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RESEARCH MEMORANDUM

PRESSURE DISTRIBUTIONS ON THE BLADE SECTIONS OF THE NACA 10-(0)(066)-03 PROPELLER UNDER OPERATING CONDITIONS

By Seymour Steinberg and Robert W. Milling

Langley Aeronautical Laboratory
Langley Air Force Base, Va.

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RESEARCH MEMORANDUM

PRESSURE DISTRIBUTIONS ON THE BLADE SECTIONS OF THE NACA 10-(0)(066)-03 PROPELLER UNDER OPERATING CONDITIONS

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SUMMARY

This paper is the last of a series of five which present unanalyzed pressure data obtained in tests of five full-scale related propellers incorporating NACA 16-series blade sections. Pressure distributions on the blade sections of these propellers were measured under operating conditions to determine the aerodynamic characteristics of each blade section. The section aerodynamic coefficients obtained by integration of the measured pressure distributions are presented herein, in tabular form, for nine radial stations of the NACA 10-(0)(066)-03 propeller. The thickness ratio varied from about 4 percent at the station nearest the tip to about 16 percent at the innermost section at which pressures were measured. The section helical Mach number varied from 0.35 to 1.14.

INTRODUCTION

The lack of propeller blade-section aerodynamic characteristics at transonic and low supersonic speeds has long been a critical problem entailed in the design of high-speed propellers. Even if two-dimensional airfoil data for this speed range were available, there would remain some doubt as to their applicability, inasmuch as propeller sections operate in a helical flow under conditions far from two dimensional. The present work was undertaken to determine by means of pressure measurements the aerodynamic characteristics of propeller sections under actual operating conditions. Reference 1 presents the results of a preliminary investigation of this type using the NACA 10-(3)(08)-03 propeller. A primary purpose of the early investigation was to determine the feasibility of the method and to develop techniques. The results of the early tests were so encouraging that a more comprehensive program was initiated in which a series of five related propellers were to be investigated. All five propellers had the same blade plan form, pitch distribution, and

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solidity but varied in thickness ratio and design lift coefficient according to the following table:

NACA design number	c_{l_d}	h/b at 0.7R
10-(3)(066)-03	0.3	0.066
10-(3)(049)-03	.3	.049
10-(3)(090)-03	.3	.090
10-(5)(066)-03	.5	.066
10-(0)(066)-03	0	.066

A complete description of the test apparatus, methods for reduction of data, and the experimental data are presented in reference 2 for the NACA 10-(3)(066)-03 propeller. References 3, 4, and 5 present the data obtained from tests of NACA propellers 10-(3)(049)-03, 10-(3)(090)-03, and 10-(5)(066)-03, respectively.[1]

The present paper presents the pressure data obtained from tests of nine symmetrical sections of the NACA 10-(0)(066)-03 propeller. The thickness ratio varied from about 4 percent at the station nearest the tip to about 16 percent at the innermost section at which pressures were measured. The section helical Mach number varied from 0.35 to 1.14. The data have been analyzed only to the extent necessary to ensure their accuracy and to facilitate their use.

SYMBOLS

Many of the symbols used in this paper are defined in figure 1; all are contained in the following list:

B	number of blades
b	blade chord, feet
c	distance from section leading edge to any point on chord, feet
$\overline{c}$	distance from section leading edge to any point about which pitching moments are taken, feet
c_c	section chordwise-force coefficient

[1]The numerical value of solidity in the blade designations for all five propellers is 0.03 and the value presented in references 2 and 3 is incorrect.

c_d section drag coefficient

c_l section lift coefficient

c_{l_d} blade-section design lift coefficient

c_m section pitching-moment coefficient about quarter-chord point

c_n section normal-force coefficient

D propeller diameter, feet

F_c section chordwise-pressure force, pounds

F_n section normal-pressure force, pounds

G Goldstein's induced-velocity correction factor for finite number of blades

h blade-section maximum thickness, feet

J advance ratio (V/nD)

M Mach number of advance

M_x helical-section Mach number $\left(M\sqrt{1 + \left(\frac{\pi x}{J}\right)^2}\right)$

m section pitching moment, foot-pounds

N propeller rotational speed, rpm

n propeller rotational speed, rps

P pressure coefficient $\left(\frac{p - p_o}{q_x}\right)$

p static pressure at point on airfoil surface, pounds per square foot

p_o free-stream static pressure, pounds per square foot

q_x resultant dynamic pressure at radial station x, pounds per square foot $\left(\frac{1}{2}\rho W_o^2\right)$

R	propeller tip radius, feet
r	radius to blade element, feet
r_p	polar ordinate, feet
s	distance along surface of blade section, feet
V	velocity of advance (corrected for wind-tunnel-wall interference effects), feet per second
W_o	velocity vector $\left(V\sqrt{1 + \left(\frac{\pi x}{J}\right)^2}\right)$
W	resultant velocity at blade section, feet per second
w_i	induced velocity at blade section, feet per second
x	fraction of propeller tip radius (r/R)
y	normal distance from chord line to upper or lower surface of airfoil, inches
α_i	induced angle of attack, degrees
α_x	angle of attack of blade element, corrected for induced flow and blade deflection, at radial station x, degrees $(\beta_x - \phi_o + \Delta\beta - \alpha_i)$
α_x'	geometric angle of attack of blade element at radial station x, degrees $(\beta_x - \phi_o)$
α_{x_c}'	geometric angle of attack of blade element at radial station x corrected for torsional deflection, degrees $(\beta_x + \Delta\beta - \phi_o)$
β	blade angle, degrees
$\beta_{0.75R}$	blade angle at 0.75 tip radius, degrees
β_x	blade angle at station x, degrees
$\Delta\beta$	change in blade angle caused by operating loads, degrees
θ	polar angular ordinate, radians
ρ	mass density of air in free stream, slugs per cubic foot

σ solidity $\left(B\frac{b}{D}/\pi x\right)$

ϕ helix angle, degrees $(\phi_o + \alpha_1)$

ϕ_o geometric helix angle, degrees $(\tan^{-1}J/\pi x)$

ψ slope angle at surface of section; referenced to chord, degrees

Subscripts:

L lower-surface value

U upper-surface value

APPARATUS

This investigation was conducted in the Langley 16-foot high-speed tunnel using the 2000-horsepower propeller dynamometer described in detail in reference 6. The functions and details of the pressure-transfer device and the optical deflectometer used in these tests along with diagrams and photographs of these instruments are presented in reference 2. Figure 2 is a schematic diagram of the pressure-distribution-propeller test installation.

Propeller blades.- Pressure distributions on nine radial stations of the NACA 10-(0)(066)-03 propeller were measured and subsequently reduced to the coefficient form presented in the tables. The numerical designation indicates a 10-foot-diameter propeller having the following design parameters at the 0.7 radius: section design lift coefficient, 0; section thickness ratio, 0.066; and solidity per blade, 0.03. The actual diameter was 10.05 feet. Except for a portion near the tip, the propeller blades incorporated NACA 16-series sections throughout. The blade width and design lift coefficient remain constant at 8 inches and zero, respectively, for all stations except very near the blade tip. In the manufacturing process the blades were faired by hand to a fine edge at the tip; asymmetrical fairing resulted in a slight positive camber at the 0.975 radius. The ordinates of this section have been measured and are tabulated in table 1. Figure 3 presents the propeller blade-form curves, blade plan form, orifice station locations, and the spinner location. Details of the blade construction including the pressure tube and orifice installation and temperature-measuring element are described in reference 2.

TESTS

For all the tests the blade angle was set nominally at 45° at the three-quarter radius. It was found later that the chord line of the template used for setting the blade angle deviated from that of the section by 0.2°, and that the blades were actually set at 45.2° at the three-quarter radius. Pressure distributions were obtained at the following radial stations: $x = 0.30$, 0.45, 0.60, 0.70, 0.78, 0.85, 0.90, 0.95, and 0.975. The techniques and testing procedures used in this investigation are described in detail in reference 2. A schedule of the tests, which also serves as an index to the data tables, is presented in table 2.

REDUCTION OF DATA

The usual wind-tunnel-wall corrections described in reference 6 have been applied to the tunnel velocity to obtain equivalent free airspeed.

The following equations, repeated with abbreviated explanation from reference 2, have been used in the reduction of the data.

The pressure coefficient

$$P = \frac{p - p_o}{q_x}$$

The normal force

$$F_n = \oint p \cos \psi \, ds = \int_0^b \left[(p_L - p_o) - (p_U - p_o) \right] dc$$

making the normal-force coefficient

$$c_n = \frac{F_n}{q_x b} = \int_0^{1.0} (P_L - P_U) d\frac{c}{b}$$

The chordwise force

$$F_c = \oint p \sin \psi \, ds = \int_0^b \left[(p_U - p_o) \tan \psi_U - (p_L - p_o) \tan \psi_L \right] dc$$

making the chordwise-force coefficient

$$c_c = \frac{F_c}{q_x b} = \int_0^{1.0} \left(P_U \tan \psi_U - P_L \tan \psi_L \right) d\frac{c}{b} \tag{1}$$

or

$$c_c = \int_0^{2\pi} P \left[\frac{\sin \psi}{\sin(\theta - \psi)} \right] \left(\frac{r_p}{b} \right) d\theta \tag{2}$$

where equation (1) is used to evaluate that portion of chordwise-force coefficient from $\frac{c}{b} = 0.025$ to $\frac{c}{b} = 1.0$ and equation (2) is used to evaluate the chordwise-force coefficient from $\frac{c}{b} = 0$ to $\frac{c}{b} = 0.25$.

The pitching-moment coefficient

$$c_m = \frac{m}{q_x b^2} = \frac{\bar{c}}{b} \int_0^{1.0} \left(P_L - P_U \right) d\frac{c}{b} - \int_0^{1.0} \left(P_L - P_U \right) \frac{c}{b} \, d\frac{c}{b}$$

and the moments have been taken about $\frac{\bar{c}}{b} = 0.25$.

The induced angle

$$\alpha_i = \tan^{-1} \left(\frac{\sigma c_l}{4G \sin \phi} \right)$$

For the first approximation in the calculation of the induced angle, it is assumed that c_l is equal to c_n and ϕ is equal to ϕ_o. Usually two or three successive approximations will yield the final value of induced angle.

RESULTS AND DISCUSSION

The results obtained from measurement of the pressure distributions on nine radial stations of the NACA 10-(0)(066)-03 propeller are presented in tables 3 to 11 with table 2 serving as an index to the tables.

Pressure distributions.- A value of pressure coefficient is tabulated for each test point for the 12 upper-surface and 12 lower-surface orifice locations as well as for the leading and trailing edges of each airfoil section. The thinness of the blade prevented the installation of a pressure tube at $\frac{c}{b} = 0.975$ outboard of the 0.7 radial station. The value of pressure coefficient tabulated for this chordwise position outboard of the 0.7 radius is therefore a faired value and bears the footnote "no orifice." The leading-edge and trailing-edge values, for all stations, also bear the same footnote. The value of leading-edge pressure coefficient recorded is based on the assumption that the stagnation point does not deviate from the leading edge regardless of the section angle of attack. Although this assumption is not strictly true, the error involved is negligible. The trailing-edge pressure coefficient was obtained by reading the faired intersection of the upper- and lower-surface pressures at the trailing edge.

Figure 4 presents typical pressure distributions along the chord of the NACA 16-004.4 blade section ($x = 0.95$) at a constant advance ratio of 2.12 and at an angle of attack of approximately 1.6° (including Goldstein's correction for the induced angle). The values for this figure were obtained from table 10. Figures 4(a) and 4(b) show pressure distributions typical of speeds below the section critical Mach number; whereas figure 4(c) presents a pressure distribution typical of those obtained at low supersonic speeds.

The section normal-force and pitching-moment coefficients were derived by integration of the pressure-distribution plots and are tabulated for all test points in the tables. The chordwise-pressure-force coefficients were obtained by the method described in reference 2. The variations of normal-force, pitching-moment, and chordwise-force coefficients together with section Mach number and angle of attack plotted against advance ratio are shown in figure 5 illustrating a convenient form for use in further analysis of the blade-section data. These values in figure 5 were taken from table 9(e).

Blade-angle deflection.- The torsional deflection of the propeller blade was measured during the tests with an optical deflectometer described in reference 2. These measurements were closely checked by independent computations and the final tabulated values of blade deflection whether determined from measurements or computations are considered to be accurate to within 0.1°.

For the one-blade-propeller data presented in tables 8 and 10 no torsional deflection data were obtained and the values of $\Delta\beta$ presented were estimated by extrapolation of the two-blade data to lower values of advance ratio.

Induced angle.- The vortex theory with Goldstein's correction for a finite number of blades was used to compute the section induced angle, α_i. The Goldstein correction factor is strictly applicable only if the propeller operates with a Betz or optimum loading. Since the loadings obtained in these tests are arbitrary, the values of induced angle presented are admittedly in error especially for sections near the blade tip. For a more sound approach a method such as is presented in reference 7 for computation of the induced angles of an arbitrarily loaded propeller should be employed.

Figure 6 shows the effect of the induced-angle correction on the lift-coefficient curve for the NACA 16-005.85 airfoil section at the 0.78 radial station operating at a section helical Mach number of 0.7. The slope $dc_l/d\alpha$ increased from 0.079 for the uncorrected angle of attack ($\alpha_{x_c}' = \beta_x + \Delta\beta - \phi_o$) to 0.125 for the corrected angle ($\alpha_x = \beta_x + \Delta\beta - \phi_o - \alpha_i$). For comparison, data from the Langley rectangular high-speed tunnel (reference 8) for the NACA 16-006 airfoil section are plotted in the same figure. The induced-angle correction brings the propeller data to closer agreement with the two-dimensional airfoil data, but it is not certain that the data obtained from airfoils operating as propeller blade sections should agree with two-dimensional airfoil data.

Symmetrical airfoil sections normally produce lift coefficients very near zero at an angle of attack of 0° as is indicated in the two-dimensional data from reference 8 shown in figure 6. The angle of zero lift for the propeller blade-section data shown in the same figure is about -0.5°. An examination of all the blade-section data showed that this phenomenon was evident throughout, and in some cases, the angle of zero lift was as much as -1.0°. An error found in the blade-angle setting accounted for only 0.2° which was corrected in the data. No other systematic error could be found in either the testing procedure or the data. Until the data from all five propellers tested can be analyzed, no attempt will be made to explain the peculiarity associated with angle of zero lift.

Blade loadings.- Figure 7 shows the variation of normal-force coefficient and section helical Mach number along the blade radius at an advance ratio of 2.2 for five values of free-stream Mach number. These are actual loading curves at the propeller blade itself and not loadings obtained from slipstream surveys. However, wake-survey measurements proved to be of considerable value in fairing these curves. At free-stream Mach numbers of 0.38 and 0.45 all the blade sections operate at subcritical speeds and the load distributions are free from abrupt changes. When the forward Mach number is increased from 0.56 to 0.65, the compressibility effect on the tip sections becomes evident through a loss of lift while the peak loads are continually being shifted inboard.

At a stream Mach number of 0.65 the loading curve drops appreciably at the 0.73 blade radius and a slight recovery of lift can be seen to occur at $x = 0.82$ where the section Mach number is just below unity.

Langley Aeronautical Laboratory
National Advisory Committee for Aeronautics
Langley Air Force Base, Va.

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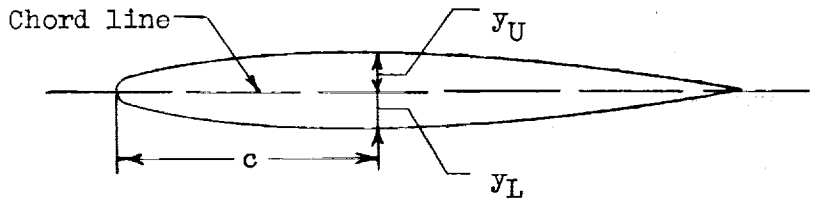
TABLE 1.- ORDINATES FOR BLADE SECTION AT 0.975 RADIUS OF NACA 10-(0)(066)-03 PROPELLER



c (in.)	y_U (in.)	y_L (in.)
0	0	0
.2	.038	.032
.4	.063	.053
.8	.094	.072
1.6	.136	.094
2.4	.157	.111
3.2	.169	.115
4.0	.173	.117
4.8	.161	.121
5.6	.151	.111
6.4	.118	.086
7.2	.078	.052
7.6	.047	.025
7.8	.032	.010
8.0	0	0

TABLE 2.- INDEX OF TABLES AND SUMMARY OF TESTS

Table	Radial station, x	β_x (deg)	Number of blades	Blade section	1140 rpm	1350 rpm	1500 rpm	1600 rpm	M = 0.56	M = 0.58	M = 0.60	M = 0.62	M = 0.65
3	0.30	68.90	2	NACA 16-016.25	a	b	c	d	e	--------	f	--------	g
4	.45	59.50	2	NACA 16-010.00	a	b	c	d	e	--------	f	--------	g
5	.60	51.60	2	NACA 16-007.50	a	b	c	d	e	--------	f	--------	g
6	.70	47.35	2	NACA 16-006.62	a	b	c	d	e	--------	f	--------	g
7	.78	44.15	2	NACA 16-005.85	a	b	c	d	e	--------	f	--------	g
8	.85	41.90	2 1	NACA 16-005.30	a ----	b ----	c ----	d ----	e h	 --------	f --------	 --------	g --------
9	.90	40.00	2	NACA 16-004.80	a	b	c	d	e	--------	f	--------	g
10	.95	38.85	2 1	NACA 16-004.40	a ----	b ----	c h	d ----	e i	 j	f k	 l	g --------
11	.975	38.50	2	NACA 16-003.72	a	b	c	d	e	--------	f	--------	g

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION (x = 0.30)

$\beta_{0.75R} = 45.2°$, $\beta_x = 68.90°$, B = 2

(a) N = 1140 rpm.

	J	1.782	1.878	1.969	2.047	2.158	2.264	2.453	2.361	2.304	2.208	2.118	2.003	1.903	1.827
	M_x	.350	.367	.381	.393	.410	.428	.459	.444	.433	.418	.403	.385	.368	.359
	α_x,	6.78	5.55	4.48	3.62	2.49	1.50	-.08	.66	1.15	2.01	2.89	4.10	5.25	6.19
	$\Delta\beta$	.02	.01	.01	.01	.01	0	0	0	0	0	.01	.01	.01	.01
	α_i	1.00	.79	.59	.45	.30	.16	-.05	.03	.10	.25	.36	.52	.73	.90
	c_n	.4161	.3323	.2490	.1929	.1271	.0684	-.0242	.0110	.0423	.1061	.1523	.2213	.3058	.3748
	c_m	.0732	.0675	.0633	.0580	.0461	.0373	.0221	.0312	.0360	.0392	.0497	.0605	.0659	.0693
	c_c														
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.031	1.034	1.037	1.040	1.043	1.047	1.054	1.051	1.048	1.045	1.042	1.038	1.034	1.033
	.025	-1.676	-1.335	-1.049	-.836	-.572	-.362	-.061	-.196	-.285	-.475	-.663	-.953	-1.254	-1.508
	.050	-1.420	-1.195	-.994	-.854	-.668	-.516	-.287	-.394	-.458	-.597	-.734	-.938	-1.137	-1.305
	.100	-1.046	-.925	-.795	-.713	-.593	-.490	-.340	-.415	-.452	-.548	-.632	-.765	-.884	-.979
	.200	-.776	-.696	-.611	-.575	-.507	-.442	-.351	-.397	-.418	-.475	-.529	-.599	-.668	-.733
	.300	-.667	-.616	-.553	-.527	-.490	-.442	-.380	-.412	-.424	-.468	-.501	-.553	-.594	-.636
	.400	-.585	-.552	-.506	-.497	-.473	-.439	-.402	-.426	-.431	-.458	-.476	-.510	-.535	-.565
	.500	-.521	-.502	-.471	-.471	-.459	-.439	-.422	-.435	-.434	-.451	-.455	-.479	-.490	-.508
	.600	-.416	-.413	-.392	-.404	-.404	-.397	-.399	-.403	-.396	-.405	-.398	-.402	-.399	-.407
	.700	-.279	-.294	-.287	-.311	-.329	-.333	-.354	-.346	-.337	-.335	-.320	-.306	-.282	-.284
	.800	-.050	-.066	-.076	-.110	-.158	-.161	-.196	-.178	-.166	-.163	-.144	-.094	-.062	-.055
	.900	.114	.137	.159	.161	.151	.162	.151	.164	.166	.149	.161	.156	.145	.126
	.950	.123	.145	.182	.210	.250	.238	.232	.232	.234	.246	.242	.187	.162	.139
Lower surface	.0375	.671	.552	.448	.344	.209	.085	-.140	-.043	.029	.153	.263	.395	.531	.619
	.075	.388	.281	.198	.102	-.014	-.103	-.281	-.211	-.151	-.053	.037	.145	.266	.346
	.150	.178	.091	.030	-.047	-.127	-.193	-.312	-.268	-.226	-.153	-.091	-.017	.079	.139
	.250	-.005	-.074	-.115	-.181	-.243	-.289	-.380	-.352	-.316	-.262	-.214	-.156	-.079	-.033
	.350	-.096	-.151	-.185	-.237	-.281	-.318	-.380	-.364	-.334	-.299	-.257	-.217	-.154	-.116
	.450	-.178	-.222	-.248	-.289	-.322	-.349	-.397	-.385	-.362	-.332	-.306	-.275	-.220	-.196
	.550	-.242	-.286	-.295	-.333	-.360	-.365	-.399	-.397	-.381	-.358	-.342	-.325	-.282	-.262
	.650	-.306	-.337	-.342	-.371	-.380	-.385	-.394	-.403	-.390	-.375	-.370	-.364	-.336	-.319
	.750	-.342	-.354	-.349	-.367	-.360	-.353	-.351	-.364	-.356	-.352	-.356	-.368	-.349	-.341
	.850	-.288	-.290	-.279	-.292	-.281	-.238	-.177	-.214	-.226	-.256	-.281	-.294	-.282	-.284
	.925	-.142	-.108	-.080	-.069	-.031	-.001	.029	.002	.001	-.007	-.041	-.082	-.091	-.121
	.975	-.032	-.007	.026	.057	.130	.152	.159	.140	.141	.153	.111	.033	.004	-.015
	[a]1.000	.120	.140	.174	.200	.245	.265	.255	.255	.264	.280	.263	.149	.154	.146

[a]No orifice.

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION (x = 0.30) $\beta_{0.75R} = 45.2°$, $\beta_x = 68.90°$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.858	1.952	2.048	2.153	2.244	2.355	2.449	2.403	2.305	2.205	2.101	1.994	1.910
	M_x	.432	.450	.465	.488	.503	.524	.543	.534	.513	.494	.473	.453	.439
	α_x'	5.80	4.67	3.61	2.54	1.68	.71	-.05	.32	1.14	2.04	3.06	4.20	5.16
	$\Delta\beta$	.02	.02	.02	.01	.01	0	0	0	0	0	.01	.02	.02
	α_i	.88	.68	.48	.35	.22	.08	-.05	0	.14	.27	.38	.55	.75
	c_n	.3671	.2865	.2019	.1497	.0971	.0339	-.0219	.0003	.0613	.1177	.1613	.2342	.3161
	c_m	.0729	.0685	.0631	.0423	.0349	.0280	.0197	.0261	.0316	.0356	.0575	.0674	.0705
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.048	1.052	1.055	1.061	1.065	1.070	1.075	1.073	1.067	1.062	1.057	1.053	1.049
	.025	-1.472	-1.166	-.880	-.603	-.413	-.207	-.048	-.117	-.292	-.394	-.725	-1.016	-1.287
	.050	-1.311	-1.105	-.910	-.710	-.577	-.417	-.296	-.350	-.483	-.634	-.799	-1.004	-1.186
	.100	-1.000	-.884	-.759	-.629	-.546	-.439	-.360	-.396	-.480	-.582	-.687	-.820	-.930
	.200	-.754	-.672	-.603	-.535	-.483	-.419	-.375	-.396	-.443	-.508	-.570	-.636	-.707
	.300	-.663	-.611	-.559	-.515	-.483	-.437	-.413	-.424	-.450	-.498	-.536	-.585	-.625
	.400	-.594	-.555	-.523	-.494	-.481	-.450	-.438	-.444	-.455	-.488	-.509	-.541	-.567
	.500	-.531	-.508	-.493	-.477	-.473	-.457	-.457	-.457	-.455	-.476	-.482	-.501	-.512
	.600	-.433	-.423	-.419	-.421	-.428	-.423	-.436	-.429	-.418	-.426	-.418	-.421	-.420
	.700	-.298	-.302	-.315	-.340	-.355	-.360	-.383	-.374	-.350	-.347	-.325	-.306	-.295
	.800	-.065	-.070	-.095	-.157	-.172	-.176	-.205	-.191	-.171	-.168	-.128	-.082	-.063
	.900	.115	.142	.160	.142	.136	.166	.158	.165	.154	.129	.165	.151	.132
	.950	.124	.153	.190	.223	.208	.222	.217	.219	.223	.211	.218	.168	.142
Lower surface	.0375	[b].608	.480	.357	.228	.114	-.016	-.146	-.084	.049	.162	.284	.416	.523
	.075	.303	.212	.105	.003	-.095	-.198	-.302	-.254	-.144	-.054	.045	.157	.255
	.150	.105	.036	-.043	-.122	-.192	-.264	-.336	-.302	-.223	-.163	-.091	-.007	.068
	.250	-.068	-.120	-.186	-.243	-.300	-.354	-.413	-.385	-.322	-.280	-.224	-.159	-.100
	.350	-.150	-.190	-.243	-.284	-.326	-.365	-.413	-.389	-.341	-.312	-.272	-.222	-.173
	.450	-.229	-.261	-.304	-.332	-.365	-.392	-.428	-.411	-.374	-.352	-.323	-.286	-.246
	.550	-.291	-.314	-.345	-.363	-.389	-.405	-.428	-.418	-.390	-.379	-.363	-.335	-.304
	.650	-.354	-.367	-.389	-.388	-.406	-.410	-.423	-.418	-.401	-.396	-.397	-.383	-.359
	.750	-.376	-.379	-.389	-.368	-.370	-.365	-.370	-.367	-.360	-.372	-.387	-.389	-.377
	.850	-.317	-.314	-.315	-.254	-.230	-.203	-.186	-.191	-.209	-.245	-.307	-.317	-.313
	.925	-.134	-.108	-.095	-.003	.023	.018	.020	.017	.035	.020	-.067	-.105	-.121
	.975	-.040	-.008	.031	.147	.160	.157	.147	.150	.168	.162	.077	.007	.020
	[a]1.000	.095	.125	.160	.223	.242	.225	.211	.216	.229	.254	.220	.153	.150

[a]No orifice.

[b]Faired value.

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION (x = 0.30)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 68.90^\circ$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.824	1.936	2.029	2.114	2.224	2.328	2.443	2.389	2.273	2.176	2.087	1.999	1.901
	M_x	.472	.493	.514	.532	.556	.578	.606	.593	.565	.545	.524	.506	.485
	α_x'	6.22	4.86	3.81	2.93	1.87	.94	0	.43	1.42	2.32	3.20	4.14	5.27
	$\Delta\beta$	.02	.02	.02	.01	.01	0	0	0	.01	.01	.02	.02	.02
	a_1	1.00	.76	.55	.42	.34	.23	.08	.13	.30	.37	.46	.61	.84
	c_n	.4155	.3206	.2361	.1813	.1458	.1016	.0342	.0558	.1290	.1600	.1968	.2613	.3548
	c_m	.0759	.0711	.0655	.0531	.0274	.0063	-.0014	.0075	.0173	.0375	.0585	.0675	.0729
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.057	1.062	1.068	1.072	1.079	1.086	1.095	1.091	1.082	1.076	1.070	1.065	1.060
	.025	-1.673	-1.285	-.979	-.735	-.471	-.256	-.060	-.154	-.372	-.576	-.813	-1.076	-1.418
	.050	-1.461	-1.205	-1.000	-.825	-.637	-.473	-.319	-.392	-.564	-.716	-.885	-1.069	-1.292
	.100	-1.083	-.953	-.823	-.717	-.594	-.487	-.387	-.433	-.550	-.648	-.749	-.865	-.999
	.200	-.814	-.718	-.643	-.596	-.526	-.464	-.407	-.431	-.502	-.561	-.610	-.667	-.752
	.300	-.698	-.636	-.587	-.549	-.516	-.477	-.449	-.457	-.502	-.537	-.560	-.607	-.657
	.400	-.621	-.581	-.550	-.527	-.508	-.487	-.476	-.474	-.502	-.522	-.535	-.561	-.591
	.500	-.543	-.518	-.507	-.498	-.498	-.491	-.497	-.487	-.500	-.503	-.499	-.513	-.526
	.600	-.431	-.423	-.419	-.426	-.444	-.458	-.477	-.459	-.456	-.442	-.424	-.423	-.424
	.700	-.282	-.286	-.302	-.324	-.360	-.392	-.427	-.401	-.382	-.354	-.316	-.298	-.283
	.800	-.046	-.046	-.068	-.112	-.185	-.227	-.265	-.230	-.209	-.165	-.093	-.061	-.044
	.900	.093	.131	.151	.158	.111	.051	.034	.061	.075	.128	.160	.142	.118
	.950	.098	.139	.170	.204	.208	.172	.190	.200	.185	.207	.192	.156	.123
Lower surface	.0375	[b].615	[b].513	.408	.304	.169	.041	-.116	-.033	.105	.216	.339	.446	[b].554
	.075	.359	.254	.151	.058	-.053	-.159	-.290	-.221	-.109	-.016	.088	.183	.293
	.150	.150	.071	-.012	-.083	-.167	-.242	-.333	-.284	-.207	-.142	-.059	.011	.100
	.250	-.035	-.096	-.162	-.218	-.282	-.342	-.416	-.375	-.314	-.265	-.201	-.143	-.069
	.350	-.122	-.171	-.225	-.269	-.317	-.362	-.420	-.388	-.342	-.305	-.253	-.210	-.152
	.450	-.209	-.246	-.293	-.328	-.364	-.398	-.441	-.416	-.382	-.357	-.316	-.279	-.231
	.550	-.277	-.303	-.337	-.361	-.382	-.406	-.441	-.420	-.398	-.382	-.354	-.329	-.293
	.650	-.347	-.361	-.386	-.399	-.403	-.412	-.436	-.424	-.412	-.410	-.395	-.382	-.354
	.750	-.380	-.381	-.391	-.390	-.366	-.352	-.369	-.366	-.364	-.382	-.391	-.389	-.378
	.850	-.325	-.316	-.304	-.273	-.197	-.134	-.141	-.149	-.175	-.237	-.291	-.312	-.316
	.925	-.157	-.123	-.099	-.041	.076	.151	.127	.119	.107	.024	-.068	-.111	-.136
	.975	-.056	-.013	.039	.122	.204	.228	.257	.238	.211	.177	.088	.013	-.028
	[a]1.000	.070	.122	.160	.240	.253	.254	.308	.286	.250	.253	.185	.145	.130

[a]No orifice.

[b]Faired value.

CONFIDENTIAL

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION (x = 0.30)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 68.90^\circ$, B = 2 - Continued

(d) N = 1600 rpm.

	J	2.021	2.111	2.197	2.306	2.392	2.452	2.426	2.354	2.260	2.153	2.066
	M_x	.552	.570	.591	.615	.637	.651	.645	.624	.602	.577	.555
	α_i'	3.90	2.96	2.12	1.13	.40	-.10	.13	.72	1.54	2.54	3.42
	$\Delta\beta$	.03	.02	.02	.01	0	0	0	0	.01	.02	.03
	α_i	.61	.47	.39	.27	.15	.09	.13	.18	.32	.40	.52
	c_n	.2606	.2039	.1690	.1200	.0652	.0406	.0552	.0784	.1387	.1735	.2226
	c_m	.0657	.0529	.0323	.0144	.0093	-.0119	-.0039	.0170	.0224	.0454	.0615
	c_c											
	c/b	Pressure coefficient, P										
Upper surface	[a]0.000	1.078	1.083	1.090	1.097	1.105	1.110	1.108	1.100	1.093	1.086	1.079
	.025	-1.038	-.771	-.543	-.304	-.129	.028	-.066	-.208	-.397	-.642	-.906
	.050	-1.065	-.878	-.712	-.529	-.385	-.238	-.336	-.449	-.597	-.782	-.972
	.100	-.875	-.757	-.658	-.538	-.442	-.388	-.411	-.484	-.581	-.699	-.813
	.200	-.677	-.627	-.573	-.504	-.447	-.418	-.431	-.472	-.526	-.594	-.650
	.300	-.620	-.581	-.558	-.517	-.481	-.467	-.474	-.494	-.524	-.563	-.594
	.400	-.576	-.554	-.543	-.518	-.499	-.496	-.500	-.506	-.521	-.541	-.561
	.500	-.526	-.520	-.525	-.518	-.514	-.524	-.522	-.513	-.515	-.516	-.520
	.600	-.434	-.481	-.461	-.476	-.484	-.501	-.497	-.475	-.464	-.444	-.434
	.700	-.305	-.330	-.367	-.399	-.419	-.449	-.441	-.403	-.377	-.345	-.310
	.800	-.065	-.105	-.175	-.219	-.236	-.285	-.270	-.215	-.198	-.135	-.073
	.900	.142	.160	.123	.071	.070	.011	.023	.086	.094	.147	.150
	.950	.157	.191	.206	.182	.209	.157	.168	.203	.196	.207	.167
Lower surface	.0375	[b].508	.320	.208	.076	-.037	-.120	-.092	.012	.134	.260	.377
	.075	.169	.073	-.025	-.135	-.231	-.305	-.281	-.189	-.085	.021	.121
	.150	0	-.075	-.151	-.230	-.296	-.349	-.334	-.269	-.193	-.115	-.038
	.250	-.155	-.216	-.275	-.339	-.393	-.439	-.425	-.368	-.307	-.246	-.184
	.350	-.221	-.271	-.318	-.367	-.409	-.446	-.436	-.391	-.340	-.294	-.246
	.450	-.290	-.330	-.367	-.406	-.437	-.467	-.461	-.424	-.384	-.351	-.310
	.550	-.340	-.370	-.397	-.422	-.444	-.462	-.459	-.436	-.404	-.384	-.355
	.650	-.391	-.409	-.423	-.432	-.445	-.452	-.454	-.444	-.422	-.417	-.401
	.750	-.399	-.402	-.389	-.376	-.380	-.360	-.374	-.389	-.379	-.399	-.403
	.850	-.301	-.273	-.220	-.163	-.152	-.093	-.118	-.177	-.183	-.255	-.302
	.925	-.107	-.054	.048	.122	.122	.158	.152	.095	.103	-.007	-.093
	.975	.044	.120	.193	.210	.231	.233	.234	.212	.207	.161	.064
	[a]1.000	.150	.208	.260	.239	.276	.263	.260	.255	.244	.246	.181

[a]No orifice.

[b]Faired value.

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION (x = 0.30)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 68.90^{\circ}$, B = 2 - Continued

(e) M = 0.56.

	J	2.086	2.129	2.146	2.170	2.204	2.228	2.255	2.282	2.311	2.341	2.377	2.409	2.439
	M_x	.615	.616	.613	.611	.611	.610	.609	.608	.607	.606	.606	.605	.604
	α_x'	3.21	2.78	2.61	2.37	2.05	1.83	1.58	1.34	1.09	.83	.53	.27	.06
	$\Delta\beta$	.03	.03	.03	.02	.02	.02	.02	.02	.02	.01	.01	.01	0
	α_1	.48	.43	.41	.40	.36	.35	.32	.28	.25	.20	.14	.11	.08
	c_n	.2052	.1852	.1748	.1716	.1571	.1516	.1403	.1210	.1094	.0855	.0613	.0500	.0342
	c_m	.0596	.0521	.0492	.0424	.0356	.0291	.0230	.0177	.0138	.0111	.0084	.0034	-.0038
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.097	1.098	1.097	1.096	1.096	1.095	1.095	1.095	1.095	1.094	1.094	1.094	1.094
	.025	-.782	-.672	-.637	-.580	-.511	-.458	-.394	-.258	-.279	-.206	-.144	-.097	-.052
	.050	-.928	-.840	-.808	-.758	-.699	-.653	-.600	-.547	-.504	-.441	-.387	-.348	-.310
	.100	-.802	-.748	-.726	-.694	-.653	-.622	-.584	-.549	-.519	-.472	-.435	-.406	-.379
	.200	-.658	-.628	-.620	-.599	-.573	-.555	-.530	-.507	-.490	-.457	-.435	-.419	-.401
	.300	-.602	-.588	-.586	-.574	-.557	-.546	-.528	-.514	-.504	-.479	-.464	-.451	-.442
	.400	-.573	-.563	-.563	-.557	-.545	-.539	-.527	-.516	-.510	-.490	-.480	-.475	-.468
	.500	-.531	-.532	-.533	-.530	-.525	-.524	-.518	-.514	-.512	-.499	-.495	-.493	-.490
	.600	-.444	-.449	-.456	-.458	-.459	-.465	-.466	-.468	-.472	-.466	-.466	-.469	-.473
	.700	-.314	-.334	-.348	-.357	-.362	-.373	-.376	-.387	-.400	-.400	-.406	-.413	-.422
	.800	-.079	-.109	-.129	-.148	-.168	-.183	-.195	-.209	-.220	-.221	-.232	-.247	-.268
	.900	.161	.161	.151	.143	.130	.113	.097	.082	.068	.068	.062	.047	.028
	.950	.185	.203	.205	.210	.209	.202	.193	.190	.176	.189	.198	.193	.186
Lower surface	.0375	.353	.296	.269	.241	.207	.175	.140	.096	.055	.016	-.036	-.074	-.119
	.075	.091	.046	.023	0	-.026	-.053	-.082	-.119	-.152	-.185	-.226	-.256	-.292
	.150	-.061	-.095	-.115	-.130	-.150	-.169	-.190	-.216	-.242	-.262	-.288	-.310	-.333
	.250	-.208	-.234	-.250	-.260	-.276	-.291	-.306	-.328	-.346	-.360	-.381	-.395	-.415
	.350	-.264	-.285	-.298	-.307	-.317	-.328	-.340	-.355	-.371	-.378	-.394	-.406	-.419
	.450	-.330	-.348	-.360	-.364	-.369	-.378	-.383	-.398	-.409	-.410	-.423	-.429	-.439
	.550	-.372	-.384	-.394	-.394	-.397	-.401	-.405	-.412	-.422	-.419	-.428	-.431	-.439
	.650	-.421	-.424	-.431	-.428	-.424	-.424	-.421	-.426	-.431	-.427	-.430	-.431	-.431
	.750	-.416	-.412	-.414	-.403	-.390	-.387	-.378	-.376	-.375	-.367	-.370	-.365	-.362
	.850	-.289	-.266	-.261	-.239	-.216	-.200	-.183	-.171	-.162	-.148	-.151	-.143	-.132
	.925	-.061	-.021	-.007	.025	.059	.082	.102	.114	.117	.122	.116	.130	.142
	.975	.111	.150	.158	.182	.198	.204	.208	.209	.203	.222	.234	.253	.268
	[a]1.000	.206	.223	.229	.240	.263	.268	.258	.271	.245	.255	.263	.296	.313

[a]No orifice.

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION ($x = 0.30$)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 68.90^{\circ}$, B = 2 - Continued

(f) M = 0.60.

	J	2.440	2.416	2.391	2.363	2.335	2.307	2.287	2.247	2.222	2.196	2.172	2.152	2.129	2.106
	M_x	.646	.647	.648	.649	.649	.650	.654	.653	.654	.653	.655	.656	.657	.658
	α_x'	.02	.21	.41	.64	.88	1.12	1.30	1.65	1.89	2.13	2.36	2.55	2.78	3.01
	$\Delta\beta$	0	0	0	0	.01	.01	.01	.02	.02	.02	.02	.03	.03	.03
	α_i	.14	.17	.20	.21	.23	.24	.27	.31	.34	.37	.41	.42	.46	.48
	c_n	.0600	.0752	.0884	.0932	.1013	.1055	.1190	.1352	.1455	.1619	.1781	.1813	.1961	.2071
	c_m	-.0207	-.0168	-.0118	-.0036	.0043	.0138	.0175	.0240	.0323	.0392	.0451	.0503	.0556	.0618
	c_c														
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.108	1.109	1.109	1.110	1.110	1.110	1.111	1.111	1.111	1.111	1.111	1.112	1.112	1.113
	.025	-.035	-.078	-.117	-.158	-.204	-.244	-.227	-.357	-.422	-.490	-.549	-.604	-.663	-.719
	.050	-.240	-.346	-.381	-.420	-.460	-.495	-.539	-.596	-.655	-.717	-.769	-.823	-.881	-.941
	.100	-.386	-.418	-.445	-.472	-.499	-.527	-.555	-.595	-.639	-.683	-.721	-.757	-.798	-.838
	.200	-.415	-.439	-.457	-.474	-.490	-.508	-.523	-.548	-.576	-.603	-.626	-.652	-.675	-.696
	.300	-.461	-.480	-.491	-.503	-.514	-.526	-.536	-.551	-.569	-.588	-.602	-.620	-.632	-.645
	.400	-.491	-.505	-.512	-.521	-.525	-.534	-.537	-.548	-.560	-.572	-.579	-.589	-.599	-.604
	.500	-.517	-.528	-.532	-.532	-.532	-.536	-.536	-.540	-.543	-.549	-.550	-.557	-.557	-.559
	.600	-.497	-.505	-.502	-.498	-.493	-.490	-.483	-.480	-.476	-.475	-.471	-.470	-.468	-.463
	.700	-.448	-.451	-.444	-.433	-.420	-.409	-.393	-.383	-.372	-.367	-.357	-.350	-.339	-.326
	.800	-.299	-.294	-.280	-.264	-.243	-.226	-.208	-.195	-.175	-.159	-.138	-.122	-.104	-.085
	.900	-.032	-.024	-.007	.022	.057	.084	.097	.113	.137	.142	.154	.155	.156	.156
	.950	.109	.117	.135	.157	.185	.194	.209	.216	.222	.216	.212	.205	.196	.184
Lower surface	.0375	-.111	-.082	-.046	-.012	.029	.058	.101	.142	.180	.216	.250	.274	.305	[b].350
	.075	-.294	-.274	-.246	-.217	-.181	-.158	-.122	-.088	-.057	-.025	.004	.025	.051	.074
	.150	-.340	-.326	-.308	-.285	-.260	-.244	-.217	-.193	-.172	-.150	-.130	-.116	-.096	-.079
	.250	-.429	-.421	-.406	-.389	-.369	-.359	-.336	-.316	-.299	-.286	-.270	-.260	-.245	-.230
	.350	-.437	-.433	-.421	-.409	-.394	-.385	-.365	-.352	-.340	-.330	-.317	-.312	-.300	-.291
	.450	-.456	-.456	-.448	-.440	-.426	-.422	-.407	-.397	-.390	-.383	-.375	-.373	-.366	-.358
	.550	-.455	-.459	-.453	-.448	-.441	-.438	-.426	-.422	-.417	-.415	-.412	-.413	-.409	-.406
	.650	-.438	-.444	-.445	-.446	-.444	-.445	-.441	-.441	-.442	-.446	-.444	-.451	-.452	-.454
	.750	-.335	-.346	-.354	-.366	-.374	-.381	-.385	-.391	-.401	-.412	-.418	-.430	-.438	-.446
	.850	-.043	-.061	-.077	-.101	-.129	-.150	-.167	-.182	-.206	-.225	-.239	-.260	-.276	-.293
	.925	.186	.179	.173	.157	.135	.118	.116	.100	.069	.043	.022	-.004	-.029	-.053
	.975	.212	.209	.212	.216	.222	.212	.227	.223	.208	.190	.179	.161	.142	.121
	[a]1.000	.215	.214	.221	.235	.252	.249	.272	.275	.260	.260	.240	.233	.220	.216

[a]No orifice.

[b]Faired value.

TABLE 3.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-016.25 PROPELLER BLADE SECTION (x = 0.30) $\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 68.90^{\circ}$, B = 2 - Concluded

(g) M = 0.65.

	J	2.130	2.160	2.188	2.218	2.246	2.266	2.291	2.321	2.341	2.368	2.401	2.430
	M_x	.707	.708	.708	.709	.710	.704	.705	.704	.703	.699	.701	.700
	α_x'	2.77	2.47	2.20	1.92	1.66	1.48	1.26	1.00	.83	.62	.33	.10
	$\Delta\beta$	.02	.02	.02	.02	.02	.02	.01	.01	.01	.01	0	0
	α_1	.48	.45	.42	.41	.38	.36	.34	.31	.29	.25	.20	.17
	c_n	.2084	.1955	.1813	.1774	.1642	.1568	.1500	.1352	.1252	.1113	.0900	.0735
	c_m	.0551	.0477	.0364	.0308	.0234	.0162	.0113	.0034	-.0017	-.0096	-.0107	-.0192
	c_c												
c/b		Pressure coefficient, P											
Upper surface	[a]0.000	1.131	1.132	1.132	1.132	1.133	1.130	1.131	1.131	1.131	1.129	1.130	1.129
	.025	-.576	-.503	-.446	-.395	-.336	-.295	-.265	-.202	-.172	-.118	-.073	-.020
	.050	-.894	-.806	-.744	-.690	-.627	-.586	-.554	-.491	-.458	-.410	-.366	-.314
	.100	-.877	-.809	-.754	-.707	-.658	-.625	-.597	-.545	-.520	-.484	-.449	-.409
	.200	-.757	-.716	-.682	-.651	-.617	-.597	-.577	-.538	-.524	-.501	-.476	-.449
	.300	-.728	-.702	-.676	-.652	-.626	-.612	-.596	-.566	-.558	-.543	-.497	-.502
	.400	-.676	-.663	-.648	-.633	-.619	-.613	-.599	-.576	-.572	-.566	-.550	-.537
	.500	-.621	-.618	-.614	-.607	-.600	-.603	-.595	-.580	-.578	-.581	-.571	-.562
	.600	-.503	-.508	-.514	-.515	-.517	-.531	-.529	-.523	-.528	-.537	-.533	-.531
	.700	-.360	-.372	-.388	-.391	-.399	-.420	-.423	-.427	-.438	-.459	-.461	-.468
	.800	-.117	-.138	-.169	-.178	-.194	-.223	-.231	-.241	-.258	-.279	-.285	-.299
	.900	.127	.129	.115	.109	.100	.072	.061	.054	.023	-.004	.014	-.029
	.950	.167	.184	.183	.187	.187	.174	.170	.166	.146	.128	.117	.109
Lower surface	.0375	.290	.253	.222	.196	.163	.123	.107	.073	.042	-.006	-.039	-.082
	.075	.030	-.003	-.031	-.054	-.081	-.117	-.130	-.157	-.184	-.226	-.252	-.287
	.150	-.119	-.143	-.163	-.177	-.198	-.225	-.231	-.248	-.269	-.301	-.317	-.345
	.250	-.275	-.296	-.312	-.321	-.337	-.359	-.364	-.375	-.390	-.417	-.430	-.449
	.350	-.337	-.352	-.362	-.370	-.380	-.398	-.400	-.406	-.417	-.440	-.446	-.461
	.450	-.408	-.419	-.424	-.428	-.435	-.448	-.448	-.455	-.455	-.475	-.477	-.486
	.550	-.454	-.459	-.461	-.460	-.461	-.471	-.468	-.462	-.467	-.479	-.478	-.483
	.650	-.509	-.507	-.500	-.493	-.487	-.490	-.481	-.471	-.471	-.476	-.470	-.468
	.750	-.489	-.475	-.453	-.440	-.424	-.417	-.403	-.384	-.378	-.372	-.360	-.348
	.850	-.297	-.267	-.222	-.198	-.165	-.146	-.124	-.094	-.079	-.060	-.042	-.022
	.925	-.032	.010	.064	.089	.113	.126	.141	.157	.163	.170	.172	.176
	.975	.131	.159	.171	.183	.184	.183	.187	.200	.194	.190	.189	.190
	[a]1.000	.215	.218	.210	.212	.208	.195	.196	.216	.202	.191	.190	.190

[a]No orifice.

TABLE 4.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2°$, $\beta_x = 59.50°$, B = 2

(a) N = 1140 rpm.

J	1.801	1.930	2.066	2.187	2.299	2.446	2.376	2.265	2.135	2.010	1.882
M_x	.399	.420	.439	.457	.473	.499	.485	.469	.448	.429	.413
α_x'	7.85	5.72	3.88	2.38	1.09	-.47	.25	1.47	3.01	4.62	6.41
$\Delta\beta$	.12	.12	.10	.07	.05	.01	.03	.06	.08	.11	.12
α_i	1.46	1.10	.78	.52	.32	.05	.19	.37	.63	.92	1.24
c_n	.5961	.4529	.3226	.2174	.1332	.0232	.0790	.1568	.2613	.3787	.5084
c_m	.0285	.0206	.0182	.0098	.0010	-.0075	-.0041	.0041	.0134	.0190	.0229
c_c											

	c/b	Pressure coefficient, P										
Upper surface	[a]0.000	1.041	1.045	1.050	1.054	1.057	1.064	1.060	1.056	1.051	1.047	1.044
	.025	-1.939	-1.344	-1.001	-.585	-.276	.035	-.114	-.366	-.744	-1.213	-1.585
	.050	-1.434	-1.031	-.713	-.477	-.270	-.054	-.160	-.334	-.573	-.826	-1.168
	.100	-.991	-.739	-.526	-.371	-.238	-.091	-.162	-.279	-.432	-.611	-.826
	.200	-.677	-.526	-.398	-.297	-.217	-.121	-.168	-.243	-.332	-.449	-.583
	.300	-.518	-.416	-.324	-.245	-.195	-.126	-.160	-.213	-.276	-.357	-.453
	.400	-.428	-.353	-.287	-.231	-.195	-.145	-.170	-.208	-.255	-.313	-.381
	.500	-.367	-.316	-.269	-.231	-.206	-.170	-.188	-.213	-.244	-.288	-.337
	.600	-.295	-.263	-.229	-.208	-.195	-.173	-.183	-.202	-.214	-.243	-.272
	.700	-.205	-.190	-.174	-.165	-.171	-.160	-.165	-.170	-.170	-.180	-.196
	.800	-.053	-.054	-.048	-.059	-.078	-.096	-.090	-.074	-.055	-.050	-.056
	.900	.149	.159	.166	.155	.137	.137	.136	.139	.162	.165	.156
	.950	.221	.252	.267	.269	.252	.231	.239	.257	.268	.264	.241
Lower surface	.0375	.851	.717	.543	.372	.198	-.017	.095	.252	.448	.622	.775
	.075	.625	.501	.356	.218	.083	-.081	.002	.120	.274	.419	.553
	.150	.415	.318	.206	.109	.011	-.101	-.044	.038	.151	.254	.358
	.250	.260	.185	.102	.026	-.046	-.126	-.085	-.025	.057	.137	.218
	.350	.174	.116	.050	-.011	-.064	-.123	-.090	-.049	.018	.077	.139
	.450	.102	.056	.004	-.039	-.083	-.131	-.103	-.071	-.023	.023	.077
	.550	.033	-.004	-.045	-.079	-.107	-.143	-.124	-.101	-.061	-.028	.009
	.650	-.014	-.037	-.067	-.085	-.107	-.131	-.116	-.101	-.079	-.053	-.025
	.750	-.043	-.051	-.067	-.077	-.083	-.094	-.085	-.082	-.073	-.060	-.046
	.850	.001	-.001	-.009	-.011	.013	.043	.033	0	-.008	-.003	.002
	.925	.062	.112	.145	.161	.182	.201	.192	.175	.157	.140	.091
	.975	.170	.205	.227	.261	.308	.342	.329	.293	.248	.219	.194
	[a]1.000	.300	.340	.322	.330	.373	.410	.405	.350	.326	.310	.303

[a]No orifice.

TABLE 4.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 59.50^{\circ}$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.863	1.970	2.095	2.183	2.315	2.412	2.447	2.377	2.249	2.150	2.038	1.919
	M_x	.487	.505	.526	.541	.566	.584	.591	.576	.554	.535	.514	.496
	α_x'	6.69	5.16	3.51	2.43	.91	-.12	-.48	.24	1.65	2.83	4.25	5.88
	$\Delta\beta$	.17	.14	.11	.08	.04	.01	0	.02	.06	.09	.12	.16
	α_i	1.38	1.08	.80	.58	.35	.15	.06	.24	.45	.67	.94	1.22
	c_n	.5645	.4477	.3316	.2413	.1481	.0629	.0274	.1003	.1877	.2781	.3910	.5045
	c_m	.0262	.0203	.0156	.0107	-.0038	-.0113	-.0143	-.0077	.0071	.0143	.0175	.0241
	c_c												
	c/b	Pressure coefficient, P											
Upper surface	[a]0.000	1.061	1.065	1.071	1.075	1.082	1.088	1.090	1.085	1.079	1.073	1.067	1.063
	.025	-2.067	-1.643	-1.121	-.786	-.427	-.182	-.104	-.281	-.600	-.913	-1.404	-1.585
	.050	-1.419	-1.098	-.858	-.668	-.433	-.260	-.205	-.333	-.550	-.746	-.968	-1.266
	.100	-1.044	-.825	-.664	-.553	-.401	-.283	-.246	-.333	-.476	-.597	-.760	-.949
	.200	-.776	-.622	-.545	-.471	-.383	-.306	-.284	-.339	-.428	-.496	-.604	-.717
	.300	-.630	-.506	-.471	-.415	-.357	-.302	-.289	-.328	-.386	-.437	-.511	-.589
	.400	-.548	-.497	-.435	-.400	-.361	-.323	-.313	-.341	-.378	-.413	-.469	-.522
	.500	-.491	-.458	-.417	-.396	-.371	-.346	-.342	-.358	-.382	-.402	-.441	-.474
	.600	-.419	-.403	-.379	-.370	-.363	-.346	-.345	-.355	-.366	-.371	-.394	-.412
	.700	-.326	-.325	-.316	-.321	-.332	-.327	-.330	-.333	-.326	-.316	-.324	-.327
	.800	-.172	-.181	-.186	-.201	-.226	-.251	-.259	-.244	-.214	-.191	-.191	-.177
	.900	.033	.044	.041	.028	-.006	-.007	-.014	-.011	.012	.037	.038	.037
	.950	.108	.131	.140	.139	.110	.094	.085	.095	.130	.147	.136	.117
Lower surface	.0375	[b].675	.568	.401	.257	.064	-.093	-.164	-.031	.161	.320	.472	.622
	.075	.458	.355	.212	.092	-.058	-.180	-.235	-.132	.018	.144	.269	.404
	.150	.257	.177	.066	-.021	-.130	-.217	-.255	-.184	-.080	.015	.108	.215
	.250	.111	.046	-.042	-.111	-.194	-.258	-.289	-.234	-.154	-.079	-.009	.075
	.350	.028	-.021	-.091	-.148	-.210	-.258	-.284	-.242	-.181	-.123	-.067	0
	.450	-.041	-.082	-.138	-.184	-.230	-.268	-.291	-.256	-.210	-.163	-.119	-.065
	.550	-.111	-.142	-.186	-.223	-.260	-.287	-.306	-.279	-.245	-.207	-.172	-.127
	.650	-.152	-.176	-.206	-.233	-.256	-.274	-.287	-.269	-.247	-.222	-.198	-.165
	.750	-.177	-.188	-.204	-.221	-.224	-.232	-.242	-.233	-.229	-.213	-.203	-.185
	.850	-.131	-.132	-.138	-.143	-.110	-.095	-.100	-.101	-.136	-.143	-.142	-.135
	.925	-.036	-.002	.014	.019	.056	.077	.074	.064	.030	.017	.005	-.017
	.975	.049	.080	.109	.126	.184	.212	.211	.198	.146	.118	.091	.065
	[a]1.000	.144	.162	.192	.205	.253	.290	.285	.272	.215	.205	.158	.160

[a]No orifice.

[b]Faired value.

TABLE 4.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2°$, $\beta_x = 59.50°$, B = 2 - Continued

(c) N = 1500 rpm.

	J	2.493	2.398	2.312	2.217	2.152	2.060	1.988	1.923	1.956	2.029	2.112	2.192	2.263	2.353	2.445
	M_x	.655	.635	.618	.597	.585	.565	.553	.540	.547	.560	.580	.593	.609	.626	.644
	α_x	-.94	.02	.94	2.02	2.80	3.96	4.92	5.82	5.36	4.37	3.30	2.32	1.49	.50	-.46
	$\Delta\beta$	.02	.07	.10	.14	.16	.19	.22	.24	.23	.20	.18	.15	.12	.09	.04
	α_i	-.02	.20	.37	.58	.71	.93	1.16	1.33	1.25	1.04	.80	.63	.49	.28	.10
	c_n	-.0106	.0858	.1558	.2419	.2948	.3865	.4806	.5484	.5161	.4303	.3355	.2635	.2071	.1200	.0445
	c_m	-.0137	-.0045	.0013	.0061	.0110	.0129	.0208	.0233	.0220	.0164	.0102	.0072	.0035	-.0022	-.0080
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.111	1.104	1.099	1.092	1.088	1.082	1.078	1.075	1.076	1.080	1.086	1.090	1.095	1.101	1.107
	.025	.150	-.081	-.300	-.600	-.834	-1.254	-1.974	-2.472	-2.238	-1.543	-1.008	-.683	-.460	-.189	.031
	.050	.020	-.154	-.308	-.509	-.652	-.820	-.977	-1.178	-1.042	-.884	-.750	-.561	-.417	-.231	-.072
	.100	-.046	-.169	-.273	-.408	-.495	-.634	-.763	-.858	-.808	-.694	-.545	-.439	-.346	-.223	-.114
	.200	-.107	-.188	-.256	-.338	-.391	-.483	-.558	-.624	-.589	-.516	-.431	-.355	-.300	-.223	-.154
	.300	-.121	-.180	-.228	-.285	-.328	-.390	-.441	-.489	-.462	-.410	-.352	-.296	-.257	-.206	-.158
	.400	-.156	-.198	-.230	-.272	-.304	-.348	-.381	-.416	-.395	-.359	-.317	-.281	-.250	-.216	-.185
	.500	-.192	-.218	-.240	-.272	-.288	-.318	-.338	-.362	-.345	-.327	-.298	-.276	-.255	-.232	-.212
	.600	-.201	-.216	-.230	-.246	-.254	-.274	-.280	-.295	-.283	-.276	-.258	-.246	-.235	-.225	-.214
	.700	-.185	-.186	-.189	-.195	-.196	-.202	-.197	-.201	-.193	-.196	-.192	-.192	-.191	-.190	-.191
	.800	-.083	-.079	-.074	-.069	-.061	-.057	-.043	-.042	-.039	-.049	-.055	-.064	-.069	-.078	-.086
	.900	.146	.152	.158	.164	.172	.172	.181	.171	.180	.180	.177	.169	.163	.151	.143
	.950	.257	.264	.270	.269	.273	.266	.260	.242	.254	.269	.271	.274	.273	.264	.256
Lower surface	.0375	-.071	.097	.232	.375	.473	.594	.706	[b].720	[b].705	.653	.536	.415	.315	.162	.010
	.075	-.136	-.004	.101	.214	.291	.393	.494	.551	.525	.445	.347	.245	.166	.044	-.073
	.150	-.140	-.051	.024	.104	.163	.236	.316	.362	.344	.278	.204	.128	.072	-.016	-.100
	.250	-.174	-.106	-.048	.012	.058	.118	.183	.220	.205	.153	.094	.032	-.012	-.081	-.145
	.350	-.158	-.108	-.065	-.017	.017	.065	.117	.143	.136	.092	.046	-.001	-.035	-.090	-.139
	.450	-.161	-.123	-.090	-.054	-.025	.011	.056	.076	.070	.035	-.001	-.039	-.066	-.110	-.149
	.550	-.176	-.148	-.121	-.092	-.071	-.043	-.006	.010	.007	-.022	-.051	-.081	-.103	-.137	-.168
	.650	-.148	-.134	-.118	-.100	-.086	-.067	-.039	-.029	-.029	-.051	-.068	-.090	-.103	-.129	-.147
	.750	-.089	-.091	-.085	-.081	-.074	-.067	-.047	-.046	-.043	-.055	-.064	-.074	-.080	-.091	-.096
	.850	.063	.047	.039	.027	-.022	.017	.019	.012	.020	.022	.024	.028	.036	.042	.049
	.925	.231	.209	.192	.170	.157	.138	.127	.113	.123	.139	.152	.167	.182	.198	.215
	.975	.348	.328	.310	.283	.267	.242	.222	.195	.209	.239	.256	.280	.300	.317	.334
	[a]1.000	.405	.390	.370	.345	.335	.300	.274	.240	.260	.292	.306	.342	.360	.375	.400

[a]No orifice.
[b]Faired value.

TABLE 4.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2°$, $\beta_x = 59.50°$, B = 2 - Continued

(d) N = 1600 rpm.

	J	2.032	2.127	2.218	2.319	2.415	2.457	2.369	2.282	2.173	2.087	2.027
	M_x	.618	.638	.656	.677	.699	.710	.686	.667	.642	.623	.610
	α_x'	4.33	3.11	2.01	.87	-.16	-.68	.33	1.28	2.55	3.61	4.39
	$\Delta\beta$	.29	.23	.18	.12	.06	.04	.09	.14	.20	.26	.29
	α_i	1.11	.82	.60	.43	.20	.09	.31	.48	.70	.94	1.12
	c_n	.4613	.3445	.2535	.1823	.0855	.0365	.1300	.2042	.2916	.3903	.4632
	c_m	.0241	.0151	.0079	-.0053	-.0130	-.0177	-.0109	.0002	.0131	.0188	.0228
	c_c											
	c/b	Pressure coefficient, P										
Upper surface	[a]0.000	1.099	1.105	1.112	1.120	1.129	1.133	1.124	1.116	1.107	1.100	1.095
	.025	-1.793	-1.178	-.775	-.435	-.161	-.065	-.286	-.541	-.959	-1.419	-1.867
	.050	-1.311	-.938	-.695	-.467	-.266	-.192	-.361	-.541	-.805	-1.055	-1.255
	.100	-.865	-.719	-.589	-.442	-.305	-.253	-.371	-.492	-.659	-.789	-.878
	.200	-.697	-.603	-.516	-.430	-.343	-.309	-.388	-.464	-.555	-.643	-.704
	.300	-.584	-.521	-.457	-.405	-.343	-.322	-.377	-.428	-.485	-.546	-.590
	.400	-.525	-.487	-.441	-.410	-.369	-.354	-.394	-.426	-.464	-.501	-.529
	.500	-.486	-.466	-.439	-.424	-.400	-.391	-.418	-.434	-.452	-.473	-.490
	.600	-.426	-.419	-.409	-.410	-.400	-.397	-.412	-.413	-.416	-.419	-.427
	.700	-.339	-.347	-.351	-.370	-.374	-.377	-.380	-.371	-.349	-.341	-.342
	.800	-.174	-.193	-.210	-.239	-.265	-.279	-.262	-.238	-.202	-.184	-.175
	.900	.060	.052	.041	.009	-.002	-.009	-.006	.013	.045	.057	.057
	.950	.142	.149	.152	.129	.114	.106	.110	.132	.151	.147	.136
Lower surface	.0375	.516	.380	.245	.084	-.085	-.165	-.012	.129	.311	.445	.527
	.075	.314	.193	.081	-.049	-.184	-.250	-.128	-.013	.134	.250	.322
	.150	.146	.050	-.033	-.130	-.231	-.280	-.188	-.106	.005	.095	.152
	.250	.018	-.060	-.126	-.203	-.284	-.324	-.251	-.183	-.096	-.023	.023
	.350	-.046	-.112	-.163	-.225	-.290	-.322	-.265	-.213	-.141	-.081	-.043
	.450	-.102	-.156	-.202	-.251	-.302	-.329	-.281	-.239	-.182	-.133	-.100
	.550	-.163	-.211	-.245	-.283	-.325	-.349	-.310	-.277	-.230	-.189	-.163
	.650	-.195	-.232	-.256	-.278	-.308	-.325	-.298	-.277	-.247	-.215	-.195
	.750	-.204	-.226	-.235	-.239	-.252	-.261	-.248	-.244	-.233	-.215	-.204
	.850	-.135	-.139	-.126	- 099	-.090	-.090	-.098	-.114	-.137	-.140	-.139
	.925	.002	.008	.031	.073	.100	.105	.087	.054	.017	.005	0
	.975	.089	.119	.152	.207	.234	.238	.222	.183	.131	.106	.084
	[a]1.000	.210	.218	.250	.270	.295	.313	.290	.245	.250	.215	.195

[a]No orifice.

TABLE 4.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2°$, $\beta_x = 59.50°$, B = 2 - Continued

(e) M = 0.56.

	J	2.313	2.455	2.445	2.424	2.384	2.354	2.324	2.284	2.256	2.234	2.199	2.187	2.153	2.138	2.115
	M_x	.665	.647	.653	.658	.660	.663	.664	.663	.666	.668	.670	.675	.673	.678	.681
	α_x'	.94	-.56	-.46	-.24	.17	.49	.82	1.26	1.58	1.83	2.24	2.38	2.80	2.98	3.26
	$\Delta\beta$	.13	.04	.05	.06	.08	.10	.12	.15	.16	.18	.20	.21	.24	.25	.27
	α_i	.40	.03	.08	.12	.21	.28	.37	.46	.53	.59	.69	.74	.81	.86	.92
	c_n	.1700	.0113	.0323	.0506	.0874	.1171	.1558	.1945	.2252	.2484	.2897	.3090	.3406	.3600	.3832
	c_m	.0006	-.0121	-.0092	-.0080	-.0052	-.0026	.0007	.0026	.0051	.0061	.0087	.0118	.0144	.0161	.0182
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.115	1.109	1.094	1.113	1.114	1.115	1.115	1.115	1.116	1.117	1.118	1.119	1.119	1.121	1.122
	.025	-.457	-.060	-.093	-.138	-.234	-.314	-.419	-.530	-.629	-.707	-.857	-.926	-1.079	-1.170	-1.307
	.050	-.474	-.174	-.201	-.236	-.311	-.369	-.447	-.527	-.599	-.651	-.753	-.795	-.887	-.947	-1.075
	.100	-.441	-.227	-.247	-.272	-.325	-.367	-.424	-.475	-.526	-.562	-.630	-.655	-.711	-.727	-.746
	.200	-.422	-.277	-.291	-.309	-.346	-.374	-.413	-.444	-.480	-.503	-.548	-.561	-.603	-.621	-.651
	.300	-.394	-.287	-.297	-.312	-.338	-.358	-.388	-.408	-.435	-.450	-.481	-.488	-.525	-.538	-.555
	.400	-.397	-.316	-.323	-.335	-.353	-.369	-.394	-.406	-.427	-.439	-.466	-.470	-.496	-.504	-.514
	.500	-.406	-.347	-.353	-.362	-.376	-.388	-.407	-.414	-.430	-.439	-.458	-.458	-.478	-.481	-.487
	.600	-.391	-.352	-.356	-.362	-.373	-.380	-.394	-.394	-.405	-.410	-.421	-.418	-.430	-.429	-.429
	.700	-.347	-.331	-.334	-.336	-.341	-.342	-.350	-.345	-.352	-.351	-.356	-.348	-.355	-.350	-.344
	.800	-.217	-.230	-.226	-.228	-.225	-.222	-.223	-.213	-.212	-.208	-.203	-.193	-.194	-.186	-.173
	.900	.025	-.003	.002	.006	.012	.018	.020	.031	.035	.043	.045	.055	.055	.061	.070
	.950	.138	.109	.114	.118	.126	.130	.135	.143	.146	.152	.151	.155	.149	.151	.155
Lower surface	.0375	.104	-.174	-.144	-.109	-.039	.016	.075	.144	.189	.227	.279	.309	.343	.368	.403
	.075	-.033	-.249	-.225	-.199	-.144	-.104	-.058	-.002	.032	.065	.107	.133	.159	.182	.214
	.150	-.115	-.266	-.249	-.232	-.195	-.165	-.133	-.090	-.064	-.044	-.011	.010	.027	.046	.071
	.250	-.192	-.305	-.294	-.282	-.253	-.232	-.210	-.173	-.156	-.138	-.113	-.094	-.082	-.065	-.044
	.350	-.213	-.295	-.286	-.279	-.258	-.241	-.225	-.197	-.184	-.169	-.151	-.135	-.126	-.114	-.096
	.450	-.238	-.302	-.294	-.288	-.274	-.262	-.250	-.225	-.215	-.204	-.191	-.178	-.172	-.160	-.146
	.550	-.274	-.320	-.315	-.311	-.301	-.292	-.284	-.265	-.259	-.250	-.241	-.227	-.226	-.218	-.205
	.650	-.271	-.297	-.294	-.293	-.287	-.280	-.278	-.263	-.262	-.256	-.250	-.241	-.243	-.236	-.226
	.750	-.235	-.243	-.241	-.242	-.242	-.238	-.240	-.232	-.234	-.231	-.233	-.225	-.232	-.227	-.221
	.850	-.103	-.095	-.093	-.095	-.099	-.099	-.105	-.103	-.109	-.108	-.115	-.110	-.120	-.119	-.117
	.925	.058	.075	.074	.071	.066	.062	.055	.055	.046	.046	.034	.036	.024	.023	.023
	.975	.174	.192	.192	.189	.185	.182	.174	.171	.163	.161	.149	.150	.135	.133	.130
	[a]1.000	.235	.251	.253	.253	.253	.246	.243	.233	.227	.224	.207	.206	.196	.156	.189

[a]No orifice.

TABLE 4.— PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2°$, $\beta_x = 59.50°$, B = 2 - Continued

(f) M = 0.60.

	J	2.457	2.415	2.396	2.368	2.337	2.310	2.284	2.247	2.228	2.206	2.176	2.155	2.132	2.116	2.088
	M_x	.698	.699	.702	.705	.706	.708	.710	.711	.715	.717	.719	.721	.724	.729	.728
	α_x'	−.59	−.16	−.04	.34	.67	.97	1.26	1.68	1.90	2.15	2.51	2.77	3.05	3.25	3.60
	$\Delta\beta$	−.01	.05	.07	.11	.15	.18	.21	.25	.26	.28	.30	.31	.32	.33	.34
	α_i	.09	.17	.23	.29	.35	.42	.50	.58	.64	.71	.78	.85	.91	.98	1.05
	c_n	.0387	.0729	.0961	.1232	.1497	.1784	.2116	.2445	.2677	.2987	.3277	.3561	.3819	.4084	.4374
	c_m	−.0181	−.0134	−.0108	−.0072	−.0052	−.0052	−.0016	.0005	.0048	.0071	.0128	.0147	.0170	.0190	.0205
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.128	1.128	1.130	1.131	1.132	1.132	1.133	1.133	1.135	1.136	1.136	1.137	1.138	1.141	1.141
	.025	.101	.012	−.045	−.120	−.192	−.265	−.362	−.473	−.574	−.668	−.825	−.924	−.995	−1.033	−1.082
	.050	−.025	−.099	−.144	−.201	−.261	−.316	−.393	−.476	−.554	−.629	−.757	−.850	−.931	−.995	−1.054
	.100	−.088	−.145	−.177	−.218	−.261	−.301	−.356	−.412	−.466	−.517	−.593	−.649	−.727	−.819	−.912
	.200	−.148	−.188	−.211	−.241	−.271	−.301	−.339	−.375	−.412	−.451	−.506	−.554	−.609	−.655	−.716
	.300	−.159	−.193	−.209	−.229	−.252	−.275	−.303	−.325	−.351	−.376	−.409	−.436	−.464	−.483	−.523
	.400	−.193	−.221	−.234	−.248	−.267	−.283	−.305	−.319	−.338	−.361	−.388	−.412	−.436	−.447	−.469
	.500	−.233	−.254	−.264	−.273	−.287	−.301	−.316	−.325	−.338	−.354	−.374	−.391	−.408	−.412	−.432
	.600	−.238	−.256	−.260	−.264	−.272	−.282	−.292	−.292	−.298	−.308	−.317	−.328	−.337	−.335	−.347
	.700	−.221	−.231	−.231	−.227	−.232	−.235	−.236	−.230	−.230	−.232	−.233	−.235	−.238	−.230	−.239
	.800	−.113	−.111	−.105	−.097	−.094	−.091	−.086	−.076	−.068	−.066	−.059	−.053	−.051	−.037	−.043
	.900	.137	.142	.149	.162	.167	.171	.178	.187	.196	.198	.203	.209	.208	.220	.214
	.950	.253	.260	.270	.283	.289	.291	.295	.300	.302	.302	.300	.299	.294	.299	.293
Lower surface	.0375	−.022	.039	.095	.143	.188	.230	.278	.335	.373	.404	.447	.474	.494	.526	.542
	.075	−.107	−.060	−.022	.022	.059	.092	.132	.177	.180	.233	.271	.293	.310	.339	.352
	.150	−.130	−.099	−.074	−.040	−.015	.010	.038	.073	.096	.115	.143	.158	.173	.196	.204
	.250	−.173	−.152	−.131	−.105	−.087	−.067	−.045	−.017	0	.013	.034	.046	.056	.075	.081
	.350	−.164	−.152	−.137	−.115	−.101	−.087	−.071	−.047	−.034	−.026	−.012	−.002	.005	.021	.024
	.450	−.171	−.164	−.153	−.137	−.126	−.114	−.102	−.084	−.074	−.069	−.059	−.053	−.048	−.034	−.033
	.550	−.189	−.187	−.179	−.166	−.160	−.150	−.143	−.129	−.124	−.121	−.115	−.111	−.109	−.098	−.100
	.650	−.162	−.165	−.161	−.151	−.149	−.143	−.140	−.133	−.131	−.131	−.129	−.128	−.130	−.121	−.125
	.750	−.094	−.102	−.102	−.098	−.100	−.097	−.099	−.096	−.098	−.104	−.106	−.111	−.116	−.109	−.118
	.850	.075	.060	.059	.057	.052	.049	.045	.047	.037	.030	.020	.012	.005	.009	−.001
	.925	.256	.241	.236	.230	.224	.218	.212	.207	.200	.194	.178	.169	.162	.163	.153
	.975	.370	.356	.352	.344	.338	.333	.326	.322	.315	.308	.293	.284	.274	.271	.263
	[a]1.000	.435	.400	.395	.390	.382	.380	.380	.365	.365	.363	.363	.350	.332	.331	.328

[a]No orifice.

TABLE 4.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-010.00 PROPELLER BLADE SECTION (x = 0.45)

$\beta_{0.75R} = 45.2°$, $\beta_x = 59.50°$, B = 2 - Concluded

(g) M = 0.65.

	J	2.451	2.442	2.410	2.383	2.358	2.336	2.307	2.284	2.264	2.240	2.216	2.194	2.172	2.149	2.132
	M_x	.751	.758	.757	.759	.762	.766	.765	.767	.772	.774	.777	.779	.780	.783	.785
	α_x'	-.52	-.43	-.10	.18	.44	.68	1.00	1.26	1.48	1.76	2.04	2.30	2.56	2.84	3.05
	$\Delta\beta$	.05	.05	.09	.11	.13	.14	.16	.17	.18	.19	.20	.21	.22	.23	.23
	α_1	.10	.15	.21	.29	.36	.42	.49	.54	.60	.69	.77	.83	.89	.95	1.02
	c_n	.0432	.0655	.0874	.1226	.1529	.1787	.2077	.2268	.2548	.2887	.3223	.3477	.3748	.3981	.4290
	c_m	-.0183	-.0143	-.0138	-.0112	-.0096	-.0088	-.0065	-.0053	-.0025	-.0007	.0002	-.0007	.0011	-.0008	.0005
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.150	1.152	1.152	1.153	1.154	1.156	1.155	1.156	1.159	1.159	1.160	1.161	1.161	1.162	1.163
	.025	-.040	-.063	-.127	-.205	-.263	-.315	-.392	-.431	-.493	-.570	-.635	-.678	-.733	-.757	-.799
	.050	-.182	-.202	-.256	-.321	-.368	-.414	-.480	-.517	-.575	-.645	-.697	-.727	-.763	-.777	-.806
	.100	-.255	-.270	-.314	-.364	-.399	-.435	-.485	-.514	-.554	-.597	-.629	-.658	-.704	-.728	-.772
	.200	-.330	-.343	-.379	-.418	-.445	-.474	-.517	-.545	-.589	-.648	-.697	-.736	-.775	-.790	-.812
	.300	-.351	-.361	-.391	-.422	-.441	-.465	-.497	-.519	-.553	-.593	-.629	-.676	-.731	-.758	-.794
	.400	-.394	-.404	-.429	-.457	-.471	-.492	-.519	-.541	-.566	-.588	-.610	-.641	-.693	-.719	-.757
	.500	-.446	-.455	-.476	-.499	-.510	-.534	-.558	-.583	-.609	-.633	-.656	-.679	-.712	-.728	-.764
	.600	-.451	-.457	-.474	-.487	-.489	-.504	-.517	-.535	-.551	-.565	-.575	-.600	-.643	-.678	-.670
	.700	-.421	-.421	-.430	-.434	-.428	-.431	-.431	-.435	-.436	-.432	-.430	-.434	-.432	-.424	-.418
	.800	-.279	-.266	-.267	-.262	-.251	-.248	-.244	-.242	-.236	-.226	-.218	-.219	-.202	-.196	-.186
	.900	-.005	.008	.009	.014	.026	.030	.035	.040	.044	.054	.062	.063	.073	.076	.082
	.950	.115	.126	.125	.131	.141	.145	.148	.150	.152	.159	.163	.164	.157	.158	.165
Lower surface	.0375	-.167	-.130	-.090	-.033	.016	.051	.095	.118	.152	.196	.231	.252	.276	.294	.324
	.075	-.267	-.237	-.203	-.157	-.115	-.086	-.051	-.034	-.004	.035	.064	.083	.104	.120	.148
	.150	-.303	-.280	-.257	-.223	-.191	-.171	-.145	-.130	-.108	-.077	-.054	-.039	-.023	-.010	.014
	.250	-.354	-.338	-.322	-.296	-.270	-.255	-.234	-.225	-.207	-.182	-.160	-.150	-.136	-.125	-.106
	.350	-.353	-.340	-.330	-.310	-.289	-.278	-.263	-.256	-.243	-.223	-.205	-.197	-.187	-.178	-.160
	.450	-.363	-.354	-.348	-.334	-.317	-.309	-.298	-.295	-.284	-.268	-.254	-.249	-.242	-.234	-.218
	.550	-.387	-.380	-.379	-.369	-.356	-.351	-.345	-.344	-.341	-.329	-.317	-.315	-.312	-.306	-.292
	.650	-.355	-.350	-.352	-.350	-.342	-.341	-.338	-.342	-.341	-.335	-.328	-.329	-.331	-.328	-.317
	.750	-.271	-.269	-.276	-.277	-.274	-.277	-.279	-.284	-.287	-.286	-.285	-.286	-.294	-.293	-.283
	.850	-.084	-.083	-.091	-.097	-.096	-.101	-.107	-.111	-.115	-.119	-.122	-.123	-.136	-.136	-.126
	.925	.111	.109	.100	.093	.094	.090	.082	.078	.072	.066	.061	.059	.038	.039	.052
	.975	.222	.225	.218	.214	.216	.213	.207	.202	.195	.188	.183	.181	.150	.148	.161
	[a]1.000	.262	.280	.270	.265	.268	.258	.272	.275	.250	.252	.250	.256	.218	.192	.218

[a]No orifice.

TABLE 5.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 51.60^{\circ}$, B = 2

(a) N = 1140 rpm.

	J	1.814	1.923	2.044	2.158	2.285	2.434	2.379	2.214	2.096	1.991	1.873
	M_x	.460	.471	.486	.503	.520	.540	.532	.508	.495	.479	.465
	α_x'	7.70	6.03	4.28	2.74	1.12	-.64	-.01	2.01	3.57	5.03	6.78
	$\Delta\beta$	.42	.36	.30	.24	.17	.08	.12	.21	.28	.33	.39
	α_1	1.67	1.35	.99	.71	.39	.02	.21	.54	.83	1.14	1.51
	c_n	.6413	.5239	.3845	.2794	.1526	.0071	.0823	.2100	.3232	.4419	.5839
	c_m	.0179	.0164	.0051	.0029	-.0016	-.0111	-.0065	.0026	.0041	.0077	.0229
	c_c											
	c/b	Pressure coefficient, P										
Upper surface	[a]0.000	1.054	1.057	1.060	1.065	1.069	1.074	1.072	1.066	1.062	1.058	1.055
	.025	-1.785	-2.072	-1.245	-.914	-.499	-.126	-.285	-.706	-1.076	-1.519	-2.091
	.050	-1.375	-1.514	-.977	-.736	-.469	-.208	-.322	-.606	-.855	-1.102	-1.526
	.100	-1.323	-1.036	-.692	-.528	-.360	-.193	-.265	-.442	-.612	-.769	-1.342
	.200	-1.060	-.630	-.524	-.421	-.314	-.208	-.254	-.371	-.476	-.571	-.788
	.300	-.716	-.492	-.432	-.355	-.277	-.202	-.234	-.318	-.398	-.465	-.535
	.400	-.518	-.432	-.396	-.338	-.284	-.228	-.252	-.314	-.373	-.418	-.440
	.500	-.392	-.380	-.362	-.318	-.284	-.245	-.263	-.304	-.350	-.378	-.379
	.600	-.314	-.334	-.334	-.303	-.282	-.258	-.269	-.297	-.325	-.338	-.326
	.700	-.234	-.258	-.267	-.247	-.241	-.230	-.236	-.247	-.265	-.267	-.251
	.800	-.157	-.168	-.182	-.174	-.181	-.184	-.183	-.180	-.187	-.177	-.165
	.900	-.062	-.040	-.041	-.040	-.056	-.072	-.068	-.052	-.049	-.032	-.048
	.950	-.013	.041	.057	.058	.041	.023	.032	.048	.052	.055	.019
Lower surface	.0375	.658	.574	.425	.268	.036	-.236	-.110	.146	.333	.504	.612
	.075	.489	.414	.286	.166	-.008	-.195	-.103	.077	.215	.351	.445
	.150	.317	.251	.150	.063	-.063	-.195	-.132	-.007	.092	.200	.278
	.250	.182	.126	.047	-.025	-.123	-.223	-.176	-.083	-.001	.084	.150
	.350	.101	.058	-.012	-.064	-.141	-.219	-.183	-.111	-.049	.021	.075
	.450	.033	.001	-.061	-.101	-.165	-.228	-.196	-.140	-.091	-.032	.011
	.550	-.019	-.043	-.087	-.120	-.171	-.219	-.194	-.154	-.114	-.067	-.037
	.650	-.073	-.092	-.128	-.152	-.190	-.221	-.203	-.178	-.152	-.111	-.087
	.750	-.111	-.114	-.136	-.150	-.174	-.193	-.181	-.171	-.152	-.125	-.115
	.850	-.088	-.076	-.084	-.081	-.091	-.092	-.088	-.095	-.091	-.080	-.084
	.925	-.042	-.002	.006	.017	.024	.032	.030	.012	.002	.002	-.023
	.975	-.028	.047	.073	.097	.112	.120	.120	.098	.077	.063	.013
	[a]1.000	.042	.130	.159	.162	.181	.174	.167	.156	.190	.159	.093

[a]No orifice.

TABLE 5.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R} = 45.2°$, $\beta_x = 51.60°$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.841	1.955	2.075	2.164	2.292	2.386	2.449	2.334	2.229	2.126	2.023	1.916
	M_x	.547	.564	.582	.595	.619	.636	.646	.624	.605	.588	.574	.556
	α_x'	7.28	5.55	3.85	2.66	1.03	-.09	-.81	.52	1.82	3.16	4.58	6.13
	$\Delta\beta$	.50	.46	.37	.30	.20	.12	.06	.16	.26	.33	.41	.48
	α_i	1.68	1.37	1.00	.74	.44	.20	-.01	.32	.58	.86	1.18	1.48
	c_n	.6432	.5335	.3890	.2916	.1739	.0784	-.0035	.1245	.2265	.3355	.4587	.5761
	c_m	.0236	.0134	.0016	.0023	-.0008	-.0071	-.0098	-.0037	.0007	.0028	.0095	.0210
	c_c												
	c/b	Pressure coefficient, P											
Upper surface	[a]0.000	1.076	1.081	1.088	1.091	1.097	1.105	1.108	1.101	1.094	1.089	1.085	1.079
	.025	-2.110	-2.077	-1.213	-.993	-.560	-.275	-.098	-.405	-.757	-1.128	-1.731	-2.050
	.050	-1.520	-1.609	-1.023	-.806	-.532	-.334	-.208	-.426	-.659	-.910	-1.106	-1.684
	.100	-1.415	-.993	-.727	-.576	-.407	-.285	-.198	-.342	-.481	-.648	-.802	-1.264
	.200	-1.033	-.654	-.557	-.468	-.357	-.280	-.222	-.316	-.407	-.509	-.607	-.748
	.300	-.686	-.527	-.462	-.398	-.317	-.263	-.217	-.287	-.353	-.428	-.499	-.555
	.400	-.513	-.465	-.427	-.380	-.323	-.283	-.249	-.301	-.348	-.402	-.452	-.474
	.500	-.412	-.411	-.395	-.363	-.323	-.297	-.268	-.308	-.339	-.379	-.413	-.417
	.600	-.345	-.361	-.362	-.347	-.319	-.305	-.285	-.313	-.328	-.357	-.371	-.363
	.700	-.265	-.279	-.292	-.286	-.272	-.268	-.255	-.272	-.274	-.291	-.295	-.281
	.800	-.180	-.180	-.198	-.204	-.203	-.208	-.201	-.205	-.198	-.207	-.196	-.184
	.900	-.073	-.038	-.045	-.055	-.063	-.075	-.071	-.067	-.056	-.055	-.043	-.055
	.950	-.018	.043	.054	.048	.042	.031	.032	.036	.050	.048	.051	.019
Lower surface	.0375	.627	.558	.404	.244	.040	-.147	-.278	-.055	.143	.313	.473	.575
	.075	.462	.400	.270	.147	-.002	-.137	-.231	-.069	.075	.198	.328	.412
	.150	.292	.243	.138	.040	-.070	-.164	-.229	-.117	-.012	.080	.183	.250
	.250	.157	.115	.026	-.051	-.138	-.211	-.260	-.175	-.094	-.021	.063	.122
	.350	.077	.047	-.028	-.092	-.161	-.218	-.255	-.189	-.125	-.066	.002	.050
	.450	.007	-.014	-.076	-.132	-.187	-.231	-.262	-.210	-.157	-.109	-.053	-.014
	.550	-.041	-.054	-.106	-.152	-.196	-.231	-.253	-.213	-.171	-.135	-.088	-.057
	.650	-.107	-.108	-.146	-.185	-.215	-.238	-.253	-.225	-.198	-.171	-.138	-.114
	.750	-.140	-.126	-.154	-.180	-.198	-.209	-.217	-.203	-.188	-.171	-.149	-.139
	.850	-.115	-.084	-.093	-.105	-.105	-.103	-.104	-.102	-.103	-.102	-.096	-.100
	.925	-.056	-.006	.001	.004	.013	.023	.027	.020	.010	-.002	-.008	-.030
	.975	-.029	.049	.071	.086	.106	.115	.124	.111	.100	.077	.057	.017
	[a]1.000	.031	.125	.165	.165	.159	.164	.180	.155	.172	.165	.160	.098

[a]No orifice.

TABLE 5.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 51.60^{\circ}$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.870	1.961	2.050	2.138	2.237	2.318	2.463	2.405	2.292	2.181	2.102	2.006	1.940
	M_x	.609	.620	.640	.655	.675	.688	.718	.706	.682	.662	.647	.628	.618
	α_x'	6.83	5.47	4.20	3.00	1.72	.72	-.97	-.31	1.03	2.44	3.48	4.82	5.77
	$\Delta\beta$	.72	.69	.60	.50	.37	.27	.07	.15	.30	.44	.54	.64	.70
	α_i	1.78	1.58	1.25	.96	.66	.41	-.05	.16	.50	.81	1.09	1.39	1.64
	c_n	.6877	.6161	.4865	.3768	.2587	.1610	-.0184	.0648	.1968	.3174	.4239	.5426	.6368
	c_m	.0246	.0198	.0123	.0057	.0011	-.0068	-.0160	-.0172	-.0037	.0036	.0088	.0131	.0247
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.096	1.100	1.107	1.112	1.120	1.124	1.136	1.131	1.122	1.114	1.109	1.102	1.098
	.025	-2.140	-2.502	-2.017	-1.349	-.833	-.488	-.036	-.213	-.608	-1.072	-1.621	-2.282	-2.567
	.050	-1.741	-2.375	-1.827	-1.040	-.720	-.499	-.159	-.300	-.576	-.861	-1.624	-2.153	-2.249
	.100	-1.446	-1.079	-.753	-.677	-.512	-.387	-.169	-.259	-.429	-.593	-.725	-.863	-1.222
	.200	-1.065	-.639	-.613	-.534	-.435	-.351	-.212	-.266	-.375	-.486	-.571	-.646	-.745
	.300	-.728	-.517	-.506	-.446	-.375	-.322	-.217	-.262	-.331	-.411	-.473	-.534	-.568
	.400	-.543	-.459	-.461	-.420	-.369	-.330	-.256	-.285	-.336	-.394	-.439	-.483	-.488
	.500	-.430	-.403	-.420	-.391	-.358	-.333	-.283	-.300	-.333	-.375	-.407	-.435	-.424
	.600	-.349	-.349	-.380	-.366	-.344	-.336	-.304	-.311	-.330	-.355	-.374	-.389	-.364
	.700	-.259	-.259	-.296	-.292	-.282	-.284	-.273	-.275	-.275	-.287	-.297	-.303	-.276
	.800	-.167	-.148	-.191	-.195	-.196	-.208	-.212	-.213	-.193	-.195	-.198	-.194	-.167
	.900	-.059	.008	-.024	-.030	-.035	-.055	-.067	-.062	-.039	-.033	-.029	-.032	-.026
	.950	-.004	.096	.074	.076	.071	.055	.046	.043	.070	.074	.075	.060	.051
Lower surface	.0375	.653	.621	.471	.335	.174	.003	-.331	-.164	.081	.257	.392	.520	.607
	.075	.491	.463	.333	.222	.100	-.025	-.261	-.140	.034	.163	.268	.379	.452
	.150	.322	.304	.189	.103	.009	-.085	-.254	-.166	-.039	.056	.137	.221	.289
	.250	.180	.172	.069	-.003	-.079	-.154	-.285	-.213	-.115	-.041	.024	.094	.153
	.350	.099	.101	.007	-.052	-.113	-.175	-.278	-.220	-.143	-.085	-.029	.030	.082
	.450	.027	.037	-.048	-.101	-.150	-.200	-.284	-.234	-.172	-.126	-.082	-.030	.014
	.550	-.025	-.006	-.084	-.128	-.168	-.206	-.273	-.232	-.184	-.148	-.113	-.069	-.031
	.650	-.094	-.063	-.133	-.166	-.196	-.223	-.268	-.236	-.206	-.183	-.153	-.120	-.091
	.750	-.129	-.084	-.144	-.166	-.184	-.199	-.222	-.198	-.186	-.176	-.160	-.137	-.113
	.850	-.104	-.037	-.081	-.089	-.093	-.091	-.086	-.074	-.084	-.093	-.088	-.081	-.075
	.925	-.047	.047	.014	.018	.028	.040	.058	.068	.043	.022	.013	.009	0
	.975	-.022	.105	.082	.100	.119	.141	.157	.172	.137	.104	.088	.074	.044
	[a]1.000	.005	.139	.128	.150	.172	.195	.210	.227	.185	.148	.130	.110	.070

[a]No orifice.

TABLE 5.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R} = 45.2°$, $\beta_x = 51.60°$, B = 2 - Continued

(d) N = 1600 rpm.

	J	1.990	2.063	2.135	2.228	2.304	2.387	2.446	2.419	2.359	2.283	2.199	2.104	2.036
	M_x	.672	.684	.695	.715	.729	.748	.759	.752	.739	.722	.706	.686	.675
	α_x'	5.05	4.02	3.04	1.83	.89	-.10	-.78	-.47	.23	1.14	2.20	3.46	4.39
	$\Delta\beta$	.81	.72	.62	.47	.35	.21	.11	.16	.26	.38	.52	.67	.76
	α_i	1.63	1.39	1.07	.77	.52	.23	.01	.10	.34	.59	.83	1.20	1.50
	c_n	.6348	.5395	.4213	.3013	.2052	.0923	.0032	.0387	.1338	.2303	.3265	.4684	.5839
	c_m	.0215	.0149	.0079	.0025	-.0030	-.0098	-.0148	-.0135	-.0109	-.0019	.0036	.0125	.0197
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.118	1.123	1.127	1.135	1.141	1.148	1.152	1.150	1.145	1.138	1.132	1.124	1.120
	.025	-2.095	-1.801	-1.364	-.994	-.581	-.243	-.063	-.141	-.352	-.692	-1.121	-1.543	-1.930
	.050	-2.040	-1.756	-1.376	-.898	-.597	-.336	-.191	-.253	-.425	-.671	-1.007	-1.508	-1.867
	.100	-1.833	-1.545	-.890	-.550	-.448	-.291	-.195	-.238	-.347	-.490	-.570	-1.096	-1.654
	.200	-.586	-.573	-.572	-.494	-.403	-.306	-.243	-.273	-.339	-.429	-.518	-.583	-.577
	.300	-.520	-.516	-.485	-.422	-.361	-.294	-.248	-.269	-.320	-.376	-.440	-.494	-.520
	.400	-.489	-.480	-.456	-.411	-.372	-.325	-.293	-.307	-.341	-.382	-.423	-.462	-.482
	.500	-.443	-.434	-.421	-.392	-.370	-.342	-.321	-.331	-.352	-.375	-.400	-.421	-.436
	.600	-.395	-.392	-.387	-.371	-.366	-.352	-.345	-.348	-.358	-.365	-.375	-.386	-.392
	.700	-.302	-.305	-.304	-.298	-.303	-.304	-.303	-.305	-.305	-.301	-.298	-.301	-.301
	.800	-.188	-.191	-.195	-.196	-.210	-.220	-.226	-.226	-.220	-.207	-.195	-.190	-.190
	.900	-.017	-.016	-.020	-.022	-.040	-.053	-.059	-.058	-.054	-.037	-.022	-.015	-.016
	.950	.082	.088	.085	.085	.073	.065	.059	.059	.059	.076	.086	.089	.085
Lower surface	.0375	.544	.463	.351	.211	.053	-.144	-.293	-.231	-.073	.101	.252	.400	.492
	.075	.402	.333	.239	.130	.012	-.134	-.242	-.194	-.080	.047	.160	.277	.356
	.150	.251	.193	.116	.032	-.062	-.168	-.248	-.215	-.130	-.035	.054	.149	.213
	.250	.123	.073	.005	-.065	-.142	-.227	-.294	-.265	-.195	-.118	-.046	.033	.089
	.350	.056	.011	-.047	-.106	-.168	-.237	-.294	-.269	-.211	-.149	-.090	-.023	.027
	.450	-.006	-.047	-.098	-.149	-.199	-.257	-.304	-.284	-.234	-.185	-.136	-.077	-.034
	.550	-.049	-.083	-.127	-.168	-.211	-.257	-.295	-.278	-.238	-.199	-.159	-.110	-.072
	.650	-.102	-.131	-.168	-.201	-.232	-.263	-.289	-.278	-.250	-.222	-.194	-.153	-.123
	.750	-.117	-.139	-.168	-.189	-.206	-.220	-.235	-.230	-.212	-.203	-.186	-.157	-.132
	.850	-.060	-.073	-.090	-.094	-.092	-.087	-.087	-.089	-.087	-.096	-.095	-.083	-.069
	.925	.032	.028	.023	.030	.045	.060	.066	.060	.059	.037	.025	.024	.028
	.975	.099	.100	.103	.121	.143	.161	.164	.160	.161	.134	.111	.098	.097
	[a]1.000	.139	.145	.147	.179	.196	.218	.225	.205	.204	.171	.156	.125	.130

[a] No orifice.

TABLE 5.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R} = 45.2°$, $\beta_x = 51.60°$, B = 2 - Continued

(e) M = 0.56.

	J	2.054	2.087	2.102	2.153	2.183	2.199	2.255	2.282	2.309	2.338	2.371	2.410	2.446
	M_x	.759	.756	.751	.748	.743	.738	.735	.729	.726	.722	.719	.715	.711
	α_x'	4.14	3.69	3.48	2.80	2.41	2.20	1.49	1.16	.83	.48	.09	-.37	-.78
	$\Delta\beta$	.77	.71	.68	.59	.54	.51	.41	.37	.32	.27	.22	.15	.09
	α_1	1.49	1.32	1.23	1.03	.92	.82	.64	.51	.44	.34	.22	.08	-.03
	c_n	.5819	.5148	.4813	.4058	.3632	.3232	.2503	.2000	.1729	.1342	.0884	.0332	-.0135
	c_m	.0115	.0121	.0129	.0113	.0098	.0084	.0043	-.0002	-.0039	-.0066	-.0116	-.0147	-.0157
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.153	1.151	1.149	1.148	1.147	1.144	1.143	1.141	1.140	1.138	1.137	1.135	1.133
	.025	-1.236	-1.179	-1.164	-1.092	-1.039	-1.014	-.791	-.610	-.523	-.396	-.272	-.143	-.034
	.050	-1.299	-1.266	-1.261	-1.198	-1.131	-1.061	-.769	-.611	-.546	-.447	-.351	-.252	-.162
	.100	-1.272	-1.240	-1.225	-1.105	-.916	-.693	-.528	-.457	-.420	-.357	-.299	-.230	-.169
	.200	-1.174	-1.103	-.922	-.563	-.546	-.532	-.460	-.405	-.379	-.335	-.298	-.247	-.205
	.300	-.879	-.539	-.506	-.496	-.465	-.452	-.396	-.355	-.340	-.312	-.286	-.247	-.213
	.400	-.494	-.501	-.499	-.481	-.450	-.438	-.399	-.367	-.355	-.329	-.309	-.279	-.249
	.500	-.459	-.457	-.459	-.442	-.420	-.414	-.387	-.365	-.356	-.336	-.323	-.297	-.274
	.600	-.410	-.408	-.410	-.400	-.385	-.382	-.368	-.355	-.351	-.336	-.330	-.310	-.291
	.700	-.308	-.307	-.313	-.306	-.299	-.300	-.296	-.291	-.292	-.286	-.289	-.276	-.264
	.800	-.183	-.182	-.188	-.184	-.182	-.189	-.192	-.197	-.203	-.202	-.216	-.215	-.208
	.900	.007	.009	.002	.003	.001	-.008	-.017	-.030	-.038	-.045	-.058	-.059	-.060
	.950	.118	.118	.111	.109	.106	.100	.093	.083	.074	.066	.049	.044	.039
Lower surface	.0375	.422	.392	.362	.309	.266	.236	.143	.071	.026	-.038	-.127	-.219	-.310
	.075	.306	.279	.252	.210	.174	.150	.078	.023	-.011	-.056	-.121	-.186	-.248
	.150	.173	.151	.127	.091	.066	.043	-.012	-.053	-.078	-.110	-.159	-.202	-.244
	.250	.054	.035	.014	-.016	-.039	-.057	-.102	-.133	-.152	-.175	-.213	-.244	-.274
	.350	-.004	-.020	-.040	-.066	-.082	-.100	-.133	-.157	-.174	-.189	-.219	-.244	-.265
	.450	-.062	-.077	-.094	-.117	-.131	-.145	-.175	-.192	-.205	-.214	-.240	-.256	-.272
	.550	-.101	-.115	-.129	-.148	-.158	-.172	-.194	-.205	-.216	-.220	-.240	-.252	-.262
	.650	-.147	-.160	-.173	-.188	-.196	-.207	-.222	-.229	-.234	-.235	-.248	-.254	-.259
	.750	-.155	-.166	-.177	-.188	-.192	-.201	-.207	-.208	-.212	-.207	-.214	-.215	-.216
	.850	-.072	-.080	-.091	-.095	-.097	-.104	-.102	-.097	-.096	-.089	-.089	-.085	-.081
	.925	.049	.041	.029	.028	.029	.024	.032	.040	.042	.055	.059	.064	.068
	.975	.144	.135	.120	.118	.121	.117	.131	.141	.145	.159	.166	.171	.176
	[a]1.000	.200	.186	.160	.160	.170	.160	.180	.200	.196	.215	.225	.229	.245

[a]No orifice.

TABLE 5.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16–007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R}$ = 45.2°, β_x = 51.60°, B = 2 - Continued

(f) M = 0.60.

	J	2.093	2.115	2.143	2.171	2.200	2.222	2.244	2.266	2.295	2.320	2.342	2.370	2.400	2.430	2.451
	M_x	.809	.805	.800	.799	.795	.792	.786	.783	.779	.776	.770	.768	.764	.761	.754
	α_x'	3.61	3.31	2.93	2.57	2.19	1.91	1.63	1.36	1.00	.69	.43	.10	-.25	-.60	-.84
	$\Delta\beta$	.76	.74	.72	.68	.63	.59	.54	.50	.44	.39	.35	.29	.22	.16	.11
	c_l	1.42	1.32	1.17	1.06	.95	.84	.70	.65	.53	.46	.37	.27	.19	.07	-.01
	c_n	.5548	.5161	.4574	.4142	.3729	.3284	.2768	.2561	.2094	.1806	.1465	.1084	.0745	.0290	-.0052
	c_m	-.0064	-.0010	.0010	.0016	.0026	.0015	.0005	-.0002	-.0041	-.0078	-.0107	-.0116	-.0135	-.0147	-.0154
	c_c	-.0012	-.0010	-.0006	0	.0007	.0022	.0037	.0045	.0055	.0062	.0068				
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.175	1.173	1.171	1.170	1.168	1.167	1.164	1.163	1.161	1.160	1.158	1.157	1.155	1.154	1.151
	.025	-.897	-.883	-.845	-.822	-.796	-.754	-.699	-.664	-.543	-.470	-.375	-.289	-.208	-.119	-.050
	.050	-1.009	-.998	-.965	-.947	-.925	-.886	-.825	-.778	-.631	-.552	-.463	-.388	-.319	-.243	-.184
	.100	-1.001	-.988	-.950	-.926	-.889	-.797	-.633	-.557	-.467	-.426	-.375	-.327	-.281	-.228	-.188
	.200	-.933	-.914	-.864	-.811	-.716	-.554	-.503	-.486	-.431	-.403	-.366	-.332	-.298	-.261	-.232
	.300	-.877	-.847	-.771	-.630	-.495	-.485	-.448	-.433	-.391	-.374	-.346	-.320	-.293	-.261	-.237
	.400	-.863	-.806	-.619	-.564	-.550	-.510	-.468	-.452	-.414	-.396	-.372	-.350	-.327	-.302	-.282
	.500	-.808	-.662	-.600	-.575	-.512	-.484	-.453	-.441	-.411	-.401	-.381	-.363	-.346	-.327	-.310
	.600	-.563	-.546	-.515	-.478	-.451	-.435	-.416	-.412	-.395	-.392	-.381	-.370	-.356	-.344	-.331
	.700	-.325	-.329	-.329	-.329	-.321	-.318	-.312	-.317	-.314	-.316	-.318	-.314	-.308	-.299	-.293
	.800	-.157	-.171	-.179	-.184	-.182	-.183	-.185	-.196	-.201	-.210	-.215	-.221	-.223	-.223	-.220
	.900	.034	.026	.021	.015	.015	.013	.007	-.006	-.016	-.027	-.039	-.048	-.052	-.054	-.059
	.950	.125	.124	.124	.122	.122	.122	.117	.106	.099	.089	.075	.066	.063	.060	.057
Lower surface	.0375	.354	.326	.289	.260	.237	.198	.154	.119	.061	.015	-.044	-.103	-.163	-.239	-.306
	.075	.253	.228	.200	.175	.157	.127	.092	.063	.018	-.017	-.061	-.106	-.150	-.203	-.252
	.150	.131	.109	.085	.066	.051	.027	-.002	-.025	-.058	-.086	-.118	-.151	-.181	-.219	-.253
	.250	.013	-.008	-.027	-.043	-.055	-.074	-.095	-.116	-.141	-.165	-.189	-.215	-.239	-.266	-.293
	.350	-.046	-.064	-.081	-.095	-.102	-.118	-.134	-.152	-.171	-.189	-.210	-.229	-.247	-.266	-.288
	.450	-.109	-.125	-.140	-.151	-.153	-.167	-.180	-.192	-.208	-.223	-.237	-.254	-.267	-.282	-.298
	.550	-.157	-.168	-.180	-.185	-.187	-.195	-.205	-.215	-.225	-.235	-.246	-.258	-.267	-.277	-.289
	.650	-.212	-.220	-.226	-.229	-.225	-.229	-.234	-.243	-.246	-.253.	-.258	-.267	-.272	-.277	-.284
	.750	-.218	-.221	-.221	-.220	-.214	-.215	-.216	-.222	-.218	-.221	-.223	-.226	-.227	-.228	-.233
	.850	-.109	-.110	-.105	-.101	-.096	-.096	-.094	-.097	-.089	-.089	-.086	-.086	-.085	-.086	-.087
	.925	.023	.025	.035	.039	.045	.045	.049	.047	.058	.062	.066	.067	.069	.067	.065
	.975	.110	.114	.127	.135	.142	.143	.149	.148	.161	.166	.174	.175	.173	.171	.166
	[a]1.000	.158	.164	.180	.180	.189	.197	.199	.193	.211	.221	.237	.240	.225	.228	.215

[a]No orifice.

TABLE 5.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-007.50 PROPELLER BLADE SECTION (x = 0.60)

$\beta_{0.75R} = 45.2°$, $\beta_x = 51.60°$, B = 2 - Concluded

(g) M = 0.65.

J		2.452	2.420	2.390	2.369	2.360	2.316	2.291	2.272	2.245	2.233	2.208	2.176	2.159	2.134
M_x		.824	.825	.829	.832	.840	.838	.842	.847	.849	.857	.861	.861	.864	.869
α_x'		−.85	−.48	−.14	.11	.21	.74	1.05	1.28	1.62	1.77	2.09	2.50	2.72	3.05
$\Delta\beta$		.16	.22	.26	.29	.30	.36	.40	.42	.46	.48	.50	.54	.56	.58
α_l		−.02	.06	.16	.29	.35	.48	.59	.68	.76	.83	.91	1.02	1.10	1.12
c_n		−.0097	.0232	.0642	.1139	.1364	.1877	.2316	.2674	.2994	.3271	.3561	.4013	.4316	.4381
c_m		−.0121	−.0113	−.0133	−.0112	−.0134	−.0113	−.0132	−.0103	−.0136	−.0143	−.0156	−.0236	−.0274	−.0246
c_c		.0096	.0094	.0092	.0093	.0097	.0090	.0097	.0108	.0111	.0126	.0145	.0152	.0152	.0134
c/b		Pressure coefficient, P													
Upper surface	[a]0.000	1.181	1.182	1.183	1.185	1.189	1.188	1.190	1.192	1.193	1.196	1.199	1.199	1.200	1.202
	.025	−.015	−.085	−.144	−.209	−.261	−.341	−.404	−.441	−.483	−.492	−.516	−.546	−.561	−.572
	.050	−.169	−.234	−.292	−.358	−.417	−.507	−.563	−.592	−.628	−.640	−.665	−.692	−.702	−.708
	.100	−.178	−.226	−.263	−.307	−.341	−.403	−.456	−.516	−.588	−.611	−.645	−.681	−.695	−.704
	.200	−.243	−.281	−.311	−.343	−.370	−.418	−.473	−.507	−.538	−.548	−.580	−.630	−.650	−.663
	.300	−.249	−.284	−.308	−.336	−.356	−.403	−.442	−.479	−.524	−.543	−.571	−.609	−.629	−.640
	.400	−.335	−.367	−.394	−.417	−.431	−.462	−.483	−.507	−.543	−.562	−.592	−.629	−.646	−.653
	.500	−.396	−.424	−.444	−.463	−.479	−.514	−.543	−.551	−.579	−.609	−.633	−.659	−.677	−.686
	.600	−.454	−.477	−.503	−.525	−.542	−.580	−.616	−.631	−.642	−.657	−.698	−.728	−.742	−.745
	.700	−.384	−.409	−.440	−.477	−.502	−.557	−.647	−.699	−.713	−.720	−.748	−.793	−.817	−.820
	.800	−.234	−.236	−.231	−.226	−.213	−.210	−.207	−.214	−.221	−.226	−.237	−.258	−.286	−.271
	.900	−.019	−.016	−.008	−.003	.009	.014	.018	.016	.005	−.013	−.043	−.085	−.137	−.142
	.950	.109	.110	.117	.119	.125	.126	.123	.111	.095	.070	.038	.008	−.045	−.070
Lower surface	.0375	−.295	−.233	−.173	−.113	−.059	−.006	.042	.085	.119	.152	.183	.221	.244	.270
	.075	−.243	−.196	−.152	−.106	−.067	−.027	.011	.045	.073	.101	.128	.160	.180	.200
	.150	−.261	−.232	−.194	−.160	−.127	−.099	−.070	−.043	−.020	.003	.026	.053	.071	.091
	.250	−.322	−.295	−.268	−.239	−.213	−.191	−.166	−.143	−.124	−.103	−.083	−.061	−.045	−.025
	.350	−.324	−.303	−.282	−.259	−.236	−.220	−.202	−.181	−.165	−.146	−.128	−.108	−.096	−.080
	.450	−.358	−.342	−.325	−.306	−.286	−.274	−.260	−.243	−.231	−.213	−.199	−.182	−.170	−.156
	.550	−.366	−.357	−.344	−.331	−.315	−.310	−.299	−.287	−.277	−.266	−.253	−.240	−.233	−.217
	.650	−.367	−.368	−.366	−.358	−.346	−.350	−.350	−.345	−.343	−.340	−.333	−.327	−.325	−.313
	.750	−.291	−.301	−.306	−.305	−.300	−.314	−.322	−.337	−.345	−.368	−.380	−.387	−.404	−.404
	.850	−.102	−.110	−.115	−.115	−.114	−.125	−.136	−.149	−.158	−.178	−.200	−.212	−.252	−.286
	.925	.068	.059	.057	.056	.058	.046	.033	.019	.005	−.012	−.034	−.039	−.076	−.114
	..975	.178	.171	.170	.167	.166	.154	.137	.119	.099	.077	.049	.051	.010	−.051
	[a]1.000	.236	.244	.236	.250	.254	.200	.204	.165	.148	.120	.080	.093	.055	−.038

[a]No orifice.

TABLE 6.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2°$, $\beta_x = 47.35°$, B = 2

(a) N = 1140 rpm.

	J	1.798	1.920	2.065	2.158	2.292	2.432	2.377	2.249	2.142	2.004	1.866
	M_x	.503	.515	.534	.544	.558	.577	.569	.552	.539	.525	.506
	α_x'	8.08	6.23	4.13	2.89	1.17	-.53	.13	1.71	3.11	5.01	7.03
	$\Delta\beta$	.62	.54	.42	.35	.24	.10	.16	.27	.36	.48	.58
	α_i	1.87	1.53	1.07	.78	.44	.07	.21	.55	.84	1.24	1.62
	c_n	.6658	.5439	.3858	.2813	.1590	.0252	.0768	.1977	.3006	.4426	.5774
	c_m	.0143	.0216	.0056	.0036	.0010	-.0076	-.0083	.0026	.0043	.0093	.0216
	c_c											
	c/b	Pressure coefficient, P										
Upper surface	[a]0.000	1.065	1.067	1.073	1.076	1.080	1.085	1.083	1.078	1.074	1.070	1.066
	.025	-1.795	-1.765	-1.318	-.999	-.540	-.126	-.306	-.664	-1.065	-1.605	-1.441
	.050	-1.656	-1.532	-.909	-.654	-.412	-.146	-.255	-.481	-.704	-1.077	-1.441
	.100	-1.262	-1.212	-.666	-.517	-.342	-.166	-.239	-.386	-.537	-.743	-1.365
	.200	-1.010	-.719	-.508	-.421	-.307	-.189	-.237	-.337	-.432	-.548	-.922
	.300	-.777	-.496	-.416	-.354	-.270	-.185	-.221	-.289	-.357	-.442	-.580
	.400	-.579	-.399	-.365	-.321	-.259	-.197	-.223	-.270	-.322	-.381	-.419
	.500	-.447	-.354	-.347	-.317	-.272	-.221	-.243	-.278	-.318	-.356	-.350
	.600	-.333	-.299	-.306	-.286	-.255	-.222	-.237	-.257	-.287	-.307	-.287
	.700	-.254	-.238	-.257	-.249	-.230	-.213	-.223	-.230	-.243	-.252	-.228
	.800	-.175	-.157	-.171	-.176	-.168	-.173	-.177	-.162	-.171	-.166	-.148
	.900	-.101	-.046	-.036	-.047	-.051	-.069	-.061	-.042	-.041	-.032	-.050
	.950	-.061	.021	.058	.053	.046	.033	.034	.055	.056	.054	.006
Lower surface	.0375	.682	.614	.481	.326	.121	-.146	-.026	.195	.366	.552	.645
	.075	.489	.420	.301	.172	.017	-.177	-.093	.072	.205	.360	.452
	.150	.323	.286	.168	.072	-.040	-.166	-.113	.003	.098	.216	.294
	.250	.189	.142	.067	-.008	-.092	-.187	-.145	-.061	.012	.105	.167
	.350	.100	.061	0	-.065	-.129	-.201	-.169	-.103	-.045	.033	.082
	.450	.046	.016	-.034	-.084	-.138	-.193	-.167	-.116	-.067	-.004	.033
	.550	-.037	-.055	-.095	-.139	-.179	-.219	-.199	-.158	-.122	-.071	-.041
	.650	-.068	-.076	-.104	-.139	-.168	-.195	-.179	-.152	-.124	-.085	-.067
	.750	-.103	-.095	-.108	-.132	-.148	-.160	-.151	-.137	-.120	-.092	-.092
	.850	-.120	-.105	-.086	-.095	-.098	-.091	-.089	-.092	-.087	-.078	-.097
	.925	-.078	-.027	.002	.003	.013	.038	.034	.015	-.010	.003	-.036
	.975	-.058	.030	.076	.090	.108	.144	.138	.108	.093	.073	.008
	[a]1.000	-.047	.066	.117	.133	.158	.203	.202	.158	.158	.127	.037

[a]No orifice.

TABLE 6.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 47.35^\circ$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.833	1.936	2.046	2.158	2.241	2.359	2.430	2.399	2.303	2.206	2.083	1.959	1.871
	M_x	.592	.607	.624	.638	.650	.670	.684	.677	.661	.645	.627	.610	.599
	α_x'	7.54	5.99	4.41	2.89	1.81	.34	-.51	-.14	1.03	2.26	3.90	5.65	6.96
	$\Delta\beta$	.78	.74	.62	.47	.36	.20	.10	.15	.28	.41	.57	.72	.78
	α_i	1.89	1.58	1.33	.93	.62	.30	.01	.16	.41	.76	1.18	1.54	1.78
	c_n	.6703	.5639	.4761	.3342	.2245	.1097	.0042	.0587	.1494	.2735	.4284	.5516	.6361
	c_m	.0216	.0205	.0147	.0064	.0028	-.0001	-.0068	-.0036	.0013	.0038	.0110	.0169	.0249
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.090	1.095	1.101	1.106	1.110	1.118	1.123	1.120	1.114	1.108	1.102	1.096	1.092
	.025	-1.713	-1.643	-2.189	-1.285	-.768	-.388	-.117	-.249	-.529	-.961	-1.974	-1.821	-1.851
	.050	-1.713	-1.640	-1.262	-.693	-.546	-.324	-.148	-.237	-.410	-.606	-1.009	-1.615	-1.814
	.100	-1.556	-1.487	-.724	-.589	-.439	-.293	-.174	-.235	-.349	-.501	-.683	-1.314	-1.500
	.200	-1.008	-.661	-.563	-.471	-.383	-.279	-.203	-.244	-.317	-.417	-.543	-.612	-.869
	.300	-.668	-.492	-.463	-.390	-.330	-.255	-.205	-.234	-.284	-.352	-.446	-.478	-.611
	.400	-.507	-.419	-.404	-.352	-.308	-.252	-.216	-.235	-.273	-.321	-.392	-.413	-.481
	.500	-.414	-.376	-.379	-.343	-.315	-.271	-.246	-.261	-.290	-.321	-.373	-.417	-.398
	.600	-.324	-.312	-.328	-.308	-.289	-.261	-.246	-.258	-.273	-.291	-.328	-.323	-.318
	.700	-.248	-.245	-.269	-.261	-.253	-.236	-.231	-.237	-.244	-.251	-.271	-.254	-.245
	.800	-.171	-.151	-.174	-.175	-.178	-.171	-.171	-.175	-.173	-.171	-.177	-.160	-.158
	.900	-.085	-.031	-.034	-.034	-.043	-.045	-.056	-.054	-.044	-.034	-.033	-.033	-.062
	.950	-.040	.035	.061	.067	.062	.061	.047	.048	.062	.071	.066	.043	-.012
Lower surface	.0375	.699	.634	.532	.385	.216	.035	-.160	-.065	.109	.303	.490	.616	.675
	.075	.506	.441	.344	.222	.089	-.055	-.196	-.128	.003	.158	.310	.424	.479
	.150	.338	.285	.210	.116	.014	-.086	-.185	-.138	-.047	.066	.182	.271	.315
	.250	.206	.162	.097	.020	-.062	-.136	-.209	-.175	-.106	-.019	.072	.151	.186
	.350	.107	.074	.015	-.047	-.113	-.171	-.228	-.203	-.151	-.075	-.002	.064	.091
	.450	.051	.027	-.020	-.074	-.127	-.174	-.222	-.199	-.156	-.098	-.038	.017	.037
	.550	-.046	-.062	-.099	-.141	-.188	-.221	-.260	-.246	-.217	-.160	-.113	-.068	-.057
	.650	-.067	-.073	-.099	-.131	-.168	-.192	-.222	-.209	-.186	-.145	-.111	-.075	-.074
	.750	-.097	-.093	-.111	-.128	-.155	-.166	-.185	-.178	-.164	-.138	-.116	-.093	-.103
	.850	-.119	-.089	-.087	-.091	-.106	-.103	-.107	-.107	-.106	-.093	-.090	-.084	-.113
	.925	-.070	-.016	.005	.013	.014	.030	.034	.030	.022	.019	.005	-.004	-.053
	.975	-.048	.038	.082	.101	.109	.135	.143	.137	.121	.112	.086	.057	-.018
	[a]1.000	-.037	.063	.129	.159	.159	.184	.200	.188	.169	.164	.131	.086	.007

[a]No orifice.

NACA

TABLE 6.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2°$, $\beta_x = 47.35°$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.868	1.925	2.022	2.092	2.211	2.324	2.447	2.395	2.282	2.151	2.067	1.967	1.893
	M_x	.663	.674	.688	.701	.721	.743	.764	.752	.733	.709	.695	.676	.664
	α_x'	7.00	6.20	4.73	3.78	2.20	.77	-.70	-.09	1.29	2.98	3.12	5.54	6.63
	$\Delta\beta$	1.08	1.06	.92	.80	.58	.36	.12	.22	.44	.69	.84	1.01	1.08
	α_1	2.06	1.96	1.61	1.29	.85	.44	-.03	.20	.60	1.07	1.47	1.80	2.07
	c_n	.7355	.7019	.5774	.4645	.3071	.1613	-.0129	.0722	.2155	.3852	.5263	.6458	.7374
	c_m	.0342	.0321	.0246	.0177	.0082	.0025	-.0088	-.0044	.0039	.0116	.0197	.0302	.0370
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	$a_{0.000}$	1.115	1.119	1.125	1.130	1.137	1.146	1.155	1.150	1.142	1.132	1.127	1.120	1.115
	.025	-2.516	-2.386	-2.059	-1.755	-1.173	-.530	-.074	-.267	-.755	-1.494	-1.911	-2.255	-2.432
	.050	-2.379	-2.256	-1.918	-1.582	-.927	-.423	-.124	-.258	-.540	-1.335	-1.738	-2.115	-2.293
	.100	-1.910	-2.066	-1.736	-1.087	-.544	-.373	-.166	-.262	-.444	-.587	-1.510	-1.940	-2.051
	.200	-.820	-.815	-.517	-.519	-.469	-.343	-.211	-.273	-.394	-.512	-.508	-.643	-.825
	.300	-.649	-.467	-.464	-.454	-.403	-.310	-.219	-.263	-.343	-.434	-.463	-.459	-.602
	.400	-.506	-.422	-.422	-.407	-.361	-.302	-.234	-.267	-.323	-.387	-.414	-.424	-.474
	.500	-.423	-.397	-.402	-.389	-.361	-.324	-.272	-.294	-.334	-.377	-.396	-.399	-.403
	.600	-.332	-.340	-.349	-.342	-.327	-.305	-.275	-.291	-.307	-.335	-.345	-.343	-.320
	.700	-.254	-.272	-.283	-.277	-.273	-.269	-.257	-.265	-.265	-.278	-.283	-.277	-.247
	.800	-.166	-.172	-.184	-.179	-.184	-.187	-.185	-.187	-.179	-.181	-.183	-.177	-.155
	.900	-.074	-.031	-.031	-.024	-.031	-.039	-.049	-.047	-.030	-.026	-.029	-.032	-.050
	.950	-.021	.060	.069	.076	.075	.071	.060	.063	.079	.078	.073	.064	.010
Lower surface	.0375	.701	.663	.565	.483	.308	.101	-.186	-.042	.196	.404	.518	.623	.697
	.075	.509	.472	.382	.308	.160	-.009	-.223	-.117	-.069	.241	.342	.435	.505
	.150	.350	.321	.244	.183	.066	-.057	-.210	-.134	0	.128	.210	.290	.346
	.250	.216	.189	.123	.070	-.028	-.124	-.243	-.184	-.077	.023	.094	.163	.213
	.350	.117	.097	.037	-.007	-.088	-.166	-.261	-.215	-.129	-.047	.013	.074	.115
	.450	.060	.046	-.005	-.043	-.113	-.179	-.256	-.219	-.147	-.079	-.026	.027	.061
	.550	-.037	-.045	-.089	-.120	-.181	-.235	-.293	-.265	-.207	-.150	-.106	-.061	-.035
	.650	-.058	-.056	-.092	-.120	-.170	-.209	-.251	-.230	-.187	-.143	-.106	-.069	-.053
	.750	-.093	-.078	-.104	-.123	-.159	-.182	-.201	-.191	-.168	-.143	-.114	-.086	-.082
	.850	-.106	-.068	-.081	-.091	-.108	-.112	-.106	-.106	-.106	-.101	-.087	-.072	-.090
	.925	-.048	.016	.017	.016	.015	.030	.047	.043	.026	.014	.016	.019	-.025
	.975	-.021	.086	.099	.101	.112	.135	.161	.154	.129	.104	.101	.095	.011
	$a_{1.000}$	0	.128	.143	.157	.174	.202	.226	.218	.186	.158	.156	.148	.046

[a] No orifice.

TABLE 6.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2°$, $\beta_x = 47.35°$, B = 2 - Continued

(d) N = 1600 rpm.

J	1.972	2.062	2.158	2.232	2.315	2.401	2.463	2.428	2.372	2.287	2.205	2.129	2.034
M_x	.731	.746	.761	.776	.792	.808	.822	.811	.801	.782	.767	.754	.736
α_x [1]	5.47	4.19	2.89	1.93	.88	−.16	−.89	−.48	.19	1.23	2.27	3.28	4.58
$\Delta\beta$	1.18	1.03	.81	.64	.45	.24	.09	.17	.31	.51	.71	.88	1.08
α_1	2.03	1.61	1.20	.90	.55	.20	−.06	.10	.33	.68	.97	1.36	1.72
c_n	.7290	.5806	.4329	.3265	.1990	.0716	−.0235	.0377	.1203	.2439	.3497	.4916	.6174
c_m	.0251	.0203	.0139	.0093	.0021	−.0060	−.0114	.0074	−.0030	.0056	.0136	.0180	.0241
c_c													

	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.141	1.148	1.154	1.160	1.167	1.174	1.180	1.175	1.171	1.162	1.156	1.151	1.143
	.025	−1.851	−1.575	−1.238	−1.036	−.627	−.216	−.025	−.131	−.359	−.838	−1.127	−1.366	−1.714
	.050	−1.761	−1.495	−1.216	−.958	−.483	−.232	−.093	−.172	−.327	−.637	−1.072	−1.328	−1.624
	.100	−1.656	−1.412	−1.126	−.765	−.437	−.257	−.153	−.213	−.326	−.509	−.910	−1.244	−1.528
	.200	−1.541	−1.272	−.662	−.487	−.400	−.288	−.217	−.258	−.332	−.446	−.484	−.920	−1.373
	.300	−.897	−.439	−.427	−.431	−.365	−.289	−.239	−.268	−.318	−.392	−.434	−.413	−.449
	.400	−.342	−.371	−.397	−.391	−.351	−.301	−.264	−.288	−.321	−.365	−.393	−.392	−.366
	.500	−.354	−.379	−.392	−.389	−.372	−.351	−.322	−.338	−.357	−.376	−.390	−.389	−.373
	.600	−.320	−.337	−.344	−.346	−.343	−.339	−.333	−.340	−.342	−.340	−.344	−.342	−.332
	.700	−.264	−.277	−.281	−.288	−.294	−.303	−.305	−.306	−.298	−.288	−.285	−.279	−.273
	.800	−.170	−.175	−.174	−.180	−.191	−.200	−.205	−.205	−.199	−.183	−.180	−.176	−.172
	.900	−.018	−.015	−.010	−.015	−.025	−.037	−.042	−.043	−.036	−.018	−.014	−.012	−.016
	.950	.087	.092	.099	.094	.088	.081	.073	.073	.080	.093	.094	.096	.091
Lower surface	.0375	.612	.527	.410	.296	.138	−.056	−.204	−.121	.025	.208	.336	.456	.563
	.075	.432	.353	.251	.153	.021	−.138	−.251	−.190	−.071	.077	.187	.290	.386
	.150	.291	.224	.141	.054	−.038	−.155	−.237	−.191	−.107	.005	.087	.173	.250
	.250	.165	.107	.033	−.035	−.118	−.214	−.284	−.245	−.173	−.081	−.012	.061	.130
	.350	.076	.026	−.039	−.101	−.169	−.250	−.308	−.277	−.216	−.140	−.080	−.016	.045
	.450	.030	−.016	−.074	−.130	−.189	−.258	−.308	−.281	−.227	−.163	−.112	−.052	.001
	.550	−.058	−.099	−.151	−.200	−.250	−.306	−.347	−.326	−.281	−.228	−.183	−.130	−.084
	.650	−.067	−.102	−.146	−.189	−.229	−.268	−.296	−.282	−.251	−.210	−.175	−.129	−.088
	.750	−.081	−.106	−.140	−.174	−.196	−.214	−.224	−.221	−.206	−.186	−.162	−.129	−.096
	.850	−.057	−.071	−.090	−.109	−.114	−.109	−.103	−.108	−.109	−.112	−.104	−.084	−.066
	.925	.046	.045	.037	.028	.038	.052	.065	.056	.047	.033	.028	.038	.044
	.975	.131	.137	.136	.131	.147	.161	.174	.167	.159	.139	.129	.133	.134
	[a]1.000	.183	.184	.186	.200	.204	.215	.228	.216	.208	.192	.180	.183	.191

[a]No orifice.

TABLE 6.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2°$, $\beta_x = 47.35°$, B = 2 - Continued

(e) M = 0.56.

	J	2.068	2.090	2.110	2.132	2.156	2.175	2.208	2.243	2.271	2.299	2.331	2.360	2.399	2.452
	M_x	.826	.821	.814	.809	.805	.798	.796	.790	.786	.781	.776	.772	.766	.759
	α_x,	4.11	3.81	3.53	3.24	2.92	2.67	2.23	1.78	1.43	1.07	.68	.33	-.14	-.76
	$\Delta\beta$	1.10	1.05	1.00	.94	.88	.82	.74	.65	.57	.49	.41	.33	.24	.11
	α_i	1.78	1.67	1.53	1.44	1.33	1.16	1.04	.87	.73	.59	.43	.33	.21	-.06
	c_n	.6406	.6019	.5516	.5194	.4813	.4200	.3735	.3142	.2639	.2142	.1552	.1203	.0755	-.0226
	c_m	-.0077	-.0007	.0044	.0069	.0102	.0107	.0110	.0097	.0074	.0038	-.0007	-.0025	-.0052	-.0098
	c_c														
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.183	1.180	1.177	1.175	1.173	1.169	1.168	1.166	1.164	1.162	1.160	1.158	1.156	1.153
	.025	-1.053	-1.048	-1.046	-1.046	-1.041	-1.029	-1.000	-.966	-.896	-.729	-.491	-.387	-.258	-.060
	.050	-1.054	-1.051	-1.042	-1.033	-1.021	-.998	-.959	-.899	-.729	-.536	-.405	-.340	-.253	-.119
	.100	-1.018	-1.010	-.997	-.984	-.968	-.937	-.885	-.752	-.566	-.463	-.371	-.325	-.260	-.167
	.200	-.983	-.975	-.960	-.942	-.922	-.868	-.734	-.484	-.466	-.411	-.349	-.320	-.275	-.214
	.300	-.958	-.946	-.931	-.910	-.856	-.532	-.445	-.443	-.410	-.369	-.323	-.301	-.268	-.226
	.400	-.938	-.919	-.887	-.681	-.457	-.429	-.431	-.405	-.379	-.350	-.314	-.300	-.272	-.243
	.500	-.941	-.825	-.515	-.432	-.436	-.433	-.426	-.403	-.387	-.365	-.344	-.331	-.310	-.285
	.600	-.452	-.338	-.340	-.357	-.363	-.362	-.361	-.354	-.348	-.336	-.321	-.314	-.300	-.288
	.700	-.232	-.242	-.267	-.281	-.286	-.291	-.295	-.293	-.292	-.287	-.284	-.282	-.273	-.273
	.800	-.122	-.138	-.154	-.163	-.167	-.173	-.179	-.181	-.186	-.187	-.191	-.195	-.195	-.207
	.900	.029	.022	.013	.008	.005	-.002	-.008	-.012	-.018	-.023	-.035	-.042	-.045	-.071
	.950	.130	.127	.120	.118	.117	.109	.104	.099	.092	.090	.081	.072	.070	.041
Lower surface	.0375	.492	.473	.443	.420	.402	.367	.329	.282	.228	.173	.088	.032	-.044	-.232
	.075	.330	.311	.282	.262	.244	.214	.180	.140	.092	.045	-.024	-.068	-.123	-.261
	.150	.212	.195	.161	.152	.139	.113	.085	.051	.015	-.021	-.068	-.100	-.139	-.239
	.250	.094	.080	.058	.044	.031	.009	-.015	-.044	-.073	-.097	-.137	-.161	-.190	-.268
	.350	.012	0	-.020	-.032	-.043	-.062	-.084	-.107	-.131	-.150	-.179	-.199	-.220	-.281
	.450	-.036	-.046	-.063	-.074	-.082	-.096	-.118	-.137	-.157	-.172	-.195	-.209	-.224	-.274
	.550	-.131	-.138	-.153	-.159	-.166	-.179	-.196	-.211	-.227	-.236	-.253	-.262	-.273	-.311
	.650	-.138	-.142	-.154	-.158	-.161	-.171	-.186	-.197	-.210	-.214	-.223	-.230	-.235	-.265
	.750	-.142	-.140	-.149	-.150	-.152	-.161	-.172	-.180	-.187	-.187	-.189	-.194	-.194	-.217
	.850	-.084	-.081	-.089	-.090	-.091	-.098	-.105	-.112	-.116	-.111	-.107	-.108	-.104	-.122
	.925	.061	.061	.053	.051	.050	.042	.035	.031	.029	.033	.043	.041	.046	.029
	.975	.164	.166	.155	.151	.151	.144	.138	.134	.133	.140	.148	.148	.151	.133
	[a]1.000	.208	.227	.208	.204	.195	.187	.195	.183	.190	.188	.203	.205	.206	.192

[a] No orifice.

TABLE 6.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2°$, $\beta_x = 47.35°$, B = 2 - Continued

(f) M = 0.60.

	J	2.096	2.128	2.149	2.178	2.190	2.214	2.236	2.251	2.276	2.290	2.316	2.338	2.359	2.387	2.419	2.449	2.471
	M_x	.871	.867	.863	.857	.854	.852	.847	.844	.840	.834	.833	.831	.827	.823	.817	.813	.807
	α_x'	3.73	3.29	3.01	2.63	2.47	2.16	1.87	1.68	1.37	1.19	.87	.59	.34	.01	-.38	-.73	-.98
	$\Delta\beta$	1.04	1.02	1.00	.92	.89	.82	.76	.71	.63	.59	.52	.45	.39	.31	.22	.14	.08
	α_1	1.65	1.52	1.42	1.27	1.21	1.06	.99	.85	.81	.73	.61	.52	.44	.34	.19	.04	-.07
	c_n	.5942	.5471	.5142	.4574	.4368	.3832	.3561	.3065	.2942	.2655	.2216	.1884	.1600	.1226	.0700	.0161	-.0255
	c_m	-.0401	-.0285	-.0202	-.0098	-.0059	-.0048	-.0025	.0005	0	-.0011	-.0072	-.0089	-.0103	-.0115	-.0149	-.0187	-.0191
	c_c	.0144	.0100	.0072	.0059	.0043	.0050	.0050	.0060	.0062	.0064	.0072	.0080					
	c/b	Pressure coefficient, P																
Upper surface	[a]0.000	1.204	1.202	1.200	1.197	1.195	1.195	1.192	1.191	1.189	1.186	1.185	1.184	1.183	1.181	1.178	1.176	1.173
	.025	-.828	-.802	-.796	-.769	-.774	-.737	-.728	-.697	-.681	-.654	-.556	-.456	-.375	-.280	-.159	-.066	.009
	.050	-.824	-.793	-.782	-.748	-.752	-.703	-.688	-.634	-.589	-.532	-.441	-.389	-.341	-.276	-.191	-.124	-.068
	.100	-.801	-.768	-.756	-.721	-.719	-.667	-.649	-.608	-.590	-.547	-.450	-.392	-.351	-.298	-.230	-.179	-.134
	.200	-.791	-.760	-.749	-.718	-.714	-.676	-.661	-.588	-.523	-.476	-.433	-.392	-.360	-.320	-.270	-.231	-.199
	.300	-.789	-.760	-.748	-.715	-.705	-.646	-.599	-.488	-.462	-.450	-.416	-.385	-.357	-.323	-.282	-.251	-.224
	.400	-.776	-.743	-.728	-.698	-.682	-.581	-.501	-.473	-.471	-.444	-.409	-.383	-.359	-.333	-.299	-.276	-.252
	.500	-.794	-.764	-.751	-.713	-.652	-.537	-.526	-.514	-.497	-.488	-.457	-.430	-.408	-.383	-.350	-.327	-.306
	.600	-.833	-.806	-.786	-.692	-.593	-.577	-.547	-.531	-.518	-.473	-.437	-.419	-.401	-.378	-.353	-.336	-.317
	.700	-.846	-.798	-.611	-.517	-.387	-.427	-.393	-.349	-.331	-.326	-.350	-.351	-.344	-.332	-.318	-.311	-.300
	.800	-.286	-.209	-.161	-.148	-.144	-.150	-.158	-.166	-.171	-.181	-.190	-.197	-.209	-.225	-.243	-.243	-.234
	.900	-.136	-.021	.023	.028	.030	.019	.018	.014	.010	-.001	-.018	-.029	-.034	-.040	-.046	-.055	-.063
	.950	-.044	.076	.115	.126	.134	.125	.128	.125	.122	.115	.103	.093	.087	.080	.071	.064	.057
Lower surface	.0375	.440	.409	.386	.346	.341	.295	.281	.246	.227	.196	.148	.102	.061	.002	-.081	-.165	-.243
	.075	.284	.256	.234	.200	.195	.150	.139	.108	.093	.066	.023	-.016	-.048	-.096	-.160	-.227	-.284
	.150	.175	.150	.131	.102	.098	.063	.055	.029	.017	-.003	-.037	-.067	-.092	-.127	-.172	-.219	-.257
	.250	.058	.038	.021	-.004	-.006	-.036	-.044	-.063	-.074	-.091	-.118	-.141	-.161	-.188	-.224	-.261	-.289
	.350	-.027	-.044	-.060	-.082	-.081	-.108	-.114	-.131	-.137	-.152	-.174	-.193	-.208	-.229	-.255	-.285	-.306
	.450	-.081	-.095	-.108	-.126	-.124	-.149	-.151	-.166	-.171	-.181	-.200	-.215	-.227	-.242	-.264	-.285	-.299
	.550	-.192	-.204	-.214	-.230	-.223	-.246	-.245	-.254	-.256	-.264	-.277	-.286	-.293	-.304	-.315	-.329	-.337
	.650	-.227	-.233	-.237	-.247	-.232	-.249	-.244	-.248	-.246	-.247	-.252	-.256	-.259	-.264	-.267	-.274	-.278
	.750	-.281	-.270	-.257	-.252	-.225	-.230	-.221	-.220	-.214	-.212	-.208	-.207	-.206	-.207	-.205	-.209	-.208
	.850	-.243	-.193	-.168	-.152	-.128	-.129	-.122	-.120	-.115	-.111	-.101	-.096	-.095	-.092	-.087	-.088	-.086
	.925	-.073	-.013	.011	.028	.045	.046	.049	.047	.051	.056	.070	.077	.079	.080	.087	.086	.087
	.975	.006	.090	.125	.142	.160	.162	.162	.160	.163	.168	.186	.191	.193	.195	.199	.197	.195
	[a]1.000	.032	.126	.167	.191	.203	.213	.212	.211	.208	.214	.232	.238	.236	.246	.239	.250	.245

[a] No orifice.

TABLE 6.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-006.62 PROPELLER BLADE SECTION (x = 0.70)

$\beta_{0.75R} = 45.2°$, $\beta_x = 47.35°$, B = 2 - Concluded

(g) M = 0.65.

	J	2.094	2.141	2.162	2.184	2.209	2.232	2.265	2.297	2.316	2.342	2.365	2.390	2.426	2.453	2.464
	M_x	.936	.938	.933	.925	.920	.915	.913	.910	.904	.899	.892	.887	.885	.881	.875
	α_x'	3.75	3.12	2.84	2.55	2.23	1.93	1.50	1.10	.87	.55	.27	-.03	-.46	-.77	-.90
	$\Delta\beta$	.84	.79	.76	.73	.69	.65	.59	.53	.49	.44	.39	.34	.27	.22	.20
	α_1	1.28	1.17	1.08	1.02	.95	.88	.77	.63	.55	.48	.37	.26	.13	.02	-.08
	c_{l_1}	.4600	.4213	.3903	.3684	.3413	.3181	.2787	.2294	.2010	.1726	.1352	.0952	.0484	.0065	-.0306
	c_m	-.0305	-.0262	-.0233	-.0174	-.0177	-.0185	-.0121	-.0109	-.0120	-.0157	-.0134	-.0142	-.0139	-.0181	-.0180
	c_c	.0356	.0354	.0345	.0330	.0302	.0287	.0265	.0259	.0224	.0203	.0191	.0182	.0169	.0147	.0130
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.238	1.239	1.237	1.232	1.229	1.226	1.225	1.224	1.221	1.218	1.215	1.212	1.211	1.209	1.206
	.025	-.562	-.525	-.509	-.510	-.488	-.474	-.447	-.386	-.350	-.273	-.211	-.135	-.058	-.008	.050
	.050	-.556	-.516	-.496	-.494	-.462	-.431	-.374	-.308	-.292	-.258	-.221	-.168	-.112	-.075	-.031
	.100	-.548	-.509	-.491	-.488	-.462	-.448	-.431	-.391	-.363	-.303	-.262	-.218	-.171	-.140	-.106
	.200	-.565	-.534	-.524	-.527	-.510	-.500	-.470	-.412	-.385	-.355	-.317	-.274	-.237	-.212	-.186
	.300	-.577	-.546	-.534	-.535	-.507	-.492	-.464	-.405	-.382	-.344	-.326	-.303	-.270	-.246	-.222
	.400	-.575	-.546	-.538	-.538	-.511	-.495	-.456	-.419	-.402	-.375	-.359	-.331	-.297	-.277	-.260
	.500	-.607	-.582	-.579	-.576	-.543	-.521	-.497	-.469	-.454	-.431	-.421	-.399	-.373	-.364	-.354
	.600	-.651	-.625	-.615	-.612	-.584	-.576	-.559	-.532	-.524	-.508	-.496	-.468	-.447	-.434	-.420
	.700	-.694	-.667	-.660	-.658	-.638	-.631	-.616	-.596	-.590	-.570	-.550	-.529	-.511	-.499	-.489
	.800	-.757	-.733	-.726	-.726	-.717	-.707	-.657	-.653	-.613	-.596	-.595	-.587	-.517	-.435	-.343
	.900	-.282	-.274	-.274	-.243	-.190	-.154	-.110	-.085	-.051	-.022	-.013	-.011	-.007	-.009	-.021
	.950	-.260	-.240	-.231	-.203	-.153	-.123	-.078	-.048	.009	.051	.077	.091	.102	.104	.099
Lower surface	.0375	.435	.395	.355	.332	.299	.267	.230	.176	.141	.095	.053	-.006	-.067	-.118	-.191
	.075	.288	.251	.213	.191	.162	.132	.099	.051	.020	-.019	-.054	-.103	-.158	-.201	-.269
	.150	.190	.160	.126	.106	.082	.056	.030	-.009	-.034	-.064	-.089	-.127	-.165	-.196	-.242
	.250	.078	.051	.018	-.001	-.022	-.047	-.071	-.106	-.127	-.153	-.176	-.207	-.243	-.270	-.311
	.350	-.006	-.030	-.061	-.080	-.098	-.120	-.140	-.172	-.190	-.211	-.230	-.257	-.284	-.304	-.336
	.450	-.062	-.085	-.115	-.134	-.151	-.172	-.190	-.217	-.234	-.249	-.264	-.285	-.305	-.317	-.344
	.550	-.176	-.197	-.228	-.245	-.261	-.281	-.298	-.323	-.338	-.351	-.366	-.387	-.410	-.426	-.450
	.650	-.216	-.232	-.258	-.274	-.285	-.302	-.318	-.341	-.352	-.362	-.372	-.389	-.409	-.418	-.437
	.750	-.321	-.337	-.360	-.375	-.386	-.400	-.410	-.425	-.431	-.435	-.432	-.425	-.392	-.338	-.294
	.850	-.428	-.443	-.466	-.482	-.489	-.502	-.495	-.484	-.337	-.230	-.187	-.158	-.127	-.108	-.095
	.925	-.527	-.540	-.564	-.559	-.429	-.302	-.167	-.120	-.056	-.017	.008	.029	.057	.073	.079
	.975	-.472	-.449	-.379	-.262	-.159	-.120	-.071	-.037	.016	.069	.099	.125	.155	.169	.174
	[a]1.000	-.240	-.234	-.215	-.183	-.083	-.049	-.020	-.013	.039	.102	.137	.165	.197	.203	.215

[a]No orifice.

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78)

$\beta_{0.75R} = 45.2°$, $\beta_x = 44.15°$, B = 2

(a) N = 1140 rpm.

	J	1.910	2.058	2.175	2.313	2.451	2.372	2.240	2.131	1.998	1.861	1.822
	M_x,	.534	.550	.567	.579	.600	.587	.574	.561	.547	.531	.528
	α_x,	6.22	4.12	2.56	.80	-.86	.08	1.72	3.14	4.96	6.94	7.52
	$\Delta\beta$	.67	.53	.40	.24	.06	.16	.33	.45	.59	.82	.85
	α_i	1.63	1.13	.71	.30	-.12	.10	.50	.87	1.37	1.82	1.95
	c_n	.5168	.3613	.2277	.0971	-.0384	.0339	.1603	.2781	.4361	.5781	.6187
	c_m	.0225	.0154	.0093	.0040	-.0035	.0021	.0082	.0108	.0202	.0180	.0072
	c_c											
	c/b	Pressure Coefficient, P										
Upper surface	[a]0.000	1.073	1.078	1.082	1.086	1.093	1.088	1.085	1.081	1.077	1.072	1.071
	.025	-1.470	-1.607	-.875	-.521	-.107	-.311	-.700	-1.061	-1.527	-1.421	-1.186
	.050	-1.474	-1.204	-.635	-.387	-.148	-.269	-.513	-.737	-1.486	-1.396	-1.196
	.100	-1.394	-.671	-.519	-.352	-.195	-.276	-.439	-.584	-1.155	-1.315	-1.216
	.200	-.857	-.501	-.428	-.322	-.228	-.278	-.379	-.466	-.540	-1.058	-1.148
	.300	-.521	-.442	-.383	-.307	-.245	-.280	-.352	-.408	-.445	-.731	-.871
	.400	-.414	-.406	-.364	-.307	-.265	-.292	-.346	-.383	-.414	-.508	-.654
	.500	-.363	-.370	-.342	-.299	-.271	-.290	-.330	-.354	-.371	-.384	-.458
	.600	-.321	-.332	-.318	-.287	-.275	-.286	-.312	-.325	-.332	-.314	-.335
	.700	-.274	-.292	-.289	-.268	-.269	-.275	-.288	-.292	-.289	-.262	-.259
	.800	-.212	-.228	-.234	-.225	-.239	-.238	-.238	-.230	-.222	-.203	-.200
	.900	-.116	-.114	-.118	-.116	-.141	-.135	-.124	-.112	-.114	-.124	-.134
	.950	-.060	-.038	-.037	-.039	-.066	-.059	-.045	-.034	-.047	-.092	-.097
Lower surface	.0375	.492	.365	.200	-.004	-.295	-.150	.085	.281	.428	.532	.560
	.075	.330	.212	.073	-.081	-.297	-.192	-.017	.140	.273	.367	.396
	.150	.176	.076	-.031	-.142	-.293	-.223	-.098	.020	.128	.207	.236
	.250	.067	-.012	-.100	-.181	-.293	-.242	-.152	-.058	.026	.094	.120
	.350	-.007	-.074	-.147	-.210	-.299	-.261	-.192	-.112	-.041	.015	.037
	.450	-.047	-.105	-.163	-.214	-.284	-.255	-.202	-.135	-.075	-.028	-.008
	.550	-.091	-.135	-.187	-.225	-.280	-.257	-.219	-.160	-.112	-.075	-.061
	.650	-.140	-.177	-.216	-.247	-.291	-.273	-.246	-.199	-.157	-.129	-.116
	.750	-.158	-.184	-.214	-.233	-.263	-.254	-.236	-.197	-.170	-.152	-.143
	.850	-.151	-.165	-.185	-.196	-.208	-.208	-.204	-.174	-.157	-.152	-.148
	.925	-.109	-.118	-.132	-.097	-.098	-.101	-.126	-.127	-.112	-.111	-.109
	[a].975	-.055	-.040	-.040	0	0	-.010	-.025	-.050	-.040	-.051	-.069
	[a]1.000	0	.061	.065	.061	.047	.040	.057	.045	.055	-.011	-.040

[a]No orifice.

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78) $\beta_{0.75R} = 45.2^\circ$, $\beta_x = 44.15^\circ$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.839	1.972	2.066	2.170	2.286	2.385	2.443	2.419	2.340	2.244	2.135	2.005	1.907
	M_x	.623	.646	.655	.671	.689	.702	.711	.707	.695	.680	.665	.647	.637
	α_x'	7.26	5.32	4.02	2.62	1.14	-.07	-.76	-.48	.47	1.67	3.09	4.86	6.26
	$\Delta\beta$	1.00	.89	.74	.55	.35	.22	.08	.12	.26	.42	.61	.82	.98
	α_1	2.02	1.63	1.26	.81	.50	.17	-.10	.01	.29	.61	1.00	1.54	1.83
	c_n	.6387	.5194	.4039	.2581	.1606	.0542	-.0342	.0048	.0926	.1948	.3194	.4897	.5819
	c_m	.0115	.0234	.0215	.0108	.0066	.0011	-.0060	-.0037	.0030	.0085	.0164	.0254	.0202
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.100	1.108	1.111	1.118	1.125	1.130	1.134	1.132	1.127	1.121	1.115	1.109	1.105
	.025	-1.312	-1.498	-2.084	-.934	-.602	-.204	-.012	-.096	-.348	-.750	-1.609	-2.403	-1.440
	.050	-1.285	-1.462	-1.069	-.638	-.406	-.187	-.066	-.119	-.272	-.501	-.680	-2.019	-1.415
	.100	-1.235	-1.300	-.603	-.502	-.346	-.197	-.112	-.150	-.257	-.405	-.559	-.688	-1.321
	.200	-1.054	-.786	-.483	-.392	-.297	-.204	-.151	-.176	-.244	-.332	-.433	-.512	-.985
	.300	-.774	-.466	-.403	-.339	-.274	-.207	-.172	-.188	-.236	-.298	-.369	-.429	-.652
	.400	-.533	-.357	-.364	-.318	-.271	-.222	-.196	-.208	-.245	-.288	-.340	-.381	-.447
	.500	-.362	-.300	-.318	-.287	-.253	-.218	-.199	-.207	-.235	-.264	-.302	-.328	-.327
	.600	-.251	-.255	-.278	-.260	-.238	-.216	-.204	-.210	-.229	-.246	-.270	-.281	-.257
	.700	-.174	-.202	-.230	-.224	-.213	-.203	-.198	-.199	-.211	-.216	-.232	-.228	-.199
	.800	-.106	-.132	-.156	-.159	-.157	-.159	-.160	-.160	-.163	-.156	-.162	-.148	-.132
	.900	-.035	-.031	-.024	-.027	-.031	-.040	-.046	-.043	-.043	-.028	-.028	-.024	-.050
	.950	.001	.028	.054	.059	.054	.041	.037	.039	.038	.059	.055	.048	-.006
Lower surface	.0375	.685	.573	.468	.319	.151	-.051	-.191	-.125	.023	.220	.379	.545	.605
	.075	.519	.411	.312	.185	.053	-.101	-.204	-.154	-.047	.106	.234	.382	.440
	.150	.352	.255	.170	.071	-.028	-.135	-.207	-.173	-.100	.010	.106	.229	.280
	.250	.231	.144	.071	-.008	-.081	-.160	-.211	-.188	-.134	-.052	.020	.119	.165
	.350	.143	.065	.002	-.062	-.119	-.185	-.224	-.205	-.166	-.097	-.041	.045	.080
	.450	.093	.025	-.030	-.082	-.127	-.167	-.198	-.182	-.155	-.110	-.064	.006	.035
	.550	.038	-.021	-.066	-.109	-.142	-.178	-.201	-.189	-.169	-.130	-.095	-.037	-.014
	.650	-.023	-.073	-.110	-.145	-.169	-.197	-.214	-.205	-.193	-.161	-.135	-.085	-.071
	.750	-.051	-.090	-.117	-.140	-.154	-.167	-.178	-.172	-.169	-.150	-.135	-.098	-.093
	.850	-.056	-.080	-.095	-.109	-.116	-.105	-.105	-.104	-.112	-.114	-.106	-.083	-.091
	.925	-.013	-.033	-.050	-.046	-.002	.013	.015	.015	.008	-.018	-.055	-.037	-.045
	[a].975	.022	.037	.056	.066	.105	.102	.097	.095	.095	.097	.060	.052	.012
	[a]1.000	.044	.084	.150	.164	.163	.144	.138	.135	.138	.168	.143	.120	.039

[a]No orifice.

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 44.15^\circ$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.826	1.914	2.033	2.118	2.225	2.346	2.440	2.399	2.282	2.176	2.092	1.970	1.879
	M_x	.695	.706	.725	.740	.760	.777	.795	.789	.766	.747	.733	.715	.698
	α_x	7.46	6.16	4.47	3.31	1.91	.40	-.73	-.24	1.19	2.54	3.66	5.35	6.67
	$\Delta\beta$	1.37	1.37	1.13	.93	.67	.38	.13	.24	.52	.79	.99	1.29	1.38
	α_i	2.22	2.04	1.59	1.29	.84	.36	-.07	.16	.58	1.00	1.37	1.84	2.16
	c_n	.7026	.6523	.5101	.4129	.2690	.1139	-.0226	.0519	.1852	.3193	.4387	.5865	.6858
	c_m	.0015	.0379	.0315	.0254	.0129	.0029	-.0063	-.0007	.0069	.0179	.0287	.0341	.0377
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.127	1.131	1.139	1.145	1.153	1.160	1.168	1.165	1.156	1.148	1.142	1.135	1.128
	.025	-1.338	-2.097	-1.808	-1.511	-.985	-.378	-.008	-.171	-.715	-1.204	-1.611	-1.987	-2.220
	.050	-1.326	-1.949	-1.638	-1.354	-.803	-.303	-.069	-.175	-.473	-1.100	-1.459	-1.817	-2.052
	.100	-1.285	-1.783	-1.489	-1.186	-.493	-.293	-.130	-.202	-.407	-.597	-1.297	-1.664	-1.875
	.200	-1.096	-1.174	-.583	-.396	-.403	-.276	-.178	-.221	-.345	-.423	-.393	-.963	-1.059
	.300	-.857	-.468	-.346	-.377	-.352	-.266	-.201	-.229	-.314	-.371	-.372	-.350	-.514
	.400	-.642	-.310	-.346	-.358	-.336	-.276	-.231	-.248	-.310	-.347	-.358	-.338	-.330
	.500	-.467	-.296	-.314	-.319	-.305	-.266	-.236	-.247	-.289	-.313	-.322	-.312	-.307
	.600	-.340	-.266	-.278	-.284	-.278	-.255	-.242	-.246	-.270	-.282	-.285	-.279	-.272
	.700	-.244	-.217	-.229	-.237	-.238	-.232	-.230	-.228	-.236	-.240	-.238	-.230	-.220
	.800	-.164	-.141	-.148	-.157	-.161	-.168	-.176	-.171	-.166	-.160	-.157	-.150	-.145
	.900	-.095	-.018	-.009	-.011	-.013	-.030	-.037	-.032	-.021	-.013	-.011	-.019	-.028
	.950	-.063	.056	.073	.078	.078	.061	.054	.060	.071	.077	.074	.059	.040
Lower surface	.0375	.699	.638	.527	.429	.285	.055	-.180	-.055	.177	.350	.459	.580	.662
	.075	.532	.473	.370	.283	.157	-.027	-.209	-.111	.070	.214	.308	.418	.492
	.150	.364	.309	.221	.149	.047	-.091	-.222	-.151	-.020	.090	.168	.262	.326
	.250	.234	.188	.113	.053	-.030	-.135	-.236	-.180	-.082	.005	.069	.145	.201
	.350	.141	.102	.038	-.015	-.086	-.173	-.255	-.210	-.130	-.057	-.003	.064	.112
	.450	.086	.055	0	-.045	-.105	-.162	-.226	-.191	-.139	-.080	-.035	.022	.061
	.550	.024	.002	-.044	-.081	-.130	-.181	-.230	-.202	-.159	-.111	-.073	-.027	.006
	.650	-.048	-.058	-.097	-.128	-.168	-.209	-.246	-.223	-.191	-.152	-.122	-.084	-.056
	.750	-.086	-.077	-.105	-.128	-.157	-.177	-.197	-.184	-.171	-.145	-.124	-.097	-.078
	.850	-.102	-.068	-.084	-.098	-.120	-.109	-.109	-.104	-.123	-.111	-.098	-.082	-.074
	.925	-.062	-.018	-.037	-.046	-.016	.020	.030	.030	.004	-.037	-.049	-.033	-.023
	[a].975	-.040	.073	.069	.065	.109	.115	.134	.127	.113	.080	.060	.063	.053
	[a]1.000	-.040	.143	.178	.178	.193	.160	.170	.162	.178	.188	.186	.150	.110

[a]No orifice.

NACA

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78)

$\beta_{0.75R} = 45.2°$, $\beta_x = 44.15°$, B = 2 - Continued

(d) N = 1600 rpm.

	J	1.960	2.051	2.145	2.244	2.353	2.463	2.412	2.312	2.208	2.096	2.009	1.926
	M_x	.764	.779	.796	.811	.830	.851	.840	.819	.801	.780	.765	.753
	α_x	5.49	4.22	2.95	1.67	.31	-1.00	-.40	.81	2.13	3.61	4.80	5.98
	$\Delta\beta_i$	1.50	1.30	1.04	.76	.42	.05	.22	.55	.87	1.18	1.40	1.56
	α_i	2.17	1.78	1.29	.83	.40	-.23	.11	.50	.97	1.51	1.94	2.30
	c_n	.6929	.5690	.4135	.2645	.1293	-.0429	.0371	.1616	.3129	.4832	.6200	.7323
	c_m	.0295	.0306	.0239	.0164	.0042	-.0081	-.0004	.0098	.0169	.0282	.0298	.0323
	c_c												
	c/b	Pressure coefficient, P											
Upper surface	[a]0.000	1.155	1.161	1.169	1.175	1.184	1.194	1.189	1.178	1.170	1.161	1.155	1.150
	.025	-1.691	-1.471	-1.144	-.787	-.421	.066	-.113	-.530	-.871	-1.304	-1.564	-1.787
	.050	-1.550	-1.337	-1.052	-.753	-.341	-.012	-.137	-.419	-.858	-1.199	-1.434	-1.641
	.100	-1.436	-1.237	-1.003	-.713	-.355	-.099	-.196	-.401	-.824	-1.178	-1.326	-1.521
	.200	-1.328	-1.157	-.945	-.474	-.343	-.172	-.237	-.360	-.598	-1.046	-1.235	-1.406
	.300	-1.251	-1.087	-.505	-.378	-.318	-.209	-.254	-.322	-.361	-.609	-1.125	-1.329
	.400	-.550	-.339	-.315	-.353	-.326	-.256	-.285	-.323	-.342	-.288	-.348	-.540
	.500	-.287	-.249	-.294	-.323	-.321	-.286	-.300	-.312	-.314	-.271	-.234	-.263
	.600	-.187	-.231	-.270	-.292	-.303	-.310	-.302	-.290	-.282	-.251	-.218	-.181
	.700	-.164	-.198	-.230	-.247	-.261	-.284	-.267	-.249	-.239	-.215	-.188	-.162
	.800	-.107	-.127	-.149	-.159	-.174	-.188	-.180	-.163	-.154	-.137	-.121	-.105
	.900	.012	.010	.001	-.004	-.013	-.018	-.015	-.006	-.001	.009	.011	.011
	.950	.086	.094	.092	.087	.082	.081	.084	.088	.090	.099	.092	.086
Lower surface	.0375	.601	.513	.406	.264	.085	-.207	-.070	.136	.321	.460	.548	.629
	.075	.442	.362	.263	.140	-.009	-.248	-.132	.036	.192	.314	.395	.468
	.150	.288	.218	.133	.033	-.083	-.264	-.178	-.049	.073	.176	.246	.311
	.250	.172	.111	.040	-.044	-.138	-.282	-.209	-.108	-.009	.076	.137	.192
	.350	.087	.034	-.031	-.104	-.186	-.307	-.247	-.158	-.074	.003	.057	.106
	.450	.041	-.004	-.062	-.126	-.196	-.289	-.241	-.170	-.099	-.032	.016	.059
	.550	-.010	-.050	-.099	-.154	-.211	-.284	-.247	-.188	-.129	-.071	-.030	.008
	.650	-.068	-.103	-.149	-.201	-.249	-.304	-.276	-.231	-.179	-.122	-.085	-.053
	.750	-.092	-.108	-.144	-.184	-.211	-.227	-.217	-.199	-.168	-.123	-.094	-.070
	.850	-.064	-.078	-.105	-.125	-.125	-.104	-.111	-.123	-.115	-.087	-.069	-.056
	.925	-.011	-.020	-.008	.007	.023	.051	.042	.019	.010	-.017	-.016	-.001
	[a].975	.100	.095	.115	.120	.135	.158	.153	.140	.125	.103	.090	.095
	[a]1.000	.175	.185	.205	.189	.194	.200	.200	.210	.200	.200	.178	.165

[a]No orifice.

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78) $\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 44.15^{\circ}$, B = 2 - Continued

(e) M = 0.57.

J		2.490	2.462	2.422	2.394	2.366	2.333	2.303	2.276	2.257	2.229	2.211	2.187	2.158	2.134	2.106	2.091	2.069
M_x		.797	.804	.808	.813	.818	.823	.828	.836	.844	.850	.857	.862	.867	.872	.876	.883	.888
α_x,		-1.31	-.99	-.52	-.18	.15	.56	.93	1.26	1.50	1.86	2.09	2.40	2.78	3.10	3.47	3.68	3.97
$\Delta\beta$		.04	.11	.21	.30	.39	.50	.61	.70	.77	.87	.92	1.00	1.09	1.17	1.25	1.29	1.35
α_l		-.17	-.07	.10	.23	.34	.48	.60	.73	.88	1.03	1.20	1.32	1.44	1.58	1.67	1.79	1.87
c_n		-.0555	-.0213	.0342	.0729	.1110	.1529	.1945	.2368	.2832	.3290	.3835	.4223	.4623	.5065	.5342	.5718	.5994
c_m		-.0076	-.0063	-.0027	-.0025	.0033	.0080	.0111	.0142	.0160	.0135	.0104	.0047	-.0025	-.0104	-.0180	-.0298	-.0362
c_c													.0024	.0031	.0047	.0066	.0106	.0132
c/b		Pressure coefficient, P																
Upper surface	[a]0.000	1.169	1.172	1.174	1.176	1.179	1.181	1.183	1.187	1.190	1.194	1.197	1.200	1.202	1.204	1.207	1.210	1.213
	.025	.159	.082	-.035	-.135	-.273	-.420	-.502	-.543	-.575	-.597	-.604	-.607	-.609	-.625	-.671	-.716	-.738
	.050	.083	.030	-.051	-.123	-.214	-.321	-.416	-.508	-.550	-.528	-.600	-.619	-.634	-.650	-.674	-.686	-.694
	.100	.007	-.035	-.096	-.149	-.220	-.310	-.397	-.490	-.535	-.568	-.587	-.607	-.625	-.642	-.662	-.673	-.682
	.200	-.053	-.082	-.125	-.164	-.211	-.280	-.325	-.392	-.521	-.570	-.594	-.614	-.632	-.646	-.660	-.667	-.672
	.300	-.082	-.105	-.138	-.166	-.199	-.242	-.290	-.339	-.390	-.548	-.590	-.615	-.634	-.651	-.668	-.677	-.683
	.400	-.119	-.138	-.166	-.188	-.216	-.250	-.270	-.307	-.369	-.440	-.584	-.624	-.647	-.666	-.708	-.696	-.702
	.500	-.129	-.146	-.167	-.185	-.206	-.234	-.244	-.252	-.285	-.355	-.464	-.620	-.657	-.683	-.703	-.715	-.720
	.600	-.138	-.149	-.166	-.180	-.194	-.213	-.217	-.214	-.208	-.213	-.243	-.357	-.592	-.675	-.723	-.737	-.745
	.700	-.128	-.136	-.145	-.153	-.159	-.167	-.167	-.160	-.149	-.135	-.117	-.111	-.115	-.175	-.242	-.333	-.394
	.800	-.072	-.074	-.077	-.079	-.077	-.075	-.069	-.061	-.052	-.040	-.020	-.007	.007	-.011	-.065	-.141	-.173
	.900	.065	.069	.071	.074	.083	.091	.096	.105	.112	.119	.131	.138	.142	.127	.079	-.024	-.086
	.950	.158	.162	.165	.169	.179	.188	.194	.201	.207	.211	.219	.219	.219	.201	.157	.051	-.023
Lower surface	.0375	-.139	-.067	.020	.084	.155	.217	.267	.312	.353	.388	.421	.444	.473	.500	.524	.549	.566
	.075	-.155	-.102	-.036	.013	.068	.117	.157	.198	.233	.264	.295	.316	.341	.368	.388	.411	.428
	.150	-.155	-.119	-.075	-.042	-.002	.032	.064	.095	.126	.152	.178	.195	.218	.240	.257	.278	.293
	.250	-.161	-.136	-.105	-.081	-.052	-.028	-.006	.021	.045	.067	.089	.104	.124	.143	.157	.175	.189
	.350	-.176	-.158	-.137	-.120	-.096	-.079	-.062	-.040	-.021	-.002	.017	.030	.048	.063	.076	.091	.103
	.450	-.142	-.131	-.116	-.104	-.094	-.090	-.079	-.061	-.046	-.030	-.013	-.002	.012	.024	.035	.050	.060
	.550	-.140	-.133	-.125	-.119	-.111	-.111	-.103	-.091	-.079	-.068	-.054	-.048	-.037	-.029	-.022	-.010	-.003
	.650	-.157	-.152	-.149	-.125	-.145	-.150	-.145	-.138	-.132	-.128	-.117	-.118	-.111	-.113	-.111	-.106	-.101
	.750	-.103	-.102	-.103	-.104	-.106	-.117	-.116	-.113	-.107	-.106	-.099	-.111	-.110	-.125	-.136	-.148	-.151
	.850	-.010	-.009	-.013	-.017	-.028	-.055	-.063	-.059	-.054	-.050	-.043	-.048	-.051	-.072	-.096	-.135	-.161
	.925	.132	.134	.132	.127	.122	.109	.108	.112	.117	.119	.122	.114	.103	.078	.049	.001	-.042
	[a].975	.246	.234	.231	.235	.227	.245	.266	.262	.257	.252	.267	.253	.243	.204	.179	.091	.026
	[a]1.000	.306	.284	.278	.285	.279	.316	.329	.320	.314	.307	.334	.314	.304	.274	.242	.135	.049

[a]No orifice.

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78)

$\beta_{0.75R} = 45.2°$, $\beta_x = 44.15°$, B = 2 - Continued

(f) M = 0.60.

	J	2.117	2.144	2.181	2.207	2.231	2.256	2.285	2.307	2.335	2.371	2.398	2.421	2.452
	M_x	.922	.916	.913	.907	.897	.892	.886	.881	.875	.870	.865	.858	.853
	ρ_x	3.32	2.96	2.47	2.14	1.83	1.51	1.14	.87	.53	.09	-.24	-.51	-.85
	$\Delta\beta$	1.21	1.18	1.08	1.00	.91	.81	.70	.60	.47	.32	.24	.18	.11
	α_i	1.42	1.33	1.22	1.13	1.03	.90	.77	.66	.51	.35	.17	.01	-.15
	c_n	.4542	.4284	.3916	.3635	.3294	.2887	.2477	.2113	.1645	.1129	.0561	.0023	-.0490
	c_m	-.0157	-.0125	-.0115	-.0075	-.0041	-.0021	-.0012	-.0014	-.0024	-.0037	-.0044	-.0084	-.0094
	c_c	.0225	.0220	.0194	.0149	.0115	.0100	.0097	.0096	.0095	.0101	.0101		
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.230	1.227	1.226	1.223	1.217	1.215	1.212	1.209	1.206	1.204	1.201	1.198	1.195
	.025	-.554	-.559	-.539	-.525	-.504	-.472	-.433	-.406	-.354	-.228	-.117	-.037	.072
	.050	-.575	-.570	.539	-.519	-.497	-.460	-.400	-.351	-.298	-.216	-.141	-.088	-.014
	.100	-.582	-.575	-.545	-.526	-.505	-.474	-.440	-.393	-.336	-.269	-.205	-.162	-.096
	.200	-.607	-.604	-.577	-.559	-.536	-.500	-.447	-.408	-.355	-.313	-.260	-.222	-.170
	.300	-.619	-.617	-.593	-.574	-.546	-.494	-.450	-.418	-.381	-.330	-.279	-.253	-.209
	.400	-.642	-.638	-.611	-.586	-.554	-.513	-.459	-.436	-.401	-.342	-.319	-.300	-.259
	.500	-.665	-.660	-.628	-.607	-.584	-.517	-.477	-.447	-.395	-.374	-.352	-.325	-.285
	.600	-.693	-.689	-.663	-.644	-.607	-.528	-.501	-.471	-.443	-.422	-.370	-.346	-.313
	.700	-.730	-.731	-.706	-.683	-.608	-.567	-.543	-.471	-.410	-.382	-.319	-.315	-.287
	.800	-.279	-.240	-.222	-.179	-.148	-.131	-.124	-.132	-.154	-.171	-.182	-.193	-.193
	.900	-.205	-.175	-.125	-.040	.027	.051	.047	.033	.017	.004	-.006	-.018	-.021
	.950	-.195	-.148	-.078	.026	.103	.127	.129	.120	.111	.102	.094	.083	.078
Lower surface	.0375	.425	.396	.353	.325	.287	.256	.215	.172	.116	.043	-.033	-.111	-.213
	.075	.295	.266	.227	.201	.169	.140	.105	.067	.019	-.042	-.104	-.171	-.254
	.150	.168	.143	.110	.088	.072	.037	.009	-.023	-.062	-.110	-.159	-.211	-.269
	.250	.070	.046	.017	0	-.023	-.044	-.069	-.095	-.128	-.166	-.205	-.245	-.289
	.350	-.016	-.036	-.062	-.080	-.099	-.117	-.138	-.161	-.189	-.222	-.254	-.288	-.318
	.450	-.057	-.077	-.099	-.113	-.128	-.139	-.155	-.176	-.197	-.223	-.247	-.273	-.290
	.550	-.115	-.132	-.150	-.164	-.178	-.188	-.204	-.217	-.234	-.253	-.268	-.286	-.288
	.650	-.232	-.249	-.267	-.276	-.285	-.290	-.301	-.308	-.313	-.325	-.324	-.328	-.310
	.750	-.307	-.321	-.333	-.334	-.326	-.304	-.285	-.264	-.249	-.245	-.237	-.237	-.226
	.850	-.408	-.403	-.381	-.308	-.226	-.169	-.138	-.123	-.113	-.108	-.105	-.111	-.104
	.925	-.375	-.315	-.221	-.074	-.014	.016	.035	.041	.048	.051	.052	.046	.050
	[a].975	-.255	-.193	-.097	.045	.112	.147	.153	.156	.156	.158	.155	.150	.145
	[a]1.000	-.190	-.128	-.032	.090	.175	.198	.212	.207	.203	.212	.203	.192	.187

[a]No orifice.

TABLE 7.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.85 PROPELLER BLADE SECTION (x = 0.78)

$\beta_{0.75R} = 45.2°$, $\beta_x = 44.15°$, B = 2 - Concluded

(g) M = 0.65.

	J	2.135	2.170	2.196	2.217	2.242	2.267	2.296	2.316	2.345	2.369	2.406	2.425	2.453
	M_x	.980	.979	.969	.964	.959	.950	.946	.939	.934	.929	.922	.918	.913
	α_x	3.09	2.62	2.28	2.01	1.69	1.38	1.01	.77	.41	.12	-.33	-.55	-.88
	$\Delta\beta$	.94	.89	.85	.81	.76	.70	.64	.58	.50	.44	.32	.28	.20
	α_i	1.33	1.22	1.13	.99	.82	.68	.53	.42	.30	.21	.06	-.04	-.17
	c_n	.4261	.3910	.3616	.3190	.2626	.2181	.1703	.1358	.0971	.0687	.0206	-.0135	-.0548
	c_m	-.0601	-.0507	-.0442	-.0342	-.0116	-.0004	.0060	.0067	.0021	.0002	.0053	-.0002	-.0066
	c_c	.0390	.0371	.0360	.0320	.0396	.0281	.0269	.0253	.0240	.0222	.0203	.0183	.0152
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.263	1.262	1.257	1.254	1.251	1.246	1.244	1.240	1.237	1.234	1.230	1.228	1.226
	.025	-.273	-.245	-.236	-.217	-.198	-.180	-.147	-.120	-.053	-.004	.079	.126	.217
	.050	-.285	-.254	-.244	-.224	-.202	-.166	-.118	-.090	-.047	-.018	.040	.072	.138
	.100	-.310	-.283	-.275	-.260	-.244	-.228	-.189	-.147	-.108	-.090	-.042	-.015	.042
	.200	-.352	-.325	-.317	-.303	-.287	-.265	-.227	-.201	-.161	-.143	-.115	-.095	-.046
	.300	-.375	-.352	-.343	-.327	-.305	-.284	-.257	-.233	-.207	-.190	-.157	-.135	-.091
	.400	-.396	-.370	-.361	-.346	-.331	-.320	-.292	-.266	-.236	-.226	-.190	-.161	-.138
	.500	-.426	-.405	-.400	-.391	-.377	-.366	-.334	-.308	-.280	-.263	-.224	-.211	-.195
	.600	-.465	-.445	-.441	-.434	-.418	-.401	-.362	-.338	-.317	-.308	-.282	-.274	-.258
	.700	-.510	-.492	-.488	-.479	-.465	-.444	-.407	-.398	-.383	-.374	-.352	-.345	-.329
	.800	-.572	-.558	-.555	-.550	-.534	-.515	-.492	-.489	-.472	-.466	-.452	-.447	-.427
	.900	-.625	-.633	-.611	-.437	-.198	-.119	-.076	-.048	-.032	.006	.043	.065	.094
	.950	-.578	-.395	-.264	-.161	-.090	-.037	.005	.031	.053	.087	.132	.162	.210
Lower surface	.0375	.485	.454	.430	.396	.375	.332	.297	.250	.199	.152	.090	.048	-.038
	.075	.361	.333	.311	.281	.261	.223	.194	.153	.108	.066	.012	-.027	-.104
	.150	.244	.222	.203	.175	.158	.125	.100	.067	.029	-.006	-.049	-.080	-.139
	.250	.152	.132	.115	.092	.077	.048	.028	0	-.031	-.062	-.096	-.116	-.158
	.350	.067	.049	.034	.011	-.002	-.029	-.046	-.069	-.094	-.121	-.150	-.173	-.214
	.450	.024	.009	-.005	-.027	-.038	-.063	-.077	-.098	-.123	-.148	-.173	-.192	-.229
	.550	-.007	-.015	-.028	-.047	-.056	-.080	-.092	-.110	-.136	-.159	-.183	-.196	-.219
	.650	-.128	-.138	-.150	-.167	-.175	-.197	-.204	-.220	-.237	-.260	-.278	-.290	-.311
	.750	-.219	-.229	-.241	-.259	-.266	-.286	-.292	-.308	-.324	-.344	-.358	-.367	-.379
	.850	-.313	-.324	-.336	-.352	-.358	-.378	-.382	-.397	-.409	-.415	-.348	-.245	-.058
	.925	-.371	-.385	-.396	-.409	-.410	-.418	-.382	-.238	-.110	.006	.076	.108	.161
	[a].975	-.400	-.416	-.405	-.110	-.200	-.135	-.110	-.030	.045	.097	.153	.187	.250
	[a]1.000	-.218	-.200	-.135	-.044	-.015	.021	.057	.075	.098	.122	.175	.210	.283

[a]No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2°$, $\beta_x = 41.90°$, B = 2

(a) N = 1140 rpm.

	J	1.867	1.976	2.093	2.221	2.358	2.455	2.415	2.283	2.170	2.045	1.931	1.827
	M_x	.557	.565	.579	.593	.609	.617	.614	.602	.588	.574	.563	.554
	α_x'	6.94	5.40	3.81	2.15	.46	-.70	-.22	1.37	2.80	4.45	6.03	7.52
	$\Delta\beta$	.81	.70	.56	.38	.17	.02	.08	.29	.46	.62	.75	.85
	α_1	1.96	1.66	1.18	.78	.26	-.08	.06	.48	.93	1.39	1.76	2.09
	c_n	.5258	.4471	.3174	.2103	.0703	-.0213	.0155	.1316	.2503	.3735	.4742	.5587
	c_m	.0185	.0211	.0113	.0102	.0036	-.0055	-.0013	.0053	.0105	.0161	.0229	.0156
	c_c												
	c/b	Pressure coefficient, P											
Upper surface	[a]0.000	1.080	1.082	1.086	1.090	1.095	1.098	1.097	1.093	1.089	1.084	1.081	1.079
	.025	-1.129	-1.454	-1.250	-.879	-.357	-.084	-.198	-.599	-.959	-1.636	-1.233	-1.202
	.050	-1.138	-1.413	-.781	-.548	-.246	-.077	-.149	-.382	-.626	-1.218	-1.245	-1.173
	.100	-1.136	-1.101	-.563	-.369	-.199	-.091	-.126	-.255	-.405	-.596	-1.178	-1.143
	.200	-.946	-.513	-.411	-.322	-.205	-.140	-.168	-.262	-.350	-.432	-.745	-.950
	.300	-.626	-.362	-.328	-.258	-.180	-.134	-.154	-.218	-.280	-.345	-.411	-.681
	.400	-.404	-.308	-.289	-.238	-.176	-.148	-.156	-.207	-.251	-.298	-.299	-.465
	.500	-.294	-.272	-.260	-.219	-.176	-.148	-.161	-.197	-.230	-.266	-.258	-.331
	.600	-.237	-.252	-.254	-.225	-.197	-.182	-.187	-.210	-.230	-.253	-.235	-.253
	.700	-.175	-.193	-.199	-.180	-.160	-.150	-.154	-.168	-.183	-.195	-.180	-.184
	.800	-.125	-.139	-.151	-.139	-.135	-.134	-.133	-.137	-.139	-.144	-.127	-.129
	.900	-.057	-.048	-.051	-.045	-.048	-.056	-.050	-.046	-.044	-.045	-.046	-.068
	.950	-.009	.020	.032	.037	.034	.026	.034	.036	.040	.032	.013	-.024
Lower surface	.0375	.602	.534	.408	.261	.007	-.175	-.092	.129	.320	.476	.566	.626
	.075	.409	.342	.231	.117	-.070	-.190	-.138	.018	.162	.290	.372	.435
	.150	.253	.197	.108	.026	-.102	-.183	-.147	-.043	.059	.154	.224	.276
	.250	.164	.121	.050	-.010	-.099	-.150	-.127	-.057	.015	.097	.142	.183
	.350	.089	.052	-.007	-.051	-.122	-.162	-.145	-.092	-.030	.026	.071	.104
	.450	.035	.004	-.044	-.077	-.133	-.162	-.149	-.109	-.061	-.016	.020	.047
	.550	-.005	-.026	-.065	-.092	-.131	-.154	-.145	-.115	-.078	-.041	-.013	.005
	.650	-.050	-.064	-.092	-.111	-.140	-.154	-.149	-.129	-.101	-.075	-.054	-.043
	.750	-.084	-.089	-.108	-.116	-.136	-.141	-.140	-.129	-.110	-.093	-.080	-.079
	.850	-.102	-.093	-.100	-.099	-.104	-.100	-.103	-.105	-.097	-.093	-.093	-.104
	.925	-.077	-.048	-.044	-.032	-.022	-.010	-.018	-.030	-.030	-.038	-.054	-.085
	[a].975	0	.035	.051	.060	.075	.086	.088	.070	.068	.061	.020	-.024
	[a]1.000	.051	.095	.113	.130	.142	.143	.150	.145	.142	.121	.079	.020

[a]No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2°$, $\beta_x = 41.90°$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.830	1.950	2.052	2.169	2.269	2.376	2.450	2.337	2.226	2.122	2.000	1.901
	M_x	.653	.667	.682	.693	.707	.722	.735	.718	.701	.686	.670	.660
	α_x'	7.48	5.76	4.36	2.82	1.55	.24	-.63	.71	2.08	3.43	5.07	6.45
	$\Delta\beta$	1.18	1.07	.85	.61	.40	.19	.04	.27	.50	.71	.96	1.16
	α_1	2.23	1.91	1.58	1.07	.64	.27	-.04	.37	.83	1.27	1.74	2.08
	c_n	.5981	.5155	.4252	.2890	.1748	.0723	-.0123	.1006	.2239	.3412	.4671	.5574
	c_m	.0115	.0295	.0216	.0118	.0069	.0031	-.0056	.0025	.0100	.0149	.0238	.0246
	c_c												
	c/b	Pressure coefficient, P											
Upper surface	[a]0.000	1.112	1.116	1.122	1.126	1.132	1.138	1.143	1.136	1.130	1.124	1.117	1.113
	.025	-1.127	-1.901	-2.008	-1.471	-.814	-.338	-.105	-.488	-1.003	-1.723	-2.154	-1.421
	.050	-1.137	-1.749	-1.857	-.701	-.489	-.243	-.099	-.331	-.579	-1.071	-2.010	-1.380
	.100	-1.106	-1.169	-.637	-.471	-.327	-.198	-.107	-.236	-.373	-.491	-.754	-1.226
	.200	-1.007	-.627	-.636	-.400	-.310	-.222	-.167	-.253	-.342	-.429	-.476	-.914
	.300	-.780	-.431	-.462	-.319	-.255	-.197	-.162	-.216	-.275	-.339	-.386	-.616
	.400	-.561	-.343	-.372	-.288	-.239	-.197	-.169	-.213	-.255	-.301	-.338	-.418
	.500	-.395	-.293	-.326	-.263	-.226	-.197	-.169	-.208	-.237	-.270	-.296	-.309
	.600	-.284	-.260	-.289	-.261	-.235	-.223	-.216	-.229	-.243	-.265	-.279	-.246
	.700	-.198	-.193	-.275	-.208	-.189	-.183	-.181	-.185	-.192	-.206	-.212	-.178
	.800	-.134	-.130	-.211	-.158	-.145	-.153	-.156	-.151	-.146	-.152	-.153	-.121
	.900	-.070	-.037	-.154	-.045	-.042	-.050	-.060	-.047	-.040	-.039	-.044	-.048
	.950	-.033	.029	-.043	.044	.048	.043	.032	.044	.049	.048	.035	.002
Lower surface	.0375	.655	.592	.494	.347	.194	-.013	-.174	.065	.258	.419	.541	.627
	.075	.459	.396	.307	.182	.059	-.092	-.205	-.036	.108	.241	.348	.431
	.150	.298	.242	.168	.069	-.018	-.125	-.203	-.087	.016	.114	.199	.271
	.250	.200	.154	.096	.020	-.040	-.115	-.167	-.090	-.016	.056	.120	.178
	.350	.115	.079	.031	-.033	-.082	-.142	-.184	-.124	-.065	-.006	.049	.096
	.450	.053	.026	-.015	-.069	-.108	-.153	-.187	-.139	-.092	-.045	-.001	.040
	.550	.007	-.014	-.044	-.088	-.118	-.153	-.177	-.142	-.106	-.068	-.032	-.003
	.650	-.046	-.058	-.081	-.115	-.134	-.159	-.176	-.152	-.126	-.099	-.072	-.053
	.750	-.089	-.085	-.098	-.122	-.134	-.148	-.156	-.144	-.129	-.113	-.096	-.088
	.850	-.118	-.096	-.095	-.104	-.105	-.106	-.105	-.107	-.106	-.101	-.096	-.109
	.925	-.100	-.050	-.034	-.029	-.021	-.010	-.002	-.016	-.024	-.033	-.040	-.077
	[a].975	-.032	.019	.069	.070	.086	.099	.086	.079	.082	.072	.054	.010
	[a]1.000	.012	.108	.140	.150	.155	.168	.140	.138	.150	.136	.122	.078

[a]No orifice.

TABLE 8.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2°$, $\beta_x = 41.90°$, B = 2 - Continued

(c) N = 1500 rpm.

J	1.825	1.947	2.043	2.127	2.236	2.342	2.458	2.422	2.293	2.211	2.104	2.002	1.917
M_x	.727	.743	.759	.774	.791	.807	.828	.822	.798	.786	.766	.752	.737
α_x'	7.55	5.80	4.48	3.36	1.96	.65	−.73	−.31	1.25	2.28	3.66	5.04	6.22
$\Delta\beta$	1.60	1.60	1.29	1.05	.73	.41	.05	.16	.56	.81	1.12	1.43	1.64
α_i	2.41	2.43	2.04	1.47	.92	.49	−.04	.14	.68	1.09	1.56	2.16	2.53
c_n	.6465	.6529	.5503	.3994	.2477	.1323	−.0119	.0374	.1832	.2942	.4226	.5806	.6819
c_m	.0048	.0347	.0324	.0192	.0113	.0038	−.0095	−.0041	.0074	.0136	.0211	.0336	.0393
c_c													
c/b	Pressure coefficient, P												
Upper surface [a] 0.000	1.140	1.147	1.153	1.159	1.166	1.173	1.183	1.180	1.169	1.164	1.156	1.150	1.144
.025	−1.329	−1.879	−1.633	−1.371	−.908	−.576	−.075	−.220	−.764	−1.032	−1.425	−1.711	−1.918
.050	−1.269	−1.774	−1.538	−1.291	−.913	−.398	−.079	−.179	−.601	−.991	−1.354	−1.622	−1.817
.100	−1.103	−1.592	−1.412	−1.196	−.495	−.301	−.121	−.155	−.320	−.761	−1.133	−1.417	−1.613
.200	−.996	−1.473	−1.233	−.448	−.379	−.311	−.188	−.227	−.346	−.371	−.583	−1.305	−1.505
.300	−.807	−.675	−.257	−.281	−.309	−.262	−.184	−.209	−.283	−.315	−.263	−.304	−.660
.400	−.624	−.231	−.239	−.282	−.286	−.255	−.207	−.218	−.267	−.285	−.273	−.227	−.229
.500	−.467	−.215	−.253	−.271	−.269	−.249	−.218	−.225	−.256	−.273	−.267	−.242	−.217
.600	−.346	−.237	−.266	−.278	−.274	−.268	−.256	−.261	−.268	−.275	−.277	−.256	−.235
.700	−.250	−.187	−.205	−.214	−.216	−.217	−.214	−.212	−.211	−.215	−.212	−.198	−.183
.800	−.177	−.137	−.151	−.157	−.156	−.165	−.175	−.170	−.152	−.155	−.155	−.142	−.133
.900	−.115	−.031	−.033	−.033	−.031	−.041	−.051	−.046	−.032	−.030	−.033	−.026	−.028
.950	−.080	−.051	.058	.062	.090	.057	.051	.056	.064	.065	.060	.060	.051
Lower surface .0375	.690	.625	.534	.441	.284	.091	−.187	−.071	.192	.340	.471	.570	.647
.075	.492	.431	.347	.263	.128	−.024	−.234	−.148	.054	.175	.291	.381	.452
.150	.324	.274	.204	.134	.026	−.092	−.249	−.185	−.030	.064	.156	.232	.290
.250	.222	.182	.128	.072	−.011	−.097	−.199	−.159	−.052	.018	.090	.151	.196
.350	.130	.100	.054	.006	−.067	−.139	−.217	−.185	−.102	−.043	.022	.074	.112
.450	.061	.041	0	−.041	−.102	−.162	−.223	−.197	−.132	−.082	−.026	.018	.052
.550	.009	−.001	−.033	−.068	−.121	−.169	−.214	−.195	−.144	−.103	−.056	−.018	.010
.650	−.053	−.048	−.074	−.100	−.143	−.179	−.207	−.195	−.161	−.129	−.091	−.061	−.041
.750	−.105	−.078	−.093	−.113	−.144	−.165	−.175	−.170	−.155	−.134	−.106	−.083	−.072
.850	−.148	−.083	−.086	−.093	−.108	−.114	−.102	−.104	−.112	−.103	−.090	−.081	−.080
.925	−.136	−.024	−.011	−.008	−.011	−.004	.022	.015	−.008	−.010	−.007	−.013	−.023
[a] .975	−.087	.062	.080	.122	.136	.117	.120	.127	.108	.106	.092	.078	.073
[a] 1.000	−.040	.165	.182	.212	.285	.198	.173	.185	.182	.190	.160	.168	.150

[a] No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 41.90^\circ$, B = 2 - Continued

(d) N = 1600 rpm.

J		1.980	2.070	2.157	2.266	2.357	2.463	2.413	2.309	2.219	2.119	2.008
M_x		.807	.819	.835	.852	.869	.886	.876	.857	.839	.823	.804
α_x'		5.34	4.12	2.97	1.58	.47	-.79	-.20	1.05	2.17	3.47	4.96
$\Delta\beta$		1.71	1.44	1.16	.78	.43	-.01	.20	.62	.95	1.29	1.64
α_1		2.45	1.99	1.52	.98	.47	-.08	.20	.67	1.17	1.72	2.27
c_n		.6568	.5368	.4097	.2638	.1271	-.0206	.0542	.1810	.3174	.4645	.6122
c_m		.0298	.0259	.0269	.0147	-.0003	-.0156	-.0082	.0064	.0193	.0256	.0265
c_c							.0082					
c/b		Pressure coefficient, P										
Upper surface	[a]0.000	1.174	1.179	1.186	1.195	1.203	1.212	1.207	1.197	1.188	1.181	1.172
	.025	-1.460	-1.240	-1.002	-.706	-.420	-.006	-.202	-.578	-.771	-1.132	-1.411
	.050	-1.385	-1.188	-.948	-.718	-.331	-.033	-.174	-.519	-.799	-1.091	-1.346
	.100	-1.257	-1.107	-.907	-.684	-.258	-.077	-.165	-.355	-.680	-.973	-1.211
	.200	-1.223	-1.068	-.914	-.667	-.366	-.194	-.269	-.446	-.767	-1.003	-1.195
	.300	-1.186	-1.033	-.858	-.357	-.293	-.204	-.250	-.297	-.397	-.949	-1.154
	.400	-.684	-.545	-.269	-.261	-.290	-.246	-.268	-.291	-.238	-.278	-.552
	.500	-.352	-.167	-.184	-.264	-.293	-.267	-.279	-.294	-.246	-.158	-.195
	.600	-.115	-.151	-.218	-.288	-.349	-.356	-.360	-.318	-.275	-.202	-.133
	.700	-.081	-.140	-.185	-.223	-.257	-.327	-.280	-.241	-.215	-.173	-.121
	.800	-.074	-.113	-.133	-.148	-.172	-.197	-.178	-.164	-.151	-.130	-.103
	.900	.012	-.003	-.008	-.009	-.027	-.035	-.030	-.021	-.015	-.011	-.003
	.950	.090	.089	.088	.091	.079	.073	.078	.082	.084	.085	.084
Lower surface	.0375	.598	.511	.414	.273	.067	-.198	-.047	.158	.327	.464	.571
	.075	.412	.331	.244	.124	-.050	-.274	-.142	.024	.167	.290	.386
	.150	.264	.194	.120	.019	-.119	-.309	-.200	-.062	.057	.158	.239
	.250	.179	.122	.061	-.018	-.121	-.244	-.174	-.080	.011	.092	.158
	.350	.096	.042	-.009	-.080	-.172	-.271	-.213	-.134	-.056	.019	.077
	.450	.038	-.011	-.059	-.123	-.203	-.281	-.240	-.170	-.099	-.033	.019
	.550	-.004	-.047	-.090	-.147	-.217	-.284	-.248	-.187	-.126	-.066	-.019
	.650	-.050	-.086	-.125	-.170	-.222	-.262	-.240	-.201	-.154	-.101	-.063
	.750	-.075	-.101	-.131	-.162	-.192	-.199	-.194	-.182	-.152	-.112	-.086
	.850	-.066	-.078	-.096	-.111	-.111	-.092	-.100	-.115	-.107	-.083	-.072
	.925	-.011	.015	.008	.006	.021	.048	.037	.010	.005	.001	-.013
	[a].975	.070	.135	.125	.139	.131	.167	.167	.132	.110	.113	.121
	[a]1.000	.198	.202	.211	.219	.190	.235	.237	.206	.179	.193	.189

[a]No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 41.90^{\circ}$, B = 2 - Continued

(e) M = 0.57.

	J	2.473	2.448	2.412	2.376	2.346	2.315	2.276	2.246	2.220	2.202	2.169	2.145	2.121	2.094	2.079
	M_x	.832	.841	.843	.850	.856	.866	.870	.876	.882	.891	.893	.899	.905	.912	.917
	α_x'	-.90	-.62	-.19	.24	.60	.98	1.46	1.84	2.16	2.39	2.82	3.13	3.44	3.80	4.00
	$\Delta\beta$	.11	.17	.27	.40	.52	.66	.83	.96	1.06	1.13	1.24	1.32	1.39	1.47	1.51
	α_1	-.21	-.07	.13	.30	.45	.63	.88	1.03	1.20	1.37	1.53	1.65	1.75	1.87	1.93
	c_n	-.0577	-.0197	.0358	.0823	.1223	.1700	.2374	.2784	.3245	.3694	.4155	.4465	.4735	.5045	.5213
	c_m	-.0128	-.0111	-.0060	-.0013	-.0016	.0054	.0125	.0146	.0148	.0075	.0031	-.0018	-.0088	-.0102	-.0087
	c_c									.0037	.0040	.0047	.0070	.0093	.0124	.0136
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.185	1.189	1.191	1.194	1.196	1.201	1.204	1.206	1.209	1.214	1.216	1.219	1.222	1.225	1.228
	.025	.018	-.065	-.204	-.339	-.471	-.552	-.600	-.617	-.627	-.636	-.650	-.663	-.712	-.748	-.756
	.050	-.011	-.069	-.167	-.257	-.361	-.479	-.602	-.629	-.645	-.658	-.674	-.678	-.693	-.716	-.726
	.100	-.057	-.082	-.143	-.193	-.246	-.320	-.495	-.546	-.579	-.598	-.608	-.628	-.646	-.655	-.661
	.200	-.158	-.188	-.233	-.285	-.343	-.450	-.558	-.626	-.653	-.674	-.695	-.709	-.723	-.734	-.737
	.300	-.160	-.183	-.215	-.245	-.274	-.311	-.481	-.560	-.600	-.630	-.658	-.676	-.696	-.712	-.716
	.400	-.188	-.209	-.233	-.256	-.279	-.288	-.355	-.543	-.598	-.619	-.643	-.660	-.676	-.695	-.700
	.500	-.204	-.222	-.239	-.257	-.278	-.292	-.255	-.329	-.605	-.641	-.663	-.678	-.693	-.705	-.707
	.600	-.252	-.265	-.279	-.292	-.312	-.338	-.313	-.241	-.242	-.601	-.713	-.747	-.760	-.773	-.775
	.700	-.214	-.222	-.228	-.235	-.242	-.247	-.245	-.208	-.148	-.133	-.190	-.262	-.246	-.248	-.250
	.800	-.174	-.176	-.174	-.171	-.168	-.161	-.156	-.137	-.101	-.061	-.051	-.096	-.139	-.175	-.187
	.900	-.054	-.049	-.040	-.033	-.026	-.017	-.010	.002	.020	.042	.059	.025	-.048	-.114	-.134
	.950	.052	.058	.066	.075	.081	.084	.092	.099	.110	.123	.126	.087	.006	-.075	-.104
Lower surface	.0375	-.282	-.190	-.073	.008	.080	.150	.229	.275	.310	.344	.381	.407	.439	.473	.489
	.075	-.302	-.238	-.151	-.090	-.036	.020	.088	.126	.157	.189	.222	.264	.276	.306	.323
	.150	-.281	-.243	-.185	-.143	-.103	-.062	-.010	.022	.048	.075	.102	.122	.149	.174	.191
	.250	-.226	-.204	-.168	-.138	-.113	-.084	-.046	-.022	0	.021	.045	.061	.083	.107	.121
	.350	-.237	-.222	-.195	-.176	-.160	-.137	-.109	-.088	-.071	-.051	-.030	-.016	.004	.024	.036
	.450	-.237	-.227	-.210	-.199	-.189	-.176	-.132	-.138	-.125	-.109	-.090	-.079	-.064	-.043	-.033
	.550	-.224	-.220	-.207	-.202	-.200	-.194	-.182	-.174	-.164	-.151	-.135	-.129	-.114	-.100	-.090
	.650	-.212	-.210	-.204	-.205	-.207	-.209	-.205	-.204	-.203	-.196	-.186	-.187	-.176	-.167	-.160
	.750	-.177	-.176	-.177	-.177	-.183	-.188	-.192	-.196	-.200	-.205	-.207	-.230	-.234	-.235	-.231
	.850	-.098	-.099	-.100	-.104	-.110	-.115	-.121	-.123	-.125	-.128	-.135	-.169	-.213	-.309	-.340
	.925	.027	.026	.025	.022	.017	.011	.008	.010	.011	.009	-.002	-.038	-.087	-.150	-.181
	[a].975	.140	.144	.145	.147	.135	.125	.128	.140	.136	.140	.125	.080	.005	-.068	-.105
	[a]1.000	.205	.215	.209	.223	.215	.190	.204	.215	.209	.215	.200	.150	.052	-.031	-.075

[a]No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 41.90^\circ$, B = 2 - Continued

(f) M = 0.60.

	J	2.471	2.445	2.414	2.397	2.368	2.338	2.308	2.281	2.254	2.221	2.194	2.165	2.145	2.127	2.105
	M_x	.888	.896	.899	.906	.912	.918	.924	.931	.937	.944	.948	.955	.960	.968	.974
	α_x'	-.88	-.58	-.11	-.01	.33	.70	1.06	1.40	1.73	2.15	2.49	2.87	3.13	3.36	3.65
	$\Delta\beta$	.05	.09	.15	.19	.28	.43	.62	.78	.93	1.09	1.20	1.27	1.30	1.32	1.34
	α_1	-.11	.02	.19	.31	.47	.63	.76	.92	1.04	1.15	1.29	1.40	1.49	1.61	1.74
	c_n	-.0303	.0045	.0516	.0852	.1271	.1697	.2065	.2497	.2800	.3123	.3497	.3787	.4045	.4374	.4710
	c_m	-.0192	-.0151	-.0118	-.0126	-.0088	-.0108	-.0092	-.0097	-.0031	.0008	.0008	-.0064	-.0159	-.0251	-.0303
	c_c	.0085	.0092	.0093	.0096	.0107	.0105	.0122	.0121	.0142	.0169	.0189	.0202	.0217	.0236	.0254
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.212	1.217	1.219	1.222	1.225	1.228	1.232	1.235	1.239	1.243	1.245	1.249	1.252	1.257	1.260
	.025	.031	-.056	-.157	-.219	-.299	-.375	-.400	-.412	-.422	-.439	-.471	-.476	-.482	-.476	-.486
	.050	-.001	-.065	-.134	-.176	-.233	-.300	-.354	-.401	-.429	-.461	-.499	-.505	-.513	-.508	-.511
	.100	-.051	-.078	-.113	-.134	-.169	-.212	-.278	-.330	-.374	-.409	-.451	-.464	-.474	-.477	-.480
	.200	-.174	-.217	-.270	-.301	-.341	-.374	-.388	-.416	-.455	-.498	-.540	-.550	-.561	-.558	-.565
	.300	-.188	-.221	-.252	-.265	-.304	-.351	-.384	-.410	-.433	-.467	-.512	-.523	-.541	-.541	-.549
	.400	-.236	-.269	-.295	-.295	-.312	-.362	-.392	-.425	-.454	-.480	-.512	-.525	-.539	-.538	-.543
	.500	-.259	-.270	-.317	-.333	-.342	-.371	-.416	-.448	-.479	-.511	-.542	-.553	-.564	-.561	-.564
	.600	-.350	-.360	-.356	-.396	-.438	-.444	-.464	-.509	-.543	-.583	-.617	-.627	-.637	-.632	-.636
	.700	-.340	-.387	-.388	-.388	-.411	-.456	-.503	-.517	-.551	-.608	-.646	-.657	-.668	-.665	-.668
	.800	-.216	-.217	-.222	-.251	-.277	-.308	-.281	-.318	-.281	-.163	-.149	-.202	-.279	-.437	-.577
	.900	-.036	-.029	-.013	.001	.010	.021	.041	.040	.026	-.025	-.072	-.118	-.160	-.189	-.214
	.950	.071	.082	.099	.112	.118	.124	.134	.117	.089	.011	-.045	-.100	-.144	-.171	-.195
Lower surface	.0375	-.244	-.147	-.050	.010	.065	.124	.179	.231	.268	.321	.364	.391	.419	.448	.479
	.075	-.306	-.230	-.148	-.094	-.048	0	.050	.094	.129	.174	.213	.237	.262	.290	.318
	.150	-.315	-.261	-.197	-.156	-.120	-.081	-.038	0	.027	.066	.097	.119	.140	.164	.193
	.250	-.257	-.230	-.186	-.155	-.125	-.099	-.065	-.033	-.009	.022	.047	.064	.082	.107	.130
	.350	-.286	-.261	-.226	-.201	-.181	-.158	-.129	-.101	-.080	-.054	-.030	-.015	.001	.024	.045
	.450	-.294	-.281	-.258	-.239	-.225	-.205	-.181	-.157	-.141	-.116	-.096	-.082	-.068	-.046	-.025
	.550	-.280	-.286	-.276	-.262	-.251	-.235	-.214	-.192	-.176	-.158	-.141	-.128	-.116	-.096	-.078
	.650	-.262	-.283	-.304	-.306	-.304	-.293	-.278	-.260	-.247	-.229	-.211	-.203	-.193	-.173	-.153
	.750	-.196	-.205	-.221	-.246	-.295	-.322	-.335	-.328	-.320	-.307	-.293	-.286	-.277	-.260	-.242
	.850	-.083	-.090	-.093	-.087	-.094	-.106	-.126	-.196	-.380	-.436	-.425	-.423	-.416	-.401	-.384
	.925	.057	.051	.047	.055	.051	.043	.039	.020	-.016	-.217	-.438	-.486	-.482	-.468	-.453
	[a].975	.150	.147	.157	.173	.150	.146	.144	.116	.075	.020	-.050	-.103	-.150	-.190	-.250
	[a]1.000	.180	.200	.216	.239	.203	.195	.193	.140	.105	.040	-.025	-.080	-.130	-.173	-.178

[a]No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 41.90^{\circ}$, B = 2 - Continued

(g) M = 0.65.

	J	2.452	2.433	2.414	2.386	2.362	2.339	2.313	2.288	2.253	2.239	2.221	2.200	2.173	2.160
	M_x	.955	.962	.966	.973	.978	.984	.988	.994	1.003	1.007	1.017	1.022	1.028	1.035
	α_x'	-.66	-.44	-.21	.12	.41	.68	1.00	1.31	1.75	1.92	2.15	2.41	2.76	2.93
	$\Delta\beta$	.18	.23	.28	.37	.46	.54	.66	.75	.85	.88	.92	.95	.99	1.01
	α_i	-.23	-.04	.04	.24	.41	.53	.68	.83	1.03	1.12	1.23	1.33	1.41	1.50
	c_n	-.0626	-.0116	.0123	.0652	.1116	.1426	.1839	.2252	.2768	.3019	.3342	.3594	.3813	.4052
	c_m	-.0093	-.0059	-.0031	-.0008	-.0059	-.0103	-.0152	-.0202	-.0324	-.0370	-.0447	-.0505	-.0523	-.0593
	c_c	.0189	.0215	.0238	.0269	.0279	.0289	.0289	.0294	.0327	.0341	.0350	.0357	.0361	.0358
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.249	1.253	1.255	1.259	1.262	1.265	1.268	1.271	1.277	1.279	1.285	1.288	1.292	1.297
	.025	.066	-.011	-.065	-.125	-.200	-.224	-.258	-.264	-.275	-.279	-.279	-.284	-.290	-.295
	.050	.042	-.013	-.053	-.095	-.148	-.164	-.217	-.241	-.279	-.295	-.303	-.312	-.321	-.330
	.100	.013	-.015	-.036	-.066	-.097	-.116	-.164	-.236	-.239	-.261	-.272	-.281	-.290	-.297
	.200	-.147	-.190	-.216	-.238	-.262	-.268	-.287	-.303	-.339	-.358	-.365	-.376	-.384	-.392
	.300	-.159	-.185	-.209	-.238	-.264	-.274	-.301	-.315	-.337	-.349	-.356	-.368	-.378	-.387
	.400	-.205	-.221	-.237	-.266	-.288	-.294	-.316	-.334	-.361	-.371	-.375	-.381	-.385	-.393
	.500	-.251	-.265	-.276	-.295	-.321	-.328	-.355	-.364	-.390	-.402	-.407	-.412	-.416	-.421
	.600	-.334	-.366	-.373	-.383	-.394	-.405	-.429	-.445	-.468	-.479	-.484	-.485	-.491	-.496
	.700	-.384	-.416	-.426	-.437	-.440	-.440	-.458	-.474	-.501	-.512	-.516	-.522	-.526	-.531
	.800	-.425	-.442	-.450	-.477	-.495	-.497	-.507	-.517	-.541	-.553	-.559	-.568	-.570	-.576
	.900	-.312	-.354	-.417	-.495	-.517	-.528	-.529	-.545	-.598	-.608	-.612	-.617	-.625	-.630
	.950	.027	-.011	-.040	-.107	-.141	-.192	-.201	-.244	-.455	-.539	-.620	-.635	-.637	-.645
Lower surface	.0375	-.127	-.047	.008	.056	.126	.160	.210	.246	.297	.324	.362	.390	.417	.439
	.075	-.207	-.149	-.106	-.059	.004	.035	.080	.110	.156	.181	.215	.242	.266	.287
	.150	-.269	-.204	-.168	-.134	-.079	-.053	-.014	.012	.051	.073	.103	.127	.149	.168
	.250	-.245	-.193	-.159	-.132	-.091	-.069	-.038	-.017	.015	.035	.061	.082	.102	.118
	.350	-.253	-.224	-.203	-.182	-.142	-.124	-.098	-.079	-.053	-.037	-.013	.005	.023	.037
	.450	-.304	-.273	-.251	-.233	-.198	-.180	-.153	-.136	-.111	-.094	-.071	-.054	-.036	-.018
	.550	-.334	-.307	-.291	-.276	-.241	-.202	-.200	-.186	-.163	-.148	-.126	-.109	-.093	-.075
	.650	-.383	-.360	-.341	-.325	-.294	-.278	-.257	-.244	-.221	-.208	-.186	-.171	-.157	-.144
	.750	-.431	-.417	-.406	-.394	-.366	-.350	-.332	-.320	-.303	-.290	-.272	-.259	-.245	-.232
	.850	-.473	-.517	-.511	-.504	-.480	-.467	-.452	-.441	-.427	-.417	-.400	-.386	-.373	-.360
	.925	.005	-.082	-.225	-.464	-.533	-.532	-.521	-.511	-.501	-.491	-.475	-.461	-.448	-.434
	[a].975	.228	.152	.062	-.011	-.050	-.128	-.140	-.175	-.390	-.523	-.516	-.523	-.563	-.495
	[a]1.000	.295	.209	.115	.055	.020	-.080	-.101	-.142	-.359	-.442	-.531	-.569	-.618	-.540

[a]No orifice.

TABLE 8.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-005.30 PROPELLER BLADE SECTION (x = 0.85)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 41.90^{\circ}$, B = 1 - Concluded

(h) One-blade propeller; M = 0.56.

J	2.333	2.270	2.201	2.155	2.123	2.087	2.062	2.032	2.003	1.976	1.955	1.937	1.912	1.892
M_x	.851	.864	.880	.890	.898	.908	.915	.923	.932	.938	.945	.950	.958	.965
α_x,	.75	1.53	2.40	2.99	3.42	3.88	4.22	4.63	5.02	5.39	5.69	5.93	6.29	6.57
$\Delta\beta$	.58	.86	1.13	1.29	1.39	1.49	1.55	1.62	1.67	1.72	1.74	1.76	1.78	1.78
α_1	.34	.61	.98	1.24	1.40	1.47	1.56	1.62	1.72	1.81	1.94	2.03	2.09	2.22
c_n	.1090	.1987	.3181	.4019	.4555	.4794	.5055	.5245	.5555	.5865	.6348	.6613	.6819	.7258
c_m	-.0019	.0106	.0127	.0012	-.0087	-.0093	-.0066	-.0080	-.0128	-.0233	-.0380	-.0469	-.0572	-.0741
c_c				.0053	.0081	.0125	.0147	.0172	.0190	.0199	.0212	.0223	.0234	.0255
c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.194	1.200	1.209	1.214	1.218	1.223	1.226	1.230	1.235	1.239	1.243	1.246	1.250	1.254
	.025	-.152	-.304	-.387	-.427	-.553	-.597	-.628	-.662	-.682	-.693	-.703	-.707	-.717	-.739
	.050	-.338	-.548	-.617	-.633	-.630	-.679	-.723	-.752	-.764	-.772	-.778	-.779	-.787	-.786
	.100	-.298	-.502	-.594	-.629	-.651	-.667	-.686	-.704	-.715	-.724	-.729	-.729	-.733	-.729
	.200	-.284	-.490	-.617	-.662	-.686	-.699	-.712	-.725	-.729	-.733	-.736	-.735	-.738	-.733
	.300	-.275	-.377	-.593	-.640	-.672	-.689	-.706	-.722	-.726	-.731	-.732	-.728	-.729	-.724
	.400	-.250	-.259	-.570	-.624	-.645	-.666	-.682	-.702	-.710	-.718	-.719	-.714	-.714	-.711
	.500	-.284	-.293	-.593	-.663	-.689	-.700	-.713	-.726	-.730	-.735	-.736	-.731	-.733	-.731
	.600	-.296	-.316	-.197	-.707	-.739	-.748	-.761	-.773	-.771	-.773	-.771	-.766	-.768	-.767
	.700	-.261	-.253	-.162	-.183	-.268	-.271	-.276	-.296	-.354	-.442	-.616	-.738	-.805	-.806
	.800	-.164	-.143	-.096	-.042	-.114	-.172	-.194	-.222	-.245	-.271	-.295	-.314	-.369	-.556
	.900	-.032	-.006	.025	.066	-.004	-.103	-.141	-.184	-.220	-.250	-.271	-.291	-.330	-.369
	.950	.074	.096	.115	.138	.067	-.052	-.106	-.162	-.203	-.235	-.261	-.276	-.308	-.337
Lower surface	.0375	-.008	.157	.274	.344	.388	.428	.461	.500	.535	.558	.578	.601	.618	.638
	.075	-.028	.093	.192	.253	.290	.328	.357	.391	.424	.443	.464	.483	.500	.517
	.150	-.096	-.002	.081	.131	.163	.196	.223	.251	.280	.299	.318	.337	.353	.370
	.250	-.131	-.061	.006	.046	.073	.102	.123	.151	.177	.193	.212	.230	.244	.258
	.350	-.166	-.116	-.064	-.028	-.004	.021	.041	.065	.090	.104	.119	.138	.150	.164
	.450	-.173	-.137	-.096	-.082	-.063	-.041	-.024	-.003	.019	.031	.048	.064	.075	.090
	.550	-.257	-.238	-.213	-.164	-.150	-.136	-.121	-.104	-.084	-.074	-.063	-.051	-.035	-.024
	.650	-.215	-.211	-.204	-.200	-.197	-.191	-.177	-.163	-.145	-.138	-.124	-.109	-.101	-.087
	.750	-.131	-.131	-.131	-.156	-.187	-.210	-.210	-.209	-.195	-.191	-.175	-.157	-.159	-.146
	.850	-.078	-.083	-.078	-.090	-.136	-.247	-.300	-.313	-.303	-.300	-.292	-.280	-.274	-.265
	.925	.004	-.023	-.018	-.017	-.056	-.167	-.261	-.362	-.423	-.404	-.383	-.374	-.369	-.365
	[a].975	.083	.075	.090	.094	.053	-.072	-.145	-.323	-.365	-.345	-.342	-.357	-.372	-.378
	[a]1.000	.127	.154	.185	.220	.139	-.016	-.059	-.131	-.200	-.220	-.245	-.282	-.297	-.320

[a]No orifice.

TABLE 9.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION ($x = 0.90$)

$\beta_{0.75R} = 45.2°$, $\beta_x = 40°$, $B = 2$

(a) N = 1140 rpm.

	J	2.471	2.388	2.319	2.222	2.148	2.077	1.990	1.916	1.830	1.878	1.955	2.025	2.118	2.185	2.264	2.342	2.429
	M_x	.651	.640	.636	.621	.618	.608	.600	.594	.587	.588	.596	.603	.615	.620	.629	.639	.648
	α_x'	-1.15	-.18	.64	1.84	2.78	3.70	4.86	5.88	7.09	6.41	5.34	4.39	3.16	2.30	1.31	.36	-.67
	$\Delta\beta$	-.04	.10	.21	.38	.51	.62	.74	.83	.91	.86	.78	.70	.56	.44	.31	.18	.02
	α_1	-.21	.16	.45	.77	1.04	1.36	1.71	2.02	2.31	2.10	1.86	1.59	1.15	.92	.61	.35	.01
	c_n	-.0468	.0365	.1010	.1703	.2310	.3006	.3819	.4490	.5103	.4652	.4135	.3523	.2548	.2039	.1365	.0784	.0019
	c_m	-.0070	-.0014	.0019	.0062	.0054	.0095	.0180	.0228	.0213	.0244	.0200	.0146	.0059	.0061	.0037	.0010	-.0050
	c_c																	
	c/b	Pressure coefficient, P																
Upper surface	[a]0.000	1.110	1.106	1.105	1.100	1.098	1.095	1.093	1.090	1.089	1.089	1.092	1.094	1.097	1.099	1.102	1.106	1.109
	.025	.034	-.214	-.435	-.741	-.888	-1.515	-1.630	-1.309	-1.340	-1.261	-1.471	-1.660	-1.006	-.858	-.587	-.344	-.109
	.050	-.043	-.195	-.319	-.491	-.640	-.762	-1.374	-1.290	-1.272	-1.242	-1.382	-1.136	-.688	-.574	-.398	-.271	-.137
	.100	-.065	-.160	-.239	-.340	-.430	-.502	-.757	-1.174	-1.232	-1.188	-1.048	-.581	-.465	-.388	-.289	-.208	-.125
	.200	-.095	-.149	-.195	-.258	-.310	-.353	-.404	-.640	-.838	-.782	-.469	-.386	-.332	-.284	-.226	-.180	-.132
	.300	-.127	-.162	-.194	-.239	-.273	-.303	-.339	-.363	-.504	-.436	-.334	-.327	-.290	-.257	-.216	-.183	-.153
	.400	-.142	-.165	-.187	-.220	-.243	-.262	-.293	-.282	-.341	-.302	-.286	-.283	-.256	-.231	-.203	-.180	-.159
	.500	-.172	-.188	-.204	-.227	-.242	-.253	-.275	-.256	-.272	-.259	-.266	-.269	-.253	-.234	-.214	-.198	-.185
	[a].600	-.175	-.185	-.195	-.210	-.222	-.230	-.245	-.225	-.221	-.218	-.236	-.242	-.234	-.220	-.205	-.195	-.188
	.700	-.154	-.159	-.165	-.176	-.182	-.182	-.193	-.178	-.175	[b]-.168	-.185	-.193	-.188	-.179	-.169	-.165	-.164
	.800	-.119	-.118	-.119	-.124	-.126	-.123	-.131	-.117	-.118	-.118	-.123	-.130	-.132	-.128	-.122	-.122	-.125
	.900	-.070	-.061	-.055	-.056	-.055	-.047	-.057	-.050	-.059	-.055	-.051	-.054	-.058	-.055	-.056	-.061	-.069
	.950	-.017	-.005	.001	.004	.006	.014	-.002	-.006	-.023	-.013	-.002	.003	.005	.005	.002	-.003	-.016
Lower surface	.0375	-.281	-.103	.023	.162	.277	.371	.445	.504	.568	.525	.478	.418	.309	.224	.095	-.033	-.180
	.075	-.249	-.126	-.039	.059	.148	.225	.287	.339	.399	.359	.317	.261	.172	.107	.014	-.079	-.182
	.150	-.193	-.113	-.057	.009	.069	.129	.172	.217	.262	.232	.198	.155	.086	.041	-.024	-.084	-.151
	.250	-.180	-.120	-.082	-.037	.006	.053	.085	.122	.157	.134	.106	.072	.018	-.014	-.061	-.101	-.150
	.350	-.191	-.146	-.110	-.078	-.046	-.008	.016	.046	.076	.054	.031	.007	-.039	-.060	-.095	-.126	-.171
	.450	-.198	-.162	-.132	-.109	-.086	-.050	-.035	-.009	.013	-.006	-.024	-.044	-.081	-.098	-.122	-.144	-.182
	.550	-.180	-.152	-.132	-.114	-.093	-.068	-.059	-.037	-.021	-.036	-.048	-.063	-.091	-.103	-.125	-.142	-.167
	.650	-.174	-.154	-.137	-.128	-.112	-.091	-.088	-.070	-.061	-.071	-.079	-.089	-.112	-.121	-.133	-.145	-.167
	.750	-.142	-.129	-.122	-.114	-.104	-.090	-.089	-.082	-.078	-.083	-.084	-.090	-.105	-.109	-.120	-.126	-.140
	.850	-.089	-.087	-.085	-.083	-.078	-.068	-.077	-.076	-.082	-.083	-.075	-.074	-.083	-.081	-.086	-.089	-.091
	.925	.005	.005	.001	-.010	-.004	-.004	-.017	-.024	-.042	-.036	-.018	-.011	-.011	-.007	-.005	.002	.002
	[a].975	.054	.057	.052	.055	.045	.045	.030	.021	-.002	.010	.022	.037	.056	.050	.063	.057	.051
	[a]1.000	.066	.073	.066	.088	.070	.079	.059	.050	.023	.025	.039	.065	.094	.080	.100	.080	.065

[a]No orifice.

[b]Faired value.

TABLE 9.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2°$, $\beta_x = 40°$, B = 2 - Continued

(b) N = 1350 rpm.

	J	2.484	2.397	2.313	2.233	2.150	2.062	1.990	1.846	1.906	2.026	2.121	2.194	2.266	2.358	2.443
	M_x	.783	.765	.755	.741	.730	.721	.712	.693	.705	.714	.728	.738	.748	.760	.776
	α_x'	-1.30	-.29	.72	1.70	2.75	3.90	4.86	6.86	6.02	4.38	3.12	2.19	1.29	.17	-.83
	$\Delta\beta$	-.06	.14	.33	.51	.69	.88	1.05	1.30	1.27	.96	.75	.59	.44	.22	.03
	α_1	-.26	.14	.51	.85	1.29	1.62	2.00	2.44	2.29	1.84	1.36	1.06	.73	.31	-.10
	c_n	-.0577	.0310	.1152	.1890	.2877	.3613	.4426	.5387	.5071	.4090	.3026	.2361	.1632	.0697	-.0210
	c_m	-.0126	-.0062	.0020	.0029	.0129	.0180	.0254	.0313	.0326	.0233	.0133	.0082	.0054	-.0025	-.0100
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.163	1.155	1.151	1.146	1.141	1.137	1.134	1.127	1.131	1.135	1.140	1.144	1.148	1.153	1.160
	.025	.079	-.198	-.553	-.874	-1.341	-1.687	-1.908	-1.629	-2.108	-1.803	-1.509	-1.038	-.763	-.348	-.044
	.050	-.018	-.201	-.404	-.584	-1.190	-1.528	-1.745	-1.500	-1.942	-1.633	-1.358	-.856	-.515	-.291	-.101
	.100	-.052	-.170	-.286	-.380	-.414	-.656	-1.374	-1.237	-1.541	-1.025	-.418	-.419	-.342	-.226	-.108
	.200	-.093	-.166	-.229	-.289	-.340	-.350	-.334	-.839	-.403	-.342	-.351	-.316	-.263	-.197	-.129
	.300	-.134	-.183	-.224	-.268	-.303	-.325	-.328	-.549	-.351	-.329	-.315	-.284	-.249	-.204	-.158
	.400	-.150	-.185	-.212	-.244	-.268	-.289	-.298	-.371	-.319	-.297	-.280	-.254	-.229	-.199	-.167
	.500	-.188	-.214	-.231	-.253	-.268	-.283	-.288	-.287	-.299	-.289	-.277	-.258	-.243	-.222	-.200
	[a].600	-.195	-.213	-.220	-.240	-.244	-.255	-.255	-.230	-.257	-.252	-.251	-.239	-.229	-.217	-.198
	.700	-.171	-.183	-.186	-.198	-.200	-.203	-.202	-.173	-.200	-.204	-.202	-.197	-.190	-.186	-.177
	.800	-.129	-.134	-.131	-.138	-.134	-.135	-.132	-.111	-.127	-.137	-.136	-.135	-.130	-.134	-.133
	.900	-.062	-.062	-.053	-.056	-.049	-.048	-.045	-.047	-.046	-.050	-.051	-.051	-.050	-.061	-.063
	.950	.004	.004	.014	.013	.020	.019	.016	-.008	.009	.015	.018	.018	.018	.006	.003
Lower surface	.0375	-.321	-.121	.058	.171	.308	.406	.483	.589	.549	.439	.342	.241	.134	-.039	-.221
	.075	-.293	-.157	-.028	.057	.168	.252	.321	.416	.378	.282	.198	.114	.032	-.100	-.226
	.150	-.228	-.147	-.059	-.001	.083	.145	.201	.278	.247	.169	.104	.042	-.018	-.109	-.186
	.250	-.205	-.149	-.088	-.050	.012	.061	.106	.169	.141	.080	.029	-.019	-.058	-.122	-.175
	.350	-.210	-.171	-.125	-.096	-.047	-.009	.028	.077	.056	.006	-.035	-.069	-.102	-.151	-.191
	.450	-.218	-.188	-.156	-.135	-.093	-.062	-.032	.005	-.011	-.050	-.083	-.112	-.138	-.174	-.204
	.550	-.195	-.176	-.150	-.136	-.104	-.077	-.052	-.024	-.037	-.068	-.095	-.119	-.138	-.166	-.188
	.650	-.188	-.176	-.158	-.152	-.126	-.107	-.086	-.070	-.075	-.099	-.120	-.136	-.151	-.169	-.183
	.750	-.147	-.145	-.137	-.134	-.115	-.104	-.089	-.086	-.085	-.099	-.113	-.123	-.131	-.143	-.147
	.850	-.082	-.088	-.090	-.096	-.086	-.081	-.073	-.091	-.076	-.081	-.087	-.089	-.090	-.090	-.085
	[a].925	.032	.021	.010	-.002	.001	-.003	-.004	-.044	-.014	-.006	-.003	.002	.006	.015	.026
	[a]1.000	.180	.183	.137	.260	.158	.180	.122	.055	.090	.120	.120	.160	.135	.123	.155

[a] No orifice.

TABLE 9.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2°$, $\beta_x = 40°$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.835	1.928	2.009	2.121	2.204	2.292	2.381	2.463	2.432	2.335	2.255	2.159	2.074	1.972	1.877
	M_x	.760	.769	.782	.798	.810	.821	.838	.850	.847	.828	.815	.801	.788	.776	.761
	α_x'	7.02	5.71	4.60	3.12	2.06	.97	-.10	-1.06	-.70	.45	1.43	2.63	3.74	5.11	6.42
	$\Delta\beta$	1.80	1.82	1.54	1.18	.90	.61	.30	0	.11	.46	.74	1.05	1.33	1.68	1.83
	α_1	2.69	2.54	2.18	1.63	1.13	.69	.31	-.15	.01	.48	.85	1.31	1.91	2.36	2.74
	c_n	.5961	.5679	.4845	.3613	.2523	.1542	.0700	-.0339	.0016	.1077	.1890	.2915	.4244	.5232	.6097
	c_m	.0351	.0333	.0305	.0197	.0116	.0079	-.0005	-.0109	-.0082	.0029	.0082	.0133	.0247	.0333	.0352
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.153	1.157	1.163	1.170	1.175	1.180	1.188	1.194	1.192	1.183	1.177	1.171	1.165	1.160	1.154
	.025	-1.817	-1.674	-1.480	-1.168	-.815	-.572	-.273	.034	-.074	-.417	-.669	-.997	-1.314	-1.568	-1.781
	.050	-1.741	-1.609	-1.436	-1.163	-.921	-.598	-.271	-.058	-.136	-.376	-.775	-1.026	-1.292	-1.517	-1.711
	.100	-1.595	-1.474	-1.313	-1.052	-.818	-.368	-.239	-.104	-.154	-.298	-.534	-.922	-1.171	-1.383	-1.567
	.200	-1.136	-1.329	-1.164	-.694	-.224	-.269	-.209	-.134	-.161	-.239	-.280	-.246	-.984	-1.246	-1.423
	.300	-.348	-.404	-.179	-.210	-.276	-.263	-.224	-.177	-.194	-.243	-.277	-.255	-.173	-.256	-.453
	.400	-.301	-.174	-.192	-.246	-.261	-.242	-.217	-.189	-.198	-.230	-.252	-.259	-.225	-.184	-.195
	.500	-.309	-.225	-.245	-.276	-.279	-.262	-.250	-.238	-.241	-.258	-.270	-.279	-.267	-.238	-.223
	.600	-.245	-.194	-.204	-.220	-.220	-.211	-.205	-.200	-.198	-.211	-.216	-.221	-.215	-.201	-.194
	.700	-.206	-.187	-.193	-.205	-.204	-.201	-.205	-.209	-.204	-.207	-.205	-.206	-.203	-.192	-.182
	.800	-.139	-.127	-.129	-.138	-.137	-.137	-.146	-.155	-.149	-.146	-.138	-.138	-.138	-.130	-.122
	.900	-.064	-.043	-.041	-.044	-.042	-.042	-.053	-.061	-.057	-.054	-.042	-.043	-.045	-.044	-.043
	.950	-.020	.017	.025	.028	.032	.033	.025	.019	.025	.023	.032	.030	.023	.019	.013
Lower surface	.0375	.604	.550	.478	.365	.255	.109	-.058	-.323	-.204	0	.164	.308	.415	.511	.594
	.075	.434	.386	.322	.221	.129	.010	-.125	-.305	-.223	-.072	.059	.176	.266	.351	.427
	.150	.296	.258	.207	.124	.051	-.038	-.130	-.243	-.193	-.094	-.002	.089	.162	.228	.290
	.250	.178	.150	.109	.043	-.011	-.077	-.144	-.217	-.185	-.119	-.051	.018	.074	.127	.175
	.350	.085	.064	.034	-.022	-.069	-.120	-.170	-.226	-.200	-.153	-.100	-.043	.003	.047	.088
	.450	.008	-.004	-.029	-.077	-.118	-.158	-.197	-.240	-.220	-.185	-.142	-.095	-.056	-.019	.016
	.550	-.028	-.033	-.054	-.093	-.127	-.160	-.189	-.222	-.204	-.181	-.147	-.109	-.075	-.044	-.017
	.650	-.080	-.074	-.090	-.124	-.150	-.175	-.194	-.215	-.203	-.190	-.166	-.135	-.108	-.085	-.064
	.750	-.095	-.079	-.088	-.112	-.132	-.149	-.155	-.165	-.158	-.153	-.142	-.122	-.102	-.086	-.074
	.850	-.100	-.065	-.066	-.077	-.089	-.092	-.086	-.082	-.082	-.092	-.092	-.083	-.074	-.067	-.064
	.925	-.045	.010	.019	.018	.018	.022	.037	.044	.043	.028	.016	.017	.018	.014	.006
	[a].975	.005	.056	.098	.084	.098	.092	.103	.097	.115	.110	.100	.092	.081	.070	.062
	[a]1.000	.027	.077	.136	.115	.130	.126	.115	.110	.135	.135	.136	.120	.102	.083	.080

[a]No orifice.

TABLE 9.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2°$, $\beta_x = 40°$, B = 2 - Continued

(d) N = 1600 rpm.

J		1.974	2.049	2.109	2.177	2.258	2.321	2.397	2.469	2.428	2.361	2.299	2.227	2.139	2.086	2.022
M_x		.835	.847	.855	.872	.878	.889	.903	.914	.907	.894	.883	.871	.860	.845	.839
α_x'		5.08	4.07	3.28	2.41	1.39	.62	-.29	-1.13	-.65	.14	.89	1.77	2.89	3.58	4.43
$\Delta\beta$		1.92	1.66	1.44	1.19	.87	.60	.23	-.13	.08	.41	.69	.99	1.33	1.53	1.76
α_1		2.82	2.33	1.85	1.38	.97	.61	.24	-.14	.07	.41	.76	1.14	1.61	1.94	2.37
c_n		.6284	.5194	.4129	.3070	.2165	.1374	.0519	-.0306	.0161	.0916	.1703	.2539	.3573	.4323	.5277
c_m		.0211	.0200	.0179	.0174	.0115	.0041	-.0076	-.0212	-.0128	-.0009	.0090	.0162	.0213	.0233	.0270
c_c									.0079							
c/b		Pressure coefficient, P														
Upper surface	[a]0.000	1.186	1.190	1.196	1.205	1.207	1.213	1.221	1.226	1.223	1.216	1.210	1.204	1.198	1.191	1.188
	.025	-1.231	-1.049	-.852	-.575	-.423	-.295	-.094	.169	.030	-.204	-.348	-.494	-.724	-.949	-1.133
	.050	-1.205	-1.048	-.880	-.695	-.562	-.408	-.150	.060	-.049	-.264	-.485	-.625	-.793	-.966	-1.121
	.100	-1.105	-.963	-.809	-.661	-.503	-.323	-.134	.013	-.065	-.200	-.416	-.572	-.735	-.876	-1.029
	.200	-1.037	-.907	-.779	-.635	-.488	-.308	-.167	-.059	-.116	-.221	-.387	-.555	-.718	-.840	-.970
	.300	-1.033	-.911	-.791	-.638	-.450	-.237	-.208	-.137	-.176	-.225	-.223	-.536	-.720	-.848	-.964
	.400	-.977	-.851	-.618	-.156	-.075	-.151	-.160	-.137	-.153	-.167	-.138	-.064	-.153	-.450	-.583
	.500	-.309	-.079	-.019	-.084	-.180	-.228	-.205	-.190	-.199	-.219	-.223	-.162	-.067	-.018	-.091
	.600	.019	-.005	-.049	-.107	-.172	-.217	-.208	-.196	-.204	-.214	-.192	-.152	-.095	-.050	-.012
	.700	-.019	-.056	-.088	-.123	-.156	-.181	-.243	-.264	-.262	-.204	-.162	-.147	-.116	-.089	-.059
	.800	0	-.025	-.044	-.056	-.070	-.074	-.080	-.203	-.104	-.076	-.071	-.067	-.058	-.047	-.029
	.900	.064	.050	.044	.044	.042	.042	.046	.049	.047	.044	.045	.043	.038	.040	.046
	.950	.120	.116	.116	.122	.125	.129	.135	.144	.138	.133	.132	.125	.115	.110	.111
Lower surface	.0375	.601	.522	.450	.357	.258	.153	.015	-.165	-.071	.079	.206	.301	.405	.480	.550
	.075	.442	.372	.310	.228	.144	.053	-.067	-.281	-.157	-.011	.098	.178	.268	.332	.394
	.150	.319	.261	.208	.144	.078	.010	-.074	-.186	-.127	-.035	.042	.104	.173	.225	.278
	.250	.214	.167	.122	.073	.020	-.032	-.090	-.198	-.129	-.065	-.006	.039	.097	.136	.179
	.350	.124	.082	.044	0	-.044	-.088	-.133	-.187	-.157	-.113	-.065	-.026	.022	.057	.095
	.450	.049	.014	-.022	-.060	-.099	-.138	-.175	-.215	-.202	-.158	-.118	-.082	-.038	-.008	.025
	.550	.021	-.009	-.039	-.073	-.106	-.142	-.167	-.206	-.177	-.157	-.122	-.092	-.054	-.027	.001
	.650	-.023	-.046	-.071	-.101	-.130	-.160	-.176	-.210	-.189	-.169	-.142	-.118	-.086	-.063	-.040
	.750	-.023	-.038	-.056	-.078	-.095	-.113	-.108	-.112	-.108	-.113	-.104	-.091	-.068	-.050	-.033
	.850	.005	0	-.009	-.021	-.022	-.027	-.004	.017	.005	-.018	-.026	-.026	-.016	-.008	0
	.925	.100	.108	.108	.105	.112	.114	.142	.159	.150	.125	.111	.104	.102	.103	.102
	[a].975	.160	.175	.182	.182	.193	.200	.211	.205	.225	.202	.200	.190	.180	.169	.172
	[a]1.000	.175	.192	.200	.214	.225	.228	.240	.222	.240	.230	.245	.220	.210	.188	.200

[a]No orifice.

CONFIDENTIAL

TABLE 9.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2°$, $\beta_x = 40°$, B = 2 - Continued

(e) M = 0.56.

	J	2.467	2.409	2.389	2.360	2.329	2.292	2.267	2.246	2.227	2.199	2.168	2.145	2.126	2.087
	M_x	.859	.865	.873	.878	.884	.892	.899	.907	.911	.919	.925	.932	.942	.945
	α_x'	-1.11	-.43	-.20	.15	.52	.97	1.28	1.54	1.77	2.13	2.52	2.81	3.06	3.57
	$\Delta\beta$	.16	.29	.36	.49	.66	.85	.98	1.08	1.15	1.26	1.38	1.46	1.51	1.60
	α_i	-.21	.08	.19	.35	.50	.75	.90	1.09	1.27	1.44	1.67	1.76	1.86	1.92
	c_n	-.0464	.0181	.0419	.0781	.1126	.1677	.2010	.2442	.2832	.3194	.3726	.3932	.4142	.4277
	c_m	-.0147	-.0078	-.0057	-.0023	.0016	.0070	.0099	.0112	.0102	.0078	-.0038	-.0052	-.0065	.0006
	c_c									.0050	.0053	.0066	.0083	.0097	.0122
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.197	1.200	1.205	1.207	1.210	1.215	1.218	1.222	1.225	1.229	1.232	1.236	1.242	1.243
	.025	.047	-.106	-.166	-.265	-.334	-.377	-.404	-.423	-.434	-.450	-.472	-.484	-.502	-.546
	.050	-.048	-.164	-.210	-.302	-.402	-.505	-.544	-.564	-.572	-.585	-.602	-.612	-.619	-.643
	.100	-.084	-.164	-.195	-.253	-.320	-.437	-.488	-.513	-.523	-.542	-.568	-.588	-.595	-.611
	.200	-.128	-.185	-.205	-.246	-.305	-.416	-.488	-.521	-.538	-.557	-.579	-.592	-.602	-.620
	.300	-.171	-.214	-.226	-.252	-.262	-.395	-.513	-.550	-.562	-.577	-.595	-.608	-.618	-.642
	.400	-.183	-.215	-.223	-.239	-.248	-.190	-.313	-.550	-.581	-.603	-.625	-.636	-.644	-.667
	.500	-.230	-.257	-.264	-.283	-.299	-.291	-.200	-.382	-.529	-.578	-.623	-.648	-.660	-.682
	.600	-.197	-.220	-.226	-.243	-.264	-.292	-.251	-.151	-.276	-.461	-.514	-.550	-.578	-.623
	.700	-.209	-.226	-.228	-.237	-.242	-.265	-.281	-.217	-.149	-.192	-.450	-.530	-.532	-.531
	.800	-.152	-.159	-.156	-.153	-.149	-.148	-.142	-.131	-.097	-.058	-.064	-.109	-.128	-.161
	.900	-.059	-.057	-.050	-.045	-.036	-.031	-.026	-.015	.003	.033	.052	.040	.012	-.045
	.950	.027	.030	.036	.044	.050	.055	.061	.069	.083	.104	.117	.102	.070	.013
Lower surface	.0375	-.276	-.154	-.102	-.027	.036	.107	.158	.204	.240	.278	.317	.345	.378	.405
	.075	-.298	-.206	-.166	-.107	-.056	.004	.026	.088	.120	.154	.189	.213	.246	.270
	.150	-.240	-.189	-.164	-.125	-.090	-.048	-.016	.017	.043	.071	.101	.121	.148	.167
	.250	-.213	-.187	-.170	-.146	-.123	-.095	-.049	-.047	-.025	-.002	.023	.038	.062	.078
	.350	-.223	-.209	-.198	-.184	-.169	-.151	-.134	-.115	-.095	-.077	-.056	-.042	-.021	-.008
	.450	-.240	-.236	-.228	-.221	-.214	-.206	-.196	-.183	-.168	-.153	-.136	-.126	-.106	-.097
	.550	-.224	-.225	-.223	-.221	-.219	-.219	-.216	-.209	-.197	-.187	-.173	-.166	-.149	-.143
	.650	-.213	-.220	-.218	-.221	-.225	-.233	-.233	-.240	-.234	-.228	-.217	-.211	-.198	-.191
	.750	-.158	-.169	-.168	-.171	-.178	-.188	-.190	-.199	-.211	-.235	-.257	-.273	-.267	-.270
	.850	-.074	-.084	-.083	-.086	-.093	-.100	-.101	-.100	-.101	-.109	-.133	-.197	-.285	-.319
	.925	.054	.047	.049	.048	.045	.039	.042	.047	.051	.048	.031	.004	-.028	-.144
	[a].975	.158	.146	.141	.137	.147	.144	.155	.162	.174	.141	.140	.109	.083	.004
	[a]1.000	.192	.165	.157	.153	.162	.167	.174	.182	.193	.187	.192	.153	.120	.060

[a]No orifice.

TABLE 9.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 40^\circ$, B = 2 - Continued

(f) M = 0.60.

	J	2.462	2.426	2.395	2.372	2.339	2.322	2.289	2.261	2.232	2.211	2.191	2.167	2.135	2.119	2.093
	M_x	.921	.926	.933	.938	.948	.957	.960	.968	.975	.981	.991	.996	1.000	1.010	1.014
	α_r'	-1.05	-.63	-.27	.01	.40	.61	1.01	1.35	1.71	1.98	2.23	2.53	2.94	3.15	3.49
	$\Delta\beta$	.04	.08	.14	.21	.40	.53	.77	.95	1.13	1.23	1.29	1.34	1.38	1.40	1.42
	a_1	-.19	-.01	.17	.35	.52	.62	.74	.93	1.01	1.18	1.38	1.53	1.72	1.83	1.96
	c_n	-.0423	-.0023	.0377	.0787	.1168	.1374	.1645	.2077	.2261	.2639	.3077	.3400	.3835	.4077	.4377
	c_m	-.0247	-.0186	-.0130	-.0116	-.0094	-.0062	-.0012	-.0077	0	-.0007	-.0098	-.0179	-.0291	-.0406	-.0496
	c_c	.0088	.0095	.0100	.0104	.0110	.0122	.0145	.0152	.0167	.0185	.0206	.0227	.0247	.0264	.0272
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.230	1.233	1.237	1.239	1.245	1.250	1.252	1.256	1.260	1.264	1.270	1.273	1.275	1.281	1.283
	.025	.105	.013	-.069	-.126	-.176	-.194	-.208	-.224	-.244	-.279	-.290	-.293	-.316	-.317	-.324
	.050	-.004	-.079	-.145	-.199	-.262	-.304	-.335	-.366	-.390	-.421	-.427	-.428	-.446	-.445	-.449
	.100	-.057	-.107	-.147	-.177	-.218	-.251	-.292	-.326	-.353	-.385	-.394	-.396	-.415	-.417	-.428
	.200	-.130	-.174	-.207	-.235	-.265	-.291	-.322	-.354	-.384	-.418	-.429	-.433	-.452	-.451	-.454
	.300	-.213	-.248	-.267	-.295	-.323	-.347	-.370	-.403	-.428	-.455	-.461	-.463	-.479	-.476	-.480
	.400	-.211	-.254	-.301	-.320	-.346	-.363	-.383	-.422	-.460	-.489	-.497	-.500	-.518	-.515	-.517
	.500	-.268	-.265	-.279	-.310	-.369	-.396	-.412	-.421	-.452	-.495	-.515	-.523	-.544	-.542	-.543
	.600	-.274	-.277	-.276	-.289	-.310	-.336	-.362	-.389	-.427	-.457	-.478	-.489	-.519	-.520	-.527
	.700	-.349	-.356	-.346	-.348	-.360	-.378	-.399	-.417	-.439	-.453	-.465	-.472	-.497	-.497	-.500
	.800	-.345	-.381	-.381	-.381	-.389	-.402	-.422	-.437	-.460	-.475	-.483	-.484	-.501	-.497	-.493
	.900	-.032	-.027	-.025	-.023	-.034	-.045	-.084	-.092	-.113	-.139	-.252	-.377	-.492	-.535	-.536
	.950	.067	.077	.090	.098	.105	.107	.093	.074	.044	.014	-.052	-.123	-.214	-.362	-.473
Lower surface	.0375	-.247	-.163	-.074	-.015	.056	.100	.139	.192	.242	.286	.320	.346	.385	.409	.437
	.075	-.365	-.272	-.170	-.111	-.044	-.005	.034	.083	.127	.166	.197	.221	.256	.280	.305
	.150	-.273	-.214	-.163	-.126	-.076	-.046	-.016	.023	.058	.089	.116	.137	.165	.186	.209
	.250	-.293	-.238	-.188	-.156	-.117	-.093	-.068	-.036	-.008	.019	.040	.058	.083	.101	.121
	.350	-.279	-.241	-.212	-.195	-.167	-.149	-.131	-.106	-.082	-.059	-.040	-.025	-.003	.016	.033
	.450	-.306	-.296	-.276	-.261	-.236	-.221	-.207	-.184	-.164	-.143	-.126	-.111	-.094	-.076	-.058
	.550	-.298	-.312	-.298	-.286	-.266	-.255	-.243	-.220	-.202	-.181	-.166	-.154	-.136	-.119	-.101
	.650	-.289	-.314	-.310	-.304	-.291	-.283	-.276	-.258	-.245	-.231	-.218	-.206	-.193	-.178	-.162
	.750	-.219	-.263	-.331	-.351	-.351	-.347	-.342	-.327	-.316	-.301	-.291	-.280	-.268	-.253	-.238
	.850	-.061	-.062	-.059	-.064	-.126	-.255	-.365	-.370	-.362	-.348	-.339	-.331	-.322	-.308	-.293
	.925	.081	.081	.086	.087	.083	.075	-.040	-.042	-.276	-.397	-.407	-.401	-.394	-.381	-.368
	[a].975	.136	.124	.136	.144	.152	.153	.120	.109	.014	-.150	-.216	-.357	-.395	-.429	-.435
	[a]1.000	.141	.131	.147	.155	.165	.166	.155	.140	.119	.085	.024	-.049	-.142	-.295	-.406

[a]No orifice.

TABLE 9.— PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.80 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2°$, $\beta_x = 40°$, B = 2 - Concluded

(g) M = 0.65.

J		2.465	2.437	2.412	2.389	2.366	2.337	2.315	2.288	2.265	2.232	2.217	2.197	2.172	2.146	2.126
M_x		.991	.997	1.003	1.009	1.018	1.023	1.029	1.037	1.043	1.049	1.057	1.067	1.074	1.077	1.083
α_x'		-1.08	-.76	-.47	-.20	.08	.42	.69	1.02	1.30	1.71	1.90	2.15	2.47	2.80	3.06
$\Delta\beta$		.11	.18	.27	.35	.46	.59	.69	.81	.88	.95	.98	1.01	1.04	1.08	1.09
α_i		-.47	-.26	-.11	.10	.21	.42	.57	.78	.91	1.03	1.15	1.24	1.36	1.45	1.52
c_n		-.1055	-.0571	-.0235	.0219	.0474	.0945	.1277	.1742	.2023	.2303	.2555	.2765	.3039	.3219	.3394
c_m		.0059	.0060	.0047	.0018	-.0031	-.0060	-.0096	-.0155	-.0193	-.0236	-.0262	-.0294	-.0342	-.0386	-.0406
c_c		.0232	.0252	.0264	.0272	.0272	.0272	.0273	.0278	.0278	.0281	.0284	.0283	.0284	.0288	.0285
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.269	1.272	1.276	1.280	1.286	1.290	1.293	1.298	1.302	1.305	1.311	1.317	1.322	1.325	1.328
	.025	.255	.195	.151	.101	.074	.039	.022	.005	.001	-.011	-.013	-.024	-.039	-.053	-.060
	.050	.146	.098	.058	.015	-.008	-.059	-.092	-.128	-.140	-.158	-.161	-.171	-.183	-.192	-.196
	.100	.097	.067	.046	.018	.004	-.028	-.059	-.102	-.115	-.133	-.137	-.147	-.160	-.169	-.172
	.200	.012	-.011	-.030	-.053	-.068	-.093	-.113	-.147	-.159	-.177	-.182	-.193	-.206	-.215	-.218
	.300	-.065	-.087	-.105	-.123	-.133	-.154	-.175	-.216	-.228	-.240	-.243	-.239	-.246	-.251	-.252
	.400	-.116	-.129	-.148	-.166	-.172	-.193	-.212	-.243	-.256	-.274	-.276	-.282	-.294	-.300	-.300
	.500	-.161	-.181	-.196	-.210	-.213	-.226	-.238	-.262	-.271	-.289	-.296	-.307	-.320	-.326	-.327
	.600	-.161	-.171	-.183	-.198	-.204	-.223	-.246	-.272	-.276	-.287	-.288	-.295	-.309	-.319	-.320
	.700	-.224	-.228	-.235	-.243	-.243	-.252	-.262	-.286	-.297	-.313	-.316	-.322	-.336	-.341	-.341
	.800	-.270	-.271	-.274	-.280	-.277	-.284	-.289	-.307	-.313	-.325	-.325	-.324	-.328	-.329	-.324
	.900	-.336	-.336	-.339	-.343	-.336	-.342	-.343	-.359	-.362	-.371	-.371	-.370	-.372	-.373	-.367
	.950	-.195	-.323	-.387	-.409	-.408	-.409	-.411	-.424	-.424	-.433	-.432	-.430	-.432	-.431	-.425
Lower surface	.0375	-.044	.010	.058	.108	.150	.204	.242	.290	.325	.357	.388	.418	.449	.479	.499
	.075	-.159	-.114	-.072	-.014	.036	.095	.133	.179	.213	.243	.272	.299	.329	.357	.376
	.150	-.107	-.059	-.020	.014	.039	.071	.098	.131	.158	.182	.207	.231	.252	.276	.293
	.250	-.167	-.120	-.084	-.048	-.018	.014	.037	.066	.089	.109	.131	.150	.172	.195	.212
	.350	-.191	-.150	-.122	-.087	-.060	-.030	-.010	.012	.032	.048	.066	.083	.100	.120	.134
	.450	-.232	-.196	-.171	-.146	-.125	-.103	-.088	-.070	-.051	-.037	-.019	-.004	.013	.031	.047
	.550	-.249	-.225	-.209	-.186	-.167	-.148	-.134	-.117	-.099	-.087	-.070	-.053	-.037	-.021	-.005
	.650	-.275	-.256	-.241	-.221	-.203	-.186	-.173	-.160	-.144	-.133	-.118	-.103	-.089	-.073	-.058
	.750	-.319	-.303	-.292	-.276	-.260	-.244	-.232	-.222	-.209	-.201	-.188	-.172	-.157	-.143	-.128
	.850	-.355	-.342	-.332	-.318	-.301	-.287	-.276	-.270	-.256	-.248	-.235	-.221	-.206	-.193	-.180
	.950	-.200	-.349	-.385	-.378	-.363	-.349	-.339	-.332	-.321	-.315	-.303	-.290	-.278	-.268	-.255
	[a].975	-.167	-.282	-.395	-.430	-.415	-.407	-.402	-.408	-.386	-.390	-.382	-.360	-.353	-.375	-.346
	[a]1.000	-.148	-.270	-.345	-.410	-.455	-.439	-.447	-.487	-.435	-.460	-.453	-.440	-.426	-.437	-.430

[a] No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.90)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 2

(a) N = 1140 rpm.

	J	2.482	2.396	2.326	2.231	2.154	2.081	2.007	1.927	1.957	2.030	2.122	2.194	2.304	2.373	2.449
	M_x	.677	.666	.656	.646	.639	.633	.625	.614	.618	.624	.635	.643	.656	.662	.668
	α_x'	-.90	.09	.92	2.07	3.03	3.96	4.93	6.00	5.60	4.63	3.44	2.53	1.18	.36	-.52
	$\Delta\beta$	-.10	.06	.19	.36	.42	.64	.75	.85	.82	.72	.57	.44	.23	.10	-.04
	α_i	-.21	.11	.37	.79	1.10	1.47	1.91	2.38	2.20	1.79	1.30	.94	.51	.26	-.09
	c_n	-.0335	.0168	.0606	.1268	.1761	.2348	.3071	.3832	.3548	.2871	.2090	.1516	.0806	.0419	-.0148
	c_m	-.0094	.0005	.0062	.0104	.0092	.0074	.0111	.0146	.0123	.0101	.0072	.0100	.0088	.0029	-.0054
	c_c															
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.120	1.116	1.112	1.108	1.106	1.104	1.101	1.097	1.099	1.100	1.105	1.108	1.112	1.114	1.117
	.025	.009	-.180	-.382	-.673	-.806	-1.007	-1.567	-1.627	-1.594	-1.572	-.865	-.768	-.468	-.279	-.067
	.050	-.023	-.127	-.230	-.383	-.496	-.595	-.850	-1.273	-1.232	-.732	-.569	-.456	-.286	-.191	-.079
	.100	-.056	-.118	-.173	-.267	-.332	-.404	-.489	-.794	-.632	-.457	-.373	-.300	-.199	-.151	-.084
	.200	-.083	-.119	-.151	-.203	-.243	-.282	-.322	-.385	-.339	-.312	-.264	-.222	-.164	-.138	-.100
	.300	-.098	-.124	-.143	-.177	-.207	-.237	-.263	-.295	-.277	-.256	-.221	-.190	-.152	-.135	-.110
	.400	-.089	-.107	-.121	-.148	-.167	-.190	-.215	-.239	-.225	-.207	-.181	-.156	-.126	-.115	-.097
	.500	-.107	-.121	-.129	-.148	-.166	-.184	-.202	-.220	-.212	-.197	-.176	-.156	-.133	-.126	-.113
	.600	-.119	-.127	-.132	-.147	-.161	-.174	-.188	-.203	-.194	-.183	-.168	-.154	-.133	-.132	-.122
	.700	-.116	-.121	-.123	-.131	-.144	-.154	-.164	-.177	-.172	-.163	-.150	-.134	-.120	-.123	-.117
	.800	-.107	-.105	-.104	-.110	-.118	-.125	-.133	-.142	-.139	-.132	-.122	-.112	-.101	-.107	-.106
	.900	-.059	-.050	-.041	-.044	-.049	-.055	-.062	-.075	-.070	-.058	-.056	-.044	-.038	-.048	-.054
	.950	.020	.030	.039	.037	.031	.024	.013	-.007	.002	.017	.027	.036	.043	.033	.025
Lower surface	.0375	-.199	-.084	.029	.164	.246	.331	.406	.461	.436	.387	.289	.208	.076	-.026	-.149
	.075	-.179	-.102	-.024	.070	.131	.198	.260	.305	.285	.240	.163	.104	.010	-.063	-.146
	.150	-.146	-.102	-.052	.009	.049	.097	.139	.173	.157	.125	.072	.031	-.028	-.077	-.128
	.250	-.134	-.109	-.074	-.033	-.005	.029	.061	.085	.073	.050	.009	-.018	-.058	-.091	-.123
	.350	-.132	-.115	-.088	-.060	-.039	-.013	.011	.029	.023	.003	-.027	-.047	-.076	-.105	-.123
	.450	-.131	-.118	-.098	-.078	-.062	-.040	-.021	-.007	-.012	-.026	-.052	-.066	-.088	-.110	-.125
	.550	-.131	-.122	-.107	-.090	-.079	-.058	-.045	-.035	-.039	-.051	-.072	-.083	-.098	-.116	-.128
	.650	-.119	-.118	-.106	-.094	-.084	-.070	-.057	-.050	-.053	-.061	-.079	-.086	-.098	-.112	-.119
	.750	-.095	-.112	-.104	-.095	-.089	-.078	-.067	-.064	-.065	-.071	-.085	-.089	-.098	-.110	-.097
	.850	-.056	-.084	-.082	-.078	-.074	-.067	-.059	-.057	-.058	-.061	-.069	-.070	-.076	-.085	-.074
	.925	.008	-.002	-.023	-.039	-.036	-.026	-.021	-.021	-.019	-.024	-.032	-.035	-.031	-.009	.001
	[a].975	.066	.076	.037	0	.023	.030	.024	.020	.022	.030	.022	.010	.008	.065	.081
	[a]1.000	.100	.126	.100	.085	.070	.063	.053	.040	.048	.060	.068	.080	.090	.112	.125

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95) $\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 2 - Continued

(b) N = 1350 rpm.

	J	1.834	1.918	2.023	2.137	2.245	2.362	2.455	2.397	2.314	2.201	2.096	1.974	1.883
	M_x	.711	.723	.733	.747	.760	.778	.790	.782	.772	.753	.741	.727	.718
	α_x	7.28	6.12	4.72	3.25	1.90	.49	-.59	.08	1.06	2.44	3.77	5.37	6.60
	$\Delta\beta$	1.38	1.30	.99	.73	.49	.22	-.01	.14	.33	.59	.82	1.14	1.37
	α_i	2.98	2.61	2.06	1.54	.96	.39	.11	.18	.61	1.09	1.72	2.36	2.79
	c_n	.4787	.4194	.3323	.2471	.1548	.0629	-.0184	.0284	.0987	.1748	.2742	.3787	.4475
	c_m	.0166	.0177	.0154	.0090	.0048	-.0015	-.0094	-.0035	.0020	.0062	.0139	.0188	.0180
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.132	1.138	1.142	1.148	1.153	1.161	1.166	1.163	1.158	1.150	1.145	1.140	1.136
	.025	-1.598	-1.866	-1.634	-1.247	-.811	-.368	-.036	-.216	-.523	-.855	-1.377	-1.746	-1.954
	.050	-1.430	-1.766	-1.581	-1.203	-.440	-.267	-.083	-.188	-.337	-.497	-1.351	-1.690	-1.824
	.100	-1.072	-.989	-.546	-.345	-.299	-.188	-.085	-.144	-.221	-.324	-.343	-.784	-.953
	.200	-.637	-.313	-.295	-.282	-.228	-.165	-.111	-.144	-.186	-.243	-.288	-.295	-.368
	.300	-.404	-.298	-.268	-.239	-.199	-.159	-.122	-.144	-.171	-.210	-.249	-.277	-.317
	.400	-.299	-.257	-.227	-.201	-.168	-.139	-.111	-.126	-.145	-.175	-.208	-.237	-.271
	.500	-.255	-.245	-.218	-.194	-.168	-.147	-.130	-.140	-.150	-.173	-.201	-.226	-.248
	.600	-.228	-.229	-.210	-.191	-.172	-.157	-.146	-.153	-.158	-.173	-.195	-.215	-.231
	.700	-.199	-.201	-.187	-.172	-.158	-.149	-.142	-.145	-.148	-.158	-.175	-.190	-.202
	.800	-.158	-.161	-.147	-.138	-.128	-.125	-.126	-.126	-.123	-.128	-.139	-.150	-.159
	.900	-.088	-.080	-.067	-.060	-.058	-.062	-.070	-.065	-.057	-.056	-.061	-.070	-.081
	.950	-.023	-.001	.019	.027	.028	.027	.023	.026	.030	.032	.027	.012	-.006
Lower surface	.0375	.543	.496	.414	.311	.172	.006	-.178	-.069	.072	.220	.347	.458	.521
	.075	.376	.335	.264	.180	.071	-.049	-.177	-.101	-.001	.110	.210	.302	.358
	.150	.229	.196	.142	.079	.004	-.075	-.148	-.106	-.041	.031	.101	.171	.213
	.250	.121	.096	.056	.010	-.044	-.099	-.145	-.119	-.076	-.025	.027	.079	.111
	.350	.055	.034	.004	-.031	-.070	-.109	-.142	-.124	-.093	-.057	-.018	.023	.047
	.450	.008	-.006	-.031	-.059	-.091	-.120	-.143	-.130	-.107	-.078	-.048	-.015	.004
	.550	-.026	-.038	-.056	-.079	-.105	-.126	-.145	-.134	-.116	-.094	-.069	-.044	-.029
	.650	-.047	-.055	-.069	-.088	-.108	-.124	-.136	-.129	-.116	-.099	-.079	-.059	-.047
	.750	-.068	-.073	-.083	-.081	-.096	-.106	-.112	-.109	-.102	-.088	-.087	-.073	-.068
	.850	-.068	-.066	-.069	-.075	-.075	-.076	-.073	-.075	-.075	-.074	-.072	-.063	-.062
	.925	-.030	-.027	-.031	-.010	-.001	.006	.018	.011	.005	-.003	-.024	-.025	-.024
	[a].975	.007	.016	.018	.047	.077	.101	.114	.106	.093	.060	.030	.020	.010
	[a]1.000	.027	.040	.060	.080	.127	.163	.177	.163	.147	.100	.060	.048	.030

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.840	1.935	2.049	2.139	2.237	2.350	2.467	2.412	2.309	2.203	2.118	2.006	1.906
	M_x	.799	.809	.823	.834	.852	.865	.884	.873	.858	.839	.828	.812	.799
	α_x'	7.20	5.89	4.38	3.22	2.00	.63	-.73	-.09	1.12	2.42	3.49	4.94	6.29
	$\Delta\beta$	1.93	1.94	1.49	1.18	.83	.41	-.03	.18	.57	.95	1.25	1.64	1.96
	α_i	3.43	3.21	2.42	1.68	1.12	.57	-.16	.20	.74	1.32	1.80	2.59	3.38
	c_n	.5516	.5174	.3884	.2710	.1813	.0916	-.0258	.0323	.1197	.2129	.2890	.4174	.5445
	c_m	.0221	.0213	.0172	.0123	.0079	.0011	-.0131	-.0055	.0043	.0090	.0120	.0177	.0210
	c_c													
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.170	1.175	1.181	1.186	1.194	1.201	1.211	1.205	1.197	1.188	1.183	1.176	1.170
	.025	-1.526	-1.390	-1.128	-.848	-.594	-.382	.030	-.158	-.475	-.633	-.941	-1.224	-1.462
	.050	-1.495	-1.381	-1.163	-.937	-.745	-.370	-.053	-.175	-.547	-.824	-1.020	-1.250	-1.447
	.100	-1.377	-1.271	-1.060	-.866	-.613	-.221	-.077	-.146	-.222	-.714	-.914	-1.139	-1.329
	.200	-1.149	-1.156	-.782	-.268	-.207	-.195	-.125	-.160	-.214	-.195	-.282	-.806	-1.206
	.300	-.299	-.284	-.172	-.179	-.206	-.178	-.138	-.155	-.192	-.204	-.178	-.170	-.276
	.400	-.156	-.144	-.160	-.179	-.180	-.156	-.131	-.140	-.166	-.182	-.178	-.161	-.153
	.500	-.205	-.187	-.187	-.192	-.186	-.166	-.154	-.158	-.173	-.187	-.192	-.191	-.196
	.600	-.221	-.209	-.203	-.202	-.194	-.179	-.180	-.179	-.184	-.194	-.201	-.208	-.214
	.700	-.214	-.198	-.189	-.183	-.175	-.166	-.173	-.168	-.169	-.175	-.182	-.191	-.202
	.800	-.177	-.163	-.153	-.146	-.139	-.133	-.149	-.140	-.135	-.138	-.147	-.156	-.166
	.900	-.091	-.077	-.065	-.056	-.050	-.047	-.070	-.058	-.048	-.050	-.057	-.068	-.080
	.950	.003	.021	.033	.041	.048	.055	.041	.049	.051	.046	.042	.031	.017
Lower surface	.0375	.563	.510	.415	.325	.201	.061	-.199	-.073	.109	.246	.351	.451	.536
	.075	.399	.353	.270	.193	.092	-.019	-.246	-.122	.020	.129	.216	.299	.374
	.150	.249	.212	.147	.088	.015	-.060	-.183	-.124	-.036	.041	.105	.171	.229
	.250	.136	.108	.057	.011	-.044	-.094	-.175	-.138	-.080	-.024	.025	.076	.120
	.350	.062	.043	.002	-.034	-.076	-.114	-.172	-.144	-.102	-.059	-.021	.018	.054
	.450	.015	0	-.032	-.064	-.100	-.128	-.173	-.150	-.119	-.085	-.053	-.020	.008
	.550	-.021	-.031	-.057	-.086	-.117	-.139	-.175	-.155	-.132	-.104	-.076	-.047	-.022
	.650	-.044	-.049	-.071	-.094	-.119	-.133	-.159	-.146	-.130	-.108	-.087	-.064	-.045
	.750	-.051	-.052	-.067	-.087	-.107	-.115	-.130	-.123	-.115	-.098	-.080	-.062	-.048
	.850	-.064	-.057	-.064	-.073	-.080	-.076	-.071	-.074	-.081	-.075	-.068	-.061	-.056
	.925	-.010	.004	.008	.008	.010	.023	.039	.031	.015	.010	.009	.007	.002
	[a].975	.053	.078	.092	.114	.123	.140	.157	.147	.132	.115	.103	.092	.068
	[a]1.000	.100	.130	.158	.180	.197	.216	.232	.220	.210	.190	.170	.152	.114

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 2 - Continued

(d) N = 1600 rpm.

	J	1.989	2.075	2.172	2.282	2.381	2.467	2.433	2.329	2.231	2.133	2.040
	M_x	.875	.888	.902	.917	.933	.947	.939	.921	.903	.888	.874
	α_x,	5.17	4.04	2.80	1.45	.27	-.73	-.34	.88	2.07	3.30	4.50
	$\Delta\beta$	1.98	1.65	1.26	.80	.32	-.16	.04	.57	1.02	1.42	1.79
	α_i	2.99	2.54	1.72	1.07	.47	-.13	.16	.70	1.29	2.03	2.76
	c_n	.4813	.4110	.2765	.1719	.0768	-.0213	.0265	.1126	.2087	.3277	.4439
	c_m	.0157	.0169	.0179	.0095	-.0035	-.0198	-.0121	.0020	.0107	.0161	.0159
	c_c					.0075	.0091	.0092				
	c/b	Pressure coefficient, P										
Upper surface	[a]0.000	1.206	1.213	1.220	1.228	1.237	1.244	1.240	1.230	1.221	1.213	1.205
	.025	-.985	-.825	-.507	-.381	-.178	.071	-.039	-.279	-.453	-.673	-.934
	.050	-1.024	-.909	-.709	-.523	-.231	-.017	-.103	-.395	-.611	-.787	-.991
	.100	-.940	-.840	-.652	-.471	-.179	-.051	-.103	-.313	-.547	-.736	-.914
	.200	-.891	-.807	-.635	-.417	-.267	-.163	-.209	-.304	-.509	-.718	-.878
	.300	-.736	-.721	-.551	-.400	-.201	-.161	-.162	-.177	-.426	-.611	-.776
	.400	-.580	-.508	-.315	-.122	-.171	-.160	-.169	-.172	-.123	-.291	-.444
	.500	-.237	-.171	-.127	-.168	-.172	-.170	-.168	-.191	-.162	-.128	-.144
	.600	-.131	-.140	-.165	-.235	-.242	-.224	-.232	-.258	-.220	-.162	-.147
	.700	-.140	-.151	-.175	-.226	-.288	-.280	-.283	-.266	-.202	-.168	-.158
	.800	-.126	-.132	-.140	-.149	-.186	-.317	-.282	-.151	-.153	-.139	-.139
	.900	-.041	-.041	-.037	-.036	-.026	-.037	-.023	-.039	-.043	-.038	-.047
	.950	.059	.061	.068	.072	.083	.089	.087	.072	.063	.057	.057
Lower surface	.0375	.480	.412	.305	.178	.025	-.116	-.065	.086	.222	.355	.447
	.075	.329	.269	.177	.070	-.064	-.260	-.169	-.008	.106	.219	.300
	.150	.194	.145	.072	-.008	-.101	-.238	-.168	-.064	.019	.104	.170
	.250	.089	.046	-.012	-.074	-.139	-.225	-.176	-.115	-.055	.015	.067
	.350	.016	-.020	-.070	-.121	-.170	-.208	-.186	-.148	-.102	-.044	0
	.450	-.027	-.059	-.099	-.139	-.172	-.194	-.193	-.161	-.123	-.078	-.041
	.550	-.062	-.090	-.125	-.160	-.180	-.208	-.197	-.180	-.144	-.103	-.070
	.650	-.072	-.094	-.123	-.157	-.192	-.230	-.213	-.174	-.143	-.107	-.079
	.750	-.068	-.087	-.112	-.141	-.161	-.230	-.186	-.158	-.132	-.097	-.074
	.850	-.062	-.072	-.084	-.092	-.084	-.071	-.081	-.095	-.093	-.081	-.064
	.925	.016	.016	.019	.025	.044	.060	.051	.029	.017	.015	.018
	[a].975	.092	.098	.108	.124	.134	.138	.123	.123	.110	.117	.099
	[a]1.000	.109	.121	.137	.163	.165	.171	.158	.163	.144	.138	.116

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 2 - Continued

(e) M = 0.56.

	J	2.105	2.123	2.149	2.181	2.212	2.241	2.271	2.302	2.322	2.356	2.387	2.423	2.450
	M_x	.973	.964	.956	.950	.944	.936	.928	.921	.912	.905	.898	.893	.884
	α_x	3.65	3.42	3.09	2.69	2.31	1.95	1.58	1.21	.97	.56	.20	-.22	-.53
	$\Delta\beta$	1.64	1.60	1.53	1.42	1.31	1.18	1.03	.87	.75	.53	.36	.24	.19
	α_i	2.29	2.28	2.14	1.94	1.69	1.37	1.13	.90	.74	.49	.34	.10	-.06
	c_n	.3681	.3684	.3445	.3142	.2716	.2203	.1826	.1446	.1190	.0787	.0542	.0161	-.0097
	c_m	-.0093	-.0111	-.0104	-.0038	.0052	.0093	.0093	.0050	.0043	.0016	-.0020	-.0067	-.0086
	c_c	.0137	.0126	.0108	.0083	.0069	.0059	.0058						
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.259	1.254	1.249	1.246	1.242	1.238	1.234	1.230	1.225	1.221	1.218	1.215	1.210
	.025	-.403	-.388	-.378	-.385	-.386	-.371	-.364	-.338	-.322	-.266	-.198	-.105	-.009
	.050	-.567	-.581	-.574	-.561	-.546	-.517	-.503	-.464	-.426	-.297	-.210	-.139	-.075
	.100	-.532	-.543	-.531	-.515	-.499	-.470	-.451	-.405	-.334	-.213	-.172	-.130	-.092
	.200	-.549	-.558	-.543	-.522	-.496	-.450	-.420	-.362	-.302	-.229	-.182	-.158	-.133
	.300	-.493	-.520	-.505	-.484	-.467	-.446	-.428	-.303	-.193	-.191	-.176	-.160	-.145
	.400	-.418	-.425	-.411	-.395	-.375	-.342	-.285	-.136	-.178	-.174	-.159	-.146	-.135
	.500	-.385	-.394	-.380	-.362	-.340	-.312	-.154	-.180	-.196	-.189	-.176	-.165	-.157
	.600	-.379	-.400	-.391	-.380	-.366	-.235	-.211	-.251	-.242	-.224	-.204	-.192	-.185
	.700	-.424	-.433	-.428	-.417	-.356	-.191	-.250	-.261	-.207	-.197	-.186	-.178	-.175
	.800	-.460	-.472	-.451	-.247	-.108	-.146	-.151	-.147	-.149	-.152	-.148	-.146	-.147
	.900	-.092	-.056	-.014	.023	.009	-.018	-.028	-.034	-.043	-.049	-.053	-.056	-.066
	.950	.024	.039	.074	.104	.099	.086	.078	.075	.066	.061	.056	.053	.043
Lower surface	.0375	.410	.386	.350	.316	.279	.226	.190	.140	.088	.023	-.034	-.095	-.177
	.075	.283	.258	.228	.197	.165	.118	.084	.042	0	-.055	-.099	-.148	-.214
	.150	.166	.145	.120	.094	.067	.029	0	-.028	-.057	-.091	-.115	-.140	-.173
	.250	.062	.045	.022	-.001	-.021	-.051	-.071	-.092	-.107	-.128	-.139	-.152	-.169
	.350	-.013	-.030	-.049	-.067	-.083	-.108	-.121	-.130	-.135	-.147	-.152	-.158	-.168
	.450	-.071	-.085	-.100	-.112	-.124	-.142	-.150	-.149	-.153	-.160	-.161	-.164	-.172
	.550	-.101	-.115	-.128	-.140	-.150	-.165	-.172	-.169	-.171	-.174	-.172	-.171	-.176
	.650	-.140	-.153	-.161	-.167	-.173	-.183	-.169	-.169	-.165	-.165	-.160	-.158	-.161
	.750	-.183	-.197	-.204	-.204	-.200	-.180	-.159	-.155	-.146	-.144	-.138	-.135	-.138
	.850	-.261	-.270	-.224	-.156	-.122	-.098	-.099	-.096	-.090	-.086	-.081	-.075	-.076
	.925	-.228	-.135	-.040	.006	.022	.030	.028	.028	.028	.030	.033	.035	.034
	[a].975	-.036	.007	.082	.109	.132	.151	.147	.172	.162	.143	.144	.135	.131
	[a]1.000	.094	.098	.129	.160	.192	.211	.230	.251	.240	.220	.189	.175	.163

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 2 - Continued

(f) M = 0.60.

	J	2.478	2.438	2.407	2.378	2.355	2.329	2.307	2.276	2.244	2.217	2.199	2.163	2.125	2.103
	M_x	.947	.957	.961	.968	.978	.982	.992	.996	1.002	1.009	1.023	1.027	1.036	1.046
	α_x,	-.85	-.39	-.04	.30	.57	.88	1.15	1.52	1.91	2.24	2.47	2.92	3.40	3.68
	$\Delta\beta$	.02	.05	.09	.16	.27	.46	.64	.88	1.11	1.26	1.32	1.39	1.43	1.45
	α_i	-.25	-.04	.23	.40	.56	.72	.85	1.02	1.23	1.43	1.62	1.83	2.05	2.24
	c_n	-.0400	-.0068	.0365	.0639	.0900	.1155	.1355	.1645	.1977	.2303	.2616	.2948	.3303	.3587
	c_m	-.0207	-.0176	-.0119	-.0103	-.0097	-.0077	-.0023	-.0006	-.0025	-.0075	-.0182	-.0274	-.0325	-.0373
	c_c	.0092	.0096	.0099	.0110	.0124	.0136	.0151	.0169	.0189	.0203	.0214	.0223	.0229	.0231
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.244	1.250	1.252	1.256	1.262	1.264	1.270	1.272	1.276	1.280	1.288	1.292	1.297	1.304
	.025	.126	.043	-.029	-.067	-.102	-.128	-.146	-.170	-.190	-.204	-.202	-.208	-.211	-.204
	.050	.039	-.019	-.076	-.094	-.137	-.199	-.240	-.278	-.307	-.331	-.334	-.346	-.361	-.377
	.100	-.029	-.060	-.091	-.111	-.156	-.204	-.237	-.275	-.306	-.330	-.332	-.342	-.358	-.371
	.200	-.143	-.176	-.204	-.210	-.217	-.231	-.253	-.286	-.320	-.349	-.359	-.377	-.397	-.407
	.300	-.148	-.188	-.217	-.229	-.250	-.270	-.287	-.311	-.329	-.345	-.348	-.362	-.379	-.393
	.400	-.156	-.158	-.179	-.190	-.205	-.213	-.230	-.252	-.269	-.296	-.304	-.320	-.337	-.343
	.500	-.164	-.163	-.171	-.183	-.208	-.218	-.228	-.244	-.257	-.274	-.277	-.289	-.303	-.307
	.600	-.220	-.216	-.212	-.212	-.229	-.246	-.256	-.266	-.281	-.297	-.296	-.305	-.313	-.316
	.700	-.275	-.275	-.269	-.262	-.273	-.287	-.299	-.307	-.317	-.335	-.337	-.346	-.353	-.353
	.800	-.309	-.319	-.313	-.307	-.311	-.322	-.335	-.347	-.354	-.366	-.369	-.381	-.390	-.392
	.900	-.037	-.073	-.087	-.131	-.193	-.230	-.281	-.344	-.393	-.415	-.416	-.427	-.435	-.439
	.950	.088	.096	.098	.097	.085	.069	.044	.003	-.065	-.166	-.328	-.434	-.457	-.465
Lower surface	.0375	-.144	-.073	-.017	.030	.083	.132	.167	.216	.263	.298	.331	.366	.412	.451
	.075	-.293	-.205	-.122	-.069	-.012	.033	.066	.111	.153	.184	.215	.246	.288	.324
	.150	-.268	-.191	-.136	-.093	-.063	-.028	-.003	.032	.067	.091	.117	.143	.179	.211
	.250	-.251	-.196	-.164	-.138	-.111	-.088	-.070	-.041	-.014	.005	.027	.048	.078	.107
	.350	-.220	-.193	-.171	-.156	-.139	-.123	-.111	-.091	-.070	-.057	-.038	-.022	.003	.028
	.450	-.199	-.197	-.189	-.178	-.168	-.156	-.148	-.131	-.113	-.102	-.086	-.072	-.050	-.027
	.550	-.194	-.208	-.202	-.193	-.183	-.172	-.167	-.154	-.139	-.131	-.116	-.106	-.088	-.067
	.650	-.220	-.239	-.234	-.227	-.221	-.213	-.210	-.196	-.183	-.175	-.163	-.155	-.138	-.118
	.750	-.222	-.244	-.242	-.239	-.237	-.233	-.230	-.219	-.208	-.201	-.190	-.182	-.168	-.151
	.850	-.061	-.072	-.099	-.152	-.228	-.272	-.290	-.294	-.287	-.284	-.271	-.266	-.254	-.241
	.925	.069	.067	.063	.059	.025	-.038	-.171	-.294	-.318	-.318	-.308	-.303	-.290	-.275
	[a].975	.151	.174	.190	.197	.175	.135	.075	-.010	-.239	-.325	-.323	-.315	-.315	-.300
	[a]1.000	.188	.221	.250	.250	.227	.189	.152	.089	0	-.079	-.243	-.317	-.346	-.335

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2^\circ$, $\beta_x = 38.85^\circ$, B = 2 - Continued

(g) M = 0.65.

	J	2.450	2.434	2.418	2.393	2.370	2.341	2.314	2.281	2.275	2.253	2.231	2.210	2.198	2.156	2.147	2.118
	M_x	1.013	1.017	1.026	1.033	1.039	1.047	1.053	1.057	1.067	1.074	1.086	1.092	1.100	1.103	1.111	1.121
	α_x'	-.53	-.35	-.16	.27	.40	.74	1.06	1.46	1.53	1.80	2.07	2.33	2.49	3.01	3.12	3.49
	$\Delta\beta$	.13	.18	.23	.33	.39	.58	.73	.86	.88	.93	.98	1.02	1.04	1.08	1.10	1.12
	α_i	-.32	-.22	-.01	.19	.36	.56	.70	.88	1.01	1.14	1.26	1.38	1.48	1.66	1.74	1.87
	c_n	-.0523	-.0352	-.0010	.0306	.0584	.0913	.1132	.1406	.1632	.1829	.2045	.2226	.2377	.2661	.2794	.3006
	c_m	.0061	.0041	.0011	-.0003	-.0029	-.0042	-.0059	-.0072	-.0104	-.0123	-.0146	-.0173	-.0191	-.0229	-.0248	-.0285
	c_c	.0218	.0226	.0229	.0230	.0232	.0233	.0231	.0230	.0230	.0232	.0234	.0236	.0236	.0238	.0238	.0239
	c/b	Pressure coefficient, P															
Upper surface	[a]0.000	1.282	1.285	1.291	1.295	1.299	1.304	1.308	1.310	1.317	1.322	1.330	1.334	1.339	1.340	1.346	1.354
	.025	.137	.121	.071	.037	.006	-.008	-.019	-.037	-.042	-.047	-.050	-.054	-.054	-.068	-.070	-.072
	.050	.048	.053	.014	-.006	-.049	-.089	-.111	-.142	-.155	-.167	-.172	-.187	-.191	-.207	-.211	-.218
	.100	.017	.015	-.009	-.040	-.081	-.108	-.126	-.153	-.168	-.180	-.190	-.200	-.202	-.220	-.222	-.225
	.200	-.102	-.103	-.118	-.130	-.147	-.150	-.161	-.184	-.200	-.214	-.226	-.237	-.240	-.258	-.262	-.270
	.300	-.154	-.157	-.177	-.187	-.203	-.202	-.203	-.214	-.222	-.233	-.238	-.248	-.249	-.263	-.267	-.272
	.400	-.140	-.139	-.155	-.162	-.174	-.171	-.174	-.188	-.197	-.210	-.221	-.232	-.234	-.249	-.254	-.256
	.500	-.157	-.155	-.167	-.175	-.187	-.180	-.176	-.181	-.188	-.199	-.203	-.209	-.208	-.218	-.218	-.220
	.600	-.191	-.191	-.197	-.205	-.217	-.213	-.208	-.207	-.210	-.220	-.225	-.232	-.228	-.234	-.233	-.231
	.700	-.242	-.242	-.245	-.250	-.262	-.257	-.253	-.251	-.249	-.259	-.267	-.269	-.268	-.274	-.273	-.270
	.800	-.289	-.290	-.290	-.292	-.302	-.297	-.292	-.291	-.287	-.295	-.298	-.304	-.303	-.309	-.308	-.305
	.900	-.344	-.344	-.344	-.342	-.352	-.346	-.342	-.342	-.339	-.345	-.344	-.349	-.346	-.351	-.351	-.349
	.950	-.299	-.354	-.374	-.374	-.382	-.377	-.373	-.371	-.367	-.373	-.372	-.375	-.373	-.382	-.376	-.374
Lower surface	.0375	-.010	.017	.062	.102	.130	.178	.212	.253	.290	.309	.345	.371	.392	.427	.446	.483
	.075	-.157	-.128	-.074	-.026	.015	.071	.107	.147	.180	.197	.231	.255	.275	.307	.324	.359
	.150	-.163	-.138	-.091	-.055	-.029	.011	.039	.069	.097	.111	.137	.159	.178	.204	.219	.250
	.250	-.185	-.161	-.126	-.103	-.086	-.051	-.026	-.002	.021	.033	.056	.073	.089	.110	.124	.150
	.350	-.201	-.186	-.162	-.144	-.129	-.096	-.074	-.054	-.035	-.026	-.006	.009	.023	.040	.053	.078
	.450	-.216	-.201	-.182	-.166	-.156	-.129	-.111	-.094	-.077	-.072	-.055	-.043	-.030	-.016	-.004	.019
	.550	-.214	-.205	-.192	-.182	-.177	-.154	-.138	-.124	-.111	-.107	-.093	-.083	-.072	-.057	-.047	-.026
	.650	-.238	-.232	-.224	-.215	-.215	-.194	-.180	-.167	-.152	-.151	-.140	-.131	-.121	-.109	-.098	-.079
	.750	-.261	-.259	-.249	-.241	-.240	-.221	-.206	-.191	-.178	-.177	-.165	-.157	-.148	-.137	-.127	-.110
	.850	-.338	-.333	-.327	-.317	-.316	-.300	-.286	-.272	-.256	-.253	-.244	-.237	-.230	-.221	-.211	-.196
	.925	-.361	-.362	-.356	-.348	-.346	-.329	-.314	-.300	-.287	-.286	-.276	-.270	-.262	-.252	-.243	-.226
	[a].975	-.370	-.374	-.373	-.365	-.365	-.340	-.325	-.313	-.300	-.300	-.290	-.289	-.275	-.265	-.253	-.240
	[a]1.000	-.245	-.275	-.321	-.326	-.373	-.345	-.328	-.317	-.305	-.305	-.296	-.296	-.280	-.270	-.255	-.248

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 1 - Continued

(h) One-blade propeller; N = 1500 rpm.

	J	2.234	2.169	2.118	2.067	2.014	1.971	1.920	1.849
	M_x	.819	.811	.802	.792	.785	.782	.774	.767
	α_x'	2.03	2.84	3.49	4.14	4.84	5.41	6.10	7.07
	$\Delta\beta$	.84	1.08	1.26	1.43	1.61	1.78	1.96	1.94
	α_1	.92	1.26	1.65	1.84	2.12	2.27	2.54	2.72
	c_n	.1755	.2394	.3110	.3445	.3981	.4245	.4742	.5148
	c_m	.0134	.0162	.0188	.0182	.0193	.0190	.0184	.0174
	c_c								
	c/b	Pressure coefficient, P							
Upper surface	[a]0.000	1.178	1.175	1.171	1.167	1.163	1.162	1.159	1.156
	.025	-.673	-.924	-1.117	-1.270	-1.406	-1.500	-1.603	-1.721
	.050	-.805	-.942	-1.114	-1.242	-1.357	-1.435	-1.520	-1.616
	.100	-.305	-.671	-1.000	-1.129	-1.247	-1.324	-1.407	-1.471
	.200	-.235	-.231	-.202	-.193	-.284	-.411	-.534	-.556
	.300	-.197	-.208	-.210	-.200	-.195	-.192	-.207	-.295
	.400	-.167	-.179	-.187	-.190	-.194	-.194	-.198	-.255
	.500	-.162	-.174	-.183	-.190	-.198	-.200	-.207	-.245
	.600	-.162	-.173	-.182	-.189	-.198	-.200	-.207	-.233
	.700	-.138	-.146	-.153	-.161	-.171	-.173	-.180	-.199
	.800	-.105	-.113	-.122	-.129	-.136	-.137	-.144	-.157
	.900	-.015	-.028	-.037	-.043	-.052	-.056	-.065	-.079
	.950	.068	.062	.055	.049	.038	.033	.020	-.004
Lower surface	.0375	.259	.320	.374	.429	.472	.510	.544	.572
	.075	.156	.198	.244	.290	.329	.360	.390	.412
	.150	.070	.101	.135	.170	.199	.225	.248	.265
	.250	.009	.035	.059	.086	.108	.129	.147	.157
	.350	-.037	-.018	.002	.025	.041	.058	.072	.078
	.450	-.056	-.043	-.028	-.009	.005	.020	.031	.034
	.550	-.086	-.068	-.055	-.039	-.028	-.016	-.007	-.007
	.650	-.093	-.074	-.063	-.051	-.041	-.031	-.024	-.028
	.750	-.089	-.084	-.076	-.065	-.058	-.049	-.046	-.053
	.850	-.060	-.059	-.053	-.046	-.041	-.035	-.033	-.045
	.925	-.055	-.020	-.014	-.006	-.001	.005	.007	-.004
	[a].975	.058	.080	.080	.085	.100	.095	.082	.054
	[a]1.000	.180	.170	.172	.170	.160	.150	.130	.090

[a]No orifice.

TABLE 10.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 1 - Continued

(1) One-blade propeller; M = 0.56.

	J	2.333	2.304	2.276	2.244	2.226	2.200	2.173	2.151	2.132	2.110	2.091	2.051	2.040	2.025
	M_x	.929	.936	.943	.947	.957	.964	.970	.976	.982	.989	.999	1.003	1.012	1.021
	α_x'	.84	1.18	1.52	1.91	2.13	2.45	2.79	3.07	3.31	3.59	3.83	4.35	4.50	4.69
	$\Delta\beta$	.67	.85	1.00	1.16	1.25	1.35	1.45	1.52	1.58	1.63	1.67	1.74	1.75	1.77
	α_1	.62	.77	.95	1.15	1.26	1.50	1.63	1.81	1.93	2.17	2.32	2.53	2.60	2.75
	c_n	.1190	.1487	.1838	.2235	.2426	.2903	.3132	.3468	.3690	.4132	.4426	.4787	.4903	.5194
	c_m	.0128	.0196	.0172	.0186	.0180	.0074	.0033	-.0080	-.0116	-.0269	-.0366	-.0447	-.0477	-.0587
	c_c		.0064	.0059	.0070	.0081	.0107	.0118	.0125	.0137	.0156	.0173	.0194	.0212	.0212
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.235	1.238	1.242	1.244	1.250	1.254	1.258	1.261	1.264	1.268	1.274	1.276	1.282	1.288
	.025	-.162	-.216	-.253	-.297	-.303	-.332	-.362	-.394	-.417	-.454	-.459	-.496	-.506	-.509
	.050	-.390	-.419	-.432	-.466	-.472	-.493	-.504	-.505	-.507	-.530	-.534	-.563	-.568	-.568
	.100	-.380	-.411	-.428	-.457	-.459	-.480	-.496	-.508	-.515	-.537	-.533	-.552	-.552	-.550
	.200	-.338	-.379	-.407	-.449	-.454	-.476	-.492	-.504	-.512	-.530	-.527	-.545	-.546	-.546
	.300	-.302	-.383	-.408	-.436	-.437	-.456	-.472	-.486	-.494	-.514	-.513	-.535	-.535	-.537
	.400	-.108	-.271	-.307	-.340	-.343	-.361	-.378	-.388	-.395	-.412	-.412	-.435	-.439	-.448
	.500	-.150	-.116	-.271	-.318	-.320	-.336	-.349	-.357	-.361	-.375	-.373	-.388	-.388	-.390
	.600	-.217	-.168	-.173	-.331	-.335	-.351	-.360	-.365	-.368	-.381	-.379	-.392	-.390	-.390
	.700	-.195	-.196	-.144	-.236	-.337	-.380	-.390	-.394	-.395	-.405	-.400	-.413	-.412	-.412
	.800	-.103	-.102	-.095	-.069	-.105	-.331	-.413	-.432	-.436	-.446	-.439	-.449	-.448	-.445
	.900	.016	.023	.033	.046	.063	.052	.016	-.042	-.118	-.304	-.396	-.474	-.491	-.489
	.950	.123	.129	.136	.145	.152	.132	.096	.052	.007	-.069	-.151	-.358	-.497	-.531
Lower surface	.0375	.165	.216	.253	.293	.324	.361	.384	.412	.435	.459	.486	.522	.537	.556
	.075	.078	.112	.144	.178	.205	.239	.262	.287	.307	.328	.355	.385	.404	.419
	.150	.007	.036	.060	.086	.109	.136	.152	.173	.192	.210	.235	.261	.277	.292
	.250	-.051	-.029	-.011	.008	.028	.049	.063	.081	.097	.111	.134	.155	.170	.186
	.350	-.103	-.092	-.078	-.064	-.046	-.029	-.018	-.003	.010	.022	.041	.060	.074	.086
	.450	-.114	-.112	-.102	-.094	-.078	-.066	-.057	-.045	-.032	-.024	-.006	.009	.022	.032
	.550	-.145	-.159	-.142	-.142	-.123	-.116	-.117	-.095	-.084	-.088	-.061	-.049	-.052	-.027
	.650	-.155	-.165	-.176	-.174	-.164	-.163	-.160	-.141	-.142	-.130	-.112	-.111	-.090	-.088
	.750	-.146	-.146	-.162	-.173	-.195	-.200	-.201	-.194	-.187	-.183	-.167	-.158	-.145	-.135
	.850	-.104	-.105	-.112	-.135	-.140	-.161	-.181	-.198	-.204	-.217	-.192	-.212	-.204	-.195
	.925	.024	-.015	.031	-.068	-.125	-.196	-.205	-.169	-.204	-.197	-.179	-.218	-.266	-.213
	[a].975	.167	.126	.180	.095	.075	.005	-.020	.022	-.016	-.022	-.092	-.177	-.312	-.218
	[a]1.000	.230	.250	.270	.260	.235	.186	.150	.123	.105	.085	-.082	-.175	-.338	-.222

[a]No orifice.

NACA

TABLE 10.— PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 1 - Continued

(j) One-blade propeller; M = 0.58.

	J	2.311	2.260	2.189	2.165	2.148	2.117	2.095	2.076	2.053	2.031	2.012	1.992	1.974	1.948	1.930
	M_x	.967	.986	1.001	1.012	1.017	1.027	1.034	1.040	1.048	1.056	1.063	1.072	1.079	1.083	1.094
	α_x'	1.10	1.72	2.59	2.89	3.11	3.50	3.78	4.03	4.33	4.61	4.86	5.13	5.37	5.72	5.96
	$\Delta\beta$	.66	1.05	1.40	1.46	1.50	1.54	1.56	1.58	1.60	1.62	1.63	1.64	1.65	1.66	1.67
	α_i	.83	1.22	1.79	1.89	2.03	2.12	2.23	2.35	2.46	2.55	2.65	2.73	2.79	2.89	2.92
	c_n	.1594	.2348	.3477	.3648	.3900	.4042	.4239	.4458	.4665	.4803	.4965	.5094	.5242	.5397	.5484
	c_m	.0166	.0048	-.0297	-.0338	-.0397	-.0390	-.0401	-.0497	-.0537	-.0539	-.0577	-.0598	-.0627	-.0637	-.0668
	c_c	.0110	.0141	.0179	.0202	.0211	.0236	.0240	.0227	.0225	.0229	.0224	.0229	.0232	.0228	.0230
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.256	1.267	1.276	1.282	1.286	1.291	1.295	1.299	1.305	1.310	1.314	1.321	1.325	1.328	1.334
	.025	-.121	-.202	-.259	-.273	-.305	-.342	-.366	-.374	-.392	-.400	-.412	-.415	-.425	-.435	-.434
	.050	-.338	-.376	-.430	-.429	-.431	-.434	-.446	-.453	-.467	-.471	-.477	-.475	-.481	-.486	-.487
	.100	-.339	-.381	-.424	-.429	-.440	-.450	-.462	-.462	-.469	-.468	-.472	-.471	-.474	-.476	-.476
	.200	-.332	-.390	-.432	-.437	-.450	-.460	-.468	-.468	-.473	-.473	-.476	-.475	-.477	-.479	-.478
	.300	-.356	-.389	-.424	-.431	-.443	-.454	-.461	-.464	-.473	-.473	-.476	-.477	-.478	-.479	-.478
	.400	-.281	-.318	-.352	-.356	-.366	-.379	-.385	-.394	-.403	-.411	-.414	-.423	-.428	-.429	-.431
	.500	-.263	-.298	-.323	-.323	-.330	-.338	-.340	-.343	-.348	-.350	-.349	-.354	-.354	-.352	-.351
	.600	-.282	-.318	-.340	-.336	-.339	-.347	-.348	-.351	-.354	-.356	-.352	-.356	-.358	-.355	-.353
	.700	-.310	-.347	-.368	-.365	-.365	-.369	-.369	-.370	-.371	-.375	-.371	-.377	-.378	-.374	-.371
	.800	-.253	-.378	-.408	-.406	-.406	-.411	-.409	-.408	-.408	-.409	-.404	-.406	-.410	-.404	-.401
	.900	.045	-.071	-.442	-.457	-.460	-.466	-.466	-.462	-.462	-.464	-.458	-.456	-.460	-.455	-.452
	.950	.144	.067	-.157	-.323	-.426	-.511	-.511	-.509	-.508	-.506	-.500	-.502	-.504	-.496	-.491
Lower surface	.0375	.217	.306	.398	.428	.453	.481	.507	.525	.546	.565	.585	.606	.629	.648	.670
	.075	.114	.193	.273	.300	.323	.346	.373	.388	.406	.422	.443	.462	.482	.502	.519
	.150	.037	.101	.167	.192	.211	.234	.255	.270	.288	.304	.322	.339	.358	.376	.391
	.250	-.029	.023	.077	.099	.116	.137	.159	.172	.190	.206	.226	.241	.260	.278	.296
	.350	-.097	-.056	-.011	.009	.023	.041	.060	.072	.086	.100	.117	.128	.145	.162	.177
	.450	-.119	-.088	-.049	-.033	-.020	-.006	.013	.022	.036	.048	.065	.075	.090	.105	.120
	.550	-.150	-.126	-.097	-.080	-.070	-.059	-.043	-.034	-.023	-.015	-.005	.009	.022	.036	.049
	.650	-.196	-.192	-.150	-.133	-.122	-.126	-.096	-.087	-.073	-.077	-.048	-.044	-.032	-.016	-.006
	.750	-.229	-.220	-.197	-.183	-.173	-.165	-.149	-.140	-.130	-.122	-.107	-.100	-.089	-.076	-.063
	.850	-.190	-.230	-.237	-.231	-.204	-.218	-.205	-.196	-.186	-.180	-.164	-.160	-.150	-.135	-.124
	.925	-.151	-.266	-.215	-.210	-.217	-.314	-.334	-.243	-.225	-.220	-.205	-.198	-.193	-.179	-.170
	[a].975	.040	.025	-.061	-.151	-.230	-.400	-.456	-.290	-.247	-.245	-.224	-.226	-.223	-.212	-.200
	[a]1.000	.220	.172	-.045	-.143	-.235	-.443	-.525	-.318	-.260	-.260	-.235	-.240	-.240	-.230	-.215

[a]No orifice.

TABLE 10.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 1 - Continued

(k) One-blade propeller; M = 0.60.

	J	2.392	2.325	2.254	2.219	2.171	2.149	2.120	2.092	2.069	2.037	2.018	1.998	1.977	1.956	1.933
	M_x	.992	1.007	1.024	1.034	1.035	1.042	1.052	1.056	1.069	1.070	1.076	1.084	1.090	1.097	1.106
	α_x'	.14	.93	1.79	2.22	2.82	3.09	3.46	3.82	4.12	4.54	4.78	5.05	5.23	5.61	5.92
	$\Delta\beta$	.12	.49	1.04	1.25	1.38	1.40	1.44	1.46	1.47	1.48	1.49	1.50	1.50	1.50	1.50
	α_1	.48	.84	1.32	1.55	1.78	1.86	2.04	2.17	2.27	2.41	2.49	2.58	2.68	2.81	2.86
	c_n	.0919	.1623	.2555	.2984	.3432	.3561	.3894	.4113	.4294	.4535	.4665	.4800	.5010	.5226	.5361
	c_m	−.0035	.0039	−.0161	−.0329	−.0348	−.0382	−.0424	−.0453	−.0480	−.0508	−.0478	−.0501	−.0569	−.0596	−.0625
	c_c	.0143	.0178	.0204	.0225	.0224	.0225	.0225	.0227	.0225	.0227	.0238	.0235	.0228	.0228	.0228
	c/b	Pressure coefficient, P														
Upper surface	[a]0.000	1.270	1.279	1.289	1.295	1.296	1.301	1.308	1.310	1.318	1.320	1.324	1.328	1.332	1.337	1.343
	.025	.140	.046	−.040	−.087	−.133	−.147	−.194	−.228	−.251	−.277	−.292	−.311	−.321	−.337	−.349
	.050	−.100	−.179	−.212	−.258	−.296	−.298	−.314	−.322	−.334	−.359	−.369	−.382	−.387	−.394	−.400
	.100	−.098	−.189	−.225	−.259	−.294	−.301	−.329	−.342	−.351	−.368	−.368	−.375	−.377	−.385	−.391
	.200	−.112	−.195	−.244	−.278	−.309	−.317	−.346	−.357	−.361	−.376	−.379	−.384	−.388	−.392	−.396
	.300	−.181	−.228	−.252	−.283	−.312	−.320	−.346	−.357	−.363	−.381	−.383	−.387	−.391	−.394	−.398
	.400	−.134	−.176	−.202	−.234	−.252	−.262	−.287	−.297	−.303	−.328	−.334	−.338	−.346	−.350	−.357
	.500	−.126	−.163	−.179	−.206	−.220	−.226	−.242	−.250	−.250	−.268	−.270	−.270	−.275	−.276	−.280
	.600	−.145	−.184	−.200	−.226	−.238	−.241	−.253	−.260	−.258	−.275	−.276	−.273	−.277	−.279	−.282
	.700	−.173	−.213	−.228	−.256	−.266	−.268	−.278	−.284	−.279	−.294	−.297	−.294	−.297	−.298	−.299
	.800	−.214	−.256	−.266	−.293	−.305	−.307	−.317	−.320	−.315	−.327	−.330	−.326	−.327	−.328	−.329
	.900	−.215	−.276	−.315	−.342	−.354	−.356	−.368	−.374	−.370	−.379	−.382	−.380	−.379	−.379	−.373
	.950	.149	.054	−.218	−.383	−.401	−.405	−.416	−.421	−.415	−.425	−.425	−.420	−.420	−.418	−.418
Lower surface	.0375	.189	.310	.425	.449	.497	.516	.551	.572	.601	.620	.645	.667	.683	.708	.727
	.075	.112	.208	.312	.331	.374	.394	.421	.443	.469	.484	.507	.527	.541	.564	.579
	.150	.055	.133	.220	.232	.268	.284	.308	.325	.352	.363	.386	.404	.418	.438	.455
	.250	.004	.068	.144	.150	.186	.199	.223	.237	.263	.269	.293	.311	.322	.341	.355
	.350	−.042	.004	.063	.066	.088	.102	.117	.131	.151	.160	.178	.195	.204	.223	.236
	.450	−.063	−.028	.024	.024	.045	.056	.072	.083	.102	.108	.123	.140	.148	.166	.177
	.550	−.095	−.068	−.018	−.020	.004	.012	.022	.030	.048	.051	.062	.078	.084	.100	.109
	.650	−.127	−.103	−.062	−.068	−.051	−.043	−.034	−.027	−.008	−.008	.004	.021	.028	.043	.054
	.750	−.169	−.150	−.112	−.119	−.104	−.095	−.086	−.078	−.061	−.060	−.050	−.035	−.027	−.014	−.003
	.850	−.211	−.199	−.166	−.153	−.160	−.151	−.144	−.136	−.118	−.120	−.109	−.095	−.087	−.073	−.065
	.925	.045	−.281	−.217	−.206	−.189	−.184	−.177	−.170	−.153	−.156	−.194	−.191	−.128	−.111	−.103
	[a].975	.247	−.025	−.185	−.264	−.223	−.220	−.213	−.206	−.191	−.200	−.302	−.281	−.180	−.165	−.160
	[a]1.000	.283	.214	−.041	−.342	−.278	−.275	−.268	−.265	−.250	−.266	−.372	−.334	−.245	−.241	−.248

[a]No orifice.

TABLE 10.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-004.40 PROPELLER BLADE SECTION (x = 0.95)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.85°$, B = 1 - Concluded

(1) One-blade propeller; M = 0.62.

	J	2.389	2.332	2.253	2.224	2.192	2.171	2.133	2.115	2.083	2.056	2.028	1.993
	M_x	1.014	1.033	1.056	1.065	1.066	1.074	1.078	1.084	1.090	1.100	1.105	1.111
	α_x'	.17	.85	1.80	2.16	2.55	2.82	3.30	3.53	3.94	4.29	4.65	5.12
	$\Delta\beta$	.19	.49	1.01	1.14	1.23	1.27	1.32	1.32	1.34	1.34	1.36	1.36
	α_1	.37	.76	1.19	1.30	1.50	1.56	1.72	1.89	2.08	2.22	2.41	2.56
	c_n	.0706	.1461	.2277	.2523	.2897	.2990	.3281	.3600	.3938	.4168	.4523	.4803
	c_m	-.0035	-.0113	-.0179	-.0193	-.0291	-.0265	-.0301	-.0393	-.0436	-.0470	-.0514	-.0553
	c_c	.0189	.0226	.0238	.0242	.0233	.0242	.0244	.0233	.0230	.0232	.0229	.0228
	c/b	Pressure coefficient, P											
Upper surface	[a]0.000	1.284	1.295	1.310	1.316	1.317	1.322	1.325	1.329	1.333	1.339	1.342	1.346
	.025	.113	.045	-.047	-.076	-.107	-.115	-.144	-.169	-.222	-.254	-.294	-.328
	.050	-.127	-.187	-.227	-.247	-.277	-.285	-.304	-.308	-.324	-.337	-.372	-.400
	.100	-.132	-.204	-.244	-.257	-.278	-.285	-.308	-.318	-.345	-.357	-.376	-.393
	.200	-.175	-.218	-.274	-.287	-.307	-.312	-.334	-.349	-.372	-.378	-.393	-.411
	.300	-.232	-.261	-.290	-.301	-.320	-.327	-.344	-.354	-.376	-.384	-.399	-.417
	.400	-.195	-.225	-.257	-.267	-.284	-.293	-.307	-.315	-.334	-.344	-.355	-.382
	.500	-.187	-.213	-.234	-.241	-.251	-.260	-.267	-.269	-.280	-.285	-.294	-.313
	.600	-.213	-.235	-.254	-.259	-.268	-.274	-.281	-.280	-.288	-.293	-.298	-.315
	.700	-.245	-.268	-.286	-.291	-.297	-.304	-.310	-.309	-.312	-.315	-.319	-.336
	.800	-.287	-.310	-.321	-.328	-.334	-.340	-.348	-.346	-.349	-.351	-.351	-.365
	.900	-.345	-.363	-.374	-.380	-.387	-.392	-.403	-.403	-.407	-.408	-.411	-.421
	.950	-.221	-.414	-.423	-.428	-.430	-.435	-.446	-.443	-.445	-.446	-.447	-.456
Lower surface	.0375	.127	.235	.354	.384	.420	.440	.475	.502	.535	.567	.600	.627
	.075	.050	.137	.243	.271	.298	.314	.344	.371	.399	.427	.453	.478
	.150	-.013	.065	.156	.179	.206	.222	.248	.270	.295	.322	.350	.370
	.250	-.069	-.006	.073	.094	.115	.128	.152	.171	.195	.217	.246	.262
	.350	-.108	-.064	-.003	.014	.031	.042	.060	.079	.099	.120	.145	.157
	.450	-.132	-.102	-.050	-.035	-.021	-.011	.006	.023	.042	.061	.088	.099
	.550	-.167	-.143	-.098	-.083	-.069	-.065	-.046	-.029	-.008	.009	.030	.037
	.650	-.197	-.180	-.140	-.129	-.116	-.113	-.098	-.083	-.067	-.053	-.032	-.025
	.750	-.248	-.230	-.191	-.181	-.170	-.164	-.152	-.137	-.120	-.106	-.088	-.081
	.850	-.290	-.273	-.241	-.231	-.220	-.216	-.206	-.191	-.176	-.163	-.147	-.142
	.925	-.325	-.254	-.323	-.326	-.254	-.303	-.304	-.224	-.209	-.200	-.179	-.174
	[a].975	-.139	-.351	-.396	-.408	-.281	-.382	-.386	-.241	-.226	-.222	-.193	-.191
	[a]1.000	-.110	-.368	-.437	-.460	-.295	-.425	-.435	-.255	-.235	-.234	-.200	-.200

[a]No orifice.

TABLE II.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975)

$\beta_{0.75R} = 45.2^{\circ}$, $\beta_x = 38.50^{\circ}$, B = 2

(a) N = 1140 rpm.

	J	1.922	2.002	2.096	2.191	2.313	2.409	2.449	2.379	2.346	2.265	2.233	2.147	2.063	1.977
	M_x	.621	.627	.638	.648	.657	.668	.670	.663	.660	.653	.649	.638	.628	.621
	α_x'	6.39	5.33	4.12	2.92	1.44	.31	-.14	.67	1.05	2.02	2.41	3.47	4.54	5.66
	$\Delta\beta$	.87	.77	.62	.45	.20	.02	-.05	.08	.15	.30	.36	.53	.68	.80
	α_i	3.00	2.42	1.88	1.26	.69	.21	-.06	.38	.49	.87	.99	1.51	2.07	2.63
	c_n	.3465	.2794	.2174	.1458	.0813	.0242	-.0061	.0442	.0568	.1010	.1145	.1735	.2374	.3039
	c_m	.0003	0	-.0005	.0007	.0010	-.0021	-.0051	-.0007	0	.0008	.0016	.0010	.0021	.0031
	c_c														
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.100	1.102	1.106	1.109	1.112	1.116	1.117	1.115	1.114	1.111	1.109	1.106	1.102	1.100
	.025	-1.700	-1.410	-1.007	-.584	-.379	-.120	[b].097	-.203	-.273	-.458	-.527	-.650	-1.199	-1.477
	.050	-1.131	-.853	-.540	-.406	-.265	-.134	-.093	-.177	-.212	-.307	-.348	-.472	-.583	-1.027
	.100	-.583	-.418	-.392	-.322	-.254	-.183	-.160	-.205	-.224	-.271	-.290	-.355	-.407	-.445
	.200	-.321	-.276	-.243	-.195	-.158	-.120	[b]-.120	-.129	-.140	-.169	-.179	-.220	-.257	-.290
	.300	-.240	-.205	-.176	-.140	-.111	-.090	-.078	-.099	-.097	-.118	-.128	-.160	-.188	-.218
	.400	-.195	-.168	-.143	-.111	-.089	-.071	-.062	-.073	-.079	-.096	-.102	-.128	-.153	-.179
	.500	-.235	-.213	-.186	-.160	-.142	-.130	-.123	-.130	-.135	-.147	-.150	-.174	-.196	-.225
	.600	-.209	-.190	-.166	-.142	-.127	-.116	-.110	-.115	-.118	-.131	-.134	-.156	-.175	-.199
	.700	-.189	-.171	-.150	-.126	-.114	-.103	-.099	-.102	-.107	-.116	-.121	-.140	-.158	-.179
	.800	-.170	-.153	-.133	-.113	-.103	-.096	-.093	-.094	-.097	-.105	-.108	-.125	-.141	-.160
	.900	-.137	-.124	-.107	-.092	-.084	-.082	-.081	-.077	-.080	-.088	-.089	-.102	-.114	-.131
	.950	-.051	-.030	-.026	-.013	-.009	-.007	-.006	-.003	-.003	-.009	-.012	-.021	-.032	-.047
Lower surface	.0375	.411	.349	.289	.185	.052	-.084	-.123	-.032	.003	.093	.133	.229	.306	.367
	.075	.213	.165	.118	.042	-.051	-.137	-.162	-.104	-.080	-.022	.006	.072	.130	.178
	.150	.113	.082	.052	.005	-.051	-.097	-.110	-.077	-.066	-.033	-.016	.023	.058	.089
	.250	.036	.015	-.004	-.037	-.076	-.114	-.133	-.093	-.085	-.065	-.053	-.028	-.004	.017
	.350	0	-.014	-.026	-.048	-.076	-.102	-.110	-.088	-.082	-.072	-.062	-.041	-.025	-.012
	.450	-.007	-.019	-.031	-.050	-.075	-.093	-.095	-.082	-.079	-.067	-.062	-.046	-.032	-.020
	.550	-.024	-.036	-.044	-.060	-.083	-.096	-.096	-.087	-.083	-.075	-.070	-.058	-.046	-.035
	.650	-.031	-.041	-.047	-.061	-.078	-.090	-.090	-.082	-.080	-.073	-.070	-.059	-.049	-.041
	.750	-.034	-.041	-.047	-.056	-.057	-.074	-.081	-.074	-.072	-.068	-.065	-.058	-.049	-.044
	.850	-.063	-.070	-.070	-.077	-.087	-.091	-.088	-.087	-.086	-.084	-.082	-.079	-.074	-.073
	.925	-.039	-.036	-.036	-.034	-.037	-.036	-.032	-.032	-.035	-.026	-.037	-.039	-.041	-.044
	[a].975	.020	.033	.060	.060	.052	.065	.095	.080	.090	.090	.070	.065	.040	.041
	[a]1.000	.053	.076	.132	.124	.101	.142	.199	.160	.203	.198	.176	.166	.103	.100

[a]No orifice.

[b]Faired value.

TABLE 11.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975) $\beta_{0.75R} = 45.2°$, $\beta_x = 38.50°$, B = 2 - Continued

(b) N = 1350 rpm.

	J	2.475	2.418	2.299	2.183	2.066	1.966	1.853	1.861	1.900	2.026	2.128	2.242	2.355	2.457
	M_x	.807	.794	.779	.762	.752	.739	.729	.727	.732	.746	.757	.774	.788	.802
	α_x'	-.44	.21	1.61	3.02	4.50	5.81	7.33	7.22	6.69	5.02	3.71	2.30	.95	-.23
	$\Delta\beta$	-.06	.09	.36	.63	.89	1.18	1.40	1.40	1.39	.99	.75	.49	.24	-.01
	α_i	-.26	.12	.79	1.45	2.31	3.11	3.76	3.67	3.34	2.72	1.81	1.13	.60	-.21
	c_n	-.0303	.0139	.0919	.1684	.2665	.3594	.4335	.4226	.3858	.3135	.2090	.1313	.0700	-.0252
	c_m	-.0075	-.0002	.0031	.0041	.0074	.0039	.0003	-.0002	-.0007	.0054	.0023	.0025	.0012	-.0055
	c_c														
	c/b	Pressure coefficient, P													
Upper surface	[a]0.000	1.173	1.168	1.161	1.154	1.150	1.145	1.141	1.140	1.142	1.148	1.152	1.159	1.165	1.171
	.025	.048	-.113	-.490	-.829	-1.394	-1.740	-1.502	-1.459	-1.591	-1.593	-1.204	-.660	-.337	-.052
	.050	-.052	-.142	-.327	-.472	-1.184	-1.539	-1.253	-1.203	-1.325	-1.366	-.649	-.409	-.247	-.069
	.100	-.155	-.199	-.292	-.372	-.402	-.466	-1.032	-1.050	-.857	-.421	-.409	-.331	-.257	-.156
	.200	-.110	-.132	-.179	-.228	-.269	-.304	-.452	-.439	-.388	-.286	-.247	-.202	-.164	-.147
	.300	-.086	-.096	-.128	-.164	-.201	-.239	-.298	-.289	-.265	-.216	-.177	-.143	-.117	-.079
	.400	-.070	-.076	-.101	-.132	-.164	-.202	-.260	-.256	-.234	-.179	-.143	-.113	-.094	-.069
	.500	-.136	-.140	-.159	-.184	-.218	-.258	-.293	-.286	-.275	-.235	-.196	-.166	-.152	-.130
	.600	-.128	-.127	-.146	-.169	-.199	-.235	-.265	-.262	-.251	-.214	-.180	-.152	-.141	-.122
	.700	-.113	-.114	-.129	-.151	-.178	-.212	-.237	-.234	-.225	-.191	-.159	-.133	-.124	-.108
	.800	-.105	-.103	-.116	-.136	-.159	-.191	-.210	-.212	-.204	-.173	-.143	-.122	-.115	-.100
	.900	-.088	-.070	-.090	-.107	-.128	-.156	-.172	-.171	-.165	-.138	-.113	-.097	-.090	-.079
	.950	.001	.005	-.002	-.017	-.034	-.057	-.076	-.075	-.066	-.026	-.019	-.005	-.001	.008
Lower surface	.0375	-.200	-.088	.086	.210	.316	.406	.472	.459	.441	.365	.267	.158	.039	-.099
	.075	-.235	-.157	-.039	.050	.135	.206	.261	.249	.235	.173	.095	.014	-.020	-.067
	.150	-.163	-.113	-.048	.003	.056	.098	.127	.120	.111	.079	.033	-.014	.036	-.438
	.250	-.175	-.136	-.116	-.079	-.042	-.006	.037	.023	.009	-.024	-.058	-.088	-.221	-.190
	.350	-.136	-.120	-.096	-.071	-.042	-.016	.004	-.001	-.006	-.024	-.056	-.075	-.140	-.088
	.450	-.119	-.108	-.087	-.069	-.047	-.027	-.010	-.016	-.021	-.035	-.060	-.078	-.086	-.092
	.550	-.111	-.100	-.085	-.071	-.052	-.035	-.022	-.025	-.028	-.038	-.053	-.078	-.093	-.103
	.650	-.114	-.104	-.090	-.079	-.064	-.049	-.040	-.043	-.045	-.053	-.069	-.080	-.095	-.107
	.750	-.096	-.091	-.082	-.074	-.063	-.049	-.043	-.045	-.043	-.048	-.059	-.070	-.078	-.084
	.850	-.104	-.103	-.099	-.098	-.090	-.085	-.084	-.086	-.085	-.083	-.089	-.088	-.089	-.091
	.925	-.025	-.030	-.037	-.040	-.044	-.047	-.058	-.059	-.053	-.042	-.037	-.029	-.033	-.031
	[a].975	.058	.042	.045	.044	.058	.066	.029	.040	.021	.050	.078	.063	.065	.055
	[a]1.000	.093	.087	.092	.098	.128	.150	.093	.107	.078	.119	.163	.122	.134	.100

[a]No orifice.

TABLE 11.– PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975) $\beta_{0.75R} = 45.2^\circ$, $\beta_x = 38.50^\circ$, B = 2 - Continued

(c) N = 1500 rpm.

	J	1.844	1.923	1.992	2.064	2.142	2.222	2.299	2.378	2.483	2.428	2.361	2.262	2.182	2.118	2.043	1.960	1.898
	M_K	.812	.818	.827	.838	.848	.857	.870	.884	.897	.892	.880	.862	.852	.842	.831	.822	.815
	α_x'	7.45	6.38	5.46	4.53	3.53	2.54	1.61	.68	−.53	.10	.87	2.06	3.03	3.84	4.80	5.88	6.72
	$\Delta\beta$	1.97	1.99	1.71	1.46	1.19	.90	.61	.31	−.09	.11	.38	.75	1.05	1.22	1.53	1.86	2.00
	α_i	4.27	4.01	3.35	2.69	2.05	1.43	.96	.46	−.33	.06	.49	1.16	1.64	2.26	2.88	3.71	4.22
	c_n	.4923	.4639	.3858	.3129	.2394	.1665	.1126	.0532	−.0384	.0068	.0571	.1358	.1896	.2632	.3335	.4284	.4858
	c_m	0	.0005	.0028	.0015	.0026	.0025	.0042	.0019	−.0089	−.0035	.0006	.0043	.0016	.0046	.0043	.0020	−.0002
	c_c																	
	c/b	Pressure coefficient, P																
Upper surface	[a]0.000	1.176	1.178	1.183	1.187	1.192	1.196	1.203	1.210	1.217	1.215	1.208	1.199	1.195	1.190	1.184	1.180	1.177
	.025	−1.522	−1.414	−1.248	−1.067	−.835	−.552	−.444	−.222	.082	−.046	−.294	−.499	−.665	−.925	−1.138	−1.323	−1.443
	.050	−1.412	−1.316	−1.173	−1.021	−.812	−.717	−.469	−.239	−.038	−.123	−.288	−.600	−.752	−.949	−1.083	−1.248	−1.349
	.100	−1.247	−1.162	−1.044	−.953	−.804	−.550	−.340	−.276	−.144	−.200	−.293	−.371	−.686	−.855	−.980	−1.099	−1.189
	.200	−.751	−.860	−.532	−.295	−.224	−.207	−.198	−.168	−.130	−.149	−.174	−.205	−.212	−.237	−.342	−.716	−.893
	.300	−.240	−.248	−.206	−.177	−.162	−.153	−.136	−.114	−.096	−.104	−.117	−.144	−.158	−.164	−.185	−.226	−.257
	.400	−.209	−.197	−.171	−.150	−.139	−.126	−.107	−.089	−.038	−.085	−.093	−.117	−.135	−.142	−.158	−.184	−.207
	.500	−.291	−.268	−.245	−.227	−.211	−.193	−.176	−.167	−.164	−.166	−.168	−.183	−.203	−.216	−.234	−.258	−.277
	.600	−.284	−.261	−.238	−.218	−.201	−.183	−.166	−.158	−.163	−.161	−.158	−.173	−.194	−.207	−.225	−.248	−.270
	.700	−.267	−.245	−.220	−.200	−.182	−.163	−.146	−.138	−.143	−.140	−.138	−.153	−.173	−.187	−.207	−.234	−.253
	.800	−.245	−.224	−.201	−.180	−.161	−.142	−.127	−.121	−.126	−.123	−.119	−.133	−.153	−.168	−.188	−.214	−.234
	.900	−.204	−.188	−.163	−.142	−.122	−.102	−.087	−.081	−.090	−.086	−.080	−.094	−.112	−.129	−.150	−.176	−.195
	.950	−.081	−.064	−.046	−.029	−.013	.001	.016	.023	.017	.020	.024	.009	−.007	−.018	−.035	−.057	−.072
Lower surface	.0375	.505	.468	.413	.354	.287	.202	.121	.006	−.197	−.099	.043	.153	.247	.315	.380	.443	.481
	.075	.292	.261	.211	.163	.105	.036	−.026	−.116	−.317	−.204	−.086	−.001	.072	.129	.186	.239	.271
	.150	.154	.133	.099	.066	.029	−.014	−.056	−.127	−.219	−.185	−.102	−.039	.008	.045	.081	.117	.140
	.250	.049	.036	.015	−.006	−.031	−.065	−.103	−.149	−.193	−.177	−.135	−.086	−.046	−.020	.004	.026	.038
	.350	.010	−.001	−.019	−.036	−.057	−.083	−.100	−.122	−.155	−.141	−.116	−.095	−.071	−.048	−.028	−.011	0
	.450	−.002	−.007	−.022	−.036	−.055	−.075	−.089	−.108	−.134	−.123	−.102	−.086	−.067	−.048	−.029	−.015	−.007
	.550	−.023	−.027	−.040	−.053	−.070	−.090	−.100	−.116	−.141	−.130	−.111	−.097	−.080	−.062	−.047	−.033	−.027
	.650	−.038	−.037	−.047	−.059	−.073	−.091	−.099	−.112	−.131	−.123	−.106	−.097	−.084	−.068	−.054	−.043	−.037
	.750	−.045	−.040	−.050	−.058	−.071	−.084	−.092	−.099	−.113	−.109	−.095	−.090	−.080	−.065	−.053	−.045	−.042
	.850	−.074	−.066	−.071	−.078	−.087	−.095	−.098	−.101	−.104	−.105	−.100	−.100	−.096	−.085	−.077	−.073	−.072
	.925	−.047	−.036	−.032	−.029	−.030	−.030	−.023	−.017	−.007	−.013	−.018	−.029	−.032	−.030	−.032	−.038	−.043
	[a].975	−.006	.016	.036	.050	.043	.048	.046	.050	.060	.050	.055	.037	.043	.035	.048	.032	.010
	[a]1.000	.020	.050	.081	.100	.090	.098	.065	.073	.087	.073	.078	.057	.094	.080	.087	.075	.050

[a]No orifice.

TABLE II.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975) $\beta_{0.75R} = 45.2^\circ$, $\beta_x = 38.50^\circ$, B = 2 — Continued

(d) N = 1600 rpm.

J	1.979	2.071	2.132	2.177	2.246	2.303	2.376	2.427	2.480	2.457	2.400	2.335	2.271	2.229	2.173	2.109	2.057	2.008
M_x	.888	.896	.904	.912	.923	.933	.945	.952	.961	.956	.947	.929	.926	.919	.910	.900	.891	.884
α_x'	5.63	4.44	3.66	3.10	2.25	1.56	.70	.11	-.50	-.23	.42	1.18	1.95	2.46	3.15	3.95	4.62	5.25
$\Delta\beta$	2.05	1.70	1.44	1.25	.96	.70	.35	.06	-.27	-.12	.21	.55	.85	1.02	1.27	1.54	1.75	1.95
α_i	3.97	3.11	2.52	2.01	1.46	.99	.41	.12	-.25	-.11	.25	.63	1.18	1.59	2.09	2.70	3.24	3.62
c_n	.4626	.3606	.2936	.2342	.1719	.1165	.0484	.0139	-.0294	-.0129	.0290	.0742	.1387	.1852	.2439	.3129	.3761	.4213
c_m	-.0090	-.0002	.0020	.0038	.0058	.0030	-.0020	-.0061	-.0139	-.0104	-.0043	.0024	.0032	.0034	.0016	.0011	-.0015	-.0048
c_c							.0037	.0048	.0057	.0055	.0046							
c/b	Pressure coefficient, P																	
Upper surface [a]0.000	1.213	1.217	1.221	1.225	1.231	1.237	1.243	1.247	1.252	1.249	1.244	1.234	1.233	1.229	1.224	1.219	1.214	1.211
.025	-1.015	-.823	-.660	-.464	-.391	-.291	-.149	-.009	.125	.069	-.074	-.203	-.348	-.410	-.512	-.732	-.889	-.984
.050	-.982	-.819	-.676	-.623	-.546	-.382	-.224	-.110	-.002	-.047	-.169	-.257	-.475	-.573	-.625	-.743	-.874	-.954
.100	-.894	-.798	-.704	-.623	-.513	-.407	-.259	-.191	-.102	-.154	-.217	-.312	-.452	-.537	-.634	-.742	-.841	-.880
.200	-.758	-.652	-.575	-.512	-.443	-.355	-.253	-.220	-.180	-.195	-.239	-.261	-.402	-.461	-.520	-.607	-.689	-.739
.300	-.526	-.441	-.390	-.341	-.269	-.144	-.119	-.106	-.099	-.101	-.111	-.108	-.180	-.283	-.349	-.409	-.461	-.506
.400	-.460	-.383	-.321	-.213	-.114	-.104	-.101	-.100	-.097	-.098	-.100	-.089	-.102	-.116	-.209	-.319	-.390	-.436
.500	-.466	-.250	-.188	-.172	-.178	-.198	-.187	-.186	-.186	-.185	-.187	-.177	-.196	-.177	-.171	-.188	-.213	-.245
.600	-.196	-.191	-.184	-.190	-.204	-.220	-.208	-.198	-.192	-.195	-.202	-.198	-.215	-.203	-.188	-.195	-.200	-.216
.700	-.213	-.194	-.185	-.187	-.193	-.218	-.240	-.238	-.230	-.236	-.241	-.217	-.195	-.192	-.186	-.194	-.202	-.216
.800	-.207	-.181	-.168	-.164	-.158	-.149	-.167	-.244	-.255	-.254	-.208	-.130	-.156	-.162	-.164	-.178	-.189	-.202
.900	-.169	-.141	-.122	-.111	-.098	-.082	-.066	-.059	-.120	-.076	-.065	-.060	-.093	-.103	-.115	-.135	-.152	-.168
.950	-.041	-.014	0	.009	.020	.034	.049	.046	.054	.056	.051	.058	.023	.016	.008	-.009	-.023	-.037
Lower surface .0375	.447	.373	.323	.269	.204	.133	.047	-.038	-.122	-.077	-.004	.098	.163	.217	.282	.338	.389	.420
.075	.243	.179	.131	.085	.030	-.030	-.109	-.210	-.261	-.246	-.165	-.060	-.004	.043	.098	.144	.190	.216
.150	.122	.073	.041	.007	-.030	-.074	-.135	-.200	-.262	-.230	-.176	-.093	-.055	-.022	.018	.051	.082	.100
.250	.018	-.017	-.043	-.068	-.102	-.137	-.179	-.199	-.219	-.202	-.198	-.147	-.121	-.093	-.060	-.036	-.014	0
.350	-.034	-.063	-.085	-.104	-.123	-.135	-.155	-.168	-.191	-.175	-.165	-.130	-.129	-.119	-.097	-.077	-.057	-.048
.450	-.043	-.066	-.082	-.095	-.106	-.119	-.136	-.145	-.146	-.147	-.141	-.112	-.111	-.103	-.089	-.077	-.061	-.052
.550	-.065	-.083	-.094	-.104	-.120	-.140	-.149	-.167	-.170	-.175	-.159	-.132	-.129	-.114	-.098	-.085	-.073	-.069
.650	-.064	-.074	-.085	-.101	-.120	-.144	-.162	-.183	-.198	-.195	-.181	-.134	-.130	-.115	-.095	-.081	-.069	-.066
.750	-.051	-.063	-.075	-.092	-.108	-.128	-.145	-.170	-.194	-.189	-.155	-.122	-.119	-.106	-.087	-.075	-.061	-.060
.850	-.073	-.081	-.090	-.101	-.113	-.123	-.132	-.144	-.161	-.146	-.141	-.116	-.123	-.115	-.101	-.092	-.083	-.081
.925	-.028	-.023	-.021	-.023	-.022	-.015	-.003	.003	.014	.010	0	.006	-.020	.022	-.020	-.024	-.025	-.029
[a].975	.060	.080	.110	.130	.140	.158	.153	.178	.173	.148	.138	.130	.133	.165	.126	.144	.135	.128
[a]1.000	.108	.140	.185	.218	.277	.300	.275	.255	.270	.218	.206	.190	.220	.225	.228	.260	.275	.275

[a]No orifice.

TABLE 11.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975) $\beta_{0.75R} = 45.2^\circ$, $\beta_x = 38.50^\circ$, B = 2 - Continued

(e) M = 0.57.

	J	2.456	2.421	2.391	2.362	2.342	2.313	2.279	2.259	2.230	2.208	2.181	2.167	2.136	2.114	2.094	2.071
	M_x	.908	.916	.923	.930	.938	.945	.951	.959	.967	.973	.981	.992	.999	1.006	1.015	1.022
	α_x'	-.22	.18	.52	.86	1.10	1.44	1.85	2.09	2.44	2.72	3.05	3.22	3.61	3.89	4.14	4.44
	$\Delta\beta$	.18	.25	.35	.51	.65	.82	1.01	1.11	1.25	1.34	1.44	1.49	1.58	1.64	1.68	1.73
	α_i	-.17	.04	.18	.42	.61	.86	1.09	1.35	1.69	1.94	2.10	2.24	2.42	2.66	2.91	3.06
	c_n	-.0206	.0042	.0216	.0487	.0719	.1003	.1281	.1581	.1987	.2274	.2452	.2616	.2819	.3084	.3381	.3542
	c_m	-.0075	-.0048	-.0038	-.0012	-.0007	.0011	.0017	.0023	-.0066	-.0098	-.0164	-.0215	-.0190	-.0264	-.0370	-.0415
	c_c						.0047	.0041	.0040	.0053	.0064	.0088	.0104	.0123	.0139	.0159	.0160
	c/b	Pressure coefficient, P															
Upper surface	[a]0.000	1.223	1.227	1.231	1.235	1.240	1.244	1.247	1.251	1.255	1.259	1.263	1.270	1.275	1.278	1.284	1.288
	.025	.057	-.011	-.066	-.128	-.166	-.200	-.240	-.253	-.273	-.282	-.284	-.452	-.320	-.362	-.380	-.395
	.050	-.053	-.104	-.148	-.208	-.227	-.281	-.365	-.403	-.438	-.449	-.449	-.443	-.442	-.436	-.437	-.447
	.100	-.181	-.215	-.240	-.259	-.282	-.340	-.378	-.395	-.425	-.441	-.450	-.452	-.466	-.471	-.472	-.478
	.200	-.135	-.152	-.151	-.182	-.260	-.318	-.366	-.380	-.397	-.404	-.408	-.408	-.420	-.425	-.424	-.426
	.300	-.098	-.111	-.120	-.132	-.123	-.173	-.225	-.239	-.260	-.270	-.281	-.282	-.296	-.301	-.303	-.304
	.400	-.090	-.101	-.107	-.117	-.119	-.109	-.192	-.211	-.228	-.236	-.243	-.242	-.255	-.260	-.262	-.264
	.500	-.158	-.168	-.174	-.184	-.185	-.170	-.218	-.272	-.303	-.316	-.324	-.324	-.335	-.341	-.342	-.342
	.600	-.155	-.168	-.177	-.194	-.205	-.200	-.175	-.263	-.293	-.304	-.313	-.314	-.328	-.335	-.336	-.337
	.700	-.141	-.149	-.156	-.173	-.211	-.235	-.216	-.230	-.323	-.335	-.343	-.343	-.355	-.364	-.369	-.371
	.800	-.120	-.125	-.126	-.134	-.136	-.171	-.223	-.175	-.323	-.370	-.382	-.380	-.391	-.396	-.398	-.400
	.900	-.079	-.076	-.072	-.073	-.070	-.067	-.075	-.075	-.071	-.141	-.358	-.430	-.450	-.458	-.458	-.458
	.950	.026	.031	.036	.038	.042	.044	.041	.049	.042	.048	-.011	-.092	-.235	-.405	-.493	-.495
Lower surface	.0375	-.147	-.084	-.035	.021	.071	.117	.161	.202	.243	.268	.299	.332	.362	.389	.416	.440
	.075	-.271	-.218	-.175	-.127	-.086	-.046	-.009	.027	.061	.085	.112	.144	.170	.195	.222	.243
	.150	-.186	-.169	-.148	-.123	-.098	-.073	-.046	-.016	.010	.027	.048	.073	.091	.109	.131	.146
	.250	-.181	-.177	-.169	-.162	-.155	-.151	-.143	-.122	-.103	-.091	-.074	-.052	-.037	-.018	0	.016
	.350	-.143	-.142	-.138	-.136	-.129	-.135	-.139	-.125	-.114	-.104	-.092	-.073	-.062	-.048	-.033	-.019
	.450	-.126	-.126	-.124	-.123	-.119	-.118	-.130	-.119	-.111	-.104	-.094	-.077	-.068	-.057	-.043	-.031
	.550	-.133	-.137	-.136	-.140	-.140	-.135	-.145	-.136	-.131	-.125	-.120	-.103	-.098	-.088	-.077	-.064
	.650	-.133	-.137	-.139	-.146	-.155	-.158	-.185	-.191	-.191	-.185	-.177	-.103	-.159	-.151	-.140	-.129
	.750	-.106	-.105	-.105	-.108	-.115	-.122	-.127	-.153	-.161	-.161	-.158	-.144	-.143	-.134	-.124	-.113
	.850	-.102	-.105	-.105	-.111	-.115	-.128	-.139	-.138	-.199	-.234	-.239	-.226	-.222	-.214	-.203	-.190
	.925	-.004	-.006	-.004	-.004	0	.001	-.006	.001	-.018	-.054	-.187	-.294	-.316	-.310	-.301	-.287
	[a].975	.064	.061	.057	.060	.061	.062	.061	.065	.056	.056	.005	-.058	-.356	-.372	-.370	-.348
	[a]1.000	.080	.083	.076	.077	.077	.076	.075	.076	.085	.098	.060	.009	-.047	-.180	-.400	-.375

[a]No orifice.

TABLE 11.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975)

$\beta_{0.75R} = 45.2°$, $\beta_x = 38.50°$, B = 2 - Continued

(f) M = 0.61.

	J	2.449	2.422	2.393	2.370	2.349	2.326	2.292	2.275	2.244	2.220	2.203	2.177	2.154	2.133	2.111	2.092
	M_x	.969	.975	.983	.989	.999	1.003	1.013	1.018	1.027	1.034	1.045	1.051	1.058	1.066	1.073	1.080
	α_x'	-.14	.17	.50	.77	1.01	1.29	1.69	1.90	2.27	2.57	2.78	3.10	3.38	3.65	3.92	4.16
	$\Delta\beta$	.04	.05	.12	.19	.30	.49	.77	.90	1.14	1.26	1.32	1.38	1.41	1.44	1.46	1.47
	α_1	-.02	.07	.29	.37	.56	.82	.97	1.17	1.39	1.66	1.84	1.99	2.13	2.27	2.42	2.55
	c_n	-.0032	.0081	.0339	.0448	.0655	.0961	.1126	.1361	.1626	.1942	.2152	.2316	.2471	.2635	.2816	.2968
	c_m	-.0090	-.0064	-.0037	-.0024	-.0015	-.0058	-.0034	-.0061	-.0115	-.0159	-.0195	-.0220	-.0248	-.0267	-.0293	-.0314
	c_c	.0074	.0082	.0094	.0105	.0116	.0122	.0143	.0149	.0154	.0158	.0163	.0163	.0165	.0166	.0167	.0167
	c/b	Pressure coefficient, P															
Upper surface	[a]0.000	1.257	1.260	1.265	1.268	1.274	1.276	1.283	1.286	1.291	1.296	1.303	1.307	1.312	1.317	1.321	1.326
	.025	.102	.047	-.003	-.026	-.046	-.072	-.097	-.105	-.128	-.124	-.152	-.154	-.156	-.164	-.177	-.209
	.050	-.015	-.065	-.109	-.116	-.116	-.161	-.212	-.241	-.284	-.290	-.318	-.319	-.319	-.316	-.311	-.305
	.100	-.155	-.174	-.178	-.185	-.210	-.244	-.263	-.268	-.294	-.298	-.331	-.334	-.339	-.344	-.345	-.347
	.200	-.200	-.220	-.227	-.232	-.236	-.260	-.277	-.277	-.294	-.285	-.308	-.312	-.315	-.317	-.318	-.316
	.300	-.109	-.126	-.136	-.146	-.144	-.155	-.170	-.170	-.192	-.184	-.211	-.217	-.221	-.223	-.222	-.219
	.400	-.108	-.119	-.120	-.127	-.125	-.135	-.145	-.146	-.163	-.152	-.178	-.181	-.185	-.185	-.185	-.181
	.500	-.180	-.190	-.196	-.209	-.207	-.210	-.225	-.225	-.244	-.237	-.263	-.266	-.270	-.268	-.266	-.262
	.600	-.188	-.190	-.190	-.185	-.209	-.212	-.220	-.221	-.236	-.226	-.253	-.258	-.263	-.264	-.262	-.257
	.700	-.225	-.226	-.217	-.227	-.236	-.246	-.254	-.254	-.269	-.258	-.284	-.285	-.291	-.293	-.291	-.287
	.800	-.255	-.258	-.253	-.257	-.263	-.274	-.287	-.285	-.303	-.295	-.320	-.321	-.327	-.327	-.324	-.320
	.900	-.149	-.247	-.291	-.316	-.325	-.341	-.355	-.352	-.360	-.353	-.379	-.382	-.386	-.387	-.384	-.379
	.950	.058	.038	.015	-.027	-.087	-.148	-.314	-.371	-.396	-.390	-.417	-.417	-.422	-.421	-.417	-.410
Lower surface	.0375	-.085	-.027	.034	.070	.115	.160	.197	.234	.270	.320	.335	.359	.386	.414	.438	.469
	.075	-.234	-.195	-.140	-.102	-.056	-.011	.024	.058	.090	.138	.148	.170	.194	.222	.244	.275
	.150	-.180	-.140	-.117	-.102	-.069	-.037	-.013	.011	.031	.074	.074	.094	.113	.133	.152	.183
	.250	-.205	-.192	-.165	-.152	-.132	-.114	-.100	-.078	-.065	-.030	-.032	-.017	-.002	.017	.033	.055
	.350	-.194	-.187	-.163	-.154	-.136	-.123	-.112	-.091	-.082	-.051	-.055	-.044	-.031	-.014	.001	.022
	.450	-.150	-.151	-.138	-.136	-.122	-.113	-.102	-.087	-.082	-.053	-.061	-.052	-.039	-.024	-.011	.009
	.550	-.169	-.176	-.166	-.164	-.150	-.137	-.131	-.116	-.112	-.086	-.095	-.086	-.077	-.062	-.049	-.031
	.650	-.204	-.212	-.204	-.203	-.191	-.182	-.178	-.167	-.162	-.136	-.144	-.136	-.128	-.115	-.102	-.087
	.750	-.193	-.202	-.193	-.193	-.183	-.173	-.169	-.155	-.150	-.126	-.137	-.129	-.122	-.109	-.097	-.079
	.850	-.188	-.236	-.267	-.271	-.261	-.251	-.246	-.233	-.227	-.201	-.212	-.203	-.198	-.186	-.174	-.157
	.925	.012	-.006	-.048	-.152	-.266	-.317	-.338	-.326	-.319	-.295	-.305	-.295	-.289	-.280	-.266	-.251
	[a].975	.086	.066	.043	-.015	-.062	-.106	-.366	-.377	-.375	-.349	-.370	-.356	-.348	-.344	-.320	-.304
	[a]1.000	.110	.089	.069	.025	-.008	-.046	-.203	-.255	-.319	-.375	-.399	-.388	-.385	-.370	-.349	-.338

[a]No orifice.

TABLE 11.- PRESSURE COEFFICIENTS AND AERODYNAMIC CHARACTERISTICS OF AN NACA 16-003.72 PROPELLER BLADE SECTION (x = 0.975) $\beta_{0.75R} = 45.2^\circ$, $\beta_x = 38.50^\circ$, B = 2 - Concluded

(g) M = 0.65.

	J	2.459	2.431	2.408	2.389	2.355	2.324	2.294	2.269	2.237	2.218	2.194	2.152	2.141
	M_x	1.040	1.047	1.053	1.062	1.068	1.075	1.084	1.095	1.106	1.109	1.125	1.129	1.137
	α_x'	-.26	.06	.33	.55	.95	1.31	1.67	1.97	2.36	2.59	2.88	3.41	3.54
	$\Delta\beta$	.10	.19	.27	.34	.50	.67	.82	.90	.97	1.00	1.04	1.09	1.10
	α_i	-.39	-.07	.10	.23	.43	.59	.87	1.07	1.28	1.41	1.66	1.86	1.93
	c_n	-.0461	-.0084	.0110	.0271	.0510	.0681	.1016	.1242	.1494	.1635	.1932	.2158	.2245
	c_m	.0040	.0050	.0038	.0017	-.0005	-.0021	-.0039	-.0068	-.0095	-.0135	-.0168	-.0199	-.0225
	c_c	.0167	.0171	.0171	.0172	.0172	.0172	.0169	.0170	.0169	.0171	.0171	.0173	.0173
	c/b	Pressure coefficient, P												
Upper surface	[a]0.000	1.300	1.304	1.312	1.314	1.318	1.322	1.328	1.335	1.343	1.345	1.356	1.359	1.365
	.025	.189	.137	.109	.093	.071	.058	.034	.021	.006	.001	-.016	-.022	-.020
	.050	.060	.010	-.009	-.008	-.023	-.052	-.102	-.138	-.163	-.177	-.198	-.207	-.204
	.100	-.065	-.081	-.086	-.097	-.123	-.135	-.156	-.171	-.193	-.201	-.214	-.223	-.223
	.200	-.130	-.145	-.149	-.147	-.160	-.166	-.184	-.192	-.200	-.202	-.208	-.214	-.212
	.300	-.077	-.092	-.094	-.088	-.090	-.089	-.110	-.121	-.132	-.134	-.137	-.145	-.143
	.400	-.075	-.081	-.078	-.072	-.075	-.072	-.086	-.097	-.103	-.103	-.102	-.107	-.105
	.500	-.160	-.170	-.169	-.162	-.161	-.156	-.170	-.178	-.190	-.192	-.193	-.197	-.194
	.600	-.161	-.169	-.171	-.165	-.162	-.156	-.164	-.175	-.183	-.184	-.186	-.192	-.189
	.700	-.199	-.204	-.206	-.203	-.203	-.197	-.200	-.210	-.219	-.219	-.219	-.224	-.221
	.800	-.226	-.230	-.231	-.229	-.232	-.227	-.231	-.239	-.250	-.252	-.252	-.255	-.251
	.900	-.297	-.299	-.296	-.292	-.295	-.289	-.290	-.297	-.305	-.309	-.308	-.311	-.307
	.950	-.340	-.343	-.339	-.335	-.336	-.331	-.331	-.335	-.341	-.344	-.343	-.346	-.342
Lower surface	.0375	.011	.058	.105	.146	.181	.219	.264	.297	.334	.366	.407	.439	.463
	.075	-.134	-.105	-.072	-.038	-.004	.035	.077	.109	.144	.174	.217	.246	.271
	.150	-.128	-.098	-.066	-.037	-.011	.013	.038	.065	.095	.121	.154	.179	.174
	.250	-.163	-.139	-.114	-.091	-.076	-.057	-.037	-.021	-.003	.015	.040	.058	.076
	.350	-.167	-.151	-.134	-.115	-.098	-.078	-.063	-.050	-.034	-.018	.006	.021	.038
	.450	-.151	-.142	-.126	-.106	-.090	-.072	-.062	-.053	-.042	-.027	-.007	.005	.020
	.550	-.179	-.166	-.150	-.131	-.116	-.100	-.091	-.083	-.073	-.062	-.044	-.032	-.019
	.650	-.200	-.192	-.179	-.165	-.151	-.138	-.128	-.124	-.115	-.104	-.086	-.075	-.061
	.750	-.200	-.195	-.185	-.172	-.161	-.147	-.138	-.135	-.128	-.118	-.101	-.092	-.078
	.850	-.275	-.270	-.258	-.244	-.232	-.215	-.203	-.197	-.187	-.177	-.159	-.148	-.135
	.925	-.372	-.368	-.355	-.339	-.326	-.310	-.296	-.287	-.278	-.267	-.248	-.237	-.224
	[a].975	-.417	-.427	-.425	-.407	-.399	-.383	-.364	-.347	-.345	-.316	-.303	-.287	-.276
	[a]1.000	-.370	-.385	-.380	-.381	-.380	-.378	-.377	-.372	-.365	-.337	-.329	-.314	-.300

[a]No orifice.

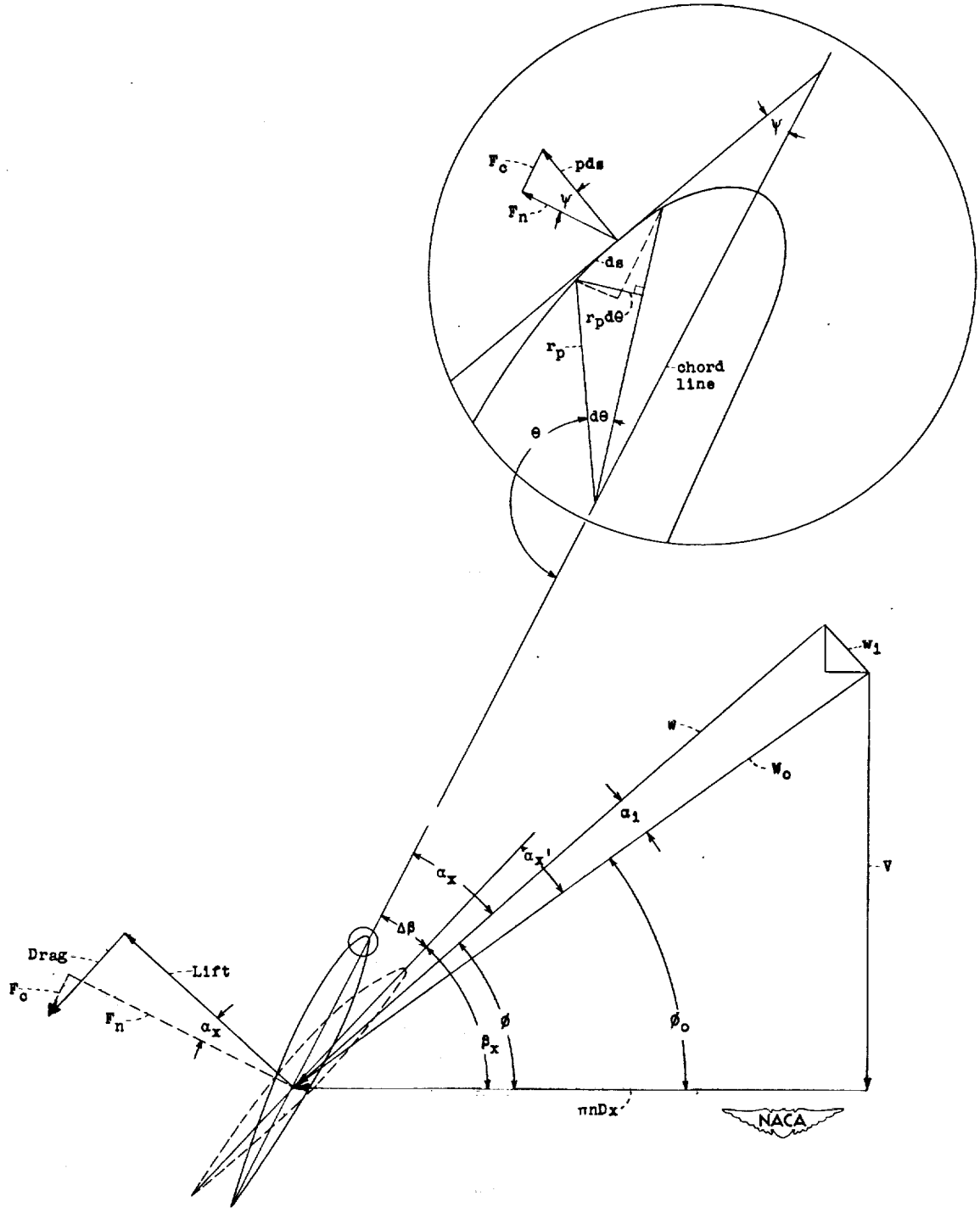


Figure 1.- Vector diagram of the velocities and forces acting on a blade section.

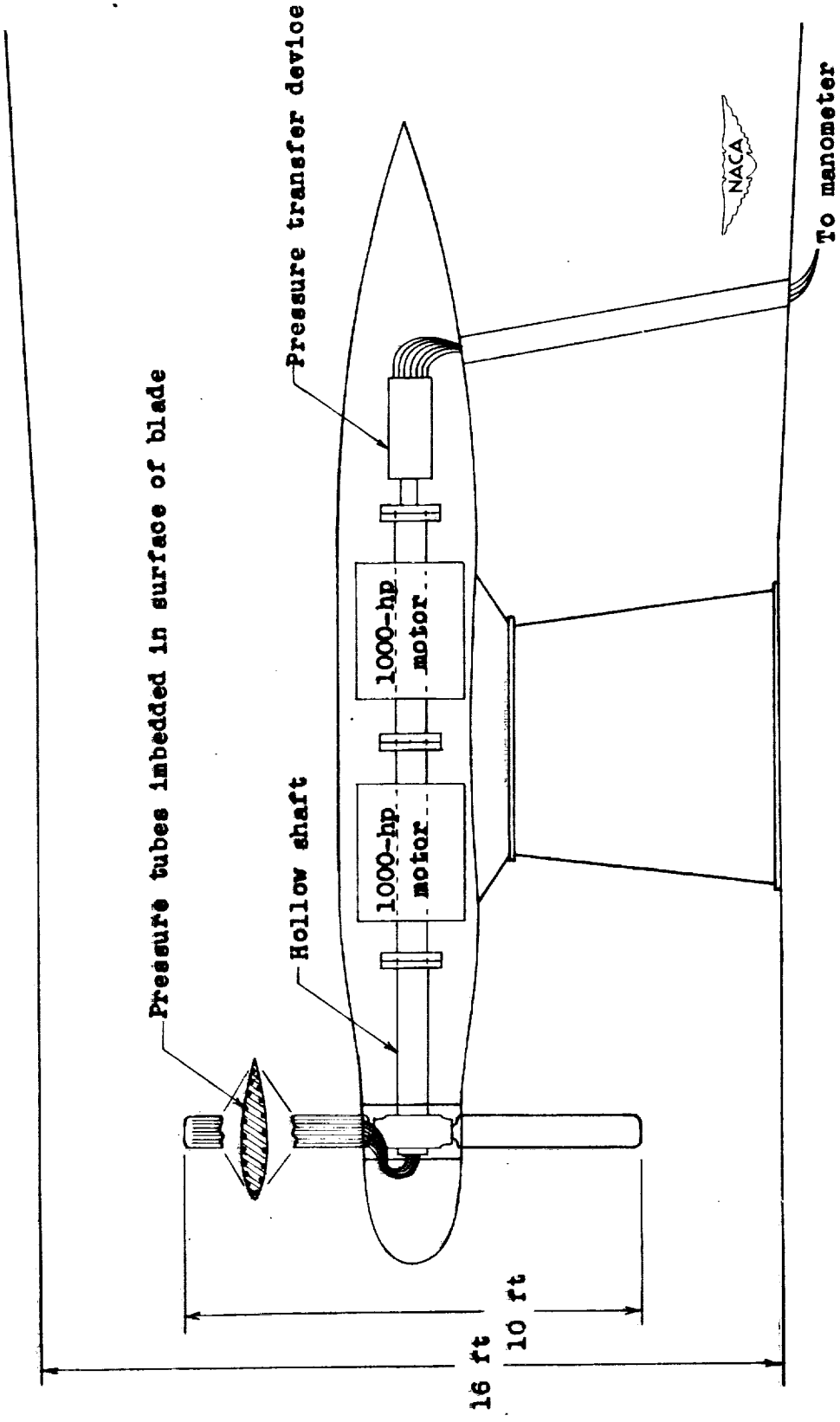


Figure 2.- Diagram of the apparatus used to obtain pressure distributions on the sections of operating propellers.

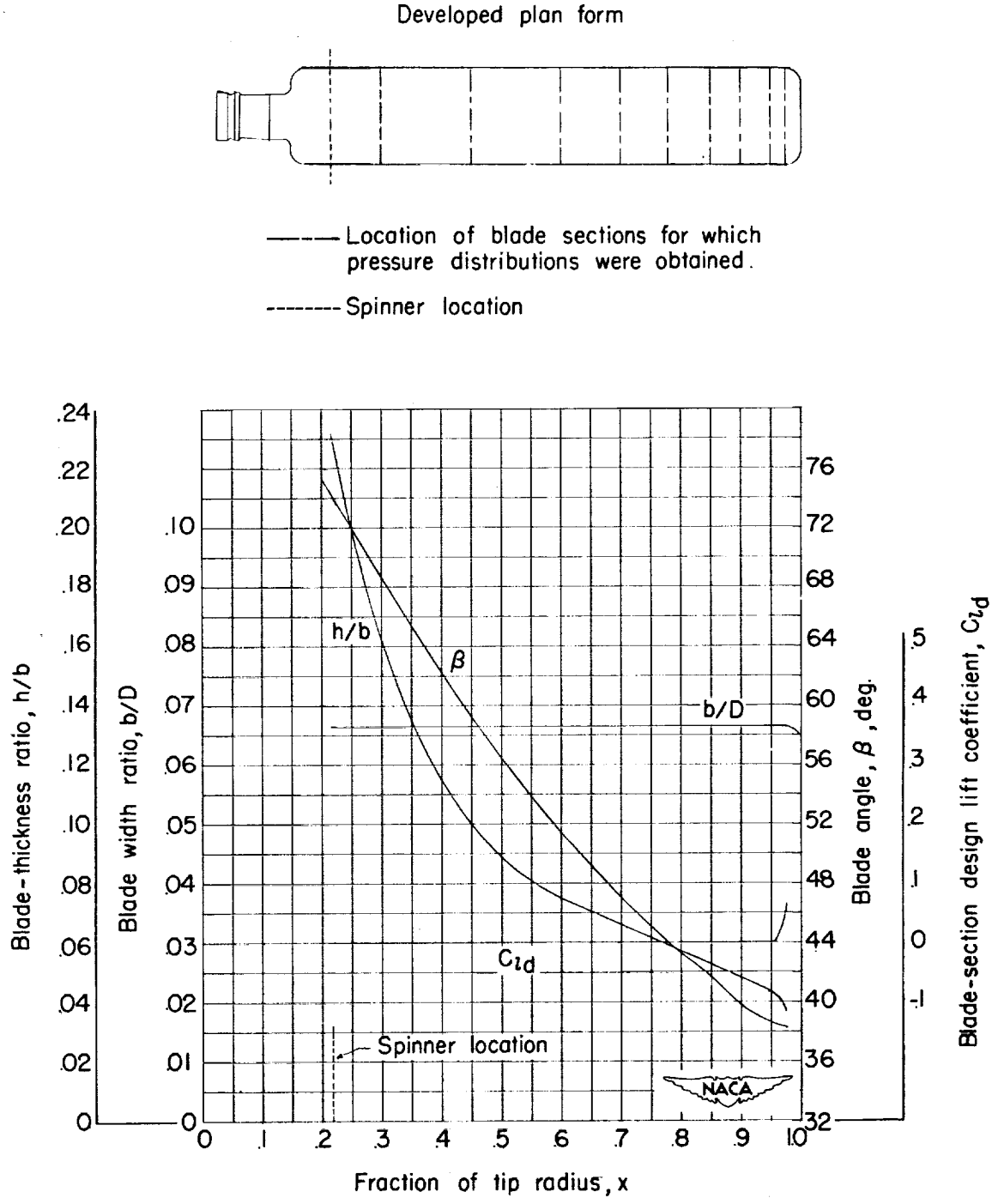


Figure 3.- Blade-form curves for NACA 10-(0)(066)-03 propeller.

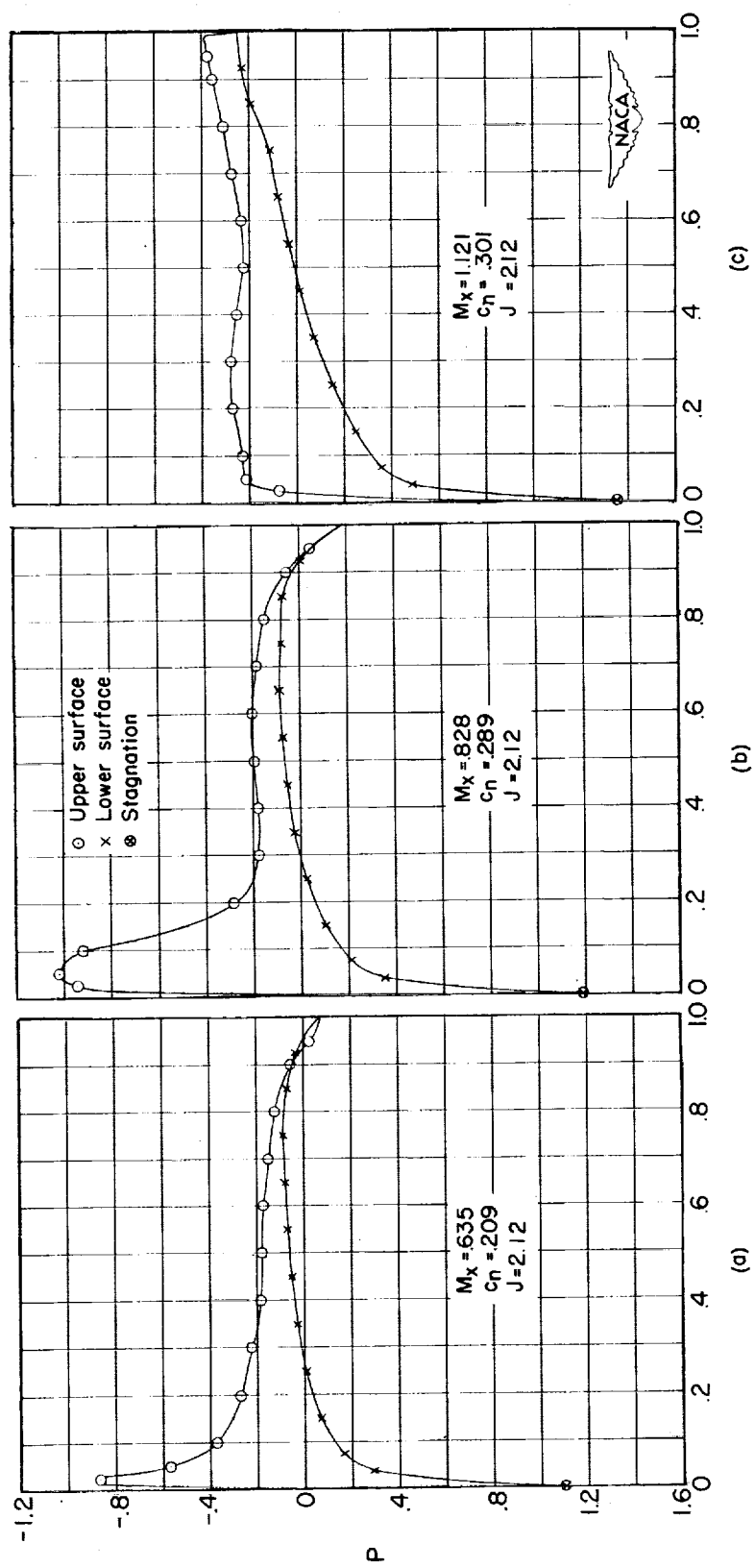


Figure 4.- Variation of pressure coefficient along the chord of NACA 16-004.4 propeller blade section located at the 0.95 radius. α_x = 1.6 (approx.).

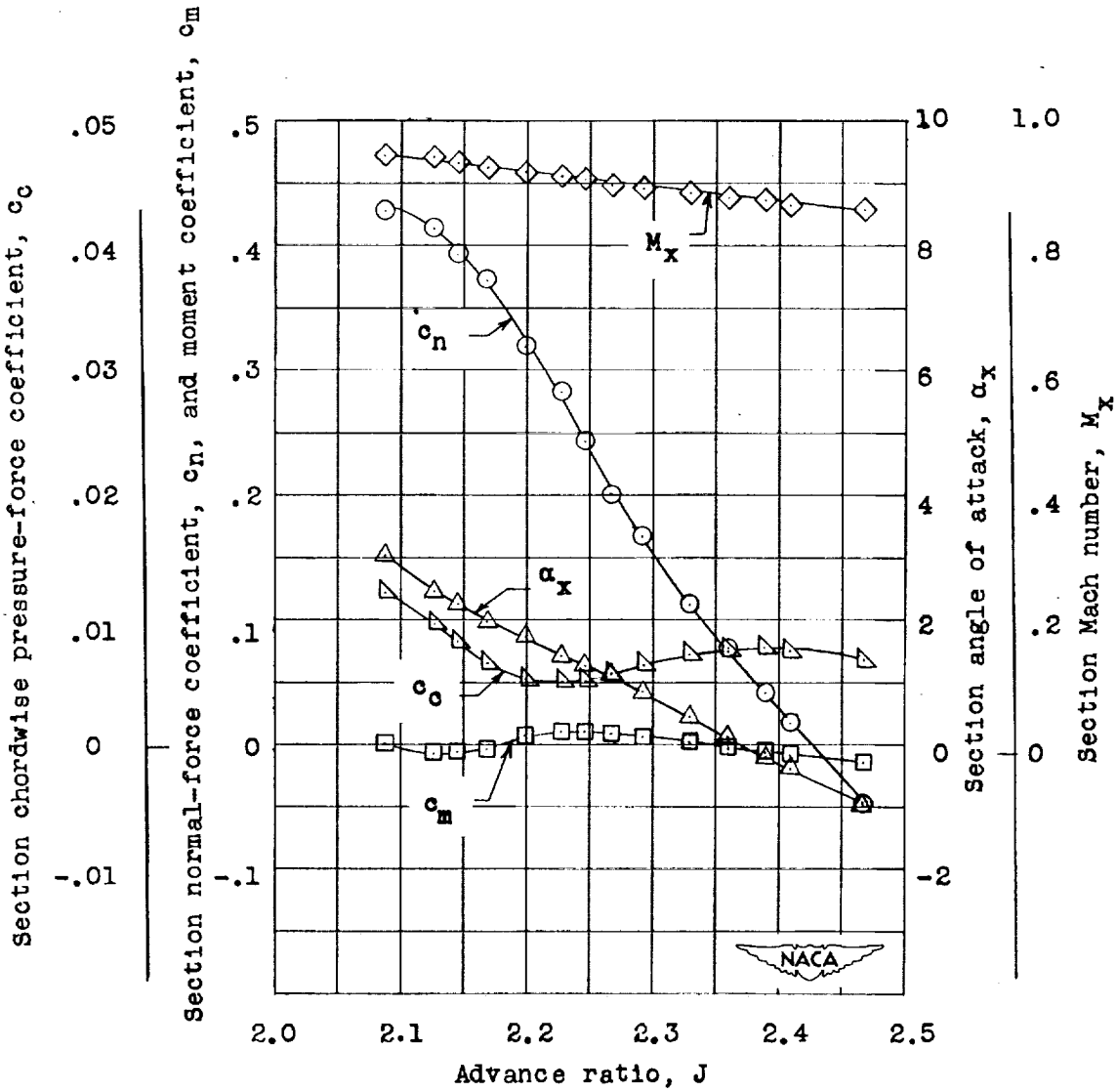


Figure 5.- Variation of section normal-force coefficient, moment coefficient, chordwise-pressure-force coefficient, angle of attack, and Mach number with advance ratio for the blade section at the 0.90 radius, from table 8(e). $\beta_{0.75R} = 45.2°$; M = 0.56.

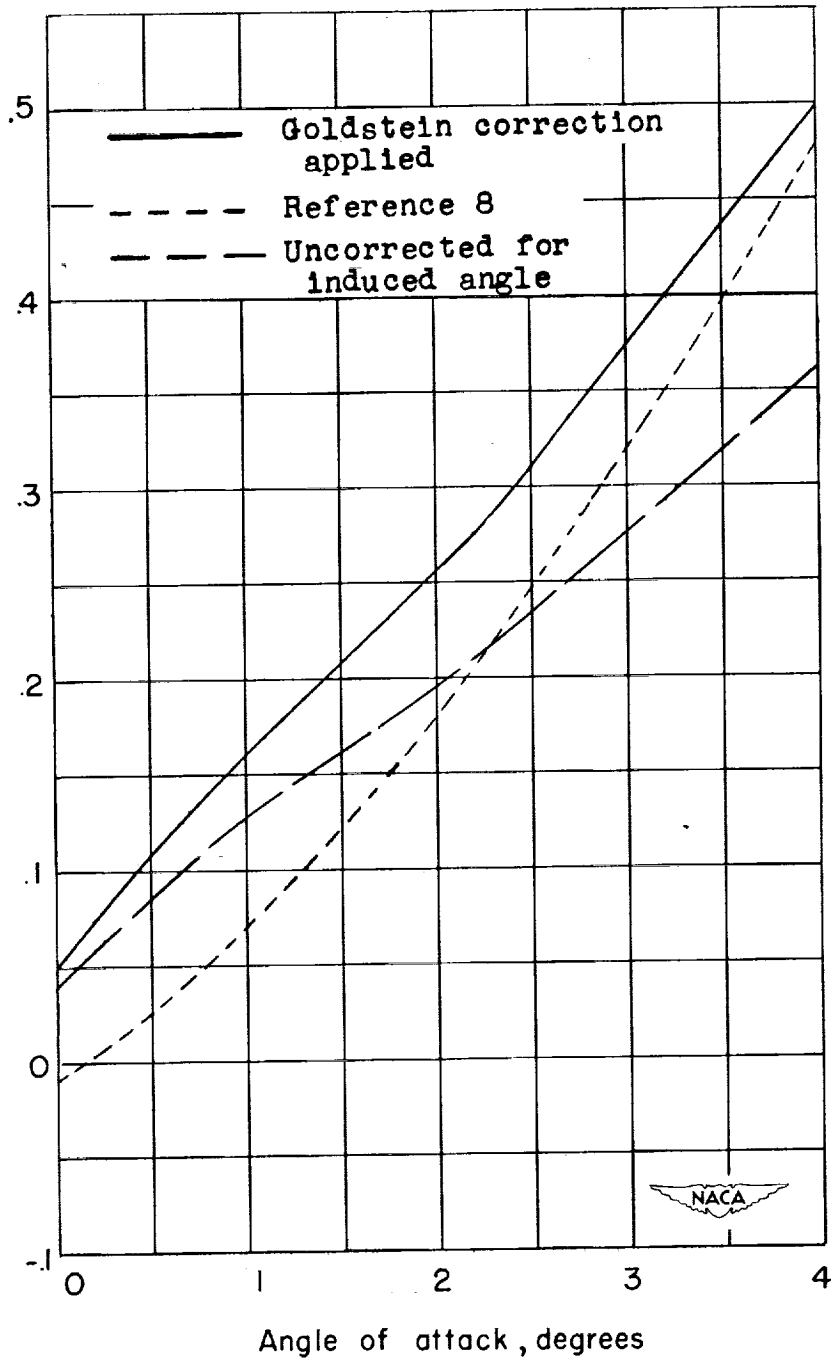


Figure 6.- Effect of induced angle correction on the slope of the normal-force-coefficient curve of NACA 16-005.85 blade section operating at $x = 0.78$. $M_x = 0.7$.

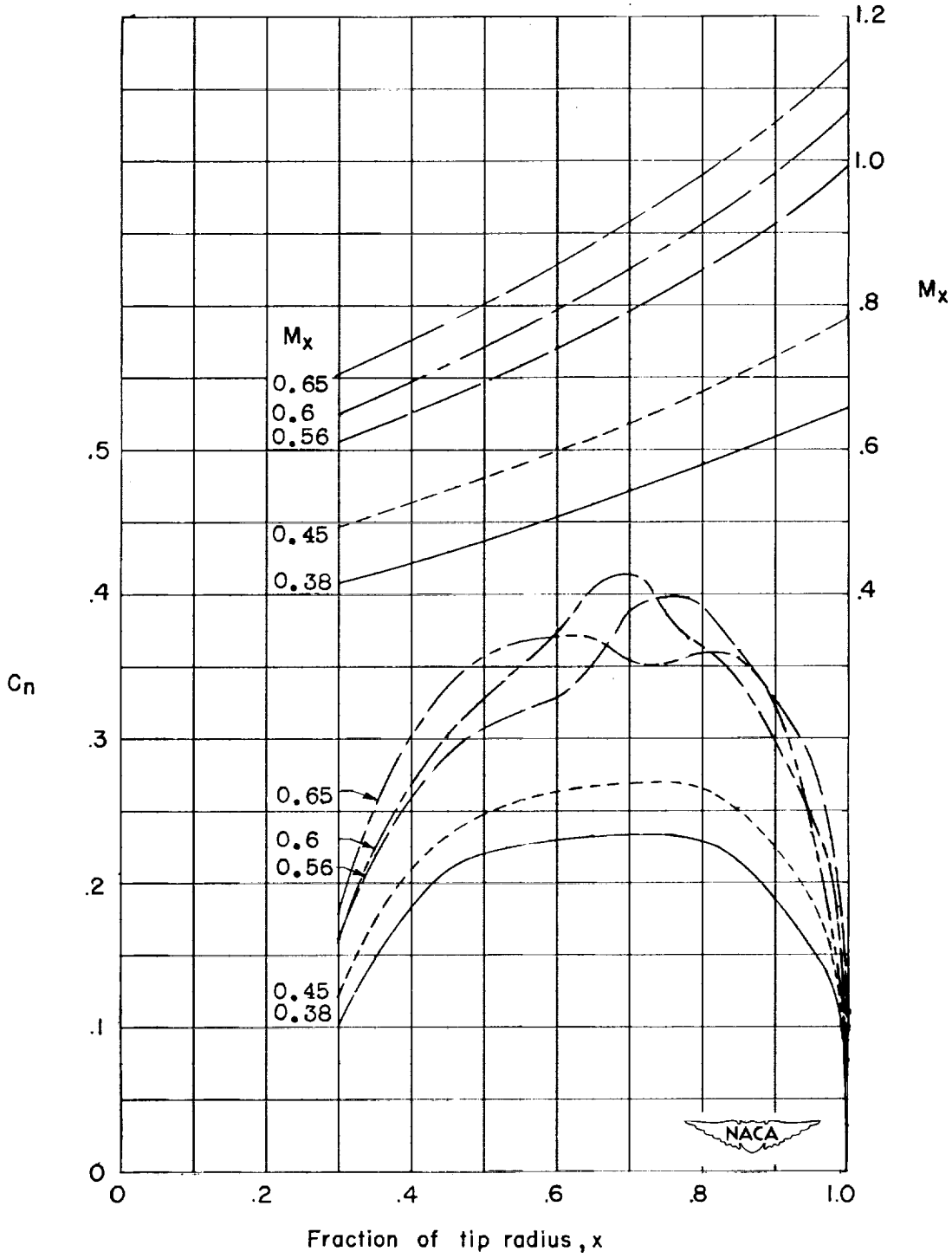


Figure 7.- Variation of the normal-force coefficient and section Mach number along the blade radius. $\beta_{0.75R} = 45.2^{\circ}$; J = 2.2.