.79906E-01	4.88348E-01	-6.31229E-01
62	5.62573E-01	-4.90990E-01	5.13668E-01	-6.42496E-01
63	5.84694E-01	-5.01419E-01	5.39049E-01	-6.52749E-01
64	6.06934E-01	-5.11212E-01	5.64516E-01	-6.61985E-01
65	6.29334E-01	-5.20388E-01	5.90099E-01	-6.70197E-01
66	6.51933E-01	-5.28970E-01	6.15829E-01	-6.77375E-01
67	6.74760E-01	-5.36984E-01	6.41737E-01	-6.83518E-01
68	6.97910E-01	-5.44454E-01	6.67848E-01	-6.88628E-01
69	7.21398E-01	-5.51412E-01	6.94180E-01	-6.92700E-01
70	7.45190E-01	-5.57896E-01	7.20757E-01	-6.95747E-01
71	7.69365E-01	-5.63943E-01	7.47600E-01	-6.97779E-01
72	7.93958E-01	-5.69603E-01	7.74731E-01	-6.98813E-01
73	8.19005E-01	-5.74929E-01	8.02174E-01	-6.98877E-01
74	8.44538E-01	-5.79982E-01	8.29949E-01	-6.98006E-01
75	8.70582E-01	-5.84831E-01	8.58075E-01	-6.96248E-01
76	8.97159E-01	-5.89553E-01	8.86567E-01	-6.93654E-01
77	9.24279E-01	-5.94236E-01	9.15433E-01	-6.90302E-01
78	9.51942E-01	-5.98974E-01	9.44675E-01	-6.86273E-01
79	9.80138E-01	-6.03869E-01	9.74289E-01	-6.81664E-01
80	1.00894E+00	-6.09015E-01	1.00426E+00	-6.76569E-01

POINT NO	XSEMI	YSEMI
1	-9.81050E-01	1.49903E+00
2	-9.81276E-01	1.49954E+00
3	-9.81449E-01	1.50006E+00
4	-9.81568E-01	1.50060E+00
5	-9.81632E-01	1.50116E+00
6	-9.81638E-01	1.50172E+00
7	-9.81588E-01	1.50227E+00
8	-9.81483E-01	1.50283E+00
9	-9.81322E-01	1.50336E+00

POINT NO	XSEMI	YSEMI
10	-9.81108E-01	1.50389E+00
11	-9.80843E-01	1.50438E+00
12	-9.80531E-01	1.50485E+00
13	-9.80174E-01	1.50528E+00
14	-9.79777E-01	1.50567E+00
15	-9.79343E-01	1.50602E+00
16	-9.78878E-01	1.50632E+00
17	-9.78387E-01	1.50657E+00
18	-9.77875E-01	1.50676E+00
19	-9.77347E-01	1.50690E+00
20	-9.76810E-01	1.50698E+00
21	-9.76270E-01	1.50701E+00
22	-9.75731E-01	1.50697E+00
23	-9.75201E-01	1.50686E+00
24	-9.74694E-01	1.50673E+00
25	-9.74188E-01	1.50652E+00
26	-9.73716E-01	1.50626E+00
27	-9.73275E-01	1.50595E+00
28	-9.72868E-01	1.50559E+00
29	-9.72501E-01	1.50519E+00
30	-9.72178E-01	1.50476E+00
31	-9.71902E-01	1.50428E+00

SECTION NUMBER 4 'Z' = 7.2500

****

SECTION PROPERTIES

SECTION AREA		=	3.2041E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	2.1059E-02
	YBAR	=	-1.5674E-02
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.0331E-01
	IY	=	7.4955E-02
	IXY	=	-8.5101E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.7541E-01 (AT 40.27 DEGREES TO 'X' AXIS)
	IPY	=	2.3637E-03 (AT 40.27 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	1.5122E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71894E-01	1.53031E+00	-9.81049E-01	1.52531E+00
2	-9.44597E-01	1.48144E+00	-9.57789E-01	1.47426E+00
3	-9.17336E-01	1.43266E+00	-9.34524E-01	1.42328E+00
4	-8.90072E-01	1.38400E+00	-9.11251E-01	1.37239E+00
5	-8.62815E-01	1.33548E+00	-8.87957E-01	1.32154E+00
6	-8.35571E-01	1.28713E+00	-8.64669E-01	1.27104E+00
7	-8.08349E-01	1.23899E+00	-8.41358E-01	1.22063E+00
8	-7.81157E-01	1.19108E+00	-8.18030E-01	1.17043E+00
9	-7.54004E-01	1.14342E+00	-7.94683E-01	1.12049E+00
10	-7.26898E-01	1.09606E+00	-7.71316E-01	1.07081E+00
11	-6.99849E-01	1.04900E+00	-7.47926E-01	1.02144E+00

POINT NO	XS	YS	XP	YP
12	-6.72855E-01	1.00228E+00	-7.24514E-01	9.72392E-01
13	-6.45955E-01	9.55920E-01	-7.01079E-01	9.23700E-01
14	-6.19130E-01	9.09948E-01	-6.77625E-01	8.75386E-01
15	-5.92337E-01	8.64393E-01	-6.54149E-01	8.27483E-01
16	-5.65576E-01	8.19273E-01	-6.30651E-01	7.80008E-01
17	-5.39239E-01	7.74609E-01	-6.07132E-01	7.32987E-01
18	-5.12814E-01	7.30429E-01	-5.83593E-01	6.86443E-01
19	-4.86488E-01	6.86751E-01	-5.60034E-01	6.40397E-01
20	-4.60258E-01	6.43591E-01	-5.36453E-01	5.94871E-01
21	-4.34120E-01	6.00977E-01	-5.12851E-01	5.49890E-01
22	-4.08070E-01	5.58928E-01	-4.89215E-01	5.05469E-01
23	-3.82103E-01	5.17460E-01	-4.65538E-01	4.61626E-01
24	-3.56216E-01	4.76593E-01	-4.41814E-01	4.18381E-01
25	-3.30403E-01	4.36353E-01	-4.18038E-01	3.75750E-01
26	-3.04661E-01	3.96748E-01	-3.94203E-01	3.33756E-01
27	-2.78980E-01	3.57795E-01	-3.70304E-01	2.92413E-01
28	-2.53376E-01	3.19513E-01	-3.46336E-01	2.51735E-01
29	-2.27825E-01	2.81926E-01	-3.22293E-01	2.11735E-01
30	-2.02330E-01	2.45029E-01	-2.98167E-01	1.72430E-01
31	-1.76888E-01	2.08845E-01	-2.73955E-01	1.33837E-01
32	-1.51498E-01	1.73387E-01	-2.49650E-01	9.59644E-02
33	-1.26151E-01	1.38662E-01	-2.25247E-01	5.88221E-02
34	-1.00831E-01	1.04679E-01	-2.00742E-01	2.24215E-02
35	-7.56619E-02	7.14533E-02	-1.76129E-01	-1.32231E-02
36	-5.05095E-02	3.89910E-02	-1.51406E-01	-4.81024E-02
37	-2.54248E-02	7.23608E-03	-1.26573E-01	-8.22113E-02
38	-4.15014E-04	-2.36252E-02	-1.01631E-01	-1.15542E-01
39	2.45155E-02	-5.37621E-02	-7.65858E-02	-1.48083E-01
40	4.93649E-02	-8.31103E-02	-5.14403E-02	-1.79826E-01
41	7.41251E-02	-1.21166E-01	-2.61987E-02	-2.10771E-01
42	9.87914E-02	-1.59433E-01	-8.55592E-04	-2.40913E-01
43	1.23358E-01	-1.66399E-01	2.45538E-02	-2.70240E-01
44	1.47818E-01	-1.92564E-01	5.00533E-02	-2.98750E-01
45	1.72165E-01	-2.17930E-01	7.56257E-02	-3.26440E-01
46	1.96387E-01	-2.42497E-01	1.01263E-01	-3.53308E-01
47	2.20480E-01	-2.66254E-01	1.26956E-01	-3.79342E-01
48	2.44440E-01	-2.89230E-01	1.52693E-01	-4.04547E-01
49	2.68270E-01	-3.11399E-01	1.78464E-01	-4.28921E-01
50	2.91971E-01	-3.32778E-01	2.04258E-01	-4.52453E-01
51	3.15544E-01	-3.53378E-01	2.30064E-01	-4.75134E-01
52	3.38994E-01	-3.73209E-01	2.55879E-01	-4.96961E-01
53	3.62320E-01	-3.92280E-01	2.81700E-01	-5.17925E-01
54	3.85533E-01	-4.10605E-01	3.07531E-01	-5.38011E-01
55	4.08632E-01	-4.28198E-01	3.33376E-01	-5.57220E-01
56	4.31723E-01	-4.45072E-01	3.59236E-01	-5.75544E-01
57	4.54819E-01	-4.61243E-01	3.85114E-01	-5.92970E-01
58	4.77934E-01	-4.76724E-01	4.11013E-01	-6.09497E-01
59	5.00455E-01	-4.91529E-01	4.36938E-01	-6.25120E-01
60	5.23304E-01	-5.05678E-01	4.62895E-01	-6.39829E-01
61	5.46163E-01	-5.19188E-01	4.88889E-01	-6.53623E-01
62	5.69043E-01	-5.32077E-01	5.14931E-01	-6.66501E-01
63	5.91974E-01	-5.44364E-01	5.41029E-01	-6.78454E-01
64	6.14991E-01	-5.56070E-01	5.67198E-01	-6.89484E-01
65	6.38034E-01	-5.67214E-01	5.93453E-01	-6.99593E-01
66	6.61338E-01	-5.77821E-01	6.19810E-01	-7.08778E-01
67	6.84736E-01	-5.87914E-01	6.46287E-01	-7.17044E-01
68	7.08333E-01	-5.97520E-01	6.72893E-01	-7.24398E-01

POINT NO	XS	YS	XP	YP
69	7.32135E-01	-6.05666E-01	6.99636E-01	-7.30844E-01
70	7.56136E-01	-6.15384E-01	7.26526E-01	-7.36396E-01
71	7.80470E-01	-6.23709E-01	7.53574E-01	-7.41067E-01
72	8.05030E-01	-6.31679E-01	7.80791E-01	-7.44874E-01
73	8.29890E-01	-6.39339E-01	8.08188E-01	-7.47843E-01
74	8.55070E-01	-6.46755E-01	8.35778E-01	-7.50003E-01
75	8.80547E-01	-6.53923E-01	8.63571E-01	-7.51391E-01
76	9.06435E-01	-6.60959E-01	8.91576E-01	-7.52048E-01
77	9.32640E-01	-6.67909E-01	9.19801E-01	-7.52031E-01
78	9.59263E-01	-6.74845E-01	9.48247E-01	-7.51399E-01
79	9.86136E-01	-6.81840E-01	9.76914E-01	-7.50222E-01
80	1.01346E+00	-6.89150E-01	1.00500E+00	-7.48561E-01

POINT NO	XSEMI	YSEMI
1	-9.81049E-01	1.52531E+00
2	-9.81270E-01	1.52581E+00
3	-9.81438E-01	1.52633E+00
4	-9.81551E-01	1.52687E+00
5	-9.81608E-01	1.52742E+00
6	-9.81609E-01	1.52797E+00
7	-9.81553E-01	1.52852E+00
8	-9.81442E-01	1.52907E+00
9	-9.81275E-01	1.52960E+00
10	-9.81056E-01	1.53011E+00
11	-9.80786E-01	1.53059E+00
12	-9.80469E-01	1.53105E+00
13	-9.80108E-01	1.53147E+00
14	-9.79707E-01	1.53185E+00
15	-9.79270E-01	1.53218E+00
16	-9.78802E-01	1.53247E+00
17	-9.78308E-01	1.53270E+00
18	-9.77794E-01	1.53289E+00
19	-9.77265E-01	1.53301E+00
20	-9.76727E-01	1.53308E+00
21	-9.76186E-01	1.53310E+00
22	-9.75649E-01	1.53305E+00
23	-9.75119E-01	1.53295E+00
24	-9.74605E-01	1.53279E+00
25	-9.74110E-01	1.53257E+00
26	-9.73641E-01	1.53231E+00
27	-9.73203E-01	1.53199E+00
28	-9.72801E-01	1.53163E+00
29	-9.72438E-01	1.53123E+00
30	-9.72120E-01	1.53079E+00
31	-9.71849E-01	1.53031E+00

SECTION NUMBER 5 'Z' = 7.5000

SECTION PROPERTIES

SECTION AREA		=	3.0633E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	1.0782E-02
	YBAR	=	-1.4558E-02
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.0645E-01
	IY	=	7.1296E-02
	IXY	=	-8.4958E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.7522E-01 (AT 39.12 DEGREES TO 'X' AXIS)
	IPY	=	2.4772E-03 (AT 39.12 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	1.3376E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71834E-01	1.55127E+00	-9.81086E-01	1.55648E+00
2	-9.44679E-01	1.51100E+00	-9.57803E-01	1.50421E+00
3	-9.17518E-01	1.46086E+00	-9.34517E-01	1.45206E+00
4	-8.90357E-01	1.41092E+00	-9.11223E-01	1.40006E+00
5	-8.63206E-01	1.36115E+00	-8.87920E-01	1.34823E+00
6	-8.36078E-01	1.31160E+00	-8.64605E-01	1.29662E+00
7	-8.08957E-01	1.26230E+00	-8.41277E-01	1.24523E+00
8	-7.81876E-01	1.21327E+00	-8.17935E-01	1.19411E+00
9	-7.54834E-01	1.16454E+00	-7.94577E-01	1.14327E+00
10	-7.27839E-01	1.11613E+00	-7.71201E-01	1.09275E+00
11	-7.00900E-01	1.06807E+00	-7.47806E-01	1.04256E+00
12	-6.74026E-01	1.02038E+00	-7.24391E-01	9.92727E-01
13	-6.47226E-01	9.73079E-01	-7.00957E-01	9.43281E-01
14	-6.20507E-01	9.26191E-01	-6.77508E-01	8.94243E-01
15	-5.93879E-01	8.79742E-01	-6.54040E-01	8.45637E-01
16	-5.67351E-01	8.33750E-01	-6.30555E-01	7.97483E-01
17	-5.40926E-01	7.88231E-01	-6.07052E-01	7.49802E-01
18	-5.14603E-01	7.43208E-01	-5.83535E-01	7.02614E-01
19	-4.88380E-01	6.98697E-01	-5.60002E-01	6.55938E-01
20	-4.62254E-01	6.54712E-01	-5.36452E-01	6.09794E-01
21	-4.36224E-01	6.11272E-01	-5.12886E-01	5.64202E-01
22	-4.10294E-01	5.68396E-01	-4.89292E-01	5.19175E-01
23	-3.84432E-01	5.26095E-01	-4.65665E-01	4.74729E-01
24	-3.58664E-01	4.84385E-01	-4.42000E-01	4.30880E-01
25	-3.32975E-01	4.43288E-01	-4.18291E-01	3.87643E-01
26	-3.07361E-01	4.02812E-01	-3.94533E-01	3.45039E-01
27	-2.81817E-01	3.62971E-01	-3.70720E-01	3.03076E-01
28	-2.56340E-01	3.23784E-01	-3.46847E-01	2.61769E-01
29	-2.30923E-01	2.85263E-01	-3.22908E-01	2.21129E-01
30	-2.05563E-01	2.47417E-01	-2.98896E-01	1.81172E-01
31	-1.80255E-01	2.10260E-01	-2.74805E-01	1.41914E-01
32	-1.54996E-01	1.73809E-01	-2.50630E-01	1.03360E-01
33	-1.29783E-01	1.38069E-01	-2.26365E-01	6.55220E-02
34	-1.04623E-01	1.03048E-01	-2.02005E-01	2.84108E-02
35	-7.95130E-02	6.87577E-02	-1.77545E-01	-7.96017E-03

POINT NO	XS	YS	XP	YP
36	-5.44692E-02	3.52080E-02	-1.52992E-01	-4.35836E-02
37	-2.94733E-02	2.40396E-03	-1.28313E-01	-7.84531E-02
38	-4.54877E-03	-2.96477E-02	-1.03541E-01	-1.12561E-01
39	2.03193E-02	-6.09393E-02	-7.86691E-02	-1.45900E-01
40	4.51239E-02	-9.14645E-02	-5.36997E-02	-1.78461E-01
41	6.98634E-02	-1.21222E-01	-2.86351E-02	-2.10243E-01
42	9.45367E-02	-1.50210E-01	-3.47790E-03	-2.41239E-01
43	1.19142E-01	-1.79423E-01	2.17693E-02	-2.71440E-01
44	1.43090E-01	-2.05859E-01	4.71034E-02	-3.00846E-01
45	1.68148E-01	-2.32518E-01	7.25213E-02	-3.29455E-01
46	1.92544E-01	-2.59401E-01	9.80195E-02	-3.57264E-01
47	2.16869E-01	-2.83510E-01	1.23594E-01	-3.84269E-01
48	2.41122E-01	-3.07843E-01	1.49241E-01	-4.10465E-01
49	2.65307E-01	-3.31403E-01	1.74956E-01	-4.35857E-01
50	2.89424E-01	-3.54202E-01	2.00739E-01	-4.60436E-01
51	3.13476E-01	-3.76249E-01	2.26589E-01	-4.84195E-01
52	3.37466E-01	-3.97553E-01	2.52506E-01	-5.07131E-01
53	3.61399E-01	-4.18128E-01	2.78494E-01	-5.29239E-01
54	3.85281E-01	-4.37986E-01	3.04555E-01	-5.50508E-01
55	4.09114E-01	-4.57143E-01	3.30694E-01	-5.70940E-01
56	4.32907E-01	-4.75615E-01	3.56912E-01	-5.90531E-01
57	4.56665E-01	-4.93418E-01	3.83211E-01	-6.09275E-01
58	4.80397E-01	-5.10569E-01	4.09592E-01	-6.27173E-01
59	5.04113E-01	-5.27082E-01	4.36056E-01	-6.44225E-01
60	5.27820E-01	-5.42981E-01	4.62601E-01	-6.60431E-01
61	5.51540E-01	-5.58284E-01	4.89228E-01	-6.75792E-01
62	5.75279E-01	-5.73012E-01	5.15935E-01	-6.90313E-01
63	5.99045E-01	-5.87187E-01	5.42722E-01	-7.03997E-01
64	6.22850E-01	-6.00830E-01	5.69586E-01	-7.16848E-01
65	6.46707E-01	-6.13965E-01	5.96526E-01	-7.28876E-01
66	6.70626E-01	-6.26615E-01	6.23539E-01	-7.40089E-01
67	6.94618E-01	-6.38804E-01	6.50621E-01	-7.50496E-01
68	7.18694E-01	-6.50558E-01	6.77762E-01	-7.60111E-01
69	7.42871E-01	-6.61901E-01	7.04956E-01	-7.68945E-01
70	7.67158E-01	-6.72862E-01	7.32196E-01	-7.77013E-01
71	7.91562E-01	-6.83468E-01	7.59481E-01	-7.84332E-01
72	8.16097E-01	-6.93752E-01	7.86808E-01	-7.90921E-01
73	8.40773E-01	-7.03747E-01	8.14179E-01	-7.96800E-01
74	8.65602E-01	-7.13488E-01	8.41596E-01	-8.01995E-01
75	8.90592E-01	-7.23014E-01	8.69063E-01	-8.06532E-01
76	9.15751E-01	-7.32364E-01	8.96585E-01	-8.10442E-01
77	9.41092E-01	-7.41582E-01	9.24169E-01	-8.13760E-01
78	9.66634E-01	-7.50715E-01	9.51819E-01	-8.16526E-01
79	9.92254E-01	-7.59810E-01	9.79540E-01	-8.18780E-01
80	1.01808E+00	-7.68884E-01	1.00734E+00	-8.20554E-01

POINT NO	XSEMI	YSEMI
1	-8.81056E-01	1.55648E+00
2	-8.81301E-01	1.55699E+00
3	-8.81543E-01	1.55751E+00
4	-8.81571E-01	1.55805E+00
5	-8.81622E-01	1.55860E+00
6	-8.81617E-01	1.55915E+00
7	-8.81556E-01	1.55969E+00
8	-8.81438E-01	1.56023E+00
9	-8.81266E-01	1.56076E+00

POINT NO	XSEMI	YSEMI
10	-9.81042E-01	1.56126E+00
11	-9.80767E-01	1.56174E+00
12	-9.80445E-01	1.56218E+00
13	-9.80079E-01	1.56259E+00
14	-9.79674E-01	1.56296E+00
15	-9.79234E-01	1.56329E+00
16	-9.78763E-01	1.56356E+00
17	-9.78266E-01	1.56379E+00
18	-9.77751E-01	1.56396E+00
19	-9.77220E-01	1.56407E+00
20	-9.76682E-01	1.56413E+00
21	-9.76141E-01	1.56413E+00
22	-9.75604E-01	1.56407E+00
23	-9.75076E-01	1.56396E+00
24	-9.74563E-01	1.56379E+00
25	-9.74071E-01	1.56356E+00
26	-9.73605E-01	1.56329E+00
27	-9.73171E-01	1.56297E+00
28	-9.72772E-01	1.56260E+00
29	-9.72414E-01	1.56219E+00
30	-9.72100E-01	1.56174E+00
31	-9.71834E-01	1.56127E+00

SECTION NUMBER 6 'Z' = 7.7500

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SECTION PROPERTIES

SECTION AREA		=	2.9466E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	9.3344E-05
	YBAR	=	-6.4982E-03
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.0988E-01
	IY	=	6.7992E-02
	IXY	=	-8.4240E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.7574E-01 (AT 38.02 DEGREES TO 'X' AXIS)
	IPY	=	2.1325E-03 (AT 38.02 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	1.1360E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71812E-01	1.60157E+00	-9.81124E-01	1.59697E+00
2	-9.44719E-01	1.54940E+00	-9.57816E-01	1.54292E+00
3	-9.17623E-01	1.49742E+00	-9.34504E-01	1.48905E+00
4	-8.90530E-01	1.44566E+00	-9.11183E-01	1.43539E+00
5	-8.63445E-01	1.39415E+00	-8.87851E-01	1.38198E+00
6	-8.36375E-01	1.34290E+00	-8.64505E-01	1.32882E+00
7	-8.09327E-01	1.29196E+00	-8.41143E-01	1.27595E+00
8	-7.82307E-01	1.24134E+00	-8.17763E-01	1.22340E+00
9	-7.55321E-01	1.19106E+00	-7.94363E-01	1.17118E+00
10	-7.28378E-01	1.14115E+00	-7.70940E-01	1.11932E+00
11	-7.01484E-01	1.09162E+00	-7.47494E-01	1.06785E+00

POINT NO	XS	YS	XP	YP
12	-5.746+8E-01	1.04252E+00	-7.24024E-01	1.01678E+00
13	-6.47376E-01	9.93842E-01	-7.00530E-01	9.66137E-01
14	-6.21177E-01	9.45622E-01	-6.77013E-01	9.14945E-01
15	-5.94550E-01	8.97878E-01	-6.53472E-01	8.66225E-01
16	-5.68032E-01	8.50630E-01	-6.29907E-01	8.16992E-01
17	-5.41597E-01	8.03893E-01	-6.06321E-01	7.68270E-01
18	-5.15257E-01	7.57687E-01	-5.82713E-01	7.20077E-01
19	-4.89010E-01	7.12030E-01	-5.59095E-01	6.72430E-01
20	-4.62855E-01	6.66934E-01	-5.35435E-01	6.25349E-01
21	-4.36739E-01	6.22415E-01	-5.11764E-01	5.78849E-01
22	-4.10510E-01	5.78492E-01	-4.88064E-01	5.32943E-01
23	-3.84914E-01	5.35173E-01	-4.64329E-01	4.87648E-01
24	-3.59038E-01	4.92472E-01	-4.40556E-01	4.42975E-01
25	-3.33357E-01	4.50406E-01	-4.16740E-01	3.98942E-01
26	-3.07688E-01	4.08984E-01	-3.92876E-01	3.55562E-01
27	-2.82095E-01	3.68215E-01	-3.68958E-01	3.12843E-01
28	-2.56545E-01	3.28114E-01	-3.44992E-01	2.70799E-01
29	-2.31062E-01	2.88692E-01	-3.20942E-01	2.29439E-01
30	-2.05633E-01	2.49955E-01	-2.96831E-01	1.88776E-01
31	-1.80252E-01	2.11912E-01	-2.72645E-01	1.48822E-01
32	-1.54916E-01	1.74576E-01	-2.48378E-01	1.09582E-01
33	-1.29625E-01	1.37951E-01	-2.24029E-01	7.10652E-02
34	-1.04381E-01	1.02042E-01	-1.99589E-01	3.32801E-02
35	-7.91973E-02	6.68597E-02	-1.75040E-01	-3.76186E-03
36	-5.40448E-02	3.24105E-02	-1.50401E-01	-4.00573E-02
37	-2.89548E-02	-1.30120E-03	-1.25664E-01	-7.56017E-02
38	-3.91863E-03	-3.42718E-02	-1.00829E-01	-1.10369E-01
39	2.10528E-02	-6.64975E-02	-7.58974E-02	-1.44410E-01
40	4.59886E-02	-9.79723E-02	-5.08728E-02	-1.77652E-01
41	7.03531E-02	-1.24697E-01	-2.57574E-02	-2.10141E-01
42	9.56707E-02	-1.51571E-01	-5.53426E-04	-2.41846E-01
43	1.20426E-01	-1.78594E-01	2.47347E-02	-2.72764E-01
44	1.45124E-01	-2.15363E-01	5.01105E-02	-3.02912E-01
45	1.69756E-01	-2.44081E-01	7.55652E-02	-3.32273E-01
46	1.94349E-01	-2.71052E-01	1.01098E-01	-3.60853E-01
47	2.18876E-01	-2.97278E-01	1.26706E-01	-3.88647E-01
48	2.43346E-01	-3.22752E-01	1.52395E-01	-4.15660E-01
49	2.67762E-01	-3.47509E-01	1.78134E-01	-4.41891E-01
50	2.92123E-01	-3.71531E-01	2.03953E-01	-4.67338E-01
51	3.16430E-01	-3.94840E-01	2.29542E-01	-4.91995E-01
52	3.40683E-01	-4.17449E-01	2.55802E-01	-5.15863E-01
53	3.64885E-01	-4.39370E-01	2.81337E-01	-5.38941E-01
54	3.89039E-01	-4.60618E-01	3.07946E-01	-5.61226E-01
55	4.13150E-01	-4.81209E-01	3.34132E-01	-5.82719E-01
56	4.37221E-01	-5.01159E-01	3.60394E-01	-6.03423E-01
57	4.61257E-01	-5.20484E-01	3.86732E-01	-6.23337E-01
58	4.85254E-01	-5.39203E-01	4.13146E-01	-6.42466E-01
59	5.09249E-01	-5.57333E-01	4.39633E-01	-6.60814E-01
60	5.33218E-01	-5.74895E-01	4.66192E-01	-6.78386E-01
61	5.57190E-01	-5.91909E-01	4.92819E-01	-6.95189E-01
62	5.81142E-01	-6.08395E-01	5.19513E-01	-7.11227E-01
63	6.05117E-01	-6.24376E-01	5.46270E-01	-7.26514E-01
64	6.29109E-01	-6.39873E-01	5.73085E-01	-7.41056E-01
65	6.53123E-01	-6.54910E-01	5.99955E-01	-7.54867E-01
66	6.77154E-01	-6.69511E-01	6.26874E-01	-7.67961E-01
67	7.01237E-01	-6.83697E-01	6.53836E-01	-7.80351E-01
68	7.25346E-01	-6.97494E-01	6.80832E-01	-7.92055E-01

POINT NO	XS	YS	XP	YP
69	7.49495E-01	-7.10925E-01	7.07852E-01	-8.03039E-01
70	7.73687E-01	-7.24015E-01	7.34888E-01	-8.13469E-01
71	7.97926E-01	-7.36785E-01	7.61931E-01	-8.23218E-01
72	8.22217E-01	-7.49266E-01	7.88975E-01	-8.32354E-01
73	8.46553E-01	-7.61482E-01	8.16012E-01	-8.40897E-01
74	8.70950E-01	-7.73459E-01	8.43039E-01	-8.48871E-01
75	8.95394E-01	-7.85224E-01	8.70052E-01	-8.56297E-01
76	9.19889E-01	-7.96804E-01	8.97047E-01	-8.63199E-01
77	9.44433E-01	-8.08228E-01	9.24024E-01	-8.69600E-01
78	9.69022E-01	-8.19525E-01	9.50984E-01	-8.75525E-01
79	9.93654E-01	-8.30725E-01	9.77927E-01	-8.81000E-01
80	1.01832E+00	-8.41814E-01	1.00486E+00	-8.86033E-01

POINT NO	XSEMI	YSEMI
1	-3.81124E-01	1.59697E+00
2	-3.81333E-01	1.59748E+00
3	-3.81489E-01	1.59801E+00
4	-3.81591E-01	1.59855E+00
5	-3.81636E-01	1.59910E+00
6	-3.81624E-01	1.59965E+00
7	-3.81556E-01	1.60020E+00
8	-3.81432E-01	1.60074E+00
9	-3.81254E-01	1.60126E+00
10	-3.81023E-01	1.60176E+00
11	-3.80743E-01	1.60223E+00
12	-3.80415E-01	1.60267E+00
13	-3.80044E-01	1.60307E+00
14	-3.79635E-01	1.60343E+00
15	-3.79190E-01	1.60375E+00
16	-3.78716E-01	1.60402E+00
17	-3.78217E-01	1.60423E+00
18	-3.77699E-01	1.60439E+00
19	-3.77167E-01	1.60450E+00
20	-3.76628E-01	1.60454E+00
21	-3.76087E-01	1.60453E+00
22	-3.75550E-01	1.60446E+00
23	-3.75023E-01	1.60434E+00
24	-3.74512E-01	1.60416E+00
25	-3.74023E-01	1.60392E+00
26	-3.73561E-01	1.60364E+00
27	-3.73129E-01	1.60330E+00
28	-3.72735E-01	1.60293E+00
29	-3.72381E-01	1.60251E+00
30	-3.72073E-01	1.60206E+00
31	-3.71812E-01	1.60157E+00

SECTION NUMBER 7 "Z" = 9.0000

SECTION PROPERTIES

SECTION AREA		=	2.8828E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	-9.0420E-03
	YBAR	=	1.2631E-03
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.1538E-01
	IY	=	6.9303E-02
	IXY	=	-8.5805E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.8073E-01 (AT 36.87 DEGREES TO 'X' AXIS)
	IPY	=	1.9698E-03 (AT 36.87 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	1.0091E-03

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71770E-01	1.69474E+00	-9.81206E-01	1.65023E+00
2	-9.44731E-01	1.60007E+00	-9.57882E-01	1.59379E+00
3	-9.17692E-01	1.54567E+00	-9.34553E-01	1.53761E+00
4	-8.90655E-01	1.49156E+00	-9.11215E-01	1.48171E+00
5	-8.63625E-01	1.43775E+00	-8.87864E-01	1.42612E+00
6	-8.36619E-01	1.38428E+00	-8.64497E-01	1.37085E+00
7	-8.09608E-01	1.33116E+00	-8.41111E-01	1.31593E+00
8	-7.82630E-01	1.27841E+00	-8.17703E-01	1.26139E+00
9	-7.55680E-01	1.22605E+00	-7.94269E-01	1.20723E+00
10	-7.28762E-01	1.17412E+00	-7.70808E-01	1.15343E+00
11	-7.01882E-01	1.12262E+00	-7.47317E-01	1.10019E+00
12	-6.75048E-01	1.07156E+00	-7.23794E-01	1.04734E+00
13	-6.48264E-01	1.02102E+00	-7.0.239E-01	9.94960E-01
14	-6.21539E-01	9.70955E-01	-6.76650E-01	9.43078E-01
15	-5.94878E-01	9.21408E-01	-6.5.028E-01	8.91709E-01
16	-5.68290E-01	8.72398E-01	-6.29371E-01	8.40874E-01
17	-5.41780E-01	8.23941E-01	-6.05681E-01	7.90538E-01
18	-5.15360E-01	7.76055E-01	-5.81957E-01	7.40871E-01
19	-4.89031E-01	7.28758E-01	-5.58200E-01	6.91740E-01
20	-4.62794E-01	6.82063E-01	-5.34411E-01	6.43212E-01
21	-4.36549E-01	6.36985E-01	-5.10587E-01	5.95303E-01
22	-4.10443E-01	5.93540E-01	-4.86726E-01	5.48025E-01
23	-3.84416E-01	5.49738E-01	-4.62824E-01	5.01393E-01
24	-3.58465E-01	5.01590E-01	-4.38879E-01	4.55421E-01
25	-3.32597E-01	4.63111E-01	-4.14884E-01	4.10121E-01
26	-3.06779E-01	4.15309E-01	-3.90837E-01	3.65505E-01
27	-2.81037E-01	3.73192E-01	-3.66736E-01	3.21583E-01
28	-2.55356E-01	3.31770E-01	-3.42574E-01	2.78365E-01
29	-2.29738E-01	2.91053E-01	-3.18349E-01	2.35860E-01
30	-2.04173E-01	2.51047E-01	-2.94054E-01	1.94078E-01
31	-1.78650E-01	2.11756E-01	-2.69686E-01	1.53029E-01
32	-1.53197E-01	1.73190E-01	-2.45241E-01	1.12715E-01
33	-1.27783E-01	1.35350E-01	-2.20715E-01	7.31462E-02
34	-1.02419E-01	9.82424E-02	-1.96103E-01	3.43272E-02
35	-7.71055E-02	6.13732E-02	-1.71402E-01	-3.73413E-03

POINT NO	XS	YS	XP	YP
36	-9.18472E-02	2.62480E-02	-1.46611E-01	-4.10353E-02
37	-2.66415E-02	-8.63110E-03	-1.21731E-01	-7.75770E-02
38	-1.49012E-03	-4.27619E-02	-9.67634E-02	-1.13349E-01
39	2.36066E-02	-7.61421E-02	-7.17091E-02	-1.48346E-01
40	4.86434E-02	-1.08769E-01	-4.65694E-02	-1.82568E-01
41	7.36350E-02	-1.40643E-01	-2.13467E-02	-2.16013E-01
42	9.85665E-02	-1.71763E-01	3.95637E-03	-2.48677E-01
43	1.23443E-01	-2.02132E-01	2.33375E-02	-2.80560E-01
44	1.48265E-01	-2.31749E-01	5.47944E-02	-3.11661E-01
45	1.73032E-01	-2.60617E-01	8.03246E-02	-3.41980E-01
46	1.97747E-01	-2.88739E-01	1.05926E-01	-3.71518E-01
47	2.22408E-01	-3.16[illegible]	1.31595E-01	-4.00275E-01
48	2.47018E-01	-3.42762E-01	1.57329E-01	-4.28254E-01
49	2.71576E-01	-3.68675E-01	1.83127E-01	-4.55454E-01
50	2.96082E-01	-3.93869E-01	2.08991E-01	-4.81874E-01
51	3.20533E-01	-4.18357E-01	2.34920E-01	-5.07513E-01
52	3.44930E-01	-4.42154E-01	2.60918E-01	-5.32370E-01
53	3.69272E-01	-4.65272E-01	2.86982E-01	-5.56446E-01
54	3.93551E-01	-4.87727E-01	3.13115E-01	-5.79743E-01
55	4.17798E-01	-5.03534E-01	3.39315E-01	-6.02264E-01
56	4.41988E-01	-5.30712E-01	3.65580E-01	-6.24013E-01
57	4.66131E-01	-5.51276E-01	3.91909E-01	-6.44995E-01
58	4.90232E-01	-5.71245E-01	4.18298E-01	-6.65214E-01
59	5.14234E-01	-5.90638E-01	4.44745E-01	-6.84679E-01
60	5.38322E-01	-6.09475E-01	4.71244E-01	-7.03396E-01
61	5.62321E-01	-6.27776E-01	4.97792E-01	-7.21376E-01
62	5.86236E-01	-6.45562E-01	5.24383E-01	-7.38629E-01
63	6.10251E-01	-6.62856E-01	5.51011E-01	-7.55167E-01
64	6.34193E-01	-6.79678E-01	5.77671E-01	-7.71002E-01
65	6.58125E-01	-6.96051E-01	6.04356E-01	-7.86148E-01
66	6.82052E-01	-7.11997E-01	6.31061E-01	-8.00623E-01
67	7.05978E-01	-7.27538E-01	6.57777E-01	-8.14441E-01
68	7.29907E-01	-7.42696E-01	6.84497E-01	-8.27619E-01
69	7.53844E-01	-7.57493E-01	7.11214E-01	-8.40174E-01
70	7.77792E-01	-7.71953E-01	7.37923E-01	-8.52124E-01
71	8.01756E-01	-7.86099E-01	7.64618E-01	-8.63488E-01
72	8.25737E-01	-7.99954E-01	7.91293E-01	-8.74286E-01
73	8.49739E-01	-8.13543E-01	8.17947E-01	-8.84539E-01
74	8.73763E-01	-8.26890E-01	8.44574E-01	-8.94268E-01
75	8.97811E-01	-8.40021E-01	8.71175E-01	-9.03495E-01
76	9.21881E-01	-8.52960E-01	8.97749E-01	-9.12244E-01
77	9.45974E-01	-8.65735E-01	9.24295E-01	-9.20537E-01
78	9.70088E-01	-8.78371E-01	9.50816E-01	-9.28401E-01
79	9.94218E-01	-8.90897E-01	9.77316E-01	-9.35859E-01
80	1.01836E+00	-9.03293E-01	1.00380E+00	-9.42923E-01

POINT NO	XSEMI	YSEMI
1	-9.81206E-01	1.65023E+00
2	-9.81410E-01	1.65075E+00
3	-9.81560E-01	1.65129E+00
4	-9.81654E-01	1.65184E+00
5	-9.81691E-01	1.65240E+00
6	-9.81672E-01	1.65296E+00
7	-9.81596E-01	1.65351E+00
8	-9.81463E-01	1.65406E+00
9	-9.81277E-01	1.65458E+00

POINT NO	XSEMI	YSEMI
10	-9.81938E-01	1.65509E+00
11	-9.80749E-01	1.65556E+00
12	-9.80413E-01	1.65600E+00
13	-9.80134E-01	1.65640E+00
14	-9.79616E-01	1.65676E+00
15	-9.79165E-01	1.65708E+00
16	-9.78643E-01	1.65734E+00
17	-9.78178E-01	1.65755E+00
18	-9.77554E-01	1.65770E+00
19	-9.77118E-01	1.65780E+00
20	-9.76574E-01	1.65784E+00
21	-9.76030E-01	1.65782E+00
22	-9.75491E-01	1.65774E+00
23	-9.74952E-01	1.65760E+00
24	-9.74451E-01	1.65741E+00
25	-9.73961E-01	1.65716E+00
26	-9.73500E-01	1.65686E+00
27	-9.73071E-01	1.65652E+00
28	-9.72679E-01	1.65613E+00
29	-9.72329E-01	1.65570E+00
30	-9.72025E-01	1.65523E+00
31	-9.71770E-01	1.65474E+00

SECTION NUMBER 8 'Z' = 8.2500

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SECTION PROPERTIES

SECTION AREA		=	2.8732E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	-1.7523E-02
	YBAR	=	2.6558E-03
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.2898E-01
	IY	=	5.6038E-02
	IXY	=	-9.0303E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.9314E-01 (AT 35.39 DEGREES TO 'X' AXIS)
	IPY	=	1.8788E-03 (AT 35.39 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	9.3000E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-3.71519E-01	1.72369E+00	-9.81140E-01	1.71919E+00
2	-3.44525E-01	1.66586E+00	-9.57830E-01	1.65963E+00
3	-3.17538E-01	1.60836E+00	-9.34516E-01	1.60042E+00
4	-3.90558E-01	1.55122E+00	-9.11194E-01	1.54153E+00
5	-3.63590E-01	1.49447E+00	-8.87858E-01	1.48311E+00
6	-3.36635E-01	1.43810E+00	-8.64505E-01	1.42509E+00
7	-3.09697E-01	1.38216E+00	-8.41130E-01	1.36741E+00
8	-7.82778E-01	1.32665E+00	-8.17729E-01	1.31021E+00
9	-7.55882E-01	1.27159E+00	-7.94299E-01	1.25346E+00
10	-7.29011E-01	1.21700E+00	-7.70835E-01	1.19713E+00
11	-7.02171E-01	1.16291E+00	-7.47335E-01	1.14142E+00

POINT NO	XS	YS	XP	YP
12	-6.75353E-01	1.10932E+00	-7.23795E-01	1.08615E+00
13	-6.48594E-01	1.05625E+00	-7.00214E-01	1.03141E+00
14	-6.21866E-01	1.00373E+00	-6.76588E-01	9.77213E-01
15	-5.95145E-01	9.51772E-01	-6.52916E-01	9.23579E-01
16	-5.68557E-01	9.00389E-01	-6.29197E-01	8.70523E-01
17	-5.41995E-01	8.49602E-01	-6.05430E-01	8.18061E-01
18	-5.15475E-01	7.93428E-01	-5.81615E-01	7.66210E-01
19	-4.89023E-01	7.49883E-01	-5.57751E-01	7.14986E-01
20	-4.62650E-01	7.00983E-01	-5.33838E-01	6.64404E-01
21	-4.36339E-01	6.52740E-01	-5.09875E-01	6.14479E-01
22	-4.10097E-01	6.05170E-01	-4.85863E-01	5.65224E-01
23	-3.83925E-01	5.58282E-01	-4.61798E-01	5.16654E-01
24	-3.57822E-01	5.12088E-01	-4.37679E-01	4.68779E-01
25	-3.31787E-01	4.66598E-01	-4.13504E-01	4.21612E-01
26	-3.05819E-01	4.21821E-01	-3.89271E-01	3.75162E-01
27	-2.79918E-01	3.77763E-01	-3.64978E-01	3.29440E-01
28	-2.54090E-01	3.34432E-01	-3.40623E-01	2.84453E-01
29	-2.28306E-01	2.91835E-01	-3.16203E-01	2.40209E-01
30	-2.02593E-01	2.49976E-01	-2.91716E-01	1.96716E-01
31	-1.76940E-01	2.08858E-01	-2.67158E-01	1.53980E-01
32	-1.51346E-01	1.68485E-01	-2.42529E-01	1.12006E-01
33	-1.25811E-01	1.28857E-01	-2.17825E-01	7.07979E-02
34	-1.00337E-01	8.99809E-02	-1.93046E-01	3.03596E-02
35	-7.49225E-02	5.19590E-02	-1.68191E-01	-9.30565E-03
36	-4.95692E-02	1.44941E-02	-1.43258E-01	-4.81976E-02
37	-2.42771E-02	-2.21122E-02	-1.18250E-01	-8.63142E-02
38	9.53892E-04	-5.73585E-02	-9.31666E-02	-1.23651E-01
39	2.61238E-02	-9.30439E-02	-6.80104E-02	-1.60205E-01
40	5.12329E-02	-1.27368E-01	-4.27826E-02	-1.95976E-01
41	7.62815E-02	-1.60930E-01	-1.74849E-02	-2.30962E-01
42	1.01270E-01	-1.93731E-01	7.88129E-03	-2.65163E-01
43	1.26200E-01	-2.25773E-01	3.33138E-02	-2.98579E-01
44	1.51071E-01	-2.57056E-01	5.88106E-02	-3.31209E-01
45	1.75885E-01	-2.87583E-01	8.43698E-02	-3.63055E-01
46	2.00642E-01	-3.17357E-01	1.09989E-01	-3.94117E-01
47	2.25345E-01	-3.46381E-01	1.35667E-01	-4.24397E-01
48	2.49994E-01	-3.74660E-01	1.61401E-01	-4.53897E-01
49	2.74587E-01	-4.02202E-01	1.87192E-01	-4.82615E-01
50	2.99123E-01	-4.29020E-01	2.13043E-01	-5.10550E-01
51	3.23598E-01	-4.55125E-01	2.38955E-01	-5.37701E-01
52	3.48013E-01	-4.80530E-01	2.64928E-01	-5.64068E-01
53	3.72366E-01	-5.05249E-01	2.90963E-01	-5.89653E-01
54	3.96658E-01	-5.29296E-01	3.17058E-01	-6.14459E-01
55	4.20890E-01	-5.52687E-01	3.43213E-01	-6.38489E-01
56	4.45053E-01	-5.75437E-01	3.69424E-01	-6.61748E-01
57	4.69181E-01	-5.97563E-01	3.95689E-01	-6.84240E-01
58	4.93246E-01	-6.19083E-01	4.22004E-01	-7.05973E-01
59	5.17260E-01	-6.40014E-01	4.48365E-01	-7.26953E-01
60	5.41229E-01	-6.60375E-01	4.74767E-01	-7.47190E-01
61	5.65156E-01	-6.80186E-01	5.01206E-01	-7.66693E-01
62	5.89046E-01	-6.99466E-01	5.27676E-01	-7.85472E-01
63	6.12904E-01	-7.18238E-01	5.54170E-01	-8.03540E-01
64	6.36734E-01	-7.36521E-01	5.80683E-01	-8.20910E-01
65	6.60542E-01	-7.54336E-01	6.07209E-01	-8.37596E-01
66	6.84334E-01	-7.71703E-01	6.33740E-01	-8.53613E-01
67	7.08115E-01	-7.88643E-01	6.60272E-01	-8.68977E-01
68	7.31892E-01	-8.05175E-01	6.86800E-01	-8.83702E-01

POINT NO	XS	YS	XP	YP
69	7.55669E-01	-8.21321E-01	7.13317E-01	-8.97804E-01
70	7.79453E-01	-8.37102E-01	7.39820E-01	-9.11299E-01
71	8.03247E-01	-8.52542E-01	7.66305E-01	-9.24206E-01
72	8.27057E-01	-8.67661E-01	7.92769E-01	-9.36543E-01
73	8.50886E-01	-8.82484E-01	8.19210E-01	-9.48329E-01
74	8.74737E-01	-8.97033E-01	8.45625E-01	-9.59587E-01
75	8.98612E-01	-9.11334E-01	8.72015E-01	-9.70338E-01
76	9.22514E-01	-9.25412E-01	8.98380E-01	-9.80605E-01
77	9.46441E-01	-9.39293E-01	9.24721E-01	-9.90413E-01
78	9.70394E-01	-9.53003E-01	9.51039E-01	-9.99787E-01
79	9.94370E-01	-9.66569E-01	9.77340E-01	-1.00875E+00
80	1.01837E+00	-9.79969E-01	1.00363E+00	-1.01733E+00

POINT NO	XSEMI	YSEMI
1	-9.81140E-01	1.71919E+00
2	-9.81137E-01	1.71972E+00
3	-9.81479E-01	1.72028E+00
4	-9.81556E-01	1.72085E+00
5	-9.81534E-01	1.72142E+00
6	-9.81565E-01	1.72199E+00
7	-9.81479E-01	1.72256E+00
8	-9.81336E-01	1.72312E+00
9	-9.81139E-01	1.72365E+00
10	-9.80898E-01	1.72417E+00
11	-9.80588E-01	1.72465E+00
12	-9.80241E-01	1.72510E+00
13	-9.79851E-01	1.72551E+00
14	-9.79423E-01	1.72587E+00
15	-9.78960E-01	1.72618E+00
16	-9.78469E-01	1.72645E+00
17	-9.77955E-01	1.72665E+00
18	-9.77422E-01	1.72681E+00
19	-9.76878E-01	1.72690E+00
20	-9.76327E-01	1.72693E+00
21	-9.75777E-01	1.72690E+00
22	-9.75233E-01	1.72681E+00
23	-9.74700E-01	1.72667E+00
24	-9.74186E-01	1.72646E+00
25	-9.73695E-01	1.72620E+00
26	-9.73233E-01	1.72589E+00
27	-9.72805E-01	1.72553E+00
28	-9.72415E-01	1.72513E+00
29	-9.72069E-01	1.72468E+00
30	-9.71769E-01	1.72420E+00
31	-9.71519E-01	1.72369E+00

SECTION NUMBER 9 "Z" = 8.5000

SECTION PROPERTIES

SECTION AREA		=	2.3319E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	-2.5730E-02
	YBAR	=	-3.8444E-03
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.4991E-01
	IY	=	6.7057E-02
	IXY	=	-9.8253E-02
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	2.1511E-01 (AT 33.57 DEGREES TO 'X' AXIS)
	IPY	=	1.8538E-03 (AT 33.57 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	9.0358E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71472E-01	1.80704E+00	-9.81296E-01	1.80251E+00
2	-9.44449E-01	1.74559E+00	-9.57969E-01	1.73937E+00
3	-9.17441E-01	1.68454E+00	-9.34646E-01	1.67664E+00
4	-8.90450E-01	1.62390E+00	-9.11322E-01	1.61433E+00
5	-8.63479E-01	1.56369E+00	-8.87991E-01	1.55246E+00
6	-8.36529E-01	1.50393E+00	-8.64648E-01	1.49105E+00
7	-8.09601E-01	1.44464E+00	-8.41288E-01	1.43012E+00
8	-7.82697E-01	1.38583E+00	-8.17905E-01	1.36968E+00
9	-7.55819E-01	1.32752E+00	-7.94495E-01	1.30975E+00
10	-7.28967E-01	1.26973E+00	-7.71051E-01	1.25036E+00
11	-7.02144E-01	1.21247E+00	-7.47571E-01	1.19150E+00
12	-6.75352E-01	1.15576E+00	-7.24050E-01	1.13321E+00
13	-6.48592E-01	1.09961E+00	-7.00484E-01	1.07549E+00
14	-6.21866E-01	1.04405E+00	-6.76867E-01	1.01836E+00
15	-5.95177E-01	9.88087E-01	-6.53199E-01	9.61829E-01
16	-5.68528E-01	9.34734E-01	-6.29475E-01	9.05921E-01
17	-5.41921E-01	8.81010E-01	-6.05692E-01	8.50646E-01
18	-5.15362E-01	8.27933E-01	-5.81850E-01	7.96020E-01
19	-4.88854E-01	7.75515E-01	-5.57946E-01	7.42056E-01
20	-4.62401E-01	7.23774E-01	-5.33979E-01	6.88767E-01
21	-4.36005E-01	6.72721E-01	-5.09950E-01	6.36169E-01
22	-4.09669E-01	6.22369E-01	-4.85856E-01	5.84274E-01
23	-3.83395E-01	5.72728E-01	-4.61700E-01	5.33093E-01
24	-3.57185E-01	5.23809E-01	-4.37479E-01	4.82637E-01
25	-3.31039E-01	4.75620E-01	-4.13194E-01	4.32917E-01
26	-3.04960E-01	4.28170E-01	-3.88844E-01	3.83941E-01
27	-2.78948E-01	3.81455E-01	-3.64428E-01	3.35718E-01
28	-2.53004E-01	3.35510E-01	-3.39947E-01	2.88254E-01
29	-2.27128E-01	2.90310E-01	-3.15400E-01	2.41558E-01
30	-2.01321E-01	2.45869E-01	-2.90786E-01	1.95633E-01
31	-1.75583E-01	2.02189E-01	-2.66106E-01	1.50484E-01
32	-1.49916E-01	1.59273E-01	-2.41359E-01	1.06116E-01
33	-1.24320E-01	1.17120E-01	-2.16547E-01	6.25316E-02
34	-9.87934E-02	7.57335E-02	-1.91669E-01	1.97317E-02
35	-7.33373E-02	3.51171E-02	-1.66727E-01	-2.22826E-02

POINT NO	XS	YS	XP	YP
36	-4.79514E-02	-4.72793E-03	-1.41721E-01	-5.35104E-02
37	-2.26349E-02	-4.34000E-02	-1.16653E-01	-1.03952E-01
38	2.61219E-03	-8.20973E-02	-9.15237E-02	-1.43603E-01
39	2.77326E-02	-1.13619E-01	-6.63332E-02	-1.82463E-01
40	5.29051E-02	-1.56365E-01	-4.10830E-02	-2.20531E-01
41	7.79514E-02	-1.92334E-01	-1.57740E-02	-2.57805E-01
42	1.02933E-01	-2.27526E-01	9.59263E-03	-2.94285E-01
43	1.27350E-01	-2.61940E-01	3.50156E-02	-3.29972E-01
44	1.52705E-01	-2.95579E-01	6.04938E-02	-3.64863E-01
45	1.77498E-01	-3.23443E-01	8.60262E-02	-3.98960E-01
46	2.02733E-01	-3.60532E-01	1.11612E-01	-4.32262E-01
47	2.28409E-01	-3.91849E-01	1.37249E-01	-4.64771E-01
48	2.54527E-01	-4.22398E-01	1.62939E-01	-4.96484E-01
49	2.80084E-01	-4.52188E-01	1.88684E-01	-5.27399E-01
50	3.06077E-01	-4.81229E-01	2.14488E-01	-5.57514E-01
51	3.32003E-01	-5.09529E-01	2.40353E-01	-5.86825E-01
52	3.58363E-01	-5.37098E-01	2.66279E-01	-6.15331E-01
53	3.85154E-01	-5.63948E-01	2.92267E-01	-6.43033E-01
54	3.97880E-01	-5.90093E-01	3.18315E-01	-6.69933E-01
55	4.22039E-01	-6.15543E-01	3.44421E-01	-6.96030E-01
56	4.46134E-01	-6.40312E-01	3.70585E-01	-7.21329E-01
57	4.70168E-01	-6.64414E-01	3.96801E-01	-7.45831E-01
58	4.94144E-01	-6.87863E-01	4.23068E-01	-7.69542E-01
59	5.18065E-01	-7.10676E-01	4.49380E-01	-7.92466E-01
60	5.41936E-01	-7.32868E-01	4.75734E-01	-8.14610E-01
61	5.65751E-01	-7.54457E-01	5.02124E-01	-8.35981E-01
62	5.89547E-01	-7.75459E-01	5.28545E-01	-8.56586E-01
63	6.13299E-01	-7.95893E-01	5.54990E-01	-8.76435E-01
64	6.37022E-01	-8.15780E-01	5.81454E-01	-8.95539E-01
65	6.60723E-01	-8.35135E-01	6.07931E-01	-9.13910E-01
66	6.84410E-01	-8.53977E-01	6.34414E-01	-9.31561E-01
67	7.08091E-01	-8.72323E-01	6.60898E-01	-9.48504E-01
68	7.31773E-01	-8.90192E-01	6.87378E-01	-9.64751E-01
69	7.55464E-01	-9.07604E-01	7.13851E-01	-9.80316E-01
70	7.79170E-01	-9.24578E-01	7.40312E-01	-9.95213E-01
71	8.02900E-01	-9.41134E-01	7.66759E-01	-1.00946E+00
72	8.26658E-01	-9.57294E-01	7.93189E-01	-1.02307E+00
73	8.50452E-01	-9.73080E-01	8.19599E-01	-1.03606E+00
74	8.74286E-01	-9.88513E-01	8.45990E-01	-1.04846E+00
75	8.98165E-01	-1.00362E+00	8.72360E-01	-1.06029E+00
76	9.22091E-01	-1.01842E+00	8.98710E-01	-1.07157E+00
77	9.46066E-01	-1.03294E+00	9.25043E-01	-1.08232E+00
78	9.70093E-01	-1.04722E+00	9.51360E-01	-1.09258E+00
79	9.94179E-01	-1.06126E+00	9.77666E-01	-1.10237E+00
80	1.01829E+00	-1.07506E+00	1.00397E+00	-1.11171E+00

POINT NO	XSEMI	YSEMI
1	-9.81236E-01	1.80251E+00
2	-9.81496E-01	1.80306E+00
3	-9.81621E-01	1.80363E+00
4	-9.81699E-01	1.80422E+00
5	-9.81718E-01	1.80481E+00
6	-9.81679E-01	1.80540E+00
7	-9.81582E-01	1.80598E+00
8	-9.81427E-01	1.80655E+00
9	-9.81218E-01	1.80710E+00

POINT NO	XSEMI	YSEMI
10	-9.80955E-01	1.80762E+00
11	-9.80643E-01	1.80812E+00
12	-9.80284E-01	1.80857E+00
13	-9.79892E-01	1.80899E+00
14	-9.79441E-01	1.80936E+00
15	-9.78968E-01	1.80967E+00
16	-9.78465E-01	1.80994E+00
17	-9.77941E-01	1.81015E+00
18	-9.77399E-01	1.81030E+00
19	-9.76845E-01	1.81039E+00
20	-9.76287E-01	1.81041E+00
21	-9.75730E-01	1.81038E+00
22	-9.75180E-01	1.81028E+00
23	-9.74643E-01	1.81013E+00
24	-9.74126E-01	1.80991E+00
25	-9.73633E-01	1.80964E+00
26	-9.73170E-01	1.80932E+00
27	-9.72743E-01	1.80894E+00
28	-9.72355E-01	1.80852E+00
29	-9.72012E-01	1.80806E+00
30	-9.71716E-01	1.80757E+00
31	-9.71472E-01	1.80704E+00

SECTION NUMBER 10 'Z' = 8.7500

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SECTION PROPERTIES

SECTION AREA		=	3.0095E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	-3.8577E-02
	YBAR	=	-1.1973E-02
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.7580E-01
	IY	=	6.8147E-02
	IXY	=	-1.0730E-01
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	2.4201E-01 (AT 31.68 DEGREES TO 'X' AXIS)
	IPY	=	1.9321E-03 (AT 31.68 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	8.8972E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-9.71268E-01	1.89915E+00	-9.81326E-01	1.89458E+00
2	-9.44264E-01	1.83[illegible]E+00	-9.58038E-01	1.82751E+00
3	-9.17271E-01	1.76875E+00	-9.34748E-01	1.76086E+00
4	-8.90293E-01	1.70422E+00	-9.11454E-01	1.69472E+00
5	-8.63331E-01	1.64018E+00	-8.88150E-01	1.62905E+00
6	-8.36390E-01	1.57662E+00	-8.64833E-01	1.56390E+00
7	-8.09473E-01	1.51358E+00	-8.41497E-01	1.49928E+00
8	-7.82580E-01	1.45107E+00	-8.18138E-01	1.43520E+00
9	-7.55716E-01	1.38911E+00	-7.94752E-01	1.37168E+00
10	-7.28881E-01	1.32772E+00	-7.71334E-01	1.30874E+00
11	-7.02077E-01	1.26690E+00	-7.47879E-01	1.24639E+00

POINT NO	XS	YS	XP	YP
12	-6.75306E-01	1.20666E+00	-7.24384E-01	1.18465E+00
13	-6.48570E-01	1.14704E+00	-7.00844E-01	1.12353E+00
14	-6.21869E-01	1.08803E+00	-6.77256E-01	1.06304E+00
15	-5.95206E-01	1.02966E+00	-6.53615E-01	1.00319E+00
16	-5.68582E-01	9.71922E-01	-6.29918E-01	9.43992E-01
17	-5.41998E-01	9.14849E-01	-6.06162E-01	8.85466E-01
18	-5.15460E-01	8.58846E-01	-5.82343E-01	8.27620E-01
19	-4.88959E-01	8.02726E-01	-5.58460E-01	7.70466E-01
20	-4.62529E-01	7.47702E-01	-5.34511E-01	7.14014E-01
21	-4.36143E-01	6.93366E-01	-5.10495E-01	6.58277E-01
22	-4.09814E-01	6.39785E-01	-4.86410E-01	6.03264E-01
23	-3.83544E-01	5.86911E-01	-4.62258E-01	5.48987E-01
24	-3.57336E-01	5.34774E-01	-4.38038E-01	4.95455E-01
25	-3.31192E-01	4.83380E-01	-4.13749E-01	4.42674E-01
26	-3.05114E-01	4.32735E-01	-3.89393E-01	3.90654E-01
27	-2.79105E-01	3.82850E-01	-3.64970E-01	3.39402E-01
28	-2.53166E-01	3.33728E-01	-3.40479E-01	2.88925E-01
29	-2.27299E-01	2.85373E-01	-3.15922E-01	2.39228E-01
30	-2.01505E-01	2.37793E-01	-2.91299E-01	1.90317E-01
31	-1.75785E-01	1.90991E-01	-2.66612E-01	1.42196E-01
32	-1.50141E-01	1.44979E-01	-2.41861E-01	9.48699E-02
33	-1.24571E-01	9.97338E-02	-2.17047E-01	4.83432E-02
34	-9.90753E-02	5.52857E-02	-1.92173E-01	2.61816E-03
35	-7.36537E-02	1.15312E-02	-1.67238E-01	-4.23035E-02
36	-4.83051E-02	-3.12266E-02	-1.42244E-01	-8.64767E-02
37	-2.30241E-02	-7.32826E-02	-1.17192E-01	-1.23719E-01
38	2.17958E-03	-1.14532E-01	-9.20804E-02	-1.72210E-01
39	2.73157E-02	-1.54971E-01	-6.69111E-02	-2.13885E-01
40	5.23853E-02	-1.94598E-01	-4.16840E-02	-2.54738E-01
41	7.73388E-02	-2.33408E-01	-1.63994E-02	-2.94767E-01
42	1.02328E-01	-2.71397E-01	8.94212E-03	-3.33967E-01
43	1.27205E-01	-3.08562E-01	3.43403E-02	-3.72339E-01
44	1.52021E-01	-3.44900E-01	5.97947E-02	-4.09875E-01
45	1.76778E-01	-3.80411E-01	8.53052E-02	-4.46573E-01
46	2.01479E-01	-4.15089E-01	1.10871E-01	-4.82431E-01
47	2.26125E-01	-4.48935E-01	1.36493E-01	-5.17447E-01
48	2.50712E-01	-4.81951E-01	1.62176E-01	-5.51611E-01
49	2.75238E-01	-5.14144E-01	1.87922E-01	-5.84918E-01
50	2.99702E-01	-5.45518E-01	2.13736E-01	-6.17363E-01
51	3.24100E-01	-5.76078E-01	2.39519E-01	-6.48939E-01
52	3.48433E-01	-6.05831E-01	2.65573E-01	-6.79643E-01
53	3.72700E-01	-6.34787E-01	2.91597E-01	-7.09470E-01
54	3.96903E-01	-6.62956E-01	3.17691E-01	-7.38422E-01
55	4.21043E-01	-6.90346E-01	3.43851E-01	-7.66496E-01
56	4.45121E-01	-7.16970E-01	3.70076E-01	-7.93692E-01
57	4.69140E-01	-7.42839E-01	3.96362E-01	-8.20013E-01
58	4.93104E-01	-7.67968E-01	4.22705E-01	-8.45462E-01
59	5.17015E-01	-7.92373E-01	4.49098E-01	-8.70042E-01
60	5.40878E-01	-8.16069E-01	4.75538E-01	-8.93760E-01
61	5.64698E-01	-8.39074E-01	5.02017E-01	-9.16625E-01
62	5.88479E-01	-8.61405E-01	5.28528E-01	-9.38643E-01
63	6.12226E-01	-8.83084E-01	5.55063E-01	-9.59825E-01
64	6.35946E-01	-9.04131E-01	5.81616E-01	-9.80187E-01
65	6.59643E-01	-9.24564E-01	6.08176E-01	-9.99739E-01
66	6.83330E-01	-9.44401E-01	6.34736E-01	-1.01850E+00
67	7.07016E-01	-9.63659E-01	6.61290E-01	-1.03648E+00
68	7.30709E-01	-9.82358E-01	6.87834E-01	-1.05370E+00

POINT NO	XS	YS	XP	YP
69	7.54419E-01	-1.00052E+00	7.14365E-01	-1.07016E+00
70	7.78155E-01	-1.01816E+00	7.40880E-01	-1.08589E+00
71	8.01926E-01	-1.03530E+00	7.67377E-01	-1.10069E+00
72	8.25742E-01	-1.05196E+00	7.93855E-01	-1.11519E+00
73	8.49613E-01	-1.06817E+00	8.20313E-01	-1.12881E+00
74	8.73543E-01	-1.08394E+00	8.46752E-01	-1.14177E+00
75	8.97540E-01	-1.09931E+00	8.73175E-01	-1.15409E+00
76	9.21610E-01	-1.11429E+00	8.99582E-01	-1.16580E+00
77	9.45755E-01	-1.12891E+00	9.259.3E-01	-1.17632E+00
78	9.69979E-01	-1.14321E+00	9.52368E-01	-1.18749E+00
79	9.94283E-01	-1.15721E+00	9.78756E-01	-1.19754E+00
80	1.01867E+00	-1.17087E+00	1.00515E+00	-1.20707E+00

POINT NO	XSEMI	YSEMI
1	-9.81326E-01	1.89458E+00
2	-9.81510E-01	1.89515E+00
3	-9.81536E-01	1.89574E+00
4	-9.81704E-01	1.89634E+00
5	-9.81712E-01	1.89695E+00
6	-9.81661E-01	1.89755E+00
7	-9.81552E-01	1.89815E+00
8	-9.81385E-01	1.89874E+00
9	-9.81162E-01	1.89930E+00
10	-9.80886E-01	1.89984E+00
11	-9.80559E-01	1.90034E+00
12	-9.80186E-01	1.90081E+00
13	-9.79770E-01	1.90123E+00
14	-9.79316E-01	1.90160E+00
15	-9.78829E-01	1.90193E+00
16	-9.78315E-01	1.90219E+00
17	-9.77778E-01	1.90240E+00
18	-9.77225E-01	1.90255E+00
19	-9.76661E-01	1.90264E+00
20	-9.76094E-01	1.90266E+00
21	-9.75529E-01	1.90262E+00
22	-9.74973E-01	1.90252E+00
23	-9.74431E-01	1.90235E+00
24	-9.73909E-01	1.90213E+00
25	-9.73414E-01	1.90184E+00
26	-9.72950E-01	1.90151E+00
27	-9.72523E-01	1.90112E+00
28	-9.72137E-01	1.90068E+00
29	-9.71797E-01	1.90021E+00
30	-9.71507E-01	1.89969E+00
31	-9.71268E-01	1.89915E+00

SECTION NUMBER 11 'Z' = 9.0000

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SECTION PROPERTIES

SECTION AREA		=	3.0841E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	-4.9902E-02
	YBAR	=	-1.9587E-02
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	2.0457E-01
	IY	=	5.3017E-02
	IXY	=	-1.1646E-01
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	2.7154E-01 (AT 29.99 DEGREES TO 'X' AXIS)
	IPY	=	2.0508E-03 (AT 29.99 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	8.7311E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	-3.70294E-01	1.99415E+00	-9.80581E-01	1.98953E+00
2	-3.43252E-01	1.92481E+00	-9.57279E-01	1.91864E+00
3	-9.16235E-01	1.85591E+00	-9.33970E-01	1.84814E+00
4	-8.89219E-01	1.78746E+00	-9.10655E-01	1.77812E+00
5	-8.62219E-01	1.71951E+00	-8.87328E-01	1.70850E+00
6	-8.35241E-01	1.65206E+00	-8.63986E-01	1.63952E+00
7	-8.08287E-01	1.58516E+00	-8.40627E-01	1.57118E+00
8	-7.81352E-01	1.51881E+00	-8.17245E-01	1.50332E+00
9	-7.54471E-01	1.45303E+00	-7.93837E-01	1.43604E+00
10	-7.27616E-01	1.38785E+00	-7.70401E-01	1.36939E+00
11	-7.00801E-01	1.32327E+00	-7.46932E-01	1.30334E+00
12	-6.74050E-01	1.25932E+00	-7.23427E-01	1.23793E+00
13	-6.47305E-01	1.19600E+00	-6.99882E-01	1.17319E+00
14	-6.20629E-01	1.13333E+00	-6.76297E-01	1.10910E+00
15	-5.94004E-01	1.07133E+00	-6.52665E-01	1.04569E+00
16	-5.67434E-01	1.01000E+00	-6.28988E-01	9.82976E-01
17	-5.40921E-01	9.43352E-01	-6.05259E-01	9.20959E-01
18	-5.14465E-01	8.89401E-01	-5.81473E-01	8.59654E-01
19	-4.88059E-01	8.30152E-01	-5.57643E-01	7.99070E-01
20	-4.61734E-01	7.71618E-01	-5.33752E-01	7.39214E-01
21	-4.35462E-01	7.13809E-01	-5.09803E-01	6.80096E-01
22	-4.09253E-01	6.56728E-01	-4.85794E-01	6.21727E-01
23	-3.83111E-01	6.00389E-01	-4.61725E-01	5.64114E-01
24	-3.57034E-01	5.44802E-01	-4.37593E-01	5.07266E-01
25	-3.31026E-01	4.89969E-01	-4.13399E-01	4.51188E-01
26	-3.05085E-01	4.35901E-01	-3.89141E-01	3.95883E-01
27	-2.79214E-01	3.82608E-01	-3.64820E-01	3.41375E-01
28	-2.53411E-01	3.30097E-01	-3.40434E-01	2.87655E-01
29	-2.27677E-01	2.78372E-01	-3.15984E-01	2.34737E-01
30	-2.02012E-01	2.27446E-01	-2.91470E-01	1.82622E-01
31	-1.76415E-01	1.77325E-01	-2.66891E-01	1.31321E-01
32	-1.50884E-01	1.28017E-01	-2.42246E-01	8.08400E-02
33	-1.25420E-01	7.95301E-02	-2.17536E-01	3.11863E-02
34	-1.00022E-01	3.18725E-02	-1.92761E-01	-1.76346E-02
35	-7.46874E-02	-1.49516E-02	-1.67919E-01	-6.56175E-02

POINT NO	XS	YS	XP	YP
36	-4.94155E-02	-6.09341E-02	-1.43010E-01	-1.12752E-01
37	-2.42081E-02	-1.06065E-01	-1.18035E-01	-1.59031E-01
38	9.39103E-04	-1.50335E-01	-9.29936E-02	-2.04452E-01
39	2.60265E-02	-1.93738E-01	-6.78857E-02	-2.49012E-01
40	5.10556E-02	-2.36270E-01	-4.27115E-02	-2.92698E-01
41	7.60278E-02	-2.77921E-01	-1.74713E-02	-3.35504E-01
42	1.00945E-01	-3.19684E-01	7.83479E-03	-3.77424E-01
43	1.25908E-01	-3.58554E-01	3.32072E-02	-4.18455E-01
44	1.50620E-01	-3.97527E-01	5.86450E-02	-4.58588E-01
45	1.75382E-01	-4.35596E-01	8.41479E-02	-4.97817E-01
46	2.00035E-01	-4.72757E-01	1.09715E-01	-5.36137E-01
47	2.24738E-01	-5.09009E-01	1.35351E-01	-5.73545E-01
48	2.49368E-01	-5.44353E-01	1.61059E-01	-6.10026E-01
49	2.73919E-01	-5.78795E-01	1.86844E-01	-6.45574E-01
50	2.98409E-01	-6.12337E-01	2.12708E-01	-6.80183E-01
51	3.22836E-01	-6.44985E-01	2.38653E-01	-7.13847E-01
52	3.47199E-01	-6.76745E-01	2.64679E-01	-7.46559E-01
53	3.71497E-01	-7.07625E-01	2.90784E-01	-7.78318E-01
54	3.95731E-01	-7.37635E-01	3.16967E-01	-8.09124E-01
55	4.19901E-01	-7.66784E-01	3.43224E-01	-8.38973E-01
56	4.44010E-01	-7.95084E-01	3.69551E-01	-8.67866E-01
57	4.68057E-01	-8.22549E-01	3.95943E-01	-8.95813E-01
58	4.92047E-01	-8.49192E-01	4.22395E-01	-9.22810E-01
59	5.15993E-01	-8.75032E-01	4.48900E-01	-9.48864E-01
60	5.39868E-01	-9.00084E-01	4.75451E-01	-9.73985E-01
61	5.63706E-01	-9.24368E-01	5.02039E-01	-9.98181E-01
62	5.87501E-01	-9.47904E-01	5.28657E-01	-1.02146E+00
63	6.11259E-01	-9.70715E-01	5.55294E-01	-1.04384E+00
64	6.34984E-01	-9.92822E-01	5.81941E-01	-1.06534E+00
65	6.58694E-01	-1.01425E+00	6.08586E-01	-1.08596E+00
66	6.82372E-01	-1.03508E+00	6.35221E-01	-1.10574E+00
67	7.06050E-01	-1.05511E+00	6.61839E-01	-1.12468E+00
68	7.29750E-01	-1.07459E+00	6.88438E-01	-1.14279E+00
69	7.53483E-01	-1.09345E+00	7.15015E-01	-1.15010E+00
70	7.77242E-01	-1.11172E+00	7.41572E-01	-1.17661E+00
71	8.01048E-01	-1.12941E+00	7.68106E-01	-1.19234E+00
72	8.24914E-01	-1.14656E+00	7.94620E-01	-1.20730E+00
73	8.48852E-01	-1.16317E+00	8.21115E-01	-1.22153E+00
74	8.72871E-01	-1.17928E+00	8.47593E-01	-1.23503E+00
75	8.96979E-01	-1.19490E+00	8.74058E-01	-1.24783E+00
76	9.21184E-01	-1.21006E+00	9.00513E-01	-1.25997E+00
77	9.45492E-01	-1.22479E+00	9.26966E-01	-1.27146E+00
78	9.69908E-01	-1.23912E+00	9.53421E-01	-1.28233E+00
79	9.94435E-01	-1.25306E+00	9.79885E-01	-1.29263E+00
80	1.01907E+00	-1.26660E+00	1.00637E+00	-1.30235E+00

POINT NO	XSEMI	YSEMI
1	-9.80581E-01	1.98959E+00
2	-9.80757E-01	1.99018E+00
3	-9.80875E-01	1.99078E+00
4	-9.80934E-01	1.99140E+00
5	-9.80932E-01	1.99202E+00
6	-9.80870E-01	1.99264E+00
7	-9.80749E-01	1.99325E+00
8	-9.80569E-01	1.99385E+00
9	-9.80334E-01	1.99442E+00

POINT NO	XSEMI	YSEMI
10	-9.80044E-01	1.99497E+00
11	-9.79704E-01	1.99548E+00
12	-9.79318E-01	1.99595E+00
13	-9.79888E-01	1.99638E+00
14	-9.78421E-01	1.99676E+00
15	-9.77922E-01	1.99708E+00
16	-9.77395E-01	1.99735E+00
17	-9.75846E-01	1.99756E+00
18	-9.76282E-01	1.99770E+00
19	-9.75709E-01	1.99779E+00
20	-9.75133E-01	1.99780E+00
21	-9.74560E-01	1.99775E+00
22	-9.73997E-01	1.99764E+00
23	-9.73450E-01	1.99747E+00
24	-9.72924E-01	1.99723E+00
25	-9.72426E-01	1.99693E+00
26	-9.71961E-01	1.99658E+00
27	-9.71535E-01	1.99618E+00
28	-9.71151E-01	1.99573E+00
29	-9.70814E-01	1.99524E+00
30	-9.70527E-01	1.99471E+00
31	-9.70294E-01	1.99415E+00

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 1

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50228	-.76445	-47.592	.00460	.50398	-.76289	.50058	-.76600
2	.50850	-.77119	-47.048	.00714	.51111	-.76875	.50588	-.77362
3	.52097	-.78437	-46.155	.01195	.52528	-.78023	.51666	-.78851
4	.53345	-.79720	-45.402	.01639	.53929	-.79144	.52762	-.80295
5	.54593	-.80967	-44.581	.02047	.55312	-.80238	.53875	-.81696
6	.55841	-.82179	-43.750	.02421	.56678	-.81305	.55004	-.83054
7	.57089	-.83356	-42.892	.02762	.58029	-.82345	.56149	-.84368
8	.58337	-.84498	-42.014	.03070	.59364	-.83357	.57309	-.85638
9	.59584	-.85605	-41.115	.03347	.60685	-.84344	.58484	-.86865
10	.60832	-.86676	-40.195	.03594	.61992	-.85304	.59673	-.88049
11	.62080	-.87713	-39.256	.03812	.63286	-.86237	.60874	-.89189
12	.63328	-.88716	-38.298	.04002	.64568	-.87146	.62088	-.90286
13	.64576	-.89684	-37.324	.04165	.65838	-.88028	.63313	-.91340
14	.65824	-.90619	-36.333	.04301	.67098	-.88886	.64550	-.92351
15	.67072	-.91520	-35.328	.04413	.68347	-.89720	.65796	-.93320
16	.68319	-.92388	-34.311	.04500	.69588	-.90529	.67051	-.94246
17	.69567	-.93223	-33.283	.04564	.70819	-.91316	.68315	-.95131
18	.70315	-.94026	-32.247	.04605	.72044	-.92079	.69587	-.95974
19	.72063	-.94798	-31.205	.04624	.73261	-.92820	.70865	-.96775
20	.73311	-.95538	-30.159	.04622	.74472	-.93540	.72150	-.97536
21	.74559	-.96248	-29.112	.04600	.75678	-.94239	.73440	-.98257
22	.75807	-.96928	-28.067	.04557	.76879	-.94918	.74734	-.98939
23	.77054	-.97579	-27.026	.04496	.78076	-.95577	.76033	-.99582
24	.78302	-.98202	-25.993	.04416	.79270	-.96217	.77335	-1.00186
25	.79550	-.98796	-24.971	.04317	.80461	-.96839	.78639	-1.00753
26	.80798	-.99364	-23.963	.04201	.81651	-.97445	.79945	-1.01284
27	.82046	-.99906	-22.973	.04068	.82840	-.98033	.81252	-1.01778
28	.83294	-1.00422	-22.002	.03917	.84027	-.98606	.82560	-1.02238
29	.84541	-1.00915	-21.056	.03750	.85215	-.99165	.83868	-1.02664
30	.85789	-1.01383	-20.137	.03566	.86403	-.99709	.85175	-1.03058
31	.87037	-1.01830	-19.248	.03367	.87592	-1.00241	.86482	-1.03419
32	.88285	-1.02255	-18.393	.03152	.88782	-1.00760	.87788	-1.03750
33	.89533	-1.02660	-17.575	.02921	.89974	-1.01268	.89092	-1.04052
34	.90781	-1.03046	-16.797	.02674	.91167	-1.01766	.90394	-1.04326
35	.92029	-1.03414	-16.062	.02413	.92362	-1.02255	.91695	-1.04573
36	.93276	-1.03765	-15.373	.02137	.93560	-1.02735	.92993	-1.04795
37	.94524	-1.04101	-14.735	.01845	.94759	-1.03208	.94290	-1.04993
38	.95772	-1.04422	-14.142	.01539	.95960	-1.03675	.95584	-1.05168
39	.97020	-1.04730	-13.625	.01219	.97163	-1.04138	.96876	-1.05322
40	.98268	-1.05027	-13.089	.00883	.98368	-1.04596	.98168	-1.05457
41	.99516	-1.05313	-12.899	.00533	.99575	-1.05053	.99456	-1.05573
42	.99772	-1.05372	-12.947	.00460	.99824	-1.05148	.99721	-1.05596

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 2

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50232	-.78289	-48.422	.00467	.50406	-.78134	.50057	-.78444
2	.50844	-.78972	-47.895	.00702	.51104	-.78737	.50583	-.79207
3	.52091	-.80330	-47.017	.01152	.52512	-.79937	.51670	-.80722
4	.53338	-.81652	-46.281	.01567	.53905	-.81110	.52772	-.82193
5	.54586	-.82938	-45.476	.01949	.55281	-.82255	.53891	-.83621
6	.55833	-.84189	-44.662	.02299	.56641	-.83371	.55025	-.85006
7	.57081	-.85403	-43.822	.02617	.57987	-.84459	.56174	-.86348
8	.58328	-.86583	-42.961	.02905	.59318	-.85520	.57338	-.87646
9	.59575	-.87727	-42.079	.03164	.60636	-.86553	.58515	-.88901
10	.60823	-.88835	-41.177	.03394	.61940	-.87558	.59706	-.90113
11	.62070	-.89909	-40.255	.03597	.63232	-.88537	.60908	-.91282
12	.63318	-.90948	-39.314	.03774	.64513	-.89488	.62122	-.92408
13	.64565	-.91952	-38.356	.03925	.65783	-.90413	.63347	-.93491
14	.65812	-.92922	-37.383	.04052	.67042	-.91313	.64582	-.94532
15	.67060	-.93859	-36.394	.04155	.68292	-.92186	.65827	-.95531
16	.68307	-.94761	-35.393	.04235	.69534	-.93035	.67081	-.96488
17	.69555	-.95631	-34.381	.04294	.70767	-.93859	.68342	-.97403
18	.70802	-.96469	-33.360	.04331	.71993	-.94660	.69611	-.98277
19	.72049	-.97274	-32.332	.04348	.73212	-.95437	.70887	-.99111
20	.73297	-.98048	-31.300	.04345	.74426	-.96191	.72168	-.99904
21	.74544	-.98791	-30.267	.04323	.75634	-.96924	.73455	-1.00658
22	.75792	-.99504	-29.234	.04283	.76837	-.97635	.74746	-1.01373
23	.77039	-1.00187	-28.205	.04225	.78037	-.98326	.76041	-1.02049
24	.78286	-1.00842	-27.183	.04149	.79234	-.98997	.77339	-1.02688
25	.79534	-1.01469	-26.171	.04057	.80428	-.99648	.78639	-1.03289
26	.80781	-1.02068	-25.172	.03948	.81621	-1.00282	.79942	-1.03855
27	.82029	-1.02642	-24.189	.03823	.82812	-1.00898	.81245	-1.04385
28	.83276	-1.03189	-23.226	.03682	.84002	-1.01497	.82550	-1.04881
29	.84523	-1.03713	-22.286	.03526	.85192	-1.02081	.83855	-1.05344
30	.85771	-1.04212	-21.372	.03355	.86382	-1.02650	.85159	-1.05774
31	.87018	-1.04689	-20.488	.03169	.87573	-1.03205	.86463	-1.06174
32	.88266	-1.05145	-19.637	.02969	.88764	-1.03747	.87767	-1.06543
33	.89513	-1.05580	-18.822	.02754	.89957	-1.04276	.89069	-1.06883
34	.90760	-1.05996	-18.047	.02525	.91152	-1.04795	.90369	-1.07196
35	.92008	-1.06393	-17.314	.02283	.92347	-1.05303	.91668	-1.07483
36	.93255	-1.06774	-16.627	.02026	.93545	-1.05803	.92965	-1.07744
37	.94503	-1.07139	-15.990	.01756	.94744	-1.06295	.94261	-1.07982
38	.95750	-1.07489	-15.398	.01472	.95945	-1.06779	.95555	-1.08198
39	.96997	-1.07826	-14.881	.01175	.97148	-1.07259	.96846	-1.08394
40	.98245	-1.08152	-14.345	.00864	.98352	-1.07733	.98138	-1.08570
41	.99492	-1.08467	-14.154	.00540	.99558	-1.08205	.99426	-1.08729
42	.99768	-1.08537	-14.205	.00467	.99826	-1.08310	.99711	-1.08763

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 3

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50235	-.80058	-49.207	.00473	.50414	-.79903	.50056	-.80213
2	.50838	-.80750	-48.696	.00689	.51097	-.80523	.50579	-.80978
3	.52085	-.82146	-47.835	.01110	.52496	-.81774	.51674	-.82519
4	.53332	-.83507	-47.115	.01498	.53881	-.82997	.52783	-.84016
5	.54579	-.84831	-46.328	.01855	.55249	-.84190	.53908	-.85471
6	.55826	-.86119	-45.531	.02181	.56604	-.85355	.55048	-.86883
7	.57073	-.87371	-44.708	.02478	.57944	-.86491	.56201	-.88252
8	.58320	-.88588	-43.866	.02746	.59271	-.87598	.57368	-.89578
9	.59567	-.89768	-43.002	.02987	.60585	-.88676	.58548	-.90861
10	.60814	-.90914	-42.118	.03201	.61887	-.89726	.59740	-.92101
11	.62061	-.92023	-41.214	.03390	.63177	-.90748	.60944	-.93298
12	.63308	-.93098	-40.292	.03554	.64457	-.91743	.62158	-.94454
13	.64554	-.94138	-39.352	.03694	.65726	-.92710	.63383	-.95566
14	.65801	-.95143	-38.397	.03812	.66985	-.93650	.64618	-.96637
15	.67048	-.96114	-37.426	.03907	.68236	-.94563	.65861	-.97666
16	.68295	-.97052	-36.443	.03981	.69478	-.95451	.67113	-.98653
17	.69542	-.97956	-35.448	.04035	.70712	-.96313	.68372	-.99600
18	.70789	-.98828	-34.444	.04069	.71940	-.97150	.69639	-1.00505
19	.72036	-.99667	-33.433	.04084	.73161	-.97963	.70911	-1.01371
20	.73283	-1.00474	-32.417	.04081	.74377	-.98752	.72189	-1.02197
21	.74530	-1.01251	-31.399	.04059	.75588	-.99518	.73473	-1.02983
22	.75777	-1.01997	-30.381	.04021	.76794	-1.00262	.74760	-1.03731
23	.77024	-1.02713	-29.366	.03966	.77997	-1.00985	.76052	-1.04441
24	.78271	-1.03400	-28.357	.03895	.79196	-1.01686	.77346	-1.05114
25	.79518	-1.04059	-27.357	.03809	.80393	-1.02368	.78643	-1.05751
26	.80765	-1.04691	-26.370	.03707	.81588	-1.03030	.79942	-1.06352
27	.82012	-1.05296	-25.398	.03590	.82782	-1.03674	.81242	-1.06918
28	.83259	-1.05875	-24.445	.03459	.83975	-1.04301	.82543	-1.07450
29	.84506	-1.06430	-23.513	.03314	.85167	-1.04911	.83845	-1.07949
30	.85753	-1.06961	-22.608	.03154	.86359	-1.05505	.85147	-1.08417
31	.87000	-1.07469	-21.731	.02982	.87552	-1.06084	.86448	-1.08854
32	.88247	-1.07955	-20.886	.02795	.88745	-1.06649	.87749	-1.09261
33	.89494	-1.08421	-20.077	.02596	.89939	-1.07202	.89048	-1.09640
34	.90741	-1.08867	-19.306	.02384	.91135	-1.07742	.90347	-1.09992
35	.91988	-1.09295	-18.578	.02159	.92332	-1.08272	.91644	-1.10318
36	.93235	-1.09706	-17.894	.01921	.93530	-1.08792	.92940	-1.10620
37	.94482	-1.10101	-17.259	.01671	.94730	-1.09303	.94234	-1.10898
38	.95729	-1.10481	-16.670	.01408	.95931	-1.09807	.95527	-1.11155
39	.96976	-1.10848	-16.155	.01133	.97133	-1.10304	.96818	-1.11392
40	.98223	-1.11203	-15.621	.00845	.98336	-1.10796	.98109	-1.11610
41	.99470	-1.11548	-15.429	.00546	.99542	-1.11285	.99397	-1.11811
42	.99765	-1.11630	-15.482	.00473	.99828	-1.11402	.99702	-1.11858

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 4

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50238	-.81649	-49.917	.00479	.50421	-.81495	.50055	-.81803
2	.50832	-.82349	-49.422	.00678	.51089	-.82128	.50574	-.82569
3	.52078	-.83781	-48.577	.01071	.52480	-.83426	.51677	-.84135
4	.53325	-.85177	-47.875	.01434	.53857	-.84696	.52793	-.85658
5	.54571	-.86537	-47.106	.01768	.55219	-.85935	.53924	-.87139
6	.55818	-.87861	-46.327	.02073	.56568	-.87145	.55068	-.88576
7	.57065	-.89148	-45.523	.02351	.57903	-.88325	.56226	-.89972
8	.58311	-.90400	-44.699	.02601	.59226	-.89475	.57396	-.91324
9	.59558	-.91615	-43.855	.02826	.60537	-.90597	.58579	-.92634
10	.60804	-.92795	-42.990	.03026	.61836	-.91689	.59773	-.93902
11	.62051	-.93940	-42.107	.03202	.63124	-.92752	.60977	-.95127
12	.63298	-.95049	-41.204	.03355	.64403	-.93787	.62193	-.96311
13	.64544	-.96123	-40.285	.03485	.65671	-.94793	.63417	-.97452
14	.65791	-.97162	-39.349	.03595	.66930	-.95772	.64651	-.98552
15	.67037	-.98167	-38.399	.03683	.68181	-.96724	.65893	-.99610
16	.68284	-.99138	-37.436	.03752	.69424	-.97649	.67144	-1.00628
17	.69530	-1.00076	-36.461	.03801	.70660	-.98547	.68401	-1.01605
18	.70777	-1.00981	-35.477	.03833	.71889	-.99420	.69665	-1.02541
19	.72024	-1.01853	-34.485	.03846	.73112	-1.00268	.70935	-1.03438
20	.73270	-1.02693	-33.483	.03842	.74330	-1.01091	.72210	-1.04295
21	.74517	-1.03502	-32.488	.03822	.75543	-1.01891	.73490	-1.05114
22	.75763	-1.04281	-31.488	.03786	.76752	-1.02667	.74775	-1.05895
23	.77010	-1.05030	-30.490	.03734	.77957	-1.03421	.76063	-1.06639
24	.78256	-1.05749	-29.498	.03667	.79159	-1.04153	.77354	-1.07345
25	.79503	-1.06440	-28.514	.03586	.80359	-1.04865	.78647	-1.08016
26	.80750	-1.07104	-27.542	.03491	.81557	-1.05557	.79943	-1.08652
27	.81996	-1.07741	-26.584	.03381	.82753	-1.06229	.81240	-1.09253
28	.83243	-1.08352	-25.644	.03259	.83948	-1.06883	.82538	-1.09821
29	.84489	-1.08938	-24.726	.03123	.85143	-1.07520	.83836	-1.10357
30	.85736	-1.09500	-23.832	.02975	.86337	-1.08140	.85135	-1.10861
31	.86983	-1.10040	-22.965	.02814	.87531	-1.08744	.86434	-1.11335
32	.88229	-1.10557	-22.131	.02640	.88726	-1.09334	.87732	-1.11780
33	.89476	-1.11054	-21.330	.02455	.89922	-1.09911	.89029	-1.12197
34	.90722	-1.11531	-20.568	.02257	.91119	-1.10475	.90326	-1.12588
35	.91969	-1.11990	-19.847	.02048	.92316	-1.11027	.91621	-1.12953
36	.93215	-1.12432	-19.169	.01827	.93515	-1.11569	.92916	-1.13294
37	.94462	-1.12857	-18.540	.01594	.94715	-1.12101	.94209	-1.13613
38	.95709	-1.13268	-17.956	.01350	.95917	-1.12626	.95500	-1.13910
39	.96955	-1.13666	-17.445	.01095	.97119	-1.13143	.96791	-1.14188
40	.98202	-1.14051	-16.916	.00828	.98322	-1.13655	.98081	-1.14448
41	.99448	-1.14427	-16.723	.00550	.99528	-1.14163	.99369	-1.14690
42	.99762	-1.14521	-16.779	.00479	.99831	-1.14232	.99693	-1.14750

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 5

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50241	-.83133	-50.566	.00484	.50427	-.82979	.50054	-.83287
2	.50826	-.83839	-50.085	.00668	.51083	-.83625	.50570	-.84054
3	.52073	-.85306	-49.257	.01038	.52466	-.84967	.51680	-.85644
4	.53319	-.86736	-48.571	.01379	.53836	-.86279	.52802	-.87192
5	.54565	-.88129	-47.819	.01692	.55192	-.87561	.53938	-.88697
6	.55811	-.89486	-47.057	.01978	.56535	-.88813	.55087	-.90160
7	.57058	-.90807	-46.271	.02238	.57866	-.90034	.56249	-.91581
8	.58304	-.92092	-45.466	.02473	.59185	-.91225	.57422	-.92959
9	.59550	-.93341	-44.639	.02684	.60493	-.92386	.58607	-.94296
10	.60796	-.94553	-43.794	.02871	.61790	-.93517	.59803	-.95590
11	.62043	-.95730	-42.929	.03036	.63076	-.94619	.61009	-.96842
12	.63289	-.96872	-42.046	.03179	.64353	-.95692	.62224	-.98052
13	.64535	-.97978	-41.146	.03301	.65621	-.96736	.63449	-.99221
14	.65781	-.99050	-40.230	.03403	.66880	-.97751	.64682	-1.00349
15	.67028	-1.00087	-39.299	.03485	.68131	-.98739	.65924	-1.01436
16	.68274	-1.01090	-38.355	.03549	.69375	-.99698	.67173	-1.02482
17	.69520	-1.02060	-37.399	.03595	.70612	-1.00632	.68428	-1.03488
18	.70766	-1.02996	-36.434	.03624	.71842	-1.01538	.69690	-1.04454
19	.72012	-1.03900	-35.461	.03636	.73067	-1.02419	.70958	-1.05380
20	.73259	-1.04771	-34.483	.03632	.74287	-1.03275	.72231	-1.06268
21	.74505	-1.05612	-33.501	.03612	.75502	-1.04106	.73508	-1.07118
22	.75751	-1.06421	-32.519	.03578	.76713	-1.04913	.74789	-1.07930
23	.76997	-1.07201	-31.539	.03529	.77920	-1.05697	.76074	-1.08705
24	.78244	-1.07951	-30.563	.03466	.79125	-1.06459	.77362	-1.09444
25	.79490	-1.08673	-29.596	.03390	.80327	-1.07199	.78653	-1.10147
26	.80736	-1.09367	-28.639	.03300	.81527	-1.07919	.79945	-1.10816
27	.81982	-1.10035	-27.696	.03198	.82726	-1.08619	.81239	-1.11450
28	.83229	-1.10676	-26.770	.03083	.83923	-1.09300	.82534	-1.12052
29	.84475	-1.11292	-25.864	.02956	.85120	-1.09963	.83830	-1.12622
30	.85721	-1.11885	-24.982	.02817	.86316	-1.10608	.85126	-1.13161
31	.86967	-1.12454	-24.128	.02666	.87512	-1.11238	.86422	-1.13671
32	.88214	-1.13001	-23.303	.02504	.88709	-1.11852	.87718	-1.14151
33	.89460	-1.13528	-22.513	.02330	.89906	-1.12452	.89014	-1.14604
34	.90706	-1.14035	-21.759	.02146	.91104	-1.13038	.90308	-1.15031
35	.91952	-1.14523	-21.046	.01950	.92303	-1.13613	.91602	-1.15433
36	.93199	-1.14994	-20.375	.01744	.93502	-1.14177	.92895	-1.15812
37	.94445	-1.15449	-19.753	.01527	.94703	-1.14731	.94187	-1.16168
38	.95691	-1.15890	-19.175	.01299	.95904	-1.15276	.95478	-1.16504
39	.96937	-1.16317	-18.669	.01061	.97107	-1.15814	.96767	-1.16820
40	.98184	-1.16732	-18.144	.00813	.98310	-1.16346	.98057	-1.17118
41	.99430	-1.17136	-17.952	.00554	.99515	-1.16873	.99344	-1.17400
42	.99759	-1.17243	-18.009	.00484	.99034	-1.17013	.99685	-1.17473

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 6

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50243	-.84623	-51.179	.00488	.50433	-.84470	.50053	-.84776
2	.50823	-.85337	-50.711	.00660	.51078	-.85128	.50567	-.85546
3	.52069	-.86836	-49.897	.01009	.52454	-.86511	.51683	-.87161
4	.53315	-.88299	-49.225	.01330	.53818	-.87865	.52811	-.88733
5	.54561	-.89725	-48.486	.01625	.55169	-.89186	.53952	-.90264
6	.55807	-.91114	-47.739	.01894	.56508	-.90477	.55106	-.91751
7	.57053	-.92467	-46.968	.02139	.57834	-.91737	.56271	-.93197
8	.58298	-.93784	-46.178	.02361	.59150	-.92967	.57447	-.94601
9	.59544	-.95064	-45.367	.02559	.60455	-.94165	.58634	-.95963
10	.60790	-.96308	-44.537	.02735	.61749	-.95333	.59831	-.97283
11	.62036	-.97516	-43.688	.02890	.63034	-.96471	.61038	-.98561
12	.63282	-.98688	-42.820	.03024	.64310	-.97579	.62255	-.99797
13	.64528	-.99825	-41.936	.03138	.65577	-.98658	.63480	-1.00993
14	.65774	-1.00927	-41.036	.03234	.66836	-.99707	.64713	-1.02147
15	.67020	-1.01994	-40.121	.03311	.68087	-1.00728	.65953	-1.03260
16	.68266	-1.03027	-39.193	.03371	.69331	-1.01721	.67201	-1.04333
17	.69512	-1.04026	-38.253	.03414	.70569	-1.02686	.68455	-1.05367
18	.70758	-1.04992	-37.304	.03440	.71800	-1.03624	.69716	-1.06360
19	.72004	-1.05925	-36.346	.03451	.73027	-1.04535	.70981	-1.07315
20	.73250	-1.06826	-35.383	.03447	.74248	-1.05421	.72252	-1.08231
21	.74496	-1.07695	-34.416	.03428	.75465	-1.06281	.73527	-1.09109
22	.75742	-1.08533	-33.448	.03395	.76678	-1.07117	.74806	-1.09950
23	.76988	-1.09341	-32.481	.03349	.77887	-1.07929	.76089	-1.10754
24	.78234	-1.10120	-31.519	.03289	.79094	-1.08718	.77374	-1.11522
25	.79480	-1.10870	-30.564	.03217	.80298	-1.09485	.78662	-1.12255
26	.80726	-1.11592	-29.619	.03133	.81500	-1.10230	.79952	-1.12953
27	.81972	-1.12287	-28.687	.03036	.82700	-1.10955	.81243	-1.13619
28	.83218	-1.12956	-27.772	.02928	.83900	-1.11660	.82535	-1.14251
29	.84464	-1.13599	-26.876	.02808	.85098	-1.12347	.83829	-1.14852
30	.85710	-1.14219	-26.004	.02678	.86296	-1.13016	.85123	-1.15422
31	.86955	-1.14815	-25.157	.02536	.87495	-1.13668	.86416	-1.15963
32	.88201	-1.15390	-24.341	.02384	.88693	-1.14304	.87710	-1.16476
33	.89447	-1.15943	-23.557	.02221	.89891	-1.14925	.89004	-1.16961
34	.90693	-1.16477	-22.810	.02048	.91090	-1.15533	.90296	-1.17420
35	.91939	-1.16991	-22.102	.01864	.92290	-1.16128	.91589	-1.17855
36	.93185	-1.17489	-21.437	.01671	.93491	-1.16711	.92880	-1.18267
37	.94431	-1.17970	-20.819	.01468	.94692	-1.17284	.94170	-1.18656
38	.95677	-1.18437	-20.245	.01254	.95894	-1.17848	.95460	-1.19025
39	.96923	-1.18890	-19.742	.01031	.97097	-1.18405	.96749	-1.19375
40	.98169	-1.19331	-19.221	.00799	.98301	-1.18954	.98038	-1.19708
41	.99415	-1.19761	-19.029	.00556	.99506	-1.19498	.99324	-1.20024
42	.99757	-1.19880	-19.087	.00488	.99837	-1.19649	.99677	-1.20110

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 7

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50245	-.86186	-51.777	.00492	.50438	-.86034	.50052	-.86338
2	.50820	-.86910	-51.318	.00653	.51075	-.86706	.50565	-.87114
3	.52066	-.88442	-50.516	.00982	.52445	-.88130	.51687	-.88755
4	.53312	-.89937	-49.855	.01285	.53803	-.89523	.52820	-.90352
5	.54557	-.91396	-49.128	.01564	.55149	-.90884	.53966	-.91907
6	.55803	-.92817	-48.393	.01818	.56483	-.92213	.55124	-.93420
7	.57049	-.94201	-47.634	.02049	.57806	-.93511	.56292	-.94891
8	.58295	-.95549	-46.855	.02257	.59118	-.94777	.57471	-.96320
9	.59540	-.96859	-46.056	.02444	.60420	-.96011	.58661	-.97707
10	.60786	-.98134	-45.238	.02609	.61712	-.97215	.59860	-.99052
11	.62032	-.99372	-44.401	.02755	.62996	-.98388	.61068	-1.00356
12	.63278	-1.00574	-43.546	.02881	.64270	-.99530	.62285	-1.01618
13	.64523	-1.01740	-42.674	.02988	.65536	-1.00641	.63510	-1.02838
14	.65769	-1.02871	-41.786	.03078	.66795	-1.01723	.64744	-1.04018
15	.67015	-1.03967	-40.883	.03150	.68046	-1.02776	.65984	-1.05157
16	.68261	-1.05028	-39.966	.03206	.69290	-1.03799	.67231	-1.06256
17	.69506	-1.06055	-39.038	.03246	.70528	-1.04794	.68484	-1.07315
18	.70752	-1.07048	-38.100	.03270	.71761	-1.05762	.69743	-1.08335
19	.71998	-1.08009	-37.153	.03280	.72988	-1.06701	.71007	-1.09316
20	.73243	-1.08936	-36.200	.03275	.74211	-1.07615	.72276	-1.10258
21	.74489	-1.09832	-35.243	.03257	.75429	-1.08502	.73549	-1.11162
22	.75735	-1.10697	-34.285	.03226	.76644	-1.09364	.74826	-1.12030
23	.76981	-1.11531	-33.327	.03182	.77855	-1.10202	.76107	-1.12860
24	.78226	-1.12336	-32.374	.03125	.79063	-1.11016	.77390	-1.13655
25	.79472	-1.13111	-31.427	.03057	.80269	-1.11807	.78675	-1.14415
26	.80718	-1.13858	-30.489	.02977	.81473	-1.12575	.79963	-1.15141
27	.81964	-1.14578	-29.564	.02886	.82676	-1.13323	.81252	-1.15833
28	.83209	-1.15272	-28.655	.02784	.83877	-1.14050	.82542	-1.16493
29	.84455	-1.15940	-27.766	.02671	.85077	-1.14758	.83833	-1.17122
30	.85701	-1.16584	-26.898	.02548	.86277	-1.15448	.85124	-1.17720
31	.86947	-1.17204	-26.057	.02415	.87477	-1.16120	.86416	-1.18289
32	.88192	-1.17802	-25.244	.02272	.88677	-1.16775	.87708	-1.18830
33	.89438	-1.18379	-24.464	.02119	.89877	-1.17415	.89099	-1.19344
34	.90684	-1.18936	-23.720	.01956	.91077	-1.18041	.90290	-1.19832
35	.91930	-1.19475	-23.015	.01784	.92278	-1.18654	.91581	-1.20296
36	.93175	-1.19995	-22.352	.01603	.93480	-1.19254	.92871	-1.20736
37	.94421	-1.20499	-21.736	.01412	.94682	-1.19844	.94160	-1.21155
38	.95667	-1.20989	-21.163	.01212	.95886	-1.20424	.95448	-1.21554
39	.96913	-1.21465	-20.661	.01003	.97089	-1.20995	.96736	-1.21934
40	.98158	-1.21928	-20.141	.00785	.98293	-1.21560	.98023	-1.22297
41	.99404	-1.22381	-19.949	.00558	.99499	-1.22119	.99309	-1.22643
42	.99755	-1.22509	-20.007	.00492	.99839	-1.22277	.99671	-1.22740

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 8

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50246	-.87882	-52.378	.00494	.50442	-.87731	.50051	-.88033
2	.50818	-.88618	-51.926	.00646	.51072	-.88419	.50564	-.08817
3	.52064	-.90184	-51.134	.00956	.52436	-.89884	.51692	-.90483
4	.53309	-.91712	-50.482	.01242	.53788	-.91317	.52830	-.92107
5	.54555	-.93203	-49.764	.01504	.55129	-.92717	.53981	-.93689
6	.55800	-.94656	-49.038	.01743	.56459	-.94085	.55142	-.95228
7	.57046	-.96072	-48.287	.01960	.57778	-.95420	.56314	-.96725
8	.58292	-.97451	-47.517	.02156	.59087	-.96723	.57496	-.98179
9	.59537	-.98793	-46.728	.02332	.60386	-.97994	.58688	-.99592
10	.60783	-1.00097	-45.918	.02488	.61676	-.99232	.59889	-1.00963
11	.62028	-1.01365	-45.090	.02624	.62958	-1.00439	.61099	-1.02292
12	.63274	-1.02596	-44.243	.02742	.64231	-1.01614	.62317	-1.03579
13	.64520	-1.03792	-43.380	.02843	.65496	-1.02758	.63543	-1.04825
14	.65765	-1.04951	-42.500	.02927	.66754	-1.03872	.64776	-1.06030
15	.67011	-1.06074	-41.605	.02994	.68005	-1.04955	.66017	-1.07194
16	.68256	-1.07163	-40.696	.03046	.69249	-1.06008	.67263	-1.08318
17	.69502	-1.08217	-39.775	.03083	.70488	-1.07032	.68516	-1.09402
18	.70747	-1.09237	-38.843	.03105	.71721	-1.08028	.69774	-1.10446
19	.71993	-1.10223	-37.903	.03114	.72950	-1.08995	.71037	-1.11452
20	.73239	-1.11177	-36.956	.03109	.74173	-1.09934	.72304	-1.12419
21	.74484	-1.12098	-36.004	.03091	.75393	-1.10847	.73576	-1.13348
22	.75730	-1.12987	-35.051	.03061	.76609	-1.11734	.74851	-1.14240
23	.76975	-1.13846	-34.098	.03020	.77822	-1.12595	.76129	-1.15096
24	.78221	-1.14674	-33.148	.02966	.79032	-1.13432	.77410	-1.15916
25	.79467	-1.15473	-32.205	.02901	.80240	-1.14245	.78693	-1.16700
26	.80712	-1.16243	-31.270	.02826	.81446	-1.15036	.79979	-1.17451
27	.81958	-1.16986	-30.347	.02740	.82650	-1.15804	.81266	-1.18168
28	.83203	-1.17702	-29.440	.02644	.83853	-1.16551	.82554	-1.18853
29	.84449	-1.18392	-28.552	.02538	.85055	-1.17278	.83842	-1.19507
30	.85695	-1.19058	-27.685	.02422	.86257	-1.17985	.85132	-1.20130
31	.86940	-1.19700	-26.844	.02297	.87459	-1.18675	.86422	-1.20725
32	.88186	-1.20319	-26.031	.02162	.88660	-1.19348	.87711	-1.21291
33	.89431	-1.20917	-25.251	.02019	.89862	-1.20004	.89001	-1.21830
34	.90677	-1.21494	-24.506	.01866	.91064	-1.20645	.90290	-1.22343
35	.91923	-1.22053	-23.800	.01705	.92266	-1.21273	.91579	-1.22833
36	.93168	-1.22594	-23.135	.01535	.93470	-1.21888	.92867	-1.23299
37	.94414	-1.23118	-22.517	.01356	.94673	-1.22491	.94154	-1.23744
38	.95659	-1.23627	-21.943	.01169	.95878	-1.23085	.95441	-1.24169
39	.96905	-1.24122	-21.440	.00973	.97083	-1.23669	.96727	-1.24575
40	.98150	-1.24605	-20.918	.00769	.98288	-1.24246	.98013	-1.24964
41	.99396	-1.25077	-20.725	.00557	.99495	-1.24817	.99298	-1.25337
42	.99754	-1.25212	-20.785	.00494	.99841	-1.24981	.99666	-1.25444

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 9

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50247	-.89771	-53.000	.00496	.50445	-.89622	.50049	-.89920
2	.50817	-.90521	-52.554	.00639	.51071	-.90327	.50563	-.90715
3	.52062	-.92123	-51.769	.00932	.52429	-.91834	.51696	-.92411
4	.53308	-.93686	-51.123	.01203	.53776	-.93309	.52840	-.94063
5	.54553	-.95211	-50.412	.01451	.55112	-.94749	.53994	-.95674
6	.55799	-.96699	-49.692	.01677	.56438	-.96156	.55160	-.97241
7	.57044	-.98148	-48.948	.01882	.57754	-.97530	.56335	-.98766
8	.58290	-.99559	-48.185	.02067	.59060	-.98870	.57520	-1.00248
9	.59535	-1.00932	-47.401	.02232	.60357	-1.00177	.58714	-1.01688
10	.60781	-1.02268	-46.597	.02379	.61645	-1.01451	.59917	-1.03085
11	.62026	-1.03566	-45.774	.02508	.62925	-1.02692	.61128	-1.04441
12	.63272	-1.04827	-44.933	.02619	.64197	-1.03900	.62347	-1.05754
13	.64517	-1.06051	-44.074	.02713	.65461	-1.05077	.63574	-1.07026
14	.65763	-1.07239	-43.199	.02792	.66718	-1.06222	.64807	-1.08257
15	.67008	-1.08391	-42.307	.02855	.67969	-1.07335	.66047	-1.09446
16	.68254	-1.09506	-41.402	.02903	.69214	-1.08418	.67294	-1.10595
17	.69499	-1.10587	-40.484	.02937	.70453	-1.09470	.68546	-1.11704
18	.70745	-1.11633	-39.555	.02957	.71686	-1.10493	.69803	-1.12773
19	.71990	-1.12645	-38.617	.02965	.72915	-1.11486	.71065	-1.13803
20	.73236	-1.13623	-37.671	.02960	.74140	-1.12451	.72331	-1.14794
21	.74481	-1.14568	-36.721	.02942	.75361	-1.13389	.73601	-1.15747
22	.75727	-1.15481	-35.767	.02914	.76578	-1.14299	.74875	-1.16663
23	.76972	-1.16363	-34.814	.02873	.77792	-1.15183	.76152	-1.17542
24	.78217	-1.17214	-33.863	.02822	.79004	-1.16042	.77431	-1.18385
25	.79463	-1.18035	-32.918	.02761	.80213	-1.16876	.78713	-1.19193
26	.80708	-1.18826	-31.981	.02690	.81421	-1.17686	.79996	-1.19967
27	.81954	-1.19590	-31.056	.02608	.82627	-1.18473	.81281	-1.20707
28	.83199	-1.20327	-30.146	.02517	.83832	-1.19238	.82567	-1.21415
29	.84445	-1.21037	-29.254	.02417	.85036	-1.19983	.83854	-1.22092
30	.85690	-1.21722	-28.383	.02308	.86239	-1.20707	.85142	-1.22738
31	.86936	-1.22383	-27.537	.02190	.87442	-1.21412	.86430	-1.23354
32	.88181	-1.23022	-26.720	.02063	.88645	-1.22100	.87717	-1.23943
33	.89427	-1.23638	-25.935	.01928	.89848	-1.22771	.89005	-1.24505
34	.90672	-1.24233	-25.185	.01785	.91052	-1.23426	.90293	-1.25041
35	.91918	-1.24809	-24.474	.01633	.92256	-1.24066	.91580	-1.25553
36	.93163	-1.25368	-23.804	.01473	.93461	-1.24694	.92866	-1.26041
37	.94409	-1.25909	-23.182	.01305	.94666	-1.25309	.94152	-1.26509
38	.95654	-1.26435	-22.602	.01130	.95871	-1.25913	.95437	-1.26956
39	.96900	-1.26946	-22.094	.00946	.97078	-1.26508	.96722	-1.27385
40	.98145	-1.27446	-21.568	.00755	.98284	-1.27095	.98006	-1.27797
41	.99391	-1.27934	-21.373	.00555	.99492	-1.27675	.99289	-1.28192
42	.99753	-1.28076	-21.434	.00496	.99843	-1.27845	.99662	-1.28307

SPLITTER VANF

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 10

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50248	-.91916	-53.657	.00498	.50449	-.91769	.50048	-.92064
2	.50818	-.92683	-53.215	.00634	.51072	-.92494	.50563	-.92873
3	.52063	-.94324	-52.436	.00915	.52426	-.94045	.51700	-.94603
4	.53308	-.95925	-51.795	.01174	.53769	-.95562	.52847	-.96288
5	.54554	-.97488	-51.088	.01411	.55102	-.97044	.54005	-.97931
6	.55799	-.99011	-50.372	.01627	.56425	-.98492	.55173	-.99530
7	.57044	-1.00495	-49.632	.01822	.57739	-.99905	.56350	-1.01085
8	.58290	-1.01941	-48.872	.01998	.59042	-1.01284	.57537	-1.02595
9	.59535	-1.03348	-48.092	.02156	.60337	-1.02628	.58733	-1.04069
10	.60781	-1.04716	-47.291	.02295	.61624	-1.03938	.59937	-1.05495
11	.62026	-1.06046	-46.471	.02417	.62902	-1.05214	.61150	-1.06879
12	.63271	-1.07338	-45.631	.02523	.64173	-1.06456	.62370	-1.08220
13	.64517	-1.08593	-44.774	.02612	.65437	-1.07665	.63597	-1.09520
14	.65762	-1.09810	-43.899	.02686	.66693	-1.08842	.64831	-1.10777
15	.67007	-1.10990	-43.008	.02745	.67944	-1.09986	.66071	-1.11993
16	.68253	-1.12133	-42.102	.02791	.69188	-1.11098	.67317	-1.13168
17	.69498	-1.13240	-41.183	.02822	.70427	-1.12178	.68569	-1.14303
18	.70744	-1.14312	-40.252	.02841	.71661	-1.13228	.69826	-1.15397
19	.71989	-1.15349	-39.311	.02847	.72891	-1.14248	.71087	-1.16451
20	.73234	-1.16352	-38.362	.02842	.74116	-1.15238	.72353	-1.17466
21	.74480	-1.17321	-37.407	.02824	.75338	-1.16199	.73622	-1.18443
22	.75725	-1.18257	-36.449	.02796	.76556	-1.17133	.74894	-1.19382
23	.76970	-1.19161	-35.490	.02757	.77771	-1.18038	.76170	-1.20283
24	.78216	-1.20033	-34.534	.02708	.78983	-1.18918	.77448	-1.21149
25	.79461	-1.20875	-33.581	.02649	.80194	-1.19772	.78729	-1.21979
26	.80707	-1.21687	-32.637	.02581	.81402	-1.20601	.80011	-1.22774
27	.81952	-1.22471	-31.704	.02503	.82610	-1.21406	.81294	-1.23535
28	.83197	-1.23226	-30.785	.02416	.83816	-1.22188	.82579	-1.24264
29	.84443	-1.23955	-29.884	.02321	.85021	-1.22949	.83865	-1.24961
30	.85688	-1.24658	-29.004	.02217	.86225	-1.23689	.85151	-1.25627
31	.86933	-1.25336	-28.149	.02104	.87430	-1.24409	.86437	-1.26264
32	.88179	-1.25991	-27.322	.01984	.88634	-1.25110	.87724	-1.26872
33	.89424	-1.26623	-26.527	.01855	.89839	-1.25793	.89010	-1.27453
34	.90670	-1.27235	-25.768	.01719	.91043	-1.26461	.90296	-1.28009
35	.91915	-1.27826	-25.047	.01575	.92248	-1.27113	.91582	-1.28540
36	.93160	-1.28399	-24.368	.01424	.93454	-1.27751	.92867	-1.29048
37	.94406	-1.28955	-23.737	.01265	.94660	-1.28376	.94151	-1.29534
38	.95651	-1.29495	-23.149	.01098	.95867	-1.28990	.95435	-1.30000
39	.96896	-1.30021	-22.634	.00924	.97074	-1.29594	.96719	-1.30447
40	.98142	-1.30533	-22.100	.00743	.98282	-1.30189	.98002	-1.30877
41	.99387	-1.31035	-21.901	.00555	.99491	-1.30778	.99284	-1.31292
42	.99752	-1.31181	-21.963	.00498	.99845	-1.30950	.99658	-1.31412

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 11

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50249	-.94369	-54.356	.00500	.50453	-.94223	.50046	-.94515
2	.50819	-.95157	-53.916	.00632	.51075	-.94971	.50564	-.95343
3	.52064	-.96840	-53.141	.00905	.52426	-.96568	.51702	-.97111
4	.53310	-.98482	-52.502	.01155	.53768	-.98131	.52851	-.98834
5	.54555	-1.00085	-51.797	.01334	.55099	-.99657	.54011	-1.00513
6	.55800	-1.01647	-51.083	.01593	.56420	-1.01147	.55181	-1.02147
7	.57046	-1.03169	-50.344	.01782	.57732	-1.02601	.56360	-1.03738
8	.58291	-1.04652	-49.585	.01952	.59034	-1.04019	.57548	-1.05285
9	.59536	-1.06094	-48.805	.02104	.60328	-1.05402	.58745	-1.06787
10	.60781	-1.07497	-48.003	.02238	.61613	-1.06749	.59950	-1.08246
11	.62027	-1.08861	-47.182	.02355	.62891	-1.08060	.61163	-1.09661
12	.63272	-1.10185	-46.340	.02456	.64161	-1.09337	.62384	-1.11033
13	.64517	-1.11471	-45.480	.02542	.65423	-1.10580	.63611	-1.12362
14	.65763	-1.12718	-44.602	.02612	.66680	-1.11788	.64845	-1.13648
15	.67008	-1.13927	-43.706	.02669	.67930	-1.12963	.66086	-1.14892
16	.68253	-1.15099	-42.795	.02711	.69174	-1.14104	.67332	-1.16094
17	.69498	-1.16233	-41.870	.02741	.70413	-1.15213	.68584	-1.17254
18	.70744	-1.17331	-40.932	.02758	.71647	-1.16289	.69840	-1.18373
19	.71989	-1.18393	-39.983	.02763	.72877	-1.17335	.71101	-1.19452
20	.73234	-1.19420	-39.025	.02757	.74102	-1.18349	.72366	-1.20491
21	.74480	-1.20412	-38.060	.02740	.75324	-1.19334	.73635	-1.21491
22	.75725	-1.21371	-37.092	.02711	.76543	-1.20289	.74907	-1.22452
23	.76970	-1.22296	-36.121	.02673	.77758	-1.21216	.76182	-1.23375
24	.78215	-1.23188	-35.152	.02625	.78971	-1.22115	.77460	-1.24262
25	.79461	-1.24050	-34.187	.02568	.80182	-1.22988	.78739	-1.25112
26	.80706	-1.24880	-33.229	.02501	.81391	-1.23834	.80021	-1.25927
27	.81951	-1.25682	-32.281	.02426	.82599	-1.24656	.81304	-1.26707
28	.83197	-1.26454	-31.347	.02342	.83806	-1.25454	.82588	-1.27454
29	.84442	-1.27199	-30.431	.02249	.85012	-1.26229	.83872	-1.28169
30	.85687	-1.27918	-29.535	.02149	.86217	-1.26983	.85158	-1.28852
31	.86933	-1.28611	-28.664	.02041	.87422	-1.27715	.86443	-1.29506
32	.88178	-1.29279	-27.822	.01925	.88627	-1.28428	.87729	-1.30131
33	.89423	-1.29925	-27.011	.01801	.89832	-1.29123	.89014	-1.30728
34	.90669	-1.30550	-26.236	.01670	.91038	-1.29800	.90299	-1.31299
35	.91914	-1.31153	-25.500	.01532	.92244	-1.30462	.91584	-1.31845
36	.93159	-1.31738	-24.807	.01386	.93450	-1.31109	.92868	-1.32367
37	.94404	-1.32305	-24.162	.01234	.94657	-1.31742	.94152	-1.32868
38	.95650	-1.32856	-23.561	.01074	.95864	-1.32363	.95435	-1.33348
39	.96895	-1.33392	-23.034	.00908	.97073	-1.32974	.96717	-1.33809
40	.98140	-1.33914	-22.488	.00734	.98281	-1.33575	.96000	-1.34254
41	.99386	-1.34426	-22.285	.00554	.99491	-1.34169	.99281	-1.34682
42	.99751	-1.34575	-22.348	.00500	.99846	-1.34344	.99656	-1.34807

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 12

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50250	-.97161	-55.095	.00501	.50455	-.97018	.50044	-.97305
2	.50821	-.97973	-54.655	.00631	.51078	-.97790	.50563	-.98156
3	.52066	-.99702	-53.881	.00899	.52429	-.99437	.51703	-.99967
4	.53311	-1.01389	-53.242	.01145	.53770	-1.01047	.52853	-1.01732
5	.54557	-1.03035	-52.537	.01370	.55100	-1.02619	.54013	-1.03452
6	.55802	-1.04640	-51.822	.01575	.56421	-1.04153	.55183	-1.05126
7	.57047	-1.06203	-51.081	.01760	.57732	-1.05650	.56362	-1.06755
8	.58292	-1.07724	-50.320	.01926	.59034	-1.07109	.57551	-1.08339
9	.59538	-1.09205	-49.536	.02075	.60327	-1.08531	.58748	-1.09878
10	.60783	-1.10644	-48.730	.02205	.61612	-1.09917	.59954	-1.11371
11	.62028	-1.12043	-47.903	.02319	.62889	-1.11265	.61168	-1.12820
12	.63273	-1.13401	-47.056	.02417	.64158	-1.12577	.62389	-1.14224
13	.64519	-1.14719	-46.188	.02500	.65421	-1.13853	.63617	-1.15584
14	.65764	-1.15997	-45.301	.02568	.66677	-1.15094	.64851	-1.16900
15	.67009	-1.17236	-44.397	.02622	.67926	-1.16299	.66092	-1.18172
16	.68254	-1.18436	-43.475	.02663	.69170	-1.17469	.67338	-1.19402
17	.69500	-1.19597	-42.538	.02691	.70409	-1.18606	.68590	-1.20588
18	.70745	-1.20721	-41.587	.02707	.71643	-1.19709	.69847	-1.21733
19	.71990	-1.21807	-40.624	.02710	.72872	-1.20779	.71108	-1.22836
20	.73235	-1.22858	-39.651	.02703	.74098	-1.21817	.72373	-1.23898
21	.74481	-1.23872	-38.670	.02685	.75319	-1.22824	.73642	-1.24920
22	.75726	-1.24851	-37.683	.02657	.76538	-1.23800	.74914	-1.25902
23	.76971	-1.25796	-36.694	.02618	.77753	-1.24746	.76189	-1.26846
24	.78216	-1.26707	-35.705	.02571	.78967	-1.25663	.77466	-1.27751
25	.79462	-1.27586	-34.719	.02514	.80177	-1.26553	.78746	-1.28619
26	.80707	-1.28433	-33.740	.02448	.81387	-1.27415	.80027	-1.29451
27	.81952	-1.29250	-32.770	.02374	.82595	-1.28252	.81310	-1.30248
28	.83197	-1.30037	-31.814	.02292	.83801	-1.29063	.82593	-1.31010
29	.84443	-1.30795	-30.874	.02201	.85007	-1.29851	.83878	-1.31740
30	.85688	-1.31526	-29.956	.02103	.86213	-1.30615	.85163	-1.32437
31	.86933	-1.32231	-29.062	.01997	.87418	-1.31358	.86448	-1.33104
32	.88178	-1.32911	-28.196	.01884	.88623	-1.32080	.87733	-1.33741
33	.89424	-1.33566	-27.362	.01764	.89829	-1.32783	.89018	-1.34350
34	.90669	-1.34200	-26.565	.01636	.91035	-1.33468	.90303	-1.34932
35	.91914	-1.34812	-25.808	.01502	.92241	-1.34136	.91587	-1.35488
36	.93159	-1.35405	-25.094	.01360	.93448	-1.34789	.92871	-1.36021
37	.94405	-1.35979	-24.429	.01212	.94655	-1.35427	.94154	-1.36531
38	.95650	-1.36536	-23.810	.01057	.95863	-1.36053	.95436	-1.37020
39	.96895	-1.37079	-23.266	.00896	.97072	-1.36667	.96718	-1.37490
40	.98140	-1.37607	-22.703	.00728	.98281	-1.37271	.98000	-1.37943
41	.99386	-1.38124	-22.493	.00553	.99491	-1.37868	.99280	-1.38379
42	.99750	-1.38275	-22.559	.00501	.99846	-1.38044	.99654	-1.38506

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 13

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50250	-1.00223	-55.848	.00501	.50457	-1.00083	.50043	-1.00364
2	.50823	-1.01062	-55.407	.00631	.51083	-1.00883	.50563	-1.01241
3	.52069	-1.02839	-54.632	.00898	.52435	-1.02580	.51703	-1.03099
4	.53314	-1.04574	-53.990	.01142	.53776	-1.04238	.52852	-1.04910
5	.54559	-1.06265	-53.282	.01365	.55106	-1.05857	.54012	-1.06673
6	.55804	-1.07913	-52.564	.01568	.56427	-1.07437	.55182	-1.08390
7	.57050	-1.09518	-51.818	.01751	.57738	-1.08977	.56361	-1.10060
8	.58295	-1.11080	-51.051	.01916	.59040	-1.10478	.57550	-1.11682
9	.59540	-1.12599	-50.260	.02062	.60333	-1.11940	.58747	-1.13259
10	.60785	-1.14076	-49.447	.02191	.61618	-1.13364	.59953	-1.14788
11	.62031	-1.15510	-48.611	.02303	.62894	-1.14749	.61167	-1.16271
12	.63276	-1.16902	-47.753	.02399	.64164	-1.16096	.62388	-1.17709
13	.64521	-1.18252	-46.874	.02479	.65426	-1.17405	.63616	-1.19100
14	.65766	-1.19561	-45.975	.02546	.66682	-1.18677	.64851	-1.20446
15	.67012	-1.20829	-45.056	.02598	.67931	-1.19912	.66092	-1.21747
16	.68257	-1.22057	-44.118	.02637	.69175	-1.21110	.67339	-1.23003
17	.69502	-1.23245	-43.164	.02663	.70413	-1.22273	.68591	-1.24216
18	.70748	-1.24393	-42.194	.02677	.71647	-1.23401	.69846	-1.25385
19	.71993	-1.25503	-41.211	.02680	.72876	-1.24495	.71110	-1.26511
20	.73238	-1.26574	-40.216	.02672	.74101	-1.25554	.72376	-1.27594
21	.74483	-1.27609	-39.212	.02653	.75322	-1.26581	.73645	-1.28636
22	.75729	-1.28607	-38.202	.02624	.76540	-1.27576	.74917	-1.29638
23	.76974	-1.29569	-37.187	.02585	.77755	-1.28539	.76193	-1.30599
24	.78219	-1.30497	-36.171	.02537	.78968	-1.29473	.77471	-1.31520
25	.79464	-1.31390	-35.158	.02480	.80178	-1.30377	.78750	-1.32404
26	.80710	-1.32251	-34.149	.02414	.81387	-1.31252	.80032	-1.33250
27	.81955	-1.33080	-33.150	.02340	.82595	-1.32100	.81315	-1.34060
28	.83200	-1.33878	-32.164	.02259	.83801	-1.32922	.82599	-1.34834
29	.84445	-1.34646	-31.194	.02169	.85007	-1.33719	.83884	-1.35574
30	.85691	-1.35386	-30.245	.02072	.86213	-1.34491	.85169	-1.36281
31	.86936	-1.36099	-29.320	.01968	.87418	-1.35241	.86454	-1.36957
32	.88181	-1.36786	-28.424	.01856	.88623	-1.35969	.87739	-1.37602
33	.89426	-1.37447	-27.560	.01738	.89829	-1.36677	.89024	-1.38218
34	.90672	-1.38086	-26.734	.01612	.91034	-1.37366	.90309	-1.38806
35	.91917	-1.38702	-25.949	.01480	.92241	-1.38037	.91593	-1.39368
36	.93162	-1.39298	-25.208	.01342	.93448	-1.38691	.92877	-1.39905
37	.94408	-1.39875	-24.518	.01196	.94656	-1.39331	.94159	-1.40420
38	.95653	-1.40435	-23.875	.01045	.95864	-1.39957	.95441	-1.40912
39	.96898	-1.40978	-23.310	.00887	.97073	-1.40571	.96723	-1.41385
40	.98143	-1.41508	-22.724	.00722	.98283	-1.41175	.98004	-1.41841
41	.99389	-1.42025	-22.507	.00551	.99494	-1.41770	.99283	-1.42279
42	.99750	-1.42175	-22.574	.00501	.99846	-1.41943	.99654	-1.42406

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 14

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50249	-1.03466	-56.592	.00500	.50458	-1.03328	.50041	-1.03604
2	.50827	-1.04335	-56.147	.00632	.51090	-1.04159	.50565	-1.04511
3	.52073	-1.06162	-55.370	.00899	.52442	-1.05907	.51703	-1.06418
4	.53318	-1.07945	-54.724	.01143	.53785	-1.07615	.52851	-1.08275
5	.54563	-1.09682	-54.011	.01366	.55116	-1.09281	.54011	-1.10084
6	.55809	-1.11375	-53.287	.01569	.56437	-1.10906	.55180	-1.11844
7	.57054	-1.13022	-52.535	.01751	.57749	-1.12490	.56359	-1.13555
8	.58299	-1.14625	-51.759	.01914	.59051	-1.14032	.57548	-1.15217
9	.59545	-1.16183	-50.959	.02059	.60345	-1.15534	.58745	-1.16831
10	.60790	-1.17696	-50.135	.02187	.61629	-1.16995	.59951	-1.18397
11	.62035	-1.19165	-49.287	.02297	.62906	-1.18416	.61165	-1.19914
12	.63281	-1.20590	-48.416	.02392	.64175	-1.19797	.62386	-1.21384
13	.64526	-1.21972	-47.521	.02471	.65437	-1.21138	.63615	-1.22807
14	.65771	-1.23311	-46.605	.02536	.66693	-1.22440	.64850	-1.24182
15	.67017	-1.24607	-45.668	.02586	.67942	-1.23703	.66092	-1.25510
16	.68262	-1.25860	-44.710	.02624	.69185	-1.24928	.67339	-1.26793
17	.69507	-1.27072	-43.734	.02649	.70423	-1.26116	.68592	-1.28029
18	.70753	-1.28244	-42.741	.02661	.71656	-1.27266	.69850	-1.29221
19	.71998	-1.29374	-41.732	.02663	.72884	-1.28381	.71112	-1.30368
20	.73243	-1.30465	-40.711	.02653	.74109	-1.29460	.72378	-1.31471
21	.74489	-1.31518	-39.678	.02633	.75329	-1.30504	.73648	-1.32531
22	.75734	-1.32532	-38.637	.02603	.76547	-1.31515	.74922	-1.33548
23	.76979	-1.33509	-37.591	.02563	.77761	-1.32493	.76198	-1.34524
24	.78225	-1.34450	-36.542	.02514	.78973	-1.33440	.77476	-1.35460
25	.79470	-1.35355	-35.494	.02457	.80183	-1.34355	.78757	-1.36355
26	.80715	-1.36226	-34.450	.02391	.81392	-1.35240	.80039	-1.37212
27	.81961	-1.37064	-33.415	.02317	.82599	-1.36097	.81323	-1.38031
28	.83206	-1.37870	-32.392	.02235	.83805	-1.36926	.82607	-1.38814
29	.84451	-1.38645	-31.385	.02146	.85010	-1.37728	.83893	-1.39561
30	.85697	-1.39390	-30.398	.02050	.86215	-1.38506	.85179	-1.40273
31	.86942	-1.40106	-29.436	.01946	.87420	-1.39259	.86464	-1.40953
32	.88187	-1.40795	-28.503	.01835	.88625	-1.39989	.87750	-1.41602
33	.89433	-1.41459	-27.604	.01718	.89831	-1.40698	.89035	-1.42220
34	.90678	-1.42098	-26.742	.01594	.91037	-1.41386	.90319	-1.42810
35	.91923	-1.42715	-25.923	.01464	.92243	-1.42056	.91604	-1.43373
36	.93169	-1.43309	-25.150	.01327	.93451	-1.42709	.92887	-1.43910
37	.94414	-1.43884	-24.429	.01184	.94659	-1.43346	.94169	-1.44423
38	.95659	-1.44441	-23.757	.01034	.95868	-1.43968	.95451	-1.44915
39	.96905	-1.44982	-23.167	.00878	.97078	-1.44578	.96732	-1.45385
40	.98150	-1.45507	-22.555	.00717	.98288	-1.45176	.98013	-1.45838
41	.99395	-1.46019	-22.328	.00549	.99500	-1.45766	.99291	-1.46273
42	.99751	-1.46165	-22.398	.00500	.99846	-1.45934	.99655	-1.46396

SPLITTER VANE

STREAMSURFACE GEOMETRY ON STREAMLINE NUMBER 15

POINT NUMBER	MEANLINE DATA X	Y	ANGLE	THICKNESS	SURFACE COORDINATE DATA XS	YS	XP	YP
1	.50249	-1.06893	-57.337	.00499	.50459	-1.06759	.50039	-1.07028
2	.50832	-1.07796	-56.888	.00633	.51097	-1.07623	.50567	-1.07969
3	.52078	-1.09675	-56.108	.00901	.52452	-1.09424	.51704	-1.09926
4	.53323	-1.11508	-55.458	.01147	.53795	-1.11182	.52851	-1.11833
5	.54569	-1.13293	-54.740	.01370	.55128	-1.12897	.54009	-1.13688
6	.55614	-1.15031	-54.008	.01573	.56450	-1.14569	.55178	-1.15493
7	.57060	-1.16722	-53.248	.01755	.57763	-1.16197	.56356	-1.17247
8	.58305	-1.18366	-52.464	.01918	.59066	-1.17782	.57545	-1.18951
9	.59550	-1.19964	-51.653	.02062	.60359	-1.19324	.58742	-1.20604
10	.60796	-1.21515	-50.817	.02189	.61644	-1.20824	.59948	-1.22207
11	.62041	-1.23020	-49.956	.02298	.62921	-1.22281	.61162	-1.23760
12	.63287	-1.24479	-49.070	.02392	.64190	-1.23696	.62383	-1.25263
13	.64532	-1.25893	-48.159	.02469	.65452	-1.25069	.63612	-1.26717
14	.65778	-1.27261	-47.224	.02533	.66707	-1.26401	.64848	-1.28121
15	.67023	-1.28585	-46.266	.02582	.67956	-1.27693	.66090	-1.29478
16	.68269	-1.29865	-45.287	.02618	.69199	-1.28944	.67338	-1.30786
17	.69514	-1.31101	-44.286	.02641	.70436	-1.30156	.68592	-1.32047
18	.70759	-1.32295	-43.267	.02652	.71668	-1.31329	.69851	-1.33260
19	.72005	-1.33446	-42.230	.02652	.72896	-1.32464	.71114	-1.34428
20	.73250	-1.34556	-41.179	.02641	.74120	-1.33562	.72381	-1.35550
21	.74496	-1.35625	-40.114	.02619	.75340	-1.34624	.73652	-1.36627
22	.75741	-1.36655	-39.040	.02588	.76556	-1.35650	.74926	-1.37660
23	.76987	-1.37646	-37.958	.02548	.77770	-1.36641	.76203	-1.38650
24	.78232	-1.38598	-36.872	.02498	.78981	-1.37599	.77483	-1.39598
25	.79477	-1.39514	-35.786	.02440	.80191	-1.38525	.78764	-1.40504
26	.80723	-1.40394	-34.703	.02373	.81398	-1.39419	.80047	-1.41370
27	.81968	-1.41240	-33.627	.02299	.82605	-1.40283	.81332	-1.42197
28	.83214	-1.42051	-32.563	.02217	.83810	-1.41117	.82617	-1.42986
29	.84459	-1.42831	-31.514	.02128	.85015	-1.41924	.83903	-1.43738
30	.85705	-1.43579	-30.486	.02031	.86220	-1.42704	.85189	-1.44454
31	.86950	-1.44298	-29.482	.01928	.87425	-1.43458	.86476	-1.45137
32	.88196	-1.44988	-28.508	.01818	.88629	-1.44189	.87762	-1.45787
33	.89441	-1.45651	-27.568	.01702	.89835	-1.44897	.89047	-1.46405
34	.90686	-1.46289	-26.667	.01579	.91041	-1.45593	.90332	-1.46994
35	.91932	-1.46903	-25.809	.01449	.92247	-1.46250	.91616	-1.47555
36	.93177	-1.47494	-25.000	.01314	.93455	-1.46839	.92900	-1.48089
37	.94423	-1.48065	-24.245	.01172	.94663	-1.47530	.94182	-1.48599
38	.95668	-1.48616	-23.541	.01025	.95873	-1.48147	.95464	-1.49086
39	.96914	-1.49151	-22.922	.00871	.97083	-1.48750	.96744	-1.49552
40	.98159	-1.49669	-22.280	.00711	.98294	-1.49340	.98024	-1.49998
41	.99405	-1.50175	-22.042	.00546	.99507	-1.49922	.99302	-1.50427
42	.99751	-1.50315	-22.114	.00499	.99845	-1.50084	.99657	-1.50546

BLADE.SUBSECS.SECONSTR.IN.CARTESIAN.COORDINATES.AT.SPECIFIED.VALUES.OF.ZZ

SECTION NUMBER 1 'Z' = 6.5000

SECTION PROPERTIES

SECTION AREA		=	1.2676E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	5.0217E-01
	YBAR	=	-4.4324E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.1795E-03
	IY	=	6.6221E-03
	IXY	=	-2.4435E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	2.4345E-04 (AT -20.96 DEGREES TO 'X' AXIS)
	IPY	=	7.5582E-03 (AT -20.96 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	8.2043E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	3.56243E-02	-1.25393E-01	3.00224E-02	-1.32730E-01
2	5.16913E-02	-1.36875E-01	4.09467E-02	-1.50433E-01
3	8.06672E-02	-1.56918E-01	6.13074E-02	-1.82028E-01
4	1.09200E-01	-1.76277E-01	8.20113E-02	-2.12576E-01
5	1.37152E-01	-1.94937E-01	1.03062E-01	-2.42101E-01
6	1.64518E-01	-2.12901E-01	1.24398E-01	-2.70576E-01
7	1.91286E-01	-2.30169E-01	1.46014E-01	-2.97997E-01
8	2.17434E-01	-2.46738E-01	1.67867E-01	-3.24363E-01
9	2.42959E-01	-2.62601E-01	1.89926E-01	-3.49658E-01
10	2.67867E-01	-2.77770E-01	2.12150E-01	-3.73873E-01
11	2.92191E-01	-2.92249E-01	2.34496E-01	-3.96987E-01
12	3.15957E-01	-3.06042E-01	2.56899E-01	-4.18995E-01
13	3.39233E-01	-3.19140E-01	2.79364E-01	-4.39885E-01
14	3.62026E-01	-3.31572E-01	3.01939E-01	-4.59640E-01
15	3.84333E-01	-3.43341E-01	3.24557E-01	-4.78245E-01
16	4.06134E-01	-3.54456E-01	3.47232E-01	-4.95672E-01
17	4.27452E-01	-3.64918E-01	3.69963E-01	-5.11911E-01
18	4.48236E-01	-3.74753E-01	3.92749E-01	-5.26943E-01
19	4.68293E-01	-3.83968E-01	4.15598E-01	-5.40742E-01
20	4.91147E-01	-3.92579E-01	4.38516E-01	-5.53281E-01
21	5.11852E-01	-4.00599E-01	4.61528E-01	-5.64542E-01
22	5.32461E-01	-4.08035E-01	4.84691E-01	-5.74500E-01
23	5.53036E-01	-4.14916E-01	5.07962E-01	-5.83122E-01
24	5.73642E-01	-4.21255E-01	5.31409E-01	-5.90385E-01
25	5.94351E-01	-4.27074E-01	5.55062E-01	-5.96264E-01
26	6.15241E-01	-4.32392E-01	5.78970E-01	-6.00727E-01
27	6.36543E-01	-4.37228E-01	6.03186E-01	-6.03747E-01
28	6.58081E-01	-4.41619E-01	6.27762E-01	-6.05305E-01
29	6.80085E-01	-4.45601E-01	6.52739E-01	-6.05378E-01
30	7.02340E-01	-4.49218E-01	6.78156E-01	-6.03942E-01
31	7.25279E-01	-4.52511E-01	7.04050E-01	-6.00997E-01
32	7.48758E-01	-4.55534E-01	7.30462E-01	-5.96543E-01
33	7.72834E-01	-4.58346E-01	7.57431E-01	-5.90588E-01
34	7.97745E-01	-4.61021E-01	7.84998E-01	-5.83162E-01

POINT NO	XS	YS	XP	YP
35	8.23367E-01	-4.63637E-01	8.13199E-01	-5.74310E-01
36	8.49837E-01	-4.69265E-01	8.42064E-01	-5.84095E-01
37	8.77201E-01	-4.69061E-01	8.71618E-01	-5.52606E-01
38	9.05308E-01	-4.72079E-01	9.01879E-01	-5.39961E-01
39	9.34479E-01	-4.75452E-01	9.32838E-01	-5.26306E-01
40	9.64376E-01	-4.79306E-01	9.64521E-01	-5.11795E-01
41	9.95136E-01	-4.83752E-01	9.96821E-01	-4.96641E-01
42	9.94488E-01	-4.82121E-01	9.96029E-01	-4.92906E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	3.00224E-02	-1.32730E-01	9.94488E-01	-4.82121E-01
2	2.95151E-02	-1.31902E-01	9.95965E-01	-4.82518E-01
3	2.93095E-02	-1.31504E-01	9.96356E-01	-4.82565E-01
4	2.91157E-02	-1.31083E-01	9.96741E-01	-4.82651E-01
5	2.89715E-02	-1.30643E-01	9.97119E-01	-4.82776E-01
6	2.88601E-02	-1.30188E-01	9.97485E-01	-4.82939E-01
7	2.87858E-02	-1.29722E-01	9.97837E-01	-4.83137E-01
8	2.87493E-02	-1.29250E-01	9.98163E-01	-4.83375E-01
9	2.87509E-02	-1.28775E-01	9.98471E-01	-4.83646E-01
10	2.87905E-02	-1.28303E-01	9.98763E-01	-4.83951E-01
11	2.88679E-02	-1.27838E-01	9.99038E-01	-4.84286E-01
12	2.89823E-02	-1.27384E-01	9.99286E-01	-4.84651E-01
13	2.91327E-02	-1.26945E-01	9.99504E-01	-4.85043E-01
14	2.93177E-02	-1.26527E-01	9.99690E-01	-4.85459E-01
15	2.95357E-02	-1.26131E-01	9.99843E-01	-4.85896E-01
16	2.97847E-02	-1.25764E-01	9.99961E-01	-4.86352E-01
17	3.00624E-02	-1.25427E-01	1.00004E+00	-4.86823E-01
18	3.03661E-02	-1.25124E-01	1.00008E+00	-4.87305E-01
19	3.06932E-02	-1.24858E-01	1.00010E+00	-4.87794E-01
20	3.10416E-02	-1.24631E-01	1.00008E+00	-4.88288E-01
21	3.14081E-02	-1.24446E-01	1.00001E+00	-4.88782E-01
22	3.17934E-02	-1.24305E-01	9.99903E-01	-4.89272E-01
23	3.21719E-02	-1.24208E-01	9.99753E-01	-4.89754E-01
24	3.25671E-02	-1.24157E-01	9.99564E-01	-4.90224E-01
25	3.29653E-02	-1.24153E-01	9.99337E-01	-4.90678E-01
26	3.33628E-02	-1.24194E-01	9.99073E-01	-4.91113E-01
27	3.37560E-02	-1.24282E-01	9.98773E-01	-4.91523E-01
28	3.41411E-02	-1.24416E-01	9.98440E-01	-4.91905E-01
29	3.45147E-02	-1.24593E-01	9.98075E-01	-4.92256E-01
30	3.48731E-02	-1.24813E-01	9.97681E-01	-4.92571E-01
31	3.52249E-02	-1.25393E-01	9.96029E-01	-4.92906E-01

SECTION NUMBER 2 'Z' = 6.7500

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SECTION PROPERTIES

SECTION AREA = 1.1458E-01

LOCATION OF CENTROID RELATIVE TO STACK AXIS
XBAR = 4.9786E-01
YBAR = -4.7365E-01

SECOND MOMENTS OF AREA ABOUT CENTROID
IX = 1.3977E-03
IY = 6.0809E-03
IXY = -2.6790E-03

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID
IPX = 1.8118E-04 (AT -24.42 DEGREES TO 'X' AXIS)
IPY = 7.2974E-03 (AT -24.42 DEGREES TO 'Y' AXIS)

TORSIONAL CONSTANT = 5.7650E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	3.02707E-02	-1.31468E-01	2.42432E-02	-1.38573E-01
2	4.55824E-02	-1.43375E-01	3.50210E-02	-1.55818E-01
3	7.43211E-02	-1.65123E-01	5.57643E-02	-1.87623E-01
4	1.02602E-01	-1.86189E-01	7.66353E-02	-2.18419E-01
5	1.30365E-01	-2.05555E-01	9.82403E-02	-2.48231E-01
6	1.57659E-01	-2.26227E-01	1.19931E-01	-2.77035E-01
7	1.84439E-01	-2.45203E-01	1.41899E-01	-3.04829E-01
8	2.10542E-01	-2.63484E-01	1.64111E-01	-3.31608E-01
9	2.35415E-01	-2.81067E-01	1.86540E-01	-3.57362E-01
10	2.61616E-01	-2.97960E-01	2.09152E-01	-3.82083E-01
11	2.86322E-01	-3.14169E-01	2.31912E-01	-4.05755E-01
12	3.10563E-01	-3.29697E-01	2.54769E-01	-4.28375E-01
13	3.34368E-01	-3.44541E-01	2.77737E-01	-4.49933E-01
14	3.57769E-01	-3.59724E-01	3.00806E-01	-4.70417E-01
15	3.80797E-01	-3.72252E-01	3.23966E-01	-4.89813E-01
16	4.03485E-01	-3.85136E-01	3.47211E-01	-5.08103E-01
17	4.25867E-01	-3.97376E-01	3.70537E-01	-5.25279E-01
18	4.47972E-01	-4.08998E-01	3.93942E-01	-5.41326E-01
19	4.69875E-01	-4.20010E-01	4.17427E-01	-5.56226E-01
20	4.91600E-01	-4.30428E-01	4.40998E-01	-5.69958E-01
21	5.13188E-01	-4.40266E-01	4.64669E-01	-5.82512E-01
22	5.34693E-01	-4.49533E-01	4.88483E-01	-5.93866E-01
23	5.56148E-01	-4.58255E-01	5.12406E-01	-6.04001E-01
24	5.77622E-01	-4.66449E-01	5.36487E-01	-6.12899E-01
25	5.99170E-01	-4.74133E-01	5.60748E-01	-6.20542E-01
26	6.20856E-01	-4.81330E-01	5.85225E-01	-6.26909E-01
27	6.42858E-01	-4.88058E-01	6.09958E-01	-6.31982E-01
28	6.65049E-01	-4.94349E-01	6.34964E-01	-6.35750E-01
29	6.87542E-01	-5.00238E-01	6.60332E-01	-6.38198E-01
30	7.10390E-01	-5.05761E-01	6.86031E-01	-6.39313E-01
31	7.33649E-01	-5.10958E-01	7.12108E-01	-6.39097E-01
32	7.57372E-01	-5.15874E-01	7.38590E-01	-6.37557E-01
33	7.81612E-01	-5.20561E-01	7.65510E-01	-6.34701E-01
34	8.06418E-01	-5.25080E-01	7.92896E-01	-6.30559E-01
35	8.31936E-01	-5.29499E-01	8.20775E-01	-6.25172E-01
36	8.57903E-01	-5.33894E-01	8.49172E-01	-6.18594E-01
37	8.84722E-01	-5.38346E-01	8.78106E-01	-6.10899E-01
38	9.12191E-01	-5.42950E-01	9.07591E-01	-6.02185E-01
39	9.40338E-01	-5.47799E-01	9.37620E-01	-5.92571E-01
40	9.69147E-01	-5.52998E-01	9.68217E-01	-5.82194E-01
41	9.98643E-01	-5.58639E-01	9.99293E-01	-5.71210E-01
42	9.99453E-01	-5.57884E-01	1.00008E+00	-5.68477E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	2.42432E-02	-1.38573E-01	9.99453E-01	-5.57884E-01
2	2.37918E-02	-1.37841E-01	1.00072E+00	-5.58240E-01
3	2.35673E-02	-1.37433E-01	1.00113E+00	-5.58323E-01
4	2.33797E-02	-1.37000E-01	1.00152E+00	-5.58447E-01
5	2.32250E-02	-1.36548E-01	1.00190E+00	-5.58611E-01
6	2.31166E-02	-1.36082E-01	1.00227E+00	-5.58814E-01
7	2.30457E-02	-1.35604E-01	1.00262E+00	-5.59055E-01
8	2.30159E-02	-1.35121E-01	1.00294E+00	-5.59332E-01
9	2.30275E-02	-1.34636E-01	1.00324E+00	-5.59643E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
10	2.30805E-02	-1.34156E-01	1.00351E+00	-5.59986E-01
11	2.31743E-02	-1.33683E-01	1.00376E+00	-5.60357E-01
12	2.33079E-02	-1.33224E-01	1.00397E+00	-5.60754E-01
13	2.34802E-02	-1.32782E-01	1.00415E+00	-5.61175E-01
14	2.36894E-02	-1.32362E-01	1.00430E+00	-5.61615E-01
15	2.39335E-02	-1.31969E-01	1.00441E+00	-5.62071E-01
16	2.42101E-02	-1.31603E-01	1.00447E+00	-5.62540E-01
17	2.45166E-02	-1.31272E-01	1.00450E+00	-5.63018E-01
18	2.48500E-02	-1.30978E-01	1.00449E+00	-5.63501E-01
19	2.52069E-02	-1.30723E-01	1.00445E+00	-5.63985E-01
20	2.55840E-02	-1.30510E-01	1.00437E+00	-5.64465E-01
21	2.59776E-02	-1.30341E-01	1.00424E+00	-5.64932E-01
22	2.63839E-02	-1.30218E-01	1.00407E+00	-5.65400E-01
23	2.67999E-02	-1.30143E-01	1.00386E+00	-5.65847E-01
24	2.72185E-02	-1.30114E-01	1.00362E+00	-5.66275E-01
25	2.76388E-02	-1.30134E-01	1.00334E+00	-5.66680E-01
26	2.80556E-02	-1.30202E-01	1.00303E+00	-5.67058E-01
27	2.84649E-02	-1.30317E-01	1.00269E+00	-5.67405E-01
28	2.88626E-02	-1.30479E-01	1.00232E+00	-5.67720E-01
29	2.92450E-02	-1.30684E-01	1.00192E+00	-5.67997E-01
30	2.96033E-02	-1.30933E-01	1.00150E+00	-5.68235E-01
31	3.02707E-02	-1.31468E-01	1.00008E+00	-5.68477E-01

SECTION NUMBER 3 'Z' = 7.0000

****

SECTION PROPERTIES

SECTION AREA		=	1.0209E-01
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.9344E-01
	YBAR	=	-5.0295E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.5949E-03
	IY	=	5.5290E-03
	IXY	=	-2.8096E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	1.3200E-04 (AT -27.51 DEGREES TO 'X' AXIS)
	IPY	=	6.9909E-03 (AT -27.51 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	3.8388E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	2.49164E-02	-1.37542E-01	1.84641E-02	-1.44415E-01
2	3.95636E-02	-1.49874E-01	2.90953E-02	-1.61204E-01
3	6.79750E-02	-1.73328E-01	5.02212E-02	-1.93218E-01
4	9.60049E-02	-1.95100E-01	7.16593E-02	-2.24262E-01
5	1.23618E-01	-2.13172E-01	9.34191E-02	-2.54361E-01
6	1.50819E-01	-2.33552E-01	1.15464E-01	-2.83494E-01
7	1.77597E-01	-2.60236E-01	1.37784E-01	-3.11660E-01
8	2.03950E-01	-2.80231E-01	1.60355E-01	-3.38853E-01
9	2.29870E-01	-2.99534E-01	1.83154E-01	-3.65066E-01
10	2.55365E-01	-3.18150E-01	2.06155E-01	-3.90294E-01
11	2.80454E-01	-3.36087E-01	2.29329E-01	-4.14524E-01

POINT NO	XS	YS	XP	YP
12	3.05159E-01	-3.53351E-01	2.52639E-01	-4.37756E-01
13	3.29503E-01	-3.69942E-01	2.76091E-01	-4.59932E-01
14	3.55512E-01	-3.85876E-01	2.99672E-01	-4.81194E-01
15	3.77211E-01	-4.01164E-01	3.23375E-01	-5.01382E-01
16	4.00625E-01	-4.15815E-01	3.47189E-01	-5.20534E-01
17	4.23782E-01	-4.29835E-01	3.71111E-01	-5.38647E-01
18	4.46737E-01	-4.43243E-01	3.95134E-01	-5.55709E-01
19	4.69458E-01	-4.56052E-01	4.19257E-01	-5.71710E-01
20	4.92052E-01	-4.68277E-01	4.43480E-01	-5.86636E-01
21	5.14525E-01	-4.79933E-01	4.67811E-01	-6.00482E-01
22	5.36914E-01	-4.91031E-01	4.92275E-01	-6.13235E-01
23	5.59269E-01	-5.01595E-01	5.16850E-01	-6.24881E-01
24	5.81602E-01	-5.11643E-01	5.41565E-01	-6.35412E-01
25	6.03940E-01	-5.21193E-01	5.66434E-01	-6.44820E-01
26	6.26471E-01	-5.30269E-01	5.91480E-01	-6.53091E-01
27	6.49174E-01	-5.38898E-01	6.16729E-01	-6.60217E-01
28	6.72017E-01	-5.47080E-01	6.42205E-01	-6.66195E-01
29	6.95079E-01	-5.54874E-01	6.67926E-01	-6.71019E-01
30	7.18400E-01	-5.62305E-01	6.93907E-01	-6.74683E-01
31	7.42022E-01	-5.69405E-01	7.20165E-01	-6.77197E-01
32	7.65946E-01	-5.76214E-01	7.46719E-01	-6.78570E-01
33	7.90330E-01	-5.82775E-01	7.73589E-01	-6.78814E-01
34	8.15092E-01	-5.89139E-01	8.00793E-01	-6.77957E-01
35	8.40306E-01	-5.95361E-01	8.28351E-01	-6.76039E-01
36	8.66998E-01	-6.01504E-01	8.56281E-01	-6.73093E-01
37	8.92243E-01	-6.07632E-01	8.84593E-01	-6.69192E-01
38	9.18964E-01	-6.13821E-01	9.13302E-01	-6.64411E-01
39	9.46202E-01	-6.20146E-01	9.42401E-01	-6.58842E-01
40	9.73918E-01	-6.26691E-01	9.71914E-01	-6.52594E-01
41	1.00215E+00	-6.33525E-01	1.00176E+00	-6.45778E-01
42	1.00442E+00	-6.33647E-01	1.00413E+00	-6.44049E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.84641E-02	-1.44415E-01	1.00442E+00	-6.33647E-01
2	1.80895E-02	-1.43781E-01	1.00547E+00	-6.33961E-01
3	1.78340E-02	-1.43361E-01	1.00589E+00	-6.34080E-01
4	1.76347E-02	-1.42917E-01	1.00630E+00	-6.34242E-01
5	1.74945E-02	-1.42454E-01	1.00669E+00	-6.34446E-01
6	1.73721E-02	-1.41975E-01	1.00706E+00	-6.34690E-01
7	1.73055E-02	-1.41486E-01	1.00740E+00	-6.34972E-01
8	1.72825E-02	-1.40992E-01	1.00772E+00	-6.35289E-01
9	1.73042E-02	-1.40498E-01	1.00800E+00	-6.35640E-01
10	1.73705E-02	-1.40008E-01	1.00825E+00	-6.36020E-01
11	1.74807E-02	-1.39529E-01	1.00847E+00	-6.36427E-01
12	1.76316E-02	-1.39064E-01	1.00866E+00	-6.36857E-01
13	1.78277E-02	-1.38619E-01	1.00880E+00	-6.37306E-01
14	1.80611E-02	-1.38197E-01	1.00891E+00	-6.37771E-01
15	1.83313E-02	-1.37804E-01	1.00897E+00	-6.38246E-01
16	1.86356E-02	-1.37443E-01	1.00899E+00	-6.38729E-01
17	1.89709E-02	-1.37116E-01	1.00896E+00	-6.39214E-01
18	1.93338E-02	-1.36832E-01	1.00890E+00	-6.39698E-01
19	1.97206E-02	-1.36588E-01	1.00879E+00	-6.40175E-01
20	2.01275E-02	-1.36389E-01	1.00865E+00	-6.40642E-01
21	2.05501E-02	-1.36237E-01	1.00847E+00	-6.41095E-01
22	2.09844E-02	-1.36132E-01	1.00824E+00	-6.41529E-01
23	2.14258E-02	-1.36077E-01	1.00797E+00	-6.41941E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
24	2.18700E-02	-1.36072E-01	1.00768E+00	-6.42326E-01
25	2.23123E-02	-1.36116E-01	1.00735E+00	-6.42681E-01
26	2.27484E-02	-1.35210E-01	1.00699E+00	-6.43003E-01
27	2.31737E-02	-1.35352E-01	1.00660E+00	-6.43288E-01
28	2.35841E-02	-1.36541E-01	1.00619E+00	-6.43534E-01
29	2.39753E-02	-1.36776E-01	1.00577E+00	-6.43739E-01
30	2.43434E-02	-1.37053E-01	1.00532E+00	-6.43899E-01
31	2.46864E-02	-1.37542E-01	1.00413E+00	-6.44049E-01

SECTION NUMBER 4 'Z' = 7.2500

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SECTION PROPERTIES

SECTION AREA		=	8.9181E-02
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.8844E-01
	YBAR	=	-5.3089E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.7477E-03
	IY	=	4.9523E-03
	IXY	=	-2.8344E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	9.4043E-05 (AT -30.26 DEGREES TO 'X' AXIS)
	IPY	=	6.6059E-03 (AT -30.26 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	2.3833E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	1.95900E-02	-1.43600E-01	1.27165E-02	-1.50239E-01
2	3.35672E-02	-1.56350E-01	2.31969E-02	-1.66574E-01
3	5.16418E-02	-1.81525E-01	4.46975E-02	-1.98802E-01
4	7.94136E-02	-2.06007E-01	6.64961E-02	-2.30099E-01
5	1.16854E-01	-2.29787E-01	8.86056E-02	-2.60488E-01
6	1.43371E-01	-2.52876E-01	1.11001E-01	-2.89952E-01
7	1.70755E-01	-2.75270E-01	1.33671E-01	-3.18490E-01
8	1.97208E-01	-2.96977E-01	1.56600E-01	-3.46098E-01
9	2.23326E-01	-3.18000E-01	1.79768E-01	-3.72771E-01
10	2.49114E-01	-3.38340E-01	2.03157E-01	-3.98504E-01
11	2.74585E-01	-3.58006E-01	2.26745E-01	-4.23293E-01
12	2.99754E-01	-3.77006E-01	2.50513E-01	-4.47136E-01
13	3.24639E-01	-3.95342E-01	2.74445E-01	-4.70030E-01
14	3.49256E-01	-4.13028E-01	2.98539E-01	-4.91970E-01
15	3.73625E-01	-4.30075E-01	3.22784E-01	-5.12950E-01
16	3.97765E-01	-4.46494E-01	3.47168E-01	-5.32965E-01
17	4.21647E-01	-4.62293E-01	3.71684E-01	-5.52014E-01
18	4.45443E-01	-4.77488E-01	3.96326E-01	-5.70093E-01
19	4.69040E-01	-4.92094E-01	4.21087E-01	-5.87194E-01
20	4.92504E-01	-5.06126E-01	4.45962E-01	-6.03314E-01
21	5.15852E-01	-5.19599E-01	4.70952E-01	-6.18451E-01
22	5.39141E-01	-5.32529E-01	4.96067E-01	-6.32603E-01
23	5.62371E-01	-5.44935E-01	5.21294E-01	-6.45760E-01
24	5.85582E-01	-5.56836E-01	5.46643E-01	-6.57926E-01
25	6.08839E-01	-5.68253E-01	5.72120E-01	-6.69097E-01

POINT NO	XS	YS	XP	YP
26	6.32087E-01	-5.79207E-01	5.97735E-01	-6.79272E-01
27	6.55490E-01	-5.89718E-01	6.23501E-01	-6.88452E-01
28	6.78995E-01	-5.99810E-01	6.49427E-01	-6.96640E-01
29	7.02616E-01	-6.09511E-01	6.75519E-01	-7.03840E-01
30	7.26410E-01	-6.18849E-01	7.01762E-01	-7.10054E-01
31	7.50396E-01	-6.27853E-01	7.28223E-01	-7.15298E-01
32	7.74630E-01	-6.36554E-01	7.54848E-01	-7.19583E-01
33	7.99048E-01	-6.44990E-01	7.81668E-01	-7.22927E-01
34	8.23766E-01	-6.53198E-01	8.08691E-01	-7.25355E-01
35	8.48775E-01	-6.61223E-01	8.35928E-01	-7.26897E-01
36	8.74034E-01	-6.69113E-01	8.63389E-01	-7.27592E-01
37	8.99764E-01	-6.76917E-01	8.91081E-01	-7.27485E-01
38	9.25747E-01	-6.84691E-01	9.19014E-01	-7.26637E-01
39	9.52066E-01	-6.92494E-01	9.47182E-01	-7.25112E-01
40	9.78688E-01	-7.00383E-01	9.75610E-01	-7.22993E-01
41	1.00566E+00	-7.08412E-01	1.00424E+00	-7.20347E-01
42	1.00938E+00	-7.09410E-01	1.00818E+00	-7.19620E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.27165E-02	-1.50239E-01	1.00938E+00	-7.09410E-01
2	1.23759E-02	-1.49702E-01	1.01023E+00	-7.09683E-01
3	1.21326E-02	-1.49271E-01	1.01066E+00	-7.09837E-01
4	1.19306E-02	-1.48815E-01	1.01108E+00	-7.10037E-01
5	1.17731E-02	-1.48340E-01	1.01148E+00	-7.10281E-01
6	1.16616E-02	-1.47849E-01	1.01185E+00	-7.10565E-01
7	1.15974E-02	-1.47349E-01	1.01219E+00	-7.10888E-01
8	1.15811E-02	-1.46844E-01	1.01249E+00	-7.11247E-01
9	1.16129E-02	-1.46340E-01	1.01276E+00	-7.11637E-01
10	1.16925E-02	-1.45842E-01	1.01300E+00	-7.12059E-01
11	1.18150E-02	-1.45355E-01	1.01319E+00	-7.12498E-01
12	1.19911E-02	-1.44885E-01	1.01334E+00	-7.12960E-01
13	1.22069E-02	-1.44436E-01	1.01345E+00	-7.13438E-01
14	1.24643E-02	-1.44014E-01	1.01351E+00	-7.13926E-01
15	1.27604E-02	-1.43622E-01	1.01353E+00	-7.14421E-01
16	1.30922E-02	-1.43264E-01	1.01350E+00	-7.14917E-01
17	1.34561E-02	-1.42945E-01	1.01342E+00	-7.15410E-01
18	1.38444E-02	-1.42668E-01	1.01330E+00	-7.15894E-01
19	1.42649E-02	-1.42436E-01	1.01314E+00	-7.16366E-01
20	1.47012E-02	-1.42250E-01	1.01294E+00	-7.16820E-01
21	1.51527E-02	-1.42114E-01	1.01269E+00	-7.17252E-01
22	1.56147E-02	-1.42028E-01	1.01241E+00	-7.17658E-01
23	1.60824E-02	-1.41994E-01	1.01209E+00	-7.18034E-01
24	1.65537E-02	-1.42011E-01	1.01173E+00	-7.18377E-01
25	1.70149E-02	-1.42081E-01	1.01135E+00	-7.18682E-01
26	1.74700E-02	-1.42200E-01	1.01094E+00	-7.18948E-01
27	1.79112E-02	-1.42370E-01	1.01052E+00	-7.19171E-01
28	1.83340E-02	-1.42587E-01	1.01007E+00	-7.19349E-01
29	1.87339E-02	-1.42850E-01	1.00961E+00	-7.19480E-01
30	1.91056E-02	-1.43156E-01	1.00914E+00	-7.19563E-01
31	1.95900E-02	-1.43600E-01	1.00818E+00	-7.19620E-01

SECTION NUMBER 5 'Z' = 7.5000

SECTION PROPERTIES

SECTION AREA		=	7.5806E-02
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.3256E-01
	YBAR	=	-5.5657E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.8436E-03
	IY	=	4.3193E-03
	IXY	=	-2.7488E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	6.6868E-05 (AT -32.88 DEGREES TO 'X' AXIS)
	IPY	=	6.0961E-03 (AT -32.88 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	1.3524E-04

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	1.69397E-02	-1.48087E-01	9.71714E-03	-1.54477E-01
2	3.02166E-02	-1.61244E-01	2.00129E-02	-1.70436E-01
3	5.79110E-02	-1.88112E-01	4.17972E-02	-2.03008E-01
4	8.51587E-02	-2.14319E-01	6.38556E-02	-2.34665E-01
5	1.12240E-01	-2.39841E-01	8.62048E-02	-2.65453E-01
6	1.39069E-01	-2.64690E-01	1.09823E-01	-2.95352E-01
7	1.65646E-01	-2.88857E-01	1.31704E-01	-3.24362E-01
8	1.91977E-01	-3.12352E-01	1.54836E-01	-3.52479E-01
9	2.19066E-01	-3.35175E-01	1.78208E-01	-3.79701E-01
10	2.43923E-01	-3.57327E-01	2.01809E-01	-4.06024E-01
11	2.69559E-01	-3.78814E-01	2.25626E-01	-4.31450E-01
12	2.94998E-01	-3.99642E-01	2.49649E-01	-4.55978E-01
13	3.20223E-01	-4.19817E-01	2.73870E-01	-4.79607E-01
14	3.45228E-01	-4.39345E-01	2.98282E-01	-5.02338E-01
15	3.70172E-01	-4.58238E-01	3.22879E-01	-5.24165E-01
16	3.94914E-01	-4.76508E-01	3.47652E-01	-5.45093E-01
17	4.19519E-01	-4.94166E-01	3.72597E-01	-5.65123E-01
18	4.44007E-01	-5.11222E-01	3.97706E-01	-5.84255E-01
19	4.68395E-01	-5.27694E-01	4.22972E-01	-6.02490E-01
20	4.92694E-01	-5.43597E-01	4.48389E-01	-6.19832E-01
21	5.16920E-01	-5.58947E-01	4.73951E-01	-6.36286E-01
22	5.41091E-01	-5.73760E-01	4.99653E-01	-6.51855E-01
23	5.65220E-01	-5.88055E-01	5.25490E-01	-6.66542E-01
24	5.89326E-01	-6.01853E-01	5.51455E-01	-6.80356E-01
25	6.13423E-01	-6.15173E-01	5.77540E-01	-6.93304E-01
26	6.37530E-01	-6.28037E-01	6.03742E-01	-7.05394E-01
27	6.61667E-01	-6.40466E-01	6.30052E-01	-7.16636E-01
28	6.85847E-01	-6.52481E-01	6.56463E-01	-7.27043E-01
29	7.10075E-01	-6.64106E-01	6.82963E-01	-7.36627E-01
30	7.34367E-01	-6.75365E-01	7.09545E-01	-7.45395E-01
31	7.58735E-01	-6.86282E-01	7.36200E-01	-7.53378E-01
32	7.83194E-01	-6.96885E-01	7.62924E-01	-7.60563E-01
33	8.07757E-01	-7.07199E-01	7.89715E-01	-7.67032E-01
34	8.32436E-01	-7.17255E-01	8.16572E-01	-7.72748E-01
35	8.57244E-01	-7.27085E-01	8.43498E-01	-7.77757E-01

POINT NO	XS	YS	XP	YP
36	8.821498E-01	-7.36722E-01	8.70495E-01	-7.82090E-01
37	9.072a5E-01	-7.4a202E-01	8.975682-01	-7.85778E-01
38	9.32530E-01	-7.55562E-01	9.24725E-01	-7.88862E-01
39	9.57829E-01	-7.64841E-01	9.51964E-01	-7.91363E-01
40	9.83459E-01	-7.74076E-01	9.79307E-01	-7.93392E-01
41	1.00916E+00	-7.83298E-01	1.00671E+00	-7.94916E-01
42	1.01435E+00	-7.85173E-01	1.01223E+00	-7.95191E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	9.71714E-03	-1.54477E-01	1.01435E+00	-7.85173E-01
2	9.43137E-03	-1.54028E-01	1.01498E+00	-7.85404E-01
3	9.17939E-03	-1.53587E-01	1.01543E+00	-7.85595E-01
4	8.97240E-03	-1.53120E-01	1.01586E+00	-7.85833E-01
5	8.81269E-03	-1.52633E-01	1.01626E+00	-7.86116E-01
6	8.70200E-03	-1.52132E-01	1.01664E+00	-7.86441E-01
7	8.64145E-03	-1.51622E-01	1.01697E+00	-7.86805E-01
8	8.63169E-03	-1.51108E-01	1.01727E+00	-7.87204E-01
9	8.67282E-03	-1.50595E-01	1.01753E+00	-7.87634E-01
10	8.75439E-03	-1.50091E-01	1.01774E+00	-7.88090E-01
11	8.88546E-03	-1.49599E-01	1.01791E+00	-7.88568E-01
12	9.09456E-03	-1.49125E-01	1.01803E+00	-7.89063E-01
13	9.32956E-03	-1.48675E-01	1.01810E+00	-7.89569E-01
14	9.66796E-03	-1.48253E-01	1.01812E+00	-7.90082E-01
15	9.92658E-03	-1.47864E-01	1.01809E+00	-7.90596E-01
16	1.02821E-02	-1.47512E-01	1.01801E+00	-7.91105E-01
17	1.06797E-02	-1.47200E-01	1.01789E+00	-7.91605E-01
18	1.10880E-02	-1.46933E-01	1.01771E+00	-7.92091E-01
19	1.15296E-02	-1.46714E-01	1.01749E+00	-7.92556E-01
20	1.19907E-02	-1.46543E-01	1.01722E+00	-7.92997E-01
21	1.24653E-02	-1.46424E-01	1.01692E+00	-7.93409E-01
22	1.29511E-02	-1.46358E-01	1.01657E+00	-7.93787E-01
23	1.34401E-02	-1.46345E-01	1.01620E+00	-7.94128E-01
24	1.39278E-02	-1.46386E-01	1.01579E+00	-7.94428E-01
25	1.44090E-02	-1.46480E-01	1.01536E+00	-7.94684E-01
26	1.48736E-02	-1.46625E-01	1.01490E+00	-7.94893E-01
27	1.53313E-02	-1.46822E-01	1.01443E+00	-7.95053E-01
28	1.57623E-02	-1.47066E-01	1.01395E+00	-7.95163E-01
29	1.61869E-02	-1.47356E-01	1.01346E+00	-7.95221E-01
30	1.65408E-02	-1.47689E-01	1.01296E+00	-7.95227E-01
31	1.68397E-02	-1.48087E-01	1.01223E+00	-7.95191E-01

SECTION NUMBER 6 'Z' = 7.7500

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SECTION PROPERTIES

SECTION AREA = 6.4672E-02

LOCATION OF CENTROID RELATIVE TO STACK AXIS
XBAR = 4.7621E-01
YBAR = -5.7553E-01

SECOND MOMENTS OF AREA ABOUT CENTROID
IX = 1.9008E-03
IY = 3.6965E-03
IXY = -2.6017E-03

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID
IPX = 4.6396E-05 (AT -35.48 DEGREES TO 'X' AXIS)
IPY = 5.5509E-03 (AT -35.48 DEGREES TO 'Y' AXIS)

TORSIONAL CONSTANT = 7.8880E-05

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	1.94440E-02	-1.51715E-01	1.18877E-02	-1.57955E-01
2	3.22632E-02	-1.65131E-01	2.21093E-02	-1.73660E-01
3	5.96303E-02	-1.93301E-01	4.42831E-02	-2.06579E-01
4	9.67797E-02	-2.20825E-01	6.67086E-02	-2.38623E-01
5	1.13593E-01	-2.47683E-01	8.93989E-02	-2.69813E-01
6	1.40342E-01	-2.73887E-01	1.12338E-01	-3.00141E-01
7	1.66852E-01	-2.99432E-01	1.35518E-01	-3.29607E-01
8	1.93110E-01	-3.24324E-01	1.58927E-01	-3.58212E-01
9	2.19161E-01	-3.48569E-01	1.82557E-01	-3.85955E-01
10	2.45014E-01	-3.72170E-01	2.06397E-01	-4.12836E-01
11	2.70679E-01	-3.95131E-01	2.30437E-01	-4.38859E-01
12	2.96168E-01	-4.17463E-01	2.54668E-01	-4.64027E-01
13	3.21493E-01	-4.39170E-01	2.79081E-01	-4.88343E-01
14	3.46665E-01	-4.60262E-01	3.03670E-01	-5.11810E-01
15	3.71697E-01	-4.80747E-01	3.28425E-01	-5.34431E-01
16	3.96600E-01	-5.00638E-01	3.53338E-01	-5.56214E-01
17	4.21397E-01	-5.19946E-01	3.78403E-01	-5.77162E-01
18	4.46071E-01	-5.38682E-01	4.03611E-01	-5.97284E-01
19	4.70665E-01	-5.56860E-01	4.28955E-01	-6.16584E-01
20	4.95183E-01	-5.74494E-01	4.54427E-01	-6.35073E-01
21	5.19634E-01	-5.91600E-01	4.80020E-01	-6.52761E-01
22	5.44033E-01	-6.08194E-01	5.05725E-01	-6.69656E-01
23	5.68390E-01	-6.24291E-01	5.31537E-01	-6.85769E-01
24	5.92718E-01	-6.39909E-01	5.57446E-01	-7.01115E-01
25	6.17029E-01	-6.55069E-01	5.83447E-01	-7.15707E-01
26	6.41331E-01	-6.69787E-01	6.09532E-01	-7.29560E-01
27	6.65636E-01	-6.84085E-01	6.35693E-01	-7.42691E-01
28	6.89948E-01	-6.97979E-01	6.61922E-01	-7.55119E-01
29	7.14276E-01	-7.11492E-01	6.88206E-01	-7.66862E-01
30	7.38621E-01	-7.24643E-01	7.14534E-01	-7.77941E-01
31	7.62990E-01	-7.37452E-01	7.40897E-01	-7.88378E-01
32	7.87397E-01	-7.49940E-01	7.67285E-01	-7.98195E-01
33	8.11844E-01	-7.62129E-01	7.93691E-01	-8.07415E-01
34	8.36275E-01	-7.74041E-01	8.20108E-01	-8.16063E-01
35	8.60771E-01	-7.85697E-01	8.46530E-01	-8.24164E-01
36	8.85332E-01	-7.97122E-01	8.72955E-01	-8.31744E-01
37	9.09869E-01	-8.08340E-01	8.99378E-01	-8.38828E-01
38	9.34470E-01	-8.19374E-01	9.25799E-01	-8.45444E-01
39	9.59105E-01	-8.30251E-01	9.52215E-01	-8.51619E-01
40	9.83756E-01	-8.40991E-01	9.78640E-01	-8.57385E-01
41	1.00846E+00	-8.51613E-01	1.00504E+00	-8.62742E-01
42	1.01491E+00	-8.54390E-01	1.01192E+00	-8.64103E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.18877E-02	-1.57955E-01	1.01491E+00	-8.54390E-01
2	1.16433E-02	-1.57575E-01	1.01536E+00	-8.54587E-01
3	1.13846E-02	-1.57126E-01	1.01582E+00	-8.54815E-01
4	1.11735E-02	-1.56651E-01	1.01626E+00	-8.55091E-01
5	1.10122E-02	-1.56156E-01	1.01666E+00	-8.55413E-01
6	1.09026E-02	-1.55646E-01	1.01703E+00	-8.55778E-01
7	1.08458E-02	-1.55127E-01	1.01736E+00	-8.56178E-01
8	1.08425E-02	-1.54606E-01	1.01764E+00	-8.56613E-01
9	1.08928E-02	-1.54086E-01	1.01788E+00	-8.57077E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
10	1.09959E-02	-1.53575E-01	1.01807E+00	-8.57564E-01
11	1.11509E-02	-1.53078E-01	1.01821E+00	-8.58071E-01
12	1.13560E-02	-1.52600E-01	1.01829E+00	-8.58590E-01
13	1.16089E-02	-1.52148E-01	1.01833E+00	-8.59116E-01
14	1.19068E-02	-1.51725E-01	1.01831E+00	-8.59644E-01
15	1.22464E-02	-1.51336E-01	1.01823E+00	-8.60167E-01
16	1.26240E-02	-1.50986E-01	1.01810E+00	-8.60681E-01
17	1.30352E-02	-1.50679E-01	1.01793E+00	-8.61178E-01
18	1.34757E-02	-1.50419E-01	1.01770E+00	-8.61655E-01
19	1.39404E-02	-1.50207E-01	1.01742E+00	-8.62105E-01
20	1.44242E-02	-1.50046E-01	1.01710E+00	-8.62524E-01
21	1.49219E-02	-1.49939E-01	1.01674E+00	-8.62907E-01
22	1.54277E-02	-1.49886E-01	1.01635E+00	-8.63250E-01
23	1.59362E-02	-1.49888E-01	1.01592E+00	-8.63549E-01
24	1.64417E-02	-1.49944E-01	1.01546E+00	-8.63801E-01
25	1.69395E-02	-1.50055E-01	1.01499E+00	-8.64003E-01
26	1.74213E-02	-1.50219E-01	1.01449E+00	-8.64153E-01
27	1.78845E-02	-1.50434E-01	1.01398E+00	-8.64249E-01
28	1.83232E-02	-1.50698E-01	1.01347E+00	-8.64290E-01
29	1.87324E-02	-1.51008E-01	1.01296E+00	-8.64276E-01
30	1.91076E-02	-1.51361E-01	1.01245E+00	-8.64208E-01
31	1.94440E-02	-1.51715E-01	1.01192E+00	-8.64103E-01

SECTION NUMBER 7 'Z' = 8.0000

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SECTION PROPERTIES

SECTION AREA		=	5.7378E-02
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.7446E-01
	YBAR	=	-5.9971E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	1.9475E-03
	IY	=	3.2904E-03
	IXY	=	-2.4931E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	3.7005E-05 (AT -37.46 DEGREES TO 'X' AXIS)
	IPY	=	5.2009E-03 (AT -37.46 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	5.2234E-05

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	2.34222E-02	-1.60333E-01	1.55939E-02	-1.66422E-01
2	3.59759E-02	-1.74202E-01	2.58450E-02	-1.82214E-01
3	6.31883E-02	-2.03763E-01	4.83817E-02	-2.15812E-01
4	9.01960E-02	-2.32672E-01	7.11463E-02	-2.48543E-01
5	1.16986E-01	-2.60906E-01	9.41498E-02	-2.80430E-01
6	1.43571E-01	-2.88477E-01	1.17377E-01	-3.11464E-01
7	1.69956E-01	-3.15384E-01	1.40822E-01	-3.41648E-01
8	1.96149E-01	-3.41631E-01	1.64474E-01	-3.70984E-01
9	2.22156E-01	-3.67224E-01	1.88324E-01	-3.99472E-01
10	2.47985E-01	-3.92166E-01	2.12362E-01	-4.27116E-01
11	2.73646E-01	-4.16464E-01	2.36580E-01	-4.53918E-01

POINT NO	XS	YS	XP	YP
12	2.99147E-01	-4.40126E-01	2.60968E-01	-4.79884E-01
13	3.24499E-01	-4.63160E-01	2.85518E-01	-5.05019E-01
14	3.49712E-01	-4.85575E-01	3.10220E-01	-5.29326E-01
15	3.74734E-01	-5.07379E-01	3.35067E-01	-5.52818E-01
16	3.99756E-01	-5.28585E-01	3.60049E-01	-5.75498E-01
17	4.24608E-01	-5.49205E-01	3.85158E-01	-5.97375E-01
18	4.49358E-01	-5.69251E-01	4.10385E-01	-6.18459E-01
19	4.74016E-01	-5.88735E-01	4.35722E-01	-6.38759E-01
20	4.98592E-01	-6.07673E-01	4.61158E-01	-6.58289E-01
21	5.23095E-01	-6.26079E-01	4.86685E-01	-6.77059E-01
22	5.47535E-01	-6.43970E-01	5.12295E-01	-6.95084E-01
23	5.71918E-01	-6.61362E-01	5.37973E-01	-7.12377E-01
24	5.96255E-01	-6.78271E-01	5.63727E-01	-7.28956E-01
25	6.20552E-01	-6.94717E-01	5.89531E-01	-7.44836E-01
26	6.44818E-01	-7.10717E-01	6.15384E-01	-7.60036E-01
27	6.69058E-01	-7.26289E-01	6.41275E-01	-7.74575E-01
28	6.93278E-01	-7.41451E-01	6.67196E-01	-7.88473E-01
29	7.17485E-01	-7.56221E-01	6.93139E-01	-8.01749E-01
30	7.41683E-01	-7.70618E-01	7.19096E-01	-8.14423E-01
31	7.65877E-01	-7.84660E-01	7.45059E-01	-8.26518E-01
32	7.90071E-01	-7.98368E-01	7.71024E-01	-8.38057E-01
33	8.14269E-01	-8.11761E-01	7.96983E-01	-8.49061E-01
34	8.38473E-01	-8.24859E-01	8.22934E-01	-8.59556E-01
35	8.62686E-01	-8.37685E-01	8.48874E-01	-8.69566E-01
36	8.86910E-01	-8.50259E-01	8.74799E-01	-8.79116E-01
37	9.11144E-01	-8.62604E-01	9.00710E-01	-8.88231E-01
38	9.35388E-01	-8.74742E-01	9.26607E-01	-8.96940E-01
39	9.59644E-01	-8.86704E-01	9.52487E-01	-9.05267E-01
40	9.83938E-01	-8.98495E-01	9.78365E-01	-9.13245E-01
41	1.00818E+00	-9.10146E-01	1.00421E+00	-9.20873E-01
42	1.01517E+00	-9.13503E-01	1.01163E+00	-9.23035E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.55939E-02	-1.66422E-01	1.01517E+00	-9.13503E-01
2	1.53857E-02	-1.66098E-01	1.01552E+00	-9.13671E-01
3	1.51240E-02	-1.65641E-01	1.01599E+00	-9.13924E-01
4	1.49120E-02	-1.65160E-01	1.01642E+00	-9.14226E-01
5	1.47519E-02	-1.64658E-01	1.01682E+00	-9.14574E-01
6	1.46455E-02	-1.64141E-01	1.01718E+00	-9.14963E-01
7	1.45941E-02	-1.63616E-01	1.01750E+00	-9.15390E-01
8	1.45983E-02	-1.63088E-01	1.01778E+00	-9.15850E-01
9	1.46579E-02	-1.62564E-01	1.01800E+00	-9.16336E-01
10	1.47724E-02	-1.62049E-01	1.01817E+00	-9.16845E-01
11	1.49403E-02	-1.61543E-01	1.01829E+00	-9.17369E-01
12	1.51559E-02	-1.61069E-01	1.01835E+00	-9.17904E-01
13	1.54286E-02	-1.60615E-01	1.01836E+00	-9.18443E-01
14	1.57434E-02	-1.60193E-01	1.01831E+00	-9.18982E-01
15	1.61008E-02	-1.59807E-01	1.01820E+00	-9.19509E-01
16	1.64967E-02	-1.59461E-01	1.01804E+00	-9.20024E-01
17	1.69266E-02	-1.59159E-01	1.01783E+00	-9.20519E-01
18	1.73856E-02	-1.58905E-01	1.01757E+00	-9.20989E-01
19	1.78697E-02	-1.58702E-01	1.01726E+00	-9.21428E-01
20	1.83702E-02	-1.58551E-01	1.01691E+00	-9.21831E-01
21	1.88846E-02	-1.58455E-01	1.01652E+00	-9.22194E-01
22	1.94061E-02	-1.58415E-01	1.01609E+00	-9.22513E-01
23	1.99287E-02	-1.58430E-01	1.01563E+00	-9.22783E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
24	2.044660E-02	-1.59502E-01	1.01515E+00	-9.23003E-01
25	2.09538E-02	-1.54629E-01	1.01465E+00	-9.23169E-01
26	2.14447E-02	-1.58809E-01	1.01413E+00	-9.23280E-01
27	2.19137E-02	-1.59041E-01	1.01361E+00	-9.23335E-01
28	2.23556E-02	-1.59322E-01	1.01308E+00	-9.23332E-01
29	2.27653E-02	-1.59649E-01	1.01256E+00	-9.23271E-01
30	2.31391E-02	-1.60015E-01	1.01204E+00	-9.23155E-01
31	2.34222E-02	-1.60333E-01	1.01163E+00	-9.23035E-01

SECTION NUMBER 8 'Z' = 8.2500

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SECTION PROPERTIES

SECTION AREA = 5.3126E-02

LOCATION OF CENTROID RELATIVE TO STACK AXIS: XBAR = 4.7361E-01, YBAR = -6.4101E-01

SECOND MOMENTS OF AREA ABOUT CENTROID: IX = 2.1213E-03, IY = 3.0604E-03, IXY = -2.5140E-03

PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID: IPX = 3.3369E-05 (AT -39.71 DEGREES TO 'X' AXIS), IPY = 5.1463E-03 (AT -39.71 DEGREES TO 'Y' AXIS)

TORSIONAL CONSTANT = 3.8777E-05

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	2.66918E-02	-1.77318E-01	1.88287E-02	-1.83222E-01
2	3.93445E-02	-1.91994E-01	2.91617E-02	-1.99572E-01
3	6.64275E-02	-2.23405E-01	5.19354E-02	-2.34500E-01
4	9.33092E-02	-2.54151E-01	7.49170E-02	-2.68563E-01
5	1.19979E-01	-2.84211E-01	9.81140E-02	-3.01784E-01
6	1.46451E-01	-3.13593E-01	1.21518E-01	-3.34155E-01
7	1.72731E-01	-3.42299E-01	1.45115E-01	-3.65681E-01
8	1.98827E-01	-3.70330E-01	1.68900E-01	-3.96364E-01
9	2.24746E-01	-3.97691E-01	1.92864E-01	-4.26205E-01
10	2.50497E-01	-4.24385E-01	2.16997E-01	-4.55208E-01
11	2.76088E-01	-4.50420E-01	2.41292E-01	-4.83376E-01
12	3.01527E-01	-4.75801E-01	2.65739E-01	-5.10714E-01
13	3.26824E-01	-5.00536E-01	2.90330E-01	-5.37228E-01
14	3.51986E-01	-5.24633E-01	3.15054E-01	-5.62925E-01
15	3.77022E- 1	-5.49102E-01	3.39904E-01	-5.87813E-01
16	4.01941E-01	-5.72953E-01	3.64871E-01	-6.11899E-01
17	4.26751E-01	-5.96197E-01	3.89945E-01	-6.35194E-01
18	4.51460E-01	-6.18845E-01	4.15117E-01	-6.57706E-01
19	4.76076E-01	-6.39911E-01	4.40379E-01	-6.79447E-01
20	5.00608E-01	-6.56407E-01	4.65722E-01	-7.00428E-01
21	5.25064E-01	-6.76349E-01	4.91137E-01	-7.20663E-01
22	5.49450E-01	-6.95750E-01	5.16615E-01	-7.40164E-01
23	5.73775E-01	-7.14627E-01	5.42147E-01	-7.58948E-01
24	5.98046E-01	-7.32997E-01	5.67726E-01	-7.77029E-01
25	6.22271E-01	-7.50876E-01	5.93344E-01	-7.94425E-01

POINT NO	XS	YS	XP	YP
26	5.464956E-01	-7.695282E-01	6.189991E-01	-8.11153E-01
27	6.706037E-01	- 85231E-01	6.446613-01	-8.27232E-01
28	6.94733E-01	-8.01740E-01	6.70348E-01	-8.42680E-01
29	7.188439E-01	-8.17825E-01	6.960459E-01	-8.57515E-01
30	7.429271E-01	-8.33504E-01	7.21746E-01	-8.71759E-01
31	7.670314E-01	-8.48797E-01	7.47448E-01	-8.85421E-01
32	7.910944E-01	-8.63721E-01	7.73146E-01	-8.98531E-01
33	8.151175E-01	-8.78297E-01	7.98838E-01	-9.1111CE-01
34	8.390261E-01	-8.92543E-01	8.24520E-01	-9.23179E-01
35	8.63355E-01	-9.064822E-01	8.50191E-01	-9.34762E-01
36	8.874659E-01	-9.20135E-01	8.75850E-01	-9.45883E-01
37	9.11577E-01	-9.33524E-01	9.01497E-01	-9.56569E-01
38	9.357106E-01	-9.46673E-01	9.27133E-01	-9.66846E-01
39	9.598511E-01	-9.59607E-01	9.52757E-01	-9.76740E-01
40	9.83939E-01	-9.72347E-01	9.78344E-01	-9.86285E-01
41	1.00319E+00	-9.84909E-01	1.00398E+00	-9.95480E-01
42	1.01528E+00	-9.88596E-01	1.01147E+00	-9.98143E-01

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.832397E-02	-1.83222E-01	1.01526E+00	-9.88596E-01
2	1.864388E-02	-1.82935E-01	1.01557E+00	-9.88747E-01
3	1.839122E-02	-1.82469E-01	1.01604E+00	-9.89021E-01
4	1.813917E-02	-1.81978E-01	1.01648E+00	-9.89345E-01
5	1.802693E-02	-1.81468E-01	1.01688E+00	-9.89715E-01
6	1.792746E-02	-1.80943E-01	1.01724E+00	-9.90127E-01
7	1.7d8446E-02	-1.80411E-01	1.01755E+00	-9.90577E-01
8	1.785846E-02	-1.79877E-01	1.01782E+00	-9.91058E-01
9	1.796435E-02	-1.793439E-01	1.01804E+00	-9.91567E-01
10	1.909526E-02	-1.78829E-01	1.01920E+00	-9.92096E-01
11	1.82777E-02	-1.79327E-01	1.01831E+00	-9.92639E-01
12	1.851117E-02	-1.77847E-01	1.01836E+00	-9.93191E-01
13	1.879564E-02	-1.77395E-01	1.01936E+00	-9.93746E-01
14	1.912598E-02	-1.7o976E-01	1.01829E+00	-9.94295E-01
15	1.949889E-02	-1.76594E-01	1.01817E+00	-9.94835E-01
16	1.991175E-02	-1.76255E-01	1.01800E+00	-9.95357E-01
17	2.035596E-02	-1.75961E-01	1.01777E+00	-9.95857E-01
18	2.084171E-02	-1.75717E-01	1.01749E+00	-9.96327E-01
19	2.132746E-02	-1.75525E-01	1.01717E+00	-9.96764E-01
20	2.182423E-02	-1.75388E-01	1.01680E+00	-9.97162E-01
21	2.232659E-02	-1.75306E-01	1.01639E+00	-9.97517E-01
22	2.283115E-02	-1.75281E-01	1.01594E+00	-9.97823E-01
23	2.333229E-02	-1.75314E-01	1.01547E+00	-9.98079E-01
24	2.383911E-02	-1.75403E-01	1.01498E+00	-9.98280E-01
25	2.447J7E-02	-1.75548E-01	1.01446E+00	-9.98425E-01
26	2.495548E-02	-1.75747E-01	1.01393E+00	-9.98511E-01
27	2.543499E-02	-1.75998E-01	1.01340E+00	-9.98539E-01
28	2.587594E-02	-1.76297E-01	1.01286E+00	-9.98507E-01
29	2.628315E-02	-1.76642E-01	1.01234E+00	-9.98416E-01
30	2.664433E-02	-1.77029E-01	1.01182E+00	-9.98267E-01
31	2.693108E-02	-1.77319E-01	1.01147E+00	-9.98143E-01

SECTION NUMBER 9 'Z' = 8.5000

SECTION PROPERTIES

SECTION AREA		=	5.2716E-02
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.7156E-01
	YBAR	=	-7.0309E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	2.4970E-03
	IY	=	3.0312E-03
	IXY	=	-2.7154E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	3.5546E-05 (AT -42.19 DEGREES TO 'X' AXIS)
	IPY	=	5.4976E-03 (AT -42.19 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	3.5206E-05

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	2.86572E-02	-2.05425E-01	2.04023E-02	-2.11079E-01
2	4.11531E-02	-2.21313E-01	3.08028E-02	-2.28517E-01
3	6.81914E-02	-2.55175E-01	5.36065E-02	-2.65617E-01
4	9.50231E-02	-2.88355E-01	7.66098E-02	-3.01845E-01
5	1.21640E-01	-3.23828E-01	9.98211E-02	-3.37222E-01
6	1.48056E-01	-3.52502E-01	1.23226E-01	-3.71742E-01
7	1.74277E-01	-3.83675E-01	1.46820E-01	-4.05409E-01
8	2.00313E-01	-4.14050E-01	1.70593E-01	-4.38222E-01
9	2.26173E-01	-4.43727E-01	1.94537E-01	-4.70184E-01
10	2.51863E-01	-4.72709E-01	2.18645E-01	-5.01295E-01
11	2.77393E-01	-5.01001E-01	2.42909E-01	-5.31559E-01
12	3.02771E-01	-5.28606E-01	2.67320E-01	-5.60978E-01
13	3.28005E-01	-5.55530E-01	2.91869E-01	-5.89557E-01
14	3.53104E-01	-5.81779E-01	3.16548E-01	-6.17302E-01
15	3.78076E-01	-6.07362E-01	3.41347E-01	-6.44218E-01
16	4.02928E-01	-6.32284E-01	3.66258E-01	-6.70311E-01
17	4.27670E-01	-6.56556E-01	3.91273E-01	-6.95587E-01
18	4.52309E-01	-6.80186E-01	4.16382E-01	-7.20055E-01
19	4.76853E-01	-7.03185E-01	4.41577E-01	-7.43723E-01
20	5.01311E-01	-7.25565E-01	4.66851E-01	-7.66600E-01
21	5.25691E-01	-7.47337E-01	4.92194E-01	-7.88696E-01
22	5.50000E-01	-7.68514E-01	5.17598E-01	-8.10021E-01
23	5.74247E-01	-7.89110E-01	5.43056E-01	-8.30589E-01
24	5.98439E-01	-8.09140E-01	5.68558E-01	-8.50412E-01
25	6.22534E-01	-8.28620E-01	5.94099E-01	-8.69503E-01
26	6.46690E-01	-8.47564E-01	6.19669E-01	-8.87879E-01
27	6.70765E-01	-8.65986E-01	6.45263E-01	-9.05555E-01
28	6.94816E-01	-8.83903E-01	6.70875E-01	-9.22544E-01
29	7.18852E-01	-9.01329E-01	6.96499E-01	-9.38863E-01
30	7.42880E-01	-9.19281E-01	7.22132E-01	-9.54528E-01
31	7.66908E-01	-9.34776E-01	7.47770E-01	-9.69555E-01
32	7.90941E-01	-9.50831E-01	7.73410E-01	-9.83963E-01
33	8.14987E-01	-9.65466E-01	7.99050E-01	-9.97772E-01
34	8.39049E-01	-9.81700E-01	8.24685E-01	-1.01100E+00
35	8.63133E-01	-9.96554E-01	8.50324E-01	-1.02368E+00

POINT NO	XS	YS	XP	YP
36	8.87243E-01	-1.01105E+00	8.75957E-01	-1.03582E+00
37	9.11382E-01	-1.02521E+00	9.01588E-01	-1.04746E+00
38	9.35552E-01	-1.03906E+00	9.27220E-01	-1.05862E+00
39	9.59760E-01	-1.05262E+00	9.52849E-01	-1.06933E+00
40	9.83999E-01	-1.06591E+00	9.78494E-01	-1.07963E+00
41	1.00628E+00	-1.07896E+00	1.00412E+00	-1.08951E+00
42	1.01520E+00	-1.08267E+00	1.01139E+00	-1.09227E+00

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	2.04023E-02	-2.11079E-01	1.01520E+00	-1.08267E+00
2	2.02421E-02	-2.10807E-01	1.01547E+00	-1.08231E+00
3	1.99909E-02	-2.10328E-01	1.01594E+00	-1.08310E+00
4	1.97920E-02	-2.09825E-01	1.01638E+00	-1.08343E+00
5	1.96477E-02	-2.09304E-01	1.01678E+00	-1.08381E+00
6	1.95598E-02	-2.08771E-01	1.01715E+00	-1.08423E+00
7	1.95291E-02	-2.08232E-01	1.01747E+00	-1.08469E+00
8	1.95562E-02	-2.07693E-01	1.01774E+00	-1.08519E+00
9	1.96406E-02	-2.07161E-01	1.01796E+00	-1.08571E+00
10	1.97814E-02	-2.06641E-01	1.01813E+00	-1.08625E+00
11	1.99769E-02	-2.06140E-01	1.01824E+00	-1.08680E+00
12	2.02250E-02	-2.05663E-01	1.01829E+00	-1.08736E+00
13	2.05227E-02	-2.05216E-01	1.01828E+00	-1.08792E+00
14	2.08667E-02	-2.04804E-01	1.01822E+00	-1.08848E+00
15	2.12529E-02	-2.04431E-01	1.01810E+00	-1.08903E+00
16	2.16768E-02	-2.04103E-01	1.01793E+00	-1.08956E+00
17	2.21337E-02	-2.03823E-01	1.01770E+00	-1.09006E+00
18	2.26183E-02	-2.03594E-01	1.01742E+00	-1.09053E+00
19	2.31249E-02	-2.03418E-01	1.01709E+00	-1.09097E+00
20	2.36477E-02	-2.03298E-01	1.01672E+00	-1.09137E+00
21	2.41906E-02	-2.03236E-01	1.01631E+00	-1.09172E+00
22	2.47176E-02	-2.03231E-01	1.01587E+00	-1.09203E+00
23	2.52524E-02	-2.03284E-01	1.01539E+00	-1.09228E+00
24	2.57789E-02	-2.03394E-01	1.01489E+00	-1.09247E+00
25	2.62910E-02	-2.03561E-01	1.01437E+00	-1.09261E+00
26	2.67828E-02	-2.03781E-01	1.01384E+00	-1.09269E+00
27	2.72486E-02	-2.04053E-01	1.01331E+00	-1.09271E+00
28	2.76830E-02	-2.04374E-01	1.01277E+00	-1.09266E+00
29	2.80810E-02	-2.04739E-01	1.01224E+00	-1.09256E+00
30	2.84381E-02	-2.05145E-01	1.01172E+00	-1.09240E+00
31	2.87572E-02	-2.05425E-01	1.01139E+00	-1.09227E+00

SECTION NUMBER 10 'Z' = 8.7500

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SECTION PROPERTIES

SECTION AREA		=	5.3838E-02
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.6662E-01
	YBAR	=	-7.7365E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	2.9203E-03
	IY	=	3.0929E-03
	IXY	=	-2.9631E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	4.2155E-05 (AT -44.17 DEGREES TO 'X' AXIS)
	IPY	=	5.9710E-03 (AT -44.17 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	3.5181E-05

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	2.79421E-02	-2.43084E-01	1.95778E-02	-2.48449E-01
2	4.0E347E-02	-2.60543E-01	3.00931E-02	-2.67413E-01
3	5.76872E-02	-2.97206E-01	5.28173E-02	-3.07180E-01
4	8.49292E-02	-3.33142E-01	7.57479E-02	-3.46036E-01
5	1.21151E-01	-3.64320E-01	9.88931E-02	-3.84002E-01
6	1.47570E-01	-4.02746E-01	1.22240E-01	-4.21068E-01
7	1.73742E-01	-4.35415E-01	1.45782E-01	-4.57234E-01
8	1.99828E-01	-4.69325E-01	1.69512E-01	-4.92497E-01
9	2.25646E-01	-5.01472E-01	1.93423E-01	-5.26857E-01
10	2.51374E-01	-5.32857E-01	2.17508E-01	-5.60310E-01
11	2.7e912e-01	-5.63482E-01	2.41757E-01	-5.92856E-01
12	3.02278E-01	-5.93346E-01	2.66163E-01	-6.24496E-01
13	3.27512E-01	-6.22450E-01	2.90717E-01	-6.55229E-01
14	3.52611E-01	-6.50801E-01	3.15410E-01	-6.85060E-01
15	3.77534E-01	-6.78402E-01	3.40234E-01	-7.13985E-01
16	4.02438E-01	-7.05260E-01	3.65179E-01	-7.42002E-01
17	4.27194E-01	-7.31382E-01	3.90237E-01	-7.69110E-01
18	4.51427E-01	-7.56776E-01	4.15398E-01	-7.95410E-01
19	4.76378E-01	-7.81453E-01	4.40653E-01	-8.20781E-01
20	5.00842E-01	-8.05424E-01	4.65993E-01	-8.45260E-01
21	5.2e229E-01	-8.24700E-01	4.91408E-01	-8.68916E-01
22	5.49545E-01	-8.51296E-01	5.16889E-01	-8.91701E-01
23	5.73739E-01	-8.73226E-01	5.42427E-01	-9.13647E-01
24	5.97896E-01	-8.94509E-01	5.68011E-01	-9.34767E-01
25	6.22146E-01	-9.15150E-01	5.93632E-01	-9.55077E-01
26	6.46255E-01	-9.35197E-01	6.19281E-01	-9.74596E-01
27	6.70352E-01	-9.54635E-01	6.44949E-01	-9.93339E-01
28	6.94388E-01	-9.73489E-01	6.70631E-01	-1.01132E+00
29	7.18431E-01	-9.91777E-01	6.96323E-01	-1.02856E+00
30	7.42472E-01	-1.00951E+00	7.22021E-01	-1.04507E+00
31	7.66520E-01	-1.02572E+00	7.47722E-01	-1.06086E+00
32	7.90583E-01	-1.04341E+00	7.73425E-01	-1.07597E+00
33	8.14669E-01	-1.05960E+00	7.99129E-01	-1.09042E+00
34	8.38788E-01	-1.07532E+00	8.24834E-01	-1.10418E+00
35	8.62943E-01	-1.09059E+00	8.50542E-01	-1.11733E+00
36	8.87141E-01	-1.10542E+00	8.76254E-01	-1.12988E+00
37	9.11389E-01	-1.11985E+00	9.01972E-01	-1.14186E+00
38	9.35693E-01	-1.13390E+00	9.27701E-01	-1.15329E+00
39	9.60052E-01	-1.14760E+00	9.53439E-01	-1.16420E+00
40	9.84462E-01	-1.16096E+00	9.79209E-01	-1.17463E+00
41	1.00897E+00	-1.17401E+00	1.00497E+00	-1.18458E+00
42	1.01551E+00	-1.17747E+00	1.01182E+00	-1.18719E+00

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.95778E-02	-2.48449E-01	1.01551E+00	-1.17747E+00
2	1.94301E-02	-2.48180E-01	1.01577E+00	-1.17761E+00
3	1.91911E-02	-2.47688E-01	1.01624E+00	-1.17790E+00
4	1.90050E-02	-2.47174E-01	1.01669E+00	-1.17823E+00
5	1.88739E-02	-2.46644E-01	1.01710E+00	-1.17861E+00
6	1.87932E-02	-2.46104E-01	1.01747E+00	-1.17904E+00
7	1.87619E-02	-2.45560E-01	1.01780E+00	-1.17950E+00
8	1.87823E-02	-2.45018E-01	1.01808E+00	-1.18000E+00
9	1.88197E-02	-2.44485E-01	1.01831E+00	-1.18052E+00

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
10	1.90731E-02	-2.43967E-01	1.01848E+00	-1.18107E+00
11	1.92808E-02	-2.43470E-01	1.01860E+00	-1.18162E+00
12	1.95402E-02	-2.42999E-01	1.01866E+00	-1.18219E+00
13	1.98435E-02	-2.42560E-01	1.01866E+00	-1.18276E+00
14	2.02023E-02	-2.42159E-01	1.01861E+00	-1.18332E+00
15	2.05987E-02	-2.41799E-01	1.01850E+00	-1.18388E+00
16	2.10290E-02	-2.41485E-01	1.01833E+00	-1.18441E+00
17	2.14909E-02	-2.41220E-01	1.01811E+00	-1.18492E+00
18	2.19800E-02	-2.41008E-01	1.01783E+00	-1.18540E+00
19	2.24937E-02	-2.40851E-01	1.01751E+00	-1.18585E+00
20	2.30142E-02	-2.40751E-01	1.01714E+00	-1.18625E+00
21	2.35472E-02	-2.40709E-01	1.01674E+00	-1.18661E+00
22	2.40827E-02	-2.40726E-01	1.01629E+00	-1.18692E+00
23	2.46145E-02	-2.40800E-01	1.01582E+00	-1.18717E+00
24	2.51364E-02	-2.40933E-01	1.01532E+00	-1.18737E+00
25	2.56423E-02	-2.41121E-01	1.01481E+00	-1.18751E+00
26	2.61265E-02	-2.41362E-01	1.01428E+00	-1.18760E+00
27	2.65833E-02	-2.41655E-01	1.01374E+00	-1.18761E+00
28	2.70074E-02	-2.41996E-01	1.01320E+00	-1.18757E+00
29	2.73940E-02	-2.42380E-01	1.01267E+00	-1.18747E+00
30	2.77385E-02	-2.42803E-01	1.01215E+00	-1.18731E+00
31	2.79421E-02	-2.43084E-01	1.01182E+00	-1.18719E+00

SECTION NUMBER 11 'Z' = 9.0000

****

SECTION PROPERTIES

SECTION AREA		=	5.5179E-02
LOCATION OF CENTROID RELATIVE TO STACK AXIS	XBAR	=	4.6112E-01
	YBAR	=	-5.4474E-01
SECOND MOMENTS OF AREA ABOUT CENTROID	IX	=	3.3658E-03
	IY	=	3.1704E-03
	IXY	=	-3.2179E-03
PRINCIPAL SECOND MOMENTS OF AREA ABOUT CENTROID	IPX	=	6.4875E-03 (AT 44.13 DEGREES TO 'X' AXIS)
	IPY	=	4.8726E-05 (AT 44.13 DEGREES TO 'Y' AXIS)
TORSIONAL CONSTANT		=	3.5698E-05

SECTION COORDINATES

POINT NO	XS	YS	XP	YP
1	2.65201E-02	-2.84231E-01	1.80709E-02	-2.89335E-01
2	3.94714E-02	-3.03347E-01	2.87343E-02	-3.09943E-01
3	6.65645E-02	-3.42774E-01	5.13684E-02	-3.52385E-01
4	9.34471E-02	-3.81408E-01	7.42255E-02	-3.93857E-01
5	1.20113E-01	-4.19214E-01	9.73132E-02	-4.34375E-01
6	1.46576E-01	-4.56193E-01	1.20618E-01	-4.73926E-01
7	1.72844E-01	-4.92341E-01	1.44135E-01	-5.12509E-01
8	1.98927E-01	-5.27653E-01	1.67856E-01	-5.50118E-01
9	2.24833E-01	-5.62123E-01	1.91772E-01	-5.86753E-01
10	2.50570E-01	-5.95751E-01	2.15878E-01	-6.22407E-01
11	2.76147E-01	-6.28537E-01	2.40161E-01	-6.57086E-01

POINT NO	XS	YS	XP	YP
12	3.01573E-01	-6.60480E-01	2.64614E-01	-6.90769E-01
13	3.26855E-01	-6.91582E-01	2.89226E-01	-7.23477E-01
14	3.52001E-01	-7.21848E-01	3.13988E-01	-7.55206E-01
15	3.77020E-01	-7.51283E-01	3.38890E-01	-7.85957E-01
16	4.01919E-01	-7.79892E-01	3.63922E-01	-8.15734E-01
17	4.26706E-01	-8.07683E-01	3.89073E-01	-8.44540E-01
18	4.51389E-01	-8.34666E-01	4.14333E-01	-8.72385E-01
19	4.75975E-01	-8.60854E-01	4.39691E-01	-8.99274E-01
20	5.00473E-01	-8.86257E-01	4.65136E-01	-9.25217E-01
21	5.24888E-01	-9.10889E-01	4.90658E-01	-9.50224E-01
22	5.49228E-01	-9.34766E-01	5.16245E-01	-9.74308E-01
23	5.73500E-01	-9.57905E-01	5.41886E-01	-9.97484E-01
24	5.97711E-01	-9.80326E-01	5.67570E-01	-1.01977E+00
25	6.21860E-01	-1.00205E+00	5.93285E-01	-1.04117E+00
26	6.45950E-01	-1.02309E+00	6.19020E-01	-1.06172E+00
27	6.70057E-01	-1.04347E+00	6.44766E-01	-1.08144E+00
28	6.94110E-01	-1.06320E+00	6.70518E-01	-1.10033E+00
29	7.18152E-01	-1.08229E+00	6.96273E-01	-1.11842E+00
30	7.42196E-01	-1.10077E+00	7.22029E-01	-1.13571E+00
31	7.66253E-01	-1.11865E+00	7.47786E-01	-1.15223E+00
32	7.90335E-01	-1.13594E+00	7.73542E-01	-1.16799E+00
33	8.14451E-01	-1.15268E+00	7.99302E-01	-1.18302E+00
34	8.38615E-01	-1.16886E+00	8.25064E-01	-1.19733E+00
35	8.62838E-01	-1.18453E+00	8.50835E-01	-1.21094E+00
36	8.87108E-01	-1.19971E+00	8.76617E-01	-1.22389E+00
37	9.11456E-01	-1.21441E+00	9.02415E-01	-1.23619E+00
38	9.35879E-01	-1.22866E+00	9.28234E-01	-1.24786E+00
39	9.60392E-01	-1.24249E+00	9.54075E-01	-1.25899E+00
40	9.84975E-01	-1.25592E+00	9.79964E-01	-1.26956E+00
41	1.00958E+00	-1.26897E+00	1.00585E+00	-1.27958E+00
42	1.01585E+00	-1.27220E+00	1.01228E+00	-1.28202E+00

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
1	1.80709E-02	-2.89335E-01	1.01585E+00	-1.27220E+00
2	1.79339E-02	-2.89065E-01	1.01610E+00	-1.27233E+00
3	1.77074E-02	-2.88563E-01	1.01658E+00	-1.27262E+00
4	1.75341E-02	-2.88039E-01	1.01703E+00	-1.27295E+00
5	1.74159E-02	-2.87501E-01	1.01745E+00	-1.27334E+00
6	1.73544E-02	-2.86955E-01	1.01783E+00	-1.27376E+00
7	1.73500E-02	-2.86407E-01	1.01816E+00	-1.27423E+00
8	1.74030E-02	-2.85863E-01	1.01845E+00	-1.27473E+00
9	1.75128E-02	-2.85329E-01	1.01868E+00	-1.27526E+00
10	1.76779E-02	-2.84813E-01	1.01887E+00	-1.27581E+00
11	1.78966E-02	-2.84319E-01	1.01899E+00	-1.27637E+00
12	1.81662E-02	-2.83854E-01	1.01906E+00	-1.27694E+00
13	1.84838E-02	-2.83423E-01	1.01907E+00	-1.27752E+00
14	1.88455E-02	-2.83031E-01	1.01903E+00	-1.27809E+00
15	1.92472E-02	-2.82683E-01	1.01892E+00	-1.27865E+00
16	1.96842E-02	-2.82381E-01	1.01876E+00	-1.27919E+00
17	2.01516E-02	-2.82131E-01	1.01854E+00	-1.27971E+00
18	2.06438E-02	-2.81935E-01	1.01828E+00	-1.28019E+00
19	2.11551E-02	-2.81795E-01	1.01796E+00	-1.28064E+00
20	2.16796E-02	-2.81713E-01	1.01760E+00	-1.28105E+00
21	2.22113E-02	-2.81689E-01	1.01719E+00	-1.28142E+00
22	2.27440E-02	-2.81725E-01	1.01675E+00	-1.28173E+00
23	2.32715E-02	-2.81819E-01	1.01628E+00	-1.28199E+00

POINT NO	XSEMI	YSEMI	XSEMJ	YSEMJ
24	2.37876E-02	-2.81970E-01	1.01579E+00	-1.28220E+00
25	2.42865E-02	-2.82178E-01	1.01527E+00	-1.28234E+00
26	2.47622E-02	-2.82439E-01	1.01474E+00	-1.28242E+00
27	2.52094E-02	-2.82750E-01	1.01420E+00	-1.28245E+00
28	2.56228E-02	-2.83108E-01	1.01366E+00	-1.28241E+00
29	2.59976E-02	-2.83508E-01	1.01313E+00	-1.28230E+00
30	2.63294E-02	-2.83947E-01	1.01260E+00	-1.28214E+00
31	2.65201E-02	-2.84231E-01	1.01228E+00	-1.28202E+00

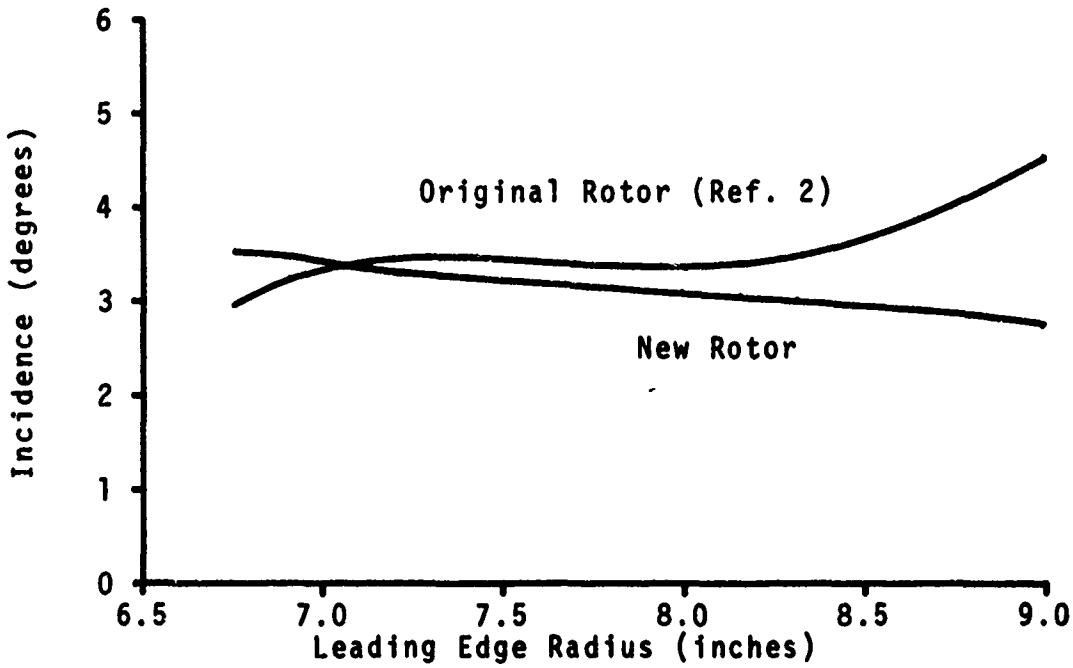

Figure 1. Radial Distribution of Rotor Incidence Angle

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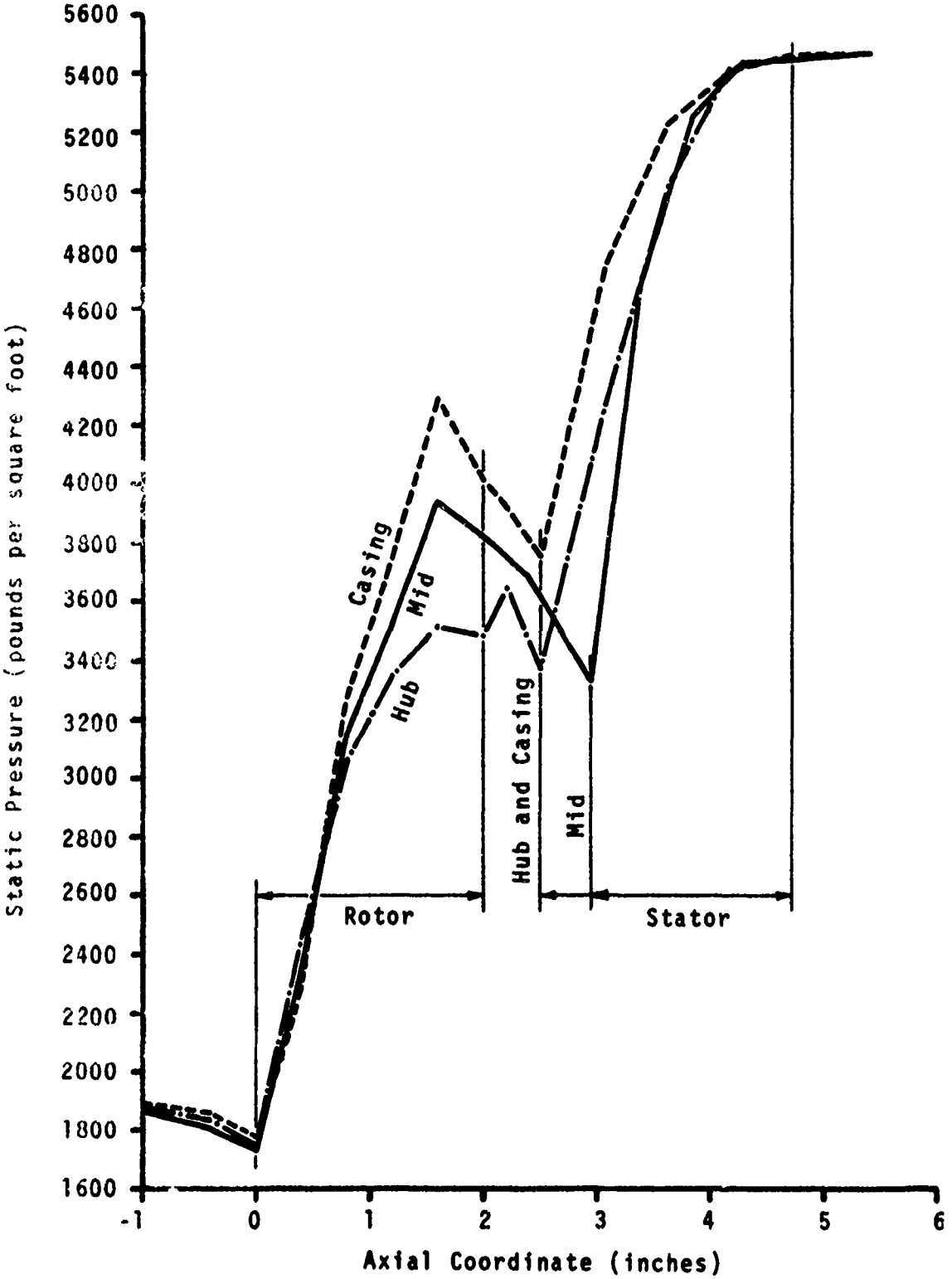

Figure 2. Meridional Static Pressure Distributions

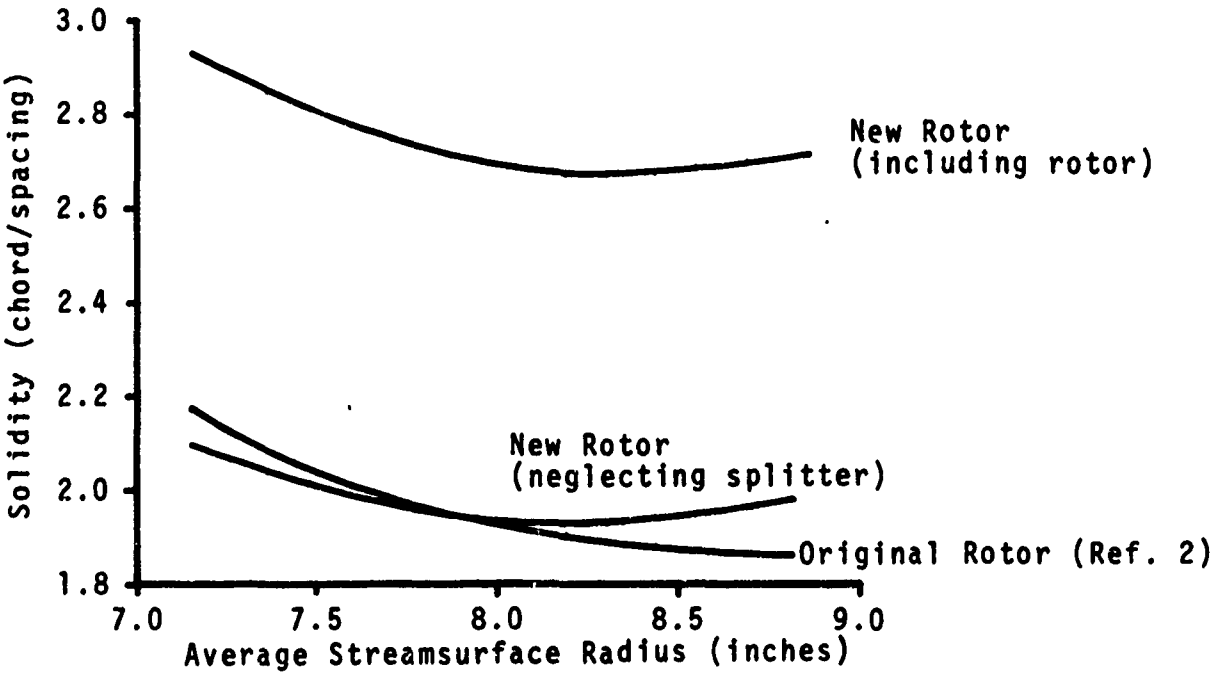

Figure 3. Radial Distribution of Rotor Solidity

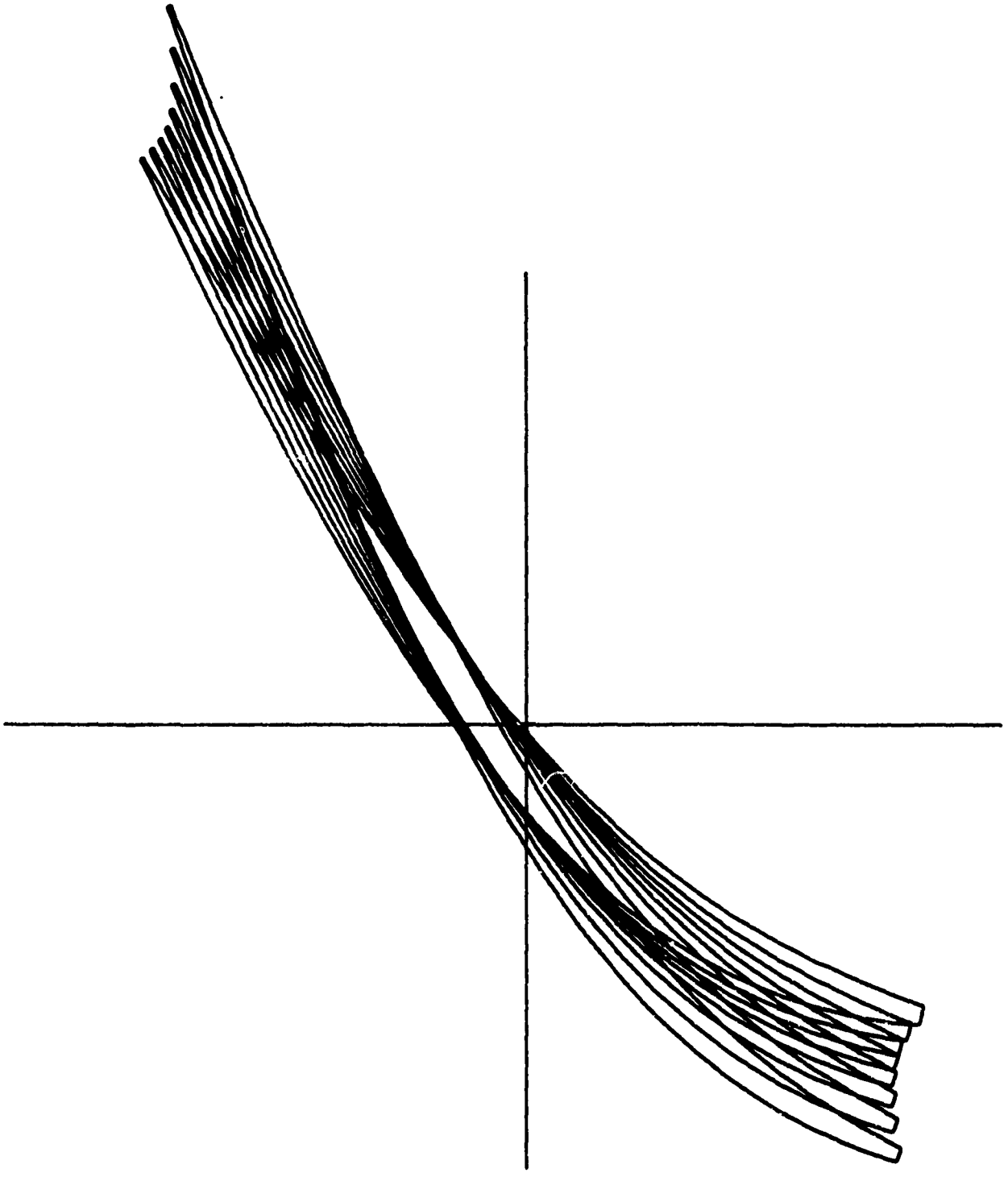

Figure 4. Superimposed Plots of Principal Blade Streamsurface Sections

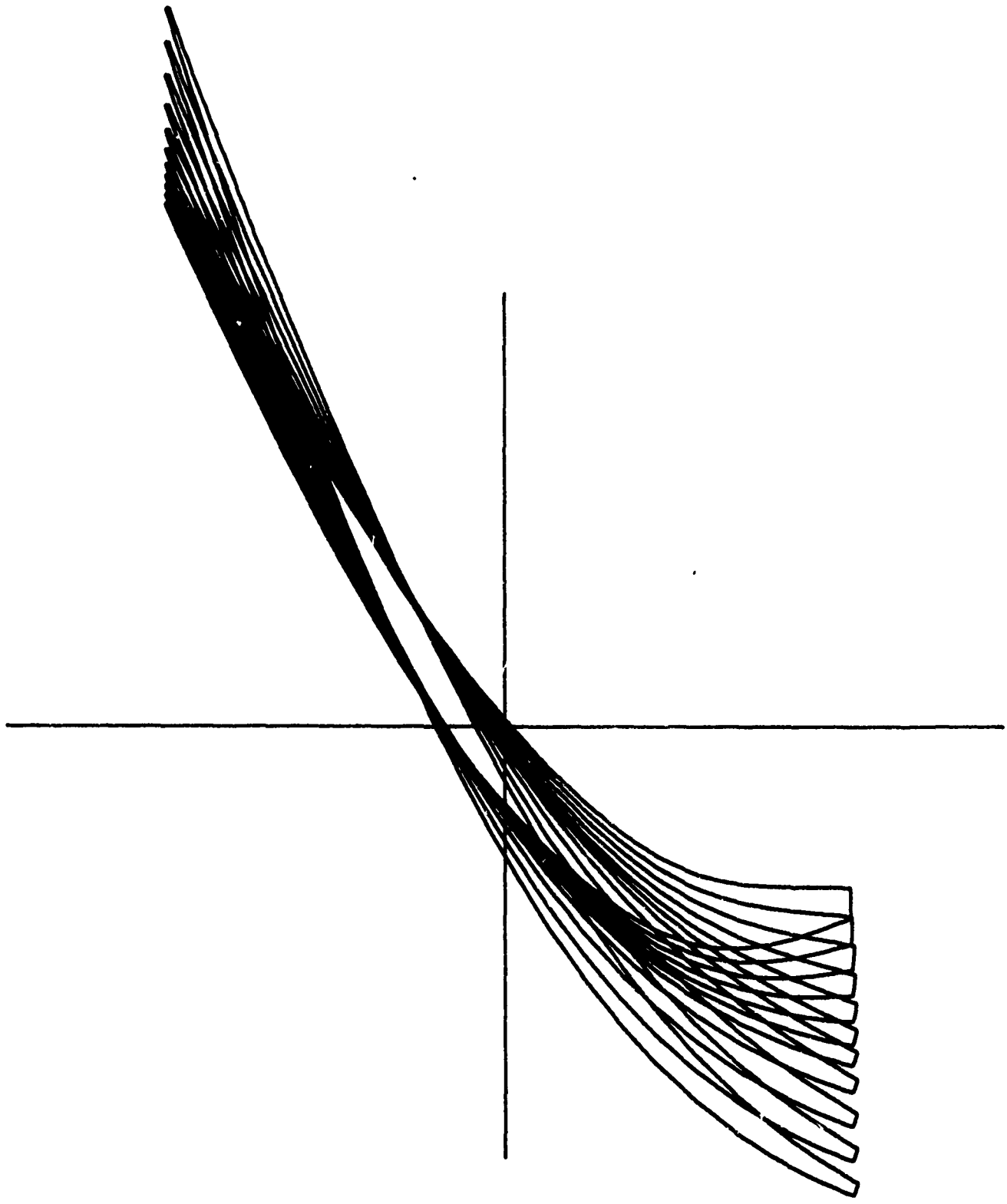

Figure 5. Superimposed Plots of Principal Blade Cartesian (Manufacturing) Sections

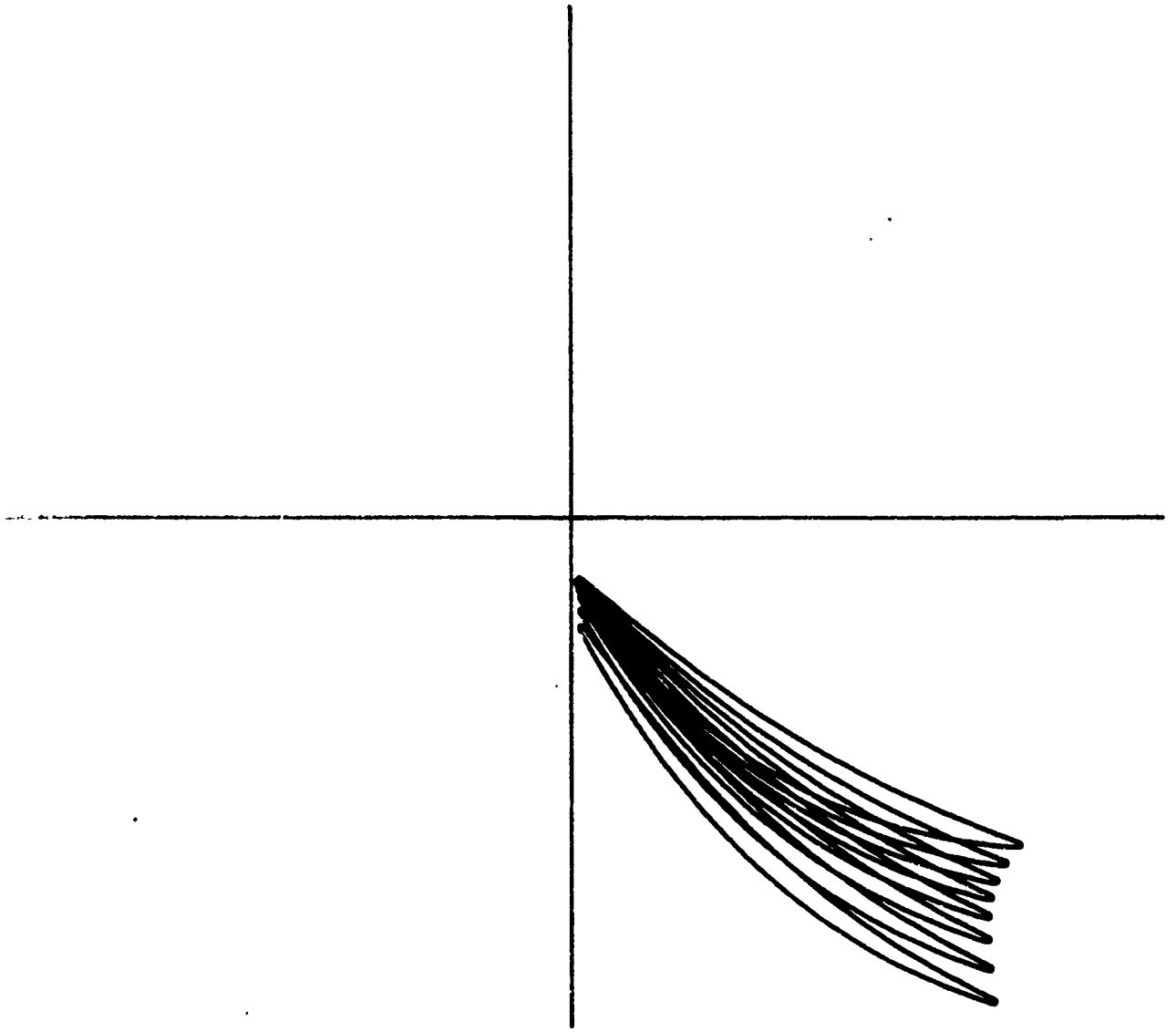

Figure 6. Superimposed Plots of Splitter Vane Streamsurface Sections

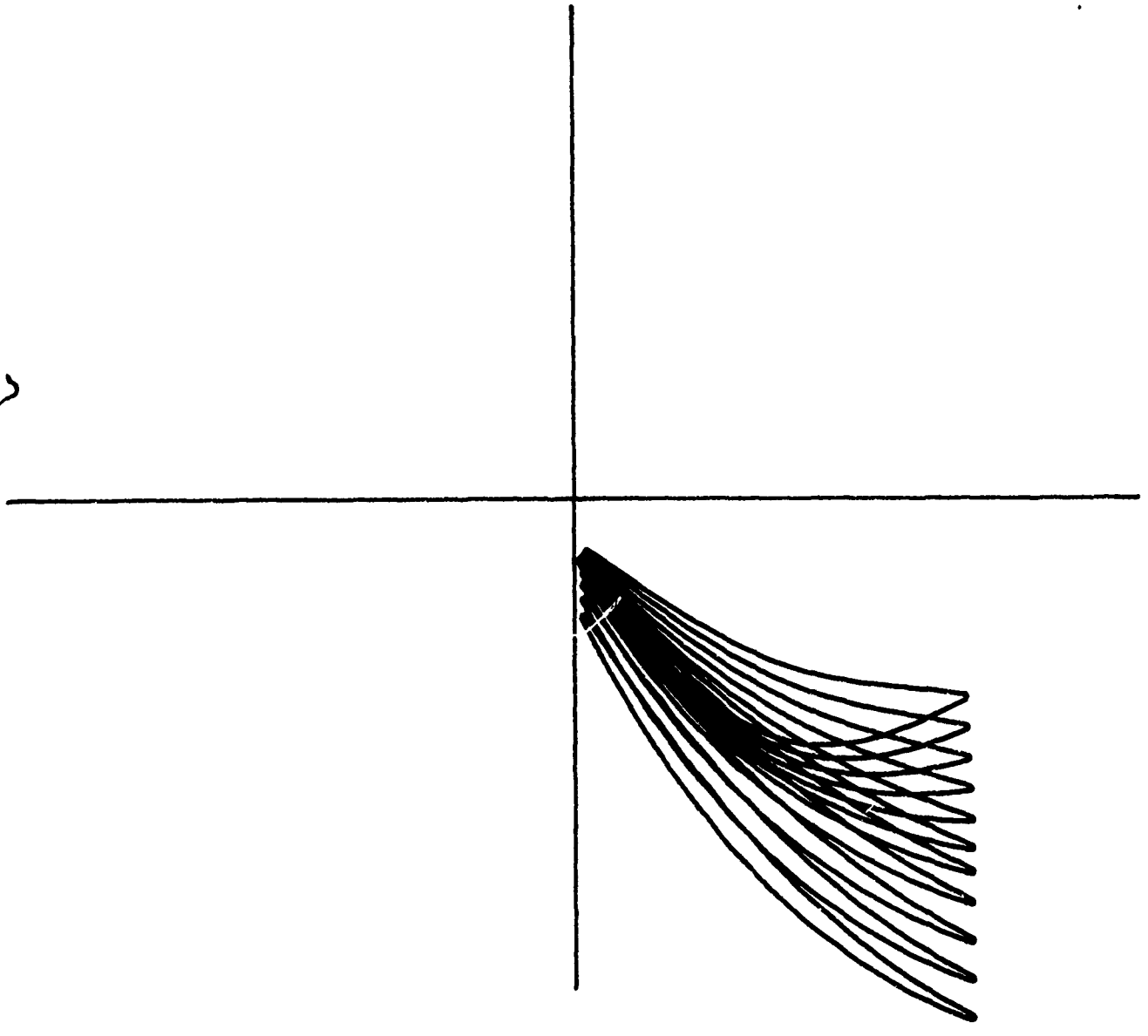

Figure 7. Superimposed Plots of Splitter Vane Cartesian (Manufacturing) Sections

TABLE I

ROTOR HUB FLOWPATH COORDINATES

x	r
0	6.732
.1	6.768
.2	6.804
.3	6.841
.4	6.880
.5	6.922
.6	6.967
.7	7.014
.8	7.060
.9	7.106
1.0	7.152
1.1	7.197
1.2	7.243
1.3	7.291
1.4	7.337
1.5	7.382
1.6	7.423
1.7	7.459
1.8	7.489
1.9	7.514
2.0	7.532

REFERENCES

1. Wennerstrom, A. J., Frost, G. R., and DeRose, R. D., "Test of an Axial Compressor Stage Designed for a Total Pressure Ratio of 3 to 1," Aerospace Research Laboratories, Wright-Patterson AFB, Ohio, ARL TR 74-0001, January 1974. (AD 778 844)

2. Wennerstrom, A. J. and Hearsey, R. M., "The Design of an Axial Compressor Stage for a Total Pressure Ratio of 3 to 1," Aerospace Research Laboratories, Wright-Patterson AFB, Ohio, ARL TR 71-0061, AD 727001, March 1971.

3. Frost, G. R., Hearsey, R. M., and Wennerstrom, A. J., "A Computer Program for the Specification of Axial Compressor Airfoils," Aerospace Research Laboratories, Wright-Patterson AFB, Ohio, ARL TR 72-0171, AD 756879, December 1972.

4. Frost, G. R., "Modifications to ARL Computer Programs Used for Design of Axial Compressor Airfoils," Aerospace Research Laboratories, Wright-Patterson AFB, Ohio, ARL TR 74-0060, June 1974.

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