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Physical Properties of the Benchmark Models Program Supercritical Wing

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Abstract

The goal of the Benchmark Models Program is to provide data useful in the development and evaluation of aeroelastic computational fluid dynamics (CFD) codes. To that end, a series of three similar wing models are being flutter tested in the Langley Transonic Dynamics Tunnel. These models are designed to simultaneously acquire model response data and unsteady surface pressure data during wing flutter conditions. The supercritical wing is the second model of this series. It is a rigid semispan model with a rectangular planform and a NASA SC(2)-0414 supercritical airfoil shape. The supercritical wing model was flutter tested on a flexible mount, called the Pitch and Plunge Apparatus, that provides a well-defined, two-degree-of-freedom dynamic system. This report describes the supercritical wing model and associated flutter test apparatus and includes experimentally determined wind-off structural dynamic characteristics of the combined rigid model and flexible mount system.

Introduction

A significant number of aircraft aeroelastic problems such as buffet, control-surface buzz, limit-cycle oscillations, and shock-induced oscillations occur at transonic speeds. Conventional flutter is of greatest concern at transonic Mach numbers as well. Aeroelastic analysis using computational fluid dynamics (CFD) codes holds promise for analysis of all these phenomena (ref. 1). Even for the conventional flutter problem, however, the assessment of CFD codes in the transonic Mach number regime is currently far from complete.

One difficulty in the evaluation of CFD codes is the lack of well-documented experimental data sets. Some of the existing data sets, for example, provide only the flutter boundary defined in terms of the test conditions such as dynamic pressure and Mach number at flutter with the flutter frequency sometimes omitted. Few of the flutter investigations provide quantitative details of the flow field at the flutter condition. These data sets are useful as a guide for CFD code evaluation, but when analytical and experimental results do not correlate well, there is often not enough information available to determine the source of the discrepancy.

Recognizing this difficulty, the Structural Dynamics Division of the Langley Research Center initiated the Benchmark Models Program (BMP). This wind-tunnel test program investigates unsteady flow phenomena to facilitate the development and evaluation of computational aeroelastic codes (refs. 2 to 6). Also, the BMP is assisting in CFD code evaluation by performing tests that produce combined flutter and unsteady pressure data sets. Some flutter tests are conducted on a series of rigid, instrumented semispan models with a flexible mount. This flexible mount system, the Pitch and Plunge Apparatus (PAPA), allows the rigid models to achieve classical flutter by using a well-defined dynamic system. The tests of the flexible PAPA mount and the rigid, instrumented models produce data including both model and mount dynamic response and unsteady surface pressures recorded at flutter.

The supercritical wing described in this report is the second in a series of three similar models that the BMP is testing in the Langley Transonic Dynamics Tunnel (TDT) with the PAPA mount. All three models are rigid rectangular wings with the same planform but with different airfoil shapes. All three models have nearly identical wind-off dynamic characteristics because these characteristics are determined by the flexible PAPA mount. The first model to be tested in this series was the NACA 0012 model. A description of this model and the test results obtained with it are found in references 4 and 5. The third model in this series has an NACA 64A010 airfoil.

This report correlates CFD results with the experimental data acquired with this supercritical wing model. Included in the report are complete descriptions of the model, the PAPA mount, and associated test hardware. Experimentally determined wind-off structural dynamic properties, model airfoil shape, and pressure orifice locations are also included.

Symbols and Abbreviations

A_z	amplitude of plunge motion, in.
A_θ	amplitude of pitch motion, deg
BMP	Benchmark Models Program
CFD	computational fluid dynamics
FFT	fast Fourier transform
f_z	wind-off plunge mode frequency, Hz
f_θ	wind-off pitch mode frequency, Hz
GVT	ground vibration test
PAPA	Pitch and Plunge Apparatus
SGB	strain gage bridge
x	chordwise distance from wing leading edge, in.
x/c	fraction of chord length
y	spanwise distance from wing root, in.
z	vertical distance from wing leading edge, in.
ζ	fraction of critical damping
ζ_z	fraction of critical damping for plunge mode
ζ_θ	fraction of critical damping for pitch mode

Test Apparatus

Model Description

The supercritical wing used in this test has a simple rectangular planform and a NASA SC(2)-0414 second generation supercritical airfoil section. The chord of the model is 16 in. and the span is 32 in. These dimensions result in a panel aspect ratio of 2. At the 32-in-span station, the model terminates in a tip of revolution where the radius is equal to half the airfoil thickness at each position along the chord. Figure 1 presents a top-view sketch of the model.

Figure 2 shows an outline of the NASA SC(2)-0414 supercritical airfoil section. This section was selected from several airfoils described in reference 7. The SC(2) designation indicates it is part of the family of second generation supercritical airfoils, and the 0414 indicates that the airfoil section has a design lift coefficient of 0.4 and a maximum thickness of 14 percent of the chord. The lift coefficient and thickness of the airfoil section were selected because
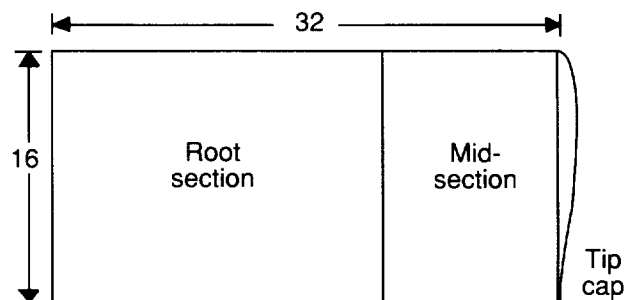
Figure 1. Planform of model. Dimensions are in inches.
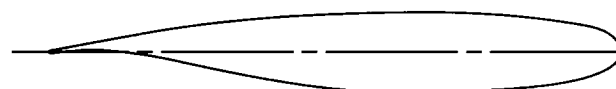
Figure 2. NASA SC(2)-0414 airfoil.

of the flexible PAPA mount load limits and the internal volume required for pressure measurement instrumentation. Prior to flutter testing, the fidelity of the fabricated model with the design airfoil shape was experimentally determined at hundreds of locations on both the upper and lower surfaces. The surface measurements, with only a few exceptions, agreed within a tolerance of ±0.005 in. with the airfoil design coordinates. The design coordinates and the surface measurement results are in the appendix.

Figure 1 shows the root section, midsection, and tip cap of the supercritical wing. A photograph of the model with the three sections detached is presented in figure 3. The midsection and root
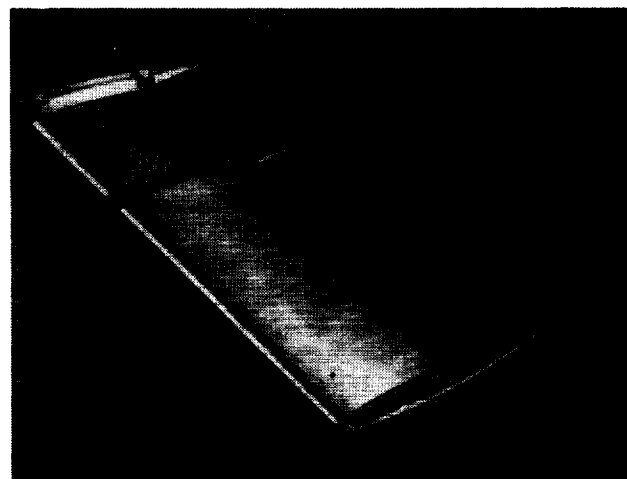
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Figure 3. Model disassembled.

section are solid aluminum with several access holes and the aluminum tip cap is hollow. The inboard and
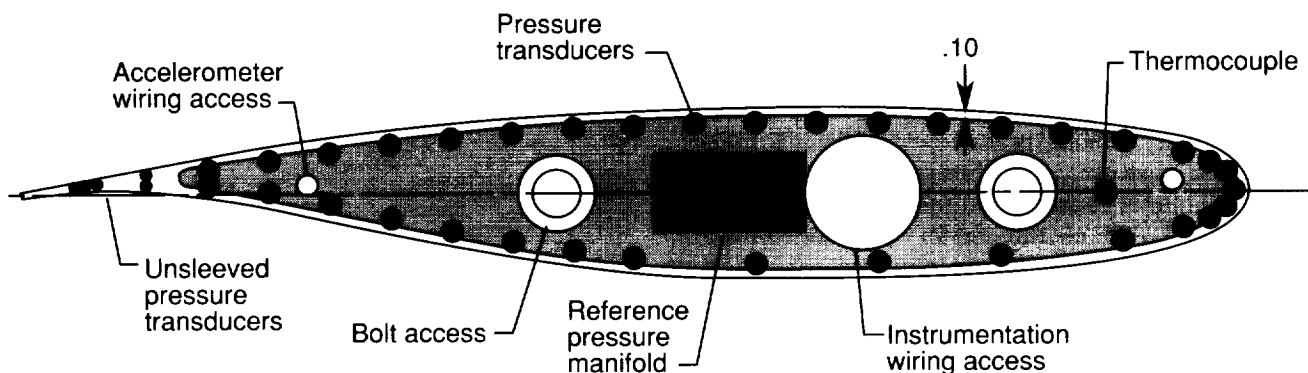
Figure 4. Midsection outboard edge. Dimension is in inches.

outboard edges of these sections are recessed 0.15 in. with a 0.1-in-thick rim. When the root section and midsection are attached, a cavity is created to allow room for instrumentation wiring and reference pressure tubing. Figure 4 is a sketch of the end view of the midsection with the recessed instrumentation cavity shaded.

Figure 4 also shows the access holes for both sections. The large-diameter hole at the 30-percent chord location is a passageway for instrumentation wiring and reference pressure tubing. The 40 small holes near the surface are drilled spanwise 1.25 in. into the sections and are for the installation of the differential pressure transducers. The midsection attaches to the root section with two bolts that are reached through the bolt access holes also shown in the figure.

The break points of the model sections allow access for installation, repair, and removal of the *in situ* pressure measurement instrumentation. To facilitate access to this instrumentation, the midsection and tip cap unbolt from the outboard end so that these sections can be separated and the instrumentation accessed with a minimum of delay and without the removal of the model from the PAPA mount system.

The tip cap is a hollowed out section with a wall thickness of 0.10 in. It is attached to the midsection with two small bolts, each with a shear pin. The seam between the tip cap and midsection is at the 31.8-in-span station, which is 0.2 in. inboard of the tip of revolution. When the tip cap is attached, the two small bolts are recessed below the surface of the tip of revolution and covered with dental plaster to provide a smooth surface.

The supercritical wing contains 80 differential pressure transducers. The 40 housed in the out-

board edge of the midsection provide the surface pressure distribution at the 95-percent-span station ($y = 30.4$ in.), and the 40 housed in the outboard edge of the root section provide the surface pressure distribution at the 60-percent-span station ($y = 19.2$ in.). Figure 5 indicates the locations of these two rows of pressure orifices in the spanwise direction. The chordwise distribution of the pressure transducers is identical for both spanwise stations. (See fig. 4.) At each spanwise station there are 23 pressure orifices on the upper surface (including 1 each at the leading and trailing edges) and 17 on the lower surface. The measured x/c locations for all 80 pressure orifices are documented in the appendix.
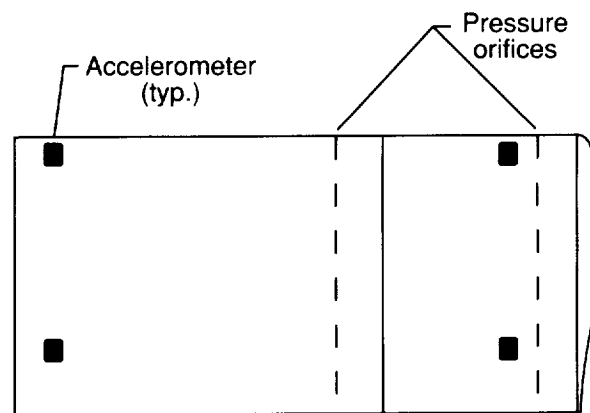
Figure 5. Model instrumentation.

The differential pressure transducers are rated for measurements up to 5 psid and are cylindrical with a nominal diameter of 0.093 in. and a length of 0.6 in. To protect the transducers during installation and removal, most were housed in a protective brass sleeve with an inside diameter of 0.1 in. and an outside

3

diameter of 0.12 in. However, because the supercritical airfoil is very thin near the trailing edge, modifications in the standard pressure transducer housing arrangement were required and the five pressure transducers located in the most aft positions were installed without brass sleeves (fig. 4). The sleeved and unsleeved transducers were bonded into 0.125-in-diameter holes drilled spanwise 1.25 in. into the outboard end of the model root section and midsection. Figure 6 shows a sketch of an installed transducer and sleeve, while figures 7 to 9 show photographs taken at stages of the installation process.
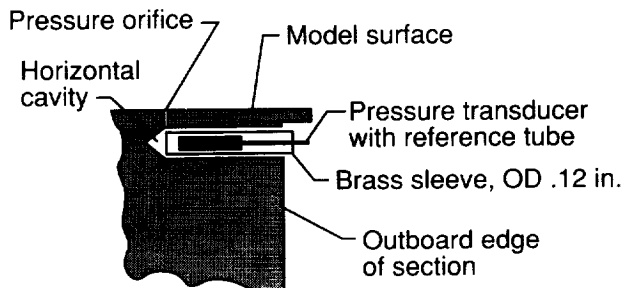
Figure 6. Transducer housing arrangement.
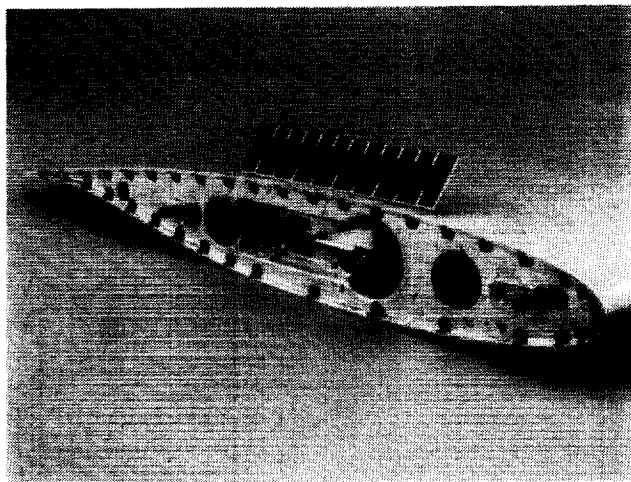
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Figure 7. Midsection before instrumentation.

The surface orifices, 0.018-in. in diameter, were drilled normal to the model surface and connected to the spanwise cavities. Total distance from the surface orifice to the pressure transducer varies between 0.1 and 0.2 in. with only one exception for each chordwise row of measurements. The trailing-edge pressure orifice required a metal tube to be run from the trailing edge forward to an area thick enough to house a pressure transducer. The transmission distance from the trailing-edge orifice to the pressure transducer was approximately 0.7 in.

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Figure 8. Midsection with pressure transducers.
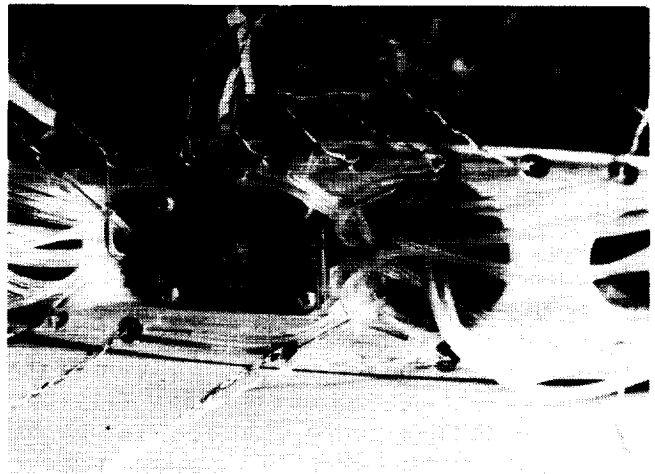
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Figure 9. Pressure transducer reference tubes and manifold in midsection.

Each differential pressure transducer was referenced to free-stream static pressure. At each span station, reference pressure tubes from the 40 transducers were connected to a central manifold (fig. 9). One tube connected this manifold to an area of zero flow in the plenum of the wind tunnel. Free-stream static pressure was constant during each data acquisition period. Since phase matching is unnecessary for a constant pressure, reference pressure transmission distance was not made identical for each transducer. The reference pressure transmission distance was approximately 30 ft.

Four low-frequency accelerometers were housed in the supercritical wing. These accelerometers were used to verify flutter frequency and rigid-body motion during testing. Figure 5 shows the locations of

4

the four accelerometers on the model. Also, two type T copper-constantan thermocouples were installed, one on the outboard edge of the root section and one on the outboard edge of the midsection. These thermocouples were positioned ahead of the most forward bolt access hole and on the centerline of the airfoil section (fig. 4). They provided a temperature history at one point along each row of pressure transducers for the evaluation of temperature effects on the pressure transducers.

Pitch and Plunge Apparatus Mount

The flexible mount system called the Pitch and Plunge Apparatus (PAPA) provides a well-defined, two-degree-of-freedom dynamic system on which rigid, instrumented models encounter classical flutter in the Transonic Dynamics Tunnel (TDT). (See refs. 8 and 9.) A photograph of the PAPA mount with the splitter plate removed is presented in figure 10.
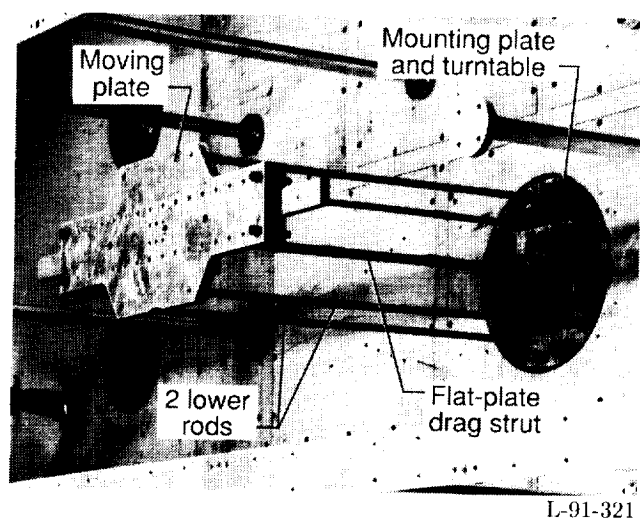
Figure 10. PAPA mount.

A top-view sketch of the PAPA mount is presented in figure 11. The PAPA mount consists of a moving plate supported from the tunnel wall by a system of four circular rods and a centerline flat-plate drag strut; all connections have fixed-fixed end conditions. The moving plate is made of steel with a thickness of 1 in. and is considered to be rigid. The rods and flat-plate drag strut provide elastic constraints so that the moving plate and attached model will oscillate in pitch and plunge when excited.

At the tunnel wall, the rods and the drag strut are attached to a remotely controlled turntable so that the angle of attack of the model can be varied. The model and PAPA system is limited to 5° of rotation in either the positive or negative direction. The

model, however, can attain angles of attack slightly greater than 5° because of twisting of the PAPA mount.

The wind-off characteristics of the rigid-body pitch and plunge modes are largely determined by the length and cross section of the four circular rods and the mass of the moving plate and model. The main purpose of the drag strut is to increase stiffness in the fore and aft (chordwise) direction, thereby separating the natural frequency of the first in-plane mode from that of the plunge mode. Ballast weights can be added to the fore and aft inboard surface of the moving plate. These weights are used to decouple the pitch and plunge modes by moving the center of gravity of the model and PAPA system forward or aft as necessary to locate it on the system elastic axis. The system elastic axis is located at the center of the moving plate and the rod assembly and also corresponds to the midchord of the model. The ballast weights also allow tuning of the total system mass and inertia so that different models can be tested with the same natural frequencies to provide a more meaningful correlation of results between models.

In the wind-tunnel test section, the PAPA mount is located behind a large splitter plate described in the next section. The model attaches to the PAPA moving plate by a short pedestal block that protrudes through an opening in the splitter plate. All loads are transferred from the model to the PAPA mount through this pedestal. The pedestal, which is much shorter than the model in the chordwise direction, sits in a small hole in the splitter plate which is large enough to allow the model and PAPA assembly to translate several inches in the vertical direction without contacting the splitter plate.

Flow through the splitter plate is prevented by a thin, circular end plate at the base of the model, which covers the opening in the splitter plate. The circular end plate has a diameter equal to one chord length and mounts between the pedestal and model. The end plate is recessed into the splitter plate so that the end plate outer surface coincides with the surface of the splitter plate to preserve smooth aerodynamic flow. The inner surface of the end plate is less than 0.1 in. from the recessed portion of the splitter plate, but it is not allowed to rub against this surface. Figure 12 shows the model and end plate mounted in front of the splitter plate in the TDT test section.

Instrumentation on the PAPA includes two calibrated strain gage bridges (SGB's). Each bridge has four arms. One bridge has arms located on the upper

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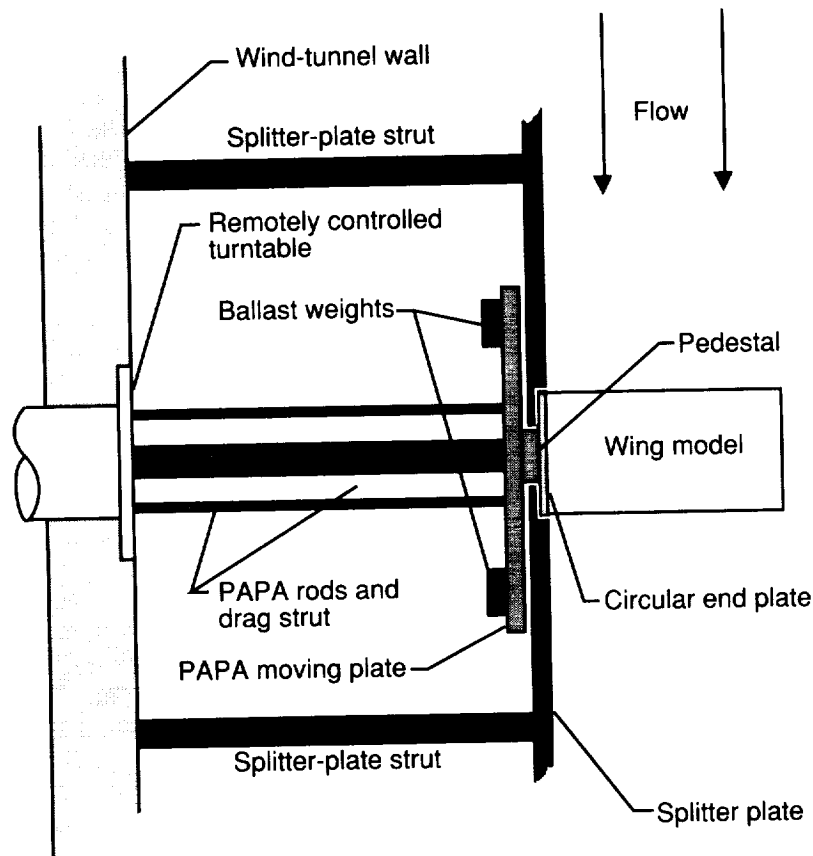
Figure 11. Top view of PAPA mount.

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Figure 12. Model mounted in test section.

and lower surfaces of the drag strut oriented and calibrated to measure vertical loading and vertical displacement. The other bridge has one arm mounted on each of the four circular rods and is oriented and

calibrated to measure torsional moment and pitch angle. Two accelerometers are mounted on the inboard side of the moving plate to record pitch and plunge motion. An angle-of-attack accelerometer, which is used to measure the static pitch angle of the moving plate and model, is also located on the inboard surface of the moving plate.

Additional Test Hardware

During wind-on testing, a splitter plate separates the model from the test-section-wall boundary layer and the PAPA hardware. A picture of the model and the splitter plate mounted in the tunnel test section as viewed from upstream is shown in figure 13. The center of the model and PAPA system, and model midchord, is 7 ft from the leading edge of the splitter plate. The splitter plate itself is 12 ft long and 10 ft high and is suspended from the test-section wall by struts that are 40 in. long.

Instrumentation on the splitter plate includes 20 pressure transducers that are the same type used in the model. The transducers are housed in

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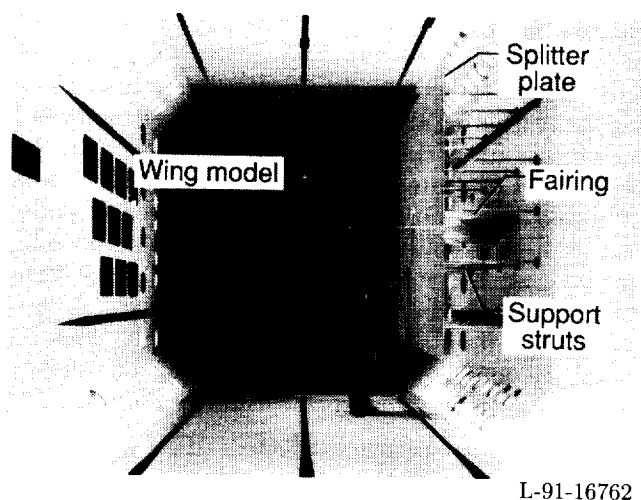
Figure 13. Test apparatus.

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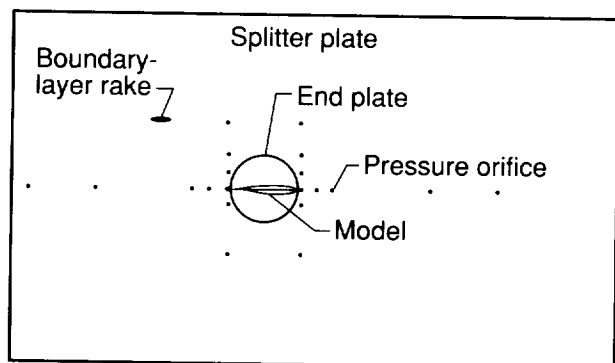
Figure 14. Front view of splitter plate showing instrumentation locations.

brass sleeves and mounted in 0.125-in-diameter holes drilled into the back of the splitter plate, perpendicular to the surface. The orifice holes are 0.018 in. in diameter and connect to the 0.125-in-diameter holes in which the transducers are mounted. The distance from the surface to the pressure transducers is approximately 0.1 in. Locations of the splitter-plate surface pressure orifices are shown in figure 14; coordinates of the locations of the orifices are given in tabular form in the appendix. These measurements provide data on the aerodynamic conditions at the model root plane which could be used to check boundary conditions for CFD analysis.

A boundary-layer rake extends from the splitter-plate surface at a position 16 in. behind and 16 in. above the model trailing edge. This rake houses 10 pressure transducers that measure stagnation pressure to determine the boundary-layer thickness at distances ranging from 0.25 in. to 5 in. from the splitter-plate surface.

The PAPA rods, drag strut, and moving plate are enclosed in an aerodynamic fairing behind the splitter plate. This aerodynamic fairing can be seen in figure 13. The only parts of the apparatus exposed to aerodynamic forces during testing are the supercritical wing and the end plate.

Wind-Off Dynamic Characteristics

A ground vibration test (GVT) of the model and PAPA system was performed to define the natural frequencies and mode shapes prior to flutter testing. In the GVT, frequencies below 190 Hz were investigated. Twelve natural frequencies were identified within this frequency range by rapping the model and performing a fast Fourier transform (FFT) on the measured model response. These natural frequencies are documented in table 1.

Table 1. Natural Frequencies of Model and PAPA System

Mode	Frequency, Hz	Description
1	3.33	Rigid-body plunge (first bending of system)
2	5.20	Rigid-body pitch (first torsion of system)
3	11	First chordwise bending
4	37	First bending of drag strut
5	50	Second bending of system
6	67	Second chordwise bending
7	75	Bending of rod 3
8	78	Bending of rods 1 or 4
9	79	Bending of rods 1 or 4
10	81	Bending of rod 2
11	100	Second bending of drag strut
12	150	Second torsion of system

Figure 15 shows the supercritical wing model and the PAPA moving plate, rods, and drag strut. To determine the mode shapes of the model and PAPA mount, a shaker was used to excite the model at frequencies below 190 Hz. A roving accelerometer, referenced to a load cell mounted at the shaker attachment, was used to measure transfer functions at 44 points on the model and the PAPA mount. The mode shapes corresponding to the natural frequencies below 100 Hz are shown in figure 16. In-plane (chordwise) mode shapes were not investigated, but the natural frequencies of the first two in-plane modes were determined and are included in the data presented in table 1.

Rigid-body plunge and rigid-body pitch are the modes involved in the flutter mechanism. Table 2 summarizes the principal characteristics of these two

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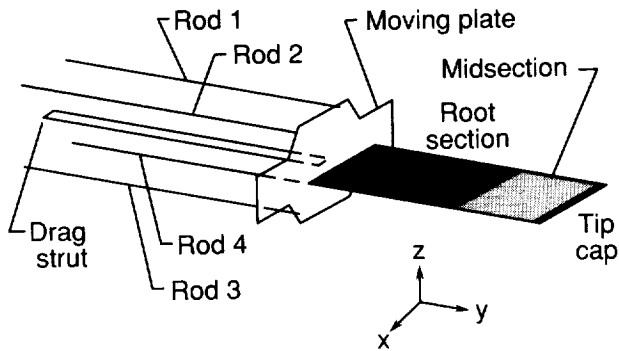
Figure 15. Representation of model and PAPA system.

modes. Frequency, stiffness, and damping values were determined experimentally. Generalized mass values were derived from the measured stiffnesses and frequencies.

Table 2. Properties of Rigid-Body Modes

	Plunge mode	Pitch mode
Frequency	3.33 Hz	5.20 Hz
Stiffness	2637 lb/ft	2964 ft-lb/rad
ζ	0.001	0.001
Generalized mass . . .	6.1 slug-ft^2	2.7 slug-ft^2

The stiffness values for these two modes were determined with static calibrations of the bending and torsion SGB's located on the drag strut and rods of the PAPA. In these calibrations, four weight pans were configured so that loads could be applied, both positive and negative, to the forward and aft portions of the PAPA moving plate. Pure plunge loadings were generated with an equal load applied to the fore and aft ends of the moving plate, while pitch moments were generated with an unequal load distribution.

Four calibrations of the SGB's were performed and consisted of incremental increases in loading to a maximum value followed by incremental decreases in loading. Raw data from these four SGB calibrations are presented in table 3. In this table, the individual plunge and pitch loadings are given along with the leading- and trailing-edge vertical displacements. Plunge loading is positive as a lifting load, while pitch loading is positive when the leading edge twists up. Vertical displacements z are positive for lifting loads.

Verifications of the natural frequencies and structural damping characteristics of the plunge and pitch modes were periodically performed between wind-on test runs. These results verified that no significant

changes in the primary modes occurred as a result of the many flutter points experienced by the model and PAPA system. These verifications consisted of manually exciting the system in the plunge mode and recording data as the model motion decayed; then the process was repeated for the pitch mode. Three sets of 20-sec data records were acquired for each mode: one at high amplitude, one at medium amplitude, and one at low amplitude. Sections of these data records were then analyzed for frequency and damping using a least-squares fitting technique. This allowed the nonlinear effects of amplitude on frequency and damping to be studied within individual data sets.

Results of these frequency and damping checks are reported in tables 4 and 5. In these tables separate data records are denoted by numbers, while sections of the same data set analyzed separately are denoted by letters.

Figures 17 and 18 show the values of the rigid-body plunge and pitch mode frequencies recorded during these checks. In these figures, the horizontal line indicates the frequency for the modes given in table 2. The range of mean amplitudes at flutter for which data were recorded indicates which of these data are of greatest importance. The second-order curve fits are good approximations of the variation in frequency with increasing amplitude for these modes. They show that there is a slight decrease in plunge mode frequency and a slight increase in pitch mode frequency with increasing amplitude. These variations are less than 0.02 Hz across the range of flutter amplitudes at which data were recorded.

Figures 19 and 20 show the damping recorded during the frequency and damping checks. The damping shown in table 2 is represented by the horizontal lines. The range of amplitudes at flutter for which data were recorded is indicated as well. In these figures, linear curve fits give good approximations of the variation in damping with amplitude. These curve fits show that damping increases slightly with increasing amplitude. The variations are small and their significance would depend on the sensitivity of the flutter mechanism to damping.

A series of four points in figure 20, which deviate slightly from the curve fit, are subsets of the data recorded during a single acquisition period. Because this data acquisition period was not recorded after any severe flutter points and was recorded between other data sets that follow the general trend, they do not indicate a change in the dynamic properties of the model and PAPA system.

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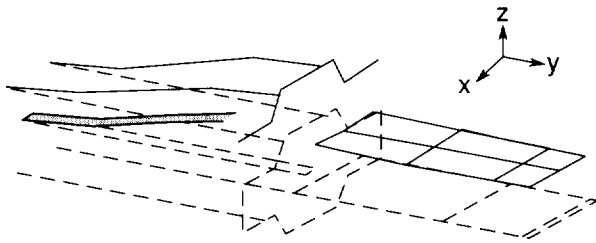
(a) Rigid-body plunge; frequency, 3.33 Hz.
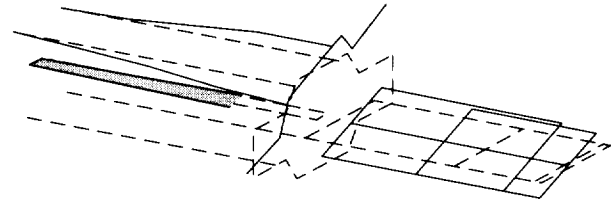
(b) Rigid-body pitch; frequency, 5.20 Hz.
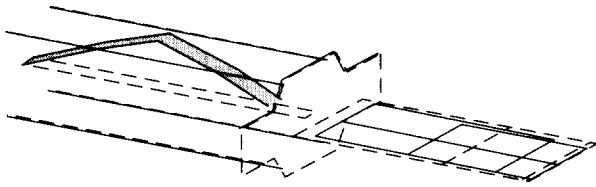
(c) First bending of drag strut; frequency, 37 Hz.
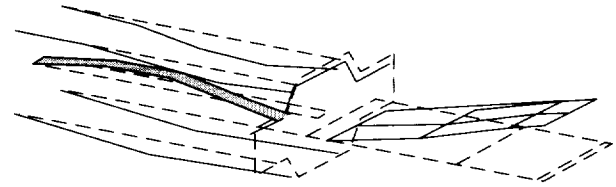
(d) Second bending of system; frequency, 50 Hz.
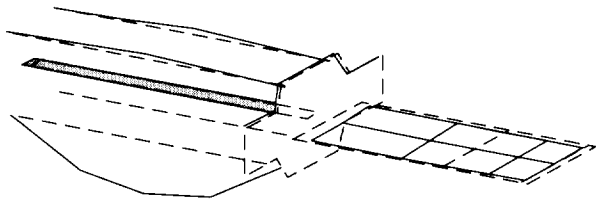
(e) Bending of rod 3; frequency, 75 Hz.
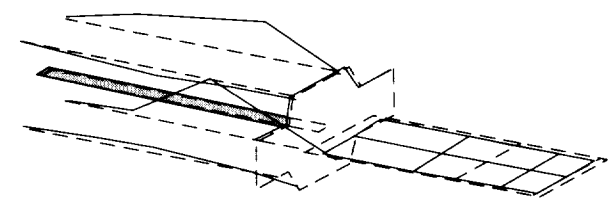
(f) Bending of rod 1 or 4; frequency, 78 Hz.
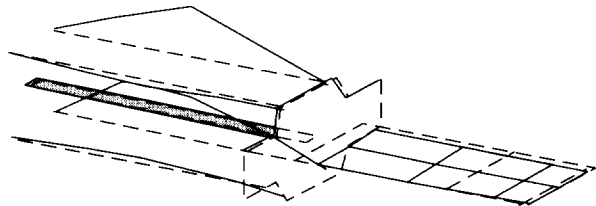
(g) Bending of rod 1 or 4; frequency, 79 Hz.
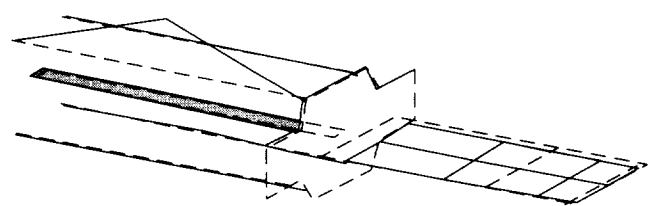
(h) Bending of rod 2; frequency, 81 Hz.
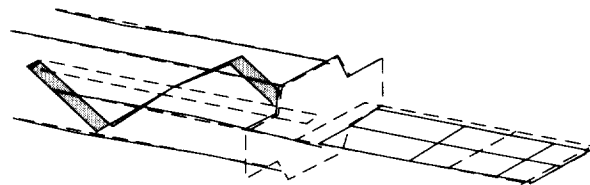
(i) Secondary bending of drag strut; frequency, 100 Hz.

Figure 16. Measured mode shapes.

Table 3. Bending and Torsion SGB Calibration Data

Leading-edge displacement, in.	Trailing-edge displacement, in.	Plunge loading, lb	Pitch moment, in-lb
First calibration			
0	0	0	0
.13	.007	20	200
.177	.179	40	0
.188	.266	50	−100
.269	.269	60	0
.356	.276	70	100
.366	.364	80	0
.443	.366	90	100
.45	.453	100	0
.382	.454	90	−100
.38	.379	80	0
.279	.364	70	−100
.278	.278	60	0
.195	.276	50	−100
.19	.189	40	0
.011	.178	20	−200
−.001	.001	0	0
Second calibration			
0	0	0	0
.173	.007	20	200
.17	−.162	0	400
.251	−.16	10	500
.251	−.247	0	600
.168	−.251	−10	500
.17	−.167	0	400
−.005	−.177	−20	200
−.001	−.002	0	0
−.17	−.005	−20	−200
−.161	.17	0	−400
−.231	.17	−10	−500
−.238	.251	0	−600
−.156	.251	10	−500
−.16	.175	0	−400
.009	.176	20	−200
−.001	−.001	0	0

Leading-edge displacement, in.	Trailing-edge displacement, in.	Plunge loading, lb	Pitch moment, in-lb
Third calibration			
0	0	0	0
.173	.007	20	200
.183	.182	40	0
.351	.19	60	200
.527	.198	80	400
.538	.374	100	200
.711	.384	120	400
.886	.494	140	600
.895	.568	160	400
.919	.92	200	0
.927	.774	180	200
.769	.768	160	0
.746	.576	140	200
.578	.573	120	0
.47	.475	100	0
.469	.39	90	100
.459	.287	80	200
.38	.287	70	100
.279	.28	60	0
.199	.28	50	−100
.106	.269	40	−200
.103	.19	30	−100
.095	.093	20	0
.009	.091	10	−100
.004	.003	0	0
Fourth calibration			
0	0	0	0
−.168	−.004	−20	−200
−.172	−.175	−40	0
−.331	−.174	−60	−200
−.481	−.17	−80	−400
−.459	−.321	−100	−200
−.387	−.428	−100	0
−.422	−.359	−90	−100
−.418	−.259	−80	−200
−.349	−.268	−70	−100
−.253	−.265	−60	0
−.181	−.265	−50	100
−.092	−.263	−40	200
−.091	−.178	−30	100
−.088	−.087	−20	0
−.005	−.087	−10	100
−.003	−.003	0	0
−.26	−.265	−60	0
−.001	−.002	0	0

Table 4. Plunge Mode Frequency and Damping Checks

Data set	f_z, Hz	ζ_z	A_z, in.	Data set	f_z, Hz	ζ_z	A_z, in.
78A	3.335	1.06×10^{-3}	0.195	284A	3.337	0.81×10^{-3}	0.052
78B	3.335	1.05	.175	284B	3.337	.81	.048
78C	3.335	1.02	.156	284C	3.337	.79	.044
78D	3.336	1.00	.142	284D	3.337	.79	.041
79A	3.339	.84	.050	346A	3.331	1.35	.353
79B	3.339	.84	.046	346B	3.331	1.32	.306
79C	3.339	.82	.042	346C	3.332	1.30	.267
79D	3.340	.82	.038	346D	3.332	1.27	.236
80A	3.341	.75	.017	347A	3.334	1.04	.144
80B	3.341	.74	.016	347B	3.334	1.00	.129
80C	3.341	.74	.015	347C	3.335	.97	.116
80D	3.341	.74	.014	347D	3.335	.95	.106
860A	3.326	1.71	.402	348A	3.337	.86	.062
860B	3.326	1.35	.339	348B	3.337	.86	.057
860C	3.327	1.32	.294	348C	3.337	.83	.052
860D	3.327	1.28	.256	348D	3.337	.83	.048
861A	3.329	1.02	.135	781A	3.338	2.92	.023
861B	3.330	.95	.121	781B	3.345	1.21	.017
861C	3.330	.90	.110	781C	3.342	2.64	.015
861D	3.330	.87	.100	781D	3.338	.38	.011
862A	3.331	.80	.071	782A	3.335	.81	.088
862B	3.332	.75	.065	782B	3.335	.79	.081
862C	3.332	.77	.060	782C	3.335	.79	.074
862D	3.332	.75	.055	782D	3.335	.79	.069
282A	3.330	1.38	.353	783A	3.337	.77	.044
282B	3.330	1.37	.305	783B	3.337	.75	.041
282C	3.331	1.35	.265	783C	3.337	.75	.038
282D	3.332	1.32	.233	783D	3.337	.74	.035
283A	3.334	.96	.112				
283B	3.335	.93	.101				
283C	3.335	.91	.092				
283D	3.335	.89	.084				

Table 5. Pitch Mode Frequency and Damping Checks

Data set	f_θ, Hz	ζ_θ	A_θ, in.	Data set	f_θ, Hz	ζ_θ	A_θ, in.
81A	5.202	0.64×10^{-3}	0.899	87A	5.197	0.58×10^{-3}	0.231
81B	5.202	.62	.827	87B	5.197	.58	.214
81C	5.202	.60	.762	87C	5.197	.60	.198
81D	5.202	.59	.705	87D	5.197	.61	.184
81E	5.202	.57	.653	87E	5.197	.61	.170
82A	5.202	.44	.340	49A	5.207	1.21	2.357
82B	5.202	.43	.321	49B	5.202	1.09	2.013
82C	5.202	.43	.304	49C	5.198	.97	1.747
82D	5.202	.42	.287	49D	5.196	.91	1.539
82E	5.202	.41	.272	49E	5.194	.86	1.367
83A	5.203	.38	.211	50A	5.191	.67	.627
83B	5.203	.38	.201	50B	5.191	.66	.575
83C	5.203	.37	.191	50C	5.191	.65	.528
83D	5.203	.36	.182	50D	5.191	.63	.485
83E	5.203	.35	.173	50E	5.191	.63	.456
88A	5.249	1.73	3.926	51A	5.192	.61	.245
88B	5.230	1.37	3.138	51B	5.192	.62	.227
88C	5.219	1.18	2.622	51C	5.192	.62	.209
88D	5.212	1.03	2.247	51D	5.192	.62	.193
88E	5.207	.94	1.967	51E	5.193	.65	.178
89A	5.200	.78	1.299	84A	5.198	2.22	2.319
89B	5.199	.75	1.173	84B	5.193	1.74	1.749
89C	5.198	.72	1.064	84C	5.192	1.38	1.391
89D	5.198	.70	.968	84D	5.192	1.02	1.170
89E	5.197	.67	.884	84E	5.191	.95	1.024
90A	5.197	.59	.490	185A	5.191	.71	.565
90B	5.197	.59	.454	185B	5.191	.70	.515
90C	5.197	.58	.421	185C	5.191	.68	.470
90D	5.197	.57	.390	185D	5.192	.67	.430
90E	5.197	.57	.362	185E	5.192	.67	.394
85A	5.200	.82	1.446	186A	5.193	.61	.240
85B	5.198	.79	1.300	186B	5.193	.60	.222
85C	5.197	.76	1.173	186C	5.194	.57	.205
85D	5.197	.73	1.062	186D	5.194	.53	.191
85E	5.196	.71	.966	186E	5.194	.50	.178
86A	5.195	.60	.535				
86B	5.195	.59	.495				
86C	5.196	.58	.458				
86D	5.196	.58	.425				
86E	5.196	.57	.394				

$$f_z = 0.09185239A_z^2 - 0.0638404A_z + 3.339978$$

Figure 17. Wind-off frequency for plunge mode.

$$\zeta_z = (2.1713A_z + 0.69513) \times 10^{-3}$$

Figure 19. Wind-off damping for plunge mode.

$$f_\theta = 0.0056696A_\theta^2 - 0.008994A_\theta + 5.1987$$

Figure 18. Wind-off frequency for pitch mode.

$$\zeta_\theta = (0.3561A_\theta + 0.4379) \times 10^{-3}$$
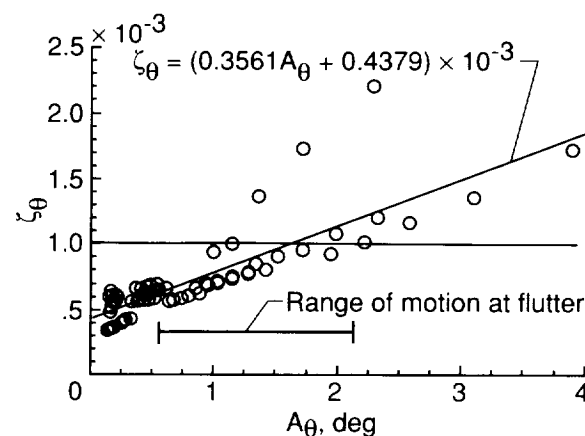
Figure 20. Wind-off damping for pitch mode.

Concluding Remarks

The Structural Dynamics Division of the Langley Research Center is conducting the Benchmark Models Program to acquire test data for the development and evaluation of aeroelastic computational fluid dynamics codes. The supercritical wing examined herein is the second in a series of three similar models that will provide simultaneous flutter and pressure data for use in code evaluation.

The supercritical wing, a rigid semispan model with a rectangular planform and a supercritical airfoil, was instrumented to measure surface pressures on both the upper surface and the lower surface at two spanwise stations. Planform data and surface measurements have been presented. Instrumentation for the measurement of model motion and model temperature was also discussed.

The rigid supercritical wing was flutter tested in the Langley Transonic Dynamics Tunnel using a flexible mount called the Pitch and Plunge Apparatus. This flexible mount, which provides a well-defined, two-degree-of-freedom dynamic system, was described and the experimentally determined dynamic characteristics of the model and mount system were presented. The results presented included frequency, stiffness, and structural damping for the rigid-body plunge and pitch modes as well as calculated values of generalized mass. Frequencies for all natural modes below 190 Hz and mode shapes for out-of-plane modes below 100 Hz were also presented.

Appendix

Surface Measurements of Supercritical Wing Model

Included herein are the design airfoil coordinates, all the model surface measurements, and the measured locations of all the pressures orifices. In this appendix, the coordinate system for the tables originates at the intersection of the model leading edge and root chord. The x-axis is oriented for increasing positive values from model leading edge to model trailing edge. The y-axis is positive going from model root to model tip. For model surface measurements, positive z-axis values indicate upper-surface measurements while negative z-axis values correspond to lower-surface measurements.

The design airfoil coordinates are presented in table A1. These coordinates are based on coordinates given in reference 7. The measured locations of the 80 pressure orifices are presented in table A2. Table A3 gives the locations of the pressure orifices on the splitter plate, including those on the boundary-layer rake. Since the model and PAPA assembly moves relative to the splitter plate when a load is applied, the values given in this table assume a zero plunge loading condition.

The surface measurements are presented in tables A4 to A14. These measurements were made prior to wind-on flutter testing and are accurate to ±0.0005 in. In the chordwise direction, measurements were made at eight spanwise stations. These measurements, which are presented in tables A4 to A11, document the airfoil shape at span stations near the model root chord ($y = 0.02$ and 1.6 in.), on either side of the two section breaks (which are located at $y = 20.6$ and 31.8 in.), and at the pressure measurement span stations ($y = 19.2$ and 30.4 in.). In these tables the deviation of the measured surface coordinate from the design airfoil shape in the z-direction is presented as Dev. Data points that deviate by more than 0.005 in. from the design are denoted by an asterisk.

Measurements of the surface shape of the tip cap, taken along 19 chordwise stations, can be found in table A12. Tables A13 and A14 present surface measurements obtained in the spanwise direction at two chordwise stations ($x = 0.8$ and 15.9 in.). The data in these tables extend from the wing root to the wing tip and cover both the upper surface and the lower surface.

Table A1. Design SC(2)-0414 Airfoil Coordinates

[Based on ref. 7]

x, in.	Upper-surface z, in.	Lower-surface z, in.	x, in.	Upper-surface z, in.	Lower-surface z, in.
0.00	0.0000	0.0000	8.00	1.0944	−1.0272
.03	.1728	−.1728	8.16	1.0880	−1.0128
.08	.2656	−.2656	8.48	1.0752	−.9792
.16	.3600	−.3600	8.80	1.0592	−.9392
.32	.4784	−.4784	9.12	1.0400	−.8928
.48	.5600	−.5600	9.44	1.0176	−.8432
.80	.6736	−.6736	9.76	.9920	−.7872
1.12	.7536	−.7552	10.08	.9632	−.7280
1.44	.8160	−.8192	10.40	.9328	−.6640
1.76	.8672	−.8720	10.72	.8992	−.5968
2.08	.9104	−.9168	11.04	.8640	−.5280
2.40	.9472	−.9552	11.36	.8256	−.4576
2.72	.9792	−.9888	11.68	.7840	−.3872
3.04	1.0064	−1.0176	12.00	.7424	−.3168
3.52	1.0416	−1.0528	12.32	.6976	−.2496
4.00	1.0688	−1.0800	12.64	.6512	−.1856
4.48	1.0896	−1.1008	12.96	.6032	−.1248
4.96	1.1056	−1.1136	13.28	.5536	−.0688
5.44	1.1152	−1.1200	13.60	.5024	−.0192
5.60	1.1184	−1.1200	13.92	.4496	.0208
5.92	1.1216	−1.1184	14.24	.3952	.0512
6.40	1.1232	−1.1120	14.56	.3376	.0704
6.56	1.1232	−1.1088	14.88	.2800	.0736
6.88	1.1200	−1.0976	15.20	.2192	.0608
7.20	1.1152	−1.0832	15.52	.1552	.0336
7.52	1.1088	−1.0656	15.84	.0880	−.0128
7.84	1.0992	−1.0416	16.00	.0528	−.0432

Table A2. Measured Distribution of
Surface Pressure Orifices

x/c at $y = 19.2$ in.		x/c at $y = 30.4$ in.	
Upper surface	Lower surface	Upper surface	Lower surface
0.000		0.000	
.009	0.012	.009	0.012
.023	.027	.024	.027
.049	.053	.049	.052
.099	.103	.098	.102
.149		.148	
.198	.203	.198	.203
.249		.248	
.298	.303	.298	.303
.348		.348	
.398	.403	.398	.403
.448		.448	
.498	.503	.498	.503
.542	.552	.542	.552
.598	.602	.598	.602
.648	.652	.648	.652
.698	.702	.698	.702
.749	.752	.748	.751
.799	.801	.798	.800
.849	.851	.848	.850
.899	.901	.898	.900
.950	.941	.950	.940
1.000		1.000	

Table A3. Locations of Pressure Measurements
on Splitter Plate

x, in.	y, in.	z, in.
Horizontal row		
48	0	0
32	0	0
8	0	0
4	0	0
0	0	0
−16	0	0
−20	0	0
−24	0	0
−48	0	0
−64	0	0
Vertical row 1		
0	0	16
0	0	8
0	0	4
0	0	−4
0	0	−16
Vertical row 2		
−16	0	16
−16	0	8
−16	0	4
−16	0	−4
−16	0	−16
Rake		
−32	0.25	16
−32	.50	16
−32	.75	16
−32	1.00	16
−32	1.50	16
−32	2.00	16
−32	2.50	16
−32	3.00	16
−32	4.00	16
−32	5.00	16

Table A4. Chordwise Airfoil Measurements at $y = 0.02$ in.

Upper Surface y = 0.02 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0011	0.0200	-0.0064	0.0012	0.9531	0.0200	0.7153	0.0005	2.6875	0.0200	0.9776	0.0014
-0.0001	0.0200	0.0138	0.0001	0.9733	0.0200	0.7203	0.0005	2.7367	0.0200	0.9822	0.0015
0.0019	0.0200	0.0337	0.0010	0.9936	0.0200	0.7253	0.0006	2.7883	0.0200	0.9869	0.0016
0.0034	0.0200	0.0554	0.0006	1.0133	0.0200	0.7298	0.0004	2.8382	0.0200	0.9915	0.0017
0.0057	0.0200	0.0751	0.0003	1.0339	0.0200	0.7347	0.0005	2.8879	0.0200	0.9958	0.0018
0.0093	0.0200	0.0939	0.0005	1.0539	0.0200	0.7394	0.0005	2.9376	0.0200	1.0000	0.0019
0.0139	0.0200	0.1120	0.0011	1.0738	0.0200	0.7439	0.0005	2.9873	0.0200	1.0043	0.0022
0.0190	0.0200	0.1304	0.0012	1.0931	0.0200	0.7482	0.0005	3.0365	0.0200	1.0085	0.0024
0.0251	0.0200	0.1492	0.0015	1.1139	0.0200	0.7529	0.0006	3.0875	0.0200	1.0125	0.0024
0.0310	0.0200	0.1675	0.0009	1.1336	0.0200	0.7572	0.0007	3.1370	0.0200	1.0165	0.0024
0.0381	0.0200	0.1865	0.0005	1.1532	0.0200	0.7614	0.0007	3.1884	0.0200	1.0205	0.0025
0.0463	0.0200	0.2035	0.0011	1.1732	0.0200	0.7655	0.0006	3.2393	0.0200	1.0244	0.0026
0.0546	0.0200	0.2218	0.0003	1.1935	0.0200	0.7699	0.0007	3.2905	0.0200	1.0283	0.0026
0.0634	0.0200	0.2387	0.0000	1.2126	0.0200	0.7738	0.0007	3.3415	0.0200	1.0319	0.0026
0.0733	0.0200	0.2553	0.0001	1.2329	0.0200	0.7779	0.0007	3.3912	0.0200	1.0353	0.0025
0.0839	0.0200	0.2722	0.0004	1.2528	0.0200	0.7818	0.0006	3.4408	0.0200	1.0389	0.0026
0.0953	0.0200	0.2877	0.0002	1.2727	0.0200	0.7857	0.0006	3.4927	0.0200	1.0424	0.0026
0.1072	0.0200	0.3038	0.0006	1.2928	0.0200	0.7897	0.0007	3.5462	0.0200	1.0458	0.0025
0.1198	0.0200	0.3185	0.0004	1.3129	0.0200	0.7936	0.0008	3.5967	0.0200	1.0491	0.0026
0.1327	0.0200	0.3337	0.0010	1.3326	0.0200	0.7972	0.0006	3.6456	0.0200	1.0521	0.0026
0.1468	0.0200	0.3485	0.0010	1.3514	0.0200	0.8007	0.0007	3.6963	0.0200	1.0552	0.0027
0.1607	0.0200	0.3622	0.0011	1.3720	0.0200	0.8046	0.0008	3.7461	0.0200	1.0581	0.0027
0.1753	0.0200	0.3756	0.0010	1.3915	0.0200	0.8080	0.0006	3.7969	0.0200	1.0611	0.0028
0.1904	0.0200	0.3887	0.0010	1.4110	0.0200	0.8116	0.0007	3.8475	0.0200	1.0640	0.0030
0.2065	0.0200	0.4016	0.0007	1.4313	0.0200	0.8150	0.0006	3.8995	0.0200	1.0668	0.0031
0.1896	0.0200	0.3881	0.0010	1.4517	0.0200	0.8186	0.0006	3.9502	0.0200	1.0695	0.0032
0.1978	0.0200	0.3947	0.0009	1.4717	0.0200	0.8221	0.0006	3.9999	0.0200	1.0721	0.0033
0.2130	0.0200	0.4069	0.0008	1.4913	0.0200	0.8254	0.0006	4.0494	0.0200	1.0748	0.0036
0.2281	0.0200	0.4182	0.0006	1.5102	0.0200	0.8286	0.0005	4.1005	0.0200	1.0773	0.0037
0.2443	0.0200	0.4300	0.0005	1.5310	0.0200	0.8319	0.0004	4.1505	0.0200	1.0796	0.0037
0.2603	0.0200	0.4409	0.0003	1.5502	0.0200	0.8351	0.0005	4.2017	0.0200	1.0820	0.0039
0.2773	0.0200	0.4523	0.0003	1.5699	0.0200	0.8384	0.0005	4.2515	0.0200	1.0843	0.0040
0.2946	0.0200	0.4634	0.0003	1.5893	0.0200	0.8416	0.0005	4.3011	0.0200	1.0866	0.0042
0.3114	0.0200	0.4737	0.0003	1.6089	0.0200	0.8446	0.0004	4.3519	0.0200	1.0886	0.0041
0.3287	0.0200	0.4839	0.0003	1.6291	0.0200	0.8478	0.0004	4.4010	0.0200	1.0906	0.0041
0.3461	0.0200	0.4939	0.0004	1.6484	0.0200	0.8507	0.0003	4.4516	0.0200	1.0927	0.0042
0.3627	0.0200	0.5032	0.0005	1.6683	0.0200	0.8536	0.0002	4.5029	0.0200	1.0947	0.0042
0.3812	0.0200	0.5130	0.0004	1.6890	0.0200	0.8568	0.0002	4.5550	0.0200	1.0964	0.0040
0.3990	0.0200	0.5223	0.0006	1.7082	0.0200	0.8598	0.0003	4.6058	0.0200	1.0981	0.0037
0.4165	0.0200	0.5312	0.0007	1.7285	0.0200	0.8628	0.0003	4.6557	0.0200	1.0999	0.0037
0.4340	0.0200	0.5398	0.0008	1.7491	0.0200	0.8659	0.0003	4.7048	0.0200	1.1015	0.0036
0.4526	0.0200	0.5486	0.0009	1.7696	0.0200	0.8688	0.0002	4.7562	0.0200	1.1031	0.0035
0.4704	0.0200	0.5567	0.0009	1.7896	0.0200	0.8718	0.0003	4.8058	0.0200	1.1045	0.0033
0.4892	0.0200	0.5650	0.0009	1.8102	0.0200	0.8748	0.0003	4.8581	0.0200	1.1060	0.0032
0.5085	0.0200	0.5733	0.0009	1.8306	0.0200	0.8776	0.0003	4.9100	0.0200	1.1075	0.0032
0.5272	0.0200	0.5810	0.0008	1.8508	0.0200	0.8804	0.0002	4.9583	0.0200	1.1087	0.0032
0.5469	0.0200	0.5889	0.0007	1.8714	0.0200	0.8833	0.0002	5.0085	0.0200	1.1099	0.0031
0.5653	0.0200	0.5960	0.0006	1.8903	0.0200	0.8859	0.0002	5.0590	0.0200	1.1112	0.0033
0.5835	0.0200	0.6029	0.0005	1.9102	0.0200	0.8886	0.0002	5.1096	0.0200	1.1124	0.0035
0.6019	0.0200	0.6097	0.0005	1.9309	0.0200	0.8914	0.0002	5.1613	0.0200	1.1136	0.0037
0.6219	0.0200	0.6169	0.0004	1.9508	0.0200	0.8941	0.0003	5.2112	0.0200	1.1146	0.0037
0.6406	0.0200	0.6237	0.0006	1.9714	0.0200	0.8969	0.0003	5.2619	0.0200	1.1156	0.0038
0.6599	0.0200	0.6302	0.0004	1.9903	0.0200	0.8994	0.0004	5.3114	0.0200	1.1167	0.0040
0.6797	0.0200	0.6370	0.0006	1.9914	0.0200	0.8995	0.0003	5.3619	0.0200	1.1178	0.0041
0.6985	0.0200	0.6432	0.0006	2.0364	0.0200	0.9054	0.0005	5.4144	0.0200	1.1185	0.0039
0.7177	0.0200	0.6493	0.0006	2.0863	0.0200	0.9116	0.0004	5.4644	0.0200	1.1195	0.0038
0.7364	0.0200	0.6553	0.0007	2.1356	0.0200	0.9178	0.0006	5.5142	0.0200	1.1205	0.0038
0.7550	0.0200	0.6611	0.0008	2.1861	0.0200	0.9239	0.0007	5.5642	0.0200	1.1211	0.0034
0.7745	0.0200	0.6670	0.0008	2.2361	0.0200	0.9299	0.0009	5.6149	0.0200	1.1219	0.0033
0.7943	0.0200	0.6729	0.0009	2.2864	0.0200	0.9357	0.0010	5.6649	0.0200	1.1226	0.0032
0.8142	0.0200	0.6786	0.0009	2.3355	0.0200	0.9413	0.0011	5.7185	0.0200	1.1233	0.0033
0.8340	0.0200	0.6841	0.0008	2.3850	0.0200	0.9467	0.0011	5.7671	0.0200	1.1239	0.0034
0.8539	0.0200	0.6896	0.0007	2.4349	0.0200	0.9522	0.0013	5.8172	0.0200	1.1245	0.0036
0.8729	0.0200	0.6947	0.0008	2.4854	0.0200	0.9574	0.0012	5.8684	0.0200	1.1251	0.0038
0.8927	0.0200	0.6999	0.0007	2.5352	0.0200	0.9626	0.0013	5.9178	0.0200	1.1256	0.0040
0.9132	0.0200	0.7051	0.0005	2.5855	0.0200	0.9676	0.0013	5.9707	0.0200	1.1261	0.0042
0.9335	0.0200	0.7105	0.0007	2.6360	0.0200	0.9727	0.0014	6.0201	0.0200	1.1263	0.0042

Table A4. Continued

Upper Surface y = 0.02 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0689	0.0200	1.1268	0.0045	9.4740	0.0200	1.0193	0.0042	12.8871	0.0200	0.6185	0.0042
6.1200	0.0200	1.1271	0.0046	9.5246	0.0200	1.0155	0.0043	12.9367	0.0200	0.6112	0.0044
6.1703	0.0200	1.1275	0.0048	9.5762	0.0200	1.0113	0.0042	12.9863	0.0200	0.6036	0.0044
6.2233	0.0200	1.1273	0.0045	9.6279	0.0200	1.0073	0.0043	13.0366	0.0200	0.5955	0.0040
6.2733	0.0200	1.1277	0.0047	9.6773	0.0200	1.0029	0.0040	13.0847	0.0200	0.5882	0.0040
6.3242	0.0200	1.1279	0.0049	9.7292	0.0200	0.9988	0.0041	13.1333	0.0200	0.5806	0.0040
6.3741	0.0200	1.1279	0.0047	9.7791	0.0200	0.9946	0.0042	13.1824	0.0200	0.5731	0.0041
6.4277	0.0200	1.1277	0.0045	9.8292	0.0200	0.9902	0.0042	13.2315	0.0200	0.5653	0.0040
6.4761	0.0200	1.1276	0.0043	9.8807	0.0200	0.9857	0.0043	13.2811	0.0200	0.5573	0.0039
6.5260	0.0200	1.1276	0.0043	9.9308	0.0200	0.9812	0.0043	13.3295	0.0200	0.5497	0.0039
6.5771	0.0200	1.1273	0.0041	9.9810	0.0200	0.9768	0.0045	13.3782	0.0200	0.5420	0.0039
6.6281	0.0200	1.1269	0.0041	10.0306	0.0200	0.9722	0.0044	13.4269	0.0200	0.5341	0.0037
6.6802	0.0200	1.1266	0.0042	10.0811	0.0200	0.9673	0.0042	13.4753	0.0200	0.5262	0.0036
6.7299	0.0200	1.1262	0.0043	10.1331	0.0200	0.9627	0.0044	13.5242	0.0200	0.5182	0.0035
6.7803	0.0200	1.1257	0.0044	10.1831	0.0200	0.9579	0.0043	13.5718	0.0200	0.5107	0.0037
6.8305	0.0200	1.1251	0.0045	10.2339	0.0200	0.9531	0.0042	13.6207	0.0200	0.5024	0.0033
6.8838	0.0200	1.1247	0.0048	10.2853	0.0200	0.9480	0.0040	13.6698	0.0200	0.4943	0.0032
6.9330	0.0200	1.1240	0.0048	10.3356	0.0200	0.9431	0.0040	13.7174	0.0200	0.4864	0.0032
6.9826	0.0200	1.1233	0.0048	10.3860	0.0200	0.9382	0.0040	13.7661	0.0200	0.4785	0.0033
7.0335	0.0200	1.1226	0.0048	10.4381	0.0200	0.9328	0.0038	13.8142	0.0200	0.4704	0.0032
7.0869	0.0200	1.1216	0.0046	10.4893	0.0200	0.9275	0.0038	13.8626	0.0200	0.4620	0.0028
7.1365	0.0200	1.1210	0.0048	10.5406	0.0200	0.9225	0.0041	13.9116	0.0200	0.4538	0.0028
7.1856	0.0200	1.1201	0.0046	10.5909	0.0200	0.9171	0.0041	13.9598	0.0200	0.4458	0.0028
7.2370	0.0200	1.1190	0.0044	10.6413	0.0200	0.9118	0.0041	14.0079	0.0200	0.4376	0.0026
7.2899	0.0200	1.1181	0.0044	10.6926	0.0200	0.9064	0.0042	14.0564	0.0200	0.4289	0.0021
7.3403	0.0200	1.1171	0.0043	10.7440	0.0200	0.9008	0.0042	14.1050	0.0200	0.4207	0.0021
7.3893	0.0200	1.1160	0.0042	10.7941	0.0200	0.8956	0.0044	14.1530	0.0200	0.4123	0.0020
7.4397	0.0200	1.1148	0.0040	10.8460	0.0200	0.8897	0.0041	14.2014	0.0200	0.4040	0.0021
7.4906	0.0200	1.1138	0.0043	10.8974	0.0200	0.8840	0.0040	14.2500	0.0200	0.3954	0.0019
7.5426	0.0200	1.1124	0.0042	10.9506	0.0200	0.8780	0.0039	14.2983	0.0200	0.3868	0.0019
7.5912	0.0200	1.1112	0.0044	11.0026	0.0200	0.8720	0.0037	14.3482	0.0200	0.3782	0.0022
7.6409	0.0200	1.1098	0.0045	11.0535	0.0200	0.8661	0.0037	14.3962	0.0200	0.3696	0.0023
7.6926	0.0200	1.1086	0.0048	11.1057	0.0200	0.8601	0.0036	14.4441	0.0200	0.3609	0.0022
7.7420	0.0200	1.1072	0.0050	11.1571	0.0200	0.8542	0.0038	14.4931	0.0200	0.3523	0.0026
7.7944	0.0200	1.1057	0.0052 *	11.2078	0.0200	0.8483	0.0039	14.5419	0.0200	0.3434	0.0025
7.8450	0.0200	1.1042	0.0052 *	11.2598	0.0200	0.8418	0.0038	14.5900	0.0200	0.3349	0.0027
7.8953	0.0200	1.1026	0.0050	11.3136	0.0200	0.8353	0.0038	14.6382	0.0200	0.3260	0.0024
7.9482	0.0200	1.1009	0.0048	11.3640	0.0200	0.8292	0.0041	14.6869	0.0200	0.3170	0.0021
7.9972	0.0200	1.0993	0.0048	11.4167	0.0200	0.8228	0.0044	14.7345	0.0200	0.3086	0.0022
8.0485	0.0200	1.0976	0.0050	11.4688	0.0200	0.8162	0.0045	14.7827	0.0200	0.2998	0.0021
8.0985	0.0200	1.0958	0.0052 *	11.5210	0.0200	0.8095	0.0046	14.8312	0.0200	0.2907	0.0017
8.1521	0.0200	1.0938	0.0055 *	11.5732	0.0200	0.8030	0.0050	14.8793	0.0200	0.2820	0.0018
8.2013	0.0200	1.0920	0.0056 *	11.6231	0.0200	0.7966	0.0051 *	14.9271	0.0200	0.2730	0.0017
8.2529	0.0200	1.0898	0.0055 *	11.6750	0.0200	0.7897	0.0050	14.9757	0.0200	0.2638	0.0016
8.3040	0.0200	1.0877	0.0054 *	11.7266	0.0200	0.7830	0.0050	15.0236	0.0200	0.2546	0.0014
8.3547	0.0200	1.0856	0.0052 *	11.7782	0.0200	0.7764	0.0050	15.0713	0.0200	0.2452	0.0011
8.4048	0.0200	1.0835	0.0051 *	11.8300	0.0200	0.7695	0.0048	15.1190	0.0200	0.2360	0.0011
8.4557	0.0200	1.0811	0.0049	11.8808	0.0200	0.7628	0.0046	15.1676	0.0200	0.2265	0.0010
8.5078	0.0200	1.0785	0.0046	11.9320	0.0200	0.7559	0.0045	15.2152	0.0200	0.2169	0.0006
8.5586	0.0200	1.0763	0.0046	11.9836	0.0200	0.7488	0.0042	15.2631	0.0200	0.2072	0.0004
8.6083	0.0200	1.0737	0.0044	12.0346	0.0200	0.7418	0.0040	15.3124	0.0200	0.1974	0.0004
8.6594	0.0200	1.0711	0.0044	12.0858	0.0200	0.7349	0.0041	15.3605	0.0200	0.1879	0.0005
8.7093	0.0200	1.0686	0.0045	12.1363	0.0200	0.7279	0.0042	15.4079	0.0200	0.1783	0.0004
8.7610	0.0200	1.0657	0.0044	12.1872	0.0200	0.7209	0.0044	15.4572	0.0200	0.1680	0.0000
8.8114	0.0200	1.0631	0.0045	12.2387	0.0200	0.7136	0.0043	15.5056	0.0200	0.1584	0.0003
8.8634	0.0200	1.0600	0.0044	12.2892	0.0200	0.7067	0.0046	15.5543	0.0200	0.1488	0.0007
8.9140	0.0200	1.0571	0.0044	12.3389	0.0200	0.6994	0.0045	15.6022	0.0200	0.1389	0.0005
8.9641	0.0200	1.0541	0.0044	12.3896	0.0200	0.6923	0.0047	15.6504	0.0200	0.1290	0.0006
9.0157	0.0200	1.0511	0.0045	12.4407	0.0200	0.6848	0.0045	15.6985	0.0200	0.1195	0.0011
9.0661	0.0200	1.0479	0.0045	12.4906	0.0200	0.6776	0.0045	15.7459	0.0200	0.1098	0.0015
9.1169	0.0200	1.0446	0.0044	12.5398	0.0200	0.6702	0.0043	15.7945	0.0200	0.0996	0.0017
9.1680	0.0200	1.0413	0.0045	12.5908	0.0200	0.6630	0.0046	15.8410	0.0200	0.0898	0.0020
9.2171	0.0200	1.0379	0.0044	12.6404	0.0200	0.6556	0.0045	15.8884	0.0200	0.0797	0.0023
9.2688	0.0200	1.0343	0.0044	12.6896	0.0200	0.6483	0.0044	15.9372	0.0200	0.0698	0.0031
9.3193	0.0200	1.0310	0.0045	12.7387	0.0200	0.6413	0.0046				
9.3710	0.0200	1.0271	0.0044	12.7895	0.0200	0.6334	0.0044				
9.4227	0.0200	1.0232	0.0043	12.8391	0.0200	0.6260	0.0044				

Table A4. Continued

Lower Surface				y = 0.02 Inches							
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9811	0.0200	-0.0420	0.0026	12.6527	0.0200	-0.1803	0.0028	9.3377	0.0200	-0.8576	0.0020
15.9703	0.0200	-0.0400	0.0027	12.6024	0.0200	-0.1900	0.0029	9.2869	0.0200	-0.8657	0.0018
15.9227	0.0200	-0.0296	0.0016	12.5525	0.0200	-0.1999	0.0029	9.2368	0.0200	-0.8735	0.0017
15.8740	0.0200	-0.0209	0.0020	12.5032	0.0200	-0.2097	0.0029	9.1869	0.0200	-0.8813	0.0014
15.8276	0.0200	-0.0129	0.0022	12.4541	0.0200	-0.2194	0.0029	9.1374	0.0200	-0.8888	0.0014
15.7760	0.0200	-0.0045	0.0025	12.4047	0.0200	-0.2294	0.0029	9.0885	0.0200	-0.8962	0.0013
15.7262	0.0200	0.0031	0.0028	12.3544	0.0200	-0.2397	0.0029	9.0384	0.0200	-0.9036	0.0014
15.6775	0.0200	0.0109	0.0023	12.3046	0.0200	-0.2500	0.0027	8.9882	0.0200	-0.9108	0.0016
15.6256	0.0200	0.0180	0.0025	12.2550	0.0200	-0.2602	0.0027	8.9372	0.0200	-0.9182	0.0016
15.5729	0.0200	0.0251	0.0022	12.2054	0.0200	-0.2704	0.0028	8.8876	0.0200	-0.9253	0.0017
15.5231	0.0200	0.0312	0.0020	12.1552	0.0200	-0.2810	0.0027	8.8375	0.0200	-0.9321	0.0019
15.4724	0.0200	0.0364	0.0024	12.1072	0.0200	-0.2913	0.0025	8.7868	0.0200	-0.9390	0.0020
15.4207	0.0200	0.0416	0.0023	12.0580	0.0200	-0.3018	0.0025	8.7377	0.0200	-0.9457	0.0019
15.3709	0.0200	0.0461	0.0022	12.0091	0.0200	-0.3123	0.0025	8.6880	0.0200	-0.9521	0.0019
15.3203	0.0200	0.0503	0.0022	11.9598	0.0200	-0.3229	0.0025	8.6373	0.0200	-0.9584	0.0019
15.2689	0.0200	0.0541	0.0021	11.9102	0.0200	-0.3338	0.0025	8.5877	0.0200	-0.9646	0.0019
15.2179	0.0200	0.0575	0.0022	11.8605	0.0200	-0.3446	0.0026	8.5375	0.0200	-0.9708	0.0017
15.1677	0.0200	0.0607	0.0020	11.8111	0.0200	-0.3554	0.0027	8.4869	0.0200	-0.9768	0.0015
15.1169	0.0200	0.0636	0.0018	11.7606	0.0200	-0.3665	0.0028	8.4373	0.0200	-0.9825	0.0015
15.0654	0.0200	0.0663	0.0016	11.7133	0.0200	-0.3768	0.0029	8.3865	0.0200	-0.9882	0.0015
15.0156	0.0200	0.0685	0.0014	11.6634	0.0200	-0.3880	0.0028	8.3377	0.0200	-0.9935	0.0015
14.9641	0.0200	0.0705	0.0012	11.6142	0.0200	-0.3987	0.0030	8.2871	0.0200	-0.9990	0.0013
14.9127	0.0200	0.0718	0.0012	11.5650	0.0200	-0.4095	0.0029	8.2355	0.0200	-1.0041	0.0014
14.8628	0.0200	0.0728	0.0010	11.5148	0.0200	-0.4207	0.0028	8.1856	0.0200	-1.0091	0.0013
14.8117	0.0200	0.0734	0.0009	11.4665	0.0200	-0.4313	0.0028	8.1353	0.0200	-1.0141	0.0009
14.7612	0.0200	0.0736	0.0008	11.4161	0.0200	-0.4424	0.0028	8.0839	0.0200	-1.0191	0.0007
14.7103	0.0200	0.0733	0.0007	11.3668	0.0200	-0.4532	0.0028	8.0332	0.0200	-1.0238	0.0005
14.6582	0.0200	0.0726	0.0006	11.3184	0.0200	-0.4640	0.0028	7.9826	0.0200	-1.0283	0.0004
14.6081	0.0200	0.0713	0.0006	11.2686	0.0200	-0.4751	0.0026	7.9324	0.0200	-1.0329	0.0004
14.5574	0.0200	0.0699	0.0004	11.2198	0.0200	-0.4858	0.0027	7.8812	0.0200	-1.0374	0.0006
14.5068	0.0200	0.0678	0.0004	11.1704	0.0200	-0.4965	0.0029	7.8307	0.0200	-1.0416	0.0008
14.4557	0.0200	0.0653	0.0004	11.1207	0.0200	-0.5076	0.0027	7.7807	0.0200	-1.0457	0.0009
14.4044	0.0200	0.0625	0.0003	11.0713	0.0200	-0.5185	0.0026	7.7298	0.0200	-1.0497	0.0011
14.3541	0.0200	0.0597	0.0001	11.0214	0.0200	-0.5293	0.0027	7.6791	0.0200	-1.0536	0.0010
14.3032	0.0200	0.0563	0.0003	10.9719	0.0200	-0.5400	0.0027	7.6274	0.0200	-1.0574	0.0010
14.2535	0.0200	0.0528	0.0006	10.9228	0.0200	-0.5507	0.0027	7.5766	0.0200	-1.0609	0.0010
14.2036	0.0200	0.0491	0.0008	10.8732	0.0200	-0.5614	0.0027	7.5269	0.0200	-1.0643	0.0008
14.1531	0.0200	0.0451	0.0011	10.8236	0.0200	-0.5721	0.0026	7.4763	0.0200	-1.0676	0.0008
14.1027	0.0200	0.0407	0.0013	10.7742	0.0200	-0.5827	0.0026	7.4254	0.0200	-1.0708	0.0005
14.0515	0.0200	0.0358	0.0013	10.7253	0.0200	-0.5930	0.0026	7.3754	0.0200	-1.0737	0.0004
14.0030	0.0200	0.0309	0.0013	10.6769	0.0200	-0.6034	0.0025	7.3240	0.0200	-1.0767	0.0002
13.9517	0.0200	0.0255	0.0013	10.6265	0.0200	-0.6139	0.0026	7.2736	0.0200	-1.0797	0.0001
13.9011	0.0200	0.0199	0.0012	10.5765	0.0200	-0.6246	0.0025	7.2222	0.0200	-1.0824	0.0002
13.8515	0.0200	0.0140	0.0009	10.5284	0.0200	-0.6347	0.0025	7.1715	0.0200	-1.0851	0.0005
13.8016	0.0200	0.0081	0.0010	10.4783	0.0200	-0.6452	0.0025	7.1206	0.0200	-1.0874	0.0004
13.7504	0.0200	0.0019	0.0011	10.4285	0.0200	-0.6554	0.0027	7.0698	0.0200	-1.0899	0.0006
13.7008	0.0200	-0.0043	0.0012	10.3794	0.0200	-0.6656	0.0026	7.0200	0.0200	-1.0920	0.0005
13.6486	0.0200	-0.0109	0.0015	10.3301	0.0200	-0.6756	0.0027	6.9696	0.0200	-1.0943	0.0005
13.5984	0.0200	-0.0178	0.0016	10.2805	0.0200	-0.6857	0.0026	6.9175	0.0200	-1.0964	0.0003
13.5477	0.0200	-0.0250	0.0017	10.2309	0.0200	-0.6957	0.0027	6.8680	0.0200	-1.0983	0.0002
13.4983	0.0200	-0.0322	0.0018	10.1807	0.0200	-0.7057	0.0026	6.8169	0.0200	-1.1001	0.0001
13.4478	0.0200	-0.0400	0.0017	10.1318	0.0200	-0.7153	0.0026	6.7662	0.0200	-1.1018	0.0004
13.3986	0.0200	-0.0479	0.0016	10.0821	0.0200	-0.7252	0.0024	6.7152	0.0200	-1.1035	0.0005
13.3488	0.0200	-0.0557	0.0018	10.0325	0.0200	-0.7348	0.0022	6.6652	0.0200	-1.1051	0.0007
13.2980	0.0200	-0.0637	0.0021	9.9835	0.0200	-0.7441	0.0021	6.6137	0.0200	-1.1066	0.0007
13.2472	0.0200	-0.0720	0.0022	9.9342	0.0200	-0.7534	0.0020	6.5629	0.0200	-1.1078	0.0009
13.1973	0.0200	-0.0806	0.0021	9.8854	0.0200	-0.7625	0.0019	6.5119	0.0200	-1.1091	0.0008
13.1475	0.0200	-0.0891	0.0022	9.8356	0.0200	-0.7716	0.0019	6.4617	0.0200	-1.1102	0.0007
13.0966	0.0200	-0.0978	0.0024	9.7863	0.0200	-0.7806	0.0018	6.4114	0.0200	-1.1112	0.0006
13.0486	0.0200	-0.1065	0.0023	9.7371	0.0200	-0.7896	0.0017	6.3609	0.0200	-1.1122	0.0004
12.9990	0.0200	-0.1153	0.0024	9.6868	0.0200	-0.7984	0.0020	6.3109	0.0200	-1.1131	0.0003
12.9494	0.0200	-0.1242	0.0025	9.6372	0.0200	-0.8071	0.0021	6.2615	0.0200	-1.1141	0.0002
12.8996	0.0200	-0.1334	0.0025	9.5865	0.0200	-0.8161	0.0021	6.2096	0.0200	-1.1149	0.0002
12.8505	0.0200	-0.1424	0.0027	9.5373	0.0200	-0.8246	0.0021	6.1577	0.0200	-1.1156	0.0001
12.8004	0.0200	-0.1518	0.0028	9.4869	0.0200	-0.8330	0.0024	6.1073	0.0200	-1.1163	0.0001
12.7508	0.0200	-0.1614	0.0027	9.4373	0.0200	-0.8412	0.0024	6.0571	0.0200	-1.1171	0.0000
12.7011	0.0200	-0.1707	0.0029	9.3870	0.0200	-0.8497	0.0021	6.0071	0.0200	-1.1176	0.0000

Table A4. Concluded

Lower Surface y = 0.02 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
5.9552	0.0200	-1.1180	0.0000	2.5599	0.0200	-0.9739	0.0013	0.9328	0.0200	-0.7124	0.0022
5.9050	0.0200	-1.1185	0.0000	2.5086	0.0200	-0.9686	0.0015	0.9137	0.0200	-0.7074	0.0022
5.8550	0.0200	-1.1190	0.0001	2.4577	0.0200	-0.9630	0.0014	0.8950	0.0200	-0.7024	0.0022
5.8034	0.0200	-1.1192	0.0000	2.4073	0.0200	-0.9574	0.0014	0.8759	0.0200	-0.6972	0.0021
5.7531	0.0200	-1.1195	0.0001	2.3547	0.0200	-0.9516	0.0015	0.8574	0.0200	-0.6923	0.0022
5.7021	0.0200	-1.1198	0.0001	2.3027	0.0200	-0.9456	0.0015	0.8388	0.0200	-0.6870	0.0022
5.6511	0.0200	-1.1199	0.0001	2.2515	0.0200	-0.9395	0.0015	0.8200	0.0200	-0.6817	0.0022
5.6006	0.0200	-1.1200	0.0000	2.2009	0.0200	-0.9334	0.0014	0.8012	0.0200	-0.6763	0.0023
5.5504	0.0200	-1.1201	0.0000	2.1495	0.0200	-0.9270	0.0013	0.7830	0.0200	-0.6710	0.0023
5.4996	0.0200	-1.1200	0.0001	2.0974	0.0200	-0.9205	0.0015	0.7643	0.0200	-0.6654	0.0023
5.4496	0.0200	-1.1199	0.0001	2.0454	0.0200	-0.9136	0.0013	0.7451	0.0200	-0.6597	0.0024
5.3984	0.0200	-1.1196	0.0002	1.9962	0.0200	-0.9071	0.0013	0.7260	0.0200	-0.6537	0.0024
5.3469	0.0200	-1.1193	0.0002	1.9967	0.0200	-0.9073	0.0014	0.7081	0.0200	-0.6480	0.0024
5.2969	0.0200	-1.1186	0.0004	1.9809	0.0200	-0.9051	0.0014	0.6890	0.0200	-0.6419	0.0025
5.2469	0.0200	-1.1182	0.0003	1.9597	0.0200	-0.9021	0.0013	0.6698	0.0200	-0.6356	0.0026
5.1964	0.0200	-1.1176	0.0002	1.9385	0.0200	-0.8992	0.0013	0.6518	0.0200	-0.6297	0.0027
5.1450	0.0200	-1.1169	0.0001	1.9169	0.0200	-0.8962	0.0014	0.6336	0.0200	-0.6234	0.0027
5.0958	0.0200	-1.1162	0.0001	1.8961	0.0200	-0.8933	0.0014	0.6149	0.0200	-0.6170	0.0029
5.0441	0.0200	-1.1152	0.0001	1.8761	0.0200	-0.8906	0.0015	0.5965	0.0200	-0.6103	0.0030
4.9934	0.0200	-1.1144	0.0001	1.8551	0.0200	-0.8875	0.0014	0.5783	0.0200	-0.6036	0.0031
4.9424	0.0200	-1.1134	0.0001	1.8353	0.0200	-0.8846	0.0014	0.5592	0.0200	-0.5964	0.0033
4.8927	0.0200	-1.1124	0.0002	1.8142	0.0200	-0.8816	0.0015	0.5405	0.0200	-0.5891	0.0033
4.8421	0.0200	-1.1112	0.0001	1.7935	0.0200	-0.8785	0.0015	0.5223	0.0200	-0.5817	0.0034
4.7906	0.0200	-1.1100	0.0002	1.7735	0.0200	-0.8755	0.0014	0.5042	0.0200	-0.5742	0.0034
4.7396	0.0200	-1.1087	0.0002	1.7537	0.0200	-0.8726	0.0016	0.4861	0.0200	-0.5663	0.0033
4.6888	0.0200	-1.1074	0.0002	1.7337	0.0200	-0.8696	0.0016	0.4686	0.0200	-0.5585	0.0033
4.6381	0.0200	-1.1061	0.0003	1.7127	0.0200	-0.8663	0.0015	0.4511	0.0200	-0.5507	0.0034
4.5866	0.0200	-1.1047	0.0004	1.6934	0.0200	-0.8633	0.0015	0.4337	0.0200	-0.5423	0.0032
4.5362	0.0200	-1.1031	0.0004	1.6738	0.0200	-0.8601	0.0014	0.4162	0.0200	-0.5338	0.0032
4.4848	0.0200	-1.1016	0.0006	1.6546	0.0200	-0.8571	0.0015	0.3997	0.0200	-0.5255	0.0031
4.4353	0.0200	-1.0999	0.0007	1.6357	0.0200	-0.8541	0.0015	0.3825	0.0200	-0.5166	0.0030
4.3847	0.0200	-1.0982	0.0009	1.6156	0.0200	-0.8508	0.0015	0.3649	0.0200	-0.5073	0.0031
4.3330	0.0200	-1.0963	0.0010	1.5974	0.0200	-0.8478	0.0015	0.3483	0.0200	-0.4981	0.0030
4.2832	0.0200	-1.0941	0.0009	1.5773	0.0200	-0.8447	0.0017	0.3306	0.0200	-0.4880	0.0029
4.2322	0.0200	-1.0921	0.0011	1.5578	0.0200	-0.8414	0.0017	0.3140	0.0200	-0.4782	0.0029
4.1816	0.0200	-1.0900	0.0013	1.5385	0.0200	-0.8382	0.0018	0.2970	0.0200	-0.4677	0.0028
4.1312	0.0200	-1.0877	0.0013	1.5193	0.0200	-0.8350	0.0018	0.2816	0.0200	-0.4580	0.0028
4.0798	0.0200	-1.0850	0.0010	1.5005	0.0200	-0.8317	0.0018	0.2649	0.0200	-0.4468	0.0026
4.0292	0.0200	-1.0827	0.0012	1.4820	0.0200	-0.8284	0.0017	0.2489	0.0200	-0.4360	0.0028
3.9791	0.0200	-1.0802	0.0012	1.4626	0.0200	-0.8249	0.0017	0.2325	0.0200	-0.4244	0.0029
3.9288	0.0200	-1.0776	0.0012	1.4437	0.0200	-0.8216	0.0017	0.2166	0.0200	-0.4126	0.0031
3.8770	0.0200	-1.0747	0.0010	1.4250	0.0200	-0.8184	0.0018	0.2010	0.0200	-0.4005	0.0033
3.8271	0.0200	-1.0719	0.0010	1.4061	0.0200	-0.8149	0.0018	0.1865	0.0200	-0.3884	0.0033
3.7756	0.0200	-1.0691	0.0010	1.3875	0.0200	-0.8115	0.0019	0.1714	0.0200	-0.3754	0.0035
3.7256	0.0200	-1.0664	0.0011	1.3680	0.0200	-0.8079	0.0019	0.1561	0.0200	-0.3615	0.0038
3.6744	0.0200	-1.0631	0.0008	1.3490	0.0200	-0.8043	0.0019	0.1413	0.0200	-0.3463	0.0034
3.6236	0.0200	-1.0601	0.0009	1.3290	0.0200	-0.8004	0.0019	0.1227	0.0200	-0.3266	0.0036
3.5733	0.0200	-1.0572	0.0010	1.3098	0.0200	-0.7967	0.0019	0.1146	0.0200	-0.3182	0.0041
3.5222	0.0200	-1.0540	0.0011	1.2914	0.0200	-0.7932	0.0020	0.1021	0.0200	-0.3038	0.0047
3.4719	0.0200	-1.0507	0.0010	1.2723	0.0200	-0.7893	0.0018	0.0898	0.0200	-0.2881	0.0048
3.4202	0.0200	-1.0473	0.0011	1.2531	0.0200	-0.7853	0.0018	0.0792	0.0200	-0.2722	0.0043
3.3711	0.0200	-1.0440	0.0012	1.2355	0.0200	-0.7818	0.0018	0.0690	0.0200	-0.2551	0.0036
3.3204	0.0200	-1.0403	0.0011	1.2160	0.0200	-0.7778	0.0018	0.0595	0.0200	-0.2379	0.0030
3.2698	0.0200	-1.0366	0.0011	1.1961	0.0200	-0.7737	0.0019	0.0497	0.0200	-0.2201	0.0031
3.2193	0.0200	-1.0329	0.0010	1.1772	0.0200	-0.7697	0.0020	0.0403	0.0200	-0.2022	0.0038
3.1686	0.0200	-1.0292	0.0013	1.1580	0.0200	-0.7656	0.0020	0.0327	0.0200	-0.1846	0.0038
3.1179	0.0200	-1.0250	0.0010	1.1390	0.0200	-0.7614	0.0019	0.0257	0.0200	-0.1657	0.0034
3.0668	0.0200	-1.0208	0.0010	1.1214	0.0200	-0.7576	0.0020	0.0193	0.0200	-0.1455	0.0029
3.0160	0.0200	-1.0165	0.0009	1.1031	0.0200	-0.7534	0.0019	0.0144	0.0200	-0.1260	0.0021
2.9653	0.0200	-1.0125	0.0012	1.0835	0.0200	-0.7489	0.0019	0.0098	0.0200	-0.1060	0.0017
2.9144	0.0200	-1.0080	0.0011	1.0648	0.0200	-0.7446	0.0020	0.0058	0.0200	-0.0865	0.0018
2.8639	0.0200	-1.0034	0.0011	1.0461	0.0200	-0.7403	0.0020	0.0022	0.0200	-0.0661	0.0022
2.8135	0.0200	-0.9988	0.0011	1.0276	0.0200	-0.7359	0.0020	-0.0002	0.0200	-0.0468	0.0023
2.7626	0.0200	-0.9942	0.0013	1.0080	0.0200	-0.7311	0.0019	-0.0014	0.0200	-0.0266	0.0021
2.7117	0.0200	-0.9894	0.0014	0.9887	0.0200	-0.7264	0.0020				
2.6618	0.0200	-0.9844	0.0013	0.9695	0.0200	-0.7217	0.0021				
2.6109	0.0200	-0.9793	0.0014	0.9510	0.0200	-0.7170	0.0021				

Table A5. Chordwise Airfoil Measurements at $y = 1.6$ in.

Upper Surface   y = 1.6 inches
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0005	1.6000	-0.0069	0.0006	0.9525	1.6000	0.7148	0.0002	2.6877	1.6000	0.9776	0.0014
-0.0003	1.6000	0.0136	0.0003	0.9723	1.6000	0.7197	0.0002	2.7372	1.6000	0.9822	0.0014
0.0010	1.6000	0.0340	0.0001	0.9936	1.6000	0.7250	0.0003	2.7875	1.6000	0.9869	0.0016
0.0032	1.6000	0.0550	0.0004	1.0134	1.6000	0.7298	0.0003	2.8375	1.6000	0.9914	0.0018
0.0059	1.6000	0.0743	0.0006	1.0336	1.6000	0.7346	0.0005	2.8878	1.6000	0.9959	0.0019
0.0096	1.6000	0.0933	0.0009	1.0536	1.6000	0.7392	0.0004	2.9360	1.6000	1.0000	0.0021
0.0140	1.6000	0.1123	0.0011	1.0740	1.6000	0.7440	0.0005	2.9867	1.6000	1.0043	0.0022
0.0190	1.6000	0.1309	0.0011	1.0934	1.6000	0.7484	0.0006	3.0365	1.6000	1.0084	0.0023
0.0247	1.6000	0.1493	0.0011	1.1128	1.6000	0.7527	0.0007	3.0875	1.6000	1.0127	0.0025
0.0312	1.6000	0.1678	0.0010	1.1327	1.6000	0.7571	0.0008	3.1380	1.6000	1.0167	0.0026
0.0384	1.6000	0.1863	0.0009	1.1530	1.6000	0.7614	0.0007	3.1887	1.6000	1.0205	0.0025
0.0460	1.6000	0.2036	0.0007	1.1721	1.6000	0.7656	0.0008	3.2391	1.6000	1.0246	0.0027
0.0547	1.6000	0.2215	0.0006	1.1925	1.6000	0.7698	0.0008	3.2886	1.6000	1.0282	0.0027
0.0637	1.6000	0.2383	0.0005	1.2121	1.6000	0.7738	0.0008	3.3398	1.6000	1.0319	0.0026
0.0737	1.6000	0.2549	0.0005	1.2322	1.6000	0.7780	0.0009	3.3916	1.6000	1.0356	0.0027
0.0848	1.6000	0.2719	0.0004	1.2516	1.6000	0.7818	0.0009	3.4423	1.6000	1.0391	0.0026
0.0959	1.6000	0.2876	0.0003	1.2721	1.6000	0.7859	0.0009	3.4932	1.6000	1.0425	0.0027
0.1077	1.6000	0.3030	0.0002	1.2919	1.6000	0.7898	0.0009	3.5438	1.6000	1.0458	0.0027
0.1206	1.6000	0.3182	0.0004	1.3120	1.6000	0.7935	0.0008	3.5953	1.6000	1.0491	0.0027
0.1337	1.6000	0.3332	0.0001	1.3314	1.6000	0.7972	0.0008	3.6453	1.6000	1.0522	0.0027
0.1468	1.6000	0.3468	0.0001	1.3513	1.6000	0.8009	0.0009	3.6964	1.6000	1.0554	0.0029
0.1615	1.6000	0.3613	0.0001	1.3710	1.6000	0.8044	0.0007	3.7470	1.6000	1.0584	0.0030
0.1762	1.6000	0.3747	0.0002	1.3910	1.6000	0.8081	0.0008	3.7972	1.6000	1.0612	0.0030
0.1917	1.6000	0.3880	0.0003	1.4105	1.6000	0.8116	0.0008	3.8476	1.6000	1.0642	0.0032
0.2072	1.6000	0.4007	0.0004	1.4303	1.6000	0.8150	0.0007	3.8981	1.6000	1.0670	0.0033
0.1902	1.6000	0.3869	0.0002	1.4506	1.6000	0.8186	0.0007	3.9487	1.6000	1.0696	0.0033
0.1984	1.6000	0.3935	0.0005	1.4707	1.6000	0.8219	0.0005	3.9995	1.6000	1.0723	0.0035
0.2138	1.6000	0.4055	0.0008	1.4911	1.6000	0.8253	0.0005	4.0506	1.6000	1.0749	0.0036
0.2290	1.6000	0.4176	0.0005	1.5104	1.6000	0.8285	0.0005	4.1004	1.6000	1.0773	0.0037
0.2445	1.6000	0.4289	0.0005	1.5302	1.6000	0.8318	0.0004	4.1511	1.6000	1.0799	0.0040
0.2611	1.6000	0.4404	0.0005	1.5496	1.6000	0.8350	0.0004	4.2025	1.6000	1.0823	0.0041
0.2779	1.6000	0.4515	0.0007	1.5698	1.6000	0.8383	0.0004	4.2519	1.6000	1.0845	0.0042
0.2949	1.6000	0.4624	0.0007	1.5886	1.6000	0.8414	0.0004	4.3013	1.6000	1.0866	0.0042
0.3119	1.6000	0.4728	0.0006	1.6091	1.6000	0.8446	0.0004	4.3525	1.6000	1.0888	0.0043
0.3290	1.6000	0.4830	0.0006	1.6286	1.6000	0.8477	0.0004	4.4026	1.6000	1.0908	0.0043
0.3469	1.6000	0.4932	0.0006	1.6482	1.6000	0.8507	0.0004	4.4528	1.6000	1.0927	0.0042
0.3640	1.6000	0.5027	0.0005	1.6681	1.6000	0.8538	0.0004	4.5033	1.6000	1.0948	0.0043
0.3813	1.6000	0.5120	0.0005	1.6888	1.6000	0.8569	0.0003	4.5537	1.6000	1.0967	0.0042
0.3992	1.6000	0.5214	0.0003	1.7087	1.6000	0.8599	0.0003	4.6063	1.6000	1.0984	0.0040
0.4176	1.6000	0.5308	0.0002	1.7278	1.6000	0.8628	0.0003	4.6555	1.6000	1.1000	0.0038
0.4345	1.6000	0.5391	0.0001	1.7488	1.6000	0.8660	0.0004	4.7059	1.6000	1.1018	0.0039
0.4524	1.6000	0.5475	0.0000	1.7683	1.6000	0.8687	0.0003	4.7563	1.6000	1.1033	0.0037
0.4712	1.6000	0.5562	0.0001	1.7888	1.6000	0.8717	0.0003	4.8069	1.6000	1.1047	0.0034
0.4902	1.6000	0.5648	0.0003	1.8092	1.6000	0.8746	0.0003	4.8582	1.6000	1.1062	0.0034
0.5084	1.6000	0.5727	0.0004	1.8294	1.6000	0.8776	0.0004	4.9081	1.6000	1.1076	0.0034
0.5272	1.6000	0.5807	0.0006	1.8505	1.6000	0.8805	0.0004	4.9585	1.6000	1.1089	0.0033
0.5460	1.6000	0.5886	0.0008	1.8701	1.6000	0.8833	0.0004	5.0094	1.6000	1.1101	0.0033
0.5650	1.6000	0.5961	0.0008	1.8895	1.6000	0.8859	0.0004	5.0595	1.6000	1.1114	0.0034
0.5841	1.6000	0.6034	0.0008	1.9108	1.6000	0.8887	0.0003	5.1102	1.6000	1.1127	0.0038
0.6028	1.6000	0.6105	0.0009	1.9312	1.6000	0.8916	0.0004	5.1616	1.6000	1.1137	0.0038
0.6213	1.6000	0.6172	0.0009	1.9510	1.6000	0.8942	0.0004	5.2119	1.6000	1.1149	0.0039
0.6413	1.6000	0.6243	0.0010	1.9723	1.6000	0.8970	0.0004	5.2617	1.6000	1.1158	0.0040
0.6600	1.6000	0.6307	0.0009	1.9898	1.6000	0.8994	0.0004	5.3117	1.6000	1.1169	0.0042
0.6787	1.6000	0.6370	0.0009	1.9914	1.6000	0.8996	0.0004	5.3626	1.6000	1.1179	0.0042
0.6985	1.6000	0.6435	0.0009	2.0360	1.6000	0.9053	0.0005	5.4144	1.6000	1.1187	0.0040
0.7174	1.6000	0.6495	0.0008	2.0853	1.6000	0.9116	0.0005	5.4641	1.6000	1.1198	0.0041
0.7369	1.6000	0.6555	0.0008	2.1357	1.6000	0.9178	0.0006	5.5145	1.6000	1.1206	0.0038
0.7557	1.6000	0.6612	0.0007	2.1854	1.6000	0.9239	0.0008	5.5649	1.6000	1.1214	0.0037
0.7754	1.6000	0.6670	0.0006	2.2351	1.6000	0.9298	0.0008	5.6154	1.6000	1.1221	0.0034
0.7947	1.6000	0.6727	0.0006	2.2852	1.6000	0.9355	0.0009	5.6660	1.6000	1.1228	0.0034
0.8149	1.6000	0.6783	0.0004	2.3351	1.6000	0.9412	0.0010	5.7168	1.6000	1.1236	0.0035
0.8345	1.6000	0.6838	0.0004	2.3846	1.6000	0.9466	0.0011	5.7667	1.6000	1.1241	0.0036
0.8546	1.6000	0.6892	0.0003	2.4341	1.6000	0.9520	0.0012	5.8170	1.6000	1.1246	0.0036
0.8735	1.6000	0.6943	0.0002	2.4854	1.6000	0.9575	0.0013	5.8682	1.6000	1.1253	0.0040
0.8933	1.6000	0.6995	0.0001	2.5365	1.6000	0.9627	0.0012	5.9179	1.6000	1.1257	0.0041
0.9135	1.6000	0.7048	0.0001	2.5864	1.6000	0.9677	0.0013	5.9697	1.6000	1.1263	0.0044
0.9332	1.6000	0.7098	0.0001	2.6363	1.6000	0.9727	0.0014	6.0205	1.6000	1.1266	0.0045

Table A5. Continued

	Upper Surface	y = 1.6 Inches									
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0693	1.6000	1.1269	0.0046	9.4732	1.6000	1.0196	0.0045	12.8872	1.6000	0.6193	0.0050
6.1200	1.6000	1.1272	0.0047	9.5252	1.6000	1.0153	0.0042	12.9370	1.6000	0.6117	0.0050
6.1710	1.6000	1.1275	0.0048	9.5755	1.6000	1.0115	0.0043	12.9862	1.6000	0.6041	0.0048
6.2225	1.6000	1.1277	0.0049	9.6282	1.6000	1.0073	0.0043	13.0358	1.6000	0.5960	0.0044
6.2737	1.6000	1.1277	0.0048	9.6778	1.6000	1.0031	0.0042	13.0847	1.6000	0.5883	0.0042
6.3241	1.6000	1.1279	0.0048	9.7281	1.6000	0.9990	0.0043	13.1330	1.6000	0.5809	0.0043
6.3745	1.6000	1.1279	0.0048	9.7795	1.6000	0.9946	0.0043	13.1827	1.6000	0.5733	0.0044
6.4273	1.6000	1.1278	0.0046	9.8300	1.6000	0.9903	0.0044	13.2319	1.6000	0.5654	0.0042
6.4762	1.6000	1.1279	0.0046	9.8799	1.6000	0.9858	0.0043	13.2808	1.6000	0.5579	0.0043
6.5265	1.6000	1.1277	0.0044	9.9300	1.6000	0.9814	0.0045	13.3286	1.6000	0.5503	0.0043
6.5771	1.6000	1.1274	0.0043	9.9815	1.6000	0.9769	0.0046	13.3775	1.6000	0.5425	0.0042
6.6287	1.6000	1.1271	0.0042	10.0319	1.6000	0.9721	0.0045	13.4261	1.6000	0.5346	0.0041
6.6793	1.6000	1.1266	0.0042	10.0810	1.6000	0.9676	0.0045	13.4756	1.6000	0.5265	0.0039
6.7302	1.6000	1.1263	0.0044	10.1325	1.6000	0.9628	0.0044	13.5240	1.6000	0.5188	0.0040
6.7802	1.6000	1.1259	0.0046	10.1841	1.6000	0.9579	0.0043	13.5714	1.6000	0.5111	0.0040
6.8311	1.6000	1.1254	0.0047	10.2340	1.6000	0.9533	0.0044	13.6209	1.6000	0.5029	0.0039
6.8825	1.6000	1.1247	0.0047	10.2845	1.6000	0.9482	0.0041	13.6694	1.6000	0.4949	0.0038
6.9334	1.6000	1.1241	0.0049	10.3360	1.6000	0.9433	0.0042	13.7174	1.6000	0.4870	0.0038
6.9836	1.6000	1.1234	0.0049	10.3866	1.6000	0.9381	0.0039	13.7660	1.6000	0.4790	0.0038
7.0344	1.6000	1.1226	0.0049	10.4384	1.6000	0.9329	0.0040	13.8142	1.6000	0.4709	0.0037
7.0862	1.6000	1.1218	0.0048	10.4905	1.6000	0.9276	0.0040	13.8628	1.6000	0.4628	0.0037
7.1369	1.6000	1.1211	0.0049	10.5403	1.6000	0.9226	0.0041	13.9113	1.6000	0.4545	0.0034
7.1871	1.6000	1.1203	0.0048	10.5909	1.6000	0.9173	0.0043	13.9598	1.6000	0.4464	0.0034
7.2383	1.6000	1.1192	0.0047	10.6416	1.6000	0.9119	0.0043	14.0083	1.6000	0.4382	0.0033
7.2897	1.6000	1.1182	0.0045	10.6924	1.6000	0.9063	0.0041	14.0565	1.6000	0.4299	0.0031
7.3394	1.6000	1.1173	0.0045	10.7443	1.6000	0.9009	0.0043	14.1050	1.6000	0.4216	0.0030
7.3895	1.6000	1.1162	0.0044	10.7952	1.6000	0.8953	0.0042	14.1535	1.6000	0.4133	0.0030
7.4409	1.6000	1.1151	0.0044	10.8458	1.6000	0.8898	0.0042	14.2013	1.6000	0.4050	0.0030
7.4914	1.6000	1.1139	0.0043	10.8982	1.6000	0.8839	0.0041	14.2504	1.6000	0.3965	0.0030
7.5413	1.6000	1.1127	0.0045	10.9506	1.6000	0.8780	0.0039	14.2985	1.6000	0.3879	0.0030
7.5911	1.6000	1.1114	0.0046	11.0021	1.6000	0.8723	0.0040	14.3477	1.6000	0.3795	0.0034
7.6416	1.6000	1.1100	0.0047	11.0539	1.6000	0.8662	0.0037	14.3963	1.6000	0.3710	0.0037
7.6913	1.6000	1.1088	0.0050	11.1060	1.6000	0.8601	0.0036	14.4447	1.6000	0.3621	0.0036
7.7429	1.6000	1.1074	0.0053 *	11.1582	1.6000	0.8541	0.0038	14.4933	1.6000	0.3535	0.0037
7.7938	1.6000	1.1059	0.0053 *	11.2071	1.6000	0.8484	0.0039	14.5416	1.6000	0.3450	0.0040
7.8449	1.6000	1.1044	0.0054 *	11.2604	1.6000	0.8419	0.0039	14.5906	1.6000	0.3362	0.0040
7.8963	1.6000	1.1028	0.0052 *	11.3117	1.6000	0.8355	0.0038	14.6391	1.6000	0.3274	0.0039
7.9474	1.6000	1.1013	0.0052 *	11.3647	1.6000	0.8292	0.0042	14.6872	1.6000	0.3187	0.0038
7.9986	1.6000	1.0995	0.0050	11.4155	1.6000	0.8230	0.0044	14.7356	1.6000	0.3098	0.0036
8.0478	1.6000	1.0978	0.0051 *	11.4686	1.6000	0.8145	0.0029	14.7839	1.6000	0.3011	0.0036
8.0995	1.6000	1.0960	0.0055 *	11.5212	1.6000	0.8082	0.0034	14.8318	1.6000	0.2922	0.0034
8.1507	1.6000	1.0940	0.0057 *	11.5716	1.6000	0.8019	0.0038	14.8790	1.6000	0.2834	0.0032
8.2012	1.6000	1.0920	0.0057 *	11.6246	1.6000	0.7953	0.0040	14.9272	1.6000	0.2744	0.0031
8.2535	1.6000	1.0900	0.0057 *	11.6752	1.6000	0.7887	0.0040	14.9742	1.6000	0.2659	0.0034
8.3048	1.6000	1.0877	0.0054 *	11.7272	1.6000	0.7821	0.0042	15.0230	1.6000	0.2564	0.0031
8.3539	1.6000	1.0859	0.0055 *	11.7775	1.6000	0.7756	0.0041	15.0714	1.6000	0.2472	0.0030
8.4046	1.6000	1.0837	0.0053 *	11.8296	1.6000	0.7688	0.0041	15.1189	1.6000	0.2381	0.0031
8.4566	1.6000	1.0812	0.0050	11.8810	1.6000	0.7621	0.0040	15.1668	1.6000	0.2290	0.0033
8.5072	1.6000	1.0788	0.0048	11.9324	1.6000	0.7555	0.0041	15.2158	1.6000	0.2195	0.0033
8.5584	1.6000	1.0764	0.0048	11.9831	1.6000	0.7489	0.0042	15.2641	1.6000	0.2099	0.0033
8.6090	1.6000	1.0740	0.0048	12.0349	1.6000	0.7419	0.0042	15.3121	1.6000	0.2005	0.0033
8.6596	1.6000	1.0713	0.0046	12.0853	1.6000	0.7350	0.0042	15.3612	1.6000	0.1907	0.0034
8.7099	1.6000	1.0687	0.0046	12.1358	1.6000	0.7284	0.0046	15.4088	1.6000	0.1813	0.0035
8.7605	1.6000	1.0660	0.0046	12.1877	1.6000	0.7214	0.0049	15.4582	1.6000	0.1712	0.0034
8.8120	1.6000	1.0632	0.0047	12.2381	1.6000	0.7143	0.0049	15.5061	1.6000	0.1616	0.0035
8.8619	1.6000	1.0603	0.0046	12.2894	1.6000	0.7071	0.0050	15.5547	1.6000	0.1518	0.0036
8.9127	1.6000	1.0573	0.0045	12.3391	1.6000	0.7001	0.0052 *	15.6028	1.6000	0.1419	0.0036
8.9637	1.6000	1.0545	0.0047	12.3897	1.6000	0.6930	0.0054 *	15.6508	1.6000	0.1321	0.0038
9.0148	1.6000	1.0513	0.0046	12.4406	1.6000	0.6858	0.0055 *	15.6990	1.6000	0.1222	0.0039
9.0666	1.6000	1.0479	0.0045	12.4906	1.6000	0.6783	0.0052 *	15.7470	1.6000	0.1124	0.0042
9.1166	1.6000	1.0447	0.0045	12.5402	1.6000	0.6711	0.0052 *	15.7938	1.6000	0.1022	0.0041
9.1688	1.6000	1.0414	0.0046	12.5900	1.6000	0.6641	0.0055 *	15.8417	1.6000	0.0918	0.0041
9.2185	1.6000	1.0380	0.0046	12.6407	1.6000	0.6564	0.0053 *	15.8888	1.6000	0.0814	0.0041
9.2698	1.6000	1.0344	0.0045	12.6899	1.6000	0.6490	0.0051 *	15.9376	1.6000	0.0708	0.0042
9.3203	1.6000	1.0307	0.0044	12.7389	1.6000	0.6419	0.0053 *				
9.3721	1.6000	1.0271	0.0044	12.7896	1.6000	0.6342	0.0052 *				
9.4230	1.6000	1.0233	0.0044	12.8389	1.6000	0.6268	0.0052 *				

Table A5. Continued

Lower Surface y = 1.6 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9807	1.6000	-0.0424	0.0031	12.6515	1.6000	-0.1811	0.0022	9.3374	1.6000	-0.8568	0.0029
15.9708	1.6000	-0.0403	0.0029	12.6030	1.6000	-0.1907	0.0021	9.2864	1.6000	-0.8649	0.0027
15.9224	1.6000	-0.0303	0.0024	12.5531	1.6000	-0.2005	0.0022	9.2360	1.6000	-0.8728	0.0025
15.8741	1.6000	-0.0211	0.0022	12.5030	1.6000	-0.2104	0.0022	9.1862	1.6000	-0.8805	0.0023
15.8276	1.6000	-0.0130	0.0023	12.4541	1.6000	-0.2200	0.0024	9.1374	1.6000	-0.8881	0.0021
15.7758	1.6000	-0.0044	0.0025	12.4046	1.6000	-0.2300	0.0023	9.0877	1.6000	-0.8955	0.0021
15.7266	1.6000	0.0031	0.0028	12.3550	1.6000	-0.2402	0.0023	9.0378	1.6000	-0.9028	0.0022
15.6775	1.6000	0.0105	0.0027	12.3054	1.6000	-0.2503	0.0022	8.9871	1.6000	-0.9102	0.0023
15.6254	1.6000	0.0180	0.0025	12.2546	1.6000	-0.2608	0.0022	8.9377	1.6000	-0.9173	0.0024
15.5732	1.6000	0.0251	0.0021	12.2063	1.6000	-0.2710	0.0021	8.8878	1.6000	-0.9243	0.0027
15.5231	1.6000	0.0313	0.0019	12.1563	1.6000	-0.2814	0.0021	8.8377	1.6000	-0.9311	0.0028
15.4727	1.6000	0.0367	0.0020	12.1067	1.6000	-0.2919	0.0020	8.7866	1.6000	-0.9382	0.0028
15.4212	1.6000	0.0418	0.0020	12.0582	1.6000	-0.3023	0.0020	8.7375	1.6000	-0.9447	0.0028
15.3708	1.6000	0.0464	0.0020	12.0088	1.6000	-0.3128	0.0021	8.6879	1.6000	-0.9512	0.0028
15.3202	1.6000	0.0504	0.0021	11.9595	1.6000	-0.3234	0.0021	8.6378	1.6000	-0.9574	0.0029
15.2698	1.6000	0.0544	0.0018	11.9097	1.6000	-0.3344	0.0021	8.5870	1.6000	-0.9638	0.0028
15.2182	1.6000	0.0574	0.0022	11.8618	1.6000	-0.3449	0.0021	8.5366	1.6000	-0.9700	0.0025
15.1672	1.6000	0.0607	0.0020	11.8113	1.6000	-0.3558	0.0023	8.4873	1.6000	-0.9758	0.0026
15.1167	1.6000	0.0632	0.0023	11.7613	1.6000	-0.3668	0.0023	8.4364	1.6000	-0.9817	0.0025
15.0660	1.6000	0.0657	0.0021	11.7130	1.6000	-0.3775	0.0023	8.3865	1.6000	-0.9874	0.0023
15.0148	1.6000	0.0682	0.0018	11.6634	1.6000	-0.3884	0.0024	8.3362	1.6000	-0.9929	0.0023
14.9638	1.6000	0.0699	0.0018	11.6139	1.6000	-0.3993	0.0024	8.2864	1.6000	-0.9982	0.0021
14.9133	1.6000	0.0711	0.0019	11.5652	1.6000	-0.4099	0.0025	8.2356	1.6000	-1.0035	0.0020
14.8624	1.6000	0.0721	0.0018	11.5154	1.6000	-0.4211	0.0023	8.1858	1.6000	-1.0085	0.0019
14.8122	1.6000	0.0725	0.0018	11.4661	1.6000	-0.4320	0.0022	8.1344	1.6000	-1.0136	0.0015
14.7608	1.6000	0.0727	0.0017	11.4162	1.6000	-0.4429	0.0023	8.0831	1.6000	-1.0186	0.0012
14.7101	1.6000	0.0722	0.0018	11.3669	1.6000	-0.4538	0.0022	8.0336	1.6000	-1.0233	0.0009
14.6588	1.6000	0.0715	0.0017	11.3183	1.6000	-0.4644	0.0023	7.9833	1.6000	-1.0278	0.0009
14.6082	1.6000	0.0703	0.0017	11.2685	1.6000	-0.4755	0.0023	7.9317	1.6000	-1.0325	0.0009
14.5582	1.6000	0.0690	0.0014	11.2197	1.6000	-0.4861	0.0024	7.8807	1.6000	-1.0369	0.0011
14.5064	1.6000	0.0668	0.0014	11.1704	1.6000	-0.4969	0.0025	7.8308	1.6000	-1.0409	0.0015
14.4559	1.6000	0.0643	0.0014	11.1210	1.6000	-0.5078	0.0025	7.7799	1.6000	-1.0451	0.0016
14.4042	1.6000	0.0617	0.0010	11.0719	1.6000	-0.5184	0.0026	7.7294	1.6000	-1.0492	0.0016
14.3537	1.6000	0.0587	0.0008	11.0214	1.6000	-0.5294	0.0026	7.6786	1.6000	-1.0530	0.0016
14.3035	1.6000	0.0554	0.0007	10.9726	1.6000	-0.5398	0.0028	7.6281	1.6000	-1.0568	0.0015
14.2534	1.6000	0.0518	0.0004	10.9227	1.6000	-0.5505	0.0029	7.5763	1.6000	-1.0604	0.0015
14.2032	1.6000	0.0480	0.0002	10.8730	1.6000	-0.5613	0.0027	7.5268	1.6000	-1.0638	0.0014
14.1532	1.6000	0.0442	0.0003	10.8234	1.6000	-0.5720	0.0027	7.4767	1.6000	-1.0671	0.0012
14.1029	1.6000	0.0397	0.0004	10.7741	1.6000	-0.5822	0.0030	7.4258	1.6000	-1.0703	0.0010
14.0525	1.6000	0.0348	0.0002	10.7250	1.6000	-0.5927	0.0030	7.3752	1.6000	-1.0734	0.0007
14.0025	1.6000	0.0298	0.0002	10.6753	1.6000	-0.6031	0.0031	7.3239	1.6000	-1.0765	0.0005
13.9524	1.6000	0.0246	0.0002	10.6264	1.6000	-0.6134	0.0032	7.2736	1.6000	-1.0793	0.0002
13.9030	1.6000	0.0192	0.0002	10.5765	1.6000	-0.6238	0.0033	7.2224	1.6000	-1.0820	0.0001
13.8514	1.6000	0.0133	0.0002	10.5272	1.6000	-0.6340	0.0034	7.1714	1.6000	-1.0848	0.0002
13.8008	1.6000	0.0073	0.0002	10.4777	1.6000	-0.6443	0.0035	7.1210	1.6000	-1.0872	0.0003
13.7509	1.6000	0.0013	0.0004	10.4275	1.6000	-0.6545	0.0037	7.0696	1.6000	-1.0897	0.0004
13.7001	1.6000	-0.0051	0.0005	10.3793	1.6000	-0.6645	0.0037	7.0193	1.6000	-1.0920	0.0004
13.6493	1.6000	-0.0119	0.0005	10.3293	1.6000	-0.6746	0.0039	6.9690	1.6000	-1.0941	0.0003
13.5990	1.6000	-0.0188	0.0006	10.2800	1.6000	-0.6846	0.0038	6.9183	1.6000	-1.0962	0.0002
13.5486	1.6000	-0.0258	0.0008	10.2310	1.6000	-0.6945	0.0038	6.8675	1.6000	-1.0983	0.0002
13.4982	1.6000	-0.0333	0.0008	10.1807	1.6000	-0.7046	0.0037	6.8165	1.6000	-1.1002	0.0000
13.4477	1.6000	-0.0409	0.0009	10.1312	1.6000	-0.7142	0.0038	6.7660	1.6000	-1.1018	0.0003
13.3982	1.6000	-0.0486	0.0010	10.0824	1.6000	-0.7238	0.0037	6.7154	1.6000	-1.1034	0.0006
13.3486	1.6000	-0.0563	0.0012	10.0322	1.6000	-0.7337	0.0034	6.6644	1.6000	-1.1053	0.0005
13.2985	1.6000	-0.0643	0.0014	9.9833	1.6000	-0.7430	0.0033	6.6137	1.6000	-1.1067	0.0007
13.2481	1.6000	-0.0727	0.0014	9.9340	1.6000	-0.7523	0.0031	6.5632	1.6000	-1.1080	0.0007
13.1986	1.6000	-0.0810	0.0015	9.8849	1.6000	-0.7616	0.0029	6.5123	1.6000	-1.1093	0.0006
13.1477	1.6000	-0.0898	0.0015	9.8358	1.6000	-0.7707	0.0027	6.4617	1.6000	-1.1106	0.0003
13.0979	1.6000	-0.0983	0.0017	9.7866	1.6000	-0.7796	0.0027	6.4110	1.6000	-1.1118	0.0000
13.0482	1.6000	-0.1069	0.0019	9.7368	1.6000	-0.7887	0.0026	6.3609	1.6000	-1.1127	0.0000
12.9990	1.6000	-0.1158	0.0018	9.6870	1.6000	-0.7976	0.0027	6.3109	1.6000	-1.1136	0.0001
12.9490	1.6000	-0.1250	0.0017	9.6370	1.6000	-0.8064	0.0028	6.2608	1.6000	-1.1147	0.0004
12.9002	1.6000	-0.1338	0.0020	9.5876	1.6000	-0.8151	0.0029	6.2094	1.6000	-1.1155	0.0005
12.8506	1.6000	-0.1430	0.0021	9.5369	1.6000	-0.8239	0.0029	6.1581	1.6000	-1.1162	0.0004
12.8008	1.6000	-0.1526	0.0019	9.4869	1.6000	-0.8321	0.0032	6.1072	1.6000	-1.1169	0.0005
12.7511	1.6000	-0.1621	0.0020	9.4368	1.6000	-0.8404	0.0033	6.0569	1.6000	-1.1174	0.0004
12.7021	1.6000	-0.1712	0.0023	9.3869	1.6000	-0.8487	0.0031	6.0063	1.6000	-1.1182	0.0006

				Lower Surface		y = 1.6 inches					
x	**y**	**z**	**Dev**	**x**	**y**	**z**	**Dev**	**x**	**y**	**z**	**Dev**
5.9557	1.6000	-1.1187	0.0006	2.5603	1.6000	-0.9737	0.0011	0.9328	1.6000	-0.7128	0.0025
5.9047	1.6000	-1.1190	0.0005	2.5090	1.6000	-0.9684	0.0012	0.9139	1.6000	-0.7079	0.0026
5.8543	1.6000	-1.1194	0.0005	2.4566	1.6000	-0.9626	0.0012	0.8946	1.6000	-0.7028	0.0027
5.8034	1.6000	-1.1199	0.0006	2.4073	1.6000	-0.9571	0.0011	0.8761	1.6000	-0.6980	0.0028
5.7529	1.6000	-1.1200	0.0005	2.3551	1.6000	-0.9514	0.0013	0.8576	1.6000	-0.6927	0.0027
5.7017	1.6000	-1.1202	0.0005	2.3025	1.6000	-0.9453	0.0012	0.8389	1.6000	-0.6876	0.0027
5.6511	1.6000	-1.1202	0.0004	2.2532	1.6000	-0.9395	0.0012	0.8204	1.6000	-0.6825	0.0029
5.6007	1.6000	-1.1203	0.0003	2.2004	1.6000	-0.9329	0.0010	0.8013	1.6000	-0.6770	0.0029
5.5501	1.6000	-1.1203	0.0002	2.1485	1.6000	-0.9266	0.0011	0.7830	1.6000	-0.6716	0.0029
5.4990	1.6000	-1.1201	0.0000	2.0977	1.6000	-0.9201	0.0010	0.7641	1.6000	-0.6660	0.0030
5.4498	1.6000	-1.1200	0.0000	2.0453	1.6000	-0.9133	0.0010	0.7448	1.6000	-0.6603	0.0030
5.3982	1.6000	-1.1198	0.0000	1.9947	1.6000	-0.9066	0.0011	0.7264	1.6000	-0.6547	0.0032
5.3477	1.6000	-1.1195	0.0000	1.9964	1.6000	-0.9069	0.0011	0.7082	1.6000	-0.6488	0.0031
5.2969	1.6000	-1.1189	0.0001	1.9810	1.6000	-0.9047	0.0010	0.6894	1.6000	-0.6428	0.0031
5.2469	1.6000	-1.1183	0.0001	1.9595	1.6000	-0.9019	0.0012	0.6710	1.6000	-0.6366	0.0031
5.1957	1.6000	-1.1179	0.0001	1.9389	1.6000	-0.8989	0.0010	0.6523	1.6000	-0.6304	0.0032
5.1447	1.6000	-1.1172	0.0002	1.9169	1.6000	-0.8960	0.0011	0.6337	1.6000	-0.6239	0.0032
5.0947	1.6000	-1.1163	0.0001	1.8960	1.6000	-0.8931	0.0012	0.6154	1.6000	-0.6174	0.0032
5.0441	1.6000	-1.1155	0.0003	1.8767	1.6000	-0.8903	0.0011	0.5967	1.6000	-0.6106	0.0032
4.9933	1.6000	-1.1147	0.0004	1.8554	1.6000	-0.8872	0.0010	0.5779	1.6000	-0.6038	0.0034
4.9421	1.6000	-1.1137	0.0005	1.8353	1.6000	-0.8843	0.0011	0.5597	1.6000	-0.5968	0.0034
4.8912	1.6000	-1.1125	0.0003	1.8138	1.6000	-0.8811	0.0011	0.5410	1.6000	-0.5893	0.0034
4.8416	1.6000	-1.1116	0.0006	1.7932	1.6000	-0.8782	0.0012	0.5221	1.6000	-0.5817	0.0035
4.7906	1.6000	-1.1104	0.0006	1.7732	1.6000	-0.8752	0.0012	0.5045	1.6000	-0.5743	0.0034
4.7399	1.6000	-1.1091	0.0005	1.7533	1.6000	-0.8722	0.0012	0.4863	1.6000	-0.5664	0.0034
4.6884	1.6000	-1.1078	0.0006	1.7336	1.6000	-0.8692	0.0012	0.4690	1.6000	-0.5587	0.0033
4.6371	1.6000	-1.1063	0.0005	1.7132	1.6000	-0.8660	0.0012	0.4511	1.6000	-0.5506	0.0033
4.5879	1.6000	-1.1049	0.0006	1.6946	1.6000	-0.8631	0.0012	0.4335	1.6000	-0.5423	0.0032
4.5366	1.6000	-1.1033	0.0006	1.6746	1.6000	-0.8600	0.0012	0.4160	1.6000	-0.5336	0.0031
4.4850	1.6000	-1.1016	0.0006	1.6547	1.6000	-0.8568	0.0011	0.3990	1.6000	-0.5252	0.0031
4.4351	1.6000	-1.1000	0.0008	1.6361	1.6000	-0.8539	0.0012	0.3820	1.6000	-0.5163	0.0030
4.3846	1.6000	-1.0982	0.0009	1.6158	1.6000	-0.8505	0.0012	0.3649	1.6000	-0.5072	0.0030
4.3335	1.6000	-1.0962	0.0010	1.5975	1.6000	-0.8476	0.0012	0.3483	1.6000	-0.4980	0.0029
4.2833	1.6000	-1.0942	0.0010	1.5771	1.6000	-0.8442	0.0013	0.3310	1.6000	-0.4882	0.0029
4.2321	1.6000	-1.0922	0.0012	1.5582	1.6000	-0.8411	0.0012	0.3144	1.6000	-0.4784	0.0028
4.1812	1.6000	-1.0899	0.0012	1.5389	1.6000	-0.8379	0.0013	0.2976	1.6000	-0.4681	0.0028
4.1306	1.6000	-1.0877	0.0014	1.5200	1.6000	-0.8347	0.0014	0.2808	1.6000	-0.4573	0.0027
4.0810	1.6000	-1.0851	0.0011	1.5015	1.6000	-0.8314	0.0013	0.2649	1.6000	-0.4469	0.0027
4.0294	1.6000	-1.0829	0.0014	1.4822	1.6000	-0.8281	0.0013	0.2490	1.6000	-0.4358	0.0026
3.9797	1.6000	-1.0803	0.0013	1.4631	1.6000	-0.8248	0.0014	0.2329	1.6000	-0.4242	0.0026
3.9286	1.6000	-1.0778	0.0014	1.4436	1.6000	-0.8212	0.0014	0.2168	1.6000	-0.4121	0.0025
3.8778	1.6000	-1.0749	0.0012	1.4249	1.6000	-0.8180	0.0015	0.2012	1.6000	-0.3997	0.0025
3.8266	1.6000	-1.0721	0.0012	1.4062	1.6000	-0.8146	0.0015	0.1869	1.6000	-0.3878	0.0026
3.7762	1.6000	-1.0693	0.0012	1.3873	1.6000	-0.8112	0.0016	0.1724	1.6000	-0.3751	0.0027
3.7251	1.6000	-1.0664	0.0012	1.3682	1.6000	-0.8076	0.0016	0.1565	1.6000	-0.3606	0.0028
3.6743	1.6000	-1.0634	0.0011	1.3492	1.6000	-0.8041	0.0017	0.1412	1.6000	-0.3455	0.0030
3.6241	1.6000	-1.0604	0.0011	1.3293	1.6000	-0.8003	0.0017	0.1233	1.6000	-0.3262	0.0029
3.5732	1.6000	-1.0573	0.0011	1.3103	1.6000	-0.7966	0.0017	0.1163	1.6000	-0.3183	0.0029
3.5218	1.6000	-1.0540	0.0011	1.2908	1.6000	-0.7929	0.0017	0.1037	1.6000	-0.3029	0.0028
3.4712	1.6000	-1.0505	0.0009	1.2724	1.6000	-0.7892	0.0017	0.0922	1.6000	-0.2878	0.0028
3.4216	1.6000	-1.0473	0.0010	1.2538	1.6000	-0.7855	0.0018	0.0807	1.6000	-0.2716	0.0027
3.3712	1.6000	-1.0438	0.0009	1.2356	1.6000	-0.7819	0.0019	0.0695	1.6000	-0.2539	0.0026
3.3213	1.6000	-1.0403	0.0010	1.2162	1.6000	-0.7779	0.0019	0.0599	1.6000	-0.2378	0.0026
3.2696	1.6000	-1.0364	0.0009	1.1958	1.6000	-0.7737	0.0019	0.0504	1.6000	-0.2204	0.0027
3.2188	1.6000	-1.0326	0.0008	1.1777	1.6000	-0.7700	0.0021	0.0414	1.6000	-0.2020	0.0027
3.1685	1.6000	-1.0288	0.0008	1.1586	1.6000	-0.7658	0.0020	0.0339	1.6000	-0.1848	0.0027
3.1180	1.6000	-1.0249	0.0009	1.1400	1.6000	-0.7618	0.0021	0.0266	1.6000	-0.1654	0.0025
3.0668	1.6000	-1.0207	0.0009	1.1209	1.6000	-0.7576	0.0021	0.0200	1.6000	-0.1458	0.0024
3.0161	1.6000	-1.0165	0.0009	1.1025	1.6000	-0.7535	0.0022	0.0145	1.6000	-0.1259	0.0020
2.9654	1.6000	-1.0122	0.0009	1.0835	1.6000	-0.7492	0.0022	0.0100	1.6000	-0.1064	0.0016
2.9149	1.6000	-1.0078	0.0009	1.0651	1.6000	-0.7450	0.0022	0.0062	1.6000	-0.0857	0.0013
2.8635	1.6000	-1.0033	0.0010	1.0465	1.6000	-0.7406	0.0023	0.0035	1.6000	-0.0666	0.0010
2.8130	1.6000	-0.9987	0.0011	1.0266	1.6000	-0.7360	0.0024	0.0014	1.6000	-0.0468	0.0008
2.7623	1.6000	-0.9940	0.0011	1.0074	1.6000	-0.7314	0.0024	0.0001	1.6000	-0.0271	0.0006
2.7124	1.6000	-0.9891	0.0010	0.9893	1.6000	-0.7270	0.0025				
2.6609	1.6000	-0.9840	0.0011	0.9698	1.6000	-0.7223	0.0026				
2.6112	1.6000	-0.9791	0.0012	0.9510	1.6000	-0.7175	0.0026				

Table A6. Chordwise Airfoil Measurements at $y = 19.2$ in.

Upper Surface				y = 19.2 Inches							
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.0173	19.2000	-0.0072	0.0171 *	0.9537	19.2000	0.7154	0.0005	2.6883	19.2000	0.9761	0.0002
-0.0018	19.2000	0.0139	0.0019	0.9736	19.2000	0.7203	0.0005	2.7370	19.2000	0.9806	0.0001
-0.0008	19.2000	0.0342	0.0017	0.9941	19.2000	0.7253	0.0004	2.7891	19.2000	0.9854	0.0001
0.0014	19.2000	0.0558	0.0014	1.0145	19.2000	0.7301	0.0004	2.8390	19.2000	0.9899	0.0001
0.0043	19.2000	0.0749	0.0011	1.0345	19.2000	0.7347	0.0003	2.8881	19.2000	0.9941	0.0002
0.0079	19.2000	0.0939	0.0009	1.0538	19.2000	0.7391	0.0003	2.9373	19.2000	0.9984	0.0003
0.0122	19.2000	0.1129	0.0008	1.0743	19.2000	0.7437	0.0002	2.9878	19.2000	1.0026	0.0004
0.0171	19.2000	0.1312	0.0008	1.0940	19.2000	0.7480	0.0001	3.0371	19.2000	1.0067	0.0006
0.0231	19.2000	0.1499	0.0006	1.1139	19.2000	0.7523	0.0000	3.0867	19.2000	1.0108	0.0006
0.0299	19.2000	0.1685	0.0004	1.1334	19.2000	0.7565	0.0000	3.1372	19.2000	1.0150	0.0010
0.0376	19.2000	0.1872	0.0003	1.1540	19.2000	0.7608	0.0001	3.1891	19.2000	1.0183	0.0002
0.0452	19.2000	0.2043	0.0003	1.1732	19.2000	0.7648	0.0002	3.2399	19.2000	1.0226	0.0007
0.0537	19.2000	0.2217	0.0004	1.1927	19.2000	0.7688	0.0002	3.2898	19.2000	1.0264	0.0008
0.0629	19.2000	0.2387	0.0004	1.2133	19.2000	0.7730	0.0002	3.3408	19.2000	1.0300	0.0007
0.0731	19.2000	0.2559	0.0005	1.2325	19.2000	0.7769	0.0002	3.3911	19.2000	1.0337	0.0008
0.0837	19.2000	0.2722	0.0006	1.2524	19.2000	0.7807	0.0004	3.4425	19.2000	1.0373	0.0008
0.0951	19.2000	0.2881	0.0006	1.2735	19.2000	0.7849	0.0003	3.4923	19.2000	1.0407	0.0009
0.1073	19.2000	0.3041	0.0008	1.2932	19.2000	0.7886	0.0004	3.5443	19.2000	1.0442	0.0010
0.1197	19.2000	0.3190	0.0008	1.3130	19.2000	0.7924	0.0005	3.5961	19.2000	1.0475	0.0010
0.1328	19.2000	0.3337	0.0009	1.3321	19.2000	0.7960	0.0004	3.6462	19.2000	1.0506	0.0011
0.1486	19.2000	0.3458	0.0021	1.3518	19.2000	0.7996	0.0005	3.6957	19.2000	1.0538	0.0013
0.1608	19.2000	0.3615	0.0005	1.3714	19.2000	0.8032	0.0005	3.7468	19.2000	1.0568	0.0014
0.1758	19.2000	0.3750	0.0002	1.3914	19.2000	0.8067	0.0006	3.7968	19.2000	1.0598	0.0016
0.1913	19.2000	0.3881	0.0001	1.4109	19.2000	0.8104	0.0005	3.8477	19.2000	1.0627	0.0017
0.2072	19.2000	0.4006	0.0005	1.4311	19.2000	0.8139	0.0005	3.8991	19.2000	1.0656	0.0019
0.1900	19.2000	0.3870	0.0001	1.4517	19.2000	0.8174	0.0007	3.9494	19.2000	1.0682	0.0020
0.1980	19.2000	0.3934	0.0002	1.4717	19.2000	0.8208	0.0007	4.0008	19.2000	1.0518	0.0170 *
0.2137	19.2000	0.4058	0.0005	1.4914	19.2000	0.8241	0.0008	4.0500	19.2000	1.0736	0.0024
0.2291	19.2000	0.4172	0.0008	1.5111	19.2000	0.8275	0.0007	4.1006	19.2000	1.0760	0.0024
0.2453	19.2000	0.4288	0.0010	1.5309	19.2000	0.8308	0.0007	4.1514	19.2000	1.0785	0.0026
0.2607	19.2000	0.4398	0.0009	1.5503	19.2000	0.8340	0.0007	4.2033	19.2000	1.0809	0.0027
0.2778	19.2000	0.4514	0.0007	1.5707	19.2000	0.8373	0.0007	4.2523	19.2000	1.0831	0.0028
0.2948	19.2000	0.4624	0.0005	1.5895	19.2000	0.8400	0.0010	4.3019	19.2000	1.0853	0.0029
0.3119	19.2000	0.4731	0.0004	1.6102	19.2000	0.8436	0.0008	4.3529	19.2000	1.0874	0.0029
0.3293	19.2000	0.4834	0.0004	1.6293	19.2000	0.8466	0.0008	4.4018	19.2000	1.0896	0.0030
0.3463	19.2000	0.4932	0.0003	1.6488	19.2000	0.8497	0.0008	4.4524	19.2000	1.0914	0.0029
0.3640	19.2000	0.5030	0.0003	1.6689	19.2000	0.8528	0.0008	4.5026	19.2000	1.0935	0.0030
0.3835	19.2000	0.5079	0.0052 *	1.6895	19.2000	0.8558	0.0007	4.5543	19.2000	1.0954	0.0029
0.3986	19.2000	0.5213	0.0001	1.7088	19.2000	0.8589	0.0007	4.6054	19.2000	1.0970	0.0026
0.4168	19.2000	0.5304	0.0002	1.7287	19.2000	0.8618	0.0008	4.6552	19.2000	1.0986	0.0025
0.4354	19.2000	0.5396	0.0001	1.7486	19.2000	0.8648	0.0007	4.7052	19.2000	1.1003	0.0024
0.4529	19.2000	0.5479	0.0001	1.7683	19.2000	0.8676	0.0008	4.7560	19.2000	1.1020	0.0023
0.4708	19.2000	0.5563	0.0003	1.7894	19.2000	0.8707	0.0008	4.8069	19.2000	1.0956	0.0057 *
0.4893	19.2000	0.5645	0.0004	1.8094	19.2000	0.8735	0.0008	4.8583	19.2000	1.1049	0.0021
0.5088	19.2000	0.5728	0.0004	1.8304	19.2000	0.8765	0.0008	4.9087	19.2000	1.1063	0.0021
0.5279	19.2000	0.5809	0.0005	1.8515	19.2000	0.8795	0.0008	4.9581	19.2000	1.1076	0.0021
0.5467	19.2000	0.5886	0.0006	1.8716	19.2000	0.8824	0.0007	5.0092	19.2000	1.1089	0.0021
0.5647	19.2000	0.5957	0.0006	1.8907	19.2000	0.8850	0.0007	5.0598	19.2000	1.1102	0.0023
0.5831	19.2000	0.6026	0.0005	1.9107	19.2000	0.8877	0.0007	5.1109	19.2000	1.1114	0.0024
0.6023	19.2000	0.6099	0.0005	1.9309	19.2000	0.8905	0.0007	5.1617	19.2000	1.1125	0.0026
0.6211	19.2000	0.6166	0.0004	1.9507	19.2000	0.8931	0.0007	5.2109	19.2000	1.1135	0.0026
0.6412	19.2000	0.6236	0.0003	1.9715	19.2000	0.8958	0.0007	5.2609	19.2000	1.1147	0.0028
0.6599	19.2000	0.6300	0.0002	1.9908	19.2000	0.8984	0.0007	5.3122	19.2000	1.1157	0.0029
0.6792	19.2000	0.6365	0.0002	1.9911	19.2000	0.8984	0.0007	5.3627	19.2000	1.1167	0.0030
0.6985	19.2000	0.6428	0.0002	2.0362	19.2000	0.9042	0.0007	5.4141	19.2000	1.1176	0.0029
0.7168	19.2000	0.6487	0.0003	2.0862	19.2000	0.9105	0.0006	5.4645	19.2000	1.1186	0.0029
0.7361	19.2000	0.6548	0.0003	2.1368	19.2000	0.9168	0.0005	5.5143	19.2000	1.1193	0.0025
0.7553	19.2000	0.6608	0.0004	2.1859	19.2000	0.9227	0.0005	5.5650	19.2000	1.1202	0.0024
0.7748	19.2000	0.6667	0.0005	2.2360	19.2000	0.9286	0.0004	5.6154	19.2000	1.1210	0.0023
0.7995	19.2000	0.6583	0.0145 *	2.2868	19.2000	0.9345	0.0003	5.6655	19.2000	1.1215	0.0021
0.8142	19.2000	0.6783	0.0006	2.3356	19.2000	0.9399	0.0003	5.7177	19.2000	1.1223	0.0022
0.8338	19.2000	0.6838	0.0005	2.3848	19.2000	0.9453	0.0002	5.7663	19.2000	1.1229	0.0024
0.8546	19.2000	0.6896	0.0006	2.4352	19.2000	0.9507	0.0002	5.8182	19.2000	1.1236	0.0026
0.8744	19.2000	0.6950	0.0006	2.4847	19.2000	0.9559	0.0002	5.8680	19.2000	1.1240	0.0027
0.8937	19.2000	0.7001	0.0006	2.5357	19.2000	0.9611	0.0002	5.9192	19.2000	1.1244	0.0028
0.9132	19.2000	0.7052	0.0006	2.5856	19.2000	0.9660	0.0003	5.9692	19.2000	1.1250	0.0032
0.9330	19.2000	0.7102	0.0005	2.6369	19.2000	0.9711	0.0002	6.0197	19.2000	1.1253	0.0032

Table A6. Continued

Upper Surface			y = 19.2 Inches								
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0700	19.2000	1.1256	0.0033	9.4736	19.2000	1.0179	0.0029	12.8870	19.2000	0.6183	0.0039
6.1203	19.2000	1.1259	0.0035	9.5254	19.2000	1.0138	0.0027	12.9366	19.2000	0.6106	0.0038
6.1720	19.2000	1.1262	0.0036	9.5760	19.2000	1.0099	0.0028	12.9864	19.2000	0.6031	0.0039
6.2227	19.2000	1.1264	0.0036	9.6270	19.2000	1.0058	0.0027	13.0363	19.2000	0.5956	0.0041
6.2727	19.2000	1.1265	0.0036	9.6771	19.2000	1.0019	0.0029	13.0848	19.2000	0.5880	0.0039
6.3241	19.2000	1.1266	0.0035	9.7278	19.2000	0.9975	0.0028	13.1328	19.2000	0.5806	0.0039
6.3742	19.2000	1.1267	0.0035	9.7793	19.2000	0.9933	0.0030	13.1822	19.2000	0.5728	0.0038
6.4260	19.2000	1.1266	0.0033	9.8292	19.2000	0.9890	0.0030	13.2314	19.2000	0.5651	0.0038
6.4758	19.2000	1.1263	0.0030	9.8801	19.2000	0.9846	0.0031	13.2810	19.2000	0.5573	0.0038
6.5258	19.2000	1.1262	0.0030	9.9301	19.2000	0.9802	0.0032	13.3294	19.2000	0.5496	0.0037
6.5771	19.2000	1.1261	0.0030	9.9809	19.2000	0.9757	0.0034	13.3782	19.2000	0.5419	0.0038
6.6286	19.2000	1.1256	0.0028	10.0315	19.2000	0.9712	0.0035	13.4265	19.2000	0.5343	0.0039
6.6792	19.2000	1.1253	0.0029	10.0824	19.2000	0.9665	0.0035	13.4758	19.2000	0.5263	0.0037
6.7301	19.2000	1.1250	0.0031	10.1324	19.2000	0.9617	0.0034	13.5239	19.2000	0.5184	0.0036
6.7802	19.2000	1.1246	0.0033	10.1826	19.2000	0.9570	0.0033	13.5721	19.2000	0.5106	0.0036
6.8322	19.2000	1.1240	0.0034	10.2335	19.2000	0.9523	0.0034	13.6205	19.2000	0.5028	0.0037
6.8834	19.2000	1.1233	0.0034	10.2845	19.2000	0.9472	0.0031	13.6692	19.2000	0.4948	0.0037
6.9330	19.2000	1.1228	0.0036	10.3355	19.2000	0.9423	0.0031	13.7173	19.2000	0.4869	0.0036
6.9823	19.2000	1.1223	0.0038	10.3865	19.2000	0.9370	0.0028	13.7661	19.2000	0.4787	0.0035
7.0342	19.2000	1.1214	0.0036	10.4374	19.2000	0.9321	0.0031	13.8146	19.2000	0.4709	0.0037
7.0856	19.2000	1.1206	0.0036	10.4901	19.2000	0.9266	0.0029	13.8626	19.2000	0.4627	0.0035
7.1363	19.2000	1.1199	0.0037	10.5401	19.2000	0.9214	0.0030	13.9116	19.2000	0.4543	0.0033
7.1865	19.2000	1.1190	0.0036	10.5903	19.2000	0.9162	0.0030	13.9593	19.2000	0.4463	0.0032
7.2384	19.2000	1.1181	0.0035	10.6414	19.2000	0.9109	0.0032	14.0079	19.2000	0.4381	0.0031
7.2897	19.2000	1.1170	0.0033	10.6917	19.2000	0.9052	0.0029	14.0568	19.2000	0.4295	0.0028
7.3395	19.2000	1.1161	0.0033	10.7432	19.2000	0.8998	0.0031	14.1055	19.2000	0.4212	0.0027
7.3895	19.2000	1.1150	0.0032	10.7952	19.2000	0.8943	0.0032	14.1533	19.2000	0.4128	0.0025
7.4401	19.2000	1.1139	0.0032	10.8464	19.2000	0.8884	0.0029	14.2018	19.2000	0.4045	0.0026
7.4923	19.2000	1.1127	0.0032	10.8980	19.2000	0.8826	0.0027	14.2502	19.2000	0.3958	0.0023
7.5419	19.2000	1.1115	0.0033	10.9515	19.2000	0.8766	0.0027	14.2985	19.2000	0.3872	0.0024
7.5919	19.2000	1.1104	0.0036	11.0029	19.2000	0.8708	0.0026	14.3469	19.2000	0.3787	0.0025
7.6408	19.2000	1.1091	0.0038	11.0533	19.2000	0.8649	0.0024	14.3918	19.2000	0.3519	0.0159 *
7.6919	19.2000	1.1076	0.0039	11.1041	19.2000	0.8590	0.0024	14.4447	19.2000	0.3611	0.0026
7.7429	19.2000	1.1062	0.0041	11.1577	19.2000	0.8526	0.0022	14.4936	19.2000	0.3523	0.0027
7.7937	19.2000	1.1048	0.0042	11.2069	19.2000	0.8429	0.0016	14.5417	19.2000	0.3435	0.0026
7.8445	19.2000	1.1031	0.0040	11.2607	19.2000	0.8404	0.0024	14.5907	19.2000	0.3348	0.0027
7.8953	19.2000	1.1016	0.0040	11.3116	19.2000	0.8342	0.0025	14.6392	19.2000	0.3258	0.0024
7.9479	19.2000	1.1000	0.0039	11.3635	19.2000	0.8278	0.0026	14.6871	19.2000	0.3170	0.0021
7.9965	19.2000	1.0785	0.0160 *	11.4165	19.2000	0.8212	0.0028	14.7353	19.2000	0.3080	0.0018
8.0481	19.2000	1.0966	0.0039	11.4679	19.2000	0.8150	0.0032	14.7824	19.2000	0.2993	0.0015
8.0994	19.2000	1.0947	0.0042	11.5204	19.2000	0.8084	0.0034	14.8315	19.2000	0.2900	0.0011
8.1510	19.2000	1.0926	0.0042	11.5719	19.2000	0.8018	0.0036	14.8779	19.2000	0.2812	0.0008
8.2018	19.2000	1.0907	0.0044	11.6229	19.2000	0.7954	0.0039	14.9272	19.2000	0.2719	0.0006
8.2523	19.2000	1.0886	0.0043	11.6752	19.2000	0.7886	0.0039	14.9754	19.2000	0.2628	0.0005
8.3039	19.2000	1.0865	0.0042	11.7262	19.2000	0.7819	0.0039	15.0231	19.2000	0.2536	0.0004
8.3543	19.2000	1.0844	0.0041	11.7788	19.2000	0.7751	0.0038	15.0712	19.2000	0.2442	0.0001
8.4048	19.2000	1.0822	0.0038	11.8301	19.2000	0.7683	0.0036	15.1186	19.2000	0.2350	0.0000
8.4557	19.2000	1.0799	0.0037	11.8804	19.2000	0.7617	0.0035	15.1675	19.2000	0.2255	0.0000
8.5067	19.2000	1.0775	0.0035	11.9321	19.2000	0.7546	0.0032	15.2149	19.2000	0.2164	0.0001
8.5581	19.2000	1.0749	0.0032	11.9829	19.2000	0.7477	0.0030	15.2639	19.2000	0.2063	0.0003
8.6086	19.2000	1.0726	0.0033	12.0344	19.2000	0.7408	0.0031				
8.6595	19.2000	1.0698	0.0031	12.0857	19.2000	0.7338	0.0031				
8.7087	19.2000	1.0472	0.0169 *	12.1358	19.2000	0.7269	0.0031				
8.7605	19.2000	1.0645	0.0031	12.1874	19.2000	0.7197	0.0032				
8.8107	19.2000	1.0617	0.0031	12.2386	19.2000	0.7128	0.0035				
8.8625	19.2000	1.0588	0.0032	12.2888	19.2000	0.7056	0.0035				
8.9125	19.2000	1.0559	0.0031	12.3389	19.2000	0.6984	0.0035				
8.9636	19.2000	1.0528	0.0031	12.3893	19.2000	0.6914	0.0037				
9.0152	19.2000	1.0497	0.0031	12.4401	19.2000	0.6842	0.0038				
9.0660	19.2000	1.0466	0.0031	12.4901	19.2000	0.6769	0.0038				
9.1167	19.2000	1.0432	0.0030	12.5398	19.2000	0.6696	0.0037				
9.1666	19.2000	1.0400	0.0031	12.5903	19.2000	0.6625	0.0039				
9.2187	19.2000	1.0363	0.0029	12.6400	19.2000	0.6551	0.0039				
9.2697	19.2000	1.0328	0.0029	12.6897	19.2000	0.6477	0.0038				
9.3196	19.2000	1.0292	0.0028	12.7390	19.2000	0.6404	0.0038				
9.3718	19.2000	1.0256	0.0029	12.7887	19.2000	0.6276	0.0015				
9.4229	19.2000	1.0218	0.0029	12.8382	19.2000	0.6258	0.0041				

Lower Surface				y = 19.2 inches							
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9799	19.2000	−0.0456	0.0064 *	12.6524	19.2000	−0.1765	0.0066 *	9.3384	19.2000	−0.8563	0.0032
15.9696	19.2000	−0.0432	0.0061 *	12.6019	19.2000	−0.1866	0.0063 *	9.2873	19.2000	−0.8645	0.0030
15.9217	19.2000	−0.0330	0.0051 *	12.5523	19.2000	−0.1965	0.0063 *	9.2373	19.2000	−0.8722	0.0029
15.8735	19.2000	−0.0232	0.0044	12.5031	19.2000	−0.2063	0.0062 *	9.1869	19.2000	−0.8803	0.0024
15.8272	19.2000	−0.0145	0.0039	12.4533	19.2000	−0.2164	0.0061 *	9.1378	19.2000	−0.8877	0.0024
15.7751	19.2000	−0.0052	0.0033	12.4042	19.2000	−0.2264	0.0059 *	9.0882	19.2000	−0.8953	0.0023
15.7278	19.2000	0.0027	0.0030	12.3541	19.2000	−0.2368	0.0057 *	9.0381	19.2000	−0.9025	0.0025
15.6777	19.2000	0.0108	0.0024	12.3047	19.2000	−0.2472	0.0055 *	8.9876	19.2000	−0.9101	0.0024
15.6260	19.2000	0.0186	0.0018	12.2550	19.2000	−0.2573	0.0055 *	8.9376	19.2000	−0.9173	0.0025
15.5731	19.2000	0.0260	0.0013	12.2060	19.2000	−0.2676	0.0054 *	8.8879	19.2000	−0.9242	0.0028
15.5232	19.2000	0.0322	0.0010	12.1550	19.2000	−0.2784	0.0052 *	8.8372	19.2000	−0.9311	0.0029
15.4734	19.2000	0.0380	0.0007	12.1067	19.2000	−0.2888	0.0051 *	8.7858	19.2000	−0.9301	0.0109 *
15.4214	19.2000	0.0433	0.0005	12.0580	19.2000	−0.2994	0.0048	8.7382	19.2000	−0.9446	0.0028
15.3705	19.2000	0.0482	0.0002	12.0086	19.2000	−0.3100	0.0048	8.6880	19.2000	−0.9510	0.0030
15.3204	19.2000	0.0523	0.0001	11.9592	19.2000	−0.3208	0.0047	8.6370	19.2000	−0.9576	0.0028
15.2696	19.2000	0.0564	0.0002	11.9109	19.2000	−0.3315	0.0046	8.5879	19.2000	−0.9637	0.0027
15.2186	19.2000	0.0602	0.0005	11.8601	19.2000	−0.3426	0.0047	8.5382	19.2000	−0.9697	0.0027
15.1664	19.2000	0.0634	0.0006	11.8107	19.2000	−0.3534	0.0048	8.4871	19.2000	−0.9757	0.0027
15.1170	19.2000	0.0659	0.0005	11.7612	19.2000	−0.3643	0.0048	8.4371	19.2000	−0.9814	0.0026
15.0664	19.2000	0.0684	0.0005	11.7125	19.2000	−0.3753	0.0046	8.3873	19.2000	−0.9871	0.0025
15.0147	19.2000	0.0706	0.0006	11.6635	19.2000	−0.3861	0.0046	8.3372	19.2000	−0.9926	0.0024
14.9639	19.2000	0.0722	0.0005	11.6129	19.2000	−0.3973	0.0046	8.2871	19.2000	−0.9979	0.0024
14.9131	19.2000	0.0733	0.0003	11.5654	19.2000	−0.4080	0.0043	8.2370	19.2000	−1.0030	0.0023
14.8621	19.2000	0.0741	0.0003	11.5157	19.2000	−0.4191	0.0042	8.1855	19.2000	−1.0082	0.0021
14.8123	19.2000	0.0745	0.0002	11.4666	19.2000	−0.4299	0.0041	8.1343	19.2000	−1.0134	0.0018
14.7618	19.2000	0.0748	0.0004	11.4167	19.2000	−0.4408	0.0042	8.0837	19.2000	−1.0183	0.0015
14.7101	19.2000	0.0743	0.0003	11.3667	19.2000	−0.4520	0.0041	8.0337	19.2000	−1.0228	0.0014
14.6581	19.2000	0.0735	0.0003	11.3178	19.2000	−0.4630	0.0039	7.9832	19.2000	−1.0274	0.0013
14.6081	19.2000	0.0724	0.0005	11.2695	19.2000	−0.4736	0.0039	7.9322	19.2000	−1.0320	0.0013
14.5583	19.2000	0.0712	0.0009	11.2195	19.2000	−0.4844	0.0041	7.8816	19.2000	−1.0363	0.0016
14.5064	19.2000	0.0691	0.0009	11.1704	19.2000	−0.4952	0.0041	7.8311	19.2000	−1.0405	0.0019
14.4559	19.2000	0.0670	0.0013	11.1208	19.2000	−0.5061	0.0041	7.7807	19.2000	−1.0445	0.0021
14.4039	19.2000	0.0771	0.0144 *	11.0710	19.2000	−0.5169	0.0042	7.7303	19.2000	−1.0486	0.0021
14.3544	19.2000	0.0616	0.0020	11.0219	19.2000	−0.5276	0.0042	7.6791	19.2000	−1.0525	0.0021
14.3031	19.2000	0.0584	0.0024	10.9723	19.2000	−0.5384	0.0042	7.6277	19.2000	−1.0562	0.0021
14.2532	19.2000	0.0549	0.0027	10.9221	19.2000	−0.5492	0.0042	7.5772	19.2000	−1.0599	0.0019
14.2041	19.2000	0.0514	0.0031	10.8736	19.2000	−0.5597	0.0042	7.5258	19.2000	−1.0635	0.0017
14.1531	19.2000	0.0473	0.0034	10.8230	19.2000	−0.5706	0.0041	7.4766	19.2000	−1.0666	0.0017
14.1029	19.2000	0.0429	0.0035	10.7744	19.2000	−0.5808	0.0043	7.4261	19.2000	−1.0700	0.0013
14.0521	19.2000	0.0382	0.0036	10.7251	19.2000	−0.5915	0.0041	7.3752	19.2000	−1.0731	0.0011
14.0024	19.2000	0.0334	0.0039	10.6755	19.2000	−0.6020	0.0042	7.3242	19.2000	−1.0763	0.0006
13.9518	19.2000	0.0285	0.0043	10.6259	19.2000	−0.6125	0.0042	7.2739	19.2000	−1.0790	0.0005
13.9019	19.2000	0.0229	0.0041	10.5773	19.2000	−0.6227	0.0043	7.2223	19.2000	−1.0819	0.0002
13.8525	19.2000	0.0174	0.0042	10.5267	19.2000	−0.6332	0.0043	7.1714	19.2000	−1.0845	0.0001
13.8006	19.2000	0.0114	0.0044	10.4779	19.2000	−0.6436	0.0042	7.1207	19.2000	−1.0872	0.0002
13.7504	19.2000	0.0053	0.0044	10.4285	19.2000	−0.6539	0.0041	7.0701	19.2000	−1.0897	0.0003
13.7000	19.2000	−0.0010	0.0046	10.3792	19.2000	−0.6639	0.0043	7.0197	19.2000	−1.0919	0.0003
13.6495	19.2000	−0.0078	0.0045	10.3298	19.2000	−0.6740	0.0043	6.9692	19.2000	−1.0942	0.0003
13.5970	19.2000	−0.0049	0.0146 *	10.2801	19.2000	−0.6843	0.0041	6.9179	19.2000	−1.0963	0.0003
13.5480	19.2000	−0.0215	0.0051 *	10.2305	19.2000	−0.6943	0.0041	6.8672	19.2000	−1.0984	0.0002
13.4978	19.2000	−0.0288	0.0053 *	10.1811	19.2000	−0.7042	0.0041	6.8167	19.2000	−1.1003	0.0002
13.4481	19.2000	−0.0361	0.0055 *	10.1313	19.2000	−0.7139	0.0041	6.7662	19.2000	−1.1020	0.0001
13.3988	19.2000	−0.0436	0.0058 *	10.0815	19.2000	−0.7238	0.0038	6.7165	19.2000	−1.1037	0.0003
13.3477	19.2000	−0.0515	0.0061 *	10.0330	19.2000	−0.7333	0.0036	6.6662	19.2000	−1.1053	0.0004
13.2983	19.2000	−0.0594	0.0063 *	9.9839	19.2000	−0.7427	0.0034	6.6150	19.2000	−1.1068	0.0005
13.2481	19.2000	−0.0677	0.0064 *	9.9344	19.2000	−0.7520	0.0033	6.5629	19.2000	−1.1082	0.0006
13.1965	19.2000	−0.0763	0.0065 *	9.8856	19.2000	−0.7611	0.0032	6.5125	19.2000	−1.1094	0.0005
13.1474	19.2000	−0.0846	0.0067 *	9.8354	19.2000	−0.7706	0.0029	6.4613	19.2000	−1.1107	0.0002
13.0967	19.2000	−0.0934	0.0067 *	9.7862	19.2000	−0.7795	0.0029	6.4109	19.2000	−1.1007	0.0111 *
13.0478	19.2000	−0.1019	0.0069 *	9.7372	19.2000	−0.7884	0.0029	6.3611	19.2000	−1.1127	0.0000
12.9979	19.2000	−0.1111	0.0067 *	9.6871	19.2000	−0.7971	0.0031	6.3105	19.2000	−1.1137	0.0003
12.9494	19.2000	−0.1201	0.0066 *	9.6366	19.2000	−0.8062	0.0031	6.2610	19.2000	−1.1146	0.0003
12.8998	19.2000	−0.1290	0.0068 *	9.5858	19.2000	−0.8106	0.0076 *	6.2092	19.2000	−1.1153	0.0003
12.8501	19.2000	−0.1383	0.0068 *	9.5375	19.2000	−0.8232	0.0035	6.1580	19.2000	−1.1159	0.0001
12.7979	19.2000	−0.1326	0.0221 *	9.4869	19.2000	−0.8318	0.0035	6.1076	19.2000	−1.1169	0.0005
12.7507	19.2000	−0.1574	0.0067 *	9.4369	19.2000	−0.8402	0.0034	6.0571	19.2000	−1.1175	0.0005
12.7012	19.2000	−0.1668	0.0067 *	9.3873	19.2000	−0.8484	0.0033	6.0065	19.2000	−1.1179	0.0003

Table A6. Concluded

Lower Surface y = 19.2 Inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
5.9562	19.2000	-1.1184	0.0003	2.5602	19.2000	-0.9734	0.0008	0.9325	19.2000	-0.7130	0.0029
5.9047	19.2000	-1.1190	0.0005	2.5083	19.2000	-0.9681	0.0010	0.9133	19.2000	-0.7080	0.0029
5.8540	19.2000	-1.1194	0.0005	2.4570	19.2000	-0.9625	0.0009	0.8948	19.2000	-0.7031	0.0029
5.8034	19.2000	-1.1197	0.0005	2.4075	19.2000	-0.9571	0.0010	0.8751	19.2000	-0.6979	0.0030
5.7530	19.2000	-1.1200	0.0005	2.3546	19.2000	-0.9511	0.0010	0.8568	19.2000	-0.6929	0.0030
5.7025	19.2000	-1.1202	0.0005	2.3028	19.2000	-0.9452	0.0011	0.8384	19.2000	-0.6878	0.0030
5.6510	19.2000	-1.1204	0.0005	2.2527	19.2000	-0.9391	0.0009	0.8197	19.2000	-0.6826	0.0032
5.6003	19.2000	-1.1204	0.0004	2.2011	19.2000	-0.9330	0.0010	0.8043	19.2000	-0.6636	0.0108 *
5.5504	19.2000	-1.1203	0.0003	2.1496	19.2000	-0.9265	0.0009	0.7827	19.2000	-0.6719	0.0032
5.4997	19.2000	-1.1202	0.0001	2.0978	19.2000	-0.9198	0.0007	0.7640	19.2000	-0.6664	0.0034
5.4495	19.2000	-1.1200	0.0001	2.0459	19.2000	-0.9130	0.0007	0.7452	19.2000	-0.6608	0.0034
5.3991	19.2000	-1.1196	0.0002	1.9955	19.2000	-0.9065	0.0008	0.7259	19.2000	-0.6549	0.0036
5.3467	19.2000	-1.1192	0.0003	1.9971	19.2000	-0.9067	0.0009	0.7078	19.2000	-0.6491	0.0035
5.2976	19.2000	-1.1189	0.0001	1.9810	19.2000	-0.9046	0.0009	0.6886	19.2000	-0.6429	0.0035
5.2465	19.2000	-1.1184	0.0001	1.9598	19.2000	-0.9017	0.0009	0.6697	19.2000	-0.6367	0.0036
5.1965	19.2000	-1.1178	0.0000	1.9387	19.2000	-0.8986	0.0008	0.6514	19.2000	-0.6306	0.0037
5.1455	19.2000	-1.1170	0.0000	1.9177	19.2000	-0.8958	0.0008	0.6334	19.2000	-0.6244	0.0038
5.0949	19.2000	-1.1162	0.0000	1.8964	19.2000	-0.8929	0.0009	0.6151	19.2000	-0.6180	0.0039
5.0432	19.2000	-1.1155	0.0002	1.8765	19.2000	-0.8900	0.0008	0.5959	19.2000	-0.6111	0.0040
4.9932	19.2000	-1.1146	0.0003	1.8548	19.2000	-0.8868	0.0008	0.5778	19.2000	-0.6041	0.0038
4.9427	19.2000	-1.1134	0.0002	1.8355	19.2000	-0.8840	0.0008	0.5590	19.2000	-0.5969	0.0038
4.8921	19.2000	-1.1124	0.0002	1.8146	19.2000	-0.8810	0.0008	0.5406	19.2000	-0.5896	0.0037
4.8419	19.2000	-1.1113	0.0003	1.7932	19.2000	-0.8780	0.0010	0.5223	19.2000	-0.5820	0.0036
4.7915	19.2000	-1.0964	0.0134 *	1.7736	19.2000	-0.8750	0.0009	0.5043	19.2000	-0.5742	0.0034
4.7396	19.2000	-1.1088	0.0002	1.7539	19.2000	-0.8720	0.0009	0.4867	19.2000	-0.5666	0.0034
4.6888	19.2000	-1.1074	0.0002	1.7335	19.2000	-0.8689	0.0009	0.4690	19.2000	-0.5585	0.0031
4.6374	19.2000	-1.1060	0.0002	1.7128	19.2000	-0.8657	0.0010	0.4507	19.2000	-0.5499	0.0029
4.5878	19.2000	-1.1046	0.0003	1.6942	19.2000	-0.8628	0.0009	0.4341	19.2000	-0.5422	0.0029
4.5368	19.2000	-1.1029	0.0002	1.6738	19.2000	-0.8596	0.0010	0.4165	19.2000	-0.5335	0.0028
4.4856	19.2000	-1.1013	0.0003	1.6543	19.2000	-0.8565	0.0009	0.4039	19.2000	-0.5167	0.0067 *
4.4350	19.2000	-1.0996	0.0005	1.6353	19.2000	-0.8536	0.0010	0.3827	19.2000	-0.5163	0.0027
4.3846	19.2000	-1.0979	0.0006	1.6157	19.2000	-0.8503	0.0010	0.3652	19.2000	-0.5070	0.0026
4.3343	19.2000	-1.0959	0.0006	1.6014	19.2000	-0.8232	0.0234 *	0.3484	19.2000	-0.4977	0.0026
4.2826	19.2000	-1.0938	0.0007	1.5774	19.2000	-0.8442	0.0012	0.3311	19.2000	-0.4880	0.0027
4.2317•	19.2000	-1.0917	0.0008	1.5586	19.2000	-0.8411	0.0012	0.3142	19.2000	-0.4781	0.0027
4.1819	19.2000	-1.0896	0.0009	1.5387	19.2000	-0.8377	0.0012	0.2974	19.2000	-0.4679	0.0027
4.1310	19.2000	-1.0873	0.0010	1.5194	19.2000	-0.8344	0.0012	0.2810	19.2000	-0.4576	0.0028
4.0799	19.2000	-1.0849	0.0009	1.5010	19.2000	-0.8313	0.0013	0.2649	19.2000	-0.4470	0.0028
4.0297	19.2000	-1.0825	0.0010	1.4819	19.2000	-0.8280	0.0013	0.2484	19.2000	-0.4359	0.0029
3.9792	19.2000	-1.0799	0.0010	1.4624	19.2000	-0.8246	0.0013	0.2328	19.2000	-0.4247	0.0030
3.9284	19.2000	-1.0773	0.0009	1.4437	19.2000	-0.8213	0.0014	0.2167	19.2000	-0.4124	0.0029
3.8762	19.2000	-1.0744	0.0008	1.4247	19.2000	-0.8179	0.0014	0.2012	19.2000	-0.4001	0.0029
3.8267	19.2000	-1.0716	0.0007	1.4058	19.2000	-0.8145	0.0015	0.1867	19.2000	-0.3881	0.0029
3.7758	19.2000	-1.0689	0.0007	1.3869	19.2000	-0.8110	0.0015	0.1720	19.2000	-0.3752	0.0030
3.7253	19.2000	-1.0660	0.0007	1.3680	19.2000	-0.8074	0.0015	0.1618	19.2000	-0.3500	0.0085 *
3.6745	19.2000	-1.0628	0.0005	1.3493	19.2000	-0.8040	0.0015	0.1411	19.2000	-0.3459	0.0032
3.6232	19.2000	-1.0598	0.0006	1.3292	19.2000	-0.8003	0.0017	0.1232	19.2000	-0.3267	0.0033
3.5734	19.2000	-1.0567	0.0005	1.3098	19.2000	-0.7964	0.0016	0.1155	19.2000	-0.3181	0.0034
3.5222	19.2000	-1.0534	0.0004	1.2919	19.2000	-0.7930	0.0017	0.1029	19.2000	-0.3030	0.0035
3.4715	19.2000	-1.0501	0.0005	1.2725	19.2000	-0.7892	0.0017	0.0915	19.2000	-0.2881	0.0035
3.4207	19.2000	-1.0466	0.0003	1.2531	19.2000	-0.7853	0.0017	0.0800	19.2000	-0.2722	0.0037
3.3710	19.2000	-1.0432	0.0003	1.2350	19.2000	-0.7817	0.0018	0.0689	19.2000	-0.2553	0.0038
3.3210	19.2000	-1.0396	0.0003	1.2154	19.2000	-0.7776	0.0018	0.0588	19.2000	-0.2384	0.0038
3.2694	19.2000	-1.0357	0.0002	1.1961	19.2000	-0.7737	0.0019	0.0496	19.2000	-0.2209	0.0036
3.2191	19.2000	-1.0321	0.0003	1.1774	19.2000	-0.7698	0.0020	0.0406	19.2000	-0.2023	0.0035
3.1681	19.2000	-1.0282	0.0003	1.1582	19.2000	-0.7657	0.0020	0.0328	19.2000	-0.1843	0.0035
3.1184	19.2000	-1.0242	0.0002	1.1398	19.2000	-0.7617	0.0021	0.0256	19.2000	-0.1657	0.0035
3.0667	19.2000	-1.0202	0.0004	1.1205	19.2000	-0.7575	0.0021	0.0189	19.2000	-0.1458	0.0034
3.0160	19.2000	-1.0160	0.0004	1.1029	19.2000	-0.7536	0.0022	0.0132	19.2000	-0.1261	0.0033
2.9650	19.2000	-1.0118	0.0005	1.0836	19.2000	-0.7492	0.0022	0.0086	19.2000	-0.1070	0.0032
2.9153	19.2000	-1.0074	0.0005	1.0641	19.2000	-0.7448	0.0023	0.0044	19.2000	-0.0858	0.0030
2.8642	19.2000	-1.0029	0.0005	1.0459	19.2000	-0.7407	0.0024	0.0015	19.2000	-0.0664	0.0029
2.8132	19.2000	-0.9982	0.0005	1.0269	19.2000	-0.7362	0.0025	-0.0007	19.2000	-0.0468	0.0028
2.7621	19.2000	-0.9935	0.0007	1.0077	19.2000	-0.7316	0.0025	-0.0019	19.2000	-0.0264	0.0026
2.7124	19.2000	-0.9887	0.0006	0.9883	19.2000	-0.7269	0.0026				
2.6617	19.2000	-0.9838	0.0008	0.9698	19.2000	-0.7224	0.0027				
2.6104	19.2000	-0.9787	0.0009	0.9510	19.2000	-0.7177	0.0028				

Table A7. Chordwise Airfoil Measurements at $y = 20.58$ in.

Upper Surface $y = 20.58$ inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0018	20.5800	-0.0064	0.0019	0.9532	20.5800	0.7154	0.0006	2.6878	20.5800	0.9762	0.0000
-0.0014	20.5800	0.0138	0.0015	0.9737	20.5800	0.7204	0.0005	2.7371	20.5800	0.9806	0.0001
-0.0003	20.5800	0.0342	0.0012	0.9940	20.5800	0.7252	0.0004	2.7876	20.5800	0.9852	0.0001
0.0019	20.5800	0.0558	0.0010	1.0140	20.5800	0.7299	0.0003	2.8384	20.5800	0.9899	0.0001
0.0045	20.5800	0.0741	0.0008	1.0337	20.5800	0.7345	0.0003	2.8881	20.5800	0.9943	0.0004
0.0082	20.5800	0.0935	0.0005	1.0543	20.5800	0.7393	0.0003	2.9372	20.5800	0.9985	0.0005
0.0126	20.5800	0.1126	0.0003	1.0743	20.5800	0.7436	0.0002	2.9869	20.5800	1.0026	0.0005
0.0179	20.5800	0.1313	0.0001	1.0942	20.5800	0.7481	0.0002	3.0369	20.5800	1.0069	0.0007
0.0237	20.5800	0.1496	0.0000	1.1139	20.5800	0.7523	0.0000	3.0873	20.5800	1.0109	0.0007
0.0305	20.5800	0.1682	0.0002	1.1342	20.5800	0.7567	0.0000	3.1371	20.5800	1.0148	0.0008
0.0379	20.5800	0.1865	0.0003	1.1538	20.5800	0.7608	0.0000	3.1885	20.5800	1.0189	0.0009
0.0456	20.5800	0.2036	0.0003	1.1728	20.5800	0.7649	0.0000	3.2400	20.5800	1.0227	0.0008
0.0545	20.5800	0.2220	0.0002	1.1929	20.5800	0.7689	0.0002	3.2898	20.5800	1.0266	0.0010
0.0633	20.5800	0.2383	0.0001	1.2132	20.5800	0.7730	0.0002	3.3407	20.5800	1.0301	0.0008
0.0734	20.5800	0.2554	0.0000	1.2324	20.5800	0.7768	0.0002	3.3915	20.5800	1.0337	0.0008
0.0841	20.5800	0.2721	0.0002	1.2527	20.5800	0.7808	0.0004	3.4423	20.5800	1.0374	0.0010
0.0954	20.5800	0.2880	0.0003	1.2726	20.5800	0.7847	0.0004	3.4921	20.5800	1.0408	0.0011
0.1075	20.5800	0.3038	0.0004	1.2930	20.5800	0.7887	0.0003	3.5443	20.5800	1.0441	0.0009
0.1197	20.5800	0.3186	0.0006	1.3121	20.5800	0.7923	0.0004	3.5955	20.5800	1.0475	0.0010
0.1330	20.5800	0.3334	0.0006	1.3322	20.5800	0.7960	0.0004	3.6466	20.5800	1.0508	0.0013
0.1469	20.5800	0.3477	0.0004	1.3522	20.5800	0.7997	0.0005	3.6959	20.5800	1.0539	0.0014
0.1612	20.5800	0.3614	0.0002	1.3709	20.5800	0.8032	0.0004	3.7465	20.5800	1.0568	0.0014
0.1764	20.5800	0.3749	0.0002	1.3913	20.5800	0.8067	0.0006	3.7968	20.5800	1.0598	0.0015
0.1918	20.5800	0.3879	0.0005	1.4115	20.5800	0.8104	0.0005	3.8471	20.5800	1.0627	0.0017
0.2075	20.5800	0.4004	0.0009	1.4310	20.5800	0.8139	0.0006	3.8987	20.5800	1.0656	0.0019
0.1907	20.5800	0.3870	0.0005	1.4509	20.5800	0.8173	0.0006	3.9489	20.5800	1.0683	0.0021
0.1984	20.5800	0.3933	0.0006	1.4712	20.5800	0.8208	0.0006	4.0003	20.5800	1.0710	0.0021
0.2137	20.5800	0.4052	0.0009	1.4909	20.5800	0.8242	0.0006	4.0514	20.5800	1.0736	0.0024
0.2292	20.5800	0.4169	0.0011	1.5110	20.5800	0.8274	0.0007	4.1007	20.5800	1.0761	0.0025
0.2456	20.5800	0.4287	0.0013	1.5302	20.5800	0.8307	0.0007	4.1520	20.5800	1.0786	0.0027
0.2610	20.5800	0.4393	0.0014	1.5505	20.5800	0.8340	0.0008	4.2028	20.5800	1.0809	0.0027
0.2781	20.5800	0.4508	0.0013	1.5704	20.5800	0.8372	0.0008	4.2520	20.5800	1.0831	0.0028
0.2950	20.5800	0.4620	0.0010	1.5889	20.5800	0.8402	0.0007	4.3018	20.5800	1.0854	0.0029
0.3118	20.5800	0.4724	0.0009	1.6095	20.5800	0.8435	0.0008	4.3526	20.5800	1.0877	0.0031
0.3295	20.5800	0.4832	0.0007	1.6294	20.5800	0.8467	0.0007	4.4025	20.5800	1.0896	0.0030
0.3460	20.5800	0.4927	0.0006	1.6485	20.5800	0.8497	0.0007	4.4526	20.5800	1.0915	0.0030
0.3637	20.5800	0.5025	0.0006	1.6685	20.5800	0.8527	0.0008	4.5030	20.5800	1.0934	0.0029
0.3815	20.5800	0.5122	0.0004	1.6888	20.5800	0.8558	0.0008	4.5546	20.5800	1.0953	0.0029
0.3990	20.5800	0.5213	0.0003	1.7084	20.5800	0.8588	0.0007	4.6060	20.5800	1.0972	0.0028
0.4174	20.5800	0.5306	0.0002	1.7286	20.5800	0.8618	0.0008	4.6551	20.5800	1.0987	0.0025
0.4350	20.5800	0.5392	0.0001	1.7488	20.5800	0.8648	0.0008	4.7062	20.5800	1.1003	0.0024
0.4530	20.5800	0.5478	0.0000	1.7687	20.5800	0.8677	0.0007	4.7562	20.5800	1.1019	0.0023
0.4703	20.5800	0.5557	0.0000	1.7890	20.5800	0.8706	0.0008	4.8069	20.5800	1.1034	0.0022
0.4903	20.5800	0.5647	0.0002	1.8095	20.5800	0.8736	0.0007	4.8578	20.5800	1.1048	0.0020
0.5087	20.5800	0.5726	0.0002	1.8305	20.5800	0.8766	0.0008	4.9076	20.5800	1.1063	0.0021
0.5274	20.5800	0.5806	0.0003	1.8515	20.5800	0.8796	0.0007	4.9587	20.5800	1.1077	0.0021
0.5460	20.5800	0.5881	0.0003	1.8712	20.5800	0.8823	0.0007	5.0093	20.5800	1.1090	0.0022
0.5649	20.5800	0.5956	0.0004	1.8910	20.5800	0.8850	0.0007	5.0596	20.5800	1.1102	0.0023
0.5834	20.5800	0.6027	0.0004	1.9110	20.5800	0.8877	0.0008	5.1102	20.5800	1.1115	0.0025
0.6020	20.5800	0.6096	0.0004	1.9311	20.5800	0.8904	0.0008	5.1614	20.5800	1.1125	0.0026
0.6217	20.5800	0.6168	0.0004	1.9514	20.5800	0.8932	0.0007	5.2113	20.5800	1.1135	0.0026
0.6412	20.5800	0.6237	0.0004	1.9721	20.5800	0.8959	0.0007	5.2620	20.5800	1.1147	0.0028
0.6602	20.5800	0.6300	0.0002	1.9914	20.5800	0.8986	0.0006	5.3121	20.5800	1.1157	0.0029
0.6793	20.5800	0.6365	0.0002	1.9921	20.5800	0.8986	0.0006	5.3630	20.5800	1.1165	0.0028
0.6984	20.5800	0.6428	0.0003	2.0363	20.5800	0.9043	0.0006	5.4135	20.5800	1.1176	0.0029
0.7173	20.5800	0.6488	0.0002	2.0860	20.5800	0.9106	0.0005	5.4645	20.5800	1.1184	0.0027
0.7362	20.5800	0.6548	0.0003	2.1357	20.5800	0.9167	0.0005	5.5147	20.5800	1.1193	0.0025
0.7552	20.5800	0.6607	0.0003	2.1857	20.5800	0.9228	0.0004	5.5654	20.5800	1.1202	0.0024
0.7750	20.5800	0.6667	0.0004	2.2358	20.5800	0.9286	0.0004	5.6157	20.5800	1.1207	0.0020
0.7942	20.5800	0.6725	0.0005	2.2865	20.5800	0.9345	0.0003	5.6662	20.5800	1.1215	0.0021
0.8139	20.5800	0.6782	0.0006	2.3356	20.5800	0.9400	0.0002	5.7167	20.5800	1.1222	0.0022
0.8344	20.5800	0.6839	0.0005	2.3850	20.5800	0.9455	0.0001	5.7679	20.5800	1.1230	0.0025
0.8540	20.5800	0.6894	0.0006	2.4356	20.5800	0.9509	0.0001	5.8175	20.5800	1.1234	0.0024
0.8736	20.5800	0.6948	0.0006	2.4858	20.5800	0.9561	0.0001	5.8678	20.5800	1.1241	0.0028
0.8936	20.5800	0.7001	0.0006	2.5350	20.5800	0.9612	0.0001	5.9180	20.5800	1.1247	0.0031
0.9139	20.5800	0.7054	0.0006	2.5855	20.5800	0.9662	0.0002	5.9694	20.5800	1.1250	0.0031
0.9336	20.5800	0.7104	0.0005	2.6356	20.5800	0.9711	0.0001	6.0199	20.5800	1.1254	0.0033

Table A7. Continued

Upper Surface			y = 20.58 inches								
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0697	20.5800	1.1257	0.0034	9.4746	20.5800	1.0180	0.0030	12.8873	20.5800	0.6185	0.0042
6.1203	20.5800	1.1260	0.0035	9.5240	20.5800	1.0142	0.0030	12.9366	20.5800	0.6110	0.0042
6.1712	20.5800	1.1263	0.0036	9.5759	20.5800	1.0103	0.0031	12.9865	20.5800	0.6034	0.0042
6.2220	20.5800	1.1264	0.0036	9.6271	20.5800	1.0062	0.0031	13.0357	20.5800	0.5957	0.0041
6.2731	20.5800	1.1265	0.0036	9.6774	20.5800	1.0020	0.0030	13.0845	20.5800	0.5883	0.0041
6.3244	20.5800	1.1266	0.0036	9.7284	20.5800	0.9977	0.0030	13.1328	20.5800	0.5808	0.0041
6.3750	20.5800	1.1265	0.0033	9.7796	20.5800	0.9936	0.0032	13.1824	20.5800	0.5731	0.0041
6.4262	20.5800	1.1266	0.0033	9.8299	20.5800	0.9891	0.0032	13.2317	20.5800	0.5654	0.0042
6.4761	20.5800	1.1263	0.0030	9.8798	20.5800	0.9849	0.0034	13.2809	20.5800	0.5575	0.0040
6.5259	20.5800	1.1263	0.0030	9.9305	20.5800	0.9805	0.0035	13.3287	20.5800	0.5499	0.0040
6.5772	20.5800	1.1261	0.0029	9.9811	20.5800	0.9760	0.0036	13.3775	20.5800	0.5422	0.0040
6.6284	20.5800	1.1258	0.0029	10.0312	20.5800	0.9713	0.0036	13.4263	20.5800	0.5345	0.0040
6.6790	20.5800	1.1254	0.0030	10.0812	20.5800	0.9668	0.0037	13.4756	20.5800	0.5264	0.0039
6.7300	20.5800	1.1251	0.0032	10.1328	20.5800	0.9619	0.0035	13.5238	20.5800	0.5186	0.0038
6.7804	20.5800	1.1247	0.0034	10.1833	20.5800	0.9572	0.0036	13.5713	20.5800	0.5110	0.0039
6.8311	20.5800	1.1242	0.0035	10.2335	20.5800	0.9524	0.0035	13.6208	20.5800	0.5030	0.0039
6.8821	20.5800	1.1234	0.0035	10.2844	20.5800	0.9475	0.0034	13.6694	20.5800	0.4951	0.0039
6.9335	20.5800	1.1229	0.0037	10.3361	20.5800	0.9424	0.0032	13.7174	20.5800	0.4869	0.0037
6.9837	20.5800	1.1224	0.0039	10.3862	20.5800	0.9374	0.0032	13.7659	20.5800	0.4791	0.0039
7.0342	20.5800	1.1216	0.0038	10.4378	20.5800	0.9322	0.0032	13.8143	20.5800	0.4710	0.0037
7.0855	20.5800	1.1208	0.0038	10.4897	20.5800	0.9268	0.0031	13.8627	20.5800	0.4628	0.0036
7.1369	20.5800	1.1199	0.0037	10.5398	20.5800	0.9217	0.0032	13.9113	20.5800	0.4548	0.0037
7.1869	20.5800	1.1192	0.0038	10.5907	20.5800	0.9165	0.0034	13.9597	20.5800	0.4466	0.0036
7.2383	20.5800	1.1183	0.0037	10.6415	20.5800	0.9110	0.0034	14.0082	20.5800	0.4384	0.0035
7.2890	20.5800	1.1172	0.0035	10.6920	20.5800	0.9056	0.0033	14.0567	20.5800	0.4301	0.0033
7.3386	20.5800	1.1161	0.0033	10.7439	20.5800	0.9000	0.0033	14.1050	20.5800	0.4217	0.0031
7.3900	20.5800	1.1152	0.0034	10.7954	20.5800	0.8945	0.0034	14.1529	20.5800	0.4136	0.0032
7.4400	20.5800	1.1141	0.0034	10.8455	20.5800	0.8887	0.0031	14.2012	20.5800	0.4052	0.0031
7.4918	20.5800	1.1128	0.0033	10.8981	20.5800	0.8829	0.0030	14.2505	20.5800	0.3967	0.0033
7.5416	20.5800	1.1117	0.0035	10.9506	20.5800	0.8768	0.0027	14.2985	20.5800	0.3882	0.0033
7.5921	20.5800	1.1104	0.0036	11.0027	20.5800	0.8711	0.0028	14.3474	20.5800	0.3796	0.0035
7.6418	20.5800	1.1091	0.0038	11.0539	20.5800	0.8651	0.0027	14.3966	20.5800	0.3709	0.0037
7.6919	20.5800	1.1077	0.0040	11.1052	20.5800	0.8592	0.0027	14.4446	20.5800	0.3624	0.0039
7.7428	20.5800	1.1064	0.0043	11.1580	20.5800	0.8529	0.0026	14.4933	20.5800	0.3536	0.0039
7.7940	20.5800	1.1048	0.0043	11.2071	20.5800	0.8472	0.0027	14.5420	20.5800	0.3448	0.0039
7.8446	20.5800	1.1033	0.0042	11.2607	20.5800	0.8408	0.0028	14.5906	20.5800	0.3362	0.0040
7.8956	20.5800	1.1016	0.0040	11.3123	20.5800	0.8344	0.0028	14.6387	20.5800	0.3274	0.0039
7.9472	20.5800	1.1002	0.0040	11.3647	20.5800	0.8280	0.0030	14.6872	20.5800	0.3183	0.0034
7.9976	20.5800	1.0986	0.0041	11.4166	20.5800	0.8217	0.0033	14.7355	20.5800	0.3096	0.0034
8.0481	20.5800	1.0967	0.0041	11.4678	20.5800	0.8151	0.0034	14.7840	20.5800	0.3007	0.0032
8.0998	20.5800	1.0948	0.0043	11.5211	20.5800	0.8086	0.0038	14.8315	20.5800	0.2916	0.0027
8.1512	20.5800	1.0928	0.0045	11.5717	20.5800	0.8021	0.0039	14.8794	20.5800	0.2825	0.0024
8.2018	20.5800	1.0910	0.0046	11.6229	20.5800	0.7956	0.0041	14.9272	20.5800	0.2734	0.0020
8.2524	20.5800	1.0888	0.0045	11.6750	20.5800	0.7887	0.0040	14.9753	20.5800	0.2645	0.0021
8.3044	20.5800	1.0867	0.0044	11.7262	20.5800	0.7822	0.0041	15.0230	20.5800	0.2552	0.0019
8.3541	20.5800	1.0847	0.0043	11.7775	20.5800	0.7757	0.0042	15.0711	20.5800	0.2453	0.0011
8.4053	20.5800	1.0824	0.0040	11.8299	20.5800	0.7687	0.0040	15.1190	20.5800	0.2361	0.0011
8.4552	20.5800	1.0801	0.0038	11.8819	20.5800	0.7617	0.0037	15.1674	20.5800	0.2265	0.0009
8.5069	20.5800	1.0777	0.0037	11.9325	20.5800	0.7548	0.0034	15.2149	20.5800	0.2168	0.0005
8.5581	20.5800	1.0752	0.0035	11.9832	20.5800	0.7481	0.0034	15.2637	20.5800	0.2067	0.0000
8.6085	20.5800	1.0727	0.0034	12.0346	20.5800	0.7412	0.0035	15.3123	20.5800	0.1967	0.0003
8.6588	20.5800	1.0701	0.0034	12.0857	20.5800	0.7340	0.0032	15.3602	20.5800	0.1867	0.0008
8.7092	20.5800	1.0675	0.0034	12.1354	20.5800	0.7272	0.0034	15.4086	20.5800	0.1770	0.0008
8.7615	20.5800	1.0647	0.0034	12.1877	20.5800	0.7200	0.0035	15.4569	20.5800	0.1668	0.0012
8.8114	20.5800	1.0621	0.0035	12.2385	20.5800	0.7130	0.0037	15.5052	20.5800	0.1567	0.0015
8.8626	20.5800	1.0590	0.0033	12.2887	20.5800	0.7059	0.0037	15.5540	20.5800	0.1471	0.0012
8.9126	20.5800	1.0560	0.0032	12.3390	20.5800	0.6988	0.0038	15.6020	20.5800	0.1373	0.0011
8.9636	20.5800	1.0530	0.0033	12.3895	20.5800	0.6916	0.0040	15.6498	20.5800	0.1272	0.0013
9.0141	20.5800	1.0500	0.0033	12.4401	20.5800	0.6843	0.0039	15.6979	20.5800	0.1172	0.0012
9.0663	20.5800	1.0467	0.0033	12.4910	20.5800	0.6771	0.0040	15.7458	20.5800	0.1072	0.0010
9.1184	20.5800	1.0432	0.0031	12.5403	20.5800	0.6699	0.0040	15.7935	20.5800	0.0976	0.0005
9.1676	20.5800	1.0400	0.0031	12.5903	20.5800	0.6626	0.0041	15.8397	20.5800	0.0880	0.0001
9.2184	20.5800	1.0366	0.0032	12.6402	20.5800	0.6554	0.0042	15.8883	20.5800	0.0779	0.0005
9.2695	20.5800	1.0330	0.0031	12.6896	20.5800	0.6479	0.0040	15.9365	20.5800	0.0680	0.0012
9.3201	20.5800	1.0294	0.0030	12.7388	20.5800	0.6407	0.0041				
9.3723	20.5800	1.0258	0.0031	12.7895	20.5800	0.6331	0.0041				
9.4228	20.5800	1.0220	0.0031	12.8382	20.5800	0.6260	0.0043				

Table A7. Continued

Lower Surface y = 20.58 Inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9811	20.5800	-0.0438	0.0043	12.6515	20.5800	-0.1764	0.0069 *	9.3375	20.5800	-0.8560	0.0036
15.9707	20.5800	-0.0412	0.0039	12.6014	20.5800	-0.1865	0.0066 *	9.2868	20.5800	-0.8642	0.0033
15.9226	20.5800	-0.0303	0.0024	12.5511	20.5800	-0.1964	0.0066 *	9.2370	20.5800	-0.8720	0.0031
15.8742	20.5800	-0.0203	0.0014	12.5021	20.5800	-0.2062	0.0065 *	9.1867	20.5800	-0.8799	0.0029
15.8278	20.5800	-0.0113	0.0006	12.4529	20.5800	-0.2161	0.0064 *	9.1374	20.5800	-0.8875	0.0027
15.7760	20.5800	-0.0018	0.0001	12.4034	20.5800	-0.2263	0.0062 *	9.0874	20.5800	-0.8949	0.0027
15.7275	20.5800	0.0063	0.0005	12.3542	20.5800	-0.2365	0.0060 *	9.0376	20.5800	-0.9024	0.0027
15.6766	20.5800	0.0140	0.0006	12.3051	20.5800	-0.2464	0.0061 *	8.9873	20.5800	-0.9097	0.0028
15.6259	20.5800	0.0215	0.0010	12.2549	20.5800	-0.2568	0.0061 *	8.9370	20.5800	-0.9170	0.0029
15.5743	20.5800	0.0286	0.0015	12.2054	20.5800	-0.2672	0.0059 *	8.8869	20.5800	-0.9240	0.0031
15.5223	20.5800	0.0349	0.0015	12.1557	20.5800	-0.2780	0.0056 *	8.8372	20.5800	-0.9308	0.0032
15.4725	20.5800	0.0405	0.0017	12.1054	20.5800	-0.2884	0.0057 *	8.7872	20.5800	-0.9377	0.0032
15.4222	20.5800	0.0456	0.0019	12.0570	20.5800	-0.2990	0.0055 *	8.7368	20.5800	-0.9445	0.0031
15.3710	20.5800	0.0504	0.0021	12.0086	20.5800	-0.3093	0.0055 *	8.6878	20.5800	-0.9508	0.0031
15.3204	20.5800	0.0546	0.0021	11.9596	20.5800	-0.3201	0.0054 *	8.6373	20.5800	-0.9572	0.0032
15.2689	20.5800	0.0580	0.0017	11.9107	20.5800	-0.3307	0.0054 *	8.5871	20.5800	-0.9634	0.0031
15.2183	20.5800	0.0616	0.0020	11.8605	20.5800	-0.3417	0.0054 *	8.5373	20.5800	-0.9696	0.0029
15.1671	20.5800	0.0646	0.0019	11.8104	20.5800	-0.3526	0.0056 *	8.4867	20.5800	-0.9757	0.0027
15.1159	20.5800	0.0675	0.0020	11.7604	20.5800	-0.3638	0.0055 *	8.4370	20.5800	-0.9813	0.0028
15.0654	20.5800	0.0698	0.0019	11.7125	20.5800	-0.3746	0.0053 *	8.3870	20.5800	-0.9869	0.0027
15.0153	20.5800	0.0719	0.0019	11.6643	20.5800	-0.3852	0.0054 *	8.3364	20.5800	-0.9927	0.0024
14.9645	20.5800	0.0736	0.0020	11.6139	20.5800	-0.3963	0.0054 *	8.2867	20.5800	-0.9980	0.0024
14.9118	20.5800	0.0750	0.0020	11.5651	20.5800	-0.4071	0.0053 *	8.2361	20.5800	-1.0032	0.0023
14.8628	20.5800	0.0757	0.0019	11.5151	20.5800	-0.4183	0.0051 *	8.1854	20.5800	-1.0083	0.0021
14.8114	20.5800	0.0764	0.0021	11.4656	20.5800	-0.4293	0.0050	8.1348	20.5800	-1.0134	0.0017
14.7607	20.5800	0.0766	0.0022	11.4148	20.5800	-0.4403	0.0052 *	8.0840	20.5800	-1.0184	0.0013
14.7111	20.5800	0.0762	0.0021	11.3664	20.5800	-0.4511	0.0050	8.0339	20.5800	-1.0230	0.0012
14.6589	20.5800	0.0754	0.0022	11.3184	20.5800	-0.4617	0.0049	7.9823	20.5800	-1.0278	0.0010
14.6073	20.5800	0.0742	0.0023	11.2690	20.5800	-0.4727	0.0048	7.9318	20.5800	-1.0323	0.0011
14.5573	20.5800	0.0727	0.0024	11.2193	20.5800	-0.4834	0.0051 *	7.8810	20.5800	-1.0366	0.0013
14.5065	20.5800	0.0708	0.0026	11.1699	20.5800	-0.4943	0.0051 *	7.8305	20.5800	-1.0407	0.0017
14.4563	20.5800	0.0685	0.0027	11.1198	20.5800	-0.5052	0.0052 *	7.7804	20.5800	-1.0449	0.0017
14.4048	20.5800	0.0659	0.0031	11.0701	20.5800	-0.5161	0.0052 *	7.7293	20.5800	-1.0490	0.0017
14.3539	20.5800	0.0631	0.0035	11.0212	20.5800	-0.5268	0.0052 *	7.6794	20.5800	-1.0529	0.0017
14.3033	20.5800	0.0598	0.0038	10.9726	20.5800	-0.5372	0.0053 *	7.6280	20.5800	-1.0566	0.0017
14.2535	20.5800	0.0562	0.0039	10.9228	20.5800	-0.5480	0.0053 *	7.5769	20.5800	-1.0602	0.0016
14.2033	20.5800	0.0524	0.0042	10.8730	20.5800	-0.5589	0.0051 *	7.5265	20.5800	-1.0639	0.0013
14.1523	20.5800	0.0484	0.0045	10.8231	20.5800	-0.5698	0.0049	7.4761	20.5800	-1.0673	0.0010
14.1015	20.5800	0.0439	0.0047	10.7735	20.5800	-0.5800	0.0053 *	7.4256	20.5800	-1.0704	0.0009
14.0515	20.5800	0.0393	0.0048	10.7245	20.5800	-0.5905	0.0052 *	7.3757	20.5800	-1.0734	0.0007
14.0013	20.5800	0.0344	0.0049	10.6750	20.5800	-0.6011	0.0051 *	7.3239	20.5800	-1.0766	0.0004
13.9516	20.5800	0.0293	0.0050	10.6261	20.5800	-0.6115	0.0051 *	7.2728	20.5800	-1.0795	0.0001
13.9016	20.5800	0.0239	0.0051 *	10.5775	20.5800	-0.6218	0.0051 *	7.2223	20.5800	-1.0823	0.0002
13.8515	20.5800	0.0182	0.0051 *	10.5280	20.5800	-0.6321	0.0052 *	7.1716	20.5800	-1.0848	0.0002
13.8006	20.5800	0.0120	0.0050	10.4783	20.5800	-0.6426	0.0051 *	7.1194	20.5800	-1.0875	0.0004
0.0000	0.0000	0.0000	0.0000	10.4280	20.5800	-0.6532	0.0049	7.0692	20.5800	-1.0900	0.0006
0.0000	0.0000	0.0000	0.0000	10.3789	20.5800	-0.6633	0.0050	7.0197	20.5800	-1.0922	0.0007
0.0000	0.0000	0.0000	0.0000	10.3290	20.5800	-0.6734	0.0050	6.9698	20.5800	-1.0944	0.0006
13.5980	20.5800	-0.0141	0.0053 *	10.2784	20.5800	-0.6837	0.0051 *	6.9186	20.5800	-1.0964	0.0005
13.5477	20.5800	-0.0211	0.0056 *	10.2301	20.5800	-0.6936	0.0048	6.8686	20.5800	-1.0985	0.0004
13.4983	20.5800	-0.0283	0.0057 *	10.1812	20.5800	-0.7034	0.0048	6.8165	20.5800	-1.1004	0.0002
13.4482	20.5800	-0.0359	0.0058 *	10.1316	20.5800	-0.7131	0.0048	6.7655	20.5800	-1.1022	0.0000
13.3980	20.5800	-0.0436	0.0059 *	10.0821	20.5800	-0.7228	0.0047	6.7156	20.5800	-1.1037	0.0003
13.3480	20.5800	-0.0512	0.0063 *	10.0321	20.5800	-0.7327	0.0043	6.6651	20.5800	-1.1054	0.0003
13.2981	20.5800	-0.0594	0.0064 *	9.9825	20.5800	-0.7422	0.0041	6.6144	20.5800	-1.1069	0.0004
13.2474	20.5800	-0.0678	0.0064 *	9.9338	20.5800	-0.7515	0.0040	6.5641	20.5800	-1.1082	0.0005
13.1966	20.5800	-0.0763	0.0065 *	9.8844	20.5800	-0.7607	0.0038	6.5116	20.5800	-1.1095	0.0004
13.1470	20.5800	-0.0847	0.0066 *	9.8351	20.5800	-0.7699	0.0036	6.4616	20.5800	-1.1107	0.0002
13.0967	20.5800	-0.0933	0.0068 *	9.7860	20.5800	-0.7788	0.0036	6.4109	20.5800	-1.1119	0.0000
13.0471	20.5800	-0.1020	0.0069 *	9.7371	20.5800	-0.7877	0.0036	6.3608	20.5800	-1.1128	0.0001
12.9966	20.5800	-0.1114	0.0066 *	9.6873	20.5800	-0.7966	0.0036	6.3113	20.5800	-1.1138	0.0003
12.9487	20.5800	-0.1201	0.0067 *	9.6378	20.5800	-0.8054	0.0037	6.2607	20.5800	-1.1148	0.0006
12.8987	20.5800	-0.1291	0.0069 *	9.5873	20.5800	-0.8142	0.0038	6.2099	20.5800	-1.1155	0.0004
12.8500	20.5800	-0.1382	0.0069 *	9.5375	20.5800	-0.8228	0.0039	6.1587	20.5800	-1.1162	0.0005
12.8002	20.5800	-0.1478	0.0068 *	9.4879	20.5800	-0.8311	0.0040	6.1077	20.5800	-1.1169	0.0005
12.7508	20.5800	-0.1573	0.0067 *	9.4379	20.5800	-0.8396	0.0039	6.0572	20.5800	-1.1175	0.0005
12.7017	20.5800	-0.1666	0.0068 *	9.3873	20.5800	-0.8479	0.0038	6.0063	20.5800	-1.1181	0.0005

Table A7. Concluded

Lower Surface	y = 20.58 inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
5.9558	20.5800	-1.1187	0.0006	2.5602	20.5800	-0.9743	0.0016	0.9325	20.5800	-0.7135	0.0033
5.9054	20.5800	-1.1191	0.0006	2.5087	20.5800	-0.9688	0.0016	0.9140	20.5800	-0.7088	0.0034
5.8538	20.5800	-1.1196	0.0007	2.4577	20.5800	-0.9633	0.0017	0.8945	20.5800	-0.7036	0.0034
5.8029	20.5800	-1.1200	0.0007	2.4069	20.5800	-0.9576	0.0016	0.8760	20.5800	-0.6987	0.0035
5.7525	20.5800	-1.1202	0.0007	2.3554	20.5800	-0.9520	0.0018	0.8574	20.5800	-0.6935	0.0034
5.7028	20.5800	-1.1203	0.0006	2.3027	20.5800	-0.9458	0.0017	0.8396	20.5800	-0.6886	0.0035
5.6516	20.5800	-1.1206	0.0007	2.2527	20.5800	-0.9398	0.0015	0.8203	20.5800	-0.6832	0.0036
5.6016	20.5800	-1.1207	0.0007	2.2005	20.5800	-0.9335	0.0015	0.8021	20.5800	-0.6780	0.0036
5.5506	20.5800	-1.1207	0.0006	2.1492	20.5800	-0.9271	0.0015	0.7831	20.5800	-0.6726	0.0038
5.4989	20.5800	-1.1204	0.0003	2.0975	20.5800	-0.9204	0.0013	0.7640	20.5800	-0.6668	0.0037
5.4486	20.5800	-1.1203	0.0003	2.0448	20.5800	-0.9135	0.0013	0.7454	20.5800	-0.6612	0.0038
5.3985	20.5800	-1.1201	0.0002	1.9958	20.5800	-0.9071	0.0014	0.7266	20.5800	-0.6554	0.0039
5.3478	20.5800	-1.1196	0.0001	1.9963	20.5800	-0.9072	0.0014	0.7084	20.5800	-0.6498	0.0040
5.2974	20.5800	-1.1192	0.0001	1.9811	20.5800	-0.9051	0.0014	0.6894	20.5800	-0.6435	0.0039
5.2469	20.5800	-1.1187	0.0002	1.9595	20.5800	-0.9023	0.0015	0.6706	20.5800	-0.6374	0.0040
5.1951	20.5800	-1.1181	0.0003	1.9386	20.5800	-0.8992	0.0014	0.6523	20.5800	-0.6312	0.0040
5.1456	20.5800	-1.1173	0.0002	1.9172	20.5800	-0.8962	0.0013	0.6338	20.5800	-0.6247	0.0039
5.0950	20.5800	-1.1167	0.0005	1.8959	20.5800	-0.8932	0.0013	0.6149	20.5800	-0.6181	0.0040
5.0444	20.5800	-1.1158	0.0005	1.8767	20.5800	-0.8904	0.0013	0.5962	20.5800	-0.6113	0.0040
4.9930	20.5800	-1.1150	0.0007	1.8550	20.5800	-0.8875	0.0015	0.5779	20.5800	-0.6044	0.0040
4.9420	20.5800	-1.1141	0.0008	1.8351	20.5800	-0.8845	0.0013	0.5599	20.5800	-0.5975	0.0040
4.8919	20.5800	-1.1128	0.0007	1.8136	20.5800	-0.8813	0.0013	0.5408	20.5800	-0.5899	0.0040
4.8423	20.5800	-1.1118	0.0008	1.7934	20.5800	-0.8784	0.0013	0.5229	20.5800	-0.5826	0.0040
4.7910	20.5800	-1.1108	0.0009	1.7734	20.5800	-0.8754	0.0014	0.5037	20.5800	-0.5746	0.0040
4.7392	20.5800	-1.1094	0.0009	1.7536	20.5800	-0.8725	0.0014	0.4866	20.5800	-0.5672	0.0040
4.6884	20.5800	-1.1081	0.0008	1.7336	20.5800	-0.8696	0.0016	0.4692	20.5800	-0.5595	0.0039
4.6379	20.5800	-1.1068	0.0010	1.7131	20.5800	-0.8665	0.0016	0.4508	20.5800	-0.5510	0.0039
4.5874	20.5800	-1.1053	0.0010	1.6938	20.5800	-0.8634	0.0015	0.4335	20.5800	-0.5428	0.0037
4.5365	20.5800	-1.1036	0.0009	1.6741	20.5800	-0.8603	0.0016	0.4162	20.5800	-0.5345	0.0038
4.4848	20.5800	-1.1019	0.0009	1.6546	20.5800	-0.8573	0.0016	0.3987	20.5800	-0.5257	0.0037
4.4349	20.5800	-1.1002	0.0010	1.6357	20.5800	-0.8542	0.0016	0.3817	20.5800	-0.5168	0.0036
4.3846	20.5800	-1.0984	0.0011	1.6156	20.5800	-0.8511	0.0018	0.3646	20.5800	-0.5079	0.0037
4.3338	20.5800	-1.0966	0.0013	1.5971	20.5800	-0.8480	0.0017	0.3474	20.5800	-0.4984	0.0037
4.2837	20.5800	-1.0946	0.0014	1.5778	20.5800	-0.8449	0.0018	0.3304	20.5800	-0.4888	0.0037
4.2319	20.5800	-1.0926	0.0016	1.5578	20.5800	-0.8416	0.0018	0.3138	20.5800	-0.4790	0.0037
4.1808	20.5800	-1.0903	0.0016	1.5386	20.5800	-0.8383	0.0018	0.2973	20.5800	-0.4690	0.0037
4.1316	20.5800	-1.0881	0.0017	1.5202	20.5800	-0.8352	0.0018	0.2805	20.5800	-0.4584	0.0037
4.0812	20.5800	-1.0857	0.0017	1.5007	20.5800	-0.8318	0.0018	0.2637	20.5800	-0.4472	0.0036
4.0306	20.5800	-1.0833	0.0018	1.4818	20.5800	-0.8285	0.0019	0.2480	20.5800	-0.4362	0.0035
3.9799	20.5800	-1.0808	0.0018	1.4633	20.5800	-0.8253	0.0019	0.2320	20.5800	-0.4248	0.0036
3.9277	20.5800	-1.0781	0.0018	1.4440	20.5800	-0.8218	0.0019	0.2165	20.5800	-0.4133	0.0036
3.8775	20.5800	-1.0752	0.0016	1.4246	20.5800	-0.8185	0.0020	0.2010	20.5800	-0.4010	0.0037
3.8273	20.5800	-1.0727	0.0017	1.4060	20.5800	-0.8151	0.0021	0.1859	20.5800	-0.3883	0.0036
3.7761	20.5800	-1.0698	0.0016	1.3878	20.5800	-0.8118	0.0021	0.1714	20.5800	-0.3758	0.0038
3.7246	20.5800	-1.0668	0.0015	1.3682	20.5800	-0.8082	0.0021	0.1562	20.5800	-0.3618	0.0039
3.6753	20.5800	-1.0638	0.0015	1.3492	20.5800	-0.8046	0.0021	0.1408	20.5800	-0.3467	0.0041
3.6244	20.5800	-1.0608	0.0015	1.3301	20.5800	-0.8010	0.0022	0.1226	20.5800	-0.3270	0.0039
3.5738	20.5800	-1.0575	0.0013	1.3095	20.5800	-0.7971	0.0023	0.1155	20.5800	-0.3187	0.0038
3.5213	20.5800	-1.0543	0.0014	1.2916	20.5800	-0.7935	0.0022	0.1029	20.5800	-0.3035	0.0039
3.4712	20.5800	-1.0510	0.0014	1.2736	20.5800	-0.7899	0.0022	0.0912	20.5800	-0.2881	0.0038
3.4217	20.5800	-1.0478	0.0015	1.2531	20.5800	-0.7859	0.0023	0.0802	20.5800	-0.2724	0.0036
3.3709	20.5800	-1.0442	0.0014	1.2347	20.5800	-0.7822	0.0024	0.0688	20.5800	-0.2548	0.0036
3.3206	20.5800	-1.0407	0.0015	1.2159	20.5800	-0.7783	0.0024	0.0589	20.5800	-0.2379	0.0035
3.2694	20.5800	-1.0370	0.0014	1.1964	20.5800	-0.7743	0.0024	0.0497	20.5800	-0.2208	0.0035
3.2188	20.5800	-1.0332	0.0014	1.1771	20.5800	-0.7703	0.0025	0.0409	20.5800	-0.2027	0.0035
3.1687	20.5800	-1.0295	0.0015	1.1581	20.5800	-0.7663	0.0026	0.0332	20.5800	-0.1848	0.0034
3.1186	20.5800	-1.0255	0.0015	1.1392	20.5800	-0.7623	0.0028	0.0255	20.5800	-0.1653	0.0034
3.0665	20.5800	-1.0213	0.0015	1.1209	20.5800	-0.7583	0.0028	0.0190	20.5800	-0.1458	0.0033
3.0155	20.5800	-1.0170	0.0015	1.1026	20.5800	-0.7542	0.0029	0.0133	20.5800	-0.1263	0.0032
2.9656	20.5800	-1.0129	0.0015	1.0834	20.5800	-0.7499	0.0029	0.0086	20.5800	-0.1062	0.0030
2.9150	20.5800	-1.0083	0.0014	1.0643	20.5800	-0.7454	0.0029	0.0047	20.5800	-0.0861	0.0028
2.8638	20.5800	-1.0038	0.0015	1.0455	20.5800	-0.7412	0.0030	0.0019	20.5800	-0.0668	0.0026
2.8128	20.5800	-0.9991	0.0015	1.0269	20.5800	-0.7367	0.0029	-0.0002	20.5800	-0.0469	0.0023
2.7630	20.5800	-0.9945	0.0015	1.0078	20.5800	-0.7322	0.0030	-0.0014	20.5800	-0.0269	0.0021
2.7122	20.5800	-0.9895	0.0015	0.9880	20.5800	-0.7275	0.0032				
2.6607	20.5800	-0.9844	0.0015	0.9697	20.5800	-0.7229	0.0033				
2.6107	20.5800	-0.9796	0.0018	0.9508	20.5800	-0.7182	0.0033				

Table A8. Chordwise Airfoil Measurements at $y = 20.62$ in.

Upper Surface y = 20.62 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0019	20.6200	-0.0065	0.0020	0.9525	20.6200	0.7149	0.0003	2.6874	20.6200	0.9762	0.0000
-0.0014	20.6200	0.0138	0.0015	0.9726	20.6200	0.7198	0.0002	2.7375	20.6200	0.9808	0.0000
-0.0003	20.6200	0.0340	0.0012	0.9945	20.6200	0.7251	0.0002	2.7888	20.6200	0.9855	0.0000
0.0018	20.6200	0.0557	0.0010	1.0132	20.6200	0.7296	0.0002	2.8379	20.6200	0.9899	0.0003
0.0047	20.6200	0.0750	0.0007	1.0340	20.6200	0.7343	0.0001	2.8878	20.6200	0.9943	0.0004
0.0084	20.6200	0.0940	0.0004	1.0543	20.6200	0.7389	0.0000	2.9367	20.6200	0.9985	0.0005
0.0129	20.6200	0.1130	0.0002	1.0744	20.6200	0.7435	0.0000	2.9860	20.6200	1.0027	0.0006
0.0180	20.6200	0.1311	0.0001	1.0936	20.6200	0.7476	0.0001	3.0360	20.6200	1.0069	0.0009
0.0239	20.6200	0.1502	0.0001	1.1138	20.6200	0.7520	0.0003	3.0880	20.6200	1.0111	0.0009
0.0306	20.6200	0.1683	0.0003	1.1327	20.6200	0.7562	0.0001	3.1382	20.6200	1.0150	0.0008
0.0379	20.6200	0.1863	0.0004	1.1528	20.6200	0.7603	0.0003	3.1882	20.6200	1.0189	0.0009
0.0458	20.6200	0.2039	0.0004	1.1719	20.6200	0.7644	0.0003	3.2396	20.6200	1.0228	0.0010
0.0546	20.6200	0.2218	0.0003	1.1927	20.6200	0.7686	0.0004	3.2884	20.6200	1.0266	0.0011
0.0634	20.6200	0.2382	0.0002	1.2125	20.6200	0.7727	0.0004	3.3401	20.6200	1.0303	0.0010
0.0737	20.6200	0.2556	0.0001	1.2322	20.6200	0.7766	0.0005	3.3918	20.6200	1.0340	0.0011
0.0842	20.6200	0.2718	0.0000	1.2513	20.6200	0.7804	0.0005	3.4426	20.6200	1.0375	0.0011
0.0952	20.6200	0.2874	0.0001	1.2725	20.6200	0.7845	0.0006	3.4931	20.6200	1.0410	0.0012
0.1077	20.6200	0.3038	0.0003	1.2929	20.6200	0.7884	0.0006	3.5447	20.6200	1.0445	0.0013
0.1196	20.6200	0.3183	0.0004	1.3115	20.6200	0.7919	0.0006	3.5947	20.6200	1.0478	0.0014
0.1332	20.6200	0.3334	0.0004	1.3311	20.6200	0.7955	0.0007	3.6449	20.6200	1.0510	0.0015
0.1470	20.6200	0.3475	0.0002	1.3513	20.6200	0.7994	0.0007	3.6961	20.6200	1.0542	0.0017
0.1616	20.6200	0.3615	0.0000	1.3707	20.6200	0.8029	0.0006	3.7461	20.6200	1.0571	0.0017
0.1763	20.6200	0.3746	0.0003	1.3908	20.6200	0.8065	0.0007	3.7967	20.6200	1.0601	0.0019
0.1920	20.6200	0.3879	0.0007	1.4110	20.6200	0.8101	0.0007	3.8477	20.6200	1.0631	0.0021
0.2076	20.6200	0.4002	0.0010	1.4304	20.6200	0.8136	0.0007	3.8986	20.6200	1.0660	0.0023
0.1907	20.6200	0.3868	0.0006	1.4508	20.6200	0.8172	0.0007	3.9492	20.6200	1.0686	0.0023
0.1986	20.6200	0.3932	0.0008	1.4706	20.6200	0.8206	0.0007	4.0005	20.6200	1.0713	0.0025
0.2142	20.6200	0.4055	0.0011	1.4910	20.6200	0.8239	0.0008	4.0515	20.6200	1.0740	0.0027
0.2290	20.6200	0.4167	0.0012	1.5106	20.6200	0.8272	0.0009	4.1016	20.6200	1.0765	0.0029
0.2451	20.6200	0.4283	0.0014	1.5304	20.6200	0.8306	0.0009	4.1510	20.6200	1.0789	0.0030
0.2614	20.6200	0.4395	0.0015	1.5503	20.6200	0.8338	0.0009	4.2021	20.6200	1.0813	0.0032
0.2781	20.6200	0.4507	0.0014	1.5700	20.6200	0.8370	0.0009	4.2512	20.6200	1.0836	0.0033
0.2949	20.6200	0.4617	0.0012	1.5892	20.6200	0.8402	0.0008	4.3012	20.6200	1.0858	0.0034
0.3121	20.6200	0.4723	0.0012	1.6092	20.6200	0.8433	0.0009	4.3527	20.6200	1.0881	0.0035
0.3292	20.6200	0.4827	0.0009	1.6288	20.6200	0.8465	0.0008	4.4023	20.6200	1.0899	0.0034
0.3465	20.6200	0.4927	0.0008	1.6476	20.6200	0.8494	0.0008	4.4535	20.6200	1.0920	0.0034
0.3641	20.6200	0.5026	0.0007	1.6675	20.6200	0.8525	0.0009	4.5026	20.6200	1.0940	0.0035
0.3814	20.6200	0.5119	0.0006	1.6883	20.6200	0.8556	0.0009	4.5543	20.6200	1.0958	0.0033
0.3987	20.6200	0.5210	0.0005	1.7086	20.6200	0.8586	0.0009	4.6049	20.6200	1.0976	0.0032
0.4173	20.6200	0.5304	0.0004	1.7289	20.6200	0.8618	0.0008	4.6541	20.6200	1.0992	0.0031
0.4346	20.6200	0.5389	0.0003	1.7481	20.6200	0.8646	0.0009	4.7059	20.6200	1.1010	0.0031
0.4524	20.6200	0.5474	0.0002	1.7686	20.6200	0.8676	0.0008	4.7560	20.6200	1.1026	0.0029
0.4708	20.6200	0.5558	0.0001	1.7889	20.6200	0.8706	0.0008	4.8065	20.6200	1.1040	0.0028
0.4902	20.6200	0.5644	0.0001	1.8086	20.6200	0.8734	0.0008	4.8579	20.6200	1.1055	0.0027
0.5091	20.6200	0.5727	0.0001	1.8306	20.6200	0.8765	0.0009	4.9083	20.6200	1.1070	0.0027
0.5275	20.6200	0.5803	0.0001	1.8505	20.6200	0.8794	0.0008	4.9597	20.6200	1.1083	0.0027
0.5458	20.6200	0.5878	0.0001	1.8713	20.6200	0.8823	0.0007	5.0091	20.6200	1.1095	0.0027
0.5644	20.6200	0.5951	0.0001	1.8916	20.6200	0.8851	0.0008	5.0599	20.6200	1.1108	0.0028
0.5840	20.6200	0.6026	0.0001	1.9109	20.6200	0.8876	0.0008	5.1098	20.6200	1.1119	0.0030
0.6023	20.6200	0.6094	0.0001	1.9309	20.6200	0.8904	0.0007	5.1604	20.6200	1.1132	0.0032
0.6223	20.6200	0.6167	0.0001	1.9521	20.6200	0.8932	0.0008	5.2104	20.6200	1.1143	0.0034
0.6411	20.6200	0.6233	0.0000	1.9724	20.6200	0.8960	0.0007	5.2622	20.6200	1.1155	0.0036
0.6602	20.6200	0.6299	0.0000	1.9909	20.6200	0.8984	0.0006	5.3134	20.6200	1.1163	0.0036
0.6788	20.6200	0.6361	0.0000	1.9925	20.6200	0.8985	0.0007	5.3629	20.6200	1.1173	0.0037
0.6984	20.6200	0.6424	0.0001	2.0363	20.6200	0.9041	0.0008	5.4139	20.6200	1.1183	0.0036
0.7170	20.6200	0.6485	0.0000	2.0852	20.6200	0.9104	0.0006	5.4639	20.6200	1.1190	0.0033
0.7362	20.6200	0.6545	0.0000	2.1353	20.6200	0.9167	0.0005	5.5134	20.6200	1.1200	0.0032
0.7559	20.6200	0.6606	0.0000	2.1858	20.6200	0.9227	0.0005	5.5652	20.6200	1.1208	0.0031
0.7754	20.6200	0.6665	0.0001	2.2350	20.6200	0.9285	0.0004	5.6160	20.6200	1.1215	0.0029
0.7949	20.6200	0.6723	0.0001	2.2859	20.6200	0.9343	0.0004	5.6655	20.6200	1.1222	0.0028
0.8147	20.6200	0.6780	0.0002	2.3360	20.6200	0.9400	0.0002	5.7169	20.6200	1.1230	0.0030
0.8349	20.6200	0.6838	0.0003	2.3835	20.6200	0.9452	0.0002	5.7672	20.6200	1.1236	0.0030
0.8542	20.6200	0.6893	0.0004	2.4342	20.6200	0.9508	0.0001	5.8185	20.6200	1.1242	0.0032
0.8744	20.6200	0.6946	0.0003	2.4859	20.6200	0.9562	0.0000	5.8683	20.6200	1.1246	0.0033
0.8936	20.6200	0.6997	0.0002	2.5363	20.6200	0.9613	0.0001	5.9181	20.6200	1.1252	0.0036
0.9132	20.6200	0.7049	0.0003	2.5861	20.6200	0.9664	0.0000	5.9694	20.6200	1.1257	0.0038
0.9332	20.6200	0.7100	0.0003	2.6364	20.6200	0.9713	0.0000	6.0195	20.6200	1.1260	0.0039

Table A8. Continued

Upper Surface	y = 20.62 inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0694	20.6200	1.1265	0.0042	9.4739	20.6200	1.0191	0.0041	12.8877	20.6200	0.6202	0.0059 *
6.1208	20.6200	1.1267	0.0042	9.5248	20.6200	1.0154	0.0042	12.9374	20.6200	0.6127	0.0060 *
6.1716	20.6200	1.1269	0.0043	9.5761	20.6200	1.0114	0.0042	12.9870	20.6200	0.6052	0.0061 *
6.2222	20.6200	1.1270	0.0042	9.6271	20.6200	1.0073	0.0043	13.0362	20.6200	0.5978	0.0062 *
6.2727	20.6200	1.1272	0.0043	9.6774	20.6200	1.0031	0.0041	13.0851	20.6200	0.5901	0.0060 *
6.3248	20.6200	1.1273	0.0042	9.7279	20.6200	0.9988	0.0041	13.1336	20.6200	0.5825	0.0060 *
6.3747	20.6200	1.1274	0.0043	9.7789	20.6200	0.9947	0.0043	13.1825	20.6200	0.5750	0.0061 *
6.4257	20.6200	1.1273	0.0041	9.8305	20.6200	0.9903	0.0044	13.2323	20.6200	0.5674	0.0062 *
6.4758	20.6200	1.1272	0.0039	9.8800	20.6200	0.9858	0.0043	13.2815	20.6200	0.5596	0.0061 *
6.5252	20.6200	1.1271	0.0038	9.9300	20.6200	0.9816	0.0046	13.3291	20.6200	0.5520	0.0060 *
6.5774	20.6200	1.1269	0.0038	9.9808	20.6200	0.9771	0.0048	13.3780	20.6200	0.5443	0.0061 *
6.6280	20.6200	1.1266	0.0037	10.0319	20.6200	0.9724	0.0048	13.4267	20.6200	0.5366	0.0061 *
6.6791	20.6200	1.1263	0.0038	10.0812	20.6200	0.9677	0.0046	13.4762	20.6200	0.5286	0.0061 *
6.7291	20.6200	1.1258	0.0039	10.1322	20.6200	0.9631	0.0047	13.5245	20.6200	0.5207	0.0060 *
6.7813	20.6200	1.1255	0.0042	10.1841	20.6200	0.9584	0.0049	13.5716	20.6200	0.5133	0.0062 *
6.8311	20.6200	1.1248	0.0042	10.2337	20.6200	0.9536	0.0047	13.6214	20.6200	0.5052	0.0062 *
6.8820	20.6200	1.1243	0.0044	10.2842	20.6200	0.9485	0.0044	13.6699	20.6200	0.4970	0.0060 *
6.9321	20.6200	1.1238	0.0045	10.3353	20.6200	0.9437	0.0045	13.7178	20.6200	0.4891	0.0059 *
6.9840	20.6200	1.1231	0.0045	10.3867	20.6200	0.9386	0.0045	13.7664	20.6200	0.4812	0.0060 *
7.0338	20.6200	1.1223	0.0045	10.4374	20.6200	0.9335	0.0044	13.8150	20.6200	0.4732	0.0060 *
7.0855	20.6200	1.1215	0.0045	10.4912	20.6200	0.9279	0.0043	13.8633	20.6200	0.4651	0.0060 *
7.1359	20.6200	1.1207	0.0044	10.5399	20.6200	0.9229	0.0045	13.9120	20.6200	0.4570	0.0060 *
7.1857	20.6200	1.1200	0.0046	10.5900	20.6200	0.9179	0.0047	13.9601	20.6200	0.4487	0.0058 *
7.2378	20.6200	1.1189	0.0043	10.6420	20.6200	0.9123	0.0047	14.0089	20.6200	0.4406	0.0058 *
7.2888	20.6200	1.1179	0.0042	10.6919	20.6200	0.9069	0.0046	14.0568	20.6200	0.4325	0.0057 *
7.3387	20.6200	1.1170	0.0042	10.7431	20.6200	0.9015	0.0047	14.1058	20.6200	0.4240	0.0055 *
7.3893	20.6200	1.1161	0.0043	10.7960	20.6200	0.8957	0.0047	14.1538	20.6200	0.4158	0.0055 *
7.4405	20.6200	1.1148	0.0041	10.8448	20.6200	0.8901	0.0044	14.2016	20.6200	0.4076	0.0056 *
7.4914	20.6200	1.1136	0.0041	10.8976	20.6200	0.8843	0.0043	14.2508	20.6200	0.3989	0.0055 *
7.5417	20.6200	1.1126	0.0044	10.9515	20.6200	0.8782	0.0042	14.2988	20.6200	0.3906	0.0057 *
7.5911	20.6200	1.1114	0.0046	11.0028	20.6200	0.8725	0.0043	14.3488	20.6200	0.3819	0.0060 *
7.6424	20.6200	1.1099	0.0046	11.0545	20.6200	0.8664	0.0040	14.3967	20.6200	0.3736	0.0064 *
7.6920	20.6200	1.1085	0.0048	11.1043	20.6200	0.8606	0.0039	14.4443	20.6200	0.3648	0.0062 *
7.7427	20.6200	1.1072	0.0051 *	11.1573	20.6200	0.8544	0.0040	14.4940	20.6200	0.3560	0.0064 *
7.7940	20.6200	1.1059	0.0053 *	11.2070	20.6200	0.8486	0.0041	14.5424	20.6200	0.3474	0.0065 *
7.8461	20.6200	1.1042	0.0051 *	11.2591	20.6200	0.8424	0.0042	14.5909	20.6200	0.3388	0.0066 *
7.8956	20.6200	1.1026	0.0050	11.3116	20.6200	0.8359	0.0042	14.6398	20.6200	0.3298	0.0065 *
7.9474	20.6200	1.1009	0.0048	11.3638	20.6200	0.8297	0.0045	14.6882	20.6200	0.3209	0.0062 *
7.9969	20.6200	1.0992	0.0047	11.4155	20.6200	0.8232	0.0047	14.7362	20.6200	0.3123	0.0062 *
8.0498	20.6200	1.0974	0.0048	11.4680	20.6200	0.8166	0.0049	14.7843	20.6200	0.3034	0.0059 *
8.0994	20.6200	1.0956	0.0050	11.5200	20.6200	0.8101	0.0051 *	14.8322	20.6200	0.2943	0.0055 *
8.1515	20.6200	1.0937	0.0053 *	11.5722	20.6200	0.8036	0.0055 *	14.8804	20.6200	0.2852	0.0052 *
8.2013	20.6200	1.0919	0.0056 *	11.6229	20.6200	0.7972	0.0057 *	14.9278	20.6200	0.2763	0.0050
8.2527	20.6200	1.0898	0.0054 *	11.6760	20.6200	0.7902	0.0057 *	14.9761	20.6200	0.2672	0.0050
8.3030	20.6200	1.0877	0.0053 *	11.7264	20.6200	0.7838	0.0057 *	15.0242	20.6200	0.2581	0.0049
8.3541	20.6200	1.0854	0.0050	11.7776	20.6200	0.7771	0.0056 *	15.0716	20.6200	0.2486	0.0044
8.4051	20.6200	1.0832	0.0049	11.8299	20.6200	0.7703	0.0056 *	15.1194	20.6200	0.2391	0.0041
8.4560	20.6200	1.0810	0.0047	11.8814	20.6200	0.7633	0.0053 *	15.1680	20.6200	0.2295	0.0040
8.5071	20.6200	1.0785	0.0045	11.9332	20.6200	0.7565	0.0052 *	15.2160	20.6200	0.2200	0.0039
8.5576	20.6200	1.0762	0.0045	11.9837	20.6200	0.7499	0.0053 *	15.2649	20.6200	0.2098	0.0033
8.6086	20.6200	1.0737	0.0045	12.0345	20.6200	0.7428	0.0050	15.3131	20.6200	0.1999	0.0030
8.6598	20.6200	1.0710	0.0043	12.0860	20.6200	0.7357	0.0050	15.3607	20.6200	0.1905	0.0030
8.7091	20.6200	1.0685	0.0043	12.1362	20.6200	0.7289	0.0052 *	15.4090	20.6200	0.1806	0.0029
8.7598	20.6200	1.0658	0.0044	12.1882	20.6200	0.7217	0.0053 *	15.4575	20.6200	0.1706	0.0026
8.8123	20.6200	1.0629	0.0044	12.2389	20.6200	0.7146	0.0053 *	15.5062	20.6200	0.1608	0.0027
8.8615	20.6200	1.0601	0.0043	12.2895	20.6200	0.7074	0.0054 *	15.5550	20.6200	0.1511	0.0029
8.9122	20.6200	1.0572	0.0044	12.3392	20.6200	0.7005	0.0056 *	15.6034	20.6200	0.1409	0.0027
8.9640	20.6200	1.0541	0.0044	12.3900	20.6200	0.6935	0.0059 *	15.6509	20.6200	0.1312	0.0029
9.0152	20.6200	1.0509	0.0043	12.4406	20.6200	0.6861	0.0058 *	15.6980	20.6200	0.1219	0.0034
9.0664	20.6200	1.0476	0.0041	12.4915	20.6200	0.6787	0.0058 *	15.7461	20.6200	0.1122	0.0039
9.1175	20.6200	1.0443	0.0042	12.5409	20.6200	0.6716	0.0058 *	15.7944	20.6200	0.1026	0.0046
9.1683	20.6200	1.0411	0.0042	12.5903	20.6200	0.6646	0.0060 *	15.8417	20.6200	0.0928	0.0050
9.2178	20.6200	1.0378	0.0043	12.6410	20.6200	0.6572	0.0060 *	15.8897	20.6200	0.0833	0.0061 *
9.2695	20.6200	1.0340	0.0041	12.6902	20.6200	0.6499	0.0061 *	15.9377	20.6200	0.0738	0.0072 *
9.3206	20.6200	1.0306	0.0043	12.7397	20.6200	0.6424	0.0060 *				
9.3718	20.6200	1.0270	0.0043	12.7899	20.6200	0.6351	0.0061 *				
9.4223	20.6200	1.0232	0.0042	12.8389	20.6200	0.6278	0.0061 *				

Table A8. Continued

Lower Surface y = 20.62 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9824	20.6200	-0.0358	0.0038	12.6517	20.6200	-0.1758	0.0074 *	9.3377	20.6200	-0.8557	0.0039
15.9718	20.6200	-0.0334	0.0040	12.6019	20.6200	-0.1857	0.0073 *	9.2880	20.6200	-0.8636	0.0037
15.9234	20.6200	-0.0230	0.0050	12.5522	20.6200	-0.1956	0.0071 *	9.2376	20.6200	-0.8716	0.0035
15.8750	20.6200	-0.0139	0.0050	12.5024	20.6200	-0.2055	0.0071 *	9.1880	20.6200	-0.8794	0.0032
15.8285	20.6200	-0.0053	0.0054 *	12.4530	20.6200	-0.2153	0.0072 *	9.1378	20.6200	-0.8872	0.0029
15.7768	20.6200	0.0036	0.0056 *	12.4036	20.6200	-0.2256	0.0068 *	9.0882	20.6200	-0.8945	0.0030
15.7283	20.6200	0.0116	0.0059 *	12.3546	20.6200	-0.2357	0.0067 *	9.0377	20.6200	-0.9019	0.0032
15.6790	20.6200	0.0186	0.0056 *	12.3053	20.6200	-0.2459	0.0066 *	8.9879	20.6200	-0.9093	0.0031
15.6269	20.6200	0.0262	0.0058 *	12.2550	20.6200	-0.2562	0.0066 *	8.9374	20.6200	-0.9166	0.0032
15.5745	20.6200	0.0330	0.0058 *	12.2053	20.6200	-0.2668	0.0064 *	8.8879	20.6200	-0.9236	0.0033
15.5225	20.6200	0.0391	0.0057 *	12.1560	20.6200	-0.2770	0.0064 *	8.8381	20.6200	-0.9303	0.0036
15.4728	20.6200	0.0445	0.0057 *	12.1057	20.6200	-0.2880	0.0061 *	8.7867	20.6200	-0.9373	0.0036
15.4224	20.6200	0.0494	0.0056 *	12.0575	20.6200	-0.2983	0.0061 *	8.7381	20.6200	-0.9439	0.0036
15.3721	20.6200	0.0539	0.0056 *	12.0083	20.6200	-0.3088	0.0061 *	8.6876	20.6200	-0.9506	0.0034
15.3198	20.6200	0.0580	0.0054 *	11.9588	20.6200	-0.3195	0.0061 *	8.6382	20.6200	-0.9567	0.0036
15.2701	20.6200	0.0615	0.0053 *	11.9103	20.6200	-0.3303	0.0059 *	8.5876	20.6200	-0.9630	0.0035
15.2193	20.6200	0.0648	0.0052 *	11.8606	20.6200	-0.3411	0.0060 *	8.5368	20.6200	-0.9694	0.0032
15.1681	20.6200	0.0679	0.0052 *	11.8112	20.6200	-0.3519	0.0061 *	8.4866	20.6200	-0.9753	0.0031
15.1151	20.6200	0.0706	0.0050	11.7609	20.6200	-0.3632	0.0060 *	8.4371	20.6200	-0.9809	0.0032
15.0661	20.6200	0.0726	0.0047	11.7116	20.6200	-0.3742	0.0059 *	8.3869	20.6200	-0.9866	0.0030
15.0159	20.6200	0.0747	0.0047	11.6632	20.6200	-0.3849	0.0059 *	8.3371	20.6200	-0.9921	0.0030
14.9643	20.6200	0.0764	0.0047	11.6143	20.6200	-0.3955	0.0060 *	8.2870	20.6200	-0.9975	0.0028
14.9125	20.6200	0.0774	0.0044	11.5647	20.6200	-0.4066	0.0059 *	8.2362	20.6200	-1.0028	0.0027
14.8620	20.6200	0.0781	0.0042	11.5160	20.6200	-0.4175	0.0057 *	8.1861	20.6200	-1.0078	0.0025
14.8109	20.6200	0.0788	0.0044	11.4659	20.6200	-0.4288	0.0054 *	8.1352	20.6200	-1.0129	0.0022
14.7616	20.6200	0.0789	0.0045	11.4154	20.6200	-0.4398	0.0055 *	8.0837	20.6200	-1.0181	0.0017
14.7109	20.6200	0.0783	0.0043	11.3663	20.6200	-0.4506	0.0055 *	8.0343	20.6200	-1.0226	0.0015
14.6593	20.6200	0.0772	0.0040	11.3175	20.6200	-0.4615	0.0053 *	7.9820	20.6200	-1.0274	0.0015
14.6075	20.6200	0.0760	0.0041	11.2692	20.6200	-0.4721	0.0054 *	7.9322	20.6200	-1.0318	0.0015
14.5567	20.6200	0.0744	0.0041	11.2195	20.6200	-0.4831	0.0054 *	7.8810	20.6200	-1.0363	0.0017
14.5071	20.6200	0.0725	0.0043	11.1699	20.6200	-0.4938	0.0056 *	7.8299	20.6200	-1.0405	0.0020
14.4558	20.6200	0.0701	0.0044	11.1207	20.6200	-0.5045	0.0057 *	7.7803	20.6200	-1.0446	0.0021
14.4055	20.6200	0.0675	0.0047	11.0705	20.6200	-0.5156	0.0056 *	7.7300	20.6200	-1.0485	0.0022
14.3541	20.6200	0.0647	0.0051 *	11.0204	20.6200	-0.5264	0.0057 *	7.6796	20.6200	-1.0525	0.0020
14.3024	20.6200	0.0612	0.0052 *	10.9725	20.6200	-0.5368	0.0057 *	7.6284	20.6200	-1.0562	0.0021
14.2524	20.6200	0.0577	0.0055 *	10.9228	20.6200	-0.5475	0.0058 *	7.5756	20.6200	-1.0599	0.0020
14.2027	20.6200	0.0538	0.0056 *	10.8738	20.6200	-0.5581	0.0057 *	7.5261	20.6200	-1.0634	0.0018
14.1526	20.6200	0.0497	0.0058 *	10.8236	20.6200	-0.5688	0.0057 *	7.4755	20.6200	-1.0670	0.0014
14.1026	20.6200	0.0454	0.0061 *	10.7739	20.6200	-0.5793	0.0059 *	7.4266	20.6200	-1.0700	0.0013
14.0520	20.6200	0.0406	0.0061 *	10.7243	20.6200	-0.5901	0.0056 *	7.3753	20.6200	-1.0731	0.0010
14.0019	20.6200	0.0355	0.0060 *	10.6758	20.6200	-0.6004	0.0057 *	7.3249	20.6200	-1.0761	0.0008
13.9512	20.6200	0.0304	0.0062 *	10.6251	20.6200	-0.6112	0.0056 *	7.2741	20.6200	-1.0790	0.0005
13.9013	20.6200	0.0250	0.0063 *	10.5763	20.6200	-0.6216	0.0055 *	7.2226	20.6200	-1.0818	0.0002
13.8513	20.6200	0.0194	0.0063 *	10.5277	20.6200	-0.6318	0.0056 *	7.1714	20.6200	-1.0845	0.0001
13.8006	20.6200	0.0133	0.0062 *	10.4783	20.6200	-0.6420	0.0056 *	7.1202	20.6200	-1.0871	0.0001
13.7497	20.6200	0.0070	0.0062 *	10.4280	20.6200	-0.6527	0.0054 *	7.0699	20.6200	-1.0895	0.0002
13.7000	20.6200	0.0006	0.0062 *	10.3785	20.6200	-0.6628	0.0055 *	7.0193	20.6200	-1.0919	0.0003
13.6496	20.6200	-0.0060	0.0063 *	10.3289	20.6200	-0.6731	0.0054 *	6.9705	20.6200	-1.0938	0.0001
13.5987	20.6200	-0.0131	0.0063 *	10.2798	20.6200	-0.6831	0.0054 *	6.9194	20.6200	-1.0960	0.0001
13.5478	20.6200	-0.0201	0.0066 *	10.2298	20.6200	-0.6932	0.0053 *	6.8683	20.6200	-1.0981	0.0000
13.4979	20.6200	-0.0275	0.0066 *	10.1806	20.6200	-0.7032	0.0051 *	6.8162	20.6200	-1.1001	0.0001
13.4480	20.6200	-0.0349	0.0067 *	10.1317	20.6200	-0.7128	0.0051 *	6.7649	20.6200	-1.1018	0.0004
13.3986	20.6200	-0.0425	0.0069 *	10.0833	20.6200	-0.7223	0.0049	6.7159	20.6200	-1.1034	0.0007
13.3480	20.6200	-0.0506	0.0069 *	10.0326	20.6200	-0.7323	0.0046	6.6654	20.6200	-1.1050	0.0007
13.2976	20.6200	-0.0585	0.0072 *	9.9837	20.6200	-0.7416	0.0045	6.6141	20.6200	-1.1064	0.0009
13.2475	20.6200	-0.0667	0.0074 *	9.9341	20.6200	-0.7510	0.0044	6.5634	20.6200	-1.1078	0.0009
13.1977	20.6200	-0.0753	0.0073 *	9.8847	20.6200	-0.7600	0.0044	6.5116	20.6200	-1.1092	0.0007
13.1471	20.6200	-0.0839	0.0074 *	9.8349	20.6200	-0.7696	0.0040	6.4608	20.6200	-1.1105	0.0004
13.0971	20.6200	-0.0925	0.0076 *	9.7861	20.6200	-0.7786	0.0038	6.4105	20.6200	-1.1114	0.0004
13.0475	20.6200	-0.1013	0.0076 *	9.7377	20.6200	-0.7873	0.0039	6.3615	20.6200	-1.1124	0.0003
12.9974	20.6200	-0.1103	0.0075 *	9.6876	20.6200	-0.7962	0.0040	6.3115	20.6200	-1.1134	0.0001
12.9479	20.6200	-0.1195	0.0073 *	9.6375	20.6200	-0.8050	0.0041	6.2608	20.6200	-1.1142	0.0001
12.8989	20.6200	-0.1284	0.0076 *	9.5880	20.6200	-0.8137	0.0042	6.2099	20.6200	-1.1150	0.0000
12.8505	20.6200	-0.1375	0.0075 *	9.5382	20.6200	-0.8224	0.0042	6.1571	20.6200	-1.1158	0.0000
12.8013	20.6200	-0.1469	0.0074 *	9.4886	20.6200	-0.8308	0.0043	6.1061	20.6200	-1.1165	0.0001
12.7512	20.6200	-0.1564	0.0075 *	9.4372	20.6200	-0.8394	0.0042	6.0571	20.6200	-1.1172	0.0002
12.7020	20.6200	-0.1660	0.0074 *	9.3885	20.6200	-0.8475	0.0040	6.0066	20.6200	-1.1178	0.0002

Table A8. Concluded

Lower Surface	y = 20.62 inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
5.9565	20.6200	-1.1182	0.0002	2.5617	20.6200	-0.9742	0.0014	0.9330	20.6200	-0.7134	0.0031
5.9056	20.6200	-1.1187	0.0002	2.5081	20.6200	-0.9685	0.0014	0.9133	20.6200	-0.7084	0.0032
5.8534	20.6200	-1.1192	0.0003	2.4571	20.6200	-0.9628	0.0013	0.8949	20.6200	-0.7035	0.0032
5.8029	20.6200	-1.1195	0.0003	2.4086	20.6200	-0.9576	0.0015	0.8752	20.6200	-0.6981	0.0032
5.7533	20.6200	-1.1197	0.0002	2.3552	20.6200	-0.9515	0.0013	0.8576	20.6200	-0.6934	0.0033
5.7020	20.6200	-1.1199	0.0002	2.3041	20.6200	-0.9456	0.0013	0.8399	20.6200	-0.6886	0.0034
5.6520	20.6200	-1.1201	0.0002	2.2533	20.6200	-0.9394	0.0012	0.8194	20.6200	-0.6828	0.0035
5.6012	20.6200	-1.1202	0.0002	2.2012	20.6200	-0.9331	0.0011	0.8000	20.6200	-0.6772	0.0035
5.5508	20.6200	-1.1202	0.0001	2.1496	20.6200	-0.9268	0.0012	0.7824	20.6200	-0.6721	0.0035
5.4996	20.6200	-1.1200	0.0001	2.0980	20.6200	-0.9202	0.0010	0.7631	20.6200	-0.6665	0.0037
5.4500	20.6200	-1.1199	0.0001	2.0460	20.6200	-0.9133	0.0010	0.7450	20.6200	-0.6609	0.0036
5.3990	20.6200	-1.1195	0.0003	1.9969	20.6200	-0.9068	0.0010	0.7265	20.6200	-0.6553	0.0037
5.3477	20.6200	-1.1192	0.0003	1.9964	20.6200	-0.9067	0.0010	0.7076	20.6200	-0.6493	0.0037
5.2976	20.6200	-1.1187	0.0003	1.9811	20.6200	-0.9047	0.0010	0.6895	20.6200	-0.6434	0.0038
5.2460	20.6200	-1.1183	0.0001	1.9588	20.6200	-0.9017	0.0010	0.6694	20.6200	-0.6367	0.0037
5.1952	20.6200	-1.1176	0.0002	1.9384	20.6200	-0.8989	0.0010	0.6513	20.6200	-0.6305	0.0037
5.1461	20.6200	-1.1170	0.0000	1.9169	20.6200	-0.8959	0.0011	0.6328	20.6200	-0.6241	0.0037
5.0957	20.6200	-1.1162	0.0000	1.8968	20.6200	-0.8931	0.0011	0.6145	20.6200	-0.6176	0.0037
5.0446	20.6200	-1.1154	0.0002	1.8767	20.6200	-0.8901	0.0009	0.5951	20.6200	-0.6106	0.0038
4.9935	20.6200	-1.1146	0.0003	1.8551	20.6200	-0.8871	0.0010	0.5776	20.6200	-0.6040	0.0038
4.9423	20.6200	-1.1135	0.0003	1.8346	20.6200	-0.8841	0.0010	0.5593	20.6200	-0.5971	0.0038
4.8930	20.6200	-1.1126	0.0004	1.8141	20.6200	-0.8811	0.0010	0.5406	20.6200	-0.5897	0.0038
4.8428	20.6200	-1.1115	0.0004	1.7940	20.6200	-0.8782	0.0011	0.5226	20.6200	-0.5822	0.0037
4.7914	20.6200	-1.1102	0.0003	1.7742	20.6200	-0.8752	0.0011	0.5044	20.6200	-0.5746	0.0037
4.7396	20.6200	-1.1091	0.0005	1.7535	20.6200	-0.8721	0.0011	0.4868	20.6200	-0.5669	0.0036
4.6884	20.6200	-1.1076	0.0004	1.7349	20.6200	-0.8693	0.0011	0.4694	20.6200	-0.5592	0.0036
4.6386	20.6200	-1.1063	0.0005	1.7135	20.6200	-0.8660	0.0012	0.4509	20.6200	-0.5507	0.0035
4.5878	20.6200	-1.1048	0.0005	1.6935	20.6200	-0.8628	0.0011	0.4341	20.6200	-0.5428	0.0035
4.5371	20.6200	-1.1033	0.0006	1.6737	20.6200	-0.8598	0.0012	0.4166	20.6200	-0.5342	0.0034
4.4847	20.6200	-1.1014	0.0005	1.6552	20.6200	-0.8569	0.0012	0.3994	20.6200	-0.5257	0.0033
4.4351	20.6200	-1.0998	0.0006	1.6356	20.6200	-0.8537	0.0012	0.3815	20.6200	-0.5165	0.0034
4.3851	20.6200	-1.0980	0.0007	1.6155	20.6200	-0.8506	0.0013	0.3646	20.6200	-0.5075	0.0034
4.3343	20.6200	-1.0961	0.0008	1.5967	20.6200	-0.8474	0.0012	0.3470	20.6200	-0.4978	0.0034
4.2830	20.6200	-1.0938	0.0007	1.5767	20.6200	-0.8442	0.0013	0.3306	20.6200	-0.4885	0.0033
4.2312	20.6200	-1.0918	0.0009	1.5575	20.6200	-0.8410	0.0014	0.3135	20.6200	-0.4784	0.0033
4.1818	20.6200	-1.0899	0.0012	1.5386	20.6200	-0.8379	0.0014	0.2976	20.6200	-0.4687	0.0033
4.1307	20.6200	-1.0875	0.0012	1.5189	20.6200	-0.8345	0.0014	0.2809	20.6200	-0.4581	0.0033
4.0811	20.6200	-1.0852	0.0012	1.5008	20.6200	-0.8314	0.0014	0.2650	20.6200	-0.4475	0.0031
4.0294	20.6200	-1.0828	0.0013	1.4820	20.6200	-0.8282	0.0015	0.2482	20.6200	-0.4360	0.0032
3.9794	20.6200	-1.0803	0.0013	1.4625	20.6200	-0.8248	0.0015	0.2321	20.6200	-0.4244	0.0031
3.9285	20.6200	-1.0777	0.0014	1.4455	20.6200	-0.8217	0.0015	0.2164	20.6200	-0.4124	0.0031
3.8780	20.6200	-1.0750	0.0013	1.4252	20.6200	-0.8182	0.0016	0.2010	20.6200	-0.4003	0.0031
3.8266	20.6200	-1.0721	0.0012	1.4057	20.6200	-0.8146	0.0016	0.1860	20.6200	-0.3879	0.0032
3.7768	20.6200	-1.0694	0.0012	1.3870	20.6200	-0.8113	0.0018	0.1712	20.6200	-0.3750	0.0033
3.7251	20.6200	-1.0664	0.0011	1.3681	20.6200	-0.8077	0.0017	0.1563	20.6200	-0.3613	0.0035
3.6755	20.6200	-1.0635	0.0012	1.3505	20.6200	-0.8044	0.0017	0.1409	20.6200	-0.3460	0.0035
3.6247	20.6200	-1.0605	0.0012	1.3290	20.6200	-0.8004	0.0018	0.1222	20.6200	-0.3259	0.0035
3.5732	20.6200	-1.0572	0.0010	1.3091	20.6200	-0.7965	0.0018	0.1155	20.6200	-0.3182	0.0035
3.5224	20.6200	-1.0541	0.0011	1.2907	20.6200	-0.7929	0.0019	0.1032	20.6200	-0.3032	0.0034
3.4721	20.6200	-1.0508	0.0011	1.2718	20.6200	-0.7892	0.0019	0.0915	20.6200	-0.2879	0.0034
3.4217	20.6200	-1.0473	0.0010	1.2528	20.6200	-0.7854	0.0019	0.0804	20.6200	-0.2718	0.0032
3.3720	20.6200	-1.0440	0.0011	1.2346	20.6200	-0.7819	0.0021	0.0691	20.6200	-0.2545	0.0031
3.3209	20.6200	-1.0404	0.0011	1.2157	20.6200	-0.7779	0.0020	0.0593	20.6200	-0.2378	0.0031
3.2702	20.6200	-1.0366	0.0010	1.1961	20.6200	-0.7739	0.0021	0.0499	20.6200	-0.2203	0.0031
3.2189	20.6200	-1.0330	0.0012	1.1772	20.6200	-0.7700	0.0022	0.0410	20.6200	-0.2018	0.0030
3.1690	20.6200	-1.0290	0.0011	1.1581	20.6200	-0.7659	0.0022	0.0333	20.6200	-0.1842	0.0031
3.1181	20.6200	-1.0251	0.0011	1.1393	20.6200	-0.7620	0.0025	0.0258	20.6200	-0.1650	0.0031
3.0671	20.6200	-1.0208	0.0010	1.1202	20.6200	-0.7577	0.0024	0.0194	20.6200	-0.1459	0.0030
3.0160	20.6200	-1.0167	0.0011	1.1023	20.6200	-0.7537	0.0024	0.0135	20.6200	-0.1260	0.0030
2.9659	20.6200	-1.0125	0.0012	1.0832	20.6200	-0.7495	0.0026	0.0090	20.6200	-0.1072	0.0028
2.9141	20.6200	-1.0080	0.0012	1.0654	20.6200	-0.7455	0.0027	0.0051	20.6200	-0.0865	0.0026
2.8635	20.6200	-1.0034	0.0011	1.0455	20.6200	-0.7409	0.0027	0.0022	20.6200	-0.0664	0.0022
2.8136	20.6200	-0.9990	0.0012	1.0256	20.6200	-0.7361	0.0027	0.0002	20.6200	-0.0469	0.0020
2.7626	20.6200	-0.9941	0.0012	1.0070	20.6200	-0.7317	0.0028	-0.0013	20.6200	-0.0268	0.0020
2.7125	20.6200	-0.9893	0.0012	0.9880	20.6200	-0.7272	0.0030				
2.6614	20.6200	-0.9843	0.0013	0.9690	20.6200	-0.7224	0.0029				
2.6113	20.6200	-0.9792	0.0013	0.9509	20.6200	-0.7180	0.0031				

Table A9. Chordwise Airfoil Measurements at $y = 30.4$ in.

Upper Surface y = 30.4 Inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.0186	30.4000	-0.0073	0.0185 *	0.9525	30.4000	0.7145	0.0001	2.6873	30.4000	0.9760	0.0002
-0.0020	30.4000	0.0140	0.0021	0.9727	30.4000	0.7196	0.0000	2.7370	30.4000	0.9807	0.0001
-0.0007	30.4000	0.0342	0.0016	0.9937	30.4000	0.7248	0.0001	2.7882	30.4000	0.9854	0.0000
0.0016	30.4000	0.0559	0.0013	1.0132	30.4000	0.7294	0.0000	2.8378	30.4000	0.9899	0.0002
0.0043	30.4000	0.0750	0.0011	1.0334	30.4000	0.7341	0.0000	2.8869	30.4000	0.9942	0.0004
0.0078	30.4000	0.0943	0.0011	1.0536	30.4000	0.7388	0.0000	2.9362	30.4000	0.9985	0.0005
0.0121	30.4000	0.1131	0.0010	1.0738	30.4000	0.7433	0.0000	2.9869	30.4000	1.0027	0.0006
0.0171	30.4000	0.1313	0.0009	1.0934	30.4000	0.7477	0.0000	3.0361	30.4000	1.0069	0.0008
0.0228	30.4000	0.1493	0.0007	1.1140	30.4000	0.7522	0.0001	3.0862	30.4000	1.0109	0.0008
0.0299	30.4000	0.1684	0.0004	1.1332	30.4000	0.7564	0.0001	3.1380	30.4000	1.0151	0.0010
0.0373	30.4000	0.1866	0.0002	1.1533	30.4000	0.7606	0.0002	3.1906	30.4000	0.9922	0.0259 *
0.0453	30.4000	0.2039	0.0000	1.1727	30.4000	0.7647	0.0001	3.2401	30.4000	1.0229	0.0009
0.0541	30.4000	0.2218	0.0001	1.1927	30.4000	0.7689	0.0001	3.2889	30.4000	1.0266	0.0011
0.0633	30.4000	0.2385	0.0000	1.2123	30.4000	0.7729	0.0001	3.3400	30.4000	1.0304	0.0011
0.0735	30.4000	0.2555	0.0000	1.2323	30.4000	0.7769	0.0002	3.3915	30.4000	1.0340	0.0011
0.0841	30.4000	0.2716	0.0000	1.2516	30.4000	0.7807	0.0002	3.4424	30.4000	1.0376	0.0011
0.0957	30.4000	0.2879	0.0000	1.2722	30.4000	0.7847	0.0003	3.4932	30.4000	1.0411	0.0012
0.1074	30.4000	0.3031	0.0001	1.2918	30.4000	0.7886	0.0002	3.5447	30.4000	1.0444	0.0012
0.1201	30.4000	0.3186	0.0003	1.3122	30.4000	0.7924	0.0003	3.5960	30.4000	1.0477	0.0013
0.1331	30.4000	0.3331	0.0003	1.3320	30.4000	0.7960	0.0004	3.6451	30.4000	1.0508	0.0013
0.1498	30.4000	0.3448	0.0037	1.3508	30.4000	0.7995	0.0004	3.6959	30.4000	1.0540	0.0015
0.1616	30.4000	0.3616	0.0001	1.3705	30.4000	0.8032	0.0004	3.7474	30.4000	1.0570	0.0016
0.1761	30.4000	0.3749	0.0000	1.3907	30.4000	0.8069	0.0004	3.7969	30.4000	1.0600	0.0017
0.1917	30.4000	0.3880	0.0004	1.4110	30.4000	0.8103	0.0005	3.8480	30.4000	1.0627	0.0017
0.2073	30.4000	0.4004	0.0007	1.4305	30.4000	0.8139	0.0004	3.8978	30.4000	1.0656	0.0020
0.1900	30.4000	0.3866	0.0003	1.4513	30.4000	0.8174	0.0005	3.9486	30.4000	1.0685	0.0023
0.1981	30.4000	0.3933	0.0005	1.4707	30.4000	0.8207	0.0006	4.0013	30.4000	1.0592	0.0097 *
0.2136	30.4000	0.4053	0.0009	1.4905	30.4000	0.8241	0.0006	4.0511	30.4000	1.0738	0.0025
0.2296	30.4000	0.4172	0.0011	1.5103	30.4000	0.8273	0.0007	4.1014	30.4000	1.0762	0.0026
0.2453	30.4000	0.4284	0.0013	1.5301	30.4000	0.8307	0.0007	4.1515	30.4000	1.0788	0.0028
0.2617	30.4000	0.4398	0.0014	1.5501	30.4000	0.8339	0.0008	4.2023	30.4000	1.0811	0.0030
0.2778	30.4000	0.4506	0.0014	1.5697	30.4000	0.8370	0.0008	4.2513	30.4000	1.0833	0.0030
0.2953	30.4000	0.4617	0.0014	1.5917	30.4000	0.8269	0.0143 *	4.3014	30.4000	1.0856	0.0032
0.3122	30.4000	0.4722	0.0014	1.6096	30.4000	0.8434	0.0009	4.3522	30.4000	1.0879	0.0034
0.3293	30.4000	0.4823	0.0013	1.6284	30.4000	0.8464	0.0009	4.4018	30.4000	1.0899	0.0033
0.3467	30.4000	0.4925	0.0012	1.6487	30.4000	0.8495	0.0009	4.4529	30.4000	1.0918	0.0032
0.3637	30.4000	0.5019	0.0011	1.6685	30.4000	0.8526	0.0008	4.5033	30.4000	1.0938	0.0033
0.3812	30.4000	0.5114	0.0009	1.6879	30.4000	0.8554	0.0011	4.5543	30.4000	1.0957	0.0033
0.4018	30.4000	0.5144	0.0077 *	1.7090	30.4000	0.8586	0.0010	4.6047	30.4000	1.0976	0.0032
0.4175	30.4000	0.5303	0.0006	1.7287	30.4000	0.8615	0.0011	4.6538	30.4000	1.0992	0.0030
0.4347	30.4000	0.5388	0.0004	1.7486	30.4000	0.8644	0.0011	4.7056	30.4000	1.1007	0.0028
0.4529	30.4000	0.5474	0.0003	1.7692	30.4000	0.8675	0.0010	4.7574	30.4000	1.1024	0.0027
0.4714	30.4000	0.5561	0.0001	1.7894	30.4000	0.8703	0.0011	4.8064	30.4000	1.0950	0.0063 *
0.4900	30.4000	0.5644	0.0000	1.8092	30.4000	0.8732	0.0011	4.8575	30.4000	1.1053	0.0025
0.5085	30.4000	0.5724	0.0001	1.8305	30.4000	0.8762	0.0011	4.9074	30.4000	1.1066	0.0024
0.5271	30.4000	0.5802	0.0001	1.8503	30.4000	0.8791	0.0010	4.9576	30.4000	1.1081	0.0025
0.5460	30.4000	0.5880	0.0002	1.8710	30.4000	0.8819	0.0011	5.0098	30.4000	1.1094	0.0026
0.5649	30.4000	0.5955	0.0003	1.8899	30.4000	0.8845	0.0011	5.0603	30.4000	1.1106	0.0027
0.5838	30.4000	0.6027	0.0003	1.9105	30.4000	0.8873	0.0011	5.1102	30.4000	1.1117	0.0028
0.6032	30.4000	0.6099	0.0003	1.9310	30.4000	0.8901	0.0011	5.1610	30.4000	1.1131	0.0031
0.6219	30.4000	0.6167	0.0003	1.9514	30.4000	0.8928	0.0011	5.2101	30.4000	1.1141	0.0032
0.6412	30.4000	0.6235	0.0002	1.9718	30.4000	0.8955	0.0011	5.2612	30.4000	1.1151	0.0033
0.6597	30.4000	0.6298	0.0001	1.9906	30.4000	0.8979	0.0011	5.3128	30.4000	1.1161	0.0034
0.6794	30.4000	0.6365	0.0002	1.9914	30.4000	0.8980	0.0012	5.3626	30.4000	1.1171	0.0034
0.6986	30.4000	0.6427	0.0002	2.0362	30.4000	0.9039	0.0010	5.4134	30.4000	1.1180	0.0033
0.7172	30.4000	0.6487	0.0001	2.0859	30.4000	0.9102	0.0009	5.4640	30.4000	1.1190	0.0033
0.7366	30.4000	0.6548	0.0002	2.1355	30.4000	0.9163	0.0009	5.5139	30.4000	1.1197	0.0030
0.7559	30.4000	0.6608	0.0002	2.1858	30.4000	0.9223	0.0009	5.5650	30.4000	1.1206	0.0029
0.7753	30.4000	0.6665	0.0001	2.2355	30.4000	0.9283	0.0007	5.6155	30.4000	1.1212	0.0026
0.7988	30.4000	0.6579	0.0148 *	2.2864	30.4000	0.9341	0.0006	5.6661	30.4000	1.1220	0.0026
0.8141	30.4000	0.6778	0.0001	2.3346	30.4000	0.9396	0.0005	5.7167	30.4000	1.1226	0.0026
0.8348	30.4000	0.6836	0.0001	2.3836	30.4000	0.9450	0.0004	5.7664	30.4000	1.1233	0.0028
0.8547	30.4000	0.6890	0.0000	2.4355	30.4000	0.9507	0.0003	5.8179	30.4000	1.1238	0.0029
0.8735	30.4000	0.6942	0.0000	2.4850	30.4000	0.9559	0.0003	5.8678	30.4000	1.1244	0.0031
0.8934	30.4000	0.6994	0.0000	2.5358	30.4000	0.9612	0.0002	5.9182	30.4000	1.1248	0.0032
0.9129	30.4000	0.7046	0.0001	2.5862	30.4000	0.9662	0.0002	5.9696	30.4000	1.1254	0.0035
0.9330	30.4000	0.7096	0.0001	2.6370	30.4000	0.9712	0.0002	6.0198	30.4000	1.1257	0.0036

Table A9. Continued

Upper Surface y = 30.4 inches												
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0700	30.4000	1.1259	0.0036	9.4737	30.4000	1.0197	0.0047	12.8879	30.4000	0.6207	0.0065 *
6.1209	30.4000	1.1261	0.0036	9.5245	30.4000	1.0158	0.0046	12.9372	30.4000	0.6131	0.0063 *
6.1711	30.4000	1.1265	0.0038	9.5756	30.4000	1.0119	0.0047	12.9861	30.4000	0.6059	0.0066 *
6.2219	30.4000	1.1266	0.0038	9.6270	30.4000	1.0077	0.0046	13.0361	30.4000	0.5982	0.0066 *
6.2734	30.4000	1.1267	0.0037	9.6771	30.4000	1.0036	0.0046	13.0855	30.4000	0.5904	0.0064 *
6.3249	30.4000	1.1267	0.0037	9.7284	30.4000	0.9993	0.0046	13.1336	30.4000	0.5828	0.0062 *
6.3743	30.4000	1.1268	0.0036	9.7805	30.4000	0.9950	0.0048	13.1825	30.4000	0.5753	0.0063 *
6.4257	30.4000	1.1267	0.0034	9.8294	30.4000	0.9910	0.0050	13.2318	30.4000	0.5674	0.0062 *
6.4759	30.4000	1.1265	0.0032	9.8799	30.4000	0.9865	0.0050	13.2816	30.4000	0.5597	0.0063 *
6.5267	30.4000	1.1264	0.0031	9.9303	30.4000	0.9820	0.0051 *	13.3288	30.4000	0.5521	0.0061 *
6.5778	30.4000	1.1263	0.0032	9.9814	30.4000	0.9775	0.0052 *	13.3777	30.4000	0.5443	0.0061 *
6.6278	30.4000	1.1260	0.0031	10.0314	30.4000	0.9729	0.0052 *	13.4268	30.4000	0.5368	0.0064 *
6.6787	30.4000	1.1256	0.0032	10.0816	30.4000	0.9683	0.0052 *	13.4763	30.4000	0.5289	0.0064 *
6.7293	30.4000	1.1254	0.0034	10.1330	30.4000	0.9636	0.0053 *	13.5241	30.4000	0.5210	0.0063 *
6.7811	30.4000	1.1249	0.0035	10.1839	30.4000	0.9588	0.0052 *	13.5718	30.4000	0.5134	0.0063 *
6.8308	30.4000	1.1244	0.0037	10.2333	30.4000	0.9541	0.0052 *	13.6216	30.4000	0.5053	0.0064 *
6.8819	30.4000	1.1237	0.0037	10.2848	30.4000	0.9490	0.0049	13.6698	30.4000	0.4974	0.0063 *
6.9326	30.4000	1.1232	0.0040	10.3360	30.4000	0.9441	0.0050	13.7181	30.4000	0.4893	0.0062 *
6.9839	30.4000	1.1225	0.0040	10.3854	30.4000	0.9392	0.0050	13.7665	30.4000	0.4813	0.0062 *
7.0343	30.4000	1.1217	0.0039	10.4377	30.4000	0.9339	0.0049	13.8149	30.4000	0.4737	0.0065 *
7.0851	30.4000	1.1211	0.0041	10.4895	30.4000	0.9287	0.0050	13.8635	30.4000	0.4655	0.0064 *
7.1369	30.4000	1.1203	0.0041	10.5396	30.4000	0.9235	0.0050	13.9120	30.4000	0.4573	0.0063 *
7.1867	30.4000	1.1193	0.0039	10.5917	30.4000	0.9182	0.0052 *	13.9607	30.4000	0.4490	0.0061 *
7.2373	30.4000	1.1185	0.0040	10.6420	30.4000	0.9129	0.0053 *	14.0090	30.4000	0.4410	0.0062 *
7.2884	30.4000	1.1175	0.0038	10.6905	30.4000	0.9077	0.0052 *	14.0578	30.4000	0.4329	0.0063 *
7.3390	30.4000	1.1164	0.0036	10.7440	30.4000	0.9019	0.0053 *	14.1059	30.4000	0.4248	0.0064 *
7.3914	30.4000	1.1155	0.0037	10.7938	30.4000	0.8967	0.0054 *	14.1542	30.4000	0.4165	0.0062 *
7.4399	30.4000	1.1144	0.0036	10.8453	30.4000	0.8911	0.0054 *	14.2027	30.4000	0.4082	0.0064 *
7.4911	30.4000	1.1131	0.0036	10.8985	30.4000	0.8851	0.0052 *	14.2513	30.4000	0.3997	0.0064 *
7.5415	30.4000	1.1120	0.0038	10.9500	30.4000	0.8793	0.0051 *	14.2995	30.4000	0.3913	0.0066 *
7.5906	30.4000	1.1107	0.0039	11.0038	30.4000	0.8732	0.0051 *	14.3490	30.4000	0.3828	0.0069 *
7.6419	30.4000	1.1095	0.0042	11.0523	30.4000	0.8677	0.0051 *	14.3971	30.4000	0.3729	0.0057 *
7.6919	30.4000	1.1081	0.0044	11.1051	30.4000	0.8615	0.0049	14.4458	30.4000	0.3658	0.0074 *
7.7418	30.4000	1.1068	0.0046	11.1582	30.4000	0.8553	0.0050	14.4946	30.4000	0.3571	0.0075 *
7.7935	30.4000	1.1053	0.0048	11.2071	30.4000	0.8495	0.0050	14.5430	30.4000	0.3485	0.0077 *
7.8457	30.4000	1.1037	0.0046	11.2594	30.4000	0.8433	0.0051 *	14.5911	30.4000	0.3399	0.0078 *
7.8951	30.4000	1.1021	0.0045	11.3120	30.4000	0.8369	0.0053 *	14.6397	30.4000	0.3314	0.0080 *
7.9474	30.4000	1.1005	0.0044	11.3637	30.4000	0.8306	0.0055 *	14.6876	30.4000	0.3226	0.0077 *
7.9974	30.4000	1.0790	0.0154 *	11.4157	30.4000	0.8242	0.0057 *	14.7357	30.4000	0.3138	0.0076 *
8.0484	30.4000	1.0971	0.0045	11.4685	30.4000	0.8177	0.0060 *	14.7846	30.4000	0.3050	0.0076 *
8.0997	30.4000	1.0953	0.0048	11.5203	30.4000	0.8111	0.0062 *	14.8323	30.4000	0.2962	0.0074 *
8.1503	30.4000	1.0933	0.0049	11.5716	30.4000	0.8047	0.0064 *	14.8802	30.4000	0.2874	0.0073 *
8.2016	30.4000	1.0915	0.0052 *	11.6233	30.4000	0.7982	0.0068 *	14.9287	30.4000	0.2785	0.0074 *
8.2527	30.4000	1.0894	0.0050	11.6753	30.4000	0.7915	0.0068 *	14.9765	30.4000	0.2698	0.0075 *
8.3041	30.4000	1.0873	0.0050	11.7271	30.4000	0.7845	0.0066 *	15.0245	30.4000	0.2608	0.0076 *
8.3531	30.4000	1.0852	0.0048	11.7779	30.4000	0.7780	0.0066 *	15.0727	30.4000	0.2516	0.0076 *
8.4055	30.4000	1.0831	0.0047	11.8295	30.4000	0.7712	0.0064 *	15.1205	30.4000	0.2423	0.0075 *
8.4560	30.4000	1.0807	0.0045	11.8811	30.4000	0.7645	0.0064 *	15.1691	30.4000	0.2330	0.0077 *
8.5067	30.4000	1.0784	0.0044	11.9321	30.4000	0.7577	0.0062 *	15.2174	30.4000	0.2240	0.0081 *
8.5583	30.4000	1.0761	0.0044	11.9832	30.4000	0.7508	0.0061 *	15.2653	30.4000	0.2144	0.0079 *
8.6092	30.4000	1.0736	0.0043	12.0352	30.4000	0.7437	0.0060 *				
8.6595	30.4000	1.0711	0.0044	12.0853	30.4000	0.7369	0.0061 *				
8.7092	30.4000	1.0550	0.0091 *	12.1363	30.4000	0.7297	0.0060 *				
8.7630	30.4000	1.0657	0.0044	12.1881	30.4000	0.7225	0.0061 *				
8.8106	30.4000	1.0631	0.0044	12.2387	30.4000	0.7157	0.0064 *				
8.8626	30.4000	1.0601	0.0045	12.2899	30.4000	0.7084	0.0064 *				
8.9132	30.4000	1.0573	0.0045	12.3391	30.4000	0.7015	0.0065 *				
8.9650	30.4000	1.0543	0.0046	12.3891	30.4000	0.6943	0.0065 *				
9.0157	30.4000	1.0513	0.0046	12.4412	30.4000	0.6870	0.0068 *				
9.0676	30.4000	1.0479	0.0046	12.4903	30.4000	0.6797	0.0066 *				
9.1172	30.4000	1.0446	0.0044	12.5400	30.4000	0.6727	0.0068 *				
9.1676	30.4000	1.0415	0.0046	12.5901	30.4000	0.6652	0.0066 *				
9.2186	30.4000	1.0380	0.0046	12.6412	30.4000	0.6579	0.0068 *				
9.2703	30.4000	1.0344	0.0046	12.6899	30.4000	0.6505	0.0066 *				
9.3201	30.4000	1.0310	0.0046	12.7388	30.4000	0.6432	0.0065 *				
9.3717	30.4000	1.0273	0.0046	12.7885	30.4000	0.6268	0.0023				
9.4230	30.4000	1.0236	0.0047	12.8396	30.4000	0.6282	0.0067 *				

Table A9. Continued

Lower Surface	y = 30.4 inches										
x	**y**	**z**	**Dev**	**x**	**y**	**z**	**Dev**	**x**	**y**	**z**	**Dev**
15.9818	30.4000	-0.0368	0.0027	12.6523	30.4000	-0.1775	0.0056 *	9.3378	30.4000	-0.8526	0.0069 *
15.9718	30.4000	-0.0346	0.0028	12.6017	30.4000	-0.1876	0.0054 *	9.2874	30.4000	-0.8608	0.0066 *
15.9236	30.4000	-0.0243	0.0038	12.5531	30.4000	-0.1972	0.0054 *	9.2367	30.4000	-0.8690	0.0061 *
15.8753	30.4000	-0.0150	0.0040	12.5032	30.4000	-0.2070	0.0055 *	9.1867	30.4000	-0.8770	0.0058 *
15.8287	30.4000	-0.0068	0.0040	12.4537	30.4000	-0.2170	0.0054 *	9.1367	30.4000	-0.8846	0.0056 *
15.7767	30.4000	0.0018	0.0038	12.4036	30.4000	-0.2271	0.0054 *	9.0880	30.4000	-0.8920	0.0055 *
15.7277	30.4000	0.0092	0.0035	12.3549	30.4000	-0.2372	0.0052 *	9.0376	30.4000	-0.8996	0.0055 *
15.6769	30.4000	0.0169	0.0035	12.3048	30.4000	-0.2475	0.0051 *	8.9873	30.4000	-0.9070	0.0054 *
15.6267	30.4000	0.0240	0.0036	12.2554	30.4000	-0.2577	0.0051 *	8.9375	30.4000	-0.9143	0.0055 *
15.5736	30.4000	0.0310	0.0037	12.2058	30.4000	-0.2682	0.0049	8.8877	30.4000	-0.9211	0.0058 *
15.5233	30.4000	0.0371	0.0039	12.1554	30.4000	-0.2789	0.0047	8.8371	30.4000	-0.9282	0.0058 *
15.4731	30.4000	0.0427	0.0040	12.1059	30.4000	-0.2893	0.0048	8.7862	30.4000	-0.9350	0.0060 *
15.4223	30.4000	0.0478	0.0040	12.0578	30.4000	-0.2996	0.0047	8.7380	30.4000	-0.9415	0.0059 *
15.3718	30.4000	0.0521	0.0038	12.0082	30.4000	-0.3102	0.0047	8.6875	30.4000	-0.9482	0.0058 *
15.3206	30.4000	0.0562	0.0037	11.9596	30.4000	-0.3208	0.0047	8.6375	30.4000	-0.9547	0.0057 *
15.2698	30.4000	0.0596	0.0034	11.9109	30.4000	-0.3314	0.0047	8.5872	30.4000	-0.9610	0.0055 *
15.2183	30.4000	0.0631	0.0035	11.8612	30.4000	-0.3423	0.0047	8.5376	30.4000	-0.9671	0.0053 *
15.1684	30.4000	0.0661	0.0034	11.8112	30.4000	-0.3531	0.0050	8.4873	30.4000	-0.9730	0.0053 *
15.1165	30.4000	0.0688	0.0033	11.7607	30.4000	-0.3643	0.0050	8.4375	30.4000	-0.9788	0.0052 *
15.0664	30.4000	0.0717	0.0038	11.7117	30.4000	-0.3750	0.0051 *	8.3872	30.4000	-0.9847	0.0049
15.0156	30.4000	0.0738	0.0038	11.6632	30.4000	-0.3857	0.0051 *	8.3371	30.4000	-0.9902	0.0048
14.9648	30.4000	0.0754	0.0038	11.6131	30.4000	-0.3968	0.0051 *	8.2865	30.4000	-0.9959	0.0045
14.9131	30.4000	0.0764	0.0034	11.5650	30.4000	-0.4073	0.0051 *	8.2357	30.4000	-1.0011	0.0044
14.8634	30.4000	0.0774	0.0036	11.5152	30.4000	-0.4183	0.0051 *	8.1861	30.4000	-1.0062	0.0042
14.8115	30.4000	0.0781	0.0037	11.4655	30.4000	-0.4291	0.0052 *	8.1351	30.4000	-1.0113	0.0038
14.7619	30.4000	0.0781	0.0037	11.4159	30.4000	-0.4401	0.0051 *	8.0827	30.4000	-1.0163	0.0035
14.7102	30.4000	0.0775	0.0035	11.3662	30.4000	-0.4508	0.0053 *	8.0330	30.4000	-1.0209	0.0033
14.6596	30.4000	0.0768	0.0036	11.3177	30.4000	-0.4614	0.0054 *	7.9822	30.4000	-1.0237	0.0050
14.6088	30.4000	0.0756	0.0037	11.2692	30.4000	-0.4720	0.0055 *	7.9326	30.4000	-1.0301	0.0032
14.5583	30.4000	0.0741	0.0038	11.2202	30.4000	-0.4826	0.0057 *	7.8816	30.4000	-1.0345	0.0034
14.5070	30.4000	0.0719	0.0036	11.1700	30.4000	-0.4935	0.0059 *	7.8306	30.4000	-1.0387	0.0037
14.4562	30.4000	0.0694	0.0036	11.1200	30.4000	-0.5044	0.0060 *	7.7808	30.4000	-1.0427	0.0039
14.4042	30.4000	0.0669	0.0041	11.0713	30.4000	-0.5149	0.0061 *	7.7295	30.4000	-1.0469	0.0038
14.3544	30.4000	0.0637	0.0041	11.0202	30.4000	-0.5259	0.0063 *	7.6789	30.4000	-1.0507	0.0039
14.3029	30.4000	0.0603	0.0043	10.9713	30.4000	-0.5363	0.0065 *	7.6284	30.4000	-1.0544	0.0039
14.2529	30.4000	0.0569	0.0046	10.9212	30.4000	-0.5471	0.0065 *	7.5766	30.4000	-1.0580	0.0038
14.2032	30.4000	0.0530	0.0048	10.8726	30.4000	-0.5574	0.0067 *	7.5262	30.4000	-1.0615	0.0037
14.1532	30.4000	0.0491	0.0051 *	10.8233	30.4000	-0.5677	0.0069 *	7.4764	30.4000	-1.0649	0.0034
14.1022	30.4000	0.0445	0.0052 *	10.7736	30.4000	-0.5782	0.0070 *	7.4254	30.4000	-1.0681	0.0032
14.0521	30.4000	0.0397	0.0052 *	10.7253	30.4000	-0.5885	0.0070 *	7.3751	30.4000	-1.0712	0.0030
14.0019	30.4000	0.0348	0.0053 *	10.6749	30.4000	-0.5991	0.0072 *	7.3243	30.4000	-1.0742	0.0027
13.9515	30.4000	0.0294	0.0052 *	10.6250	30.4000	-0.6093	0.0075 *	7.2730	30.4000	-1.0771	0.0025
13.9009	30.4000	0.0239	0.0052 *	10.5761	30.4000	-0.6197	0.0074 *	7.2228	30.4000	-1.0798	0.0023
13.8514	30.4000	0.0183	0.0052 *	10.5261	30.4000	-0.6298	0.0078 *	7.1712	30.4000	-1.0825	0.0021
13.8017	30.4000	0.0123	0.0051 *	10.4773	30.4000	-0.6400	0.0078 *	7.1204	30.4000	-1.0852	0.0018
13.7511	30.4000	0.0062	0.0052 *	10.4277	30.4000	-0.6503	0.0079 *	7.0700	30.4000	-1.0875	0.0019
13.7004	30.4000	-0.0004	0.0051 *	10.3782	30.4000	-0.6601	0.0082 *	7.0196	30.4000	-1.0897	0.0018
13.6489	30.4000	-0.0072	0.0052 *	10.3284	30.4000	-0.6703	0.0082 *	6.9704	30.4000	-1.0919	0.0018
13.5958	30.4000	0.0009	0.0205 *	10.2791	30.4000	-0.6803	0.0082 *	6.9188	30.4000	-1.0942	0.0018
13.5480	30.4000	-0.0212	0.0054 *	10.2295	30.4000	-0.6903	0.0083 *	6.8674	30.4000	-1.0961	0.0021
13.4983	30.4000	-0.0286	0.0054 *	10.1803	30.4000	-0.7000	0.0083 *	6.8168	30.4000	-1.0980	0.0022
13.4489	30.4000	-0.0360	0.0055 *	10.1298	30.4000	-0.7098	0.0084 *	6.7660	30.4000	-1.0999	0.0023
13.3984	30.4000	-0.0441	0.0054 *	10.0814	30.4000	-0.7192	0.0083 *	6.7152	30.4000	-1.1016	0.0025
13.3481	30.4000	-0.0518	0.0057 *	10.0321	30.4000	-0.7290	0.0080 *	6.6653	30.4000	-1.1032	0.0025
13.2981	30.4000	-0.0601	0.0056 *	9.9828	30.4000	-0.7384	0.0079 *	6.6144	30.4000	-1.1048	0.0025
13.2476	30.4000	-0.0686	0.0056 *	9.9337	30.4000	-0.7476	0.0078 *	6.5637	30.4000	-1.1061	0.0026
13.1975	30.4000	-0.0770	0.0057 *	9.8842	30.4000	-0.7570	0.0075 *	6.5121	30.4000	-1.1076	0.0023
13.1478	30.4000	-0.0855	0.0057 *	9.8352	30.4000	-0.7661	0.0073 *	6.4609	30.4000	-1.1088	0.0022
13.0976	30.4000	-0.0942	0.0057 *	9.7855	30.4000	-0.7753	0.0071 *	6.4119	30.4000	-1.1099	0.0019
13.0478	30.4000	-0.1032	0.0056 *	9.7363	30.4000	-0.7841	0.0073 *	6.3612	30.4000	-1.1111	0.0015
12.9974	30.4000	-0.1124	0.0055 *	9.6864	30.4000	-0.7930	0.0073 *	6.3114	30.4000	-1.1123	0.0012
12.9487	30.4000	-0.1212	0.0056 *	9.6368	30.4000	-0.8020	0.0072 *	6.2607	30.4000	-1.1132	0.0010
12.8993	30.4000	-0.1304	0.0056 *	9.5873	30.4000	-0.8093	0.0086 *	6.2099	30.4000	-1.1141	0.0009
12.8504	30.4000	-0.1395	0.0056 *	9.5368	30.4000	-0.8194	0.0073 *	6.1580	30.4000	-1.1149	0.0009
12.8008	30.4000	-0.1489	0.0055 *	9.4868	30.4000	-0.8279	0.0073 *	6.1068	30.4000	-1.1157	0.0007
12.7508	30.4000	-0.1584	0.0056 *	9.4370	30.4000	-0.8364	0.0072 *	6.0564	30.4000	-1.1164	0.0006
12.7019	30.4000	-0.1680	0.0054 *	9.3874	30.4000	-0.8446	0.0071 *	6.0073	30.4000	-1.1170	0.0005

Lower Surface			y = 30.4 inches								
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
5.9559	30.4000	-1.1174	0.0007	2.5607	30.4000	-0.9742	0.0015	0.9313	30.4000	-0.7148	0.0049
5.9047	30.4000	-1.1180	0.0005	2.5086	30.4000	-0.9686	0.0015	0.9130	30.4000	-0.7101	0.0049
5.8545	30.4000	-1.1184	0.0005	2.4594	30.4000	-0.9637	0.0019	0.8934	30.4000	-0.7049	0.0049
5.8038	30.4000	-1.1187	0.0006	2.4088	30.4000	-0.9579	0.0017	0.8744	30.4000	-0.6999	0.0051 *
5.7528	30.4000	-1.1190	0.0005	2.3553	30.4000	-0.9520	0.0018	0.8570	30.4000	-0.6951	0.0051 *
5.7028	30.4000	-1.1193	0.0004	2.3039	30.4000	-0.9462	0.0019	0.8377	30.4000	-0.6898	0.0052 *
5.6521	30.4000	-1.1194	0.0005	2.2534	30.4000	-0.9401	0.0019	0.8204	30.4000	-0.6850	0.0053 *
5.6013	30.4000	-1.1194	0.0006	2.2007	30.4000	-0.9339	0.0020	0.8060	30.4000	-0.6583	0.0164 *
5.5502	30.4000	-1.1193	0.0008	2.1489	30.4000	-0.9276	0.0020	0.7818	30.4000	-0.6738	0.0054 *
5.4998	30.4000	-1.1193	0.0008	2.0981	30.4000	-0.9211	0.0020	0.7624	30.4000	-0.6679	0.0053 *
5.4503	30.4000	-1.1192	0.0009	2.0470	30.4000	-0.9146	0.0021	0.7437	30.4000	-0.6622	0.0053 *
5.3985	30.4000	-1.1188	0.0010	1.9963	30.4000	-0.9081	0.0024	0.7257	30.4000	-0.6566	0.0053 *
5.3479	30.4000	-1.1185	0.0010	1.9966	30.4000	-0.9080	0.0022	0.7071	30.4000	-0.6507	0.0052 *
5.2963	30.4000	-1.1182	0.0008	1.9808	30.4000	-0.9059	0.0022	0.6889	30.4000	-0.6449	0.0053 *
5.2462	30.4000	-1.1176	0.0008	1.9595	30.4000	-0.9029	0.0021	0.6696	30.4000	-0.6385	0.0054 *
5.1959	30.4000	-1.1170	0.0008	1.9381	30.4000	-0.9002	0.0023	0.6509	30.4000	-0.6322	0.0054 *
5.1458	30.4000	-1.1164	0.0006	1.9166	30.4000	-0.8970	0.0022	0.6325	30.4000	-0.6257	0.0053 *
5.0955	30.4000	-1.1158	0.0004	1.8970	30.4000	-0.8944	0.0023	0.6140	30.4000	-0.6191	0.0053 *
5.0442	30.4000	-1.1149	0.0003	1.8759	30.4000	-0.8913	0.0022	0.5951	30.4000	-0.6122	0.0053 *
4.9926	30.4000	-1.1138	0.0005	1.8542	30.4000	-0.8883	0.0024	0.5774	30.4000	-0.6055	0.0052 *
4.9423	30.4000	-1.1130	0.0002	1.8351	30.4000	-0.8857	0.0025	0.5594	30.4000	-0.5986	0.0053 *
4.8923	30.4000	-1.1121	0.0001	1.8136	30.4000	-0.8825	0.0025	0.5391	30.4000	-0.5906	0.0053 *
4.8424	30.4000	-1.1110	0.0000	1.7923	30.4000	-0.8794	0.0025	0.5210	30.4000	-0.5831	0.0052 *
4.7905	30.4000	-1.1075	0.0023	1.7731	30.4000	-0.8765	0.0025	0.5040	30.4000	-0.5760	0.0051 *
4.7383	30.4000	-1.1085	0.0001	1.7535	30.4000	-0.8735	0.0025	0.4850	30.4000	-0.5677	0.0051 *
4.6891	30.4000	-1.1070	0.0002	1.7340	30.4000	-0.8707	0.0026	0.4681	30.4000	-0.5602	0.0051 *
4.6380	30.4000	-1.1058	0.0000	1.7127	30.4000	-0.8674	0.0026	0.4497	30.4000	-0.5519	0.0051 *
4.5878	30.4000	-1.1042	0.0001	1.6938	30.4000	-0.8644	0.0025	0.4334	30.4000	-0.5442	0.0051 *
4.5369	30.4000	-1.1026	0.0001	1.6736	30.4000	-0.8613	0.0026	0.4157	30.4000	-0.5356	0.0050
4.4855	30.4000	-1.1010	0.0001	1.6540	30.4000	-0.8582	0.0027	0.4032	30.4000	-0.5166	0.0065 *
4.4355	30.4000	-1.0991	0.0001	1.6351	30.4000	-0.8553	0.0028	0.3819	30.4000	-0.5182	0.0047
4.3850	30.4000	-1.0974	0.0001	1.6150	30.4000	-0.8520	0.0027	0.3643	30.4000	-0.5088	0.0046
4.3345	30.4000	-1.0955	0.0002	1.5993	30.4000	-0.8299	0.0165 *	0.3468	30.4000	-0.4991	0.0046
4.2837	30.4000	-1.0935	0.0003	1.5771	30.4000	-0.8458	0.0028	0.3298	30.4000	-0.4892	0.0044
4.2324	30.4000	-1.0915	0.0005	1.5572	30.4000	-0.8424	0.0027	0.3128	30.4000	-0.4790	0.0042
4.1820	30.4000	-1.0894	0.0007	1.5384	30.4000	-0.8393	0.0028	0.2974	30.4000	-0.4694	0.0040
4.1320	30.4000	-1.0871	0.0007	1.5189	30.4000	-0.8360	0.0029	0.2800	30.4000	-0.4582	0.0039
4.0818	30.4000	-1.0848	0.0008	1.5012	30.4000	-0.8330	0.0029	0.2645	30.4000	-0.4479	0.0038
4.0294	30.4000	-1.0824	0.0009	1.4811	30.4000	-0.8296	0.0030	0.2481	30.4000	-0.4365	0.0037
3.9789	30.4000	-1.0798	0.0009	1.4620	30.4000	-0.8263	0.0032	0.2317	30.4000	-0.4248	0.0037
3.9283	30.4000	-1.0773	0.0009	1.4433	30.4000	-0.8229	0.0031	0.2157	30.4000	-0.4126	0.0037
3.8779	30.4000	-1.0745	0.0009	1.4240	30.4000	-0.8196	0.0033	0.2008	30.4000	-0.4007	0.0036
3.8267	30.4000	-1.0719	0.0009	1.4054	30.4000	-0.8162	0.0033	0.1860	30.4000	-0.3882	0.0035
3.7748	30.4000	-1.0688	0.0007	1.3865	30.4000	-0.8128	0.0033	0.1713	30.4000	-0.3753	0.0035
3.7257	30.4000	-1.0662	0.0009	1.3677	30.4000	-0.8094	0.0034	0.1589	30.4000	-0.3562	0.0020
3.6746	30.4000	-1.0630	0.0007	1.3484	30.4000	-0.8058	0.0034	0.1411	30.4000	-0.3462	0.0035
3.6241	30.4000	-1.0601	0.0008	1.3287	30.4000	-0.8020	0.0035	0.1230	30.4000	-0.3267	0.0034
3.5734	30.4000	-1.0570	0.0008	1.3094	30.4000	-0.7983	0.0035	0.1153	30.4000	-0.3181	0.0036
3.5222	30.4000	-1.0537	0.0008	1.2905	30.4000	-0.7947	0.0036	0.1034	30.4000	-0.3034	0.0034
3.4723	30.4000	-1.0505	0.0008	1.2719	30.4000	-0.7909	0.0036	0.0917	30.4000	-0.2881	0.0033
3.4224	30.4000	-1.0471	0.0007	1.2531	30.4000	-0.7873	0.0037	0.0804	30.4000	-0.2721	0.0033
3.3709	30.4000	-1.0436	0.0007	1.2344	30.4000	-0.7835	0.0037	0.0693	30.4000	-0.2549	0.0032
3.3201	30.4000	-1.0398	0.0006	1.2151	30.4000	-0.7796	0.0038	0.0593	30.4000	-0.2377	0.0030
3.2701	30.4000	-1.0363	0.0007	1.1954	30.4000	-0.7756	0.0039	0.0502	30.4000	-0.2203	0.0029
3.2195	30.4000	-1.0326	0.0008	1.1768	30.4000	-0.7716	0.0039	0.0413	30.4000	-0.2019	0.0027
3.1693	30.4000	-1.0288	0.0008	1.1582	30.4000	-0.7678	0.0041	0.0339	30.4000	-0.1846	0.0026
3.1180	30.4000	-1.0247	0.0008	1.1388	30.4000	-0.7636	0.0041	0.0265	30.4000	-0.1654	0.0025
3.0671	30.4000	-1.0206	0.0007	1.1208	30.4000	-0.7596	0.0042	0.0200	30.4000	-0.1462	0.0025
3.0164	30.4000	-1.0166	0.0010	1.1012	30.4000	-0.7553	0.0042	0.0139	30.4000	-0.1257	0.0025
2.9659	30.4000	-1.0122	0.0009	1.0827	30.4000	-0.7511	0.0042	0.0090	30.4000	-0.1064	0.0026
2.9150	30.4000	-1.0079	0.0010	1.0637	30.4000	-0.7468	0.0044	0.0050	30.4000	-0.0859	0.0025
2.8642	30.4000	-1.0034	0.0010	1.0453	30.4000	-0.7426	0.0044	0.0018	30.4000	-0.0667	0.0026
2.8134	30.4000	-0.9987	0.0010	1.0262	30.4000	-0.7381	0.0045	-0.0005	30.4000	-0.0463	0.0027
2.7630	30.4000	-0.9939	0.0009	1.0069	30.4000	-0.7336	0.0046	-0.0019	30.4000	-0.0269	0.0026
2.7123	30.4000	-0.9893	0.0013	0.9883	30.4000	-0.7291	0.0048				
2.6615	30.4000	-0.9843	0.0013	0.9690	30.4000	-0.7243	0.0048				
2.6111	30.4000	-0.9794	0.0015	0.9499	30.4000	-0.7195	0.0048				

Table A10. Chordwise Airfoil Measurements at $y = 31.78$ in.

Upper Surface y = 31.78 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0030	31.7800	-0.0066	0.0031	0.9522	31.7800	0.7122	0.0023	2.6877	31.7800	0.9733	0.0029
-0.0027	31.7800	0.0136	0.0027	0.9723	31.7800	0.7173	0.0021	2.7367	31.7800	0.9778	0.0030
-0.0016	31.7800	0.0347	0.0026	0.9939	31.7800	0.7226	0.0021	2.7880	31.7800	0.9825	0.0029
0.0006	31.7800	0.0562	0.0023	1.0139	31.7800	0.7274	0.0021	2.8373	31.7800	0.9869	0.0027
0.0033	31.7800	0.0756	0.0021	1.0327	31.7800	0.7319	0.0020	2.8872	31.7800	0.9913	0.0026
0.0071	31.7800	0.0947	0.0019	1.0540	31.7800	0.7369	0.0019	2.9360	31.7800	0.9955	0.0025
0.0113	31.7800	0.1134	0.0018	1.0738	31.7800	0.7414	0.0019	2.9862	31.7800	0.9996	0.0024
0.0162	31.7800	0.1321	0.0019	1.0932	31.7800	0.7457	0.0019	3.0374	31.7800	1.0039	0.0023
0.0216	31.7800	0.1496	0.0019	1.1128	31.7800	0.7499	0.0021	3.0872	31.7800	1.0079	0.0023
0.0286	31.7800	0.1687	0.0018	1.1323	31.7800	0.7542	0.0020	3.1381	31.7800	1.0119	0.0022
0.0362	31.7800	0.1873	0.0015	1.1522	31.7800	0.7585	0.0020	3.1892	31.7800	1.0157	0.0023
0.0445	31.7800	0.2049	0.0012	1.1729	31.7800	0.7627	0.0022	3.2386	31.7800	1.0195	0.0023
0.0535	31.7800	0.2225	0.0010	1.1934	31.7800	0.7670	0.0021	3.2897	31.7800	1.0233	0.0023
0.0627	31.7800	0.2392	0.0009	1.2127	31.7800	0.7708	0.0022	3.3401	31.7800	1.0268	0.0024
0.0726	31.7800	0.2557	0.0008	1.2327	31.7800	0.7749	0.0022	3.3905	31.7800	1.0303	0.0025
0.0836	31.7800	0.2725	0.0009	1.2527	31.7800	0.7788	0.0023	3.4424	31.7800	1.0338	0.0026
0.0950	31.7800	0.2884	0.0008	1.2725	31.7800	0.7826	0.0024	3.4944	31.7800	1.0374	0.0025
0.1075	31.7800	0.3047	0.0010	1.2926	31.7800	0.7864	0.0025	3.5445	31.7800	1.0407	0.0025
0.1197	31.7800	0.3191	0.0009	1.3123	31.7800	0.7902	0.0024	3.5959	31.7800	1.0438	0.0027
0.1329	31.7800	0.3336	0.0008	1.3321	31.7800	0.7939	0.0025	3.6464	31.7800	1.0469	0.0026
0.1469	31.7800	0.3480	0.0006	1.3517	31.7800	0.7975	0.0025	3.6951	31.7800	1.0498	0.0027
0.1611	31.7800	0.3616	0.0003	1.3709	31.7800	0.8010	0.0026	3.7469	31.7800	1.0529	0.0026
0.1755	31.7800	0.3742	0.0001	1.3914	31.7800	0.8047	0.0026	3.7980	31.7800	1.0556	0.0027
0.1917	31.7800	0.3880	0.0004	1.4104	31.7800	0.8081	0.0026	3.8480	31.7800	1.0584	0.0027
0.2078	31.7800	0.4007	0.0008	1.4307	31.7800	0.8118	0.0025	3.8991	31.7800	1.0612	0.0025
0.1896	31.7800	0.3864	0.0003	1.4504	31.7800	0.8152	0.0026	3.9492	31.7800	1.0638	0.0025
0.1981	31.7800	0.3933	0.0004	1.4707	31.7800	0.8187	0.0026	4.0000	31.7800	1.0664	0.0024
0.2133	31.7800	0.4051	0.0008	1.4910	31.7800	0.8221	0.0026	4.0513	31.7800	1.0689	0.0024
0.2294	31.7800	0.4171	0.0011	1.5103	31.7800	0.8253	0.0027	4.1008	31.7800	1.0713	0.0023
0.2453	31.7800	0.4283	0.0014	1.5300	31.7800	0.8285	0.0028	4.1527	31.7800	1.0739	0.0020
0.2619	31.7800	0.4397	0.0016	1.5501	31.7800	0.8317	0.0029	4.2017	31.7800	1.0760	0.0021
0.2778	31.7800	0.4502	0.0017	1.5695	31.7800	0.8350	0.0028	4.2511	31.7800	1.0782	0.0021
0.2951	31.7800	0.4611	0.0018	1.5895	31.7800	0.8382	0.0029	4.3017	31.7800	1.0805	0.0019
0.3130	31.7800	0.4720	0.0019	1.6095	31.7800	0.8414	0.0028	4.3512	31.7800	1.0826	0.0018
0.3298	31.7800	0.4818	0.0020	1.6289	31.7800	0.8444	0.0029	4.4023	31.7800	1.0846	0.0019
0.3469	31.7800	0.4915	0.0021	1.6488	31.7800	0.8476	0.0028	4.4527	31.7800	1.0866	0.0019
0.3643	31.7800	0.5012	0.0020	1.6684	31.7800	0.8506	0.0029	4.5039	31.7800	1.0886	0.0019
0.3815	31.7800	0.5103	0.0020	1.6888	31.7800	0.8536	0.0029	4.5544	31.7800	1.0906	0.0019
0.3999	31.7800	0.5197	0.0021	1.7096	31.7800	0.8567	0.0030	4.6053	31.7800	1.0924	0.0019
0.4179	31.7800	0.5290	0.0019	1.7285	31.7800	0.8596	0.0029	4.6543	31.7800	1.0941	0.0020
0.4358	31.7800	0.5377	0.0019	1.7488	31.7800	0.8626	0.0029	4.7060	31.7800	1.0959	0.0020
0.4533	31.7800	0.5459	0.0019	1.7684	31.7800	0.8653	0.0031	4.7571	31.7800	1.0976	0.0021
0.4717	31.7800	0.5543	0.0019	1.7888	31.7800	0.8682	0.0032	4.8071	31.7800	1.0992	0.0021
0.4906	31.7800	0.5626	0.0019	1.8096	31.7800	0.8712	0.0031	4.8585	31.7800	1.1007	0.0021
0.5099	31.7800	0.5709	0.0019	1.8299	31.7800	0.8741	0.0031	4.9068	31.7800	1.1023	0.0019
0.5277	31.7800	0.5782	0.0019	1.8499	31.7800	0.8769	0.0031	4.9581	31.7800	1.1036	0.0019
0.5469	31.7800	0.5860	0.0020	1.8711	31.7800	0.8799	0.0031	5.0090	31.7800	1.1050	0.0017
0.5652	31.7800	0.5931	0.0020	1.8906	31.7800	0.8825	0.0032	5.0602	31.7800	1.1063	0.0016
0.5853	31.7800	0.6008	0.0020	1.9111	31.7800	0.8852	0.0032	5.1107	31.7800	1.1076	0.0013
0.6033	31.7800	0.6075	0.0021	1.9319	31.7800	0.8881	0.0032	5.1603	31.7800	1.1088	0.0012
0.6226	31.7800	0.6145	0.0021	1.9510	31.7800	0.8906	0.0032	5.2104	31.7800	1.1099	0.0010
0.6414	31.7800	0.6212	0.0021	1.9714	31.7800	0.8932	0.0033	5.2616	31.7800	1.1109	0.0009
0.6605	31.7800	0.6277	0.0021	1.9919	31.7800	0.8960	0.0031	5.3128	31.7800	1.1120	0.0008
0.6799	31.7800	0.6342	0.0022	1.9922	31.7800	0.8960	0.0033	5.3634	31.7800	1.1131	0.0006
0.6986	31.7800	0.6403	0.0022	2.0362	31.7800	0.9017	0.0032	5.4132	31.7800	1.1138	0.0008
0.7176	31.7800	0.6465	0.0021	2.0863	31.7800	0.9080	0.0031	5.4635	31.7800	1.1147	0.0010
0.7374	31.7800	0.6526	0.0021	2.1360	31.7800	0.9140	0.0032	5.5140	31.7800	1.1156	0.0012
0.7566	31.7800	0.6585	0.0022	2.1856	31.7800	0.9201	0.0031	5.5660	31.7800	1.1164	0.0014
0.7762	31.7800	0.6644	0.0022	2.2359	31.7800	0.9259	0.0031	5.6149	31.7800	1.1171	0.0016
0.7959	31.7800	0.6702	0.0021	2.2864	31.7800	0.9318	0.0029	5.6660	31.7800	1.1178	0.0017
0.8156	31.7800	0.6758	0.0022	2.3352	31.7800	0.9372	0.0029	5.7165	31.7800	1.1183	0.0018
0.8353	31.7800	0.6813	0.0022	2.3848	31.7800	0.9426	0.0030	5.7670	31.7800	1.1190	0.0015
0.8546	31.7800	0.6866	0.0023	2.4352	31.7800	0.9480	0.0029	5.8179	31.7800	1.1194	0.0015
0.8743	31.7800	0.6920	0.0022	2.4866	31.7800	0.9535	0.0028	5.8674	31.7800	1.1199	0.0014
0.8936	31.7800	0.6971	0.0022	2.5361	31.7800	0.9585	0.0029	5.9186	31.7800	1.1204	0.0012
0.9139	31.7800	0.7023	0.0024	2.5865	31.7800	0.9635	0.0030	5.9686	31.7800	1.1206	0.0012
0.9326	31.7800	0.7072	0.0023	2.6388	31.7800	0.9686	0.0029	6.0191	31.7800	1.1209	0.0012

Upper Surface	y = 31.78 inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0703	31.7800	1.1212	0.0011	9.4747	31.7800	1.0153	0.0003	12.8869	31.7800	0.6163	0.0020
6.1205	31.7800	1.1214	0.0011	9.5241	31.7800	1.0116	0.0004	12.9364	31.7800	0.6086	0.0018
6.1709	31.7800	1.1216	0.0011	9.5758	31.7800	1.0077	0.0005	12.9861	31.7800	0.6014	0.0021
6.2220	31.7800	1.1217	0.0011	9.6272	31.7800	1.0036	0.0006	13.0363	31.7800	0.5936	0.0021
6.2736	31.7800	1.1217	0.0013	9.6776	31.7800	0.9996	0.0007	13.0849	31.7800	0.5862	0.0021
6.3261	31.7800	1.1216	0.0014	9.7268	31.7800	0.9954	0.0006	13.1327	31.7800	0.5786	0.0020
6.3751	31.7800	1.1217	0.0015	9.7787	31.7800	0.9912	0.0008	13.1821	31.7800	0.5709	0.0020
6.4255	31.7800	1.1216	0.0017	9.8311	31.7800	0.9867	0.0009	13.2316	31.7800	0.5632	0.0020
6.4762	31.7800	1.1214	0.0019	9.8799	31.7800	0.9825	0.0010	13.2808	31.7800	0.5554	0.0019
6.5271	31.7800	1.1212	0.0021	9.9302	31.7800	0.9780	0.0011	13.3294	31.7800	0.5477	0.0019
6.5777	31.7800	1.1209	0.0022	9.9809	31.7800	0.9736	0.0013	13.3772	31.7800	0.5402	0.0019
6.6274	31.7800	1.1205	0.0023	10.0302	31.7800	0.9691	0.0013	13.4260	31.7800	0.5325	0.0020
6.6793	31.7800	1.1201	0.0023	10.0812	31.7800	0.9644	0.0013	13.4756	31.7800	0.5245	0.0019
6.7298	31.7800	1.1197	0.0022	10.1319	31.7800	0.9598	0.0014	13.5238	31.7800	0.5164	0.0017
6.7804	31.7800	1.1193	0.0020	10.1838	31.7800	0.9549	0.0013	13.5710	31.7800	0.5090	0.0019
6.8310	31.7800	1.1187	0.0020	10.2341	31.7800	0.9501	0.0012	13.6203	31.7800	0.5013	0.0022
6.8820	31.7800	1.1179	0.0021	10.2840	31.7800	0.9452	0.0011	13.6694	31.7800	0.4934	0.0023
6.9330	31.7800	1.1173	0.0020	10.3359	31.7800	0.9401	0.0009	13.7178	31.7800	0.4854	0.0023
6.9817	31.7800	1.1166	0.0020	10.3866	31.7800	0.9351	0.0010	13.7660	31.7800	0.4774	0.0022
7.0342	31.7800	1.1157	0.0021	10.4379	31.7800	0.9301	0.0011	13.8144	31.7800	0.4699	0.0027
7.0861	31.7800	1.1148	0.0022	10.4889	31.7800	0.9248	0.0010	13.8626	31.7800	0.4619	0.0027
7.1361	31.7800	1.1138	0.0024	10.5394	31.7800	0.9196	0.0012	13.9115	31.7800	0.4538	0.0027
7.1865	31.7800	1.1132	0.0022	10.5905	31.7800	0.9144	0.0013	13.9601	31.7800	0.4458	0.0029
7.2380	31.7800	1.1121	0.0025	10.6409	31.7800	0.9092	0.0015	14.0087	31.7800	0.4381	0.0033
7.2888	31.7800	1.1111	0.0026	10.6923	31.7800	0.9037	0.0015	14.0569	31.7800	0.4299	0.0032
7.3388	31.7800	1.1101	0.0027	10.7443	31.7800	0.8980	0.0014	14.1055	31.7800	0.4217	0.0032
7.3897	31.7800	1.1090	0.0028	10.7936	31.7800	0.8929	0.0016	14.1538	31.7800	0.4136	0.0034
7.4406	31.7800	1.1078	0.0029	10.8461	31.7800	0.8871	0.0015	14.2018	31.7800	0.4056	0.0037
7.4906	31.7800	1.1066	0.0029	10.8978	31.7800	0.8812	0.0013	14.2508	31.7800	0.3972	0.0038
7.5410	31.7800	1.1054	0.0028	10.9503	31.7800	0.8755	0.0014	14.2987	31.7800	0.3890	0.0041
7.5909	31.7800	1.1043	0.0025	11.0020	31.7800	0.8696	0.0013	14.3487	31.7800	0.3805	0.0046
7.6409	31.7800	1.1029	0.0024	11.0532	31.7800	0.8638	0.0013	14.3960	31.7800	0.3725	0.0051 *
7.6910	31.7800	1.1013	0.0024	11.1039	31.7800	0.8577	0.0011	14.4455	31.7800	0.3638	0.0054 *
7.7416	31.7800	1.1000	0.0022	11.1573	31.7800	0.8515	0.0012	14.4940	31.7800	0.3555	0.0059 *
7.7927	31.7800	1.0986	0.0020	11.2084	31.7800	0.8455	0.0011	14.5423	31.7800	0.3469	0.0060 *
7.8461	31.7800	1.0970	0.0020	11.2588	31.7800	0.8395	0.0013	14.5913	31.7800	0.3386	0.0065 *
7.8958	31.7800	1.0955	0.0021	11.3113	31.7800	0.8330	0.0013	14.6394	31.7800	0.3300	0.0066 *
7.9472	31.7800	1.0937	0.0024	11.3641	31.7800	0.8266	0.0015	14.6881	31.7800	0.3214	0.0067 *
7.9975	31.7800	1.0922	0.0023	11.4165	31.7800	0.8202	0.0018	14.7365	31.7800	0.3126	0.0066 *
8.0477	31.7800	1.0904	0.0022	11.4675	31.7800	0.8137	0.0019	14.7849	31.7800	0.3040	0.0066 *
8.0986	31.7800	1.0886	0.0020	11.5220	31.7800	0.8067	0.0020	14.8327	31.7800	0.2952	0.0065 *
8.1502	31.7800	1.0867	0.0017	11.5716	31.7800	0.8002	0.0021	14.8804	31.7800	0.2863	0.0062 *
8.2009	31.7800	1.0850	0.0014	11.6225	31.7800	0.7937	0.0022	14.9284	31.7800	0.2776	0.0064 *
8.2528	31.7800	1.0829	0.0014	11.6749	31.7800	0.7868	0.0021	14.9769	31.7800	0.2689	0.0068 *
8.3039	31.7800	1.0809	0.0014	11.7256	31.7800	0.7802	0.0021	15.0250	31.7800	0.2600	0.0069 *
8.3537	31.7800	1.0790	0.0014	11.7771	31.7800	0.7736	0.0021	15.0728	31.7800	0.2509	0.0069 *
8.4049	31.7800	1.0768	0.0016	11.8299	31.7800	0.7664	0.0017	15.1199	31.7800	0.2422	0.0073 *
8.4558	31.7800	1.0745	0.0017	11.8801	31.7800	0.7598	0.0016	15.1683	31.7800	0.2332	0.0077 *
8.5063	31.7800	1.0725	0.0016	11.9325	31.7800	0.7526	0.0013	15.2166	31.7800	0.2242	0.0081 *
8.5574	31.7800	1.0701	0.0016	11.9826	31.7800	0.7459	0.0011	15.2656	31.7800	0.2147	0.0082 *
8.6082	31.7800	1.0676	0.0016	12.0342	31.7800	0.7389	0.0011	15.3144	31.7800	0.2053	0.0085 *
8.6584	31.7800	1.0653	0.0015	12.0853	31.7800	0.7319	0.0011	15.3621	31.7800	0.1960	0.0087 *
8.7079	31.7800	1.0627	0.0014	12.1352	31.7800	0.7250	0.0012	15.4098	31.7800	0.1866	0.0089 *
8.7600	31.7800	1.0602	0.0012	12.1874	31.7800	0.7176	0.0011	15.4586	31.7800	0.1771	0.0092 *
8.8104	31.7800	1.0575	0.0011	12.2388	31.7800	0.7107	0.0014	15.5076	31.7800	0.1674	0.0095 *
8.8607	31.7800	1.0548	0.0010	12.2880	31.7800	0.7038	0.0016	15.5561	31.7800	0.1576	0.0096 *
8.9121	31.7800	1.0519	0.0009	12.3390	31.7800	0.6963	0.0015	15.6046	31.7800	0.1479	0.0099 *
8.9628	31.7800	1.0490	0.0008	12.3896	31.7800	0.6892	0.0016	15.6525	31.7800	0.1383	0.0101 *
9.0138	31.7800	1.0460	0.0007	12.4401	31.7800	0.6821	0.0017	15.7000	31.7800	0.1284	0.0101 *
9.0655	31.7800	1.0430	0.0005	12.4902	31.7800	0.6750	0.0019	15.7483	31.7800	0.1184	0.0104 *
9.1191	31.7800	1.0396	0.0005	12.5401	31.7800	0.6676	0.0017	15.7962	31.7800	0.1086	0.0109 *
9.1666	31.7800	1.0367	0.0002	12.5902	31.7800	0.6603	0.0017	15.8418	31.7800	0.0988	0.0109 *
9.2178	31.7800	1.0334	0.0001	12.6399	31.7800	0.6532	0.0019	15.8910	31.7800	0.0880	0.0109 *
9.2694	31.7800	1.0300	0.0000	12.6886	31.7800	0.6459	0.0019	15.9392	31.7800	0.0771	0.0107 *
9.3205	31.7800	1.0265	0.0001	12.7394	31.7800	0.6383	0.0018				
9.3716	31.7800	1.0228	0.0002	12.7897	31.7800	0.6308	0.0019				
9.4231	31.7800	1.0193	0.0004	12.8380	31.7800	0.6237	0.0019				

Lower Surface	y = 31.78 inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9823	31.7800	-0.0350	0.0046	12.6510	31.7800	-0.1762	0.0071 *	9.3379	31.7800	-0.8534	0.0061 *
15.9717	31.7800	-0.0326	0.0048	12.6014	31.7800	-0.1862	0.0068 *	9.2876	31.7800	-0.8615	0.0059 *
15.9238	31.7800	-0.0227	0.0053 *	12.5522	31.7800	-0.1960	0.0068 *	9.2369	31.7800	-0.8696	0.0056 *
15.8757	31.7800	-0.0136	0.0055 *	12.5024	31.7800	-0.2059	0.0067 *	9.1867	31.7800	-0.8775	0.0053 *
15.8285	31.7800	-0.0050	0.0057 *	12.4530	31.7800	-0.2159	0.0066 *	9.1370	31.7800	-0.8851	0.0051 *
15.7774	31.7800	0.0035	0.0056 *	12.4035	31.7800	-0.2262	0.0063 *	9.0874	31.7800	-0.8926	0.0050
15.7279	31.7800	0.0111	0.0054 *	12.3546	31.7800	-0.2362	0.0063 *	9.0379	31.7800	-0.8999	0.0051 *
15.6775	31.7800	0.0187	0.0054 *	12.3050	31.7800	-0.2463	0.0062 *	8.9868	31.7800	-0.9075	0.0051 *
15.6268	31.7800	0.0260	0.0056 *	12.2549	31.7800	-0.2569	0.0060 *	8.9371	31.7800	-0.9146	0.0053 *
15.5738	31.7800	0.0333	0.0061 *	12.2054	31.7800	-0.2672	0.0059 *	8.8868	31.7800	-0.9216	0.0055 *
15.5236	31.7800	0.0394	0.0062 *	12.1551	31.7800	-0.2779	0.0057 *	8.8372	31.7800	-0.9284	0.0056 *
15.4730	31.7800	0.0448	0.0061 *	12.1062	31.7800	-0.2883	0.0056 *	8.7863	31.7800	-0.9354	0.0056 *
15.4216	31.7800	0.0502	0.0064 *	12.0571	31.7800	-0.2987	0.0057 *	8.7363	31.7800	-0.9420	0.0056 *
15.3717	31.7800	0.0545	0.0062 *	12.0075	31.7800	-0.3096	0.0055 *	8.6880	31.7800	-0.9482	0.0057 *
15.3209	31.7800	0.0587	0.0063 *	11.9595	31.7800	-0.3200	0.0055 *	8.6373	31.7800	-0.9546	0.0057 *
15.2700	31.7800	0.0624	0.0062 *	11.9101	31.7800	-0.3307	0.0055 *	8.5866	31.7800	-0.9610	0.0055 *
15.2188	31.7800	0.0659	0.0063 *	11.8606	31.7800	-0.3416	0.0055 *	8.5368	31.7800	-0.9672	0.0053 *
15.1682	31.7800	0.0692	0.0065 *	11.8104	31.7800	-0.3526	0.0057 *	8.4866	31.7800	-0.9731	0.0053 *
15.1167	31.7800	0.0721	0.0066 *	11.7604	31.7800	-0.3637	0.0056 *	8.4370	31.7800	-0.9789	0.0052 *
15.0662	31.7800	0.0746	0.0067 *	11.7124	31.7800	-0.3742	0.0057 *	8.3868	31.7800	-0.9847	0.0050
15.0157	31.7800	0.0768	0.0069 *	11.6630	31.7800	-0.3851	0.0057 *	8.3364	31.7800	-0.9901	0.0050
14.9641	31.7800	0.0785	0.0068 *	11.6139	31.7800	-0.3959	0.0057 *	8.2865	31.7800	-0.9956	0.0048
14.9129	31.7800	0.0799	0.0069 *	11.5649	31.7800	-0.4068	0.0056 *	8.2363	31.7800	-1.0008	0.0046
14.8632	31.7800	0.0808	0.0070 *	11.5150	31.7800	-0.4179	0.0055 *	8.1858	31.7800	-1.0060	0.0044
14.8118	31.7800	0.0813	0.0070 *	11.4652	31.7800	-0.4287	0.0056 *	8.1344	31.7800	-1.0111	0.0040
14.7611	31.7800	0.0814	0.0070 *	11.4160	31.7800	-0.4396	0.0056 *	8.0842	31.7800	-1.0159	0.0037
14.7107	31.7800	0.0810	0.0070 *	11.3657	31.7800	-0.4508	0.0055 *	8.0331	31.7800	-1.0206	0.0036
14.6581	31.7800	0.0803	0.0071 *	11.3177	31.7800	-0.4613	0.0055 *	7.9819	31.7800	-1.0255	0.0034
14.6076	31.7800	0.0793	0.0073 *	11.2688	31.7800	-0.4719	0.0057 *	7.9321	31.7800	-1.0298	0.0035
14.5576	31.7800	0.0776	0.0073 *	11.2191	31.7800	-0.4829	0.0057 *	7.8806	31.7800	-1.0343	0.0037
14.5065	31.7800	0.0755	0.0073 *	11.1696	31.7800	-0.4934	0.0060 *	7.8307	31.7800	-1.0382	0.0042
14.4554	31.7800	0.0728	0.0071 *	11.1195	31.7800	-0.5044	0.0061 *	7.7796	31.7800	-1.0424	0.0043
14.4045	31.7800	0.0702	0.0074 *	11.0704	31.7800	-0.5151	0.0061 *	7.7297	31.7800	-1.0465	0.0043
14.3534	31.7800	0.0671	0.0075 *	11.0205	31.7800	-0.5258	0.0063 *	7.6794	31.7800	-1.0503	0.0043
14.3022	31.7800	0.0635	0.0076 *	10.9711	31.7800	-0.5363	0.0065 *	7.6275	31.7800	-1.0540	0.0043
14.2524	31.7800	0.0600	0.0078 *	10.9222	31.7800	-0.5471	0.0063 *	7.5763	31.7800	-1.0575	0.0044
14.2022	31.7800	0.0562	0.0081 *	10.8722	31.7800	-0.5575	0.0067 *	7.5259	31.7800	-1.0609	0.0043
14.1522	31.7800	0.0521	0.0082 *	10.8229	31.7800	-0.5681	0.0066 *	7.4761	31.7800	-1.0643	0.0040
14.1019	31.7800	0.0477	0.0084 *	10.7731	31.7800	-0.5786	0.0067 *	7.4256	31.7800	-1.0674	0.0039
14.0515	31.7800	0.0430	0.0085 *	10.7245	31.7800	-0.5889	0.0067 *	7.3755	31.7800	-1.0706	0.0036
14.0012	31.7800	0.0380	0.0086 *	10.6744	31.7800	-0.5996	0.0068 *	7.3244	31.7800	-1.0736	0.0033
13.9512	31.7800	0.0328	0.0086 *	10.6257	31.7800	-0.6097	0.0070 *	7.2737	31.7800	-1.0764	0.0031
13.9007	31.7800	0.0273	0.0086 *	10.5758	31.7800	-0.6200	0.0071 *	7.2227	31.7800	-1.0791	0.0030
13.8506	31.7800	0.0215	0.0085 *	10.5268	31.7800	-0.6304	0.0071 *	7.1706	31.7800	-1.0819	0.0027
13.8006	31.7800	0.0156	0.0085 *	10.4771	31.7800	-0.6406	0.0073 *	7.1193	31.7800	-1.0845	0.0026
13.7496	31.7800	0.0094	0.0086 *	10.4272	31.7800	-0.6510	0.0072 *	7.0691	31.7800	-1.0868	0.0026
13.6994	31.7800	0.0030	0.0086 *	10.3785	31.7800	-0.6609	0.0074 *	7.0192	31.7800	-1.0891	0.0026
13.6485	31.7800	-0.0040	0.0084 *	10.3288	31.7800	-0.6710	0.0074 *	6.9689	31.7800	-1.0911	0.0028
13.5978	31.7800	-0.0109	0.0085 *	10.2783	31.7800	-0.6814	0.0073 *	6.9183	31.7800	-1.0933	0.0027
13.5479	31.7800	-0.0181	0.0085 *	10.2293	31.7800	-0.6913	0.0073 *	6.8676	31.7800	-1.0954	0.0027
13.4974	31.7800	-0.0257	0.0084 *	10.1801	31.7800	-0.7010	0.0074 *	6.8161	31.7800	-1.0973	0.0029
13.4478	31.7800	-0.0334	0.0083 *	10.1306	31.7800	-0.7107	0.0074 *	6.7657	31.7800	-1.0991	0.0031
13.3973	31.7800	-0.0414	0.0082 *	10.0825	31.7800	-0.7202	0.0072 *	6.7154	31.7800	-1.1008	0.0032
13.3474	31.7800	-0.0492	0.0084 *	10.0323	31.7800	-0.7300	0.0070 *	6.6649	31.7800	-1.1025	0.0032
13.2975	31.7800	-0.0576	0.0082 *	9.9834	31.7800	-0.7394	0.0067 *	6.6141	31.7800	-1.1040	0.0034
13.2467	31.7800	-0.0663	0.0080 *	9.9336	31.7800	-0.7487	0.0067 *	6.5633	31.7800	-1.1055	0.0032
13.1966	31.7800	-0.0749	0.0079 *	9.8842	31.7800	-0.7580	0.0065 *	6.5111	31.7800	-1.1069	0.0031
13.1471	31.7800	-0.0834	0.0079 *	9.8344	31.7800	-0.7673	0.0063 *	6.4614	31.7800	-1.1081	0.0029
13.0965	31.7800	-0.0923	0.0078 *	9.7858	31.7800	-0.7763	0.0061 *	6.4101	31.7800	-1.1093	0.0025
13.0474	31.7800	-0.1015	0.0073 *	9.7368	31.7800	-0.7851	0.0062 *	6.3613	31.7800	-1.1104	0.0023
12.9974	31.7800	-0.1104	0.0074 *	9.6860	31.7800	-0.7943	0.0061 *	6.3111	31.7800	-1.1114	0.0020
12.9479	31.7800	-0.1196	0.0073 *	9.6374	31.7800	-0.8028	0.0063 *	6.2608	31.7800	-1.1125	0.0018
12.8987	31.7800	-0.1288	0.0073 *	9.5871	31.7800	-0.8116	0.0064 *	6.2095	31.7800	-1.1133	0.0017
12.8494	31.7800	-0.1381	0.0071 *	9.5369	31.7800	-0.8203	0.0065 *	6.1577	31.7800	-1.1141	0.0016
12.8001	31.7800	-0.1474	0.0071 *	9.4869	31.7800	-0.8288	0.0065 *	6.1069	31.7800	-1.1149	0.0015
12.7501	31.7800	-0.1570	0.0072 *	9.4374	31.7800	-0.8371	0.0064 *	6.0570	31.7800	-1.1156	0.0014
12.7014	31.7800	-0.1664	0.0071 *	9.3870	31.7800	-0.8454	0.0063 *	6.0063	31.7800	-1.1163	0.0013

Table A10. Concluded

				Lower Surface	y = 31.78 inches						
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
5.9555	31.7800	-1.1168	0.0013	2.5606	31.7800	-0.9734	0.0008	0.9315	31.7800	-0.7154	0.0054 *
5.9057	31.7800	-1.1172	0.0013	2.5081	31.7800	-0.9678	0.0007	0.9139	31.7800	-0.7109	0.0055 *
5.8551	31.7800	-1.1178	0.0011	2.4575	31.7800	-0.9625	0.0009	0.8936	31.7800	-0.7055	0.0055 *
5.8036	31.7800	-1.1179	0.0013	2.4071	31.7800	-0.9572	0.0009	0.8745	31.7800	-0.7004	0.0056 *
5.7526	31.7800	-1.1182	0.0013	2.3552	31.7800	-0.9514	0.0013	0.8566	31.7800	-0.6955	0.0056 *
5.7021	31.7800	-1.1184	0.0013	2.3036	31.7800	-0.9454	0.0012	0.8374	31.7800	-0.6902	0.0057 *
5.6514	31.7800	-1.1186	0.0012	2.2530	31.7800	-0.9395	0.0012	0.8179	31.7800	-0.6848	0.0058 *
5.6011	31.7800	-1.1187	0.0013	2.2009	31.7800	-0.9334	0.0015	0.8000	31.7800	-0.6797	0.0059 *
5.5506	31.7800	-1.1186	0.0015	2.1490	31.7800	-0.9270	0.0014	0.7820	31.7800	-0.6743	0.0058 *
5.4997	31.7800	-1.1186	0.0015	2.0974	31.7800	-0.9203	0.0012	0.7625	31.7800	-0.6688	0.0060 *
5.4495	31.7800	-1.1184	0.0016	2.0461	31.7800	-0.9140	0.0016	0.7436	31.7800	-0.6629	0.0059 *
5.3985	31.7800	-1.1182	0.0016	1.9954	31.7800	-0.9074	0.0017	0.7244	31.7800	-0.6571	0.0061 *
5.3473	31.7800	-1.1178	0.0016	1.9963	31.7800	-0.9074	0.0017	0.7077	31.7800	-0.6517	0.0060 *
5.2970	31.7800	-1.1173	0.0017	1.9807	31.7800	-0.9054	0.0017	0.6878	31.7800	-0.6452	0.0060 *
5.2464	31.7800	-1.1169	0.0016	1.9595	31.7800	-0.9024	0.0016	0.6685	31.7800	-0.6389	0.0060 *
5.1957	31.7800	-1.1163	0.0015	1.9387	31.7800	-0.8996	0.0017	0.6502	31.7800	-0.6327	0.0061 *
5.1458	31.7800	-1.1155	0.0015	1.9165	31.7800	-0.8968	0.0020	0.6321	31.7800	-0.6264	0.0061 *
5.0958	31.7800	-1.1150	0.0012	1.8964	31.7800	-0.8938	0.0018	0.6135	31.7800	-0.6197	0.0061 *
5.0438	31.7800	-1.1142	0.0011	1.8764	31.7800	-0.8910	0.0019	0.5939	31.7800	-0.6127	0.0062 *
4.9924	31.7800	-1.1133	0.0010	1.8551	31.7800	-0.8881	0.0020	0.5766	31.7800	-0.6061	0.0061 *
4.9421	31.7800	-1.1123	0.0010	1.8349	31.7800	-0.8852	0.0021	0.5587	31.7800	-0.5993	0.0062 *
4.8927	31.7800	-1.1113	0.0009	1.8138	31.7800	-0.8822	0.0021	0.5394	31.7800	-0.5915	0.0060 *
4.8420	31.7800	-1.1102	0.0008	1.7927	31.7800	-0.8790	0.0021	0.5196	31.7800	-0.5837	0.0062 *
4.7910	31.7800	-1.1090	0.0009	1.7736	31.7800	-0.8763	0.0022	0.5026	31.7800	-0.5763	0.0060 *
4.7389	31.7800	-1.1077	0.0009	1.7532	31.7800	-0.8733	0.0023	0.4863	31.7800	-0.5693	0.0060 *
4.6886	31.7800	-1.1061	0.0011	1.7338	31.7800	-0.8703	0.0023	0.4671	31.7800	-0.5606	0.0058 *
4.6375	31.7800	-1.1049	0.0009	1.7131	31.7800	-0.8672	0.0023	0.4504	31.7800	-0.5531	0.0059 *
4.5870	31.7800	-1.1033	0.0010	1.6944	31.7800	-0.8643	0.0024	0.4330	31.7800	-0.5447	0.0057 *
4.5355	31.7800	-1.1018	0.0009	1.6743	31.7800	-0.8613	0.0025	0.4157	31.7800	-0.5364	0.0057 *
4.4843	31.7800	-1.1000	0.0009	1.6543	31.7800	-0.8581	0.0025	0.3981	31.7800	-0.5276	0.0057 *
4.4353	31.7800	-1.0984	0.0008	1.6360	31.7800	-0.8552	0.0026	0.3812	31.7800	-0.5187	0.0055 *
4.3848	31.7800	-1.0964	0.0009	1.6154	31.7800	-0.8520	0.0027	0.3634	31.7800	-0.5093	0.0055 *
4.3340	31.7800	-1.0946	0.0007	1.5972	31.7800	-0.8491	0.0027	0.3465	31.7800	-0.5000	0.0055 *
4.2827	31.7800	-1.0926	0.0006	1.5772	31.7800	-0.8459	0.0028	0.3295	31.7800	-0.4902	0.0054 *
4.2311	31.7800	-1.0906	0.0003	1.5577	31.7800	-0.8426	0.0029	0.3118	31.7800	-0.4797	0.0053 *
4.1817	31.7800	-1.0884	0.0003	1.5382	31.7800	-0.8395	0.0030	0.2956	31.7800	-0.4698	0.0053 *
4.1318	31.7800	-1.0861	0.0003	1.5198	31.7800	-0.8363	0.0030	0.2792	31.7800	-0.4593	0.0052 *
4.0817	31.7800	-1.0839	0.0001	1.5005	31.7800	-0.8329	0.0030	0.2636	31.7800	-0.4489	0.0051 *
4.0301	31.7800	-1.0816	0.0000	1.4821	31.7800	-0.8297	0.0030	0.2472	31.7800	-0.4377	0.0051 *
3.9790	31.7800	-1.0790	0.0001	1.4623	31.7800	-0.8264	0.0032	0.2306	31.7800	-0.4258	0.0052 *
3.9286	31.7800	-1.0764	0.0000	1.4434	31.7800	-0.8230	0.0031	0.2145	31.7800	-0.4137	0.0052 *
3.8775	31.7800	-1.0738	0.0001	1.4247	31.7800	-0.8197	0.0032	0.1998	31.7800	-0.4020	0.0052 *
3.8270	31.7800	-1.0709	0.0001	1.4055	31.7800	-0.8163	0.0033	0.1849	31.7800	-0.3897	0.0053 *
3.7749	31.7800	-1.0682	0.0001	1.3869	31.7800	-0.8129	0.0033	0.1703	31.7800	-0.3768	0.0053 *
3.7250	31.7800	-1.0654	0.0001	1.3685	31.7800	-0.8096	0.0035	0.1560	31.7800	-0.3636	0.0053 *
3.6751	31.7800	-1.0624	0.0001	1.3487	31.7800	-0.8060	0.0036	0.1399	31.7800	-0.3475	0.0053 *
3.6245	31.7800	-1.0592	0.0001	1.3287	31.7800	-0.8022	0.0037	0.1210	31.7800	-0.3271	0.0052 *
3.5733	31.7800	-1.0562	0.0000	1.3109	31.7800	-0.7988	0.0037	0.1140	31.7800	-0.3192	0.0053 *
3.5222	31.7800	-1.0529	0.0001	1.2907	31.7800	-0.7949	0.0038	0.1016	31.7800	-0.3042	0.0052 *
3.4716	31.7800	-1.0495	0.0002	1.2718	31.7800	-0.7912	0.0038	0.0897	31.7800	-0.2882	0.0050
3.4217	31.7800	-1.0461	0.0002	1.2539	31.7800	-0.7876	0.0038	0.0788	31.7800	-0.2726	0.0049
3.3712	31.7800	-1.0428	0.0000	1.2342	31.7800	-0.7837	0.0040	0.0677	31.7800	-0.2552	0.0047
3.3212	31.7800	-1.0391	0.0002	1.2146	31.7800	-0.7798	0.0041	0.0582	31.7800	-0.2387	0.0045
3.2696	31.7800	-1.0356	0.0000	1.1964	31.7800	-0.7761	0.0042	0.0488	31.7800	-0.2208	0.0043
3.2190	31.7800	-1.0317	0.0001	1.1769	31.7800	-0.7721	0.0043	0.0405	31.7800	-0.2029	0.0039
3.1693	31.7800	-1.0279	0.0000	1.1575	31.7800	-0.7680	0.0044	0.0327	31.7800	-0.1849	0.0038
3.1180	31.7800	-1.0240	0.0000	1.1388	31.7800	-0.7640	0.0045	0.0254	31.7800	-0.1658	0.0037
3.0665	31.7800	-1.0196	0.0002	1.1197	31.7800	-0.7598	0.0045	0.0185	31.7800	-0.1458	0.0038
3.0154	31.7800	-1.0157	0.0001	1.1018	31.7800	-0.7559	0.0047	0.0130	31.7800	-0.1266	0.0037
2.9653	31.7800	-1.0113	0.0000	1.0822	31.7800	-0.7514	0.0046	0.0080	31.7800	-0.1065	0.0037
2.9147	31.7800	-1.0070	0.0001	1.0638	31.7800	-0.7473	0.0047	0.0041	31.7800	-0.0867	0.0035
2.8634	31.7800	-1.0024	0.0001	1.0447	31.7800	-0.7429	0.0049	0.0012	31.7800	-0.0669	0.0033
2.8125	31.7800	-0.9979	0.0003	1.0255	31.7800	-0.7384	0.0049	-0.0011	31.7800	-0.0468	0.0033
2.7627	31.7800	-0.9933	0.0004	1.0073	31.7800	-0.7341	0.0050	-0.0025	31.7800	-0.0269	0.0031
2.7124	31.7800	-0.9884	0.0003	0.9868	31.7800	-0.7291	0.0051 *				
2.6610	31.7800	-0.9835	0.0005	0.9684	31.7800	-0.7247	0.0053 *				
2.6107	31.7800	-0.9784	0.0005	0.9506	31.7800	-0.7203	0.0054 *				

Table A11. Chordwise Airfoil Measurements at $y = 31.84$ in.

Upper Surface y = 31.84 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0030	31.8400	-0.0068	0.0031	0.9538	31.8400	0.7110	0.0038	2.6875	31.8400	0.9722	0.0040
-0.0027	31.8400	0.0136	0.0028	0.9743	31.8400	0.7161	0.0038	2.7381	31.8400	0.9768	0.0040
-0.0016	31.8400	0.0346	0.0026	0.9950	31.8400	0.7213	0.0036	2.7894	31.8400	0.9815	0.0040
0.0005	31.8400	0.0560	0.0024	1.0149	31.8400	0.7261	0.0036	2.8390	31.8400	0.9859	0.0039
0.0033	31.8400	0.0751	0.0021	1.0352	31.8400	0.7309	0.0036	2.8879	31.8400	0.9902	0.0038
0.0069	31.8400	0.0944	0.0019	1.0554	31.8400	0.7356	0.0035	2.9381	31.8400	0.9945	0.0036
0.0111	31.8400	0.1131	0.0019	1.0748	31.8400	0.7400	0.0035	2.9870	31.8400	0.9986	0.0036
0.0161	31.8400	0.1322	0.0020	1.0945	31.8400	0.7443	0.0036	3.0369	31.8400	1.0026	0.0035
0.0215	31.8400	0.1496	0.0020	1.1142	31.8400	0.7488	0.0035	3.0877	31.8400	1.0067	0.0034
0.0284	31.8400	0.1687	0.0019	1.1338	31.8400	0.7530	0.0035	3.1375	31.8400	1.0107	0.0034
0.0361	31.8400	0.1871	0.0016	1.1540	31.8400	0.7572	0.0036	3.1894	31.8400	1.0148	0.0033
0.0444	31.8400	0.2049	0.0013	1.1739	31.8400	0.7615	0.0035	3.2400	31.8400	1.0184	0.0035
0.0530	31.8400	0.2221	0.0012	1.1945	31.8400	0.7657	0.0036	3.2898	31.8400	1.0221	0.0034
0.0625	31.8400	0.2393	0.0010	1.2139	31.8400	0.7697	0.0036	3.3412	31.8400	1.0258	0.0035
0.0724	31.8400	0.2557	0.0010	1.2345	31.8400	0.7737	0.0037	3.3920	31.8400	1.0293	0.0036
0.0835	31.8400	0.2726	0.0010	1.2533	31.8400	0.7775	0.0037	3.4428	31.8400	1.0327	0.0037
0.0945	31.8400	0.2879	0.0010	1.2735	31.8400	0.7812	0.0039	3.4931	31.8400	1.0361	0.0037
0.1069	31.8400	0.3040	0.0010	1.2939	31.8400	0.7852	0.0039	3.5458	31.8400	1.0394	0.0039
0.1198	31.8400	0.3192	0.0009	1.3139	31.8400	0.7890	0.0039	3.5963	31.8400	1.0426	0.0039
0.1330	31.8400	0.3337	0.0007	1.3331	31.8400	0.7926	0.0040	3.6464	31.8400	1.0455	0.0040
0.1469	31.8400	0.3477	0.0004	1.3528	31.8400	0.7962	0.0041	3.6961	31.8400	1.0486	0.0039
0.1615	31.8400	0.3615	0.0001	1.3719	31.8400	0.7997	0.0040	3.7466	31.8400	1.0516	0.0039
0.1764	31.8400	0.3748	0.0003	1.3929	31.8400	0.8035	0.0041	3.7974	31.8400	1.0544	0.0038
0.1915	31.8400	0.3874	0.0007	1.4119	31.8400	0.8069	0.0041	3.8474	31.8400	1.0571	0.0039
0.2079	31.8400	0.4004	0.0011	1.4310	31.8400	0.8103	0.0041	3.8991	31.8400	1.0600	0.0037
0.1905	31.8400	0.3867	0.0006	1.4517	31.8400	0.8141	0.0039	3.9503	31.8400	1.0626	0.0037
0.1983	31.8400	0.3931	0.0007	1.4722	31.8400	0.8176	0.0040	3.9992	31.8400	1.0652	0.0036
0.2140	31.8400	0.4053	0.0011	1.4920	31.8400	0.8209	0.0040	4.0509	31.8400	1.0677	0.0036
0.2288	31.8400	0.4162	0.0014	1.5112	31.8400	0.8242	0.0040	4.1014	31.8400	1.0701	0.0035
0.2460	31.8400	0.4284	0.0018	1.5311	31.8400	0.8274	0.0040	4.1520	31.8400	1.0725	0.0034
0.2618	31.8400	0.4391	0.0020	1.5507	31.8400	0.8307	0.0040	4.2032	31.8400	1.0749	0.0033
0.2785	31.8400	0.4499	0.0023	1.5708	31.8400	0.8339	0.0041	4.2522	31.8400	1.0770	0.0034
0.2955	31.8400	0.4606	0.0024	1.5900	31.8400	0.8371	0.0040	4.3031	31.8400	1.0792	0.0033
0.3132	31.8400	0.4713	0.0026	1.6105	31.8400	0.8402	0.0041	4.3517	31.8400	1.0812	0.0033
0.3304	31.8400	0.4814	0.0026	1.6301	31.8400	0.8434	0.0041	4.4013	31.8400	1.0833	0.0032
0.3472	31.8400	0.4908	0.0028	1.6496	31.8400	0.8463	0.0042	4.4517	31.8400	1.0854	0.0031
0.3642	31.8400	0.5003	0.0028	1.6689	31.8400	0.8494	0.0041	4.5033	31.8400	1.0873	0.0032
0.3827	31.8400	0.5101	0.0028	1.6902	31.8400	0.8525	0.0042	4.5556	31.8400	1.0894	0.0031
0.4001	31.8400	0.5190	0.0029	1.7088	31.8400	0.8553	0.0043	4.6051	31.8400	1.0912	0.0032
0.4180	31.8400	0.5280	0.0028	1.7300	31.8400	0.8585	0.0042	4.6550	31.8400	1.0928	0.0033
0.4359	31.8400	0.5366	0.0029	1.7498	31.8400	0.8614	0.0043	4.7051	31.8400	1.0946	0.0033
0.4536	31.8400	0.5450	0.0028	1.7691	31.8400	0.8642	0.0043	4.7562	31.8400	1.0964	0.0032
0.4722	31.8400	0.5535	0.0028	1.7904	31.8400	0.8673	0.0043	4.8066	31.8400	1.0981	0.0032
0.4908	31.8400	0.5617	0.0028	1.8111	31.8400	0.8703	0.0042	4.8587	31.8400	1.0994	0.0034
0.5092	31.8400	0.5695	0.0028	1.8310	31.8400	0.8730	0.0043	4.9089	31.8400	1.1010	0.0033
0.5287	31.8400	0.5776	0.0029	1.8510	31.8400	0.8759	0.0043	4.9589	31.8400	1.1025	0.0031
0.5477	31.8400	0.5852	0.0030	1.8710	31.8400	0.8786	0.0043	5.0085	31.8400	1.1038	0.0030
0.5668	31.8400	0.5927	0.0030	1.8917	31.8400	0.8815	0.0043	5.0605	31.8400	1.1052	0.0028
0.5841	31.8400	0.5993	0.0030	1.9113	31.8400	0.8841	0.0044	5.1123	31.8400	1.1064	0.0026
0.6032	31.8400	0.6063	0.0031	1.9319	31.8400	0.8869	0.0044	5.1618	31.8400	1.1074	0.0025
0.6225	31.8400	0.6134	0.0031	1.9516	31.8400	0.8894	0.0044	5.2111	31.8400	1.1086	0.0023
0.6418	31.8400	0.6202	0.0031	1.9727	31.8400	0.8923	0.0044	5.2610	31.8400	1.1096	0.0022
0.6611	31.8400	0.6266	0.0033	1.9906	31.8400	0.8945	0.0045	5.3114	31.8400	1.1105	0.0022
0.6809	31.8400	0.6333	0.0033	1.9909	31.8400	0.8945	0.0045	5.3624	31.8400	1.1117	0.0020
0.6999	31.8400	0.6394	0.0034	2.0372	31.8400	0.9006	0.0044	5.4141	31.8400	1.1125	0.0022
0.7181	31.8400	0.6453	0.0034	2.0866	31.8400	0.9069	0.0043	5.4645	31.8400	1.1133	0.0024
0.7372	31.8400	0.6512	0.0035	2.1371	31.8400	0.9130	0.0044	5.5149	31.8400	1.1141	0.0026
0.7559	31.8400	0.6568	0.0036	2.1860	31.8400	0.9188	0.0044	5.5652	31.8400	1.1149	0.0029
0.7759	31.8400	0.6628	0.0036	2.2369	31.8400	0.9248	0.0043	5.6158	31.8400	1.1157	0.0030
0.7950	31.8400	0.6684	0.0036	2.2865	31.8400	0.9306	0.0042	5.6666	31.8400	1.1161	0.0033
0.8155	31.8400	0.6742	0.0037	2.3353	31.8400	0.9360	0.0042	5.7174	31.8400	1.1169	0.0032
0.8349	31.8400	0.6797	0.0037	2.3849	31.8400	0.9413	0.0043	5.7669	31.8400	1.1173	0.0032
0.8545	31.8400	0.6850	0.0038	2.4351	31.8400	0.9468	0.0041	5.8174	31.8400	1.1180	0.0030
0.8744	31.8400	0.6904	0.0039	2.4857	31.8400	0.9521	0.0041	5.8678	31.8400	1.1184	0.0029
0.8944	31.8400	0.6957	0.0039	2.5359	31.8400	0.9572	0.0042	5.9192	31.8400	1.1187	0.0029
0.9146	31.8400	0.7011	0.0038	2.5864	31.8400	0.9623	0.0041	5.9693	31.8400	1.1191	0.0028
0.9335	31.8400	0.7058	0.0038	2.6380	31.8400	0.9674	0.0041	6.0203	31.8400	1.1195	0.0026

Table A11. Continued

Upper Surface			y = 31.84 inches								
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
6.0691	31.8400	1.1196	0.0027	9.4744	31.8400	1.0138	0.0012	12.8864	31.8400	0.6154	0.0010
6.1201	31.8400	1.1198	0.0027	9.5245	31.8400	1.0098	0.0014	12.9362	31.8400	0.6079	0.0010
6.1707	31.8400	1.1200	0.0026	9.5746	31.8400	1.0061	0.0011	12.9861	31.8400	0.6002	0.0010
6.2217	31.8400	1.1202	0.0026	9.6261	31.8400	1.0021	0.0010	13.0355	31.8400	0.5929	0.0013
6.2732	31.8400	1.1202	0.0028	9.6766	31.8400	0.9980	0.0011	13.0843	31.8400	0.5853	0.0012
6.3237	31.8400	1.1202	0.0028	9.7271	31.8400	0.9939	0.0009	13.1324	31.8400	0.5779	0.0012
6.3752	31.8400	1.1202	0.0030	9.7788	31.8400	0.9895	0.0009	13.1819	31.8400	0.5702	0.0012
6.4256	31.8400	1.1200	0.0033	9.8291	31.8400	0.9852	0.0007	13.2313	31.8400	0.5627	0.0014
6.4761	31.8400	1.1199	0.0034	9.8789	31.8400	0.9810	0.0006	13.2808	31.8400	0.5547	0.0012
6.5257	31.8400	1.1196	0.0037	9.9290	31.8400	0.9765	0.0006	13.3284	31.8400	0.5472	0.0012
6.5770	31.8400	1.1194	0.0037	9.9806	31.8400	0.9718	0.0005	13.3770	31.8400	0.5397	0.0014
6.6287	31.8400	1.1191	0.0037	10.0313	31.8400	0.9673	0.0003	13.4258	31.8400	0.5320	0.0015
6.6788	31.8400	1.1186	0.0038	10.0807	31.8400	0.9629	0.0003	13.4755	31.8400	0.5239	0.0014
6.7295	31.8400	1.1181	0.0038	10.1313	31.8400	0.9580	0.0004	13.5236	31.8400	0.5161	0.0013
6.7799	31.8400	1.1176	0.0037	10.1826	31.8400	0.9532	0.0004	13.5710	31.8400	0.5084	0.0013
6.8311	31.8400	1.1172	0.0035	10.2332	31.8400	0.9484	0.0005	13.6207	31.8400	0.5006	0.0016
6.8817	31.8400	1.1165	0.0035	10.2836	31.8400	0.9436	0.0006	13.6693	31.8400	0.4927	0.0016
6.9329	31.8400	1.1157	0.0036	10.3362	31.8400	0.9384	0.0007	13.7172	31.8400	0.4849	0.0017
6.9826	31.8400	1.1152	0.0033	10.3856	31.8400	0.9335	0.0007	13.7657	31.8400	0.4771	0.0018
7.0335	31.8400	1.1143	0.0035	10.4372	31.8400	0.9284	0.0007	13.8142	31.8400	0.4693	0.0021
7.0851	31.8400	1.1133	0.0037	10.4895	31.8400	0.9229	0.0007	13.8623	31.8400	0.4614	0.0022
7.1371	31.8400	1.1125	0.0037	10.5398	31.8400	0.9178	0.0006	13.9111	31.8400	0.4534	0.0023
7.1861	31.8400	1.1115	0.0039	10.5898	31.8400	0.9128	0.0004	13.9596	31.8400	0.4454	0.0023
7.2379	31.8400	1.1107	0.0039	10.6407	31.8400	0.9074	0.0003	14.0079	31.8400	0.4373	0.0024
7.2885	31.8400	1.1095	0.0042	10.6926	31.8400	0.9021	0.0001	14.0567	31.8400	0.4293	0.0025
7.3384	31.8400	1.1086	0.0042	10.7429	31.8400	0.8966	0.0001	14.1049	31.8400	0.4210	0.0024
7.3891	31.8400	1.1075	0.0043	10.7942	31.8400	0.8910	0.0002	14.1530	31.8400	0.4129	0.0025
7.4400	31.8400	1.1063	0.0044	10.8457	31.8400	0.8855	0.0001	14.2017	31.8400	0.4044	0.0025
7.4915	31.8400	1.1051	0.0044	10.8964	31.8400	0.8798	0.0002	14.2499	31.8400	0.3963	0.0027
7.5411	31.8400	1.1039	0.0043	10.9491	31.8400	0.8738	0.0004	14.2985	31.8400	0.3874	0.0025
7.5914	31.8400	1.1026	0.0042	11.0011	31.8400	0.8681	0.0003	14.3475	31.8400	0.3790	0.0029
7.6416	31.8400	1.1012	0.0041	11.0525	31.8400	0.8621	0.0005	14.3967	31.8400	0.3707	0.0034
7.6917	31.8400	1.0997	0.0040	11.1039	31.8400	0.8562	0.0005	14.4446	31.8400	0.3625	0.0040
7.7436	31.8400	1.0983	0.0038	11.1578	31.8400	0.8497	0.0006	14.4937	31.8400	0.3536	0.0040
7.7941	31.8400	1.0970	0.0035	11.2063	31.8400	0.8440	0.0005	14.5424	31.8400	0.3450	0.0042
7.8448	31.8400	1.0954	0.0037	11.2584	31.8400	0.8379	0.0003	14.5908	31.8400	0.3364	0.0043
7.8956	31.8400	1.0937	0.0039	11.3109	31.8400	0.8315	0.0003	14.6389	31.8400	0.3277	0.0042
7.9476	31.8400	1.0920	0.0041	11.3628	31.8400	0.8250	0.0002	14.6864	31.8400	0.3192	0.0042
7.9973	31.8400	1.0905	0.0040	11.4146	31.8400	0.8186	0.0001	14.7357	31.8400	0.3101	0.0040
8.0483	31.8400	1.0887	0.0039	11.4672	31.8400	0.8120	0.0002	14.7834	31.8400	0.3015	0.0039
8.0992	31.8400	1.0869	0.0036	11.5214	31.8400	0.8050	0.0002	14.8312	31.8400	0.2929	0.0040
8.1514	31.8400	1.0852	0.0032	11.5715	31.8400	0.7985	0.0003	14.8798	31.8400	0.2840	0.0039
8.2020	31.8400	1.0832	0.0031	11.6222	31.8400	0.7921	0.0005	14.9276	31.8400	0.2753	0.0040
8.2531	31.8400	1.0814	0.0029	11.6750	31.8400	0.7852	0.0006	14.9763	31.8400	0.2666	0.0044
8.3036	31.8400	1.0793	0.0031	11.7253	31.8400	0.7785	0.0004	15.0242	31.8400	0.2577	0.0046
8.3530	31.8400	1.0773	0.0031	11.7766	31.8400	0.7719	0.0003	15.0717	31.8400	0.2488	0.0047
8.4044	31.8400	1.0753	0.0031	11.8294	31.8400	0.7649	0.0001	15.1195	31.8400	0.2399	0.0050
8.4564	31.8400	1.0730	0.0032	11.8800	31.8400	0.7580	0.0002	15.1685	31.8400	0.2301	0.0047
8.5059	31.8400	1.0707	0.0033	11.9320	31.8400	0.7511	0.0003	15.2162	31.8400	0.2212	0.0050
8.5577	31.8400	1.0685	0.0032	11.9821	31.8400	0.7443	0.0005	15.2654	31.8400	0.2111	0.0047
8.6072	31.8400	1.0661	0.0032	12.0341	31.8400	0.7373	0.0005	15.3124	31.8400	0.2018	0.0047
8.6596	31.8400	1.0636	0.0030	12.0849	31.8400	0.7303	0.0005	15.3610	31.8400	0.1921	0.0046
8.7089	31.8400	1.0611	0.0030	12.1351	31.8400	0.7234	0.0005	15.4097	31.8400	0.1823	0.0046
8.7607	31.8400	1.0585	0.0029	12.1876	31.8400	0.7162	0.0003	15.4575	31.8400	0.1725	0.0045
8.8097	31.8400	1.0559	0.0028	12.2382	31.8400	0.7091	0.0002	15.5066	31.8400	0.1624	0.0044
8.8626	31.8400	1.0531	0.0026	12.2885	31.8400	0.7021	0.0000	15.5551	31.8400	0.1524	0.0043
8.9128	31.8400	1.0503	0.0025	12.3384	31.8400	0.6951	0.0001	15.6031	31.8400	0.1424	0.0042
8.9635	31.8400	1.0473	0.0024	12.3891	31.8400	0.6878	0.0001	15.6507	31.8400	0.1318	0.0034
9.0157	31.8400	1.0444	0.0022	12.4397	31.8400	0.6808	0.0004	15.6989	31.8400	0.1214	0.0032
9.0654	31.8400	1.0414	0.0021	12.4906	31.8400	0.6734	0.0004	15.7467	31.8400	0.1110	0.0028
9.1163	31.8400	1.0382	0.0020	12.5397	31.8400	0.6663	0.0004	15.7945	31.8400	0.1006	0.0027
9.1659	31.8400	1.0351	0.0019	12.5894	31.8400	0.6590	0.0004	15.8412	31.8400	0.0904	0.0026
9.2176	31.8400	1.0318	0.0017	12.6393	31.8400	0.6519	0.0006	15.8885	31.8400	0.0798	0.0024
9.2697	31.8400	1.0282	0.0017	12.6893	31.8400	0.6445	0.0006	15.9373	31.8400	0.0700	0.0033
9.3194	31.8400	1.0248	0.0016	12.7386	31.8400	0.6372	0.0006				
9.3723	31.8400	1.0211	0.0015	12.7887	31.8400	0.6300	0.0009				
9.4216	31.8400	1.0178	0.0012	12.8380	31.8400	0.6226	0.0008				

46

Table A11. Continued

| Lower Surface y = 31.84 inches |

x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9821	31.8400	-0.0343	0.0051 *	12.6510	31.8400	-0.1758	0.0075 *	9.3371	31.8400	-0.8535	0.0062 *
15.9715	31.8400	-0.0335	0.0038	12.6021	31.8400	-0.1855	0.0074 *	9.2877	31.8400	-0.8614	0.0059 *
15.9230	31.8400	-0.0256	0.0023	12.5522	31.8400	-0.1956	0.0072 *	9.2363	31.8400	-0.8696	0.0056 *
15.8746	31.8400	-0.0160	0.0029	12.5023	31.8400	-0.2055	0.0071 *	9.1869	31.8400	-0.8772	0.0055 *
15.8282	31.8400	-0.0075	0.0032	12.4537	31.8400	-0.2154	0.0070 *	9.1372	31.8400	-0.8848	0.0054 *
15.7764	31.8400	0.0015	0.0035	12.4036	31.8400	-0.2256	0.0069 *	9.0878	31.8400	-0.8922	0.0053 *
15.7282	31.8400	0.0092	0.0036	12.3548	31.8400	-0.2356	0.0067 *	9.0380	31.8400	-0.8997	0.0053 *
15.6780	31.8400	0.0168	0.0036	12.3043	31.8400	-0.2461	0.0066 *	8.9877	31.8400	-0.9070	0.0054 *
15.6267	31.8400	0.0245	0.0042	12.2551	31.8400	-0.2563	0.0065 *	8.9371	31.8400	-0.9143	0.0055 *
15.5738	31.8400	0.0321	0.0048	12.2052	31.8400	-0.2669	0.0063 *	8.8874	31.8400	-0.9214	0.0056 *
15.5231	31.8400	0.0383	0.0051 *	12.1561	31.8400	-0.2772	0.0062 *	8.8372	31.8400	-0.9283	0.0057 *
15.4734	31.8400	0.0441	0.0054 *	12.1064	31.8400	-0.2879	0.0060 *	8.7865	31.8400	-0.9352	0.0057 *
15.4229	31.8400	0.0491	0.0054 *	12.0574	31.8400	-0.2981	0.0062 *	8.7377	31.8400	-0.9418	0.0057 *
15.3715	31.8400	0.0539	0.0056 *	12.0076	31.8400	-0.3091	0.0059 *	8.6880	31.8400	-0.9480	0.0059 *
15.3206	31.8400	0.0581	0.0056 *	11.9592	31.8400	-0.3197	0.0058 *	8.6375	31.8400	-0.9545	0.0058 *
15.2703	31.8400	0.0620	0.0058 *	11.9104	31.8400	-0.3301	0.0060 *	8.5873	31.8400	-0.9607	0.0058 *
15.2191	31.8400	0.0659	0.0063 *	11.8607	31.8400	-0.3410	0.0061 *	8.5372	31.8400	-0.9668	0.0057 *
15.1680	31.8400	0.0690	0.0063 *	11.8103	31.8400	-0.3520	0.0062 *	8.4866	31.8400	-0.9728	0.0056 *
15.1162	31.8400	0.0721	0.0066 *	11.7609	31.8400	-0.3631	0.0061 *	8.4368	31.8400	-0.9786	0.0055 *
15.0660	31.8400	0.0746	0.0067 *	11.7117	31.8400	-0.3739	0.0062 *	8.3861	31.8400	-0.9844	0.0053 *
15.0165	31.8400	0.0770	0.0070 *	11.6627	31.8400	-0.3847	0.0062 *	8.3374	31.8400	-0.9898	0.0052 *
14.9647	31.8400	0.0788	0.0071 *	11.6134	31.8400	-0.3955	0.0062 *	8.2867	31.8400	-0.9952	0.0051 *
14.9132	31.8400	0.0801	0.0071 *	11.5644	31.8400	-0.4065	0.0060 *	8.2363	31.8400	-1.0004	0.0050
14.8633	31.8400	0.0812	0.0074 *	11.5153	31.8400	-0.4176	0.0057 *	8.1848	31.8400	-1.0059	0.0045
14.8121	31.8400	0.0818	0.0074 *	11.4657	31.8400	-0.4284	0.0058 *	8.1348	31.8400	-1.0108	0.0043
14.7614	31.8400	0.0818	0.0074 *	11.4159	31.8400	-0.4393	0.0058 *	8.0832	31.8400	-1.0158	0.0040
14.7100	31.8400	0.0814	0.0074 *	11.3660	31.8400	-0.4503	0.0058 *	8.0329	31.8400	-1.0205	0.0038
14.6589	31.8400	0.0807	0.0075 *	11.3169	31.8400	-0.4610	0.0059 *	7.9823	31.8400	-1.0251	0.0037
14.6078	31.8400	0.0797	0.0077 *	11.2685	31.8400	-0.4718	0.0058 *	7.9320	31.8400	-1.0295	0.0039
14.5578	31.8400	0.0782	0.0079 *	11.2195	31.8400	-0.4822	0.0062 *	7.8812	31.8400	-1.0338	0.0041
14.5066	31.8400	0.0760	0.0078 *	11.1706	31.8400	-0.4931	0.0061 *	7.8303	31.8400	-1.0380	0.0044
14.4550	31.8400	0.0733	0.0076 *	11.1203	31.8400	-0.5041	0.0062 *	7.7809	31.8400	-1.0421	0.0045
14.4049	31.8400	0.0708	0.0080 *	11.0708	31.8400	-0.5147	0.0064 *	7.7294	31.8400	-1.0462	0.0046
14.3529	31.8400	0.0676	0.0081 *	11.0198	31.8400	-0.5256	0.0067 *	7.6788	31.8400	-1.0499	0.0047
14.3021	31.8400	0.0641	0.0082 *	10.9713	31.8400	-0.5359	0.0069 *	7.6275	31.8400	-1.0536	0.0047
14.2519	31.8400	0.0605	0.0084 *	10.9219	31.8400	-0.5466	0.0068 *	7.5764	31.8400	-1.0572	0.0047
14.2028	31.8400	0.0569	0.0087 *	10.8727	31.8400	-0.5572	0.0068 *	7.5266	31.8400	-1.0607	0.0044
14.1524	31.8400	0.0528	0.0089 *	10.8235	31.8400	-0.5675	0.0070 *	7.4761	31.8400	-1.0640	0.0044
14.1019	31.8400	0.0483	0.0090 *	10.7735	31.8400	-0.5781	0.0071 *	7.4258	31.8400	-1.0671	0.0042
14.0512	31.8400	0.0435	0.0091 *	10.7253	31.8400	-0.5885	0.0070 *	7.3751	31.8400	-1.0702	0.0040
14.0018	31.8400	0.0388	0.0093 *	10.6746	31.8400	-0.5993	0.0070 *	7.3235	31.8400	-1.0732	0.0037
13.9515	31.8400	0.0336	0.0093 *	10.6254	31.8400	-0.6096	0.0072 *	7.2732	31.8400	-1.0760	0.0035
13.9014	31.8400	0.0280	0.0092 *	10.5756	31.8400	-0.6198	0.0074 *	7.2222	31.8400	-1.0787	0.0034
13.8509	31.8400	0.0223	0.0093 *	10.5262	31.8400	-0.6301	0.0075 *	7.1714	31.8400	-1.0813	0.0033
13.8006	31.8400	0.0162	0.0091 *	10.4765	31.8400	-0.6405	0.0074 *	7.1203	31.8400	-1.0840	0.0030
13.7497	31.8400	0.0100	0.0092 *	10.4278	31.8400	-0.6507	0.0074 *	7.0699	31.8400	-1.0865	0.0028
13.6991	31.8400	0.0033	0.0090 *	10.3785	31.8400	-0.6606	0.0077 *	7.0198	31.8400	-1.0887	0.0029
13.6482	31.8400	-0.0034	0.0090 *	10.3290	31.8400	-0.6707	0.0077 *	6.9695	31.8400	-1.0908	0.0030
13.5975	31.8400	-0.0104	0.0091 *	10.2793	31.8400	-0.6808	0.0077 *	6.9189	31.8400	-1.0930	0.0030
13.5467	31.8400	-0.0176	0.0091 *	10.2300	31.8400	-0.6907	0.0078 *	6.8675	31.8400	-1.0950	0.0031
13.4973	31.8400	-0.0253	0.0088 *	10.1799	31.8400	-0.7007	0.0077 *	6.8170	31.8400	-1.0970	0.0032
13.4482	31.8400	-0.0327	0.0089 *	10.1305	31.8400	-0.7105	0.0076 *	6.7665	31.8400	-1.0987	0.0034
13.3977	31.8400	-0.0408	0.0088 *	10.0813	31.8400	-0.7202	0.0074 *	6.7158	31.8400	-1.1006	0.0035
13.3479	31.8400	-0.0487	0.0088 *	10.0320	31.8400	-0.7298	0.0073 *	6.6658	31.8400	-1.1022	0.0035
13.2972	31.8400	-0.0571	0.0087 *	9.9834	31.8400	-0.7391	0.0070 *	6.6137	31.8400	-1.1037	0.0037
13.2473	31.8400	-0.0657	0.0085 *	9.9338	31.8400	-0.7486	0.0068 *	6.5634	31.8400	-1.1051	0.0036
13.1970	31.8400	-0.0742	0.0085 *	9.8847	31.8400	-0.7578	0.0066 *	6.5126	31.8400	-1.1064	0.0034
13.1473	31.8400	-0.0829	0.0083 *	9.8347	31.8400	-0.7673	0.0063 *	6.4614	31.8400	-1.1078	0.0031
13.0972	31.8400	-0.0918	0.0082 *	9.7851	31.8400	-0.7763	0.0063 *	6.4112	31.8400	-1.1091	0.0027
13.0480	31.8400	-0.1007	0.0081 *	9.7358	31.8400	-0.7852	0.0063 *	6.3614	31.8400	-1.1101	0.0025
12.9975	31.8400	-0.1099	0.0079 *	9.6866	31.8400	-0.7940	0.0063 *	6.3111	31.8400	-1.1112	0.0023
12.9479	31.8400	-0.1190	0.0079 *	9.6364	31.8400	-0.8030	0.0063 *	6.2614	31.8400	-1.1122	0.0021
12.8989	31.8400	-0.1281	0.0079 *	9.5879	31.8400	-0.8115	0.0064 *	6.2097	31.8400	-1.1132	0.0018
12.8492	31.8400	-0.1376	0.0077 *	9.5374	31.8400	-0.8202	0.0065 *	6.1578	31.8400	-1.1140	0.0018
12.8001	31.8400	-0.1469	0.0076 *	9.4870	31.8400	-0.8287	0.0066 *	6.1077	31.8400	-1.1147	0.0017
12.7507	31.8400	-0.1564	0.0076 *	9.4364	31.8400	-0.8373	0.0064 *	6.0571	31.8400	-1.1155	0.0015
12.7012	31.8400	-0.1659	0.0076 *	9.3868	31.8400	-0.8454	0.0064 *	6.0068	31.8400	-1.1159	0.0016

Table A11. Concluded

	Lower Surface	y = 31.84 inches	
x	y	z	Dev
5.9556	31.8400	-1.1166	0.0015
5.9046	31.8400	-1.1170	0.0015
5.8544	31.8400	-1.1175	0.0014
5.8032	31.8400	-1.1179	0.0013
5.7535	31.8400	-1.1181	0.0014
5.7021	31.8400	-1.1183	0.0014
5.6513	31.8400	-1.1184	0.0015
5.6005	31.8400	-1.1184	0.0016
5.5501	31.8400	-1.1185	0.0016
5.5005	31.8400	-1.1184	0.0017
5.4497	31.8400	-1.1182	0.0018
5.3989	31.8400	-1.1179	0.0019
5.3469	31.8400	-1.1176	0.0019
5.2967	31.8400	-1.1172	0.0018
5.2469	31.8400	-1.1167	0.0017
5.1961	31.8400	-1.1162	0.0016
5.1451	31.8400	-1.1155	0.0015
5.0953	31.8400	-1.1149	0.0013
5.0440	31.8400	-1.1141	0.0011
4.9942	31.8400	-1.1132	0.0011
4.9429	31.8400	-1.1121	0.0011
4.8919	31.8400	-1.1111	0.0010
4.8414	31.8400	-1.1101	0.0010
4.7903	31.8400	-1.1089	0.0009
4.7393	31.8400	-1.1074	0.0012
4.6890	31.8400	-1.1062	0.0010
4.6386	31.8400	-1.1048	0.0010
4.5872	31.8400	-1.1034	0.0009
4.5367	31.8400	-1.1018	0.0009
4.4859	31.8400	-1.1000	0.0010
4.4358	31.8400	-1.0984	0.0008
4.3848	31.8400	-1.0966	0.0007
4.3337	31.8400	-1.0946	0.0007
4.2833	31.8400	-1.0927	0.0005
4.2324	31.8400	-1.0906	0.0004
4.1817	31.8400	-1.0884	0.0003
4.1321	31.8400	-1.0862	0.0002
4.0812	31.8400	-1.0839	0.0001
4.0296	31.8400	-1.0815	0.0001
3.9800	31.8400	-1.0792	0.0002
3.9293	31.8400	-1.0765	0.0001
3.8783	31.8400	-1.0739	0.0002
3.8267	31.8400	-1.0711	0.0002
3.7763	31.8400	-1.0683	0.0002
3.7255	31.8400	-1.0654	0.0001
3.6757	31.8400	-1.0625	0.0001
3.6247	31.8400	-1.0594	0.0001
3.5734	31.8400	-1.0562	0.0001
3.5228	31.8400	-1.0529	0.0001
3.4723	31.8400	-1.0496	0.0001
3.4208	31.8400	-1.0464	0.0001
3.3716	31.8400	-1.0428	0.0001
3.3210	31.8400	-1.0393	0.0000
3.2702	31.8400	-1.0356	0.0000
3.2201	31.8400	-1.0319	0.0001
3.1691	31.8400	-1.0281	0.0001
3.1179	31.8400	-1.0241	0.0001
3.0678	31.8400	-1.0200	0.0001
3.0161	31.8400	-1.0160	0.0004
2.9652	31.8400	-1.0114	0.0001
2.9153	31.8400	-1.0072	0.0003
2.8653	31.8400	-1.0029	0.0004
2.8141	31.8400	-0.9983	0.0005
2.7625	31.8400	-0.9935	0.0006
2.7126	31.8400	-0.9887	0.0006
2.6625	31.8400	-0.9839	0.0008
2.6128	31.8400	-0.9790	0.0009
2.5602	31.8400	-0.9737	0.0011
2.5090	31.8400	-0.9682	0.0010
2.4585	31.8400	-0.9630	0.0013
2.4090	31.8400	-0.9577	0.0014
2.3554	31.8400	-0.9518	0.0016
2.3044	31.8400	-0.9458	0.0016
2.2537	31.8400	-0.9399	0.0016
2.2009	31.8400	-0.9336	0.0016
2.1499	31.8400	-0.9274	0.0017
2.0976	31.8400	-0.9208	0.0017
2.0465	31.8400	-0.9142	0.0017
1.9971	31.8400	-0.9078	0.0019
1.9966	31.8400	-0.9076	0.0018
1.9807	31.8400	-0.9056	0.0020
1.9601	31.8400	-0.9028	0.0020
1.9383	31.8400	-0.8999	0.0020
1.9172	31.8400	-0.8969	0.0020
1.8962	31.8400	-0.8940	0.0020
1.8754	31.8400	-0.8912	0.0021
1.8545	31.8400	-0.8882	0.0022
1.8350	31.8400	-0.8855	0.0023
1.8134	31.8400	-0.8823	0.0023
1.7926	31.8400	-0.8792	0.0023
1.7732	31.8400	-0.8765	0.0024
1.7539	31.8400	-0.8735	0.0024
1.7331	31.8400	-0.8703	0.0024
1.7123	31.8400	-0.8672	0.0025
1.6943	31.8400	-0.8645	0.0025
1.6734	31.8400	-0.8612	0.0026
1.6542	31.8400	-0.8582	0.0026
1.6352	31.8400	-0.8553	0.0028
1.6155	31.8400	-0.8523	0.0030
1.5965	31.8400	-0.8491	0.0029
1.5771	31.8400	-0.8460	0.0030
1.5582	31.8400	-0.8428	0.0030
1.5384	31.8400	-0.8395	0.0030
1.5195	31.8400	-0.8363	0.0030
1.5005	31.8400	-0.8330	0.0030
1.4814	31.8400	-0.8297	0.0031
1.4627	31.8400	-0.8265	0.0032
1.4436	31.8400	-0.8232	0.0033
1.4247	31.8400	-0.8199	0.0034
1.4056	31.8400	-0.8165	0.0035
1.3874	31.8400	-0.8132	0.0036
1.3678	31.8400	-0.8096	0.0036
1.3489	31.8400	-0.8061	0.0037
1.3288	31.8400	-0.8023	0.0037
1.3094	31.8400	-0.7985	0.0037
1.2906	31.8400	-0.7949	0.0038
1.2726	31.8400	-0.7914	0.0039
1.2539	31.8400	-0.7877	0.0040
1.2339	31.8400	-0.7838	0.0041
1.2148	31.8400	-0.7799	0.0042
1.1958	31.8400	-0.7760	0.0043
1.1769	31.8400	-0.7721	0.0044
1.1577	31.8400	-0.7680	0.0044
1.1393	31.8400	-0.7643	0.0047
1.1199	31.8400	-0.7601	0.0047
1.1009	31.8400	-0.7557	0.0047
1.0826	31.8400	-0.7516	0.0047
1.0635	31.8400	-0.7473	0.0049
1.0448	31.8400	-0.7430	0.0049
1.0259	31.8400	-0.7387	0.0051 *
1.0069	31.8400	-0.7341	0.0052 *
0.9874	31.8400	-0.7294	0.0052 *
0.9688	31.8400	-0.7248	0.0053 *
0.9505	31.8400	-0.7202	0.0053 *
0.9319	31.8400	-0.7156	0.0055 *
0.9127	31.8400	-0.7106	0.0055 *
0.8944	31.8400	-0.7056	0.0054 *
0.8748	31.8400	-0.7007	0.0058 *
0.8563	31.8400	-0.6956	0.0058 *
0.8378	31.8400	-0.6905	0.0059 *
0.8187	31.8400	-0.6852	0.0060 *
0.7996	31.8400	-0.6797	0.0060 *
0.7818	31.8400	-0.6745	0.0060 *
0.7627	31.8400	-0.6689	0.0061 *
0.7439	31.8400	-0.6632	0.0061 *
0.7248	31.8400	-0.6572	0.0061 *
0.7066	31.8400	-0.6515	0.0061 *
0.6881	31.8400	-0.6454	0.0061 *
0.6688	31.8400	-0.6391	0.0061 *
0.6509	31.8400	-0.6330	0.0061 *
0.6330	31.8400	-0.6268	0.0062 *
0.6138	31.8400	-0.6199	0.0061 *
0.5948	31.8400	-0.6131	0.0062 *
0.5769	31.8400	-0.6064	0.0062 *
0.5584	31.8400	-0.5991	0.0061 *
0.5395	31.8400	-0.5917	0.0061 *
0.5210	31.8400	-0.5842	0.0061 *
0.5034	31.8400	-0.5767	0.0061 *
0.4858	31.8400	-0.5692	0.0061 *
0.4672	31.8400	-0.5609	0.0060 *
0.4503	31.8400	-0.5532	0.0060 *
0.4324	31.8400	-0.5447	0.0059 *
0.4142	31.8400	-0.5358	0.0059 *
0.3982	31.8400	-0.5278	0.0058 *
0.3813	31.8400	-0.5190	0.0058 *
0.3642	31.8400	-0.5099	0.0056 *
0.3465	31.8400	-0.5001	0.0056 *
0.3299	31.8400	-0.4906	0.0056 *
0.3124	31.8400	-0.4803	0.0055 *
0.2962	31.8400	-0.4703	0.0054 *
0.2793	31.8400	-0.4596	0.0054 *
0.2627	31.8400	-0.4487	0.0054 *
0.2463	31.8400	-0.4374	0.0054 *
0.2305	31.8400	-0.4260	0.0054 *
0.2147	31.8400	-0.4141	0.0054 *
0.1995	31.8400	-0.4020	0.0054 *
0.1852	31.8400	-0.3902	0.0055 *
0.1703	31.8400	-0.3770	0.0055 *
0.1554	31.8400	-0.3633	0.0055 *
0.1401	31.8400	-0.3480	0.0055 *
0.1216	31.8400	-0.3281	0.0054 *
0.1140	31.8400	-0.3195	0.0055 *
0.1014	31.8400	-0.3041	0.0054 *
0.0900	31.8400	-0.2889	0.0052 *
0.0789	31.8400	-0.2731	0.0051 *
0.0675	31.8400	-0.2553	0.0050
0.0578	31.8400	-0.2386	0.0048
0.0488	31.8400	-0.2212	0.0045
0.0401	31.8400	-0.2025	0.0041
0.0325	31.8400	-0.1846	0.0039
0.0253	31.8400	-0.1658	0.0038
0.0185	31.8400	-0.1459	0.0038
0.0127	31.8400	-0.1262	0.0038
0.0079	31.8400	-0.1065	0.0037
0.0039	31.8400	-0.0859	0.0036
0.0010	31.8400	-0.0673	0.0036
-0.0011	31.8400	-0.0474	0.0033
-0.0024	31.8400	-0.0273	0.0031

Table A12. Tip of Revolution Measurements

x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
-0.0643	32.0000	0.2402	-0.0031	-7.4781	32.0000	1.1099	-0.0035	-13.5948	32.0000	0.5032	0.0039
-0.0692	32.0747	0.2360	-0.0023	-7.4703	32.3356	1.0570	-0.0017	-13.6176	32.0789	0.4874	-0.0001
-0.0691	32.1442	0.2005	-0.0027	-7.4700	32.6405	0.9019	-0.0004	-13.6168	32.1514	0.4510	0.0028
-0.0686	32.1990	0.1457	-0.0036	-7.4703	32.8817	0.6605	0.0027	-13.6182	32.2086	0.3939	0.0052 *
-0.0675	32.2340	0.0769	-0.0048	-7.4700	33.0360	0.3575	0.0030	-13.6174	32.2459	0.3217	0.0077 *
-0.0666	32.2468	-0.0002	-0.0063 *	-7.4708	33.0894	0.0211	0.0036	-13.6181	32.2585	0.2420	0.0075 *
-0.0676	32.2342	-0.0768	-0.0060 *	-7.4705	33.0360	-0.3161	0.0010	-13.6173	32.2459	0.1608	0.0062 *
-0.0687	32.1992	-0.1457	-0.0055 *	-7.4702	32.8813	-0.6199	-0.0012	-13.6171	32.2088	0.0884	0.0021
-0.0691	32.1445	-0.2003	-0.0039	-7.4704	32.6401	-0.8608	-0.0041	-13.6167	32.1513	0.0313	-0.0017
-0.0693	32.0748	-0.2361	-0.0037	-7.4697	32.3359	-1.0156	-0.0057 *	-13.6167	32.0790	-0.0049	-0.0055 *
-0.0653	32.0000	-0.2420	-0.0080 *	-7.4760	32.0000	-1.0683	-0.0102 *	-13.5979	32.0000	-0.0195	-0.0104 *
-0.3654	32.0000	0.5041	0.0011	-8.3596	32.0000	1.0801	-0.0030	-14.5045	32.0000	0.3476	0.0031
-0.3888	32.1581	0.4913	-0.0040	-8.3629	32.3192	1.0294	-0.0014	-14.4931	32.0427	0.3431	0.0018
-0.3886	32.3030	0.4185	-0.0050 *	-8.3618	32.6086	0.8823	-0.0003	-14.4930	32.0821	0.3233	0.0048
-0.3884	32.4172	0.3048	-0.0041	-8.3632	32.8380	0.6529	0.0028	-14.4932	32.1135	0.2921	0.0072 *
-0.3886	32.4908	0.1603	-0.0026	-8.3624	32.9849	0.3646	0.0035	-14.4936	32.1338	0.2527	0.0090 *
-0.3876	32.5164	-0.0004	-0.0020	-8.3634	33.0358	0.0445	0.0035	-14.4937	32.1408	0.2094	0.0094 *
-0.3885	32.4908	-0.1602	-0.0018	-8.3636	32.9850	-0.2759	0.0009	-14.4936	32.1339	0.1646	0.0074 *
-0.3886	32.4174	-0.3046	-0.0029	-8.3633	32.8384	-0.5641	-0.0013	-14.4931	32.1136	0.1252	0.0028
-0.3885	32.3030	-0.4184	-0.0046	-8.3638	32.6086	-0.7941	-0.0047	-14.4933	32.0824	0.0942	-0.0014
-0.3888	32.1581	-0.4913	-0.0035	-8.3630	32.3193	-0.9415	-0.0056 *	-14.4934	32.0427	0.0742	-0.0079 *
-0.3658	32.0000	-0.5043	-0.0030	-8.3632	32.0000	-0.9923	-0.0105 *	-14.5030	32.0000	0.0680	-0.0121 *
-1.1783	32.0000	0.7660	-0.0022	-9.2474	32.0000	1.0315	-0.0016	-15.0142	32.0000	0.2550	0.0176 *
-1.1858	32.2362	0.7302	-0.0031	-9.2385	32.2936	0.9857	-0.0016	-14.9651	32.0288	0.2598	0.0021
-1.1860	32.4511	0.6211	-0.0037	-9.2384	32.5605	0.8501	-0.0001	-14.9653	32.0558	0.2464	0.0050 *
-1.1865	32.6213	0.4513	-0.0023	-9.2385	32.7715	0.6391	0.0021	-14.9651	32.0776	0.2250	0.0083 *
-1.1853	32.7304	0.2370	-0.0001	-9.2393	32.9070	0.3730	0.0046	-14.9647	32.0915	0.1981	0.0110 *
-1.1855	32.7684	-0.0008	0.0002	-9.2395	32.9538	0.0786	0.0037	-14.9656	32.0962	0.1684	0.0121 *
-1.1862	32.7307	-0.2387	0.0006	-9.2384	32.9070	-0.2167	0.0014	-14.9653	32.0914	0.1377	0.0085 *
-1.1862	32.6213	-0.4531	-0.0021	-9.2389	32.7716	-0.4824	-0.0021	-14.9654	32.0775	0.1108	0.0040
-1.1869	32.4510	-0.6233	-0.0046	-9.2392	32.5605	-0.6932	-0.0051 *	-14.9649	32.0561	0.0896	-0.0012
-1.1864	32.2364	-0.7322	-0.0046	-9.2388	32.2935	-0.8288	-0.0055 *	-14.9636	32.0288	0.0760	-0.0086 *
-1.1785	32.0000	-0.7680	-0.0066 *	-9.2493	32.0000	-0.8733	-0.0095 *	-15.0095	32.0000	0.0702	0.0020
-2.0654	32.0000	0.9086	-0.0024	-10.1468	32.0000	0.9570	0.0054 *	-15.3592	32.0000	0.1877	0.0136 *
-2.0617	32.2802	0.8637	-0.0025	-10.1147	32.2589	0.9191	-0.0013	-15.4030	32.0198	0.1760	0.0010
-2.0617	32.5351	0.7342	-0.0025	-10.1149	32.4931	0.8001	0.0004	-15.4032	32.0387	0.1666	0.0055 *
-2.0621	32.7369	0.5327	-0.0019	-10.1150	32.6799	0.6136	0.0008	-15.4033	32.0536	0.1520	0.0096 *
-2.0613	32.8663	0.2785	0.0013	-10.1145	32.7993	0.3797	0.0038	-15.4026	32.0634	0.1334	0.0128 *
-2.0617	32.8663	-0.2852	0.0009	-10.1150	32.8406	0.1198	-0.0028	-15.4033	32.0667	0.1128	0.0140 *
-2.0620	32.7368	-0.5391	-0.0014	-10.1143	32.7994	-0.1408	0.0002	-15.4030	32.0634	0.0912	0.0106 *
-2.0619	32.5351	-0.7406	-0.0026	-10.1147	32.6799	-0.3749	-0.0026	-15.4017	32.0535	0.0724	0.0058 *
-2.0619	32.2806	-0.8699	-0.0026	-10.1147	32.4934	-0.5612	-0.0058 *	-15.4016	32.0386	0.0578	0.0001
-2.0648	32.0000	-0.9148	-0.0082 *	-10.1147	32.2589	-0.6804	-0.0071 *	-15.4016	32.0197	0.0485	-0.0075 *
				-10.1462	32.0000	-0.7152	-0.0043	-15.3605	32.0000	0.0491	0.0006
-3.3043	32.0000	1.0267	0.0066 *	-10.9852	32.0000	0.8702	-0.0018	-15.8895	32.0000	0.0771	0.0549 *
-3.3420	32.3186	0.9790	-0.0032	-10.9904	32.2163	0.8354	-0.0025	-16.0000	32.0017	0.0528	-0.0088 *
-3.3419	32.6082	0.8319	-0.0020	-10.9901	32.4134	0.7352	0.0006	-16.0000	32.0054	0.0525	0.0045
-3.3420	32.8370	0.6034	0.0006	-10.9905	32.5692	0.5794	0.0006	-16.0000	32.0385	0.0335	0.0033
-3.3422	32.9842	0.3147	0.0013	-10.9901	32.6694	0.3833	0.0024	-16.0000	32.0455	0.0201	0.0064 *
-3.3419	33.0351	-0.0053	0.0030	-10.9898	32.7041	0.1657	0.0041	-16.0000	32.0480	0.0051	0.0074 *
-3.3417	32.9842	-0.3254	0.0011	-10.9912	32.6691	-0.0527	0.0004	-15.9992	32.0455	-0.0104	0.0023
-3.3420	32.8373	-0.6138	0.0001	-10.9908	32.5692	-0.2487	-0.0024	-15.9993	32.0385	-0.0237	-0.0027
-3.3428	32.6082	-0.8430	-0.0021	-10.9907	32.4132	-0.4045	-0.0061 *	-15.9990	32.0276	-0.0343	-0.0062 *
-3.3421	32.3190	-0.9901	-0.0028	-10.9902	32.2164	-0.5046	-0.0068 *	-15.9992	32.0139	-0.0410	-0.0093 *
-3.3077	32.0000	-1.0383	-0.0011	-10.9891	32.0000	-0.5391	-0.0107 *	-15.8872	32.0000	-0.0218	0.0551 *
-4.7076	32.0000	1.0980	-0.0024	-11.8756	32.0000	0.7588	-0.0016				
-4.7151	32.3398	1.0442	-0.0025	-11.8662	32.1700	0.7334	-0.0019				
-4.7149	32.6478	0.8875	-0.0017	-11.8662	32.3245	0.6552	0.0010				
-4.7155	32.8920	0.6434	0.0011	-11.8659	32.4473	0.5328	0.0023				
-4.7146	33.0486	0.3361	0.0023	-11.8661	32.5258	0.3790	0.0040				
-4.7152	33.1029	-0.0047	0.0030	-11.8665	32.5531	0.2080	0.0049				
-4.7149	33.0486	-0.3461	0.0004	-11.8662	32.5258	0.0357	0.0022				
-4.7149	32.8922	-0.6532	0.0006	-11.8656	32.4473	-0.1182	-0.0001				
-4.7150	32.6482	-0.8972	-0.0027	-11.8664	32.3246	-0.2405	-0.0036				
-4.7153	32.3398	-1.0541	-0.0039	-11.8665	32.1700	-0.3191	-0.0044				
-4.7087	32.0000	-1.1078	-0.0090 *	-11.8769	32.0000	-0.3437	-0.0090 *				
-6.1651	32.0000	1.1226	-0.0016	-12.7963	32.0000	0.6280	0.0163 *				
-6.1552	32.3449	1.0683	-0.0013	-12.7420	32.1227	0.6169	-0.0013				
-6.1553	32.6578	0.9096	-0.0013	-12.7419	32.2351	0.5599	0.0019				
-6.1552	32.9060	0.6618	0.0011	-12.7421	32.3241	0.4711	0.0041				
-6.1556	33.0649	0.3499	0.0029	-12.7419	32.3811	0.3596	0.0065 *				
-6.1563	33.1201	0.0036	0.0036	-12.7422	32.4009	0.2356	0.0066 *				
-6.1566	33.0650	-0.3431	0.0005	-12.7423	32.3811	0.1107	0.0033				
-6.1562	32.9062	-0.6548	-0.0006	-12.7416	32.3239	-0.0012	0.0002				
-6.1562	32.6581	-0.9042	-0.0033	-12.7417	32.2351	-0.0897	-0.0033				
-6.1567	32.3452	-1.0658	-0.0065 *	-12.7416	32.1229	-0.1466	-0.0053 *				
-6.1621	32.0000	-1.1231	-0.0158 *	-12.7926	32.0000	-0.1561	0.0065 *				

Table A13. Spanwise Airfoil Measurements at $x = 0.8$ in.

Upper Surface x=.8 Inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7920	0.0963	0.6730	0.0020	0.7921	3.2091	0.6720	0.0010	0.7922	6.3081	0.6718	0.0008
0.7922	0.1485	0.6730	0.0020	0.7922	3.2561	0.6720	0.0010	0.7923	6.3548	0.6719	0.0009
0.7922	0.1956	0.6729	0.0019	0.7922	3.3032	0.6719	0.0009	0.7924	6.4017	0.6719	0.0009
0.7922	0.2426	0.6730	0.0020	0.7922	3.3503	0.6720	0.0010	0.7923	6.4487	0.6719	0.0009
0.7922	0.2897	0.6728	0.0018	0.7922	3.3973	0.6719	0.0009	0.7923	6.4956	0.6719	0.0009
0.7922	0.3367	0.6726	0.0016	0.7922	3.4443	0.6719	0.0009	0.7924	6.5425	0.6719	0.0009
0.7921	0.3840	0.6728	0.0018	0.7921	3.4914	0.6719	0.0009	0.7926	6.5892	0.6719	0.0009
0.7922	0.4311	0.6726	0.0016	0.7922	3.5384	0.6719	0.0009	0.7925	6.6361	0.6719	0.0009
0.7921	0.4782	0.6726	0.0016	0.7921	3.5856	0.6720	0.0010	0.7926	6.6830	0.6720	0.0010
0.7923	0.5252	0.6724	0.0014	0.7921	3.6326	0.6720	0.0010	0.7928	6.7298	0.6720	0.0010
0.7922	0.5724	0.6723	0.0013	0.7922	3.6796	0.6719	0.0009	0.7927	6.7767	0.6719	0.0009
0.7921	0.6196	0.6723	0.0013	0.7921	3.7266	0.6720	0.0010	0.7924	6.8235	0.6718	0.0008
0.7923	0.6667	0.6723	0.0013	0.7922	3.7736	0.6721	0.0011	0.7925	6.8703	0.6720	0.0010
0.7923	0.7137	0.6722	0.0012	0.7919	3.8205	0.6720	0.0010	0.7925	6.9173	0.6719	0.0009
0.7922	0.7607	0.6721	0.0011	0.7921	3.8675	0.6721	0.0011	0.7925	6.9640	0.6719	0.0009
0.7923	0.8077	0.6720	0.0010	0.7922	3.9147	0.6721	0.0011	0.7926	7.0108	0.6719	0.0009
0.7921	0.8547	0.6718	0.0008	0.7923	3.9619	0.6722	0.0012	0.7926	7.0575	0.6720	0.0010
0.7918	0.9018	0.6718	0.0008	0.7923	4.0089	0.6722	0.0012	0.7926	7.1043	0.6720	0.0010
0.7922	0.9488	0.6718	0.0008	0.7923	4.0560	0.6722	0.0012	0.7927	7.1511	0.6721	0.0011
0.7920	0.9959	0.6718	0.0008	0.7923	4.1030	0.6721	0.0011	0.7927	7.1980	0.6719	0.0009
0.7923	1.0428	0.6715	0.0005	0.7919	4.1500	0.6721	0.0011	0.7927	7.2447	0.6721	0.0011
0.7921	1.0900	0.6714	0.0004	0.7922	4.1970	0.6723	0.0013	0.7927	7.2914	0.6720	0.0010
0.7916	1.1371	0.6714	0.0004	0.7920	4.2441	0.6722	0.0012	0.7927	7.3380	0.6721	0.0011
0.7915	1.1841	0.6713	0.0003	0.7923	4.2912	0.6722	0.0012	0.7928	7.3848	0.6720	0.0010
0.7915	1.2312	0.6712	0.0002	0.7923	4.3383	0.6723	0.0013	0.7928	7.4317	0.6719	0.0009
0.7914	1.2783	0.6711	0.0001	0.7919	4.3853	0.6722	0.0012	0.7927	7.4784	0.6720	0.0010
0.7912	1.3255	0.6711	0.0001	0.7920	4.4323	0.6723	0.0013	0.7928	7.5252	0.6720	0.0010
0.7915	1.3725	0.6710	0.0000	0.7922	4.4795	0.6722	0.0012	0.7928	7.5719	0.6720	0.0010
0.7914	1.4195	0.6709	-0.0001	0.7922	4.5264	0.6722	0.0012	0.7928	7.6186	0.6719	0.0009
0.7912	1.4665	0.6713	0.0003	0.7921	4.5734	0.6723	0.0013	0.7929	7.6655	0.6720	0.0010
0.7912	1.5134	0.6714	0.0004	0.7922	4.6205	0.6723	0.0013	0.7930	7.7122	0.6721	0.0011
0.7913	1.5605	0.6713	0.0003	0.7922	4.6676	0.6723	0.0013	0.7928	7.7591	0.6720	0.0010
0.7913	1.6076	0.6714	0.0004	0.7920	4.7148	0.6722	0.0012	0.7930	7.8058	0.6720	0.0010
0.7914	1.6548	0.6715	0.0005	0.7919	4.7618	0.6721	0.0011	0.7931	7.8526	0.6721	0.0011
0.7914	1.7020	0.6715	0.0005	0.7920	4.8088	0.6722	0.0012	0.7933	7.8995	0.6721	0.0011
0.7914	1.7492	0.6716	0.0006	0.7918	4.8556	0.6721	0.0011	0.7930	7.9463	0.6721	0.0011
0.7914	1.7965	0.6717	0.0007	0.7919	4.9025	0.6721	0.0011	0.7932	7.9929	0.6720	0.0010
0.7915	1.8437	0.6718	0.0008	0.7918	4.9495	0.6720	0.0010	0.7933	8.0398	0.6721	0.0011
0.7915	1.8906	0.6719	0.0009	0.7918	4.9965	0.6720	0.0010	0.7933	8.0867	0.6721	0.0011
0.7916	1.9376	0.6722	0.0012	0.7919	5.0434	0.6721	0.0011	0.7931	8.1337	0.6720	0.0010
0.7917	1.9845	0.6723	0.0013	0.7918	5.0904	0.6720	0.0010	0.7934	8.1804	0.6720	0.0010
0.7918	2.0316	0.6723	0.0013	0.7919	5.1373	0.6719	0.0009	0.7931	8.2273	0.6720	0.0010
0.7918	2.0787	0.6726	0.0016	0.7919	5.1842	0.6720	0.0010	0.7931	8.2742	0.6720	0.0010
0.7918	2.1259	0.6727	0.0017	0.7919	5.2313	0.6721	0.0011	0.7931	8.3211	0.6721	0.0011
0.7919	2.1730	0.6727	0.0017	0.7919	5.2783	0.6721	0.0011	0.7930	8.3680	0.6721	0.0011
0.7918	2.2202	0.6730	0.0020	0.7919	5.3252	0.6720	0.0010	0.7930	8.4148	0.6720	0.0010
0.7920	2.2671	0.6731	0.0021	0.7919	5.3720	0.6719	0.0009	0.7931	8.4615	0.6721	0.0011
0.7920	2.3141	0.6732	0.0022	0.7919	5.4190	0.6719	0.0009	0.7932	8.5085	0.6721	0.0011
0.7920	2.3611	0.6733	0.0023	0.7919	5.4658	0.6720	0.0010	0.7931	8.5552	0.6721	0.0011
0.7921	2.4082	0.6733	0.0023	0.7920	5.5127	0.6720	0.0010	0.7931	8.6020	0.6720	0.0010
0.7921	2.4552	0.6734	0.0024	0.7919	5.5596	0.6719	0.0009	0.7930	8.6489	0.6720	0.0010
0.7921	2.5022	0.6735	0.0025	0.7920	5.6064	0.6719	0.0009	0.7930	8.6956	0.6720	0.0010
0.7921	2.5492	0.6737	0.0027	0.7920	5.6533	0.6720	0.0010	0.7930	8.7426	0.6720	0.0010
0.7922	2.5962	0.6737	0.0027	0.7919	5.7001	0.6719	0.0009	0.7928	8.7894	0.6720	0.0010
0.7922	2.6433	0.6736	0.0026	0.7920	5.7468	0.6719	0.0009	0.7929	8.8362	0.6719	0.0009
0.7922	2.6903	0.6737	0.0027	0.7919	5.7936	0.6719	0.0009	0.7928	8.8831	0.6719	0.0009
0.7922	2.7373	0.6739	0.0029	0.7919	5.8405	0.6719	0.0009	0.7930	8.9301	0.6721	0.0011
0.7922	2.7843	0.6739	0.0029	0.7921	5.8871	0.6720	0.0010	0.7928	8.9768	0.6720	0.0010
0.7922	2.8313	0.6738	0.0028	0.7922	5.9338	0.6719	0.0009	0.7928	9.0236	0.6719	0.0009
0.7922	2.8784	0.6740	0.0030	0.7921	5.9805	0.6719	0.0009	0.7928	9.0705	0.6719	0.0009
0.7922	2.9254	0.6741	0.0031	0.7921	6.0272	0.6719	0.0009	0.7928	9.1175	0.6719	0.0009
0.7921	2.9725	0.6741	0.0031	0.7921	6.0739	0.6720	0.0010	0.7927	9.1642	0.6719	0.0009
0.7922	3.0196	0.6740	0.0030	0.7921	6.1209	0.6719	0.0009	0.7928	9.2111	0.6719	0.0009
0.7920	3.0666	0.6721	0.0011	0.7922	6.1677	0.6719	0.0009	0.7926	9.2582	0.6718	0.0008
0.7921	3.1150	0.6721	0.0011	0.7924	6.2144	0.6719	0.0009	0.7928	9.3050	0.6719	0.0009
0.7922	3.1620	0.6721	0.0011	0.7922	6.2613	0.6719	0.0009	0.7928	9.3520	0.6719	0.0009
0.7922	3.2091	0.6720	0.0010	0.7922	6.3081	0.6718	0.0008	0.7926	9.3989	0.6718	0.0008

Upper Surface x=.8 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7926	9.4457	0.6718	0.0008	0.7914	12.5826	0.6708	-0.0002	0.7914	15.7221	0.6712	0.0002
0.7924	9.4928	0.6717	0.0007	0.7913	12.6293	0.6707	-0.0003	0.7914	15.7691	0.6712	0.0002
0.7924	9.5396	0.6717	0.0007	0.7913	12.6763	0.6707	-0.0003	0.7914	15.8159	0.6713	0.0003
0.7922	9.5866	0.6717	0.0007	0.7913	12.7229	0.6706	-0.0004	0.7914	15.8628	0.6712	0.0002
0.7923	9.6335	0.6717	0.0007	0.7913	12.7696	0.6705	-0.0005	0.7915	15.9096	0.6713	0.0003
0.7920	9.6803	0.6717	0.0007	0.7913	12.8166	0.6706	-0.0004	0.7915	15.9565	0.6712	0.0002
0.7922	9.7272	0.6716	0.0006	0.7913	12.8634	0.6705	-0.0005	0.7916	16.0033	0.6712	0.0002
0.7921	9.7742	0.6716	0.0006	0.7914	12.9103	0.6706	-0.0004	0.7915	16.0501	0.6713	0.0003
0.7921	9.8209	0.6716	0.0006	0.7913	12.9573	0.6704	-0.0006	0.7915	16.0971	0.6714	0.0004
0.7914	9.8678	0.6714	0.0004	0.7914	13.0040	0.6706	-0.0004	0.7914	16.1440	0.6712	0.0002
0.7915	9.9148	0.6714	0.0004	0.7914	13.0509	0.6706	-0.0004	0.7915	16.1909	0.6712	0.0002
0.7914	9.9616	0.6713	0.0003	0.7914	13.0978	0.6705	-0.0005	0.7915	16.2379	0.6713	0.0003
0.7918	10.0083	0.6715	0.0005	0.7914	13.1448	0.6705	-0.0005	0.7913	16.2847	0.6712	0.0002
0.7916	10.0551	0.6715	0.0005	0.7913	13.1915	0.6705	-0.0005	0.7914	16.3317	0.6712	0.0002
0.7914	10.1021	0.6714	0.0004	0.7913	13.2385	0.6704	-0.0006	0.7913	16.3787	0.6712	0.0002
0.7915	10.1489	0.6714	0.0004	0.7914	13.2854	0.6706	-0.0004	0.7913	16.4256	0.6712	0.0002
0.7913	10.1956	0.6713	0.0003	0.7914	13.3324	0.6706	-0.0004	0.7914	16.4726	0.6712	0.0002
0.7915	10.2425	0.6714	0.0004	0.7912	13.3794	0.6705	-0.0005	0.7913	16.5196	0.6712	0.0002
0.7914	10.2893	0.6713	0.0003	0.7912	13.4261	0.6706	-0.0004	0.7913	16.5665	0.6712	0.0002
0.7913	10.3360	0.6714	0.0004	0.7913	13.4729	0.6706	-0.0004	0.7912	16.6134	0.6711	0.0001
0.7912	10.3828	0.6713	0.0003	0.7913	13.5197	0.6706	-0.0004	0.7912	16.6603	0.6712	0.0002
0.7913	10.4297	0.6713	0.0003	0.7913	13.5665	0.6705	-0.0005	0.7913	16.7074	0.6713	0.0003
0.7914	10.4764	0.6714	0.0004	0.7913	13.6133	0.6706	-0.0004	0.7914	16.7543	0.6712	0.0002
0.7913	10.5232	0.6714	0.0004	0.7913	13.6601	0.6707	-0.0003	0.7914	16.8011	0.6713	0.0003
0.7914	10.5699	0.6713	0.0003	0.7913	13.7070	0.6707	-0.0003	0.7915	16.8482	0.6713	0.0003
0.7914	10.6167	0.6713	0.0003	0.7913	13.7538	0.6706	-0.0004	0.7913	16.8952	0.6713	0.0003
0.7914	10.6634	0.6713	0.0003	0.7912	13.8008	0.6706	-0.0004	0.7913	16.9420	0.6713	0.0003
0.7914	10.7101	0.6713	0.0003	0.7914	13.8477	0.6707	-0.0003	0.7913	16.9890	0.6712	0.0002
0.7915	10.7568	0.6714	0.0004	0.7911	13.8946	0.6707	-0.0003	0.7913	17.0359	0.6712	0.0002
0.7915	10.8035	0.6712	0.0002	0.7913	13.9416	0.6708	-0.0002	0.7912	17.0829	0.6713	0.0003
0.7914	10.8502	0.6713	0.0003	0.7913	13.9884	0.6707	-0.0003	0.7913	17.1300	0.6713	0.0003
0.7914	10.8969	0.6713	0.0003	0.7912	14.0354	0.6708	-0.0002	0.7913	17.1770	0.6712	0.0002
0.7914	10.9437	0.6713	0.0003	0.7912	14.0824	0.6708	-0.0002	0.7912	17.2240	0.6712	0.0002
0.7913	10.9904	0.6713	0.0003	0.7911	14.1292	0.6708	-0.0002	0.7912	17.2709	0.6713	0.0003
0.7915	11.0371	0.6712	0.0002	0.7912	14.1763	0.6708	-0.0002	0.7911	17.3182	0.6712	0.0002
0.7914	11.0838	0.6712	0.0002	0.7912	14.2232	0.6708	-0.0002	0.7912	17.3650	0.6712	0.0002
0.7914	11.1307	0.6712	0.0002	0.7912	14.2702	0.6709	-0.0001	0.7912	17.4121	0.6713	0.0003
0.7915	11.1775	0.6713	0.0003	0.7911	14.3171	0.6709	-0.0001	0.7913	17.4593	0.6713	0.0003
0.7913	11.2242	0.6712	0.0002	0.7911	14.3641	0.6709	-0.0001	0.7913	17.5062	0.6713	0.0003
0.7914	11.2709	0.6713	0.0003	0.7912	14.4110	0.6709	-0.0001	0.7913	17.5533	0.6713	0.0003
0.7914	11.3178	0.6713	0.0003	0.7912	14.4578	0.6709	-0.0001	0.7914	17.6003	0.6713	0.0003
0.7914	11.3646	0.6713	0.0003	0.7913	14.5049	0.6710	0.0000	0.7913	17.6474	0.6713	0.0003
0.7914	11.4113	0.6712	0.0002	0.7912	14.5518	0.6709	-0.0001	0.7914	17.6945	0.6713	0.0003
0.7914	11.4579	0.6712	0.0002	0.7913	14.5987	0.6710	0.0000	0.7914	17.7414	0.6713	0.0003
0.7914	11.5048	0.6712	0.0002	0.7912	14.6457	0.6711	0.0001	0.7913	17.7885	0.6712	0.0002
0.7913	11.5516	0.6712	0.0002	0.7912	14.6926	0.6711	0.0001	0.7914	17.8356	0.6713	0.0003
0.7913	11.5983	0.6712	0.0002	0.7911	14.7396	0.6710	0.0000	0.7914	17.8826	0.6713	0.0003
0.7912	11.6452	0.6711	0.0001	0.7911	14.7867	0.6710	0.0000	0.7914	17.9294	0.6713	0.0003
0.7913	11.6922	0.6711	0.0001	0.7911	14.8336	0.6711	0.0001	0.7914	17.9763	0.6712	0.0002
0.7913	11.7390	0.6712	0.0002	0.7911	14.8804	0.6710	0.0000	0.7914	18.0232	0.6712	0.0002
0.7913	11.7859	0.6711	0.0001	0.7911	14.9271	0.6710	0.0000	0.7915	18.0700	0.6712	0.0002
0.7913	11.8329	0.6711	0.0001	0.7912	14.9741	0.6710	0.0000	0.7915	18.1167	0.6714	0.0004
0.7913	11.8797	0.6710	0.0000	0.7911	15.0208	0.6711	0.0001	0.7915	18.1635	0.6713	0.0003
0.7914	11.9266	0.6711	0.0001	0.7911	15.0677	0.6711	0.0001	0.7916	18.2104	0.6713	0.0003
0.7914	11.9734	0.6711	0.0001	0.7912	15.1144	0.6712	0.0002	0.7916	18.2572	0.6714	0.0004
0.7914	12.0205	0.6711	0.0001	0.7912	15.1610	0.6710	0.0000	0.7916	18.3042	0.6714	0.0004
0.7913	12.0676	0.6710	0.0000	0.7912	15.2078	0.6711	0.0001	0.7917	18.3510	0.6713	0.0003
0.7913	12.1144	0.6710	0.0000	0.7912	15.2545	0.6712	0.0002	0.7916	18.3979	0.6713	0.0003
0.7913	12.1613	0.6710	0.0000	0.7912	15.3012	0.6712	0.0002	0.7916	18.4447	0.6713	0.0003
0.7913	12.2082	0.6710	0.0000	0.7912	15.3480	0.6711	0.0001	0.7917	18.4916	0.6713	0.0003
0.7913	12.2551	0.6710	0.0000	0.7913	15.3948	0.6712	0.0002	0.7918	18.5383	0.6714	0.0004
0.7913	12.3017	0.6709	-0.0001	0.7914	15.4415	0.6713	0.0003	0.7918	18.5850	0.6714	0.0004
0.7913	12.3485	0.6709	-0.0001	0.7914	15.4883	0.6712	0.0002	0.7918	18.6318	0.6714	0.0004
0.7913	12.3953	0.6709	-0.0001	0.7913	15.5350	0.6712	0.0002	0.7918	18.6786	0.6715	0.0005
0.7914	12.4421	0.6708	-0.0002	0.7913	15.5818	0.6712	0.0002	0.7918	18.7253	0.6715	0.0005
0.7913	12.4888	0.6708	-0.0002	0.7914	15.6285	0.6712	0.0002	0.7918	18.7720	0.6714	0.0004
0.7914	12.5356	0.6707	-0.0003	0.7914	15.6752	0.6712	0.0002	0.7919	18.8187	0.6714	0.0004

Table A13. Continued

Upper Surface x=.8 Inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7920	18.8655	0.6716	0.0006	0.7917	22.0034	0.6708	-0.0002	0.7921	25.1471	0.6704	-0.0006
0.7920	18.9123	0.6715	0.0005	0.7918	22.0501	0.6708	-0.0002	0.7920	25.1942	0.6703	-0.0007
0.7921	18.9593	0.6715	0.0005	0.7917	22.0968	0.6707	-0.0003	0.7920	25.2412	0.6702	-0.0008
0.7921	19.0061	0.6715	0.0005	0.7919	22.1437	0.6709	-0.0001	0.7919	25.2881	0.6702	-0.0008
0.7921	19.0530	0.6715	0.0005	0.7920	22.1904	0.6709	-0.0001	0.7919	25.3350	0.6702	-0.0008
0.7921	19.0998	0.6716	0.0006	0.7921	22.2374	0.6709	-0.0001	0.7920	25.3818	0.6702	-0.0008
0.7921	19.1468	0.6715	0.0005	0.7919	22.2844	0.6708	-0.0002	0.7920	25.4288	0.6702	-0.0008
0.7921	19.1936	0.6715	0.0005	0.7918	22.3313	0.6708	-0.0002	0.7920	25.4757	0.6701	-0.0009
0.7922	19.2405	0.6716	0.0006	0.7922	22.3784	0.6709	-0.0001	0.7920	25.5224	0.6700	-0.0010
0.7923	19.2876	0.6716	0.0006	0.7919	22.4255	0.6708	-0.0002	0.7920	25.5694	0.6700	-0.0010
0.7922	19.3344	0.6715	0.0005	0.7920	22.4724	0.6708	-0.0002	0.7920	25.6161	0.6698	-0.0012
0.7923	19.3813	0.6716	0.0006	0.7920	22.5193	0.6708	-0.0002	0.7919	25.6629	0.6698	-0.0012
0.7923	19.4284	0.6716	0.0006	0.7920	22.5663	0.6708	-0.0002	0.7918	25.7097	0.6697	-0.0013
0.7923	19.4752	0.6717	0.0007	0.7920	22.6133	0.6708	-0.0002	0.7919	25.7566	0.6694	-0.0016
0.7923	19.5221	0.6716	0.0006	0.7921	22.6603	0.6709	-0.0001	0.7920	25.8036	0.6695	-0.0015
0.7923	19.5689	0.6716	0.0006	0.7923	22.7075	0.6709	-0.0001	0.7919	25.8504	0.6693	-0.0017
0.7924	19.6160	0.6717	0.0007	0.7923	22.7545	0.6710	0.0000	0.7919	25.8972	0.6692	-0.0018
0.7924	19.6629	0.6716	0.0006	0.7919	22.8015	0.6708	-0.0002	0.7920	25.9439	0.6692	-0.0018
0.7923	19.7100	0.6716	0.0006	0.7919	22.8486	0.6709	-0.0001	0.7920	25.9906	0.6690	-0.0020
0.7923	19.7569	0.6715	0.0005	0.7919	22.8956	0.6708	-0.0002	0.7919	26.0373	0.6689	-0.0021
0.7924	19.8037	0.6716	0.0006	0.7920	22.9426	0.6708	-0.0002	0.7919	26.0841	0.6689	-0.0021
0.7923	19.8506	0.6716	0.0006	0.7919	22.9897	0.6708	-0.0002	0.7919	26.1310	0.6690	-0.0020
0.7922	19.8975	0.6715	0.0005	0.7920	23.0368	0.6709	-0.0001	0.7918	26.1777	0.6690	-0.0020
0.7921	19.9444	0.6715	0.0005	0.7921	23.0839	0.6709	-0.0001	0.7918	26.2243	0.6688	-0.0022
0.7921	19.9914	0.6715	0.0005	0.7920	23.1307	0.6707	-0.0003	0.7917	26.2710	0.6688	-0.0022
0.7921	20.0383	0.6715	0.0005	0.7921	23.1777	0.6709	-0.0001	0.7916	26.3177	0.6689	-0.0021
0.7920	20.0852	0.6715	0.0005	0.7921	23.2247	0.6709	-0.0001	0.7916	26.3645	0.6689	-0.0021
0.7922	20.1322	0.6715	0.0005	0.7920	23.2714	0.6710	0.0000	0.7916	26.4111	0.6689	-0.0021
0.7920	20.1789	0.6715	0.0005	0.7920	23.3184	0.6709	-0.0001	0.7916	26.4577	0.6689	-0.0021
0.7921	20.2257	0.6715	0.0005	0.7921	23.3653	0.6709	-0.0001	0.7916	26.5046	0.6692	-0.0018
0.7919	20.2726	0.6715	0.0005	0.7922	23.4121	0.6710	0.0000	0.7917	26.5513	0.6739	0.0029
0.7918	20.3194	0.6715	0.0005	0.7921	23.4590	0.6709	-0.0001	0.7917	26.5998	0.6741	0.0031
0.7918	20.3663	0.6714	0.0004	0.7921	23.5060	0.6709	-0.0001	0.7916	26.6481	0.6738	0.0028
0.7914	20.4131	0.6712	0.0002	0.7921	23.5528	0.6709	-0.0001	0.7916	26.6958	0.6738	0.0028
0.7916	20.4600	0.6712	0.0002	0.7923	23.5996	0.6709	-0.0001	0.7916	26.7425	0.6737	0.0027
0.7914	20.5069	0.6713	0.0003	0.7922	23.6464	0.6709	-0.0001	0.7917	26.7895	0.6735	0.0025
0.7917	20.5537	0.6714	0.0004	0.7921	23.6935	0.6709	-0.0001	0.7917	26.8365	0.6734	0.0024
0.7917	20.6006	0.6709	-0.0001	0.7921	23.7402	0.6708	-0.0002	0.7917	26.8835	0.6732	0.0022
0.7916	20.6476	0.6709	-0.0001	0.7922	23.7870	0.6709	-0.0001	0.7917	26.9303	0.6730	0.0020
0.7915	20.6944	0.6709	-0.0001	0.7921	23.8340	0.6709	-0.0001	0.7918	26.9773	0.6729	0.0019
0.7916	20.7411	0.6709	-0.0001	0.7922	23.8809	0.6709	-0.0001	0.7917	27.0243	0.6728	0.0018
0.7917	20.7879	0.6709	-0.0001	0.7923	23.9277	0.6708	-0.0002	0.7917	27.0712	0.6726	0.0016
0.7914	20.8345	0.6709	-0.0001	0.7922	23.9745	0.6708	-0.0002	0.7917	27.1182	0.6724	0.0014
0.7916	20.8813	0.6707	-0.0003	0.7922	24.0214	0.6708	-0.0002	0.7918	27.1651	0.6722	0.0012
0.7916	20.9281	0.6708	-0.0002	0.7923	24.0682	0.6708	-0.0002	0.7918	27.2120	0.6720	0.0010
0.7917	20.9749	0.6709	-0.0001	0.7922	24.1150	0.6708	-0.0002	0.7918	27.2589	0.6718	0.0008
0.7915	21.0216	0.6708	-0.0002	0.7922	24.1620	0.6707	-0.0003	0.7918	27.3058	0.6715	0.0005
0.7916	21.0684	0.6708	-0.0002	0.7922	24.2089	0.6707	-0.0003	0.7918	27.3527	0.6713	0.0003
0.7915	21.1150	0.6708	-0.0002	0.7922	24.2558	0.6708	-0.0002	0.7919	27.3995	0.6711	0.0001
0.7916	21.1617	0.6708	-0.0002	0.7923	24.3027	0.6707	-0.0003	0.7918	27.4465	0.6709	-0.0001
0.7916	21.2082	0.6707	-0.0003	0.7922	24.3494	0.6706	-0.0004	0.7919	27.4935	0.6707	-0.0003
0.7917	21.2551	0.6708	-0.0002	0.7922	24.3964	0.6706	-0.0004	0.7920	27.5404	0.6705	-0.0005
0.7915	21.3018	0.6707	-0.0003	0.7923	24.4434	0.6707	-0.0003	0.7919	27.5873	0.6701	-0.0009
0.7916	21.3484	0.6707	-0.0003	0.7922	24.4903	0.6706	-0.0004	0.7919	27.6347	0.6700	-0.0010
0.7916	21.3951	0.6708	-0.0002	0.7922	24.5372	0.6706	-0.0004	0.7920	27.6816	0.6697	-0.0013
0.7917	21.4418	0.6709	-0.0001	0.7922	24.5842	0.6705	-0.0005	0.7919	27.7289	0.6694	-0.0016
0.7913	21.4886	0.6707	-0.0003	0.7922	24.6310	0.6705	-0.0005	0.7919	27.7758	0.6692	-0.0018
0.7915	21.5352	0.6706	-0.0004	0.7921	24.6779	0.6706	-0.0004	0.7920	27.8227	0.6689	-0.0021
0.7916	21.5821	0.6708	-0.0002	0.7922	24.7249	0.6706	-0.0004	0.7919	27.8697	0.6687	-0.0023
0.7915	21.6291	0.6707	-0.0003	0.7922	24.7718	0.6705	-0.0005	0.7920	27.9172	0.6684	-0.0026
0.7917	21.6759	0.6708	-0.0002	0.7921	24.8187	0.6705	-0.0005	0.7920	27.9645	0.6682	-0.0028
0.7917	21.7226	0.6708	-0.0002	0.7922	24.8657	0.6705	-0.0005	0.7920	28.0116	0.6679	-0.0031
0.7918	21.7692	0.6709	-0.0001	0.7922	24.9127	0.6705	-0.0005	0.7920	28.0586	0.6677	-0.0033
0.7917	21.8159	0.6708	-0.0002	0.7921	24.9596	0.6705	-0.0005	0.7921	28.1055	0.6675	-0.0035
0.7918	21.8627	0.6708	-0.0002	0.7922	25.0064	0.6703	-0.0007	0.7920	28.1523	0.6685	-0.0025
0.7918	21.9096	0.6707	-0.0003	0.7921	25.0534	0.6705	-0.0005	0.7920	28.1993	0.6687	-0.0023
0.7917	21.9564	0.6708	-0.0002	0.7921	25.1002	0.6704	-0.0006	0.7920	28.2463	0.6686	-0.0024

Upper Surface x=.8 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7919	28.2930	0.6687	-0.0023	0.7921	31.4420	0.6712	0.0002				
0.7919	28.3400	0.6686	-0.0024	0.7922	31.4889	0.6710	0.0000				
0.7917	28.3868	0.6687	-0.0023	0.7922	31.5357	0.6709	-0.0001				
0.7918	28.4340	0.6688	-0.0022	0.7922	31.5825	0.6709	-0.0001				
0.7918	28.4810	0.6688	-0.0022	0.7922	31.6293	0.6707	-0.0003				
0.7917	28.5280	0.6689	-0.0021	0.7922	31.6761	0.6702	-0.0008				
0.7916	28.5749	0.6691	-0.0019	0.7922	31.7233	0.6697	-0.0013				
0.7916	28.6218	0.6690	-0.0020	0.7922	31.7709	0.6688	-0.0022				
0.7915	28.6688	0.6690	-0.0020	0.7921	31.8194	0.6676	-0.0034				
0.7914	28.7157	0.6693	-0.0017	0.7921	31.8675	0.6664	-0.0046				
0.7912	28.7628	0.6693	-0.0017	0.7920	31.9156	0.6653	-0.0057 *				
0.7912	28.8097	0.6695	-0.0015	0.7919	31.9637	0.6637	-0.0073 *				
0.7912	28.8568	0.6696	-0.0014								
0.7911	28.9037	0.6698	-0.0012								
0.7911	28.9506	0.6698	-0.0012								
0.7910	28.9976	0.6699	-0.0011								
0.7911	29.0444	0.6701	-0.0009								
0.7912	29.0913	0.6703	-0.0007								
0.7912	29.1381	0.6703	-0.0007								
0.7912	29.1849	0.6700	-0.0010								
0.7913	29.2349	0.6705	-0.0005								
0.7914	29.2819	0.6706	-0.0004								
0.7915	29.3287	0.6706	-0.0004								
0.7915	29.3756	0.6708	-0.0002								
0.7915	29.4223	0.6707	-0.0003								
0.7915	29.4689	0.6707	-0.0003								
0.7916	29.5156	0.6709	-0.0001								
0.7917	29.5625	0.6709	-0.0001								
0.7916	29.6092	0.6709	-0.0001								
0.7917	29.6562	0.6710	0.0000								
0.7917	29.7031	0.6708	-0.0002								
0.7917	29.7500	0.6709	-0.0001								
0.7918	29.7968	0.6710	0.0000								
0.7918	29.8437	0.6709	-0.0001								
0.7919	29.8907	0.6709	-0.0001								
0.7919	29.9376	0.6710	0.0000								
0.7919	29.9846	0.6709	-0.0001								
0.7919	30.0314	0.6710	0.0000								
0.7919	30.0786	0.6709	-0.0001								
0.7920	30.1255	0.6710	0.0000								
0.7920	30.1725	0.6711	0.0001								
0.7920	30.2195	0.6711	0.0001								
0.7920	30.2665	0.6711	0.0001								
0.7920	30.3134	0.6711	0.0001								
0.7920	30.3602	0.6711	0.0001								
0.7919	30.4071	0.6678	-0.0032								
0.7919	30.4566	0.6710	0.0000								
0.7920	30.5055	0.6711	0.0001								
0.7920	30.5540	0.6711	0.0001								
0.7920	30.6012	0.6711	0.0001								
0.7918	30.6480	0.6711	0.0001								
0.7919	30.6950	0.6711	0.0001								
0.7919	30.7418	0.6711	0.0001								
0.7919	30.7886	0.6711	0.0001								
0.7920	30.8354	0.6712	0.0002								
0.7918	30.8822	0.6711	0.0001								
0.7919	30.9288	0.6711	0.0001								
0.7919	30.9755	0.6712	0.0002								
0.7919	31.0222	0.6711	0.0001								
0.7919	31.0688	0.6712	0.0002								
0.7919	31.1157	0.6712	0.0002								
0.7919	31.1623	0.6712	0.0002								
0.7919	31.2089	0.6711	0.0001								
0.7919	31.2555	0.6711	0.0001								
0.7920	31.3020	0.6711	0.0001								
0.7920	31.3487	0.6711	0.0001								
0.7922	31.3954	0.6712	0.0002								

Lower Surface			x=.8 inches								
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7941	0.1009	-0.6751	0.0033	0.7948	3.4990	-0.6748	0.0030	0.7951	6.8949	-0.6749	0.0031
0.7942	0.1524	-0.6754	0.0036	0.7949	3.5504	-0.6748	0.0030	0.7951	6.9463	-0.6749	0.0031
0.7941	0.2038	-0.6755	0.0037	0.7953	3.6019	-0.6751	0.0033	0.7951	6.9977	-0.6749	0.0031
0.7941	0.2553	-0.6755	0.0037	0.7950	3.6533	-0.6748	0.0030	0.7951	7.0492	-0.6749	0.0031
0.7942	0.3068	-0.6755	0.0037	0.7950	3.7047	-0.6749	0.0031	0.7951	7.1006	-0.6750	0.0032
0.7941	0.3583	-0.6756	0.0038	0.7950	3.7562	-0.6749	0.0031	0.7951	7.1521	-0.6749	0.0031
0.7942	0.4097	-0.6758	0.0040	0.7948	3.8077	-0.6748	0.0030	0.7951	7.2036	-0.6749	0.0031
0.7943	0.4611	-0.6758	0.0040	0.7949	3.8591	-0.6747	0.0029	0.7951	7.2550	-0.6749	0.0031
0.7945	0.5125	-0.6757	0.0039	0.7950	3.9106	-0.6746	0.0028	0.7951	7.3064	-0.6748	0.0030
0.7942	0.5639	-0.6758	0.0040	0.7952	3.9620	-0.6748	0.0030	0.7951	7.3580	-0.6748	0.0030
0.7944	0.6154	-0.6758	0.0040	0.7950	4.0134	-0.6748	0.0030	0.7951	7.4094	-0.6748	0.0030
0.7944	0.6668	-0.6758	0.0040	0.7950	4.0648	-0.6747	0.0029	0.7950	7.4608	-0.6749	0.0031
0.7946	0.7182	-0.6757	0.0039	0.7950	4.1163	-0.6746	0.0028	0.7950	7.5122	-0.6749	0.0031
0.7946	0.7697	-0.6756	0.0038	0.7950	4.1677	-0.6747	0.0029	0.7951	7.5636	-0.6748	0.0030
0.7948	0.8212	-0.6758	0.0040	0.7950	4.2192	-0.6746	0.0028	0.7950	7.6150	-0.6748	0.0030
0.7948	0.8727	-0.6757	0.0039	0.7951	4.2707	-0.6747	0.0029	0.7950	7.6664	-0.6747	0.0029
0.7945	0.9242	-0.6755	0.0037	0.7952	4.3221	-0.6747	0.0029	0.7950	7.7178	-0.6748	0.0030
0.7946	0.9758	-0.6754	0.0036	0.7953	4.3736	-0.6748	0.0030	0.7950	7.7692	-0.6748	0.0030
0.7945	1.0274	-0.6755	0.0037	0.7952	4.4250	-0.6747	0.0029	0.7950	7.8206	-0.6747	0.0029
0.7946	1.0790	-0.6755	0.0037	0.7953	4.4765	-0.6748	0.0030	0.7951	7.8719	-0.6748	0.0030
0.7947	1.1308	-0.6753	0.0035	0.7953	4.5279	-0.6746	0.0028	0.7950	7.9233	-0.6746	0.0028
0.7945	1.1822	-0.6753	0.0035	0.7954	4.5793	-0.6748	0.0030	0.7950	7.9747	-0.6746	0.0028
0.7942	1.2337	-0.6753	0.0035	0.7954	4.6308	-0.6748	0.0030	0.7951	8.0260	-0.6746	0.0028
0.7946	1.2851	-0.6752	0.0034	0.7953	4.6822	-0.6747	0.0029	0.7950	8.0774	-0.6748	0.0030
0.7944	1.3365	-0.6752	0.0034	0.7954	4.7337	-0.6747	0.0029	0.7950	8.1288	-0.6748	0.0030
0.7944	1.3880	-0.6753	0.0035	0.7952	4.7852	-0.6747	0.0029	0.7950	8.1801	-0.6748	0.0030
0.7946	1.4395	-0.6753	0.0035	0.7952	4.8366	-0.6746	0.0028	0.7950	8.2314	-0.6747	0.0029
0.7945	1.4910	-0.6751	0.0033	0.7952	4.8881	-0.6746	0.0028	0.7950	8.2826	-0.6748	0.0030
0.7944	1.5424	-0.6752	0.0034	0.7953	4.9396	-0.6747	0.0029	0.7949	8.3339	-0.6747	0.0029
0.7945	1.5939	-0.6751	0.0033	0.7953	4.9911	-0.6749	0.0031	0.7949	8.3851	-0.6748	0.0030
0.7944	1.6452	-0.6751	0.0033	0.7953	5.0425	-0.6749	0.0031	0.7950	8.4363	-0.6748	0.0030
0.7944	1.6965	-0.6750	0.0032	0.7952	5.0940	-0.6747	0.0029	0.7949	8.4875	-0.6748	0.0030
0.7945	1.7481	-0.6750	0.0032	0.7952	5.1453	-0.6747	0.0029	0.7949	8.5386	-0.6748	0.0030
0.7944	1.7996	-0.6750	0.0032	0.7952	5.1969	-0.6748	0.0030	0.7949	8.5898	-0.6747	0.0029
0.7944	1.8511	-0.6750	0.0032	0.7952	5.2484	-0.6747	0.0029	0.7949	8.6410	-0.6748	0.0030
0.7945	1.9027	-0.6749	0.0031	0.7953	5.2999	-0.6746	0.0028	0.7949	8.6923	-0.6747	0.0029
0.7944	1.9542	-0.6748	0.0030	0.7954	5.3514	-0.6748	0.0030	0.7949	8.7435	-0.6748	0.0030
0.7945	2.0057	-0.6747	0.0029	0.7954	5.4030	-0.6749	0.0031	0.7949	8.7947	-0.6748	0.0030
0.7946	2.0571	-0.6748	0.0030	0.7953	5.4544	-0.6749	0.0031	0.7949	8.8460	-0.6747	0.0029
0.7946	2.1086	-0.6748	0.0030	0.7953	5.5058	-0.6748	0.0030	0.7949	8.8972	-0.6747	0.0029
0.7946	2.1601	-0.6749	0.0031	0.7953	5.5571	-0.6748	0.0030	0.7949	8.9486	-0.6748	0.0030
0.7946	2.2115	-0.6748	0.0030	0.7954	5.6086	-0.6749	0.0031	0.7948	8.9999	-0.6746	0.0028
0.7944	2.2633	-0.6748	0.0030	0.7954	5.6601	-0.6748	0.0030	0.7948	9.0514	-0.6748	0.0030
0.7945	2.3150	-0.6748	0.0030	0.7953	5.7115	-0.6749	0.0031	0.7948	9.1029	-0.6748	0.0030
0.7945	2.3664	-0.6750	0.0032	0.7953	5.7630	-0.6749	0.0031	0.7949	9.1544	-0.6749	0.0031
0.7946	2.4178	-0.6749	0.0031	0.7953	5.8145	-0.6749	0.0031	0.7949	9.2059	-0.6748	0.0030
0.7946	2.4693	-0.6749	0.0031	0.7954	5.8658	-0.6749	0.0031	0.7948	9.2573	-0.6748	0.0030
0.7945	2.5207	-0.6750	0.0032	0.7953	5.9174	-0.6748	0.0030	0.7948	9.3087	-0.6748	0.0030
0.7946	2.5722	-0.6751	0.0033	0.7953	5.9689	-0.6748	0.0030	0.7948	9.3601	-0.6748	0.0030
0.7946	2.6237	-0.6750	0.0032	0.7953	6.0203	-0.6748	0.0030	0.7947	9.4116	-0.6746	0.0028
0.7946	2.6752	-0.6750	0.0032	0.7951	6.0717	-0.6749	0.0031	0.7947	9.4631	-0.6747	0.0029
0.7946	2.7267	-0.6749	0.0031	0.7952	6.1231	-0.6749	0.0031	0.7947	9.5146	-0.6748	0.0030
0.7947	2.7781	-0.6751	0.0033	0.7954	6.1746	-0.6750	0.0032	0.7946	9.5661	-0.6747	0.0029
0.7945	2.8295	-0.6750	0.0032	0.7952	6.2260	-0.6749	0.0031	0.7947	9.6175	-0.6748	0.0030
0.7945	2.8810	-0.6749	0.0031	0.7950	6.2775	-0.6747	0.0029	0.7947	9.6689	-0.6746	0.0028
0.7946	2.9327	-0.6751	0.0033	0.7951	6.3290	-0.6750	0.0032	0.7947	9.7203	-0.6747	0.0029
0.7947	2.9842	-0.6752	0.0034	0.7952	6.3804	-0.6750	0.0032	0.7947	9.7717	-0.6748	0.0030
0.7948	3.0357	-0.6751	0.0033	0.7951	6.4319	-0.6750	0.0032	0.7946	9.8231	-0.6747	0.0029
0.7949	3.0871	-0.6751	0.0033	0.7951	6.4833	-0.6751	0.0033	0.7946	9.8746	-0.6747	0.0029
0.7948	3.1385	-0.6750	0.0032	0.7952	6.5346	-0.6750	0.0032	0.7946	9.9261	-0.6748	0.0030
0.7946	3.1899	-0.6750	0.0032	0.7951	6.5861	-0.6749	0.0031	0.7947	9.9774	-0.6748	0.0030
0.7947	3.2413	-0.6749	0.0031	0.7951	6.6379	-0.6749	0.0031	0.7946	10.0289	-0.6746	0.0028
0.7946	3.2930	-0.6750	0.0032	0.7951	6.6892	-0.6750	0.0032	0.7946	10.0802	-0.6747	0.0029
0.7948	3.3446	-0.6749	0.0031	0.7952	6.7406	-0.6750	0.0032	0.7946	10.1317	-0.6747	0.0029
0.7947	3.3961	-0.6750	0.0032	0.7952	6.7920	-0.6749	0.0031	0.7946	10.1832	-0.6746	0.0028
0.7949	3.4476	-0.6750	0.0032	0.7951	6.8435	-0.6749	0.0031	0.7946	10.2346	-0.6747	0.0029
0.7948	3.4990	-0.6748	0.0030	0.7951	6.8949	-0.6749	0.0031	0.7946	10.2861	-0.6745	0.0027

Table A13. Continued

				Lower Surface	x=.8 inches						
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7946	10.3375	-0.6747	0.0029	0.7949	13.7844	-0.6750	0.0032	0.7950	17.2387	-0.6755	0.0037
0.7946	10.3888	-0.6747	0.0029	0.7950	13.8360	-0.6750	0.0032	0.7950	17.2903	-0.6753	0.0035
0.7946	10.4403	-0.6746	0.0028	0.7950	13.8875	-0.6751	0.0033	0.7950	17.3418	-0.6754	0.0036
0.7946	10.4917	-0.6747	0.0029	0.7950	13.9391	-0.6750	0.0032	0.7949	17.3935	-0.6754	0.0036
0.7945	10.5432	-0.6746	0.0028	0.7950	13.9906	-0.6750	0.0032	0.7950	17.4451	-0.6754	0.0036
0.7946	10.5946	-0.6746	0.0028	0.7949	14.0421	-0.6749	0.0031	0.7950	17.4967	-0.6755	0.0037
0.7945	10.6461	-0.6745	0.0027	0.7949	14.0936	-0.6751	0.0033	0.7950	17.5485	-0.6755	0.0037
0.7946	10.6975	-0.6746	0.0028	0.7950	14.1451	-0.6750	0.0032	0.7950	17.6000	-0.6755	0.0037
0.7946	10.7489	-0.6746	0.0028	0.7949	14.1966	-0.6750	0.0032	0.7950	17.6515	-0.6756	0.0038
0.7946	10.8004	-0.6747	0.0029	0.7949	14.2481	-0.6750	0.0032	0.7950	17.7030	-0.6754	0.0036
0.7946	10.8518	-0.6747	0.0029	0.7948	14.2996	-0.6750	0.0032	0.7950	17.7547	-0.6755	0.0037
0.7946	10.9033	-0.6745	0.0027	0.7949	14.3511	-0.6749	0.0031	0.7950	17.8063	-0.6756	0.0038
0.7946	10.9547	-0.6746	0.0028	0.7949	14.4026	-0.6750	0.0032	0.7950	17.8581	-0.6756	0.0038
0.7945	11.0061	-0.6746	0.0028	0.7949	14.4541	-0.6750	0.0032	0.7950	17.9097	-0.6756	0.0038
0.7946	11.0576	-0.6745	0.0027	0.7949	14.5056	-0.6751	0.0033	0.7950	17.9613	-0.6756	0.0038
0.7946	11.1090	-0.6747	0.0029	0.7949	14.5571	-0.6749	0.0031	0.7950	18.0129	-0.6756	0.0038
0.7945	11.1605	-0.6747	0.0029	0.7949	14.6086	-0.6749	0.0031	0.7949	18.0644	-0.6756	0.0038
0.7945	11.2121	-0.6748	0.0030	0.7949	14.6601	-0.6749	0.0031	0.7949	18.1160	-0.6755	0.0037
0.7946	11.2634	-0.6747	0.0029	0.7948	14.7116	-0.6751	0.0033	0.7950	18.1675	-0.6755	0.0037
0.7946	11.3149	-0.6748	0.0030	0.7949	14.7631	-0.6751	0.0033	0.7949	18.2191	-0.6755	0.0037
0.7946	11.3664	-0.6747	0.0029	0.7948	14.8148	-0.6750	0.0032	0.7949	18.2708	-0.6754	0.0036
0.7946	11.4179	-0.6748	0.0030	0.7949	14.8663	-0.6752	0.0034	0.7949	18.3224	-0.6754	0.0036
0.7946	11.4694	-0.6748	0.0030	0.7947	14.9178	-0.6751	0.0033	0.7950	18.3739	-0.6754	0.0036
0.7948	11.5209	-0.6748	0.0030	0.7948	14.9694	-0.6750	0.0032	0.7949	18.4254	-0.6754	0.0036
0.7947	11.5724	-0.6748	0.0030	0.7949	15.0209	-0.6751	0.0033	0.7948	18.4772	-0.6754	0.0036
0.7946	11.6240	-0.6747	0.0029	0.7948	15.0724	-0.6750	0.0032	0.7949	18.5286	-0.6754	0.0036
0.7944	11.6756	-0.6747	0.0029	0.7949	15.1240	-0.6751	0.0033	0.7949	18.5806	-0.6754	0.0036
0.7948	11.7271	-0.6749	0.0031	0.7949	15.1756	-0.6750	0.0032	0.7949	18.6320	-0.6754	0.0036
0.7948	11.7786	-0.6750	0.0032	0.7949	15.2272	-0.6752	0.0034	0.7948	18.6835	-0.6755	0.0037
0.7948	11.8302	-0.6750	0.0032	0.7949	15.2787	-0.6752	0.0034	0.7948	18.7350	-0.6754	0.0036
0.7947	11.8816	-0.6749	0.0031	0.7949	15.3302	-0.6752	0.0034	0.7948	18.7866	-0.6755	0.0037
0.7949	11.9330	-0.6748	0.0030	0.7951	15.3818	-0.6751	0.0033	0.7948	18.8383	-0.6755	0.0037
0.7948	11.9845	-0.6749	0.0031	0.7950	15.4334	-0.6752	0.0034	0.7948	18.8899	-0.6756	0.0038
0.7950	12.0360	-0.6751	0.0033	0.7949	15.4849	-0.6751	0.0033	0.7948	18.9416	-0.6756	0.0038
0.7951	12.0875	-0.6751	0.0033	0.7950	15.5364	-0.6752	0.0034	0.7947	18.9931	-0.6756	0.0038
0.7949	12.1389	-0.6750	0.0032	0.7950	15.5880	-0.6751	0.0033	0.7947	19.0446	-0.6756	0.0038
0.7948	12.1903	-0.6751	0.0033	0.7949	15.6396	-0.6750	0.0032	0.7947	19.1019	-0.6757	0.0039
0.7949	12.2417	-0.6751	0.0033	0.7949	15.6911	-0.6752	0.0034	0.7948	19.1531	-0.6757	0.0039
0.7948	12.2932	-0.6749	0.0031	0.7951	15.7427	-0.6752	0.0034	0.7946	19.2009	-0.6594	-0.0124 *
0.7950	12.3446	-0.6750	0.0032	0.7951	15.7943	-0.6752	0.0034	0.7947	19.2524	-0.6757	0.0039
0.7950	12.3960	-0.6750	0.0032	0.7951	15.8457	-0.6752	0.0034	0.7946	19.3039	-0.6757	0.0039
0.7950	12.4475	-0.6751	0.0033	0.7950	15.8973	-0.6752	0.0034	0.7947	19.3554	-0.6756	0.0038
0.7949	12.4992	-0.6750	0.0032	0.7949	15.9490	-0.6751	0.0033	0.7947	19.4070	-0.6757	0.0039
0.7947	12.5507	-0.6749	0.0031	0.7949	16.0005	-0.6750	0.0032	0.7945	19.4584	-0.6757	0.0039
0.7948	12.6023	-0.6750	0.0032	0.7949	16.0520	-0.6751	0.0033	0.7945	19.5100	-0.6757	0.0039
0.7947	12.6538	-0.6750	0.0032	0.7950	16.1037	-0.6752	0.0034	0.7947	19.5615	-0.6758	0.0040
0.7950	12.7052	-0.6750	0.0032	0.7950	16.1552	-0.6753	0.0035	0.7947	19.6130	-0.6758	0.0040
0.7949	12.7567	-0.6750	0.0032	0.7949	16.2068	-0.6753	0.0035	0.7945	19.6646	-0.6756	0.0038
0.7949	12.8082	-0.6750	0.0032	0.7949	16.2584	-0.6751	0.0033	0.7945	19.7161	-0.6757	0.0039
0.7949	12.8597	-0.6751	0.0033	0.7950	16.3100	-0.6754	0.0036	0.7946	19.7676	-0.6758	0.0040
0.7947	12.9112	-0.6749	0.0031	0.7950	16.3614	-0.6754	0.0036	0.7945	19.8190	-0.6757	0.0039
0.7948	12.9625	-0.6749	0.0031	0.7951	16.4130	-0.6754	0.0036	0.7946	19.8706	-0.6756	0.0038
0.7949	13.0138	-0.6749	0.0031	0.7951	16.4646	-0.6755	0.0037	0.7945	19.9220	-0.6756	0.0038
0.7948	13.0650	-0.6749	0.0031	0.7951	16.5163	-0.6754	0.0036	0.7946	19.9735	-0.6757	0.0039
0.7949	13.1163	-0.6751	0.0033	0.7951	16.5679	-0.6754	0.0036	0.7944	20.0250	-0.6756	0.0038
0.7949	13.1675	-0.6750	0.0032	0.7951	16.6196	-0.6756	0.0038	0.7944	20.0765	-0.6756	0.0038
0.7950	13.2188	-0.6750	0.0032	0.7951	16.6712	-0.6754	0.0036	0.7944	20.1280	-0.6756	0.0038
0.7949	13.2701	-0.6750	0.0032	0.7951	16.7228	-0.6755	0.0037	0.7943	20.1795	-0.6756	0.0038
0.7949	13.3214	-0.6750	0.0032	0.7950	16.7746	-0.6755	0.0037	0.7943	20.2310	-0.6756	0.0038
0.7949	13.3727	-0.6749	0.0031	0.7950	16.8263	-0.6756	0.0038	0.7943	20.2824	-0.6757	0.0039
0.7949	13.4242	-0.6749	0.0031	0.7951	16.8778	-0.6756	0.0038	0.7942	20.3338	-0.6757	0.0039
0.7949	13.4756	-0.6751	0.0033	0.7951	16.9294	-0.6756	0.0038	0.7943	20.3852	-0.6756	0.0038
0.7950	13.5270	-0.6750	0.0032	0.7952	16.9809	-0.6757	0.0039	0.7943	20.4366	-0.6758	0.0040
0.7950	13.5784	-0.6750	0.0032	0.7951	17.0325	-0.6757	0.0039	0.7942	20.4880	-0.6758	0.0040
0.7950	13.6299	-0.6751	0.0033	0.7951	17.0841	-0.6756	0.0038	0.7943	20.5394	-0.6760	0.0042
0.7950	13.6814	-0.6751	0.0033	0.7950	17.1358	-0.6756	0.0038	0.7943	20.5907	-0.6761	0.0043
0.7949	13.7329	-0.6751	0.0033	0.7950	17.1872	-0.6756	0.0038	0.7944	20.6421	-0.6759	0.0041

				Lower Surface	x=.8 inches						
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7944	20.6935	-0.6761	0.0043	0.7949	24.1402	-0.6771	0.0053 *	0.7944	27.5947	-0.6774	0.0056 *
0.7943	20.7449	-0.6761	0.0043	0.7949	24.1917	-0.6772	0.0054 *	0.7941	27.6463	-0.6772	0.0054 *
0.7943	20.7962	-0.6761	0.0043	0.7949	24.2433	-0.6771	0.0053 *	0.7942	27.6979	-0.6774	0.0056 *
0.7944	20.8476	-0.6762	0.0044	0.7949	24.2948	-0.6771	0.0053 *	0.7942	27.7494	-0.6773	0.0055 *
0.7942	20.8989	-0.6762	0.0044	0.7949	24.3465	-0.6771	0.0053 *	0.7943	27.8010	-0.6774	0.0056 *
0.7943	20.9503	-0.6761	0.0043	0.7949	24.3980	-0.6772	0.0054 *	0.7943	27.8525	-0.6774	0.0056 *
0.7942	21.0016	-0.6761	0.0043	0.7950	24.4495	-0.6772	0.0054 *	0.7943	27.9042	-0.6775	0.0057 *
0.7943	21.0529	-0.6762	0.0044	0.7950	24.5010	-0.6772	0.0054 *	0.7943	27.9558	-0.6777	0.0059 *
0.7943	21.1044	-0.6762	0.0044	0.7949	24.5526	-0.6772	0.0054 *	0.7943	28.0075	-0.6776	0.0058 *
0.7943	21.1557	-0.6762	0.0044	0.7949	24.6042	-0.6773	0.0055 *	0.7943	28.0590	-0.6776	0.0058 *
0.7944	21.2070	-0.6763	0.0045	0.7949	24.6559	-0.6772	0.0054 *	0.7943	28.1105	-0.6776	0.0058 *
0.7943	21.2584	-0.6762	0.0044	0.7949	24.7075	-0.6773	0.0055 *	0.7941	28.1620	-0.6775	0.0057 *
0.7942	21.3097	-0.6762	0.0044	0.7949	24.7591	-0.6773	0.0055 *	0.7943	28.2135	-0.6777	0.0059 *
0.7943	21.3611	-0.6763	0.0045	0.7949	24.8106	-0.6773	0.0055 *	0.7942	28.2650	-0.6776	0.0058 *
0.7943	21.4126	-0.6764	0.0046	0.7948	24.8623	-0.6773	0.0055 *	0.7944	28.3166	-0.6777	0.0059 *
0.7943	21.4639	-0.6763	0.0045	0.7949	24.9138	-0.6774	0.0056 *	0.7943	28.3682	-0.6777	0.0059 *
0.7942	21.5152	-0.6763	0.0045	0.7949	24.9654	-0.6773	0.0055 *	0.7943	28.4197	-0.6777	0.0059 *
0.7942	21.5667	-0.6762	0.0044	0.7948	25.0169	-0.6773	0.0055 *	0.7943	28.4712	-0.6777	0.0059 *
0.7942	21.6181	-0.6765	0.0047	0.7948	25.0685	-0.6773	0.0055 *	0.7943	28.5228	-0.6777	0.0059 *
0.7943	21.6694	-0.6765	0.0047	0.7948	25.1200	-0.6773	0.0055 *	0.7944	28.5743	-0.6778	0.0060 *
0.7943	21.7208	-0.6763	0.0045	0.7948	25.1715	-0.6773	0.0055 *	0.7943	28.6258	-0.6777	0.0059 *
0.7942	21.7723	-0.6764	0.0046	0.7947	25.2230	-0.6772	0.0054 *	0.7942	28.6773	-0.6775	0.0057 *
0.7943	21.8236	-0.6765	0.0047	0.7948	25.2745	-0.6771	0.0053 *	0.7942	28.7290	-0.6776	0.0058 *
0.7945	21.8750	-0.6765	0.0047	0.7948	25.3260	-0.6771	0.0053 *	0.7941	28.7805	-0.6777	0.0059 *
0.7943	21.9264	-0.6764	0.0046	0.7947	25.3776	-0.6772	0.0054 *	0.7941	28.8321	-0.6774	0.0056 *
0.7944	21.9779	-0.6765	0.0047	0.7947	25.4292	-0.6773	0.0055 *	0.7942	28.8837	-0.6775	0.0057 *
0.7945	22.0292	-0.6765	0.0047	0.7947	25.4807	-0.6771	0.0053 *	0.7942	28.9353	-0.6776	0.0058 *
0.7944	22.0805	-0.6765	0.0047	0.7947	25.5324	-0.6771	0.0053 *	0.7942	28.9869	-0.6774	0.0056 *
0.7945	22.1317	-0.6766	0.0048	0.7947	25.5839	-0.6771	0.0053 *	0.7941	29.0384	-0.6773	0.0055 *
0.7944	22.1831	-0.6765	0.0047	0.7947	25.6354	-0.6771	0.0053 *	0.7941	29.0902	-0.6775	0.0057 *
0.7945	22.2345	-0.6766	0.0048	0.7947	25.6869	-0.6771	0.0053 *	0.7941	29.1416	-0.6776	0.0058 *
0.7945	22.2858	-0.6767	0.0049	0.7947	25.7384	-0.6771	0.0053 *	0.7941	29.1931	-0.6774	0.0056 *
0.7944	22.3373	-0.6764	0.0046	0.7946	25.7899	-0.6772	0.0054 *	0.7941	29.2447	-0.6774	0.0056 *
0.7945	22.3887	-0.6766	0.0048	0.7946	25.8414	-0.6770	0.0052 *	0.7941	29.2963	-0.6776	0.0058 *
0.7945	22.4402	-0.6767	0.0049	0.7946	25.8929	-0.6770	0.0052 *	0.7941	29.3479	-0.6776	0.0058 *
0.7945	22.4917	-0.6767	0.0049	0.7946	25.9444	-0.6769	0.0051 *	0.7940	29.3994	-0.6776	0.0058 *
0.7944	22.5433	-0.6764	0.0046	0.7946	25.9958	-0.6770	0.0052 *	0.7940	29.4509	-0.6775	0.0057 *
0.7944	22.5946	-0.6765	0.0047	0.7945	26.0474	-0.6769	0.0051 *	0.7939	29.5026	-0.6774	0.0056 *
0.7946	22.6461	-0.6765	0.0047	0.7945	26.0989	-0.6769	0.0051 *	0.7941	29.5541	-0.6777	0.0059 *
0.7947	22.6975	-0.6766	0.0048	0.7945	26.1506	-0.6769	0.0051 *	0.7940	29.6057	-0.6777	0.0059 *
0.7946	22.7490	-0.6766	0.0048	0.7945	26.2021	-0.6768	0.0050	0.7940	29.6573	-0.6778	0.0060 *
0.7946	22.8003	-0.6768	0.0050	0.7945	26.2537	-0.6769	0.0051 *	0.7941	29.7088	-0.6778	0.0060 *
0.7946	22.8518	-0.6767	0.0049	0.7945	26.3052	-0.6768	0.0050	0.7940	29.7604	-0.6778	0.0060 *
0.7946	22.9033	-0.6767	0.0049	0.7945	26.3568	-0.6768	0.0050	0.7940	29.8122	-0.6779	0.0061 *
0.7945	22.9547	-0.6766	0.0048	0.7945	26.4083	-0.6769	0.0051 *	0.7940	29.8637	-0.6779	0.0061 *
0.7948	23.0061	-0.6766	0.0048	0.7943	26.4599	-0.6767	0.0049	0.7941	29.9152	-0.6779	0.0061 *
0.7948	23.0576	-0.6768	0.0050	0.7943	26.5116	-0.6769	0.0051 *	0.7939	29.9668	-0.6777	0.0059 *
0.7945	23.1092	-0.6767	0.0049	0.7943	26.5633	-0.6769	0.0051 *	0.7939	30.0183	-0.6778	0.0060 *
0.7946	23.1608	-0.6766	0.0048	0.7944	26.6150	-0.6769	0.0051 *	0.7938	30.0699	-0.6777	0.0059 *
0.7947	23.2124	-0.6768	0.0050	0.7944	26.6665	-0.6769	0.0051 *	0.7937	30.1215	-0.6777	0.0059 *
0.7948	23.2638	-0.6768	0.0050	0.7943	26.7179	-0.6769	0.0051 *	0.7937	30.1729	-0.6776	0.0058 *
0.7947	23.3153	-0.6768	0.0050	0.7943	26.7695	-0.6769	0.0051 *	0.7937	30.2244	-0.6775	0.0057 *
0.7948	23.3668	-0.6767	0.0049	0.7943	26.8210	-0.6769	0.0051 *	0.7937	30.2785	-0.6775	0.0057 *
0.7949	23.4184	-0.6769	0.0051 *	0.7943	26.8725	-0.6769	0.0051 *	0.7935	30.3501	-0.6773	0.0055 *
0.7948	23.4700	-0.6769	0.0051 *	0.7943	26.9242	-0.6769	0.0051 *	0.7941	30.4002	-0.6669	-0.0049
0.7947	23.5215	-0.6769	0.0051 *	0.7944	26.9759	-0.6769	0.0051 *	0.7936	30.4518	-0.6775	0.0057 *
0.7949	23.5731	-0.6769	0.0051 *	0.7945	27.0274	-0.6769	0.0051 *	0.7936	30.5036	-0.6773	0.0055 *
0.7948	23.6248	-0.6768	0.0050	0.7945	27.0790	-0.6769	0.0051 *	0.7936	30.5551	-0.6775	0.0057 *
0.7948	23.6765	-0.6768	0.0050	0.7942	27.1305	-0.6770	0.0052 *	0.7936	30.6066	-0.6775	0.0057 *
0.7949	23.7280	-0.6770	0.0052 *	0.7943	27.1821	-0.6769	0.0051 *	0.7935	30.6582	-0.6774	0.0056 *
0.7949	23.7795	-0.6770	0.0052 *	0.7943	27.2337	-0.6771	0.0053 *	0.7936	30.7097	-0.6774	0.0056 *
0.7949	23.8311	-0.6770	0.0052 *	0.7943	27.2853	-0.6771	0.0053 *	0.7935	30.7614	-0.6774	0.0056 *
0.7949	23.8826	-0.6770	0.0052 *	0.7943	27.3368	-0.6771	0.0053 *	0.7935	30.8129	-0.6775	0.0057 *
0.7950	23.9341	-0.6770	0.0052 *	0.7944	27.3886	-0.6771	0.0053 *	0.7935	30.8643	-0.6774	0.0056 *
0.7949	23.9857	-0.6770	0.0052 *	0.7944	27.4401	-0.6772	0.0054 *	0.7935	30.9159	-0.6775	0.0057 *
0.7949	24.0372	-0.6770	0.0052 *	0.7944	27.4916	-0.6772	0.0054 *	0.7934	30.9674	-0.6775	0.0057 *
0.7949	24.0887	-0.6770	0.0052 *	0.7943	27.5432	-0.6772	0.0054 *	0.7935	31.0190	-0.6776	0.0058 *

Table A13. Concluded

Lower Surface			x=.8 Inches								
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
0.7933	31.0705	−0.6774	0.0056 *								
0.7935	31.1220	−0.6774	0.0056 *								
0.7935	31.1736	−0.6775	0.0057 *								
0.7935	31.2250	−0.6776	0.0058 *								
0.7934	31.2767	−0.6776	0.0058 *								
0.7935	31.3284	−0.6776	0.0058 *								
0.7934	31.3798	−0.6777	0.0059 *								
0.7934	31.4313	−0.6777	0.0059 *								
0.7935	31.4829	−0.6778	0.0060 *								
0.7936	31.5344	−0.6779	0.0061 *								
0.7935	31.5861	−0.6778	0.0060 *								
0.7936	31.6378	−0.6779	0.0061 *								
0.7936	31.6893	−0.6780	0.0062 *								
0.7935	31.7410	−0.6778	0.0060 *								
0.7936	31.7908	−0.6780	0.0062 *								
0.7935	31.7908	−0.6779	0.0061 *								
0.7936	31.8006	−0.6774	0.0056 *								
0.7937	31.8222	−0.6781	0.0063 *								
0.7939	31.8436	−0.6782	0.0064 *								
0.7939	31.8653	−0.6780	0.0062 *								
0.7940	31.8868	−0.6782	0.0064 *								
0.7938	31.9085	−0.6781	0.0063 *								
0.7937	31.9301	−0.6779	0.0061 *								
0.7940	31.9516	−0.6780	0.0062 *								
0.7939	31.9732	−0.6777	0.0059 *								
0.7939	31.9947	−0.6773	0.0055 *								

Table A14. Spanwise Airfoil Measurements at $x = 15.9$ in.

Upper Surface	x=15.9 inches										
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9127	0.1858	0.0774	0.0052 *	15.9123	16.6981	0.0752	0.0030	15.9122	23.5767	0.0839	0.0117 *
15.9128	0.2885	0.0775	0.0053 *	15.9123	16.8008	0.0752	0.0030	15.9121	23.6794	0.0839	0.0117 *
15.9127	0.3914	0.0773	0.0051 *	15.9123	16.9035	0.0752	0.0030	15.9121	23.7820	0.0839	0.0117 *
15.9127	0.4938	0.0775	0.0053 *	15.9123	17.0060	0.0752	0.0030	15.9122	23.8848	0.0839	0.0117 *
15.9127	0.5965	0.0773	0.0051 *	15.9123	17.1087	0.0751	0.0029	15.9122	23.9874	0.0838	0.0116 *
15.9127	0.6993	0.0772	0.0050	15.9124	17.2111	0.0752	0.0030	15.9120	24.0902	0.0837	0.0115 *
15.9127	0.8020	0.0772	0.0050	15.9123	17.3139	0.0750	0.0028	15.9123	24.1927	0.0838	0.0116 *
15.9127	0.9046	0.0771	0.0049	15.9122	17.4165	0.0750	0.0028	15.9122	24.2954	0.0836	0.0114 *
15.9127	1.0075	0.0771	0.0049	15.9123	17.5192	0.0750	0.0028	15.9122	24.3980	0.0836	0.0114 *
15.9127	1.1101	0.0770	0.0048	15.9123	17.6218	0.0749	0.0027	15.9123	24.5007	0.0835	0.0113 *
15.9126	1.2129	0.0767	0.0045	15.9123	17.7244	0.0748	0.0026	15.9122	24.6035	0.0834	0.0112 *
15.9126	1.3153	0.0768	0.0046	15.9123	17.8272	0.0748	0.0026	15.9123	24.7061	0.0834	0.0112 *
15.9127	1.4183	0.0765	0.0043	15.9123	17.9297	0.0749	0.0027	15.9124	24.8085	0.0832	0.0110 *
15.9120	1.5209	0.0766	0.0044	15.9123	18.0324	0.0747	0.0025	15.9125	24.9114	0.0831	0.0109 *
15.9127	1.6235	0.0764	0.0042	15.9122	18.1350	0.0746	0.0024	15.9125	25.0107	0.0831	0.0109 *
15.9125	1.7259	0.0763	0.0041	15.9123	18.2377	0.0746	0.0024	15.9122	28.1075	0.0822	0.0100 *
15.9128	1.8286	0.0761	0.0039	15.9122	18.3405	0.0746	0.0024	15.9122	28.2113	0.0823	0.0101 *
15.9128	1.9313	0.0761	0.0039	15.9123	18.4431	0.0748	0.0026	15.9121	28.3140	0.0823	0.0101 *
15.9124	2.0340	0.0763	0.0041	15.9123	18.5457	0.0747	0.0025	15.9121	28.4166	0.0823	0.0101 *
15.9127	2.1368	0.0760	0.0038	15.9122	18.6481	0.0747	0.0025	15.9123	28.5195	0.0822	0.0100 *
15.9125	2.2396	0.0762	0.0040	15.9122	18.7508	0.0745	0.0023	15.9124	28.6221	0.0821	0.0099 *
15.9125	2.3420	0.0762	0.0040	15.9122	18.8534	0.0745	0.0023	15.9124	28.7248	0.0821	0.0099 *
15.9125	2.4446	0.0761	0.0039	15.9122	18.9560	0.0743	0.0021	15.9123	28.8276	0.0822	0.0100 *
15.9125	2.5474	0.0761	0.0039	15.9122	19.0584	0.0745	0.0023	15.9123	28.9305	0.0823	0.0101 *
15.9125	2.6502	0.0761	0.0039	15.9122	19.1609	0.0741	0.0019	15.9122	29.0331	0.0825	0.0103 *
15.9125	2.7526	0.0763	0.0041	15.9122	19.2636	0.0741	0.0019	15.9123	29.1359	0.0823	0.0101 *
15.9126	2.8554	0.0760	0.0038	15.9122	19.3662	0.0741	0.0019	15.9123	29.2387	0.0824	0.0102 *
15.9125	2.9582	0.0759	0.0037	15.9122	19.4687	0.0738	0.0016	15.9121	29.3415	0.0826	0.0104 *
15.9126	3.0607	0.0759	0.0037	15.9121	19.5713	0.0737	0.0015	15.9122	29.4443	0.0827	0.0105 *
15.9127	3.1634	0.0758	0.0036	15.9121	19.6738	0.0735	0.0013	15.9120	29.5471	0.0827	0.0105 *
15.9127	3.2660	0.0757	0.0035	15.9120	19.7761	0.0730	0.0008	15.9118	29.6497	0.0829	0.0107 *
15.9126	3.3689	0.0756	0.0034	15.9119	19.8786	0.0724	0.0002	15.9120	29.7523	0.0828	0.0106 *
15.9127	3.4715	0.0757	0.0035	15.9119	19.9811	0.0718	-0.0004	15.9121	29.8550	0.0827	0.0105 *
15.9126	3.5743	0.0758	0.0036	15.9119	20.0836	0.0716	-0.0006	15.9122	29.9579	0.0827	0.0105 *
15.9128	3.6769	0.0759	0.0037	15.9119	20.1862	0.0715	-0.0007	15.9122	30.0605	0.0829	0.0107 *
15.9126	3.7797	0.0758	0.0036	15.9118	20.2890	0.0714	-0.0008	15.9121	30.1631	0.0827	0.0105 *
15.9127	3.8821	0.0761	0.0039	15.9118	20.3917	0.0718	-0.0004	15.9123	30.2655	0.0828	0.0106 *
15.9126	3.9850	0.0759	0.0037	15.9119	20.4939	0.0721	-0.0001	15.9125	30.3683	0.0826	0.0104 *
15.9126	4.0875	0.0760	0.0038	15.9121	20.5981	0.0734	0.0012	15.9122	30.5055	0.0828	0.0106 *
15.9127	4.1902	0.0760	0.0038	15.9121	20.7013	0.0803	0.0081 *	15.9122	30.6083	0.0830	0.0108 *
15.9127	4.2928	0.0761	0.0039	15.9122	20.8042	0.0814	0.0092 *	15.9122	30.7112	0.0829	0.0107 *
15.9126	4.3958	0.0760	0.0038	15.9119	20.9069	0.0820	0.0098 *	15.9122	30.8138	0.0833	0.0111 *
15.9126	4.4981	0.0761	0.0039	15.9120	21.0097	0.0825	0.0103 *	15.9121	30.9166	0.0833	0.0111 *
15.9127	4.6010	0.0757	0.0035	15.9119	21.1125	0.0826	0.0104 *	15.9119	31.0194	0.0835	0.0113 *
15.9127	4.7039	0.0761	0.0039	15.9119	21.2153	0.0830	0.0108 *	15.9121	31.1220	0.0838	0.0116 *
15.9126	4.8066	0.0762	0.0040	15.9119	21.3179	0.0831	0.0109 *	15.9121	31.2246	0.0837	0.0115 *
15.9127	4.9091	0.0763	0.0041	15.9120	21.4207	0.0831	0.0109 *	15.9122	31.3273	0.0839	0.0117 *
15.9127	5.0117	0.0762	0.0040	15.9120	21.5233	0.0831	0.0109 *	15.9120	31.4300	0.0839	0.0117 *
15.9126	5.1145	0.0762	0.0040	15.9121	21.6259	0.0832	0.0110 *	15.9121	31.5327	0.0842	0.0120 *
15.9127	5.2138	0.0762	0.0040	15.9121	21.7285	0.0832	0.0110 *	15.9120	31.6354	0.0841	0.0119 *
				15.9121	21.8312	0.0831	0.0109 *	15.9121	31.7350	0.0843	0.0121 *
15.9125	15.0636	0.0755	0.0033	15.9122	21.9339	0.0831	0.0109 *	15.9122	31.7351	0.0842	0.0120 *
15.9124	15.1577	0.0755	0.0033	15.9123	22.0366	0.0831	0.0109 *	15.9121	31.7525	0.0840	0.0118 *
15.9124	15.2604	0.0753	0.0031	15.9122	22.1393	0.0832	0.0110 *	15.9121	31.7764	0.0836	0.0114 *
15.9121	15.3631	0.0753	0.0031	15.9121	22.2420	0.0832	0.0110 *	15.9120	31.7982	0.0824	0.0102 *
15.9124	15.4659	0.0753	0.0031	15.9122	22.3447	0.0834	0.0112 *	15.9122	31.8188	0.0746	0.0024
15.9124	15.5686	0.0755	0.0033	15.9121	22.4474	0.0834	0.0112 *	15.9122	31.8407	0.0754	0.0032
15.9124	15.6712	0.0755	0.0033	15.9121	22.5502	0.0836	0.0114 *	15.9121	31.8628	0.0751	0.0029
15.9124	15.7741	0.0753	0.0031	15.9124	22.6529	0.0837	0.0115 *	15.9121	31.8850	0.0743	0.0021
15.9124	15.8768	0.0755	0.0033	15.9121	22.7556	0.0841	0.0119 *	15.9121	31.9068	0.0734	0.0012
15.9125	15.9794	0.0754	0.0032	15.9120	22.8583	0.0842	0.0120 *	15.9123	31.9289	0.0717	-0.0005
15.9124	16.0821	0.0754	0.0032	15.9120	22.9610	0.0843	0.0121 *	15.9125	31.9507	0.0697	-0.0025
15.9124	16.1849	0.0755	0.0033	15.9120	23.0637	0.0843	0.0121 *	15.9127	31.9725	0.0668	-0.0054 *
15.9124	16.2875	0.0755	0.0033	15.9121	23.1663	0.0844	0.0122 *	15.9126	31.9942	0.0640	-0.0082 *
15.9124	16.3900	0.0753	0.0031	15.9121	23.2689	0.0843	0.0121 *				
15.9124	16.4927	0.0752	0.0030	15.9121	23.3714	0.0841	0.0119 *				
15.9123	16.5955	0.0752	0.0030	15.9122	23.4740	0.0840	0.0118 *				

Lower Surface x=15.9 inches											
x	y	z	Dev	x	y	z	Dev	x	y	z	Dev
15.9135	0.0973	-0.0288	0.0020	15.9139	15.3580	-0.0295	0.0027	15.9148	22.1292	-0.0219	-0.0049
15.9138	0.1974	-0.0291	0.0023	15.9139	15.4563	-0.0295	0.0027	15.9147	22.2273	-0.0219	-0.0049
15.9135	0.3010	-0.0291	0.0023	15.9137	15.5544	-0.0295	0.0027	15.9148	22.3256	-0.0220	-0.0048
15.9136	0.3991	-0.0292	0.0024	15.9139	15.6527	-0.0297	0.0029	15.9147	22.4236	-0.0221	-0.0047
15.9136	0.4974	-0.0292	0.0024	15.9138	15.7509	-0.0297	0.0029	15.9147	22.5219	-0.0220	-0.0048
15.9136	0.5958	-0.0293	0.0025	15.9139	15.8491	-0.0297	0.0029	15.9146	22.6201	-0.0221	-0.0047
15.9136	0.6939	-0.0290	0.0022	15.9139	15.9476	-0.0298	0.0030	15.9145	22.7183	-0.0221	-0.0047
15.9137	0.7925	-0.0291	0.0023	15.9139	16.0456	-0.0299	0.0031	15.9145	22.8167	-0.0222	-0.0046
15.9137	0.8909	-0.0291	0.0023	15.9137	16.1439	-0.0297	0.0029	15.9143	22.9147	-0.0222	-0.0046
15.9138	0.9893	-0.0291	0.0023	15.9137	16.2422	-0.0299	0.0031	15.9144	23.0128	-0.0221	-0.0047
15.9138	1.0876	-0.0290	0.0022	15.9137	16.3403	-0.0302	0.0034	15.9143	23.1108	-0.0221	-0.0047
15.9138	1.1860	-0.0289	0.0021	15.9140	16.4385	-0.0301	0.0033	15.9144	23.2088	-0.0224	-0.0044
15.9139	1.2845	-0.0288	0.0020	15.9140	16.5367	-0.0304	0.0036	15.9144	23.3068	-0.0222	-0.0046
15.9140	1.3830	-0.0289	0.0021	15.9141	16.6346	-0.0304	0.0036	15.9140	23.4048	-0.0223	-0.0045
15.9140	1.4815	-0.0287	0.0019	15.9142	16.7327	-0.0302	0.0034	15.9142	23.5027	-0.0224	-0.0044
15.9140	1.5801	-0.0288	0.0020	15.9141	16.8310	-0.0305	0.0037	15.9143	23.6006	-0.0223	-0.0045
15.9141	1.6782	-0.0287	0.0019	15.9141	16.9290	-0.0306	0.0038	15.9143	23.6987	-0.0225	-0.0043
15.9141	1.7767	-0.0285	0.0017	15.9142	17.0270	-0.0308	0.0040	15.9143	23.7965	-0.0224	-0.0044
15.9141	1.8752	-0.0287	0.0019	15.9142	17.1250	-0.0308	0.0040	15.9145	23.8946	-0.0226	-0.0042
15.9141	1.9736	-0.0284	0.0016	15.9143	17.2231	-0.0309	0.0041	15.9145	23.9925	-0.0226	-0.0042
15.9141	2.0721	-0.0284	0.0016	15.9143	17.3212	-0.0309	0.0041	15.9143	24.0906	-0.0226	-0.0042
15.9141	2.1705	-0.0282	0.0014	15.9145	17.4192	-0.0310	0.0042	15.9146	24.1888	-0.0226	-0.0042
15.9141	2.2689	-0.0283	0.0015	15.9146	17.5172	-0.0311	0.0043	15.9144	24.2870	-0.0224	-0.0044
15.9140	2.3672	-0.0281	0.0013	15.9146	17.6152	-0.0311	0.0043	15.9150	24.3853	-0.0227	-0.0041
15.9140	2.4657	-0.0281	0.0013	15.9147	17.7132	-0.0313	0.0045	15.9146	24.4830	-0.0228	-0.0040
15.9139	2.5642	-0.0281	0.0013	15.9147	17.8110	-0.0313	0.0045	15.9147	24.5813	-0.0229	-0.0039
15.9140	2.6627	-0.0280	0.0012	15.9147	17.9090	-0.0315	0.0047	15.9146	24.6033	-0.0227	-0.0041
15.9138	2.7610	-0.0283	0.0015	15.9148	18.0068	-0.0314	0.0046	15.9141	29.2068	-0.0229	-0.0039
15.9139	2.8591	-0.0281	0.0013	15.9148	18.1048	-0.0316	0.0048	15.9141	29.3064	-0.0230	-0.0038
15.9139	2.9575	-0.0280	0.0012	15.9147	18.2027	-0.0315	0.0047	15.9141	29.4046	-0.0230	-0.0038
15.9138	3.0560	-0.0280	0.0012	15.9147	18.3007	-0.0313	0.0045	15.9140	29.5031	-0.0229	-0.0039
15.9137	3.1543	-0.0280	0.0012	15.9148	18.3988	-0.0317	0.0049	15.9141	29.6014	-0.0228	-0.0040
15.9139	3.2525	-0.0281	0.0013	15.9147	18.4964	-0.0315	0.0047	15.9140	29.6997	-0.0229	-0.0039
15.9137	3.3507	-0.0279	0.0011	15.9148	18.5948	-0.0315	0.0047	15.9140	29.7979	-0.0228	-0.0040
15.9138	3.4492	-0.0279	0.0011	15.9149	18.6926	-0.0317	0.0049	15.9140	29.8963	-0.0227	-0.0041
15.9137	3.5475	-0.0280	0.0012	15.9149	18.7905	-0.0318	0.0050	15.9140	29.9948	-0.0226	-0.0042
15.9137	3.6457	-0.0277	0.0009	15.9150	18.8884	-0.0315	0.0047	15.9141	30.0930	-0.0227	-0.0041
15.9137	3.7445	-0.0281	0.0013	15.9150	18.9868	-0.0320	0.0052 *	15.9141	30.1910	-0.0226	-0.0042
15.9137	3.8421	-0.0280	0.0012	15.9150	19.0846	-0.0319	0.0051 *	15.9141	30.2893	-0.0226	-0.0042
15.9137	3.9404	-0.0279	0.0011	15.9149	19.1828	-0.0320	0.0052 *	15.9142	30.3874	-0.0226	-0.0042
15.9137	4.0389	-0.0277	0.0009	15.9149	19.2808	-0.0316	0.0048	15.9142	30.4856	-0.0226	-0.0042
15.9138	4.1372	-0.0279	0.0011	15.9149	19.3792	-0.0319	0.0051 *	15.9142	30.5838	-0.0226	-0.0042
15.9138	4.2348	-0.0278	0.0010	15.9148	19.4774	-0.0316	0.0048	15.9143	30.6819	-0.0226	-0.0042
15.9138	4.3329	-0.0278	0.0010	15.9146	19.5758	-0.0315	0.0048	15.9143	30.7802	-0.0225	-0.0043
15.9139	4.4309	-0.0277	0.0009	15.9147	19.6742	-0.0314	0.0046	15.9143	30.8784	-0.0228	-0.0040
15.9139	4.5291	-0.0274	0.0006	15.9145	19.7724	-0.0312	0.0044	15.9144	30.9762	-0.0227	-0.0041
15.9139	4.6274	-0.0278	0.0010	15.9145	19.8708	-0.0309	0.0041	15.9144	31.0746	-0.0226	-0.0042
15.9138	4.7250	-0.0276	0.0008	15.9142	19.9692	-0.0307	0.0039	15.9145	31.1728	-0.0229	-0.0039
15.9139	4.8231	-0.0275	0.0007	15.9141	20.0676	-0.0305	0.0037	15.9145	31.2707	-0.0229	-0.0039
15.9139	4.9214	-0.0278	0.0010	15.9146	20.1660	-0.0304	0.0036	15.9145	31.3689	-0.0229	-0.0039
15.9138	5.0191	-0.0277	0.0009	15.9140	20.2642	-0.0297	0.0029	15.9147	31.4666	-0.0227	-0.0041
15.9140	5.1172	-0.0277	0.0009	15.9140	20.3626	-0.0298	0.0030	15.9146	31.5647	-0.0220	-0.0048
15.9142	5.2152	-0.0277	0.0009	15.9140	20.4607	-0.0295	0.0027	15.9142	31.6632	-0.0221	-0.0047
15.9142	5.3133	-0.0277	0.0009	15.9143	20.5589	-0.0291	0.0023	15.9140	31.7596	-0.0213	-0.0055 *
15.9144	5.4114	-0.0279	0.0011	15.9149	20.6573	-0.0214	-0.0054 *	15.9141	31.7596	-0.0214	-0.0054 *
15.9145	5.5095	-0.0278	0.0010	15.9150	20.7574	-0.0213	-0.0055 *	15.9140	31.7799	-0.0212	-0.0056 *
15.9145	5.5261	-0.0277	0.0009	15.9151	20.8549	-0.0214	-0.0054 *	15.9138	31.7983	-0.0209	-0.0059 *
				15.9152	20.9529	-0.0216	-0.0052 *	15.9144	31.8171	-0.0242	-0.0026
15.9140	14.2758	-0.0287	0.0019	15.9150	21.0507	-0.0216	-0.0052 *	15.9145	31.8372	-0.0242	-0.0026
15.9139	14.3757	-0.0288	0.0020	15.9152	21.1487	-0.0214	-0.0054 *	15.9144	31.8558	-0.0242	-0.0026
15.9139	14.4739	-0.0289	0.0021	15.9152	21.2470	-0.0216	-0.0052 *	15.9145	31.8743	-0.0239	-0.0029
15.9139	14.5722	-0.0289	0.0021	15.9153	21.3449	-0.0217	-0.0051 *	15.9141	31.8931	-0.0241	-0.0027
15.9141	14.6705	-0.0292	0.0024	15.9154	21.4428	-0.0217	-0.0051 *	15.9142	31.9104	-0.0240	-0.0028
15.9141	14.7686	-0.0291	0.0023	15.9153	21.5407	-0.0216	-0.0052 *	15.9143	31.9292	-0.0238	-0.0030
15.9140	14.8669	-0.0290	0.0022	15.9153	21.6389	-0.0217	-0.0051 *	15.9140	31.9480	-0.0238	-0.0030
15.9140	14.9652	-0.0289	0.0021	15.9151	21.7369	-0.0216	-0.0052 *	15.9137	31.9665	-0.0234	-0.0034
15.9140	15.0635	-0.0293	0.0025	15.9150	21.8349	-0.0217	-0.0051 *	15.9136	31.9851	-0.0232	-0.0036
15.9139	15.1615	-0.0294	0.0026	15.9149	21.9332	-0.0217	-0.0051 *	15.9146	32.0038	-0.0231	-0.0037
15.9139	15.2597	-0.0294	0.0026	15.9150	22.0312	-0.0218	-0.0050				

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13. ABSTRACT *(Maximum 200 words)*

The goal of the Benchmark Models Program is to provide data useful in the development and evaluation of aeroelastic computational fluid dynamics (CFD) codes. To that end, a series of three similar wing models are being flutter tested in the Langley Transonic Dynamics Tunnel. These models are designed to simultaneously acquire model response data and unsteady surface pressure data during wing flutter conditions. The supercritical wing is the second model of this series. It is a rigid semispan model with a rectangular planform and a NASA SC(2)-0414 supercritical airfoil shape. The supercritical wing model was flutter tested on a flexible mount, called the Pitch and Plunge Apparatus, that provides a well-defined, two-degree-of-freedom dynamic system. This report describes the supercritical wing model and associated flutter test apparatus and includes experimentally determined wind-off structural dynamic characteristics of the combined rigid model and flexible mount system.

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