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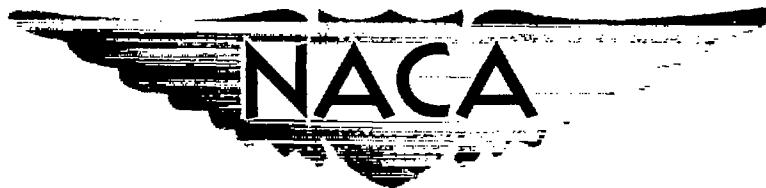
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RESEARCH MEMORANDUM

INVESTIGATION AT TRANSONIC SPEEDS
OF LOADING OVER A 30° SWEPTBACK WING OF ASPECT
RATIO 3, TAPER RATIO 0.2, AND NACA 65A004 AIRFOIL
SECTION MOUNTED ON A BODY

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RESEARCH MEMORANDUM

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SUMMARY

The aerodynamic load characteristics of a wing-body combination were determined experimentally from 0.80 to 1.03 Mach number for angles of attack up to 26 degrees. Two wings, both with 30° sweep of the quarter-chord line, taper ratio 0.2, aspect ratio 3, and thickness of 4 percent chord, but of different types of construction, were tested. One wing was of solid steel and the other was of plastic with an inner steel core.

The load distributions for both wings were similar, but loads on the more flexible wing were somewhat reduced. The twist distributions for both wings were calculated. Some typical flow studies of the boundary layer are presented.

INTRODUCTION

Satisfactory stability characteristics have been obtained at subsonic speeds for thin low-aspect-ratio wings with moderate leading-edge sweep (ref. 1). In order to evaluate in detail the load and stability characteristics of this type of wing on a body of revolution throughout the transonic speed range, a wing with an aspect ratio of 3, a taper ratio of 0.2, 30° sweepback of the quarter-chord line, and with NACA 65A004 airfoil sections was selected and the load characteristics are presented. The longitudinal stability characteristics are presented in reference 2. This wing is one of several wings being studied in a general program at the Langley 16-foot transonic tunnel. To date, the load characteristics of other wings in the program have been published in references 3, 4, 5, and 6. Data were obtained at Mach numbers from 0.80

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to 1.03 for angles of attack up to about 26° for two wings of the same geometry but constructed of different materials. One wing was made of steel and plastic in an attempt to devise a cheaper and faster method of wing construction. The other was a solid steel wing used for comparison to check the effect of aeroelasticity and to establish the validity of data obtained with the less-rigid reinforced plastic wing. The twist distribution due to aerodynamic loading was calculated for both wings. Some typical flow studies of the boundary layer are also presented.

SYMBOLS

b	wing span
c	wing chord parallel to the plane of symmetry
\bar{c}	average wing chord
c'	mean aerodynamic chord
c_n	wing section normal-force coefficient
c_m	section pitching-moment coefficient about the wing mean aerodynamic chord
c_N	wing-panel normal-force coefficient, $\int_{0.16}^{1.0} c_n \frac{c}{\bar{c}} d\left(\frac{2y}{b}\right)$
c_m	wing-panel pitching-moment coefficient about $0.25c'$, $\int_{0.16}^{1.0} c_m \frac{c^2}{\bar{c}c'} d\left(\frac{2y}{b}\right)$
c_p	pressure coefficient, $\frac{\Delta p}{q}$
M	Mach number
Δp	local static pressure minus the free-stream static pressure
q	dynamic pressure
x	distance parallel to the center line
y	distance normal to the plane of symmetry

α model angle of attack

θ angle of twist of the chord line measured in planes parallel to the plane of symmetry

Subscripts:

L wing lower surface

U wing upper surface

MODEL DESCRIPTION

The general arrangement of the model is shown in figure 1(a). The wing was mounted to the same steel body of revolution used in references 4 and 5. The fuselage had a fineness ratio of 11, an ogive nose, cylindrical center section and a boattail afterbody. The wing was swept 30° at the quarter-chord line with a taper ratio of 0.2, and aspect ratio of 3, and NACA 65A004 sections parallel to the plane of symmetry. Two wings were constructed of different materials. Figure 1(b) shows typical cross sections of both wings. One was constructed entirely of steel with a leading-edge section and a trailing-edge section which was tongue and grooved to a center section. The spaces left in the grooves were used as ducts for the pressure tubes to the orifices. The other wing was constructed in such manner that a steel core with a thin brass plate at the trailing edge was surrounded with the wing pressure tubes, and then polyester resin was poured about the structure to form the wing contour. This wing hereinafter is called the plastic wing.

The twist characteristics for these wings were determined by the method described in appendix A. The steel wing was found to be less than half as flexible as the plastic wing. The influence coefficients A_{ij} and B_{ij} (see appendix A) used to calculate the twist were as follows:

For the steel wing:

i	$A_{ij} \times 10^{-5}$ at $j = -$				
	1	2	3	4	5
1	0	0	0	-1	-4
2	-2	6	-2	-8	-13
3	-2	5	9	-9	-28
4	1	4	7	11	-27
5	1	4	5	12	-5

i	$B_{ij} \times 10^{-5}$ at $j = -$				
	1	2	3	4	5
1	0	0.1	0.1	0.2	-0.3
2	-.1	1.3	1.1	.9	.3
3	-.1	1.7	3.9	3.2	.3
4	.3	1.7	4.9	11.5	10.5
5	.3	1.8	4.8	14.1	37.9

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For the plastic wing:

i	$A_{ij} \times 10^{-5}$ at $j = -$				
	1	2	3	4	5
1	0	-2	-3	-6	-11
2	-1	7	-7	-22	-34
3	1	9	8	-31	-78
4	2	9	14	-2	-100
5	2	9	14	6	-69

i	$B_{ij} \times 10^{-5}$ at $j = -$				
	1	2	3	4	5
1	0	0.3	1.0	0.8	1.1
2	-0.1	1.9	1.8	0	3.1
3	.1	3.3	7.0	7.3	7.6
4	.2	3.5	10.4	23.1	33.4
5	.2	3.5	11.1	30.2	90.8

where A_{ij} and B_{ij} represent the twist in degrees measured parallel to the angle-of-attack plane at the i th station due to a load or moment at the j th station, respectively. The five spanwise stations chosen were located as follows:

Station	$y/b/2$
1	0.245
2	.412
3	.580
4	.750
5	.915

A better comparison of the twist characteristics, however, of the steel and plastic wing is shown in figures 2(a) and (b). The plots show the effect of a unit loading applied at any spanwise station (abscissa), on the particular spanwise stations 1 through 5, for loadings at the 25- and 65-percent-chord lines. The main difference between the two plots results from a change in the stiffness and a shift of the elastic-axis location of the two wings. If the elastic axis is defined as that point of the local chord which gives zero twist when a load is applied at the point, then figure 2 indicates the position of the elastic axis. The plots show that the elastic axis of the plastic wing passes through the 0.25c at about the $0.75b/2$ station, while that of the steel wing passes through the 0.25c at the $0.85b/2$ station. Inboard of these spanwise stations the elastic axis lies behind the 0.25c line (positive values of twist), and outboard the axis lies ahead of the 0.25c line (negative values of twist).

The rows of pressure orifices were located at 16, 25, 40, 60, 75, and 95 percent semispan stations for both the steel and plastic wings. In each row on both the upper and lower surfaces, the orifices were

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located at 1, 2, 5, 7, 10 percent c and at intervals of every 5 percent chord thereafter up to the 95-percent-chord station.

TESTS AND TECHNIQUES

The tests were conducted in the Langley 16-foot transonic tunnel, which is described in reference 7. The Mach number range extended from 0.80 to 1.03, which corresponded to a Reynolds number range from about 7×10^6 to 8×10^6 (based on the wing mean aerodynamic chord). The maximum angle-of-attack range extended from -2° to 26° in 2° increments.

The pressure data were obtained simultaneously with the force data presented in reference 2. The wing pressures were recorded by photographing mercury manometer boards. The data were then processed by electronic calculating machines, which plotted and tabulated the results.

At the termination of the pressure program, a study was made of the flow in the boundary layer of the plastic wing for a reduced Mach number and angle-of-attack range. The technique used in reference 5 was employed to render the flow visible. The technique entails painting the wing surface black and then applying a white ground-glass paint similar to china clay. The wing therefore appears white when dry. Wetting with a clear fluid causes the black sublayer to become visible. Thus, by emitting fluid from a point source on the wing in a stream, the fluid path in the boundary layer is traced. As the fluid trace changes with time, the history of the trace disappears as a result of the evaporation of the fluid, so that the existing trace represents an average flow for a short interval of time. For these tests clear varsol was used as the liquid agent. The point sources were particular pressure orifices through which the fluid was forced. The locations of the sources were as follows:

$\frac{x}{c}$ at -				
$0.25 \frac{b}{2}$	$0.40 \frac{b}{2}$	$0.60 \frac{b}{2}$	$0.75 \frac{b}{2}$	$0.95 \frac{b}{2}$
0.5	0.5	0.5	0.5	0.5
.10	----	----	----	----
.15	.15	----	----	----
.20	.20	----	----	----
.25	.25	.25	.25	----
----	.35	----	----	----
.45	.45	.45	.45	.45
.65	.65	.65	.65	----
.80	.80	.80	.80	.80
.90	.90	.90	.90	----

The flow studies were recorded photographically.

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ACCURACY OF MEASUREMENTS

Sufficient time was allowed after a particular test condition was reached for the pressure manometer tubes to settle within about 1 percent of the ultimate value of the manometer level.

The indicated angle of attack was corrected for tunnel-flow angularity. Based on readout accuracy and repeatability, the angle of attack and Mach number are believed to be accurate within the following limits:

α , deg	±0.01
M	±0.005

RESULTS AND DISCUSSION

Flow studies.-- Sample photographs of the flow on the right plastic wing are presented in figure 3. No general discussion of swept-wing flow is attempted here. Only those features of the flow studies which represent significant characteristics to be noted in the following wing pressure discussion are covered. A general discussion of the flow over swept wings may be found in references 8, 9, and 10.

Some of the features of the boundary flow which can be noted in the photographs of figure 3 are the indications of shock waves, the indications of flow separation, and the indications of vortex-type flow.

Shock waves are frequently indicated by the fluid path where there are abrupt changes of the streamlines. Note in figure 3(a) at $M = 0.94$ that shadowgraph traces of the waves are visible at angles of attack of 2° and 4° (indicated by the arrows on the figure), and note how the fluid lines are altered where they intersect the wave. The location of the waves is more obvious at the higher angles of attack by the more abrupt turning of the flow.

Separation first appears as an irregular darkened region generally increasing in area with increasing angle of attack. For this wing there appear to be two different areas where separation may commence, depending on the Mach number. At $M = 0.80$ for example, figure 3(a) at $\alpha = 4^\circ$ shows the separation to start along the leading edge near the wing tip. This results from a combination of a swept leading edge, a small leading-edge radius, and a thin wing. At the higher Mach numbers leading-edge separation as such occurs only at much higher angles of attack. (Compare 0.80 with 0.94 and 1.03 Mach numbers of fig. 3(a) for $\alpha = 6^\circ$.) However, separation does start near the tip at the trailing edge before the leading-edge separation occurs. See figure 3(a) at $\alpha = 6^\circ$ for

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$M = 0.94$ and figure 3(b) at $\alpha = 10^\circ$ for $M = 1.03$. This separation appears to stem from the intersection, in the vicinity of the wing tip, of the shocks originating at the leading edge and near the trailing edge of the wing-body juncture. Both types of separation extend inboard with increasing angle of attack.

Once separation occurs, the existence of vorticity in the flow above the wing is indicated in the boundary-layer traces by the circulation of the fluid lines in a counterclockwise direction. For example, observe the photographs for $M = 0.80$ at the higher angles of attack. A line through the aftermost points along each of the indicated streamlines should coincide with the projection of the vortex core on the wing surface. Note that at $\alpha = 6^\circ$, the vortex cone sheds near the tip and the point of shedding progresses inboard with increasing angle of attack, as does the separation. At $\alpha = 19^\circ$ (fig. 3(c)) the vortex appears to shed at about $0.25b/2$. The vortex strength at this angle of attack is much greater than at the lower angles of attack, as is shown by the accumulation of the fluid near the vortex origin.

The origin of the vorticity at $M = 0.94$ and $M = 1.03$ appears to be in the vicinity of the intersection of the shock waves where the separation forms. Vorticity is permitted at the shock intersection since different entropy changes occur inboard and outboard of the intersection. The angle of attack at which this vortex forms increases with Mach number. With increasing angle of attack at the higher Mach numbers, the vortex flow finally reverts to a vortex generated along the leading edge once the leading-edge separation occurs at the higher angles of attack.

Chordwise pressure distributions. - A tabulation of the chordwise pressure coefficients for all test conditions for the steel wing is presented in table I. Figure 4 presents a comparison between the chordwise pressure distributions for the plastic and steel wings. As is noted, there are minor differences in the angles of attack for the two wings. In general these differences are of the order of the accuracy of measurements of these angles ($\pm 0.10^\circ$). The differences in the pressure coefficient with one exception may therefore be considered to be caused principally by aeroelastic effects. A significant difference in the variation of the chordwise pressure distributions exists between the two wings at angles of attack from about 2° to 8° at a Mach number of 0.80. As this Mach number was the first for which data were obtained, the discrepancy suggests a temporary difference in the leading-edge surface conditions for the two wings. The plastic-wing flow studies of figure 3(a), which were taken after the pressure tests, for angles of attack of 4° and 6° at a Mach number of 0.80 indicated separation at the outer spanwise stations, but the pressure distributions of the plastic wings indicated attached flow. The outboard stations of the plastic wing generally show the effect of decreased local angles of attack due to load when compared to the steel wing.

For either wing at the low angles of attack the increase in load coefficient progressing toward the tip illustrates the effective spanwise increase of angle of attack induced by the trailing vortices of a highly tapered swept wing. Consequently, the separation appears first at the tip and progresses inboard with increasing angle of attack as indicated by the flow studies of figure 3.

The pressure distributions on the upper surface are fairly constant over most of the wing panel at an angle of attack of about 20° , which of course indicates separation. Increasing the angle above 20° produces more negative pressure coefficients and, in addition, the innermost station shows signs of the streamlines being turned downward toward the wing surface; that is, the pressures near the trailing edge begin to recover or increase in a positive sense. As the angle of attack is further increased this effect tends to progress outboard. These pressure changes are believed to be caused by the change in location and the increasing strength of the vortex that is shown in figure 3 at $M = 0.80$. At $M = 0.94$ to 1.03 for the high angles of attack, the distributions near the root are also influenced by the strong shock wave shown by the chordwise distributions.

Spanwise load distributions.- It is apparent from the chordwise pressures that the type of wing construction, with some exceptions, has only minor effects on load distribution; therefore, the spanwise load distributions are presented only for the steel wing in figure 5. The distributions are nearly elliptical at the low angles of attack, but as the angle of attack increases, the load distributions tend to become triangular, with the triangular loading commencing at the tip. The triangular distribution spreads inboard as separation forms with further increase of angle of attack. At the angles of attack where the load distribution is elliptical inboard and triangular outboard, increasing Mach number tended to reduce the extent of the triangular loading. The implication is that increasing Mach number at a high constant angle of attack extends the attached flow region outboard. This implication is verified by the flow studies (fig. 3(c)). Note that at angles of attack of 15° and 17° , the higher the Mach number, the larger the region of attached flow.

Panel loads.- The variation of the integrated wing loads with angle of attack is shown in figure 6 for the test Mach number range. If compressibility effects are considered, the load-carrying capacity per unit angle of attack should increase to a maximum at approximately $M = 1.00$.

The data show that, for C_N values up to about 0.6, the maximum load-carrying capacity per unit angle of attack occurred at $M \approx 0.94$. For C_N values from 0.6 to the highest test value, the maximum load-carrying capacity occurred at $M \approx 0.98$.

A comparison of the variation of the panel pitching-moment coefficient about the $0.25c'$ with normal-force coefficient and the wing-body pitching-moment data of reference 2 is shown in figure 7. The changes of the slopes $\frac{dC_m}{dC_N}$ with normal-force coefficient agree in general with those of the data of reference 2. The absolute differences in $\frac{dC_m}{dC_N}$ at a given normal-force coefficient are due to the absence of the fuselage stability contribution in the present data.

Center of loads.-- Figure 8 presents the exposed panel load centers and the local section load centers for the angle-of-attack and Mach number range of the tests. The spanwise center of load was located at approximately 50 percent of the semispan for all test conditions. The most rearward position was at about 46 percent of the mean aerodynamic chord for the panel load centers and 46 percent of the local chord for the section load centers.

Increasing angle of attack up to about 20° tended to shift the panel center of load rearward and inboard. The single data point for α above 20° shows a tendency for the center of load to become invariant with the higher angles of attack. In general the effects of changes in angle of attack on the center of load decrease with increasing Mach number; this result is to be expected since the chordwise load distribution becomes more rectangular as the flow becomes supersonic over most of the wing.

Twist distribution.-- Combining the influence coefficients and the integrated normal forces and moments in the manner described in appendix A or by the method of reference 5 yields the wing spanwise twist distributions. The dynamic pressures corresponding to the measured loads are presented in figure 9 for the test Mach number range. Calculations were made for both wings at angles of attack of 4° , 8° , and 20° and for $M = 0.80$ and 1.00 . A comparison of the resulting spanwise twist distributions for the steel and plastic wings is presented in figures 10(a) and 10(b). At $\alpha = 20^\circ$ and $M = 1.0$ the calculated twist angle of the tip of the plastic wing was -0.9° as compared to -0.4° for the steel wing.

CONCLUDING REMARKS

The following remarks are drawn from the loads investigation of an all steel wing and a geometrically identical reinforced plastic wing. Both wings have 30° sweepback of the quarter chord, a taper ratio of 0.2, and embody NACA 65A004 airfoil sections.

The chordwise pressure distributions for the steel and plastic wings were similar for the test range with some exceptions at Mach number 0.80.

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However the type of construction had only minor effects on the chordwise and spanwise load distributions. The order of magnitude of the tip twist was calculated at a Mach number of 1.0 and an angle of attack of 20° to be -0.9° for the plastic wing as compared to -0.4° for the steel wing. The spanwise load distributions were nearly elliptical at the low angles of attack, but at the higher angles the distributions tended to become triangular commencing at the tip. The center of load on the wing panels moved rearward and inboard with increasing angle of attack for all Mach numbers. The movement of the load center with angle of attack decreased considerably with increasing Mach number.

Langley Aeronautical Laboratory,
National Advisory Committee for Aeronautics,
Langley Field, Va., June 19, 1957.

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APPENDIX A

METHOD OF COMPUTING WING TWIST DUE TO AERODYNAMIC LOADING

If the spanwise and chordwise distribution of aerodynamic loading of an elastic wing are known, the twist distribution of the wing can be calculated, as follows

$$\{\theta\} = [A] \{l\} + [B] \{m\}$$

where the influence coefficients are defined as the elements of the square matrices $[A]$ and $[B]$.

The elements A_{ij} and B_{ij} represent the twist at the i th spanwise station due to a load or moment at the j th station.

The spanwise load distribution and the spanwise pitching-moment distribution are elements of the column matrices $\{l\}$ and $\{m\}$, respectively, where the elements l_j and m_j are the integrated loads and moments respectively over the j th spanwise segment; that is,

$$l_j = q \bar{c} \frac{b}{2} \int_{(j-1)/n}^{j/n} c_n \frac{c}{\bar{c}} d\left(\frac{2y}{b}\right)$$

and

$$m_j = q c' \bar{c} \frac{b}{2} \int_{(j-1)/n}^{j/n} c_m \frac{c^2}{c' \bar{c}} d\left(\frac{2y}{b}\right)$$

where

n number of spanwise stations

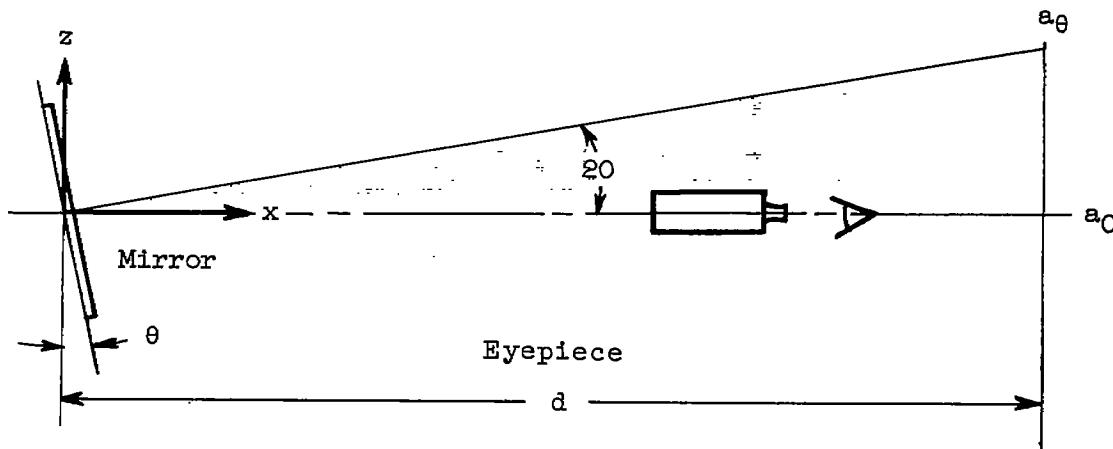
c' mean aerodynamic chord

\bar{c} average chord

c local chord

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The setup for measuring twist with mirrors is shown in figure 11. The technique employed for obtaining the influence coefficients involved principally the use of mirrors, linear scales, and a transit. Loads were applied at the desired points along the wing. A diagram illustrating the twist measurements is shown below:



where

a_0 zero twist reading

a_θ reading due to twist θ

A change in the angle θ of the mirror required a change in the scale reading as sighted through the eyepiece. Small translations of the mirror up or down have little effect on the scale reading. Thus, only twist about the y-axis (perpendicular to the plane of the paper) is observed.

Loading at the j th spanwise station of the $0.25c$ yields the influence coefficients due to normal force of the i th spanwise station. Thus

$$A_{ij} = \frac{\theta_i}{(\text{Load})_j} \frac{\text{deg}}{\text{lb}}$$

where

$$\theta_i = \frac{1}{2} \tan^{-1} \frac{(a_{\theta j} - a_{0j})}{d}$$

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Loading at the jth spanwise station of the 0.65c yields the influence coefficients due to a moment about the y-axis through the 0.25c of the ith station; thus,

$$B_{ij} = \frac{\theta_{i0.65c}}{\text{Load } j} - \frac{A_{ij}}{(0.65c - 0.25c)_j} \frac{\text{deg}}{\text{in-lb}}$$

where

$$\theta_{i0.65c} = \frac{1}{2} \tan^{-1} \frac{(a_{\theta j} - a_{0j})_{0.65c}}{d}$$

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TABLE I - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER

Pressure coefficient, P_c , at														
		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent	C	$M = 0.80$ $\alpha = -1.94^\circ$							$M = 0.80$ $\alpha = -0.04^\circ$					
Upper surface														
	0.00	.041	.631	.567	.510	.454	.299		.050	.677	.640	.661	.624	.675
	1.25	.290	.223	.257	.287	.288			.161	.001	-.009	-.026	-.048	-.068
	2.50	.238	.132	.148	.176	.203	.193		.120	-.049	-.050	-.086	-.070	-.068
	5.00	.164	.099	.096	.109	.114	.145		.031	-.049	-.050	-.071	-.088	-.083
	7.50	.145	.085	.083	.065	.067	.083		.034	-.049	-.056	-.089	-.109	-.107
	10.00	.092	.048	.046	.038	.037	.033		.012	-.055	-.079	-.120	-.104	-.124
	15.00	.041	.010	.003	.007	.008	.005		.001	-.059	-.074	-.116	-.104	-.125
	20.00	.022	-.017	-.025	-.014	-.020	-.072		.039	-.099	-.116	-.132	-.126	-.145
	25.00	-.006	-.020	-.041	-.048	-.053	-.109		.071	-.096	-.118	-.135	-.151	-.156
	30.00	-.024	-.042	-.051	-.061	-.068	-.103		.075	-.104	-.124	-.137	-.152	-.156
	35.00	-.054	-.061	-.069	-.069	-.085	-.114		.104	-.120	-.136	-.139	-.158	-.161
	40.00	-.068	-.065	-.080	-.090	-.093	-.152		.113	-.120	-.139	-.149	-.158	-.175
	45.00	-.068	-.073	-.093	-.100	-.114	-.130		.110	-.120	-.143	-.149	-.166	-.145
	50.00	-.054	-.084	-.099	-.108	-.119	-.134		.092	-.120	-.144	-.149	-.161	-.141
	55.00	-.063	-.091	-.103	-.108	-.125	-.126		.088	-.124	-.143	-.146	-.156	-.127
	60.00	-.087	-.092	-.097	-.103	-.114	-.100		.112	-.124	-.131	-.136	-.138	-.094
	65.00	-.079	-.083	-.085	-.089	-.094	-.112		.095	-.103	-.114	-.109	-.110	-.106
	70.00	-.042	-.052	-.062	-.075	-.082	-.067		.087	-.092	-.092	-.089	-.092	-.058
	75.00	-.046	-.058	-.065	-.075	-.085	-.075		.076	-.086	-.072	-.084	-.085	-.043
	80.00	-.056	-.050	-.054	-.050	-.054	-.054		.063	-.093	-.093	-.086	-.085	-.052
	85.00	-.051	-.052	-.017	-.011	-.007	-.015		.056	-.033	-.024	-.011	-.005	-.005
	90.00	-.021	-.016	-.007	-.017	-.021	-.003		.015	-.013	.001	-.011	-.030	-.019
	95.00	.014	.006	.032	.043	.021	.008		.023	.009	.033	.049	.037	.019
Lower surface														
	1.25	-.038	-.438	-.689	-.942	-.760		.135	.008	-.038	-.072	-.081	-.108	
	2.50	-.077	-.262	-.331	-.456	-.547	-.646		.076	-.044	-.063	-.079	-.085	-.103
	5.00	-.094	-.188	-.238	-.317	-.403	-.545		.044	-.027	-.051	-.073	-.081	-.104
	7.50	-.107	-.184	-.222	-.287	-.346	-.441		.019	-.049	-.078	-.091	-.093	-.116
	10.00	-.137	-.164	-.216	-.260	-.300	-.374		.014	-.060	-.092	-.108	-.110	-.140
	15.00	-.177	-.172	-.201	-.250	-.290	-.344		.032	-.104	-.125	-.124	-.145	
	20.00	-.159	-.151	-.201	-.253	-.270	-.249		.063	-.068	-.112	-.141	-.154	
	25.00	-.164	-.161	-.187	-.232	-.252	-.216		.072	-.071	-.112	-.136	-.143	
	30.00	-.134	-.171	-.190	-.228	-.243	-.226		.057	-.093	-.121	-.137	-.139	
	35.00	-.148	-.161	-.194	-.229	-.243	-.181		.077	-.108	-.132	-.149	-.158	-.119
	40.00	-.169	-.176	-.196	-.223	-.225	-.191		.097	-.113	-.141	-.155	-.147	
	45.00	-.149	-.185	-.195	-.221	-.221	-.187		.084	-.122	-.146	-.162	-.156	-.147
	50.00	-.178	-.186	-.193	-.213	-.207	-.177		.121	-.132	-.141	-.162	-.147	
	55.00	-.172	-.178	-.191	-.184	-.194	-.152		.117	-.129	-.132	-.143	-.154	-.139
	60.00	-.162	-.160	-.183	-.187	-.180	-.152		.112	-.122	-.125	-.135	-.141	
	65.00	-.154	-.154	-.173	-.183	-.180	-.155		.108	-.110	-.120	-.122	-.122	
	70.00	-.124	-.124	-.138	-.118	-.116	-.098		.085	-.088	-.096	-.098	-.086	-.071
	75.00	-.137	-.116	-.116	-.100	-.094	-.084		.104	-.089	-.084	-.079	-.070	
	80.00	-.101	-.090	-.101	-.066	-.069	-.063		.073	-.067	-.061	-.051	-.044	-.035
	85.00	-.078	-.061	-.073	-.031	-.041	-.021		.055	-.043	-.027	-.021	-.023	.005
	90.00	-.044	-.034	-.038	-.003	-.001	-.021		.025	-.019	-.006	-.009	-.011	.005
	95.00	-.009	-.016	-.010	-.024	-.030	-.017		.012	-.004	-.004	-.026	-.037	
Upper surface														
	0.00	.025	.561	.447	.449	.419	.406		.030	.341	.191	.124	.067	.505
	1.25	-.037	-.339	-.454	-.667	-.707	-.557		.234	-.101	-.009	-.104	-.008	-.471
	2.50	-.061	-.304	-.357	-.449	-.576	-.560		.256	-.736	-.613	.968	.981	.733
	5.00	-.168	-.249	-.285	-.352	-.423	-.543		.367	-.578	-.715	-.902	-.932	.718
	7.50	-.160	-.207	-.254	-.312	-.377	-.435		.435	-.379	-.588	-.844	-.881	.704
	10.00	-.158	-.196	-.247	-.300	-.329	-.385		.496	-.344	-.504	-.768	-.826	.688
	15.00	-.148	-.201	-.240	-.265	-.301	-.314		.555	-.319	-.401	-.603	-.722	.656
	20.00	-.143	-.211	-.245	-.254	-.285	-.268		.626	-.307	-.367	-.466	-.607	.619
	25.00	-.173	-.204	-.228	-.253	-.273	-.223		.650	-.287	-.337	-.386	-.507	.574
	30.00	-.205	-.213	-.233	-.245	-.266	-.212		.728	-.285	-.315	-.343	-.416	.525
	35.00	-.208	-.208	-.228	-.248	-.248	-.234		.774	-.285	-.308	-.317	-.355	.472
	40.00	-.204	-.191	-.216	-.246	-.248	-.234		.824	-.264	-.285	-.304	-.313	.421
	45.00	-.191	-.171	-.218	-.230	-.226	-.218		.824	-.247	-.267	-.285	-.297	.372
	50.00	-.157	-.157	-.210	-.211	-.215	-.178		.824	-.242	-.265	-.285	-.299	.310
	60.00	-.182	-.188	-.194	-.187	-.187	-.147		.890	-.231	-.248	-.248	-.237	.280
	65.00	-.158	-.160	-.168	-.155	-.154	-.149		.914	-.215	-.218	-.221	-.207	.243
	70.00	-.145	-.143	-.141	-.133	-.131	-.106		.986	-.186	-.191	-.181	-.166	.211
	75.00	-.129	-.122	-.117	-.102	-.101	-.091		.144	-.159	-.158	-.151	-.144	.179
	80.00	-.107	-.093	-.086	-.078	-.070	-.066		.116	-.105	-.098	-.085	-.077	.137
	85.00	-.095	-.068	-.054	-.042	-.035	-.040		.094	-.072	-.070	-.058	-.043	.115
	90.00	-.054	-.043	-.025	-.015	-.001	-.023		.054	-.041	-.038	-.026	-.006	.094
	95.00	-.013	-.018	-.010	-.023	-.013	-.018		.010	-.013	-.003	-.014	-.002	.079
Lower surface														
	1.25	-.257	.228	.230	.265	.321	.246		.403	.416	.410	.457	.511	.404
	2.50	-.190	.150	.152	.181	.210	.180		.339	.301	.328	.356	.392	.331
	5.00	.147	.096	.094	.134	.132	.118		.282	.231	.234	.249	.282	.260
	7.50	.108	.052	.046	.065	.090	.063		.230	.174	.181	.191	.225	.188
	10.00	.070	.025	.017	.035	.048	.023		.183	.141	.144	.145	.174	.133
	15.00	.038	.002	.004	.002	.002	.043		.142	.111	.104	.098	.114	.045
	20.00	-.001	-.008	-.029	-.041	-.087			.096	.099	.068	.049	.074	-.016
	25.00	-.017	-.017	-.042	-.061	-.055	-.103		.072	.059	.031	.024	.038	-.061
	30.00	-.018	-.018	-.081	-.071	-.072	-.117		.034	.029	.012	.001	.03	-.089
	35.00	-.015	-.014	-.074	-.078	-.070	-.101		.003	.013	-.020	-.027	-.016	-.103
	40.00	-.016	-.016	-.091	-.081	-.024	-.101		.003	-.014	-.027	-.042	-.028	-.112
	45.00	-.057	-.093	-.102	-.123	-.115	-.150		.004	-.033	-.040	-.068	-.050	-.122
	50.00	-.100	-.115	-.115	-.120	-.126	-.118		.054	-.060	-.062	-.074	-.082	-.110
	55.00	-.103	-.111	-.115	-.115	-.126	-.118		.054	-.063	-.071	-.079	-.084	-.106
	60.00	-.097	-.102	-.102	-.112	-.119	-.117		.054	-.061	-.064	-.083	-.086	-.109
</td														

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent C													
	M = 0.80	a = 5.92°						M = 0.80	a = 7.95°				
Upper surface	.00	.039	.107	-.054	-.360	-.197	.396	.029	-.192	-.343	-.465	-.446	.247
	1.25	-.465	-.173	-.145	-.114	-.811	-.516	-.151	-.119	-.117	-.782	-.700	-.475
	2.50	-.443	-.145	-.108	-.044	-.656	-.516	-.154	-.154	-.154	-.723	-.697	-.475
	5.00	-.443	-.105	-.108	-.007	-.787	-.546	-.184	-.127	-.132	-.913	-.689	-.479
	7.50	-.510	-.811	-.104	-.103	-.785	-.546	-.200	-.128	-.123	-.903	-.682	-.479
	10.00	-.481	-.502	-.1007	-.995	-.777	-.549	-.222	-.1062	-.1312	-.890	-.677	-.482
	15.00	-.371	-.893	-.962	-.760	-.551	-.513	-.522	-.1213	-.869	-.668	-.486	
	20.00	-.350	-.393	-.642	-.888	-.742	-.549	-.442	-.475	-.1087	-.847	-.657	-.486
	25.00	-.371	-.360	-.458	-.818	-.716	-.542	-.485	-.429	-.889	-.827	-.642	-.485
	30.00	-.539	-.353	-.552	-.705	-.688	-.530	-.423	-.407	-.588	-.795	-.624	-.485
Lower surface	.00	.351	-.345	.316	-.606	-.660	-.513	-.412	-.386	-.387	-.766	-.604	-.481
	1.25	-.522	-.315	-.299	-.484	-.620	-.495	-.372	-.322	-.583	-.753	-.553	-.475
	2.50	-.40	-.145	-.129	-.285	-.400	-.446	-.339	-.343	-.285	-.643	-.545	-.475
	5.00	-.248	-.180	-.180	-.242	-.558	-.437	-.217	-.318	-.280	-.644	-.545	-.463
	7.50	-.223	-.142	-.186	-.279	-.502	-.440	-.267	-.303	-.276	-.617	-.529	-.454
	10.00	-.241	-.240	-.233	-.247	-.442	-.415	-.283	-.283	-.257	-.580	-.511	-.444
	15.00	-.205	-.207	-.195	-.204	-.413	-.388	-.242	-.243	-.253	-.518	-.489	-.437
	20.00	-.182	-.179	-.168	-.165	-.369	-.364	-.226	-.220	-.206	-.460	-.468	-.429
	25.00	-.159	-.150	-.143	-.139	-.324	-.349	-.197	-.191	-.189	-.417	-.451	-.423
	30.00	-.127	-.119	-.126	-.089	-.281	-.328	-.160	-.157	-.159	-.374	-.432	-.418
Upper surface	.00	-.107	-.084	-.077	-.067	-.237	-.307	-.139	-.121	-.120	-.325	-.408	-.418
	1.25	-.059	-.051	-.057	-.034	-.185	-.295	-.070	-.086	-.082	-.283	-.380	-.417
	2.50	-.011	-.018	-.006	-.005	-.156	-.281	-.037	-.045	-.031	-.225	-.369	-.413
	5.00	.531	.547	.556	.570	.592	.644	.637	.638	.638	.621	.629	.500
	7.50	.472	.430	.448	.475	.494	.594	.593	.529	.534	.540	.550	.437
	10.00	.406	.343	.350	.364	.384	.526	.515	.436	.436	.437	.449	.374
	15.00	.348	.282	.285	.302	.321	.524	.444	.367	.371	.375	.387	.299
	20.00	.292	.247	.249	.236	.263	.198	.393	.331	.328	.326	.327	.247
	25.00	.235	.193	.189	.196	.205	.110	.318	.267	.260	.268	.263	.191
	30.00	.194	.129	.114	.105	.109	-.010	.212	.189	.173	.161	.157	.029
Lower surface	.00	.125	.092	.088	.076	-.045	-.045	.175	.194	.193	.181	.173	.035
	1.25	-.070	-.054	-.051	-.045	-.040	-.040	.113	.116	.127	.100	.102	.074
	2.50	-.044	-.044	-.044	-.047	-.022	-.086	.113	.091	.077	.063	.058	.074
	5.00	-.057	-.021	-.016	-.001	-.002	-.117	.103	.065	.052	.035	.026	.114
	7.50	-.006	-.002	-.005	-.026	-.024	-.126	.043	.039	.030	.009	-.003	-.130
	10.00	-.010	-.016	-.011	-.023	-.050	-.124	.022	.020	.015	-.015	-.037	-.133
	15.00	-.020	-.026	-.026	-.039	-.059	-.124	.022	.006	-.002	-.020	-.056	-.141
	20.00	-.015	-.029	-.026	-.049	-.072	-.133	.005	-.006	-.011	-.038	-.075	-.154
	25.00	-.015	-.029	-.024	-.041	-.058	-.121	.001	-.011	-.017	-.039	-.075	-.153
	30.00	-.049	-.031	-.028	-.040	-.085	-.124	-.027	-.021	-.025	-.049	-.086	-.161
Upper surface	.00	.036	-.351	-.605	-.666	-.599	-.087	.047	-.575	-.833	-.922	-.763	-.094
	1.25	-.821	-.733	-.1270	-.783	-.626	-.452	-.957	-.1260	-.1026	-.726	-.600	-.440
	2.50	-.905	-.1714	-.1252	-.777	-.625	-.453	-.1050	-.1611	-.1019	-.718	-.595	-.438
	5.00	-.1043	-.1598	-.1241	-.771	-.617	-.455	-.1182	-.1311	-.1013	-.716	-.588	-.438
	7.50	-.950	-.1481	-.1208	-.765	-.612	-.455	-.1100	-.1446	-.1048	-.718	-.579	-.438
	10.00	-.902	-.1481	-.1208	-.756	-.612	-.450	-.1090	-.1466	-.1048	-.718	-.579	-.438
	15.00	-.902	-.1481	-.1208	-.756	-.612	-.450	-.1090	-.1466	-.1048	-.718	-.579	-.438
	20.00	-.508	-.14	-.1090	-.737	-.604	-.455	-.475	-.1226	-.945	-.1175	-.715	-.574
	25.00	-.483	-.132	-.1023	-.705	-.599	-.457	-.552	-.1339	-.930	-.1169	-.711	-.571
	30.00	-.511	-.149	-.920	-.689	-.593	-.460	-.565	-.1516	-.906	-.1171	-.660	-.440
Lower surface	.00	.430	-.409	-.814	-.667	-.584	-.462	-.489	-.475	-.862	-.634	-.560	-.444
	1.25	-.400	-.378	-.696	-.656	-.574	-.463	-.450	-.435	-.822	-.643	-.553	-.447
	2.50	-.384	-.367	-.591	-.642	-.567	-.463	-.435	-.420	-.772	-.626	-.553	-.450
	5.00	-.341	-.357	-.513	-.626	-.555	-.463	-.420	-.406	-.716	-.616	-.549	-.453
	7.50	-.311	-.349	-.445	-.614	-.544	-.463	-.397	-.394	-.651	-.599	-.543	-.454
	10.00	-.326	-.334	-.393	-.588	-.536	-.463	-.372	-.380	-.607	-.583	-.537	-.457
	15.00	-.289	-.298	-.355	-.570	-.522	-.463	-.341	-.344	-.594	-.574	-.529	-.461
	20.00	-.276	-.275	-.318	-.547	-.507	-.463	-.324	-.324	-.515	-.555	-.521	-.466
	25.00	-.207	-.215	-.291	-.493	-.484	-.463	-.242	-.273	-.438	-.520	-.509	-.472
	30.00	-.179	-.174	-.212	-.472	-.470	-.473	-.235	-.237	-.386	-.507	-.497	-.478
Upper surface	.00	-.126	-.131	-.167	-.437	-.449	-.475	-.177	-.194	-.348	-.491	-.483	-.488
	1.25	-.068	-.117	-.417	-.441	-.477	-.477	-.104	-.141	-.293	-.479	-.481	-.491
	2.50	-.733	.709	.667	.657	.645	.531	.805	.761	.708	.689	.660	.556
	5.00	.703	.615	.607	.600	.588	.477	.801	.687	.658	.644	.625	.509
	7.50	.628	.520	.518	.505	.501	.418	.720	.598	.579	.554	.553	.460
	10.00	.545	.449	.442	.445	.440	.367	.659	.527	.517	.509	.481	.359
	15.00	.307	.340	.321	.311	.317	.203	.471	.411	.400	.386	.375	.285
	20.00	.325	.303	.272	.259	.240	.130	.398	.375	.343	.316	.313	.179
	25.00	.285	.252	.232	.217	.209	.075	.551	.518	.498	.476	.463	.129
	30.00	.250	.210	.197	.185	.169	.022	.511	.271	.250	.242	.224	.075
Lower surface	.00	.172	.174	.162	.135	.123	-.002	.291	.230	.214	.199	.177	.047
	1.25	.171	.145	.130	.109	.100	-.049	.226	.199	.187	.153	.149	-.003
	2.50	.156	.113	.103	.073	.064	-.090	.209	.164	.149	.125	.114	-.053
	5.00	.097	.084	.069	.042	.030	-.115	.146	.132	.119	.087	.077	-.081
	7.50	.066	.058	.049	.026	.006	-.125	.124	.104	.081	.060	.050	-.074
	10.00	.056	.040	.026	.008	-.015	-.115	.112	.081	.068	.059	.046	-.074
	15.00	.021	.015	-.015	-.021	-.042	-.156	.080	.057	.049	.035	.028	-.135
	20.00	.029	-.015	-.001	-.053	-.065	-.159	.059	.048	-.025	-.005	-.036	-.141
	25.00	.004	-.003	-.015	-.047	-.089	-.173	.032	.018	-.005	-.029	-.069	-.157
	30.00	-.013	-.010	-.022	-.056	-.104	-.186	.010	-.005	-.005	-.046	-.083	-.172
Upper surface	.00	-.020	-.014	-.024	-.067	-.132	-.172	-.008	-.006	-.023	-.072	-.113	-.162
	1.25	-.020	-.018	-.035	-.104	-.159	-.226	-.019	-.021	-.054	-.109	-.155	-.221
	2.50	-.015	-.023	-.051	-.167	-.225	-.252	-.031	-.048	-.084	-.189	-.223	-.247

CONFIDENTIAL

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

		Pressure coefficient, P_c , at:																	
		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.76b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2					
Percent	c	$M = 0.80$						$M = 0.80$						$\alpha = 17.24^\circ$					
		.022	-.849	-1.079	-1.601	-.665	-.333	.002	-1.047	-1.017	-.753	-.646	-.573						
Upper surface	0.00	.022	-.849	-1.079	-1.601	-.665	-.333	.002	-1.047	-1.017	-.753	-.646	-.573						
	1.25	-.106	-1.338	-1.009	-.724	-.622	-.495	-.849	-.879	-.795	-.723	-.623	-.541						
	2.50	-1.265	-1.360	-1.035	-.703	-.621	-.491	-.826	-.885	-.785	-.701	-.627	-.541						
	5.00	-1.293	-1.328	-.973	-.698	-.617	-.491	-.840	-.885	-.795	-.692	-.624	-.540						
	7.50	-1.250	-1.279	-.947	-.698	-.611	-.491	-.856	-.906	-.799	-.690	-.617	-.541						
	10.00	-1.098	-1.248	-.957	-.698	-.611	-.491	-.867	-.896	-.809	-.687	-.621	-.544						
	12.50	-1.074	-1.206	-.894	-.698	-.604	-.492	-.874	-.891	-.801	-.686	-.617	-.548						
	15.00	-1.040	-1.174	-.879	-.698	-.602	-.492	-.874	-.885	-.785	-.680	-.610	-.547						
	17.50	-1.006	-1.147	-.855	-.698	-.602	-.492	-.874	-.885	-.785	-.680	-.608	-.552						
	20.00	-9.57	-1.063	-.856	-.698	-.602	-.492	-.876	-.885	-.785	-.680	-.606	-.557						
	25.00	-9.57	-1.076	-.856	-.698	-.602	-.492	-.877	-.885	-.785	-.680	-.606	-.549						
	30.00	-9.57	-1.063	-.856	-.698	-.602	-.492	-.875	-.889	-.785	-.680	-.608	-.552						
	35.00	-9.57	-1.076	-.856	-.698	-.602	-.492	-.875	-.885	-.785	-.680	-.606	-.557						
	40.00	-9.57	-1.076	-.856	-.698	-.602	-.492	-.875	-.885	-.785	-.680	-.606	-.554						
	45.00	-9.51	-1.011	-.789	-.661	-.591	-.500	-.598	-.748	-.743	-.670	-.607	-.559						
	50.00	-9.504	-1.060	-.749	-.650	-.590	-.504	-.581	-.715	-.739	-.670	-.608	-.560						
	55.00	-9.441	-1.025	-.725	-.645	-.587	-.507	-.572	-.688	-.729	-.666	-.608	-.562						
	60.00	-9.465	-1.077	-.691	-.630	-.588	-.509	-.560	-.673	-.719	-.655	-.612	-.566						
	65.00	-9.444	-1.077	-.662	-.625	-.585	-.513	-.542	-.651	-.709	-.657	-.612	-.572						
	70.00	-9.438	-1.060	-.634	-.616	-.581	-.516	-.550	-.658	-.698	-.654	-.611	-.579						
	75.00	-9.444	-1.077	-.614	-.603	-.581	-.525	-.552	-.652	-.696	-.658	-.615	-.584						
	80.00	-9.390	-1.017	-.588	-.569	-.599	-.574	-.508	-.601	-.673	-.639	-.615	-.580						
	85.00	-9.362	-1.057	-.553	-.582	-.566	-.533	-.502	-.569	-.659	-.636	-.610	-.586						
	90.00	-9.307	-1.036	-.527	-.568	-.557	-.537	-.481	-.543	-.639	-.628	-.602	-.588						
	95.00	-9.217	-1.093	-.490	-.561	-.557	-.541	-.414	-.503	-.621	-.623	-.606	-.590						
Lower surface	0.00	.846	.790	.722	.574	.642	.550	.906	.826	.738	.675	.626	.541						
	1.25	.871	.731	.690	.563	.634	.514	.965	.800	.736	.690	.656	.528						
	2.50	.780	.647	.615	.581	.573	.474	.872	.731	.677	.646	.620	.506						
	5.00	.685	.576	.544	.526	.522	.416	.776	.666	.621	.599	.578	.459						
	7.50	.685	.576	.544	.526	.522	.416	.776	.666	.621	.599	.578	.459						
	10.00	.687	.587	.508	.464	.446	.373	.797	.676	.632	.600	.578	.463						
	12.50	.684	.577	.514	.464	.446	.373	.797	.676	.632	.600	.578	.463						
	15.00	.684	.577	.514	.464	.446	.373	.797	.676	.632	.600	.578	.463						
	20.00	.640	.515	.472	.434	.415	.345	.724	.652	.619	.584	.554	.435						
	25.00	.638	.514	.472	.434	.415	.345	.724	.652	.619	.584	.554	.435						
	30.00	.630	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	35.00	.630	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	40.00	.630	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	45.00	.624	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	50.00	.622	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	55.00	.620	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	60.00	.618	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	65.00	.616	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	70.00	.614	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	75.00	.612	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	80.00	.610	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	85.00	.608	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	90.00	.606	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
	95.00	.604	.505	.462	.424	.405	.335	.724	.652	.619	.584	.554	.435						
Upper surface	0.00	.920	.842	.741	.656	.603	.525	.899	.848	.736	.646	.566	.452						
	1.25	.999	.834	.696	.656	.525		1.005	.858	.765	.702	.651	.514						
	2.50	.922	.771	.715	.668	.636	.513	.944	.813	.743	.691	.655	.517						
	5.00	.823	.710	.666	.626	.603	.474	.858	.757	.704	.658	.600	.489						
	7.50	.754	.665	.623	.590	.562	.452	.796	.711	.666	.628	.595	.452						
	10.00	.687	.593	.557	.525	.494	.353	.765	.676	.623	.581	.542	.422						
	12.50	.685	.593	.557	.525	.494	.353	.765	.676	.623	.581	.542	.422						
	15.00	.683	.593	.557	.525	.494	.353	.765	.676	.623	.581	.542	.422						
	20.00	.682	.593	.557	.525	.494	.353	.765	.676	.623	.581	.542	.422						
	25.00	.681	.593	.557	.525	.494	.353	.765	.676	.623	.581	.542	.422						
	30.00	.677	.542	.494	.411	.393	.318	.744	.530	.490	.421	.433	.247						
	35.00	.677	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	40.00	.675	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	45.00	.673	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	50.00	.671	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	55.00	.669	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	60.00	.667	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	65.00	.665	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	70.00	.663	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	75.00	.661	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	80.00	.659	.542	.494	.412	.394	.315	.744	.531	.491	.422	.433	.248						
	85.00	.657	.542	.494	.412	.394	.315	.744	.531	.491									

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.90b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.90b/2
Percent c	$M = 0.80$						$\alpha = 23.46^\circ$	$M = 0.80$					
Upper surface													
0.00	-0.134	-0.955	-0.946	-0.986	-0.875	-0.825		-0.191	-1.032	-1.028	-1.029	-0.964	-0.865
1.25	-0.957	-0.951	-0.942	-0.923	-0.865	-0.778		-1.049	-1.032	-1.029	-1.017	-0.950	-0.812
2.50	-0.949	-0.951	-0.936	-0.913	-0.865	-0.776		-1.032	-1.032	-1.023	-1.001	-0.950	-0.811
5.00	-0.932	-0.952	-0.941	-0.909	-0.863	-0.773		-1.021	-1.035	-1.029	-0.995	-0.947	-0.809
7.50	-0.942	-0.955	-0.935	-0.907	-0.858	-0.774		-1.026	-1.035	-1.022	-0.995	-0.940	-0.808
10.00	-0.945	-0.955	-0.942	-0.908	-0.858	-0.773		-1.030	-1.032	-1.020	-0.997	-0.947	-0.807
12.50	-0.948	-0.956	-0.944	-0.910	-0.860	-0.773		-1.030	-1.032	-1.023	-0.994	-0.947	-0.807
20.00	-0.940	-0.958	-0.946	-0.902	-0.854	-0.772		-1.022	-1.041	-1.031	-0.987	-0.934	-0.804
25.00	-0.928	-0.959	-0.944	-0.900	-0.852	-0.772		-0.984	-1.039	-1.031	-0.984	-0.930	-0.801
30.00	-0.908	-0.953	-0.944	-0.898	-0.849	-0.773		-0.932	-1.032	-1.030	-0.983	-0.927	-0.803
35.00	-0.881	-0.948	-0.942	-0.898	-0.848	-0.777		-0.865	-1.021	-1.030	-0.981	-0.925	-0.805
40.00	-0.801	-0.931	-0.943	-0.899	-0.847	-0.778		-0.800	-0.991	-1.028	-0.981	-0.920	-0.806
45.00	-0.775	-0.919	-0.941	-0.895	-0.847	-0.779		-0.732	-0.888	-1.019	-0.977	-0.919	-0.807
50.00	-0.753	-0.887	-0.940	-0.895	-0.846	-0.780		-0.687	-0.814	-1.007	-0.971	-0.912	-0.807
55.00	-0.724	-0.860	-0.934	-0.892	-0.845	-0.781		-0.637	-0.738	-0.981	-0.958	-0.907	-0.806
60.00	-0.717	-0.831	-0.927	-0.881	-0.845	-0.780		-0.573	-0.695	-0.959	-0.936	-0.891	-0.805
65.00	-0.680	-0.780	-0.918	-0.881	-0.843	-0.781		-0.519	-0.659	-0.935	-0.916	-0.865	-0.804
70.00	-0.640	-0.740	-0.907	-0.871	-0.846	-0.778		-0.464	-0.626	-0.915	-0.891	-0.840	-0.803
75.00	-0.596	-0.692	-0.866	-0.849	-0.837	-0.770		-0.511	-0.598	-0.886	-0.941	-0.898	-0.792
80.00	-0.555	-0.632	-0.842	-0.846	-0.836	-0.774		-0.467	-0.497	-0.833	-0.933	-0.895	-0.786
85.00	-0.523	-0.568	-0.830	-0.862	-0.827	-0.774		-0.442	-0.400	-0.774	-0.918	-0.885	-0.783
90.00	-0.444	-0.506	-0.781	-0.858	-0.820	-0.771		-0.415	-0.384	-0.678	-0.896	-0.871	-0.781
95.00	-0.340	-0.408	-0.712	-0.854	-0.824	-0.766		-0.343	-0.351	-0.566	-0.871	-0.853	-0.773
Lower surface													
1.25	-0.852	-0.837	-0.715	-0.609	-0.511	-0.471		-0.813	-0.839	-0.702	-0.581	-0.476	-0.452
2.50	-0.997	-0.875	-0.772	-0.685	-0.635	-0.497		-0.987	-0.944	-0.778	-0.677	-0.626	-0.489
5.00	-0.970	-0.848	-0.768	-0.604	-0.546	-0.497		-0.939	-0.797	-0.725	-0.676	-0.649	-0.526
7.50	-0.918	-0.798	-0.740	-0.641	-0.519	-0.478		-0.824	-0.879	-0.772	-0.711	-0.677	-0.542
10.00	-0.834	-0.763	-0.705	-0.657	-0.595	-0.472		-0.867	-0.803	-0.746	-0.691	-0.659	-0.498
15.00	-0.737	-0.690	-0.644	-0.602	-0.570	-0.409		-0.779	-0.737	-0.693	-0.645	-0.607	-0.461
20.00	-0.669	-0.637	-0.588	-0.545	-0.521	-0.342		-0.716	-0.682	-0.641	-0.592	-0.567	-0.382
25.00	-0.612	-0.577	-0.541	-0.501	-0.477	-0.282		-0.642	-0.630	-0.592	-0.548	-0.524	-0.323
30.00	-0.569	-0.527	-0.491	-0.461	-0.432	-0.215		-0.611	-0.593	-0.546	-0.505	-0.477	-0.263
35.00	-0.483	-0.479	-0.447	-0.410	-0.381	-0.179		-0.538	-0.516	-0.496	-0.459	-0.432	-0.224
40.00	-0.461	-0.437	-0.409	-0.367	-0.347	-0.119		-0.519	-0.493	-0.463	-0.418	-0.399	-0.164
45.00	-0.434	-0.395	-0.365	-0.326	-0.305	-0.055		-0.482	-0.448	-0.419	-0.379	-0.357	-0.101
50.00	-0.363	-0.349	-0.324	-0.283	-0.261	-0.021		-0.417	-0.402	-0.381	-0.355	-0.325	-0.066
55.00	-0.318	-0.308	-0.269	-0.250	-0.206	-0.012		-0.372	-0.365	-0.343	-0.303	-0.263	-0.032
60.00	-0.291	-0.269	-0.245	-0.208	-0.181	-0.044		-0.324	-0.320	-0.296	-0.240	-0.215	-0.031
65.00	-0.279	-0.249	-0.218	-0.188	-0.158	-0.064		-0.300	-0.298	-0.262	-0.244	-0.210	-0.032
70.00	-0.266	-0.204	-0.174	-0.132	-0.096	-0.007		-0.219	-0.215	-0.183	-0.151	-0.147	-0.034
75.00	-0.154	-0.145	-0.127	-0.090	-0.067	-0.137		-0.204	-0.197	-0.183	-0.139	-0.096	-0.100
80.00	-0.116	-0.114	-0.088	-0.049	-0.004	-0.172		-0.157	-0.162	-0.140	-0.093	-0.051	-0.134
85.00	-0.062	-0.074	-0.049	-0.007	-0.047	-0.173		-0.106	-0.121	-0.099	-0.066	-0.002	-0.141
90.00	-0.010	-0.018	-0.011	-0.059	-0.105	-0.254		-0.043	-0.066	-0.037	-0.019	-0.064	-0.229
95.00	-0.049	-0.047	-0.200	-0.173	-0.200	-0.292		-0.031	-0.000	-0.044	-0.135	-0.164	-0.264

CONFIDENTIAL

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:												
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2
Percent												
c	M = 0.90	$\alpha = -2.02^\circ$					M = 0.90	$\alpha = -0.01^\circ$				
Upper surface												
0.00	.037	.676	.613	.374	.509	.371	.057	.702	.669	.654	.605	.623
1.25	.011	.231	.248	.273	.269	.288	.236	.101	.099	.110	.075	.130
2.50	.249	.139	.146	.167	.183	.171	.172	.047	.032	.029	.035	.019
3.75	.181	.110	.094	.101	.094	.111	.107	.033	.010	.008	.018	.037
5.00	.186	.072	.059	.055	.049	.062	.102	.008	.001	.001	.004	.003
6.25	.103	.047	.027	.023	.017	.044	.035	.003	.001	.001	.004	.003
7.50	.083	.037	.017	.014	.011	.021	.026	.002	.001	.001	.004	.003
8.75	.030	.017	.009	.008	.007	.013	.026	.002	.001	.001	.004	.003
10.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
11.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
12.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
13.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
15.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
16.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
17.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
18.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
20.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
21.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
22.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
23.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
25.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
26.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
27.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
28.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
30.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
31.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
32.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
33.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
35.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
36.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
37.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
38.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
40.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
41.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
42.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
43.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
45.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
46.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
47.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
48.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
50.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
51.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
52.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
53.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
55.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
56.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
57.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
58.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
60.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
61.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
62.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
63.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
65.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
66.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
67.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
68.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
70.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
71.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
72.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
73.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
75.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
76.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
77.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
78.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
80.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
81.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
82.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
83.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
85.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
86.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
87.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
88.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
90.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
91.25	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
92.50	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
93.75	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
95.00	.001	.009	.007	.006	.005	.004	.005	.002	.001	.001	.004	.003
Lower surface												
0.00	.060	.642	.542	.357	.528	.642	.041	.531	.390	.388	.342	.566
1.25	.071	.231	.314	.644	.765	.737	.065	.697	.831	.986	-1.045	.970
2.50	.095	.140	.221	.280	.345	.814	.129	.618	.739	.833	-1.959	-1.156
3.75	.082	.174	.221	.271	.341	.707	.248	.332	.495	.674	-1.082	
5.00	.078	.172	.243	.313	.392	.671	.240	.265	.314	.654	-1.003	
6.25	.105	.140	.210	.271	.341	.707	.122	.252	.312	.617	-1.073	
7.50	.104	.137	.210	.271	.341	.707	.122	.252	.312	.617	-1.073	
8.75	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
10.00	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
11.25	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
12.50	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
13.75	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
15.00	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
16.25	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
17.50	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
18.75	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
20.00	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
21.25	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
22.50	.104	.137	.209	.270	.340	.707	.122	.252	.312	.617	-1.073	
23.75	.104	.137	.209	.270								

TABLE L - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:														
		0.16b/2	0.25b/2	0.40b/2	0.50b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.50b/2	0.75b/2	0.95b/2
M = 0.90 $\alpha = 5.88^\circ$														
Upper surface	0.00	.048	.395	.235	.184	.100	.448		.044	.222	.044	.046	.197	.308
	1.25	-.205	-1.051	-1.139	-1.193	-1.240	-1.879		-.355	-1.262	-1.309	-1.318	-1.059	-1.618
	2.50	-.265	-.017	-1.055	-1.110	-1.151	-1.007		-.426	-1.111	-1.239	-1.261	-1.036	-1.656
	3.75	-.410	-.009	-1.059	-1.094	-1.145	-1.045		-.580	-1.052	-1.177	-1.177	-0.976	-1.652
	5.00	-.390	-.292	-1.054	-1.074	-1.107	-1.021		-.540	-1.000	-1.039	-1.126	-0.950	-1.646
	6.25	-.364	-.360	-1.051	-1.087	-1.104	-1.011		-.514	-1.027	-1.060	-1.098	-1.227	-1.645
	7.50	-.272	-.346	-1.022	-1.078	-1.091	-1.006		-.490	-1.063	-1.090	-1.122	-1.250	-1.650
	8.75	-.253	-.359	-1.019	-1.074	-1.098	-1.007		-.468	-1.078	-1.090	-1.122	-1.252	-1.650
	10.00	-.402	-.359	-1.007	-1.067	-1.087	-1.007		-.449	-1.052	-1.072	-1.116	-1.220	-1.656
	11.25	-.374	-.358	-1.017	-1.067	-1.087	-1.007		-.438	-1.066	-1.089	-1.126	-1.234	-1.664
	12.50	-.389	-.389	-1.044	-1.092	-1.091	-1.057		-.466	-1.073	-1.095	-1.124	-1.234	-1.664
	13.75	-.350	-.359	-1.017	-1.074	-1.091	-1.056		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	15.00	-.326	-.317	-1.017	-1.074	-1.091	-1.056		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	16.25	-.308	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	17.50	-.315	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	18.75	-.315	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	20.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	21.25	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	22.50	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	23.75	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	25.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	26.25	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	27.50	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	28.75	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	30.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	31.25	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	32.50	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	33.75	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	35.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	36.25	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	37.50	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	38.75	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	40.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	41.25	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	42.50	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	43.75	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	45.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	46.25	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	47.50	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	48.75	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
	50.00	-.312	-.316	-1.016	-1.073	-1.091	-1.055		-.415	-1.083	-1.095	-1.124	-1.234	-1.664
Lower surface	0.00	.037	.026	-.174	-.324	-.481	-.124		.025	-.211	-.442	-.634	-.784	-.111
	1.25	-.492	-.1377	-.387	-.1093	-.826	-.584		-.652	-.1435	-.171	-.907	-.790	-.579
	2.50	-.728	-.1251	-.339	-.1065	-.832	-.592		-.752	-.1374	-.149	-.892	-.793	-.577
	3.75	-.690	-.874	-.1381	-.1052	-.798	-.579		-.901	-.260	-.143	-.895	-.757	-.573
	5.00	-.659	-.799	-.1236	-.1002	-.811	-.579		-.850	-.147	-.1101	-.882	-.760	-.565
	6.25	-.653	-.730	-.1298	-.1063	-.800	-.579		-.678	-.1014	-.1007	-.882	-.760	-.565
	7.50	-.656	-.765	-.1202	-.1063	-.781	-.579		-.586	-.861	-.948	-.873	-.753	-.565
	8.75	-.649	-.749	-.1219	-.1074	-.774	-.578		-.559	-.828	-.836	-.859	-.751	-.567
	10.00	-.653	-.799	-.1236	-.1074	-.781	-.579		-.548	-.842	-.776	-.800	-.740	-.576
	11.25	-.652	-.730	-.1298	-.1063	-.800	-.579		-.548	-.842	-.758	-.800	-.740	-.576
	12.50	-.656	-.765	-.1202	-.1063	-.781	-.579		-.548	-.842	-.758	-.800	-.740	-.576
	13.75	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	15.00	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	16.25	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	17.50	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	18.75	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	20.00	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	21.25	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	22.50	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	23.75	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	25.00	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	26.25	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	27.50	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	28.75	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	30.00	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	31.25	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	32.50	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	33.75	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	35.00	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	36.25	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	37.50	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	38.75	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	40.00	-.651	-.799	-.1219	-.1074	-.774	-.578		-.547	-.842	-.758	-.800	-.740	-.576
	41.25	-.651	-.730	-.1298	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	42.50	-.651	-.765	-.1202	-.1063	-.781	-.579		-.547	-.842	-.758	-.800	-.740	-.576
	43.75	-.651	-.799	-.1219	-.1074	-.774	-.578</							

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
	Percent c												
		M = 0.90	a = 15.46°					M = 0.90	a = 17.43°				
Upper surface	0.00	.026	-.674	-.899	-1.011	-.691	-.492	.010	-.814	-.987	-.787	-.667	-.801
	1.25	-.880	-1.177	-.924	-.785	-.659	-.560	-.813	-.862	-.789	-.757	-.650	-.583
	2.50	-1.004	-1.200	-.916	-.730	-.659	-.560	-.799	-.867	-.786	-.715	-.647	-.584
	5.00	-1.169	-1.180	-.930	-.716	-.654	-.558	-.807	-.872	-.794	-.696	-.645	-.582
	7.50	-1.076	-1.159	-.923	-.710	-.648	-.559	-.810	-.875	-.792	-.691	-.644	-.583
	10.00	-.982	-1.141	-.930	-.710	-.647	-.559	-.821	-.871	-.809	-.691	-.638	-.585
	12.50	-.795	-1.086	-.929	-.717	-.645	-.561	-.760	-.856	-.787	-.687	-.643	-.586
	15.00	-.679	-1.028	-.929	-.717	-.645	-.561	-.760	-.857	-.797	-.714	-.643	-.586
	17.50	-.679	-.961	-.852	-.717	-.638	-.560	-.742	-.838	-.766	-.685	-.638	-.585
	20.00	-.641	-.874	-.824	-.710	-.635	-.560	-.714	-.822	-.760	-.681	-.639	-.583
	25.00	-.602	-.803	-.807	-.704	-.635	-.562	-.654	-.804	-.756	-.680	-.638	-.580
	30.00	-.583	-.724	-.788	-.699	-.632	-.563	-.625	-.779	-.751	-.680	-.636	-.588
	35.00	-.541	-.676	-.773	-.692	-.632	-.566	-.588	-.753	-.745	-.678	-.638	-.586
	40.00	-.552	-.654	-.764	-.688	-.631	-.567	-.583	-.722	-.736	-.677	-.638	-.593
	45.00	-.567	-.610	-.750	-.682	-.628	-.568	-.589	-.698	-.729	-.672	-.638	-.596
	50.00	-.560	-.599	-.729	-.671	-.628	-.570	-.589	-.684	-.724	-.666	-.639	-.596
	55.00	-.531	-.588	-.708	-.663	-.623	-.574	-.613	-.670	-.714	-.658	-.638	-.593
	60.00	-.521	-.565	-.687	-.649	-.613	-.574	-.605	-.668	-.702	-.648	-.632	-.597
	65.00	-.508	-.557	-.682	-.645	-.612	-.575	-.559	-.644	-.697	-.645	-.633	-.604
	70.00	-.488	-.547	-.665	-.648	-.620	-.570	-.559	-.638	-.691	-.655	-.632	-.604
	75.00	-.494	-.533	-.654	-.645	-.613	-.581	-.560	-.625	-.684	-.657	-.624	-.602
	80.00	-.471	-.512	-.639	-.641	-.604	-.582	-.554	-.612	-.673	-.653	-.618	-.608
	85.00	-.471	-.512	-.613	-.604	-.582	-.561	-.548	-.602	-.663	-.655	-.625	-.609
	90.00	-.471	-.512	-.613	-.604	-.582	-.561	-.548	-.602	-.663	-.655	-.625	-.609
	95.00	-.471	-.512	-.613	-.604	-.582	-.561	-.548	-.602	-.663	-.655	-.625	-.609
Lower surface	1.25	.928	.851	.775	.719	.678	.586	.559	.876	.788	.724	.669	.585
	5.00	.964	.799	.751	.712	.684	.562	1.014	.844	.779	.737	.701	.572
	8.00	.872	.724	.682	.650	.634	.534	.918	.772	.726	.699	.667	.557
	12.50	.769	.660	.625	.598	.568	.486	.825	.705	.673	.629	.595	.511
	15.00	.797	.611	.565	.540	.514	.459	.750	.651	.608	.567	.536	.491
	17.50	.603	.543	.513	.488	.458	.394	.654	.590	.565	.540	.516	.490
	20.00	.527	.500	.451	.422	.422	.377	.578	.546	.504	.476	.460	.314
	25.00	.471	.435	.402	.378	.373	.321	.522	.487	.456	.431	.414	.250
	30.00	.431	.384	.360	.338	.328	.294	.477	.441	.416	.392	.370	.184
	35.00	.336	.293	.261	.237	.231	.210	.388	.393	.370	.349	.323	.155
	40.00	.312	.269	.246	.217	.210	.195	.382	.354	.335	.306	.292	.093
	45.00	.245	.227	.207	.179	.172	.153	.355	.316	.297	.267	.251	.032
	50.00	.204	.194	.179	.156	.125	.105	.288	.273	.257	.226	.212	.001
	55.00	.174	.165	.145	.123	.107	.079	.242	.238	.228	.200	.184	.025
	60.00	.150	.145	.126	.105	.082	.051	.222	.206	.190	.164	.147	.051
	65.00	.111	.111	.096	.068	.042	.013	.188	.160	.142	.133	.102	.090
	70.00	.088	.075	.063	.041	.012	.-127	.118	.108	.100	.078	.044	.107
	75.00	.061	.052	.039	.020	.-009	.-144	.084	.084	.077	.057	.020	.127
	80.00	.030	.026	.021	.003	.-037	.-131	.052	.058	.052	.031	.-009	.116
	85.00	.007	.002	.022	.033	.061	.-174	.014	.022	.008	.006	.042	.166
	90.00	-.053	-.059	-.068	-.098	-.112	.-180	-.018	-.040	-.043	-.078	-.098	.174
		M = 0.90	a = 19.50°					M = 0.90	a = 21.59°				
Upper surface	0.00	-.014	-.814	-.778	-.771	-.726	-.667	-.092	-.830	-.828	-.814	-.784	-.750
	1.25	-.752	-.755	-.750	-.762	-.695	-.653	-.819	-.819	-.821	-.807	-.777	-.722
	2.50	-.735	-.752	-.755	-.746	-.694	-.654	-.808	-.824	-.813	-.800	-.778	-.721
	5.00	-.725	-.752	-.759	-.730	-.694	-.654	-.800	-.825	-.819	-.795	-.776	-.718
	7.50	-.730	-.755	-.749	-.730	-.692	-.654	-.808	-.827	-.810	-.795	-.771	-.720
	10.00	-.734	-.755	-.753	-.730	-.685	-.655	-.806	-.828	-.817	-.795	-.772	-.719
	12.50	-.742	-.769	-.759	-.728	-.692	-.658	-.814	-.833	-.819	-.794	-.772	-.720
	15.00	-.742	-.769	-.759	-.723	-.694	-.658	-.817	-.831	-.821	-.789	-.771	-.720
	17.50	-.752	-.769	-.759	-.723	-.694	-.658	-.811	-.833	-.821	-.790	-.768	-.720
	20.00	-.752	-.769	-.757	-.726	-.690	-.657	-.815	-.833	-.822	-.787	-.768	-.720
	25.00	-.752	-.764	-.757	-.726	-.694	-.655	-.815	-.833	-.822	-.787	-.768	-.720
	30.00	-.752	-.764	-.758	-.726	-.690	-.653	-.815	-.833	-.822	-.787	-.768	-.720
	35.00	-.752	-.764	-.758	-.726	-.681	-.651	-.813	-.833	-.822	-.787	-.768	-.721
	40.00	-.752	-.764	-.758	-.726	-.681	-.651	-.811	-.833	-.821	-.787	-.768	-.721
	45.00	-.661	-.759	-.759	-.726	-.694	-.658	-.709	-.820	-.821	-.788	-.767	-.723
	50.00	-.666	-.749	-.755	-.725	-.695	-.661	-.709	-.811	-.821	-.788	-.767	-.726
	55.00	-.667	-.747	-.755	-.723	-.697	-.667	-.708	-.801	-.811	-.788	-.767	-.726
	60.00	-.667	-.742	-.753	-.718	-.670	-.667	-.718	-.801	-.815	-.776	-.755	-.728
	65.00	-.667	-.731	-.749	-.714	-.667	-.666	-.705	-.787	-.813	-.777	-.755	-.727
	70.00	-.665	-.718	-.746	-.714	-.669	-.669	-.693	-.780	-.810	-.779	-.761	-.729
	75.00	-.662	-.709	-.739	-.714	-.669	-.667	-.676	-.767	-.805	-.776	-.762	-.730
	80.00	-.662	-.703	-.737	-.714	-.669	-.667	-.676	-.767	-.805	-.777	-.762	-.729
	85.00	-.662	-.694	-.733	-.714	-.668	-.674	-.684	-.753	-.793	-.776	-.754	-.729
	90.00	-.662	-.688	-.726	-.709	-.681	-.681	-.675	-.753	-.773	-.773	-.745	-.729
	95.00	-.653	-.651	-.719	-.715	-.688	-.685	-.652	-.7670	-.771	-.757	-.727	-.726
Lower surface	1.25	.971	.898	.893	.812	.642	.567	.948	.891	.783	.695	.608	.546
	5.00	1.048	.885	.807	.741	.695	.570	1.050	.908	.816	.743	.692	.580
	8.00	.968	.830	.768	.714	.684	.567	.990	.860	.793	.733	.698	.570
	12.50	.879	.769	.719	.676	.652	.533	.908	.803	.754	.704	.673	.547
	15.00	.806	.725	.679	.645	.613	.495	.840	.767	.719	.674	.636	.514
	17.50	.714	.653	.616	.584	.553	.422	.749	.691	.659	.622	.588	.449
	20.00	.638	.589	.557	.523	.506	.393	.678	.629	.605	.563	.541	.381
	25.00	.581	.549	.510	.476	.459	.328	.622	.587	.556	.518	.497	.321
	30.00	.528	.502	.468	.438	.416	.225	.576	.542	.508	.479	.452	.258
	35.00	.464	.442	.412	.385	.357	.133	.491	.448	.420	.387	.372	.149
	40.00	.441	.413	.385	.351	.337	.133	.480	.452	.420	.387	.372	.143
	45.00	.414	.374	.345	.310	.296	.069	.448	.413	.389	.350	.334	.100
	50.00	.347	.332	.306	.270	.257	.036	.361	.365	.346	.312	.293	.105
	55.00	.304	.293	.274	.246	.210	.						

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_1 , at:														
		0.16b/2	0.25b/2	0.40b/2	0.50b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.50b/2	0.75b/2	0.95b/2
Percent	c	M = 0.90	a = 23.68°					M = 0.90	a = 25.76°					
Upper surface	0.00	-+246	-+998	-+971	-+975	-+947	-+898	-+310	-1.093	-1.072	-1.062	-1.053	-+986	
	1.25	-+983	-+991	-+986	-+970	-+934	-+859	-1.082	-1.093	-1.086	-1.061	-1.021	-+932	
	2.50	-+970	-+990	-+979	-+960	-+931	-+857	-1.070	-1.086	-1.083	-1.058	-1.014	-+920	
	5.00	-+969	-+993	-+985	-+951	-+928	-+853	-1.070	-1.087	-1.089	-1.047	-1.010	-+916	
	7.50	-+971	-+992	-+974	-+952	-+923	-+854	-1.075	-1.088	-1.076	-1.047	-1.007	-+917	
	10.00	-+972	-+994	-+976	-+951	-+924	-+855	-1.075	-1.089	-1.076	-1.047	-1.007	-+917	
	12.50	-+973	-+994	-+977	-+952	-+925	-+855	-1.079	-1.101	-1.091	-1.048	-1.008	-+914	
	15.00	-+975	-+1.004	-+985	-+942	-+925	-+850	-1.064	-1.098	-1.091	-1.039	-1.009	-+913	
	17.50	-+931	-+995	-+981	-+946	-+921	-+850	-+952	-1.087	-1.082	-1.044	-1.002	-+908	
	20.00	-+849	-+994	-+983	-+943	-+920	-+849	-+894	-1.085	-1.087	-1.059	-1.002	-+903	
	25.00	-+820	-+990	-+980	-+941	-+919	-+849	-+857	-1.075	-1.087	-1.037	-1.000	-+900	
	30.00	-+793	-+974	-+980	-+941	-+915	-+854	-+833	-1.047	-1.084	-1.037	-+993	-+909	
	35.00	-+773	-+948	-+977	-+938	-+915	-+853	-+787	-+990	-1.081	-1.031	-+993	-+904	
	40.00	-+753	-+918	-+973	-+937	-+913	-+853	-+740	-+923	-1.071	-1.032	-+990	-+903	
	45.00	-+734	-+888	-+970	-+932	-+910	-+856	-+715	-+853	-1.062	-1.024	-+987	-+906	
	50.00	-+732	-+858	-+964	-+918	-+909	-+856	-+695	-+803	-1.051	-1.012	-+985	-+904	
	55.00	-+709	-+844	-+950	-+910	-+907	-+850	-+663	-+724	-1.032	-1.004	-+977	-+898	
	60.00	-+685	-+780	-+911	-+818	-+901	-+852	-+645	-+717	-1.037	-1.018	-+969	-+893	
	65.00	-+645	-+753	-+928	-+814	-+898	-+855	-+598	-+628	-966	-1.000	-+955	-+887	
	70.00	-+636	-+735	-+920	-+814	-+896	-+851	-+574	-+578	-924	-+992	-+959	-+882	
	75.00	-+652	-+694	-+901	-+914	-+884	-+848	-+545	-+511	-874	-+982	-+945	-+880	
	80.00	-+621	-+649	-+866	-+904	-+876	-+846	-+468	-+455	-817	-+948	-+931	-+883	
	85.00	-+465	-+551	-+786	-+900	-+890	-+842	-+357	-+375	-681	-+945	-+946	-+879	
Lower surface	1.25	.913	.893	.774	.669	.569	.516	.871	.890	.762	.661	.534	.489	
	2.50	1.045	.928	.830	.740	.684	.544	1.034	.942	.831	.731	.671	.531	
	5.00	1.012	.899	.825	.760	.612	.568	1.026	.927	.842	.771	.721	.567	
	7.50	.948	.811	.733	.678	.570	.531	.971	.890	.759	.718	.657	.518	
	10.00	.831	.612	.573	.515	.477	.531	.915	.849	.793	.741	.702	.548	
	12.50	.792	.748	.703	.661	.622	.471	.831	.791	.743	.695	.654	.538	
	15.00	.723	.686	.651	.609	.577	.411	.747	.736	.693	.646	.614	.458	
	20.00	.659	.640	.604	.567	.537	.352	.714	.686	.646	.603	.578	.382	
	25.00	.622	.591	.560	.528	.494	.293	.669	.638	.605	.567	.533	.327	
	30.00	.545	.542	.513	.480	.447	.255	.592	.595	.563	.523	.491	.288	
	35.00	.529	.506	.476	.439	.417	.196	.574	.556	.527	.486	.459	.231	
	40.00	.456	.416	.395	.359	.337	.093	.478	.467	.444	.402	.381	.135	
	45.00	.436	.416	.395	.359	.337	.093	.433	.431	.408	.375	.332	.099	
	50.00	.388	.382	.364	.351	.287	.062	.412	.387	.358	.328	.288	.055	
	55.00	.370	.358	.331	.322	.246	.000	.351	.347	.335	.324	.280	.044	
	60.00	.328	.299	.290	.252	.226	.000	.300	.303	.288	.280	.250	.035	
	65.00	.238	.273	.251	.224	.188	-.032	.200	.220	.203	.208	.188	.004	
	70.00	.211	.226	.218	.191	.146	-.053	.274	.270	.260	.225	.185	-.027	
	75.00	.193	.193	.181	.157	.109	-.052	.233	.238	.225	.191	.147	-.057	
	80.00	.138	.155	.148	.122	.070	-.082	.180	.200	.170	.151	.105	-.057	
	85.00	.085	.110	.076	.072	.023	-.148	.123	.150	.133	.100	.054	-.128	
	90.00	.001	.036	.024	-.018	-.049	-.168	.039	.079	.056	.002	-.024	-.150	

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TABLE I - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
	0.165/2	0.255/2	0.405/2	0.805/2	0.755/2	0.955/2		0.165/2	0.255/2	0.405/2	0.805/2	0.755/2	0.955/2
Percent													
c	M = 0.94	a = -2.02°					M = 0.94	a = 0°					
Upper surface													
0.00	.041	.701	.645	.699	.549	.456	.056	.730	.678	.685	.648	.685	
1.25	.323	.238	.257	.271	.256	.290	.217	.038	.021	.024	.058	.060	
2.50	.266	.146	.162	.170	.174	.165	.152	.013	.029	.065	.093	.118	
5.00	.201	.125	.108	.101	.093	.113	.088	.016	.027	.074	.115	.120	
7.50	.167	.089	.076	.059	.046	.068	.060	.016	.046	.091	.133	.145	
10.00	.132	.061	.040	.052	.015	.029	.053	.025	.067	.111	.142	.161	
12.50	.090	.030	.002	.010	.024	.040	.013	.049	.086	.103	.156	.197	
25.00	.014	.022	.046	.055	.058	.136	.004	.115	.133	.134	.235		
30.00	.041	.038	.060	.089	.101	.268	.131	.106	.136	.171	.189	.298	
40.00	.046	.066	.084	.110	.134	.285	.104	.133	.144	.189	.222	.294	
45.00	.069	.076	.108	.137	.155	.335	.122	.133	.172	.209	.241	.340	
50.00	.083	.093	.134	.163	.188	.346	.142	.147	.187	.229	.265	.334	
55.00	.073	.115	.162	.186	.219	.366	.124	.161	.224	.250	.293	.358	
60.00	.092	.152	.190	.217	.252	.348	.124	.198	.240	.274	.313	.368	
65.00	.158	.173	.193	.226	.276	.348	.206	.228	.259	.296	.339	.355	
70.00	.154	.166	.194	.230	.278	.367	.207	.223	.284	.312	.344	.371	
75.00	.145	.160	.193	.230	.298	.362	.229	.230	.239	.294	.373	.351	
80.00	.129	.170	.184	.210	.241	.341	.240	.259	.264	.304	.361	.391	
85.00	.093	.060	.052	.044	.036	.027	.098	.042	.040	.019	.009	.018	
90.00	.022	.014	.005	.027	.049	.051	.011	.000	.029	.068	.093	.078	
95.00	.022	.016	.043	.072	.071	.046	.044	.041	.073	.108	.118		
Lower surface													
1.25	.058	.248	.401	.727	.874	.936	.203	.066	.006	.037	.038	.101	
2.50	.003	.195	.263	.551	.742	.873	.138	.005	.026	.057	.068	.100	
5.00	.024	.131	.208	.261	.421	.794	.101	.019	.026	.057	.085	.114	
10.00	.045	.138	.213	.268	.429	.717	.071	.010	.046	.088	.102	.136	
15.00	.053	.134	.204	.281	.312	.800	.051	.017	.054	.089	.116	.165	
20.00	.096	.146	.201	.345	.315	.415	.005	.040	.073	.111	.139	.178	
25.00	.123	.145	.202	.284	.332	.406	.028	.060	.102	.137	.143	.240	
30.00	.144	.149	.199	.265	.311	.394	.049	.049	.103	.146	.174	.280	
35.00	.125	.167	.217	.273	.317	.335	.035	.079	.119	.157	.183	.293	
40.00	.148	.202	.239	.291	.329	.311	.087	.109	.137	.183	.213	.265	
45.00	.198	.202	.239	.292	.329	.346	.104	.101	.158	.200	.227	.308	
50.00	.169	.208	.255	.317	.343	.373	.083	.153	.187	.232	.252	.387	
55.00	.219	.246	.286	.345	.376	.394	.146	.170	.214	.258	.281	.359	
60.00	.239	.266	.298	.361	.411	.411	.167	.189	.229	.269	.290	.374	
65.00	.240	.270	.310	.379	.430	.432	.201	.201	.251	.282	.334	.474	
70.00	.284	.295	.331	.397	.450	.419	.209	.220	.256	.316	.359	.376	
75.00	.292	.287	.329	.383	.438	.391	.214	.211	.250	.291	.355	.327	
80.00	.339	.320	.335	.385	.411	.328	.257	.231	.247	.291	.330	.232	
85.00	.305	.309	.320	.319	.254	.224	.205	.202	.220	.217	.190	.106	
90.00	.213	.195	.171	.113	.065	.057	.115	.089	.073	.042	.010	.036	
95.00	.075	.058	.010	.027	.034	.001	.020	.006	.040	.060	.077	.066	
Upper surface													
0.00	.009	.009	.055	.075	.075	.058	.037	.037	.075	.097	.120	.111	
Lower surface													
0.00	M = 0.94	a = 1.92°					M = 0.94	a = 3.88°					
1.25	.039	.658	.559	.569	.547	.643	.044	.542	.414	.388	.359	.598	
2.50	.078	.232	.341	.757	.867	.714	.058	.945	.107	.158	.174	.923	
5.00	.018	.229	.291	.458	.764	.916	.122	.510	.495	.1042	.1099	.1163	
7.50	.078	.191	.223	.310	.423	.846	.247	.401	.757	.961	.1013	.1099	
10.00	.100	.151	.224	.296	.361	.702	.230	.269	.325	.842	.936	.984	
15.00	.085	.155	.223	.280	.353	.503	.175	.248	.321	.390	.885	.966	
20.00	.089	.187	.234	.297	.347	.407	.166	.269	.344	.402	.787	.938	
25.00	.154	.177	.236	.290	.358	.409	.234	.262	.325	.380	.445	.927	
30.00	.164	.202	.251	.300	.348	.348	.350	.350	.381	.384	.447	.679	
35.00	.165	.224	.244	.301	.351	.361	.267	.303	.346	.392	.426	.503	
40.00	.222	.235	.295	.337	.376	.394	.299	.310	.345	.419	.445	.618	
45.00	.245	.246	.290	.339	.394	.394	.319	.322	.375	.430	.460	.774	
50.00	.224	.252	.298	.356	.410	.419	.297	.322	.382	.446	.485	.722	
55.00	.203	.280	.320	.371	.427	.428	.349	.346	.400	.463	.505	.605	
60.00	.284	.308	.340	.383	.433	.410	.353	.374	.415	.468	.527	.699	
65.00	.292	.305	.348	.398	.434	.436	.360	.374	.421	.478	.521	.460	
70.00	.308	.309	.344	.401	.452	.411	.373	.374	.416	.479	.538	.458	
75.00	.301	.321	.355	.395	.424	.346	.366	.386	.424	.475	.536	.459	
80.00	.288	.313	.351	.427	.468	.416	.387	.387	.414	.455	.505	.457	
85.00	.215	.190	.168	.138	.084	.083	.361	.357	.385	.414	.482	.354	
90.00	.075	.058	.018	.014	.038	.006	.184	.173	.148	.091	.043	.190	
95.00	.013	.009	.052	.076	.081	.044	.023	.038	.003	.024	.030	.077	
Upper surface													
1.25	.314	.262	.246	.263	.315	.231	.436	.431	.416	.438	.486	.384	
2.50	.248	.186	.170	.188	.217	.167	.382	.323	.328	.342	.374	.311	
5.00	.204	.135	.121	.128	.126	.114	.328	.262	.253	.252	.270	.247	
7.50	.163	.090	.074	.081	.090	.055	.277	.209	.197	.198	.214	.182	
10.00	.123	.061	.046	.045	.046	.016	.226	.173	.164	.154	.159	.127	
15.00	.083	.035	.019	.003	.003	.057	.183	.158	.126	.109	.104	.037	
20.00	.045	.025	.017	.004	.004	.030	.154	.137	.107	.044	.044	.047	
25.00	.024	.008	.027	.031	.021	.021	.108	.091	.051	.023	.022	.134	
30.00	.020	.018	.045	.082	.097	.264	.095	.055	.025	.005	.005	.178	
35.00	.021	.055	.069	.113	.125	.258	.037	.022	.002	.036	.004	.178	
40.00	.045	.067	.092	.138	.148	.319	.021	.002	.030	.064	.066	.254	
45.00	.040	.094	.125	.168	.180	.359	.021	.027	.039	.092	.100	.308	
50.00	.105	.131	.156	.194	.207	.379	.1040	.1058	.1088	.1122	.1129	.338	
55.00	.124	.150	.175	.212	.250	.384	.067	.083	.104	.137	.173	.382	
60.00	.157	.171	.193	.229	.276	.376	.086	.099	.119	.157	.195	.369	
65.00	.157	.177	.195	.244	.300	.382	.097	.109	.135	.179	.224	.392	
70.00	.161	.166	.188	.229	.292	.343	.097	.106	.134	.171	.224	.385	
75.00	.206	.192	.199	.236	.294	.275	.1020	.1133	.1148	.159	.251	.383	
80.00	.141	.141	.141	.222	.182	.182	.114	.114	.114	.167	.245	.373	
85.00	.108	.090	.046	.073	.043	.039	.092	.075	.071	.102	.102	.126	
90.00	.036	.037	.006	.008	.023	.003	.043	.038	.024	.028	.047	.176	
95.00	.011	.002	.041	.049	.070	.058	.006	.005	.015	.016	.016	.052	

RECORDED

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at														
		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent	c													
		M = 0.94	a = 5.91°						M = 0.94	a = 7.80°				
Upper surface	0.00	.052	.411	.262	.191	.114	.079	.032	.237	.073	.052	.198	.293	
	1.25	-.190	-1.184	-1.251	-1.305	-1.324	-1.088	-.334	-1.338	-1.385	-1.389	-1.404	-1.255	
	2.50	-.240	-1.059	-1.119	-1.200	-1.260	-1.320	-.412	-1.237	-1.273	-1.333	-1.364	-1.422	
	5.00	-.407	-.750	-1.030	-1.120	-1.168	-1.240	-.568	-1.954	-1.204	-1.263	-1.305	-1.368	
	7.50	-.384	-.408	-.966	-1.063	-1.103	-1.179	-.536	-1.669	-1.130	-1.210	-1.244	-1.320	
	10.00	-.361	-.385	-.898	-1.020	-1.091	-1.144	-.503	-1.579	-1.095	-1.165	-1.225	-1.287	
	15.00	-.278	-.346	-.440	-1.040	-1.111	-1.171	-.412	-1.498	-1.041	-1.191	-1.181	-1.254	
	20.00	-.257	-.347	-.400	-.905	-.983	-1.076	-.378	-1.460	-1.012	-1.084	-1.153	-1.218	
	25.00	-.313	-.538	-.400	-.672	-.747	-1.076	-.370	-1.453	-1.027	-1.107	-1.200	-1.274	
	30.00	-.372	-.549	-.400	-.515	-.522	-1.022	-.455	-1.440	-1.075	-1.076	-1.076	-1.076	
Lower surface	35.00	-.359	-.569	-.400	-.574	-.507	-0.939	-.431	-1.458	-1.052	-1.083	-1.062	-1.077	
	40.00	-.373	-.575	-.426	-.470	-.525	-0.948	-.463	-1.462	-1.051	-1.088	-1.053	-1.080	
	45.00	-.373	-.582	-.440	-.480	-.678	-0.911	-.437	-1.470	-1.015	-1.053	-1.047	-1.047	
	50.00	-.364	-.586	-.452	-.499	-.600	-0.911	-.445	-1.470	-1.027	-1.035	-1.040	-1.035	
	55.00	-.330	-.408	-.462	-.523	-.593	-0.910	-.415	-1.487	-1.039	-1.024	-0.999	-1.052	
	60.00	-.414	-.432	-.476	-.528	-.584	-0.893	-.501	-1.512	-1.046	-1.014	-0.874	-1.044	
	65.00	-.422	-.454	-.488	-.543	-.577	-0.906	-.501	-1.512	-1.055	-1.024	-0.795	-1.053	
	70.00	-.428	-.456	-.477	-.540	-.588	-0.909	-.512	-1.522	-1.048	-1.023	-0.771	-1.057	
	75.00	-.417	-.449	-.486	-.538	-.592	-0.904	-.491	-1.532	-1.050	-1.012	-0.745	-1.057	
	80.00	-.445	-.463	-.485	-.536	-.592	-0.886	-.520	-1.548	-1.061	-1.012	-0.711	-1.057	
Upper surface	85.00	-.459	-.456	-.485	-.534	-.495	-0.768	-.545	-1.545	-1.061	-1.029	-0.649	-1.058	
	90.00	-.448	-.537	-.594	-.585	-.236	-0.576	-.500	-1.521	-1.046	-1.058	-0.488	-1.050	
	95.00	-.110	-.142	-.110	-.098	-.109	-0.529	-.267	-1.592	-.309	-.373	-.990		
	0.00	.965	.566	.335	.555	.585	.474	.667	.660	.429	.627	.636	.526	
	1.25	.514	.456	.451	.464	.476	.408	.624	.556	.549	.547	.546	.467	
	2.50	.450	.577	.367	.366	.373	.342	.556	.488	.457	.445	.454	.405	
	5.00	.394	.517	.306	.305	.317	.268	.487	.403	.395	.388	.395	.350	
	7.50	.339	.278	.270	.259	.263	.212	.425	.367	.340	.334	.336	.273	
	10.00	.277	.231	.214	.203	.202	.117	.358	.303	.292	.278	.270	.174	
	15.00	.224	.213	.182	.146	.140	.104	.266	.177	.159	.218	.215	.088	
Lower surface	20.00	.193	.165	.165	.130	.106	.049	.222	.126	.102	.148	.148	.018	
	25.00	.157	.157	.102	.082	.075	.103	.225	.185	.167	.145	.152	.048	
	30.00	.096	.093	.073	.046	.035	.118	.145	.148	.129	.109	.091	.049	
	40.00	.090	.049	.040	.019	.009	.191	.143	.121	.099	.077	.061	.114	
	45.00	.084	.040	.014	.017	.029	.247	.134	.091	.072	.040	.025	.200	
	50.00	.019	.007	.019	.051	.062	.279	.063	.057	.040	.011	.011	.235	
	60.00	-.004	-.015	-.040	-.065	-.104	-.303	-.034	-.029	-.014	-.011	-.052	-.261	
	65.00	-.017	-.036	-.080	-.089	-.128	-.313	-.028	-.009	-.009	-.037	-.084	-.274	
	70.00	-.033	-.052	-.070	-.113	-.163	-.348	-.005	-.012	-.023	-.061	-.120	-.317	
	75.00	-.030	-.052	-.070	-.115	-.164	-.348	-.002	-.018	-.038	-.072	-.124	-.308	
Upper surface	80.00	-.049	-.074	-.117	-.157	-.207	-.351	-.058	-.054	-.063	-.096	-.157	-.327	
	85.00	-.075	-.090	-.130	-.196	-.251	-.351	-.068	-.054	-.080	-.095	-.146	-.328	
	90.00	-.075	-.061	-.064	-.105	-.183	-.301	-.068	-.054	-.080	-.095	-.132	-.321	
	95.00	-.047	-.042	-.044	-.077	-.132	-.335	-.063	-.060	-.065	-.093	-.132	-.321	
	0.00	-.017	-.028	-.018	-.049	-.088	-.265	-.049	-.049	-.071	-.112	-.157	-.283	
	M = 0.94	a = 9.91°						M = 0.94	a = 13.64°					
Upper surface	0.00	.059	.084	.123	.305	.314	.042	.402	.336	.594	.836	.871	.451	
	1.25	-.440	-.1375	-.1385	-.158	-.1587	-.1318	-.405	-.137	-.1340	-.1430	-.1419	-.441	
	2.50	-.522	-.1247	-.1253	-.1255	-.1256	-.1244	-.503	-.1281	-.1287	-.1315	-.1309	-.522	
	5.00	-.650	-.1200	-.1214	-.1222	-.1223	-.1209	-.509	-.1287	-.1280	-.1287	-.1283	-.519	
	7.50	-.650	-.1890	-.204	-.252	-.261	-.1347	-.894	-.1266	-.1266	-.1114	-.1020	-.507	
	10.00	-.511	-.810	-.175	-.1254	-.1244	-.1236	-.884	-.1213	-.1213	-.1256	-.1099	-.506	
	12.50	-.313	-.475	-.1108	-.1467	-.1232	-.1294	-.719	-.1132	-.1188	-.1101	-.1028	-.502	
	15.00	-.460	-.629	-.791	-.1230	-.1202	-.1280	-.643	-.1015	-.1034	-.1084	-.1012	-.796	
	20.00	-.664	-.541	-.739	-.1114	-.1267	-.1253	-.598	-.1059	-.1095	-.1041	-.1022	-.805	
	25.00	-.501	-.491	-.664	-.1088	-.1154	-.1214	-.618	-.1052	-.1055	-.1032	-.991	-.825	
Lower surface	30.00	-.481	-.496	-.604	-.1043	-.1143	-.1223	-.591	-.1063	-.1038	-.1010	-.955	-.834	
	35.00	-.512	-.496	-.568	-.893	-.1249	-.1140	-.607	-.1078	-.1013	-.984	-.931		
	40.00	-.479	-.504	-.372	-.814	-.1249	-.1110	-.570	-.1086	-.1083	-.954	-.917	-.623	
	45.00	-.490	-.509	-.472	-.762	-.1249	-.1110	-.589	-.1046	-.1024	-.924	-.890	-.608	
	50.00	-.441	-.536	-.496	-.755	-.1250	-.1110	-.644	-.1037	-.1027	-.861	-.888	-.613	
	55.00	-.347	-.502	-.776	-.1220	-.1112	-.641	-.641	-.634	-.747	-.845	-.874	-.620	
	60.00	-.347	-.561	-.604	-.755	-.1054	-.1112	-.627	-.627	-.627	-.888	-.888	-.620	
	65.00	-.347	-.557	-.604	-.725	-.926	-.1116	-.627	-.640	-.676	-.828	-.863	-.610	
	70.00	-.335	-.577	-.613	-.706	-.858	-.1137	-.609	-.643	-.632	-.785	-.850	-.600	
	75.00	-.360	-.597	-.614	-.688	-.789	-.1132	-.632	-.643	-.592	-.759	-.829	-.601	
Upper surface	80.00	-.577	-.596	-.616	-.673	-.721	-.1118	-.619	-.616	-.570	-.741	-.802	-.814	
	85.00	-.561	-.590	-.603	-.658	-.649	-.1115	-.564	-.555	-.540	-.712	-.767	-.804	
	90.00	-.387	-.489	-.588	-.606	-.592	-.1086	-.586	-.540	-.520	-.684	-.764	-.794	
	95.00	-.771	.745	.691	.679	.675	.568	.902	.837	.776	.734	.694	.602	
	0.00	.745	.647	.620	.617	.607	.518	.908	.764	.735	.706	.682	.568	
	1.25	.666	.558	.536	.519	.524	.463	.819	.679	.657	.651	.628	.530	
	2.50	.590	.492	.477	.459	.466	.398	.730	.621	.596	.576	.568	.477	
	5.00	.522	.454	.436	.422	.411	.342	.656	.574	.560	.532	.527	.430	
	7.50	.442	.384	.362	.354	.343	.244	.559	.509	.486	.467	.449	.338	
	10.00	.372	.352	.311	.286	.284	.198	.485	.467	.428	.403	.395	.260	
Lower surface	12.50	.330	.298	.267	.246	.239	.088	.436	.407	.378	.359	.350	.192	
	15.00	.295	.254	.230	.210	.202	.025	.395	.354	.342	.323	.306	.128	
	20.00	.211	.215	.193	.167	.158	.026	.309	.343	.301	.289	.260	.094	
	25.00	.199	.194	.184	.159	.150	.074	.293	.244	.230	.204	.188	.032	
	30.00	.171	.171	.1										

NACA RM 157G09a

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TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
		0.18b/2						0.25b/2					
		0.40b/2						0.50b/2					
		0.75b/2						0.95b/2					
Percent		$M = 0.94$						$M = 0.94$					
C		$\alpha = 15.66^\circ$						$\alpha = 17.76^\circ$					
Upper surface													
0.00	.039	-.589	-.790	-1.037	-1.104	-.640	.044	-.744	-.982	-.948	-.821	-.733	
1.25	-.819	-1.420	-1.181	-.998	-.843	-.724	-.916	-1.243	-1.007	-.875	-.799	-.723	
2.50	-.925	-1.420	-1.161	-.971	-.850	-.718	-.915	-1.233	-1.007	-.857	-.799	-.719	
5.00	-.1049	-1.390	-1.181	-.973	-.849	-.718	-.162	-1.219	-1.029	-.841	-.792	-.719	
7.50	-.1005	-1.347	-1.168	-.973	-.839	-.716	-.107	-1.210	-1.011	-.839	-.787	-.719	
10.00	-.961	-1.297	-1.185	-.972	-.860	-.716	-.1051	-1.188	-1.017	-.839	-.786	-.719	
12.50	-.816	-1.250	-1.184	-.972	-.847	-.716	-.846	-1.181	-.979	-.856	-.785	-.719	
20.00	-.602	-1.072	-1.064	-.975	-.756	-.716	-.566	-1.021	-.949	-.856	-.782	-.719	
25.00	-.642	-.023	-.041	-.959	-.852	-.716	-.592	-1.058	-.929	-.857	-.777	-.719	
30.00	-.655	-.722	-1.002	-.950	-.836	-.720	-.656	-.973	-.931	-.832	-.775	-.718	
35.00	-.629	-.635	-.989	-.923	-.819	-.725	-.612	-.862	-.928	-.824	-.774	-.716	
40.00	-.636	-.609	-.970	-.886	-.810	-.718	-.615	-.769	-.918	-.821	-.771	-.717	
45.00	-.607	-.616	-.956	-.852	-.804	-.724	-.600	-.722	-.904	-.812	-.770	-.718	
50.00	-.619	-.624	-.938	-.833	-.803	-.722	-.638	-.688	-.887	-.804	-.767	-.719	
55.00	-.632	-.635	-.902	-.826	-.796	-.720	-.620	-.681	-.863	-.796	-.765	-.723	
60.00	-.671	-.654	-.863	-.803	-.795	-.719	-.657	-.688	-.859	-.778	-.763	-.723	
65.00	-.654	-.641	-.826	-.808	-.792	-.723	-.653	-.677	-.817	-.775	-.760	-.723	
70.00	-.627	-.635	-.791	-.807	-.791	-.724	-.594	-.674	-.808	-.774	-.747	-.723	
75.00	-.646	-.664	-.756	-.768	-.767	-.718	-.654	-.706	-.768	-.748	-.756	-.723	
80.00	-.599	-.632	-.727	-.768	-.782	-.718	-.629	-.670	-.784	-.746	-.753	-.723	
85.00	-.589	-.604	-.693	-.757	-.764	-.724	-.620	-.652	-.772	-.766	-.743	-.723	
90.00	-.545	-.560	-.659	-.742	-.744	-.717	-.605	-.639	-.757	-.760	-.734	-.723	
95.00	-.391	-.471	-.620	-.728	-.757	-.714	-.513	-.606	-.728	-.760	-.751	-.723	
Lower surface													
1.25	.928	.880	.803	.748	.699	.609	.986	.907	.815	.750	.683	.612	
2.50	.989	.828	.783	.745	.707	.588	1.038	.871	.815	.765	.723	.603	
5.00	.895	.750	.718	.685	.663	.565	.953	.807	.762	.724	.698	.590	
10.00	.795	.682	.661	.637	.618	.518	.864	.745	.715	.685	.660	.551	
15.00	.722	.632	.622	.591	.571	.472	.818	.693	.711	.645	.620	.490	
20.00	.624	.550	.549	.533	.509	.407	.691	.630	.608	.580	.560	.435	
25.00	.542	.527	.495	.469	.452	.312	.617	.580	.553	.517	.499	.368	
30.00	.458	.422	.406	.386	.367	.187	.524	.478	.440	.438	.413	.230	
35.00	.368	.375	.365	.341	.321	.151	.436	.438	.416	.392	.368	.200	
40.00	.366	.342	.330	.306	.288	.084	.420	.397	.385	.355	.336	.135	
45.00	.345	.307	.294	.266	.251	.026	.403	.364	.338	.316	.297	.076	
50.00	.275	.261	.258	.226	.212	.003	.340	.321	.308	.281	.260	.041	
55.00	.237	.231	.230	.206	.170	-.030	.297	.290	.278	.253	.213	.015	
60.00	.233	.202	.196	.173	.130	-.030	.292	.258	.244	.220	.192	-.013	
65.00	.186	.152	.147	.124	.094	-.030	.258	.208	.180	.141	.106	-.016	
70.00	.149	.154	.151	.120	.086	-.097	.195	.103	.100	.166	.127	-.057	
75.00	.128	.115	.120	.086	.054	-.107	.175	.163	.159	.137	.096	-.074	
80.00	.102	.102	.099	.076	.034	-.127	.147	.144	.137	.114	.072	-.092	
85.00	.066	.076	.082	.058	.012	-.097	.110	.117	.113	.091	.046	-.071	
90.00	.043	.047	.052	.035	-.008	-.153	.075	.089	.081	.058	.021	-.128	
95.00	.022	-.001	.005	-.028	-.055	-.144	.045	.029	-.030	-.007	-.050	-.131	
Upper surface		$M = 0.94$						$M = 0.94$					
1.25	.023	-.931	-1.104	-.949	-.848	-.806	-.022	-1.003	-.964	-.936	-.894	-.860	
2.50	-1.002	-1.118	-.978	-.835	-.855	-.778	-.929	-.952	-.945	-.921	-.885	-.832	
5.00	-.1044	-.110	-.974	-.959	-.872	-.773	-.924	-.953	-.937	-.916	-.883	-.829	
7.50	-.1048	-.1107	-.997	-.868	-.827	-.774	-.924	-.955	-.943	-.906	-.883	-.829	
10.00	-.1059	-.1097	-.999	-.867	-.825	-.774	-.929	-.956	-.951	-.905	-.878	-.829	
15.00	-.960	-.1093	-.982	-.863	-.827	-.774	-.933	-.955	-.959	-.905	-.874	-.829	
20.00	-.870	-.1077	-.972	-.859	-.824	-.774	-.939	-.962	-.942	-.904	-.879	-.831	
25.00	-.788	-.1043	-.961	-.859	-.822	-.773	-.902	-.952	-.937	-.901	-.876	-.828	
30.00	-.754	-.1005	-.957	-.853	-.818	-.771	-.880	-.949	-.937	-.904	-.877	-.825	
35.00	-.675	-.952	-.957	-.853	-.818	-.771	-.874	-.947	-.935	-.904	-.874	-.824	
40.00	-.661	-.945	-.957	-.847	-.818	-.771	-.875	-.945	-.935	-.904	-.874	-.824	
45.00	-.631	-.868	-.945	-.840	-.818	-.771	-.875	-.945	-.935	-.904	-.874	-.824	
50.00	-.549	-.822	-.920	-.838	-.813	-.773	-.735	-.912	-.929	-.892	-.872	-.829	
55.00	-.642	-.796	-.893	-.831	-.809	-.774	-.711	-.856	-.928	-.868	-.870	-.821	
60.00	-.707	-.779	-.886	-.818	-.810	-.775	-.794	-.891	-.920	-.875	-.868	-.831	
65.00	-.691	-.753	-.873	-.817	-.807	-.770	-.778	-.872	-.917	-.875	-.867	-.826	
70.00	-.657	-.740	-.859	-.815	-.803	-.773	-.733	-.858	-.912	-.875	-.861	-.828	
75.00	-.638	-.731	-.851	-.812	-.803	-.774	-.733	-.840	-.904	-.874	-.860	-.832	
80.00	-.674	-.730	-.842	-.804	-.782	-.770	-.733	-.838	-.890	-.875	-.858	-.825	
85.00	-.674	-.730	-.842	-.804	-.782	-.770	-.733	-.838	-.890	-.875	-.858	-.825	
90.00	-.653	-.731	-.842	-.806	-.782	-.773	-.733	-.838	-.890	-.877	-.858	-.827	
95.00	-.585	-.735	-.832	-.806	-.780	-.770	-.733	-.838	-.892	-.877	-.858	-.827	
Lower surface													
1.25	.991	.921	.817	.740	.663	.591	.965	.922	.813	.719	.631	.570	
2.50	1.073	.914	.835	.773	.724	.599	1.073	.938	.848	.773	.721	.586	
5.00	.995	.860	.799	.750	.715	.599	1.017	.892	.828	.770	.731	.601	
7.50	.902	.802	.756	.715	.686	.569	.941	.841	.789	.741	.759	.579	
10.00	.836	.758	.715	.681	.649	.533	.872	.804	.755	.732	.699	.550	
15.00	.743	.686	.653	.626	.591	.463	.781	.733	.697	.658	.628	.456	
20.00	.667	.624	.598	.565	.546	.398	.710	.670	.641	.605	.580	.423	
25.00	.620	.587	.549	.523	.499	.334	.661	.627	.597	.561	.537	.364	
30.00	.574	.536	.507	.483	.457	.271	.614	.580	.551	.529	.494	.311	
35.00	.509	.496	.466	.434	.403	.240	.582	.534	.507	.481	.451	.265	
40.00	.479	.454	.429	.398	.360	.177	.521	.496	.469	.436	.418	.207	
45.00	.453	.414	.390	.362	.341	.113	.494	.455	.429	.401	.381	.144	
50.00	.399	.375	.352	.325	.303	.080	.427	.411	.393	.374	.354	.080	
55.00	.346	.336	.323	.299	.256	.050	.384	.378	.365	.3			

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
Percent													
c	M = 0.94						M = 0.94						
	$\alpha = 23.90^\circ$						$\alpha = 25.95^\circ$						
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Upper surface	0.00	-1.000	-1.000	-1.000	-1.000	-1.000		-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
	1.25	-0.986	-0.994	-0.982	-0.981	-0.981		-1.012	-1.120	-1.100	-1.061	-1.002	-0.973
	2.50	-0.974	-0.995	-0.973	-0.957	-0.938		-1.022	-1.110	-1.089	-1.050	-0.997	-0.973
	5.00	-0.973	-0.996	-0.979	-0.953	-0.936		-1.022	-1.112	-1.092	-1.044	-0.971	-0.971
	7.50	-0.978	-0.999	-0.969	-0.952	-0.930		-1.011	-1.113	-1.095	-1.070	-1.037	-1.077
	10.00	-0.982	-1.001	-0.979	-0.952	-0.931		-1.009	-1.114	-1.103	-1.073	-1.031	-1.066
	12.50	-0.980	-1.006	-0.981	-0.950	-0.932		-1.004	-1.124	-1.108	-1.066	-1.037	-1.066
	15.00	-0.982	-0.999	-0.981	-0.945	-0.931		-1.017	-1.124	-1.110	-1.056	-1.041	-1.066
	17.50	-0.976	-0.997	-0.981	-0.947	-0.929		-1.009	-1.113	-1.101	-1.065	-1.034	-1.060
	20.00	-0.972	-0.982	-0.978	-0.945	-0.928		-1.003	-1.105	-1.095	-1.056	-1.033	-1.055
	25.00	-0.967	-0.979	-0.970	-0.945	-0.927		-1.004	-1.104	-1.093	-1.051	-1.031	-1.050
	30.00	-0.967	-0.979	-0.970	-0.945	-0.927		-1.004	-1.105	-1.094	-1.054	-1.026	-1.060
	35.00	-0.917	-0.970	-0.970	-0.945	-0.927		-1.004	-1.107	-1.095	-1.057	-1.027	-1.055
	40.00	-0.817	-0.976	-0.978	-0.943	-0.925		-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	45.00	-0.786	-0.965	-0.977	-0.941	-0.925		-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	50.00	-0.779	-0.946	-0.974	-0.940	-0.924		-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	55.00	-0.744	-0.929	-0.971	-0.938	-0.921		-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	60.00	-0.819	-0.921	-0.969	-0.920	-0.921	-0.895	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	65.00	-0.826	-0.897	-0.964	-0.924	-0.918	-0.882	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	70.00	-0.780	-0.882	-0.960	-0.927	-0.915	-0.883	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	75.00	-0.777	-0.872	-0.956	-0.923	-0.913	-0.885	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	80.00	-0.822	-0.870	-0.948	-0.923	-0.913	-0.885	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	85.00	-0.818	-0.864	-0.938	-0.924	-0.906	-0.879	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	90.00	-0.805	-0.836	-0.934	-0.922	-0.902	-0.880	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
	95.00	-0.695	-0.812	-0.893	-0.918	-0.910	-0.878	-1.004	-1.107	-1.097	-1.058	-1.027	-1.055
Lower surface	1.25	.934	.926	.806	.700	.605	.454	.913	.929	.794	.680	.571	.528
	2.50	1.070	.960	.856	.774	.716	.581	1.071	.978	.867	.766	.704	.564
	5.00	1.038	.930	.857	.789	.744	.606	1.061	.960	.874	.802	.756	.604
	7.50	.971	.888	.829	.771	.776	.598	1.003	.924	.858	.794	.752	.606
	10.00	.914	.847	.794	.750	.712	.575	.950	.890	.831	.777	.734	.588
	12.50	.832	.783	.740	.696	.659	.518	.803	.775	.730	.686	.651	.540
	15.00	.782	.737	.700	.658	.618	.459	.749	.704	.661	.626	.581	.486
	20.00	.753	.717	.680	.648	.608	.459	.703	.675	.636	.591	.548	.434
	25.00	.706	.678	.641	.604	.578	.459	.659	.622	.581	.547	.507	.376
	30.00	.663	.630	.597	.569	.538	.458	.611	.582	.548	.513	.474	.376
	35.00	.581	.584	.558	.524	.492	.368	.535	.465	.465	.516	.511	.372
	40.00	.556	.543	.518	.480	.461	.247	.518	.596	.548	.527	.501	.386
	45.00	.536	.502	.476	.444	.424	.185	.590	.561	.528	.488	.454	.324
	50.00	.473	.458	.439	.409	.387	.153	.527	.513	.491	.451	.423	.187
	55.00	.432	.422	.409	.377	.358	.120	.484	.475	.456	.421	.378	.154
	60.00	.413	.388	.367	.339	.297	.090	.445	.437	.421	.383	.335	.122
	65.00	.392	.347	.327	.299	.260	.058	.413	.392	.386	.345	.298	.094
	70.00	.307	.277	.249	.221	.186	.036	.386	.371	.352	.317	.260	.061
	75.00	.276	.273	.264	.242	.202	.003	.329	.310	.290	.249	.234	.031
	80.00	.240	.246	.236	.209	.167	-.024	.288	.295	.278	.245	.202	.024
	85.00	.191	.210	.202	.177	.192	-.020	.238	.254	.242	.211	.161	.002
	90.00	.137	.164	.132	.132	.088	-.005	.182	.204	.187	.164	.114	-.043
	95.00	.054	.087	.086	.046	.021	-.100	.080	.122	.119	.072	.041	-.088

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TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent	c	M = 0.98	$\alpha = -2.00^\circ$		M = 0.98	$\alpha = -0.08^\circ$		M = 0.98	$\alpha = 0.08^\circ$		M = 0.98	$\alpha = 2.00^\circ$	
Upper surface													
0.00	.029	.718	.668	.630	.570	.485		.061	.761	.711	.673	.708	
1.25	.345	.259	.273	.286	.271	.307		.268	.107	.088	.062	.024	.120
2.50	.288	.179	.175	.186	.191	.181		.205	.060	.038	.009	.011	.055
3.75	.226	.149	.150	.116	.113	.140		.147	.052	.035	.004	.001	.057
5.00	.205	.135	.093	.079	.068	.089		.149	.045	.032	.003	.001	.056
6.25	.159	.086	.062	.035	.036	.046		.091	.033	.004	.048	.002	.101
7.50	.152	.082	.053	.024	-.003	.029		.068	.006	.032	.057	.082	.130
8.75	.052	.017	-.015	.013	-.033	.102		.054	-.024	-.061	-.004	.115	.165
10.00	.037	-.003	-.024	.048	-.066	.205		.005	-.035	-.068	-.111	.151	.242
11.25	-.005	-.021	-.041	.063	-.084	.240		.072	-.057	-.089	-.119	.139	.242
12.50	-.030	-.046	-.064	-.082	-.112	.259		.060	-.084	-.108	-.124	.164	.240
13.75	-.052	-.051	-.089	-.120	-.134	.327		.088	-.101	-.121	-.153	.184	.292
15.00	-.061	-.069	-.113	-.143	-.164	.322		.103	-.103	-.132	-.149	.207	.281
16.25	-.072	-.132	-.176	-.159	-.225	.354		.078	-.106	-.153	-.194	.251	.304
17.50	-.166	-.181	-.211	-.232	-.307	.357		.185	-.193	-.223	-.259	.321	.325
18.75	-.186	-.200	-.211	-.241	-.315	.346		.198	-.214	-.226	-.254	.323	.315
20.00	-.209	-.190	-.211	-.245	-.307	.321		.223	-.208	-.226	-.253	.304	.295
21.25	-.177	-.182	-.196	-.240	-.283	.301		.198	-.203	-.217	-.253	.275	.277
22.50	-.147	-.178	-.195	-.230	-.277	.309		.145	-.188	-.204	-.239	.272	.285
23.75	-.091	-.226	-.257	-.262	-.292	.315		.235	-.000	-.033	-.078	.138	
25.00	.029	-.167	-.225	-.254	-.292	.344		.171	.042	-.002	-.054	.105	.122
26.25	-.006	-.094	-.178	-.241	-.243	.366		.137	.055	-.005	-.034	.073	.127
27.50	-.014	-.128	-.184	-.253	-.248	.363		.104	.026	-.019	-.060	.077	.136
28.75	-.054	-.116	-.183	-.252	-.294	.360		.070	.008	-.040	-.075	.089	.132
30.00	-.070	-.120	-.181	-.243	-.289	.397		.041	-.005	-.042	-.083	.101	.146
31.25	-.099	-.120	-.187	-.253	-.309	.377		.001	-.019	-.067	-.114	.126	.193
32.50	-.124	-.130	-.178	-.242	-.288	.377		.017	-.019	-.075	-.111	.134	.231
33.75	-.107	-.142	-.190	-.250	-.293	.316		.096	-.045	-.089	-.113	.144	.244
35.00	-.126	-.179	-.217	-.277	-.313	.342		.128	-.040	-.084	-.119	.158	.259
36.25	-.182	-.224	-.244	-.280	-.320	.349		.062	-.056	-.100	-.157	.179	.259
37.50	-.151	-.200	-.246	-.290	-.341	.361		.051	-.005	-.133	-.194	.207	.289
38.75	-.224	-.224	-.268	-.326	-.360	.385		.112	-.129	-.167	-.223	.235	.311
40.00	-.220	-.245	-.284	-.339	-.381	.401		.131	-.152	-.180	-.233	.271	.329
41.25	-.253	-.272	-.303	-.360	-.399	.407		.166	-.182	-.208	-.253	.291	.334
42.50	-.268	-.279	-.314	-.377	-.422	.411		.175	-.192	-.217	-.275	.308	.340
43.75	-.275	-.267	-.314	-.365	-.414	.405		.183	-.180	-.217	-.265	.307	.340
45.00	-.324	-.302	-.321	-.375	-.426	.390		.238	-.215	-.223	-.270	.328	.325
46.25	-.328	-.323	-.330	-.382	-.405	.394		.240	-.233	-.244	-.280	.328	.334
47.50	-.342	-.326	-.331	-.369	-.398	.357		.259	-.234	-.244	-.271	.332	.277
48.75	-.319	-.321	-.331	-.394	-.382	.376		.234	-.239	-.244	-.289	.327	.312
50.00	-.225	-.274	-.293	-.313	-.334	.343		.170	-.211	-.232	-.277	.289	.275
Upper surface													
0.00	.064	.713	.608	.618	.600	.680		.069	.610	.488	.465	.458	.643
1.25	.150	.133	.260	.614	.701	.584		.021	.777	.587	.952	.982	.782
2.50	.087	.143	.224	.372	.612	.764		.041	.386	.795	.861	.904	.998
3.75	.010	.107	.170	.246	.342	.599		.162	.303	.641	.772	.830	.892
5.00	-.009	.077	.160	.245	.366	.617		.159	.164	.240	.694	.754	.848
6.25	-.027	.151	.215	.295	.325	.589		.110	.181	.246	.302	.734	.830
7.50	-.022	.056	.175	.220	.279	.530		.110	.181	.246	.302	.734	.830
8.75	-.024	.119	.185	.240	.285	.533		.099	.201	.271	.307	.688	.808
10.00	-.086	.115	.187	.237	.274	.547		.168	.195	.255	.307	.427	.792
11.25	-.163	.139	.199	.247	.280	.292		.246	.211	.262	.311	.341	.740
12.50	-.133	.166	.218	.263	.297	.275		.207	.238	.276	.319	.353	.666
13.75	-.163	.174	.235	.290	.313	.328		.235	.248	.346	.349	.700	
15.00	-.181	.168	.250	.298	.351	.329		.258	.261	.308	.359	.390	.656
16.25	-.160	.187	.258	.318	.352	.354		.237	.261	.318	.374	.444	.646
17.50	-.142	.214	.278	.352	.372	.368		.142	.184	.244	.340	.440	.600
18.75	-.144	.248	.307	.355	.381	.353		.194	.244	.347	.389	.445	.645
20.00	-.220	.248	.300	.350	.374	.381		.302	.314	.347	.406	.451	.419
21.25	-.245	.250	.303	.352	.389	.388		.311	.315	.353	.407	.462	.388
22.50	-.245	.264	.312	.355	.391	.383		.336	.342	.359	.407	.465	.384
23.75	-.269	.282	.316	.350	.348	.349		.359	.342	.361	.404	.448	.383
25.00	-.295	.282	.316	.350	.348	.349		.359	.342	.361	.404	.448	.383
26.25	-.266	.280	.305	.338	.317	.330		.335	.342	.350	.393	.362	.384
27.50	-.181	.249	.287	.290	.300	.335		.237	.312	.341	.363	.338	.401
Lower surface													
1.25	.351	.504	.267	.284	.327	.261		.449	.459	.445	.465	.504	.411
2.50	.297	.218	.202	.213	.241	.204		.416	.357	.359	.378	.383	.341
3.75	.253	.184	.149	.150	.163	.183		.364	.298	.295	.289	.300	.280
5.00	.217	.139	.104	.113	.126	.102		.314	.244	.238	.234	.247	.225
6.25	.176	.112	.074	.067	.086	.066		.269	.210	.202	.194	.196	.168
7.50	.136	.086	.045	.036	.036	.000		.221	.176	.170	.153	.141	.085
8.75	.096	.055	.017	.010	-.001	.080		.174	.178	.128	.093	.104	.002
10.00	.076	.044	.009	.028	-.027	.194		.150	.131	.095	.065	.064	-.081
11.25	.067	.021	-.011	.045	-.051	.201		.133	.055	.070	.045	.039	.131
12.50	.060	-.035	-.005	.007	-.019	.196		.105	.040	.015	-.018	-.025	.168
13.75	.060	-.040	-.058	.100	-.008	.200		.061	.040	.015	-.018	-.025	.201
15.00	.052	-.076	-.122	.145	-.145	.321		.063	.011	.019	-.044	-.081	.206
16.25	-.074	-.098	-.142	.179	-.193	.334		.025	-.047	-.066	-.093	-.129	.312
17.50	-.103	-.124	-.166	.199	-.224	.327		.052	-.068	-.085	-.117	-.155	.325
18.75	-.115	-.137	-.172	.221	-.252	.335		.060	-.080	-.094	-.135	-.163	.340
20.00	-.117	-.126	-.175	.210	-.253	.329		.066	-.079	-.099	-.136	-.187	.343
21.25	-.179	-.162	-.191	.228	-.277	.321		.130	-.118	-.127	-.157	-.214	.343
22.50	-.179	-.178	-.207	.240	-.293	.327		.135	-.127	-.139	-.180	-.232	.348
23.75	-.195	-.178	-.207	.244	-.308	.275		.149	-.127	-.137	-.185	-.249	.297
25.00	-.172	-.182	-.207	.247	-.300	.314		.102	-.126	-.141	-.181	-.247	.345
26.25	-.130	-.159	-.198	.239	-.277	.273		.108	-.122	-.127	-.149	-.239	.304

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TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , atm														
		0.16b/2	0.26b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.26b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
	Percent c													
		$M = 0.98$	$c = 5.93^*$					$M = 0.98$	$c = 7.92^*$					
Upper surface	0.00	.071	.472	.327	.267	.208	.536	.075	.319	.162	.057	.057	.377	
	1.25	-.122	-1.010	-1.097	-1.142	-1.141	-1.144	-.320	-1.171	-1.234	-1.269	-1.276	-1.100	
	2.50	-.188	-.907	-.992	-.1058	-.1079	-.1158	-.473	-.813	-.1063	-.1118	-.1223	-.1281	
	3.75	-.333	-.638	-.919	-.979	-.1010	-.105	-.445	-.547	-.993	-.1070	-.1254	-.1227	
	5.00	-.316	-.531	-.846	-.931	-.962	-.1034	-.416	-.463	-.964	-.1036	-.1081	-.1159	
	6.25	-.314	-.512	-.795	-.902	-.930	-.1028	-.365	-.405	-.877	-.964	-.1043	-.1106	
	7.50	-.314	-.506	-.795	-.902	-.930	-.1028	-.365	-.405	-.877	-.964	-.1043	-.1106	
	8.75	-.197	-.285	-.349	-.382	-.470	-.560	-.365	-.405	-.877	-.964	-.1043	-.1106	
	10.00	-.257	-.280	-.340	-.464	-.487	-.536	-.327	-.363	-.452	-.511	-.541	-.562	
	11.25	-.322	-.291	-.343	-.459	-.508	-.597	-.361	-.387	-.420	-.583	-.598	-.632	
	12.50	-.281	-.309	-.358	-.415	-.501	-.519	-.356	-.384	-.420	-.739	-.935	-.947	
	13.75	-.317	-.324	-.375	-.415	-.574	-.839	-.304	-.393	-.435	-.613	-.929	-.954	
	15.00	-.324	-.328	-.389	-.423	-.670	-.805	-.368	-.399	-.449	-.575	-.928	-.921	
	16.25	-.310	-.350	-.399	-.441	-.548	-.809	-.375	-.403	-.463	-.558	-.923	-.930	
	17.50	-.280	-.350	-.411	-.461	-.523	-.808	-.345	-.419	-.474	-.547	-.917	-.930	
	18.75	-.362	-.377	-.424	-.468	-.519	-.789	-.429	-.444	-.484	-.540	-.839	-.923	
	20.00	-.362	-.377	-.424	-.468	-.519	-.789	-.429	-.444	-.484	-.540	-.839	-.923	
	21.25	-.373	-.381	-.424	-.462	-.516	-.800	-.436	-.451	-.484	-.545	-.846	-.929	
	22.50	-.364	-.390	-.433	-.482	-.521	-.807	-.416	-.458	-.497	-.545	-.844	-.937	
	23.75	-.396	-.408	-.433	-.482	-.527	-.801	-.453	-.477	-.499	-.547	-.844	-.936	
	25.00	-.417	-.408	-.435	-.482	-.509	-.789	-.473	-.477	-.499	-.547	-.844	-.936	
	26.25	-.398	-.410	-.425	-.476	-.450	-.757	-.456	-.477	-.488	-.540	-.510	-.940	
	27.50	-.313	-.384	-.422	-.455	-.403	-.773	-.373	-.454	-.488	-.524	-.414	-.950	
Lower surface	0.00	.503	.389	.557	.571	.600	.501	.692	.683	.642	.642	.657	.554	
	1.25	.420	.422	.482	.497	.531	.536	.652	.585	.567	.568	.571	.492	
	2.50	.406	.434	.484	.503	.532	.536	.649	.593	.574	.585	.575	.425	
	3.75	.420	.347	.430	.526	.544	.503	.619	.549	.549	.562	.562	.416	
	5.00	.367	.515	.292	.284	.289	.250	.549	.398	.382	.382	.383	.351	
	6.25	.255	.245	.245	.250	.239	.160	.391	.337	.321	.307	.299	.217	
	7.50	.223	.196	.161	.133	.140	.007	.292	.260	.226	.203	.204	.059	
	8.75	.126	.127	.097	.072	.070	.070	.263	.222	.197	.173	.170	.003	
	10.00	.105	.071	.071	.043	.045	.144	.184	.186	.164	.133	.127	.020	
	11.25	.117	.071	.039	.012	.010	.201	.174	.124	.097	.070	.064	.155	
	12.50	.080	.039	.006	.001	.001	.203	.090	.070	.038	.029	.018	.189	
	13.75	.024	.011	-.059	-.063	-.050	-.045	.066	.041	.019	.007	.013	.217	
	15.00	-.010	-.009	-.035	-.063	-.094	-.273	.066	.041	.019	.007	.012	.257	
	16.25	-.007	-.024	-.047	-.084	-.124	-.301	.047	.023	.004	.032	.078	.176	
	17.50	-.015	-.027	-.059	-.091	-.129	-.308	.039	.017	-.009	-.043	-.085	.174	
	18.75	-.079	-.062	-.087	-.125	-.166	-.310	-.017	-.015	-.034	-.069	-.128	-.274	
	20.00	-.082	-.073	-.095	-.137	-.182	-.318	-.027	-.024	-.042	-.078	-.130	-.290	
	21.25	-.096	-.076	-.094	-.137	-.200	-.272	-.037	-.031	-.040	-.079	-.140	-.248	
	22.50	-.085	-.077	-.097	-.135	-.194	-.323	-.037	-.039	-.046	-.074	-.132	-.297	
	23.75	-.088	-.085	-.097	-.144	-.183	-.290	-.059	-.055	-.058	-.097	-.129	-.262	
Upper surface	0.00	$M = 0.98$	$c = 9.91^*$					$M = 0.98$	$c = 13.68^*$					
	1.25	.070	.147	-.027	-.195	-.372	-.154	.040	-.229	-.481	-.708	-.880	-.402	
	2.50	-.357	-.1255	-.1287	-.1305	-.1311	-.1394	-.584	-.1288	-.1257	-.1241	-.1278	-.1282	
	3.75	-.447	-.179	-.210	-.216	-.280	-.320	-.691	-.1254	-.1232	-.1242	-.1273	-.1319	
	5.00	-.601	-.989	-.1158	-.1193	-.1224	-.1278	-.828	-.1287	-.1247	-.1239	-.1277	-.1311	
	6.25	-.566	-.760	-.1088	-.1149	-.1175	-.1244	-.787	-.1142	-.1207	-.1255	-.1247	-.1305	
	7.50	-.511	-.646	-.1066	-.1120	-.1152	-.1217	-.743	-.1098	-.1171	-.1217	-.1254	-.1292	
	8.75	-.502	-.617	-.1077	-.1102	-.1152	-.1205	-.704	-.1088	-.1170	-.1220	-.1277	-.1327	
	10.00	-.391	-.540	-.678	-.728	-.806	-.1025	-.599	-.1082	-.1160	-.1205	-.1260	-.1360	
	11.25	-.394	-.484	-.645	-.1009	-.1053	-.1142	-.516	-.651	-.682	-.1097	-.1145	-.1232	
	12.50	-.440	-.444	-.589	-.984	-.1058	-.1112	-.546	-.648	-.692	-.1061	-.1140	-.1232	
	13.75	-.420	-.442	-.537	-.966	-.1026	-.1074	-.520	-.505	-.624	-.1030	-.1119	-.1214	
	15.00	-.446	-.440	-.503	-.822	-.1016	-.1030	-.540	-.526	-.606	-.999	-.1011	-.1140	
	16.25	-.420	-.442	-.501	-.734	-.1018	-.1003	-.513	-.532	-.687	-.981	-.1082	-.1141	
	17.50	-.434	-.449	-.509	-.721	-.1012	-.1013	-.540	-.543	-.681	-.989	-.1041	-.1132	
	18.75	-.409	-.449	-.525	-.710	-.1011	-.011	-.560	-.565	-.623	-.960	-.1048	-.1117	
	20.00	-.487	-.494	-.534	-.614	-.697	-.777	-.592	-.597	-.640	-.940	-.1017	-.1077	
	21.25	-.480	-.499	-.534	-.676	-.980	-.011	-.600	-.655	-.733	-.768	-.1048	-.1088	
	22.50	-.490	-.506	-.538	-.655	-.892	-.016	-.588	-.608	-.655	-.763	-.1044	-.1064	
	23.75	-.475	-.516	-.549	-.639	-.503	-.023	-.586	-.619	-.616	-.873	-.1045	-.1077	
	25.00	-.510	-.556	-.551	-.629	-.738	-.025	-.619	-.641	-.602	-.895	-.825	-.1037	
	26.25	-.526	-.537	-.554	-.613	-.658	-.024	-.625	-.647	-.608	-.878	-.775	-.1046	
	27.50	-.514	-.537	-.546	-.599	-.592	-.031	-.619	-.664	-.604	-.757	-.723	-.1049	
	28.75	-.416	-.502	-.545	-.575	-.539	-.053	-.602	-.660	-.674	-.757	-.723	-.1049	
	30.00	-.559	.524	.296	.277	.271	.129	.479	.488	.418	.399	.307	.240	
	31.25	.525	.281	.265	.245	.239	.064	.441	.392	.379	.364	.346	.307	
	32.50	.500	.580	.568	.542	.547	.491	.352	.356	.340	.321	.303	.139	
	33.75	.420	.245	.226	.209	.192	.043	.452	.325	.309	.286	.271	.076	
	35.00	.440	.247	.227	.195	.165	.032	.452	.327	.301	.284	.274	.007	
	36.25	.422	.185	.160	.132	.120	.022	.457	.337	.321	.281	.274	.007	
	37.50	.422	.147	.123	.101	.094	.018	.457	.337	.328	.288	.274	.007	
	38.75	.127	.120	.110	.080	.052	.015	.228	.216	.214	.194	.160	.051	
	40.00	.122	.096	.080	.052	.021	.018	.229	.197	.183	.164	.116	.076	
	41.25	.091	.074	.062	.027	-.013	.023	.188	.164	.163	.153	.087	.107	
	42.50	.075	.063	.048	.012	-.021	.020	.150	.154	.141	.119	.081	.081	
	43.75	.053	.036	.024	-.015	-.049	-.021	.134	.122	.118	.094	.053	.130	
	45.00	.037	.026	.015	-.020	-.009	-.235	.114	.110	.100	.081	.035	.142	
	46.25	.014	.014	.014	-.020	-.070	-.188	.085	.093	.092	.071	.019	.114	
	47.50	.003	.004	.004	-.024	-.068	-.234	.062	.068	.065</td				

NACA RM L57G09a

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TABLE I - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at														
		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent		M = 0.98		a = 15.84°		M = 0.98		a = 17.97°						
c														
Upper surface														
0.00	.024	-1.474	-1.696	-1.945	-1.065	-1.716		.011	-1.660	-1.877	-1.078	-1.163	-1.904	
1.25	-.712	-1.346	-1.293	-1.231	-1.123	-1.011		-.839	-1.526	-1.274	-1.133	-1.031	-1.914	
2.50	-.823	-1.345	-1.265	-1.222	-1.128	-1.004		-.949	-1.306	-1.254	-1.122	-1.031	-1.909	
5.00	.946	-1.292	-1.293	-1.224	-1.124	-1.000		-.045	-1.300	-1.254	-1.122	-1.031	-1.909	
7.50	-.906	-1.253	-1.266	-1.224	-1.115	-.994		-.012	-1.311	-1.245	-1.114	-1.041	-1.903	
10.00	-.866	-1.203	-1.266	-1.251	-1.123	-.994		-.053	-1.324	-1.244	-1.114	-1.049	-1.902	
15.00	-.744	-1.150	-1.207	-1.222	-1.124	-.994		-.153	-1.323	-1.251	-1.109	-1.046	-1.901	
20.00	-.652	-1.105	-1.180	-1.211	-1.110	-.994		-.691	-1.314	-1.229	-1.091	-1.075	-1.897	
25.00	-.591	-1.051	-1.181	-1.189	-1.105	-.994		-.660	-1.117	-1.200	-1.087	-1.072	-1.894	
30.00	-.504	-.527	-1.085	-1.164	-1.094	-.995		-.643	-1.074	-1.180	-1.065	-1.056	-1.892	
35.00	-.580	-.559	-1.059	-1.148	-1.081	-.997		-.636	-1.018	-1.177	-1.049	-1.047	-1.888	
40.00	-.593	-.579	-1.056	-1.132	-1.067	-.996		-.646	-1.017	-1.167	-1.031	-1.037	-1.890	
45.00	-.571	-.591	-1.044	-1.117	-1.056	-.990		-.617	-1.030	-1.156	-1.000	-1.033	-1.886	
50.00	-.595	-.605	-1.035	-1.102	-1.040	-.983		-.640	-1.020	-1.144	-1.074	-1.020	-1.883	
55.00	-.626	-.629	-1.007	-1.083	-1.020	-.971		-.597	-1.048	-1.148	-1.064	-1.041	-1.876	
60.00	-.658	-.653	-949	-1.045	-1.002	-.963		-.701	-1.010	-1.023	-1.048	-1.077	-1.877	
65.00	-.663	-.663	-826	-1.045	-1.002	-.963		-.673	-1.011	-1.020	-1.061	-1.056	-1.874	
70.00	-.645	-.642	-826	-1.009	-956	-.950		-.667	-1.008	-1.023	-1.022	-1.043	-1.871	
75.00	-.613	-.682	-614	-968	-950	-.949		-.709	-1.054	-1.023	-1.018	-1.029	-1.866	
80.00	-.579	-.598	-603	-942	-932	-.949		-.675	-1.050	-1.027	-1.007	-1.014	-1.865	
85.00	-.674	-.696	-617	-911	-898	-.922		-.604	-1.056	-1.027	-1.001	-1.080	-1.869	
90.00	-.661	-.688	-596	-867	-864	-.958		-.512	-1.077	-1.027	-1.001	-1.084	-1.866	
95.00	-.568	-.584	-571	-821	-869	-.954		-.075	-1.084	-1.027	-1.000	-1.084	-1.866	
Lower surface														
1.25	.977	.906	.828	.775	.719	.635		1.015	.784	.845	.778	.715	.641	
5.00	1.010	.859	.806	.767	.732	.618		1.075	.909	.843	.798	.756	.636	
7.50	.919	.780	.741	.712	.688	.597		.981	.841	.793	.758	.732	.627	
10.00	.830	.716	.685	.657	.637	.539		.887	.784	.743	.716	.698	.591	
15.00	.644	.611	.550	.524	.602	.512		.819	.739	.703	.680	.660	.553	
20.00	.663	.601	.579	.563	.540	.427		.725	.669	.636	.614	.593	.477	
25.00	.589	.667	.525	.496	.484	.351		.652	.617	.583	.557	.542	.407	
30.00	.542	.502	.475	.455	.443	.290		.601	.572	.536	.513	.499	.343	
35.00	.493	.457	.435	.420	.403	.225		.557	.523	.495	.473	.458	.274	
40.00	.407	.413	.396	.358	.325	.128		.468	.476	.456	.451	.421	.244	
45.00	.407	.379	.362	.338	.325	.128		.464	.442	.420	.395	.385	.200	
50.00	.384	.341	.327	.298	.289	.064		.407	.447	.415	.395	.343	.118	
55.00	.322	.306	.293	.263	.255	.032		.330	.365	.349	.319	.308	.085	
60.00	.281	.271	.263	.243	.229	.002		.338	.331	.321	.300	.263	.055	
65.00	.276	.244	.240	.227	.213	-.027		.330	.299	.284	.268	.226	.029	
70.00	.242	.210	.208	.181	.187	-.054		.284	.267	.260	.237	.195	.004	
75.00	.194	.188	.182	.162	.130	-.076		.241	.252	.238	.217	.183	-.017	
80.00	.173	.165	.159	.138	.101	-.085		.222	.215	.207	.187	.147	-.033	
85.00	.150	.148	.140	.120	.080	-.101		.188	.191	.183	.164	.125	-.053	
90.00	.117	.126	.125	.101	.056	-.071		.154	.185	.164	.144	.099	-.037	
95.00	.095	.100	.097	.080	.041	-.123		.118	.135	.131	.115	.076	-.004	
	.062	.056	.057	.023	-.001	-.110		.075	.084	.083	.051	.029	-.004	
Upper surface														
1.25	.027	-.850	-1.159	-1.147	-1.047	-.931		-.104	-.987	-1.141	-1.055	-.988	-.974	
5.00	-.971	-1.333	-1.288	-1.104	-1.004	-.908		-.102	-1.265	-1.190	-1.043	-.982	-.945	
7.50	-1.072	-1.315	-1.265	-1.108	-1.004	-.908		-.133	-1.236	-1.195	-1.044	-.977	-.945	
10.00	-.143	-1.514	-1.288	-1.102	-1.003	-.907		-.182	-1.232	-1.195	-1.034	-.980	-.911	
15.00	-.107	-1.309	-1.259	-1.101	-.996	-.908		-.159	-1.224	-1.188	-1.055	-.975	-.905	
20.00	-.070	-1.296	-1.281	-1.099	-.997	-.908		-.146	-1.224	-1.173	-1.039	-.979	-.842	
25.00	-.922	-1.274	-1.257	-1.089	-.979	-.908		-.921	-1.224	-1.173	-1.035	-.983	-.941	
30.00	-.752	-1.236	-1.210	-1.089	-.969	-.908		-.786	-1.206	-1.168	-1.020	-.993	-.941	
35.00	-.122	-1.227	-1.211	-1.075	-.993	-.907		-.739	-1.189	-1.128	-1.031	-.989	-.937	
40.00	-.700	-1.212	-1.212	-1.042	-.990	-.906		-.724	-1.074	-1.128	-1.021	-.992	-.930	
45.00	-.686	-.738	-1.181	-1.040	-.986	-.904		-.686	-.891	-1.122	-1.019	-.989	-.927	
50.00	-.705	-.699	-1.194	-1.048	-.981	-.907		-.694	-.806	-1.122	-1.021	-.984	-.935	
55.00	-.675	-.695	-1.117	-1.034	-.977	-.905		-.659	-.794	-1.104	-1.021	-.987	-.929	
60.00	-.673	-.689	-1.081	-.026	-.974	-.904		-.669	-.803	-1.023	-.961	-.929		
65.00	-.670	-.677	-1.055	-1.014	-.967	-.906		-.681	-.815	-1.077	-1.025	-.980	-.922	
70.00	-.725	-.686	-1.035	-.995	-.965	-.906		-.760	-.816	-1.046	-1.046	-.981	-.931	
75.00	-.695	-.708	-1.009	-.991	-.958	-.905		-.751	-.826	-1.030	-.998	-.983	-.923	
80.00	-.645	-.645	-986	-1.016	-.946	-.906		-.756	-.822	-1.007	-1.000	-.956	-.929	
85.00	-.633	-.777	-1.014	-1.014	-.978	-.942		-.817	-.827	-.991	-.996	-.951	-.924	
90.00	-.721	-.782	-.868	-.977	-.924	-.900		-.790	-.814	-.975	-.992	-.933	-.935	
95.00	-.729	-.782	-.857	-.967	-.909	-.902		-.780	-.805	-.954	-.979	-.919	-.921	
	-.704	-.769	-.816	-.961	-.930	-.902		-.717	-.790	-.935	-.972	-.932	-.921	
Lower surface														
1.25	1.021	.947	.846	.764	.687	.621		1.002	.957	.844	.749	.667	.604	
5.00	1.101	.942	.865	.802	.754	.639		1.106	.982	.844	.755	.625		
10.00	1.025	.888	.827	.780	.748	.636		1.025	.982	.851	.769	.639		
15.00	.939	.832	.785	.746	.722	.656		.937	.884	.826	.773	.605	.625	
20.00	.712	.656	.602	.583	.493	.439		.754	.714	.681	.647	.526	.475	
25.00	.655	.622	.586	.561	.542	.379		.705	.669	.633	.602	.586	.418	
30.00	.610	.575	.540	.524	.499	.316		.662	.623	.592	.568	.543	.356	
35.00	.530	.531	.501	.478	.455	.280		.584	.585	.532	.523	.507	.207	
40.00	.522	.492	.466	.443	.426	.222		.571	.544	.518	.489	.471	.243	
45.00	.496	.457	.429	.403	.388	.159		.542	.509	.476	.453	.434	.201	
50.00	.428	.414	.393	.369	.349	.127		.446	.485	.441	.409	.395	.170	
55.00	.391	.380	.363	.343	.305	.088		.328	.423	.394	.372	.350	.137	
60.00	.382	.346	.326	.304	.246	.046		.423	.394	.372	.350	.311	.108	
65.00	.332	.329	.307	.240	.231	.0								

TABLE L - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

		Pressure coefficient, P_c , at:												
		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
		$M = 0.98 \quad \alpha = 24.37^\circ$												
Upper surface	0.00	-1.159	-1.095	-1.225	-1.100	-1.072	-1.001		-1.227	-1.164	-1.189	-1.132	-1.107	-1.058
	1.25	-1.131	-1.224	-1.171	-1.090	-1.055	-0.974		-1.169	-1.195	-1.187	-1.129	-1.095	-1.051
	2.50	-1.149	-1.208	-1.153	-1.089	-1.053	-0.973		-1.171	-1.184	-1.152	-1.122	-1.091	-1.050
	3.75	-1.256	-1.204	-1.170	-1.082	-1.050	-0.970		-1.214	-1.185	-1.169	-1.115	-1.089	-1.026
	5.00	-1.233	-1.205	-1.146	-1.082	-1.044	-0.970		-1.206	-1.181	-1.146	-1.115	-1.082	-1.025
	6.25	-1.210	-1.202	-1.127	-1.082	-1.042	-0.968		-1.197	-1.180	-1.157	-1.116	-1.078	-1.025
	7.50	-1.074	-1.207	-1.155	-1.077	-1.044	-0.968		-1.129	-1.189	-1.161	-1.111	-1.084	-1.026
	8.75	-0.899	-1.196	-1.153	-1.067	-1.045	-0.965		-0.951	-1.165	-1.163	-1.059	-1.089	-1.025
	10.00	-0.818	-1.179	-1.141	-1.072	-1.040	-0.965		-0.948	-1.164	-1.150	-1.059	-1.081	-1.020
	11.25	-0.737	-1.157	-1.128	-1.055	-1.037	-0.961		-0.860	-1.161	-1.145	-1.057	-1.051	-1.018
	12.50	-0.779	-1.142	-1.139	-1.065	-1.034	-0.959		-0.855	-1.140	-1.152	-1.059	-1.077	-1.011
	13.75	-0.777	-1.045	-1.140	-1.065	-1.028	-0.960		-0.869	-1.080	-1.154	-1.058	-1.073	-1.017
	15.00	-0.743	-0.974	-1.127	-1.064	-1.025	-0.957		-0.858	-1.015	-1.148	-1.055	-1.073	-1.013
	16.25	-0.750	-0.923	-1.113	-1.061	-1.021	-0.955		-0.829	-0.971	-1.134	-1.052	-1.064	-1.011
	17.50	-0.740	-0.893	-1.104	-1.054	-1.017	-0.955		-0.808	-0.935	-1.130	-1.058	-1.067	-1.011
	18.75	-0.805	-0.885	-1.095	-1.032	-1.014	-0.952		-0.850	-0.935	-1.126	-1.043	-1.065	-1.008
	20.00	-0.826	-0.869	-1.085	-1.032	-1.007	-0.945		-0.844	-0.919	-1.117	-1.065	-1.057	-1.000
	21.25	-0.786	-0.857	-1.079	-1.031	-1.001	-0.947		-0.826	-0.959	-1.111	-1.064	-1.052	-1.000
	22.50	-0.782	-0.852	-1.059	-1.025	-0.987	-0.947		-0.804	-0.959	-1.104	-1.064	-1.052	-1.000
Lower surface	23.75	-0.813	-0.857	-1.059	-1.022	-0.982	-0.944		-0.854	-0.959	-1.066	-1.064	-1.042	-1.000
	25.00	-0.832	-0.856	-1.058	-1.022	-0.973	-0.940		-0.862	-0.956	-1.067	-1.063	-1.021	-0.992
	26.25	-0.824	-0.860	-1.031	-1.014	-0.946	-0.941		-0.868	-0.899	-1.046	-1.052	-1.001	-0.993
	27.50	-0.798	-0.843	-0.993	-1.002	-0.976	-0.938		-0.820	-0.864	-1.025	-1.029	-1.017	-0.994
	28.75	-0.768	-0.956	-0.839	-0.738	-0.639	-0.592		-0.732	-0.956	-0.828	-0.715	-0.608	-0.566
	30.00	-1.000	-0.991	-0.894	-0.811	-0.791	-0.622		-1.090	-1.007	-0.895	-0.803	-0.739	-0.604
	31.25	-0.970	-0.965	-0.890	-0.831	-0.785	-0.649		-1.084	-0.990	-0.907	-0.840	-0.791	-0.643
	32.50	-1.007	-0.919	-0.884	-0.812	-0.824	-0.642		-1.031	-0.977	-0.889	-0.831	-0.747	-0.646
	33.75	-0.958	-0.954	-0.894	-0.790	-0.742	-0.622		-0.964	-0.868	-0.813	-0.746	-0.772	-0.621
	35.00	-0.953	-0.921	-0.875	-0.740	-0.705	-0.669		-0.957	-0.862	-0.818	-0.775	-0.733	-0.683
	36.25	-0.766	-0.764	-0.729	-0.692	-0.664	-0.511		-0.834	-0.813	-0.769	-0.729	-0.695	-0.532
	37.50	-0.749	-0.718	-0.686	-0.651	-0.625	-0.485		-0.749	-0.745	-0.727	-0.688	-0.656	-0.483
	38.75	-0.708	-0.673	-0.643	-0.614	-0.586	-0.398		-0.746	-0.720	-0.686	-0.656	-0.617	-0.428
	40.00	-0.632	-0.633	-0.602	-0.571	-0.542	-0.364		-0.673	-0.678	-0.646	-0.613	-0.577	-0.393
	41.25	-0.615	-0.589	-0.568	-0.535	-0.513	-0.307		-0.653	-0.639	-0.609	-0.576	-0.547	-0.335
	42.50	-0.587	-0.554	-0.530	-0.495	-0.478	-0.245		-0.629	-0.600	-0.573	-0.536	-0.511	-0.277
	43.75	-0.526	-0.513	-0.491	-0.460	-0.439	-0.213		-0.567	-0.555	-0.534	-0.498	-0.476	-0.243
	45.00	-0.480	-0.474	-0.460	-0.430	-0.396	-0.179		-0.527	-0.520	-0.503	-0.471	-0.428	-0.210
	46.25	-0.460	-0.439	-0.424	-0.393	-0.354	-0.147		-0.503	-0.483	-0.463	-0.433	-0.388	-0.178
	47.50	-0.416	-0.402	-0.389	-0.357	-0.320	-0.120		-0.426	-0.443	-0.422	-0.396	-0.359	-0.149
	48.75	-0.356	-0.324	-0.323	-0.296	-0.263	-0.058		-0.346	-0.371	-0.359	-0.339	-0.294	-0.087
	50.00	-0.297	-0.304	-0.295	-0.268	-0.232	-0.038		-0.332	-0.339	-0.327	-0.302	-0.257	-0.058
	51.25	-0.252	-0.266	-0.264	-0.237	-0.196	-0.041		-0.280	-0.302	-0.294	-0.270	-0.219	-0.059
	52.50	-0.206	-0.224	-0.216	-0.196	-0.158	-0.017		-0.228	-0.252	-0.243	-0.225	-0.178	-0.003
	53.75	-0.119	-0.157	-0.134	-0.116	-0.091	-0.034		-0.131	-0.180	-0.176	-0.135	-0.107	-0.021

CONFIDENTIAL

NACA RM L57G09a

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TABLE L - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at														
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2	
Percent c	M = 1.00	$\epsilon = -2.00^\circ$						M = 1.00	$\alpha = -0.04^\circ$					
Upper surface														
0.00	.074	.758	.708	.675	.616	.539		.067	.768	.722	.722	.687	.724	
1.25	.374	.297	.322	.328	.306	.343		.260	.088	.079	.015	-.022	.103	
2.50	.325	.220	.229	.220	.221	.217		.205	.042	.053	.013	-.058	-.082	
5.00	.273	.192	.179	.170	.150	.154		.151	.041	.033	-.022	-.068	-.092	
7.50	.242	.162	.147	.131	.106	.130		.126	.041	.015	-.035	-.144	-.099	
10.00	.211	.139	.114	.106	.076	.091		.100	.052	.018	-.031	-.094	-.116	
15.00	.168	.107	.080	.080	.042	.014		.044	-.016	.055	-.087	.113	-.140	
20.00	.105	.054	.044	.044	.014	.004		.005	-.030	.048	-.100	-.130	-.232	
25.00	.057	.029	.011	.017	.011	.004		.055	-.045	.086	-.118	-.138	-.234	
30.00	.038	.012	.019	.010	-.030	-.020		.072	-.089	.113	-.154	-.184	-.235	
35.00	.006	.003	-.030	-.066	-.083	-.265		.063	-.097	.148	-.189	-.230	-.294	
40.00	-.001	-.013	-.051	-.087	-.112	-.262		.087	-.097	.126	-.165	-.202	-.272	
45.00	-.009	-.034	-.081	-.110	-.144	-.286		.063	-.097	.148	-.189	-.230	-.294	
50.00	-.029	-.072	-.113	-.140	-.171	-.294		.088	-.133	.178	-.211	-.251	-.306	
55.00	-.083	-.103	-.128	-.156	-.199	-.283		.144	-.165	.198	-.228	-.270	-.345	
60.00	-.101	-.113	-.136	-.154	-.185	-.265		.168	-.178	.207	-.259	-.302	-.329	
65.00	-.106	-.126	-.154	-.176	-.250	-.298		.169	-.192	.222	-.255	-.317	-.317	
70.00	-.129	-.148	-.154	-.182	-.261	-.291		.190	-.211	.222	-.251	-.317	-.305	
75.00	-.155	-.136	-.154	-.189	-.254	-.272		.220	-.203	.225	-.248	-.297	-.287	
80.00	-.125	-.131	-.143	-.188	-.233	-.254		.188	-.200	.213	-.248	-.268	-.269	
85.00	-.100	-.131	-.143	-.181	-.243	-.264		.139	-.189	.205	-.233	-.268	-.276	
Lower surface														
0.00	.146	-.129	-.301	-.567	-.707	-.785		.251	.127	.069	.031	.035	-.053	
1.25	.091	-.102	-.154	-.432	-.585	-.709		.199	.057	.041	.018	.021	-.053	
2.50	.046	-.093	-.162	-.426	-.560	-.636		.144	.077	.046	.004	.026	-.052	
5.00	.048	-.044	-.113	-.246	-.304	-.397		.136	.033	.015	-.021	-.059	-.074	
7.50	.012	-.052	-.109	-.183	-.224	-.467		.102	.034	.004	-.044	-.054	-.084	
10.00	-.002	-.052	-.111	-.167	-.220	-.315		.072	.020	.014	-.054	-.074	-.112	
15.00	-.031	-.053	-.115	-.187	-.241	-.310		.043	.004	.040	-.077	-.100	-.164	
20.00	-.049	-.062	-.106	-.185	-.221	-.310		.020	-.003	.047	-.080	-.108	-.213	
25.00	-.036	-.072	-.120	-.177	-.227	-.257		.025	-.023	.054	-.086	-.120	-.227	
30.00	-.054	-.110	-.149	-.204	-.244	-.233		-.011	-.057	.075	-.115	-.149	-.193	
35.00	-.107	-.121	-.154	-.215	-.253	-.269		-.047	-.058	.091	-.137	-.160	-.243	
40.00	-.118	-.167	-.227	-.272	-.299	-.299		-.023	-.072	.118	-.167	-.187	-.274	
45.00	-.125	-.155	-.198	-.251	-.281	-.322		-.042	-.107	.153	-.184	-.205	-.305	
50.00	-.146	-.166	-.246	-.286	-.314	-.341		-.104	-.142	.192	-.207	-.248	-.313	
55.00	-.180	-.202	-.233	-.268	-.334	-.344		-.138	-.156	.189	-.229	-.259	-.318	
60.00	-.193	-.211	-.244	-.305	-.354	-.344		-.147	-.165	.199	-.248	-.291	-.322	
65.00	-.200	-.201	-.244	-.292	-.347	-.340		-.153	-.155	.199	-.235	-.287	-.322	
70.00	-.253	-.234	-.253	-.306	-.358	-.327		-.210	-.194	.205	-.246	-.308	-.310	
75.00	-.257	-.254	-.264	-.314	-.342	-.338		-.213	-.217	.217	-.254	-.314	-.320	
80.00	-.271	-.262	-.266	-.305	-.341	-.280		-.228	-.218	.222	-.248	-.318	-.326	
85.00	-.258	-.266	-.271	-.295	-.327	-.319		-.214	-.221	.222	-.248	-.303	-.296	
90.00	-.179	-.232	-.255	-.278	-.291	-.286		-.157	-.201	.206	-.261	-.285	-.353	
Lower surface														
0.00	M = 1.00	$\epsilon = 1.90^\circ$						M = 1.00	$\alpha = 3.93^\circ$					
1.25	.093	.734	.646	.453	.630	.713		.089	.623	.482	.463	.648		
2.50	.179	-.097	-.183	-.572	-.676	-.536		.050	-.784	-.899	-.973	-.994	-.746	
5.00	.118	-.109	-.168	-.283	-.589	-.723		.008	-.617	-.784	-.871	-.923	-.981	
7.50	.054	-.072	-.105	-.206	-.287	-.456		.121	-.303	-.639	-.795	-.848	-.919	
10.00	.017	-.040	-.107	-.189	-.264	-.518		.120	-.176	-.205	-.741	-.797	-.858	
15.00	.020	-.043	-.112	-.159	-.249	-.352		.072	-.146	-.208	-.288	-.745	-.810	
20.00	.015	-.078	-.122	-.183	-.242	-.293		.045	-.161	-.232	-.290	-.684	-.760	
25.00	-.047	-.086	-.124	-.176	-.227	-.311		.128	-.154	-.216	-.274	-.349	-.419	
30.00	-.089	-.120	-.156	-.199	-.251	-.248		.158	-.197	-.237	-.284	-.322	-.449	
35.00	-.115	-.126	-.171	-.227	-.268	-.292		.191	-.204	-.258	-.311	-.340	-.462	
40.00	-.136	-.142	-.187	-.238	-.288	-.298		.208	-.218	-.269	-.322	-.356	-.447	
45.00	-.115	-.148	-.194	-.250	-.307	-.321		.191	-.218	-.279	-.339	-.380	-.537	
50.00	-.126	-.173	-.218	-.264	-.329	-.331		.198	-.242	-.293	-.355	-.401	-.572	
55.00	-.180	-.204	-.232	-.275	-.337	-.314		.251	-.271	-.309	-.362	-.419	-.481	
60.00	-.185	-.204	-.247	-.292	-.331	-.344		.257	-.272	-.318	-.373	-.417	-.405	
65.00	-.203	-.208	-.241	-.292	-.344	-.346		.268	-.287	-.312	-.375	-.428	-.367	
70.00	-.203	-.222	-.257	-.291	-.347	-.340		.272	-.306	-.329	-.374	-.431	-.359	
75.00	-.227	-.242	-.254	-.291	-.330	-.304		.316	-.304	-.325	-.374	-.431	-.365	
80.00	-.227	-.237	-.246	-.276	-.281	-.289		.294	-.306	-.316	-.361	-.335	-.340	
85.00	-.151	-.215	-.237	-.242	-.265	-.294		.207	-.279	-.310	-.333	-.312	-.373	
Lower surface														
1.25	.377	.340	.318	.330	.371	.293		.492	.502	.482	.499	.531	.428	
2.50	.329	.249	.248	.260	.278	.234		.451	.394	.401	.409	.425	.373	
5.00	.289	.216	.201	.204	.194	.189		.408	.337	.331	.321	.329	.313	
7.50	.253	.179	.161	.161	.160	.135		.359	.286	.265	.275	.246		
10.00	.213	.155	.131	.124	.122	.100		.314	.253	.241	.230	.228	.201	
15.00	.178	.147	.142	.142	.143	.038		.245	.242	.205	.207	.182	.082	
20.00	.159	.099	.069	.047	.035	.043		.223	.216	.183	.134	.132	.057	
25.00	.120	.086	.061	.026	.006	.122		.198	.172	.132	.102	.095		
30.00	.110	.062	.045	.012	-.012	.166		.178	.134	.110	.080	.064	.094	
35.00	.066	.037	.020	-.020	-.049	.158		.114	.102	.077	.045	.029	.125	
40.00	.042	.025	-.001	-.043	-.064	.218		.103	.085	.054	.017	.006	.163	
45.00	.051	.001	-.032	-.078	-.095	.257		.105	.058	.020	-.017	-.024	.218	
50.00	-.012	-.032	-.052	-.103	-.120	.277		.039	.022	-.103	-.042	-.053	.248	
55.00	-.034	-.055	-.082	-.120	-.157	.290		.013	-.004	-.028	-.057	-.099	.272	
60.00	-.064	-.080	-.109	-.140	-.184	.290		.008	-.023	-.048	-.080	-.124	.268	
65.00	-.074	-.089	-.112	-.159	-.216	.291		.018	-.037	-.059	-.101	-.153	.304	
70.00	-.076	-.084	-.114	-.149	-.217	.292		.022	-.041	-.071	-.102	-.162	.303	
75.00	-.107	-.127	-.135	-.159	-.228	.280		.005	-.075	-.090	-.144	-.186	.314	
80.00	-.141	-.141	-.148	-.148	-.225	.289		.091	-.086	-.104	-.143	-.203	.314	
85.00	-.156	-.139	-.146	-.183	-.267	.235		.104	-.086	-.102	-.149	-.217	.261	
90.00	-.135	-.139	-.146	-.187	-.263	.272		.088	-.092	-.108	-.151	-.217	.210	
95.00	-.097	-.123	-.143	-.201	-.244	.234		.070	-.083	-.103	-.160	-.211	.227	

TABLE I - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:															
		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2	
Percent c		M = 1.00 $\alpha = 5.90^\circ$							M = 1.00 $\alpha = 7.90^\circ$						
Upper surface															
0.00	.088	.504	.308	.253	.577	.062	.139	.191	.086	.056	.400				
1.25	-.073	-.976	-1.062	-1.117	-1.137	-.997	-.210	-.1197	-1.229	-1.293	-1.065				
2.50	-.139	-.886	-.943	-1.022	-1.073	-1.127	-.287	-.1070	-1.090	-1.168	-1.218	-1.256			
5.00	-.272	-.988	-.868	-.939	-.988	-1.062	-.436	-.798	-.019	-.078	-1.137	-1.204			
7.50	-.236	-.292	-.808	-.885	-.930	-.996	-.407	-.556	-.937	-1.028	-1.076	-1.143			
10.00	-.225	-.265	-.761	-.859	-.917	-.965	-.417	-.484	-.428	-.795	-1.084	-1.150			
12.50	-.241	-.277	-.748	-.878	-.945	-.985	-.208	-.194	-.011	-.015	-1.017	-1.077			
15.00	-.144	-.237	-.297	-.740	-.839	-.907	-.295	-.446	-.489	-.897	-1.272	-1.245			
17.50	-.202	-.251	-.292	-.596	-.798	-.899	-.287	-.331	-.422	-.866	-1.935	-1.034			
20.00	-.262	-.243	-.291	-.408	-.778	-.864	-.343	-.331	-.179	-.846	-1.916	-1.007			
22.50	-.229	-.266	-.304	-.367	-.767	-.789	-.313	-.348	-.379	-.717	-1.907	-1.072			
25.00	-.263	-.277	-.325	-.364	-.739	-.801	-.347	-.357	-.389	-.581	-1.898	-1.924			
27.50	-.272	-.284	-.336	-.373	-.618	-.749	-.336	-.363	-.403	-.539	-1.895	-1.895			
30.00	-.254	-.284	-.347	-.391	-.505	-.772	-.336	-.366	-.430	-.519	-1.893	-1.905			
32.50	-.264	-.307	-.358	-.410	-.482	-.772	-.346	-.385	-.428	-.511	-1.888	-1.901			
35.00	-.215	-.352	-.370	-.416	-.477	-.760	-.392	-.410	-.457	-.499	-1.827	-1.892			
37.50	-.200	-.353	-.371	-.416	-.485	-.758	-.393	-.411	-.469	-.504	-1.808	-1.898			
40.00	-.194	-.356	-.375	-.431	-.447	-.776	-.402	-.419	-.441	-.504	-1.790	-1.899			
42.50	-.311	-.347	-.384	-.430	-.482	-.773	-.381	-.427	-.455	-.496	-1.644	-1.805			
45.00	-.347	-.367	-.385	-.434	-.487	-.770	-.420	-.445	-.493	-.498	-1.618	-1.808			
47.50	-.372	-.367	-.387	-.430	-.469	-.767	-.444	-.442	-.494	-.500	-1.573	-1.913			
50.00	-.353	-.367	-.376	-.422	-.411	-.760	-.424	-.444	-.494	-.495	-1.485	-1.914			
52.50	-.271	-.350	-.405	-.370	-.742	-.344	-.444	-.476	-.501	-.529	-1.391	-1.929			
Lower surface															
0.00	.611	.617	.589	.603	.625	.520	.713	.713	.677	.673	.679	.577			
1.25	.570	.599	.508	.515	.526	.457	.607	.605	.597	.593	.595	.585			
2.50	.515	.548	.423	.445	.458	.394	.518	.515	.505	.505	.502	.507			
5.00	.440	.379	.362	.366	.358	.328	.551	.464	.483	.486	.482	.509			
7.50	.406	.346	.331	.322	.315	.277	.492	.451	.420	.401	.390	.396			
10.00	.347	.298	.282	.269	.258	.186	.426	.368	.356	.347	.323	.245			
12.50	.294	.276	.235	.212	.208	.106	.366	.342	.306	.283	.273	.160			
15.00	.261	.230	.199	.176	.169	.028	.324	.291	.266	.244	.228	.090			
17.50	.238	.194	.172	.152	.134	-.028	.296	.250	.237	.213	.198	.028			
20.00	.161	.161	.138	.113	.097	-.036	.212	.219	.202	.175	.154	.009			
22.50	.157	.111	.084	.072	.108	-.106	.215	.189	.172	.145	.127	-.065			
25.00	.158	.077	.075	.052	.038	-.149	.207	.159	.140	.111	.095	-.121			
27.50	.092	.073	.049	.024	.066	-.097	.104	.121	.107	.078	.061	-.154			
30.00	.060	.045	.030	.008	-.035	-.227	.104	.054	.048	.063	.047	-.177	-.022		
32.50	.047	.026	.009	-.017	-.062	-.242	.103	.075	.068	.053	.015	-.203			
35.00	.028	.008	-.010	-.040	-.093	-.247	.073	.055	.047	.017	-.045	-.235			
37.50	.028	.005	-.019	-.044	-.098	-.277	.059	.046	.033	.001	-.024	-.239			
40.00	-.036	-.033	-.047	-.075	-.182	-.278	.036	.014	.006	-.031	-.089	-.241			
42.50	-.044	-.041	-.057	-.091	-.153	-.286	.008	.007	.001	-.034	-.099	-.258			
45.00	-.059	-.044	-.058	-.091	-.166	-.258	-.006	.002	.000	-.035	-.113	-.215			
47.50	-.048	-.047	-.061	-.089	-.163	-.288	-.008	-.004	-.006	-.035	-.104	-.263			
50.00	-.048	-.053	-.059	-.102	-.154	-.237	-.020	-.020	-.015	-.053	-.102	-.230			
Upper surface		M = 1.00 $\alpha = 9.80^\circ$							M = 1.00 $\alpha = 13.74^\circ$						
0.00	.049	.179	.009	.193	.328	.191	-.029	-.191	-.431	-.652	-.823	-.356			
1.25	-.321	-.212	-.253	-.259	-.268	-.135	-.528	-.219	-.190	-.171	-.1208	-.1232			
2.50	-.407	-.132	-.161	-.226	-.249	-.128	-.645	-.182	-.170	-.172	-.199	-.1266			
5.00	-.559	-.940	-.112	-.153	-.191	-.241	-.773	-.134	-.138	-.138	-.166	-.1203	-.1259		
7.50	-.524	-.723	-.104	-.112	-.157	-.204	-.734	-.180	-.157	-.161	-.177	-.1249			
10.00	-.459	-.644	-.102	-.124	-.142	-.175	-.695	-.128	-.109	-.147	-.160	-.1246			
12.50	-.420	-.570	-.102	-.125	-.148	-.185	-.654	-.104	-.102	-.105	-.152	-.1225			
15.00	-.338	-.446	-.167	-.202	-.202	-.109	-.449	-.084	-.088	-.102	-.129	-.1249			
17.50	-.353	-.446	-.160	-.190	-.192	-.006	-.480	-.063	-.023	-.023	-.108	-.1493			
20.00	-.373	-.397	-.249	-.252	-.252	-.099	-.473	-.050	-.027	-.027	-.027	-.102	-.1115		
22.50	-.405	-.398	-.456	-.788	-.976	-.988	-.492	-.475	-.852	-.940	-.1043	-.1043			
25.00	-.387	-.402	-.458	-.692	-.973	-.941	-.485	-.497	-.834	-.924	-.1035	-.1068			
27.50	-.392	-.408	-.448	-.576	-.970	-.973	-.504	-.503	-.808	-.914	-.1011	-.1081			
30.00	-.410	-.428	-.481	-.670	-.969	-.972	-.521	-.521	-.777	-.902	-.998	-.1071			
32.50	-.420	-.445	-.491	-.649	-.967	-.965	-.547	-.546	-.754	-.882	-.972	-.1044			
35.00	-.444	-.494	-.500	-.656	-.964	-.972	-.550	-.552	-.764	-.877	-.926	-.1045			
37.50	-.460	-.495	-.495	-.617	-.977	-.985	-.564	-.562	-.777	-.874	-.921	-.1042			
40.00	-.439	-.476	-.507	-.596	-.772	-.985	-.585	-.587	-.787	-.878	-.917	-.1047			
42.50	-.474	-.494	-.510	-.583	-.702	-.985	-.579	-.590	-.543	-.848	-.781	-.990			
45.00	-.492	-.494	-.512	-.571	-.619	-.986	-.589	-.596	-.568	-.834	-.726	-.996			
47.50	-.482	-.497	-.503	-.555	-.555	-.993	-.563	-.595	-.542	-.714	-.677	-.7019			
50.00	-.486	-.497	-.494	-.015	-.015	-.005	-.380	-.353	-.311	-.297	-.102				
Lower surface															
0.00	.799	.786	.736	.724	.719	.617	.944	.890	.824	.785	.747	.657			
1.25	.774	.811	.646	.648	.657	.566	.874	.874	.874	.750	.731	.624			
2.50	.705	.587	.571	.570	.546	.484	.874	.740	.710	.650	.620	.539			
5.00	.630	.540	.525	.504	.492	.433	.787	.672	.683	.631	.624	.535			
7.50	.670	.505	.487	.485	.459	.396	.714	.632	.617	.593	.574	.484			
10.00	.642	.440	.422	.406	.397	.305	.623	.567	.544	.529	.510	.407			
12.50	.682	.352	.327	.302	.300	.158	.555	.527	.488	.464	.456	.350			
15.00	.649	.312	.290	.271	.264	.088	.465	.423	.405	.388	.348	.198			
17.50	.623	.253	.234	.221	.211	.071	.374	.338	.348	.345	.324	.16			

TABLE I - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at:													
		$M = 1.00 \quad \alpha = 15.83^\circ$							$M = 1.00 \quad \alpha = 18.03^\circ$				
Percent		C							C				
0.00		-0.054	-0.423	-0.645	-0.888	-1.008	-0.663	-0.072	-0.613	-0.824	-1.042	-1.124	-0.879
1.25		-0.657	-1.280	-1.231	-1.171	-1.089	-0.983	-0.787	-1.299	-1.254	-1.111	-1.012	-0.905
2.50		-0.778	-1.271	-1.202	-1.172	-1.088	-0.979	-0.908	-1.287	-1.225	-1.105	-1.013	-0.902
5.00		-0.898	-1.232	-1.228	-1.172	-1.087	-0.969	-1.006	-1.275	-1.252	-1.098	-1.019	-0.895
7.50		-0.861	-1.186	-1.204	-1.172	-1.078	-0.964	-0.974	-1.263	-1.222	-1.096	-1.020	-0.894
10.00		-0.823	-1.145	-1.203	-1.181	-1.080	-0.964	-0.942	-1.236	-1.246	-1.094	-1.029	-0.895
12.50		-0.891	-1.079	-1.149	-1.170	-1.078	-0.964	-0.802	-1.185	-1.224	-1.087	-1.043	-0.892
15.00		-0.897	-1.049	-1.145	-1.172	-1.072	-0.964	-0.855	-1.138	-1.195	-1.075	-1.052	-0.890
17.50		-0.857	-1.051	-1.064	-1.064	-1.044	-0.963	-0.867	-1.115	-1.165	-1.070	-1.057	-0.888
20.00		-0.866	-1.077	-1.028	-1.113	-1.057	-0.964	-0.808	-1.054	-1.146	-1.054	-1.037	-0.887
25.00		-0.539	-0.515	-1.012	-1.094	-1.047	-0.963	-0.599	-0.586	-1.133	-1.042	-1.026	-0.877
30.00		-0.546	-0.537	-0.998	-1.077	-1.033	-0.962	-0.615	-0.593	-1.120	-1.027	-1.017	-0.882
35.00		-0.542	-0.548	-0.991	-1.063	-1.024	-0.957	-0.596	-0.608	-1.110	-1.006	-1.012	-0.876
40.00		-0.572	-0.562	-0.984	-1.049	-1.011	-0.951	-0.618	-0.620	-1.104	-0.989	-1.003	-0.873
45.00		-0.593	-0.587	-0.956	-1.030	-0.997	-0.942	-0.645	-0.642	-1.091	-0.974	-0.988	-0.873
50.00		-0.609	-0.608	-0.904	-1.002	-0.977	-0.930	-0.665	-0.664	-1.047	-0.953	-0.975	-0.869
55.00		-0.617	-0.625	-0.802	-0.988	-0.958	-0.922	-0.673	-0.673	-0.932	-0.941	-0.953	-0.861
60.00		-0.604	-0.625	-0.657	-0.970	-0.940	-0.918	-0.641	-0.681	-0.723	-0.920	-0.937	-0.860
65.00		-0.597	-0.633	-0.652	-0.939	-0.921	-0.918	-0.637	-0.686	-0.791	-0.915	-0.922	-0.862
70.00		-0.591	-0.632	-0.652	-0.922	-0.918	-0.918	-0.621	-0.681	-0.811	-0.907	-0.915	-0.859
75.00		-0.586	-0.649	-0.587	-0.875	-0.868	-0.921	-0.676	-0.645	-0.817	-0.896	-0.881	-0.856
80.00		-0.526	-0.645	-0.578	-0.820	-0.835	-0.926	-0.635	-0.619	-0.835	-0.881	-0.853	-0.859
85.00		-0.553	-0.592	-0.571	-0.765	-0.836	-0.924	-0.666	-0.657	-0.857	-0.884	-0.864	-0.859
90.00		-0.553	-0.552	-0.571	-0.765	-0.836	-0.924	-0.666	-0.657	-0.857	-0.884	-0.864	-0.859
95.00		-0.553	-0.552	-0.571	-0.765	-0.836	-0.924	-0.666	-0.657	-0.857	-0.884	-0.864	-0.859
Upper surface													
1.25		1.001	.927	.848	.791	.738	.659	1.027	.949	.859	.791	.731	.658
2.50		1.034	.873	.826	.783	.750	.640	1.082	.923	.858	.806	.771	.654
5.00		.948	.808	.763	.726	.705	.619	.991	.858	.805	.768	.744	.644
7.50		.846	.735	.708	.679	.645	.577	.903	.796	.758	.721	.713	.610
10.00		.780	.693	.672	.643	.622	.534	.830	.751	.718	.689	.674	.570
12.50		.694	.656	.636	.607	.587	.508	.741	.681	.657	.636	.610	.497
15.00		.614	.590	.546	.519	.497	.435	.747	.682	.659	.639	.618	.427
17.50		.567	.529	.502	.474	.452	.312	.749	.686	.653	.625	.617	.314
20.00		.523	.481	.460	.439	.421	.254	.755	.640	.614	.589	.475	.294
25.00		.453	.442	.418	.397	.377	.221	.488	.493	.473	.444	.432	.287
30.00		.433	.407	.386	.361	.349	.154	.483	.458	.439	.410	.402	.203
35.00		.411	.371	.350	.322	.310	.092	.462	.422	.402	.371	.365	.140
40.00		.347	.332	.316	.291	.275	.060	.398	.382	.367	.356	.328	.078
45.00		.303	.299	.292	.267	.229	.032	.354	.351	.339	.312	.284	.058
50.00		.266	.246	.233	.204	.161	.024	.346	.319	.306	.278	.247	.052
55.00		.239	.216	.203	.177	.147	.014	.302	.288	.278	.246	.214	.028
60.00		.198	.201	.184	.159	.128	.053	.257	.234	.226	.201	.172	.009
65.00		.174	.180	.165	.142	.107	.071	.209	.214	.205	.181	.148	.028
70.00		.144	.155	.154	.130	.084	.037	.169	.190	.186	.161	.124	.013
75.00		.118	.130	.126	.109	.068	.084	.139	.160	.154	.134	.099	.058
80.00		.081	.087	.088	.053	.033	.078	.095	.109	.109	.071	.055	.057
Lower surface													
1.25		-0.121	-0.786	-0.980	-1.113	-1.001	-0.909	-0.211	-0.935	-1.112	-1.084	-0.988	-0.932
2.50		-0.902	-1.289	-1.248	-1.080	-0.989	-0.880	-1.009	-1.284	-1.233	-1.062	-0.983	-0.915
5.00		-0.013	-1.278	-1.214	-1.083	-0.921	-0.874	-1.028	-1.267	-1.216	-1.083	-1.028	-0.916
7.50		-0.093	-1.270	-1.204	-1.081	-0.982	-0.875	-1.028	-1.268	-1.218	-1.080	-1.029	-0.914
10.00		-0.109	-1.257	-1.238	-1.080	-0.955	-0.875	-1.097	-1.254	-1.217	-1.056	-0.973	-0.915
12.50		-0.872	-1.222	-1.232	-1.073	-1.004	-0.875	-0.953	-1.241	-1.209	-1.051	-0.976	-0.916
15.00		-0.704	-1.177	-1.220	-1.056	-1.006	-0.873	-0.755	-1.216	-1.195	-1.044	-0.976	-0.916
17.50		-0.657	-1.182	-1.194	-1.061	-0.995	-0.870	-0.703	-1.211	-1.167	-1.050	-0.974	-0.914
20.00		-0.642	-0.877	-1.178	-1.044	-0.992	-0.868	-0.689	-1.018	-1.148	-1.042	-0.971	-0.914
25.00		-0.635	-0.683	-1.163	-1.031	-0.987	-0.866	-0.678	-0.809	-1.129	-1.039	-0.969	-0.913
30.00		-0.626	-0.652	-1.146	-1.017	-0.979	-0.864	-0.666	-0.703	-1.111	-1.037	-0.964	-0.915
35.00		-0.626	-0.654	-1.129	-0.999	-0.975	-0.865	-0.647	-0.682	-1.093	-1.036	-0.964	-0.914
40.00		-0.635	-0.654	-1.059	-0.985	-0.947	-0.864	-0.639	-0.693	-1.073	-1.035	-0.959	-0.915
45.00		-0.626	-0.645	-1.040	-0.986	-0.940	-0.864	-0.624	-0.684	-1.051	-1.031	-0.957	-0.915
50.00		-0.626	-0.645	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
55.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
60.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
65.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
70.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
75.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
80.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
85.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
90.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
95.00		-0.626	-0.647	-1.047	-0.986	-0.940	-0.864	-0.624	-0.684	-1.042	-1.036	-0.957	-0.914
Upper surface													
1.25		1.072	.971	.885	.786	.710	.645	1.020	.973	.882	.767	.685	.629
2.50		1.114	.963	.885	.822	.776	.655	1.119	.987	.896	.822	.774	.648
5.00		1.038	.909	.850	.801	.749	.658	1.065	.944	.879	.821	.787	.665
7.50		.994	.854	.808	.768	.742	.631	1.090	.895	.844	.792	.829	.648
10.00		.888	.814	.771	.738	.708	.600	1.029	.858	.814	.766	.770	.621
12.50		.798	.742	.710	.683	.653	.532	1.039	.790	.754	.714	.689	.561
15.00		.729	.683	.657	.626	.609	.469	1.073	.728	.701	.667	.645	.501
17.50		.676	.642	.614	.587	.567	.408	1.023	.688	.656	.619	.605	.446
20.00		.633	.601	.571	.550	.525	.346	1.078	.647	.612	.584	.564	.384
25.00		.591	.556	.532	.506	.483	.310	1.063	.602	.572	.541	.522	.351
30.00		.545	.521	.497	.470	.455	.250	1.04					

TABLE I - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent													
c													
	M = 1.03	a = -2.02°						M = 1.03	a = -0.06°				
Upper surface	0.00	-0.019	.737	.695	.667	.616	.560	-0.001	.758	.722	.725	.694	.739
	1.16	.912	.245	.281	.293	.295	.257	.072	.058	.068	.064	.079	.147
	2.50	.262	.190	.204	.220	.234	.184	.043	.049	.043	.061	.060	.060
	5.00	.212	.148	.143	.147	.146	.159	.108	.028	.034	.005	.024	.051
	7.50	.185	.120	.107	.103	.102	.153	.088	.025	.012	.014	.052	.059
	10.00	.158	.095	.078	.077	.072	.112	.067	.015	.005	.038	.053	.078
	12.50	.121	.066	.046	.045	.039	.044	.050	.000	.030	.004	.076	.100
	20.00	.056	.037	.015	.013	.011	.023	.007	.027	.059	.068	.095	.114
	30.00	.023	.011	.012	.025	.023	.153	.031	.051	.073	.100	.121	.201
	40.00	-.001	-.022	-.032	-.036	-.051	-.176	-.055	-.076	-.094	-.116	-.145	-.201
Lower surface	45.00	-.039	-.048	-.047	-.063	-.067	-.239	-.086	-.098	-.117	-.146	-.163	-.251
	50.00	-.026	-.023	-.058	-.050	-.095	-.239	-.086	-.109	-.152	-.158	-.185	-.259
	55.00	-.027	-.042	-.041	-.078	-.127	-.267	-.085	-.097	-.137	-.177	-.210	-.265
	60.00	-.088	-.108	-.125	-.144	-.174	-.260	-.132	-.159	-.180	-.202	-.244	-.264
	65.00	-.090	-.103	-.128	-.158	-.178	-.285	-.138	-.155	-.187	-.216	-.237	-.285
	70.00	-.092	-.109	-.129	-.159	-.212	-.288	-.144	-.161	-.188	-.222	-.255	-.294
	75.00	-.098	-.116	-.140	-.159	-.223	-.273	-.152	-.168	-.194	-.227	-.267	-.285
	80.00	-.129	-.128	-.197	-.160	-.236	-.263	-.180	-.184	-.195	-.224	-.280	-.269
	85.00	-.136	-.116	-.154	-.162	-.230	-.243	-.201	-.182	-.195	-.219	-.263	-.247
	90.00	-.105	-.109	-.116	-.161	-.209	-.227	-.165	-.179	-.185	-.210	-.242	-.230
Upper surface	95.00	-.077	-.107	-.112	-.152	-.220	-.236	-.130	-.174	-.180	-.201	-.249	-.235
	1.25	.086	.180	.428	.587	.742	.787	.192	.067	.017	.006	.027	.080
	5.00	.019	.156	.189	.492	.618	.722	.131	.012	.002	.051	.060	.073
	7.50	-.007	.093	.147	.183	.454	.646	.098	.033	.008	.014	.042	.082
	10.00	-.022	.101	.158	.205	.263	.593	.074	.007	.017	.038	.052	.097
	12.50	-.050	.111	.158	.223	.250	.540	.044	-.009	.036	.056	.063	.096
	15.00	-.066	.107	.150	.210	.239	.443	.024	-.009	.046	.063	.078	.109
	20.00	-.083	.112	.169	.234	.269	.319	-.001	-.040	-.061	-.096	.107	.139
	25.00	-.105	.111	.145	.198	.243	.306	-.019	-.050	-.057	-.091	.111	.184
	30.00	-.100	.141	.142	.194	.247	.272	-.003	-.049	-.070	-.101	-.120	.201
Lower surface	35.00	-.147	.169	.187	.233	.247	.213	-.048	-.007	.049	.146	.144	.172
	40.00	-.147	.159	.201	.254	.274	.268	-.044	-.024	-.122	-.150	-.176	.213
	45.00	-.119	.157	.201	.254	.274	.268	-.093	-.114	-.149	-.182	-.195	.241
	50.00	-.185	.218	.275	.298	.286	.286	-.114	-.131	-.167	-.194	-.223	.278
	55.00	-.184	.206	.232	.281	.328	.307	-.124	-.161	-.181	-.219	-.242	.283
	60.00	-.209	.226	.256	.295	.343	.319	-.106	-.183	-.242	-.258	-.316	.343
	65.00	-.220	.239	.260	.315	.357	.323	-.160	-.183	-.237	-.270	-.326	.353
	70.00	-.220	.224	.263	.305	.339	.330	-.149	-.157	-.195	-.228	-.254	.284
	75.00	-.255	.265	.309	.352	.387	.387	-.200	-.182	-.197	-.237	-.272	.289
	80.00	-.268	.264	.293	.316	.342	.328	-.203	-.199	-.203	-.246	-.287	.278
Upper surface	85.00	-.279	.265	.275	.301	.334	.321	-.213	-.203	-.206	-.237	-.289	.221
	90.00	-.262	.269	.272	.297	.315	.335	-.203	-.206	-.205	-.223	-.280	.202
	95.00	-.166	.229	.248	.277	.282	.282	-.191	-.192	-.198	-.227	-.258	.223
Lower surface	1.25	M = 1.03	a = 1.96°					M = 1.03	a = 3.86°				
	0.00	-.009	.722	.645	.666	.654	.727	-.025	.652	.540	.523	.514	.692
	1.16	.119	.108	.256	.473	.555	.459	.036	.685	.779	.841	.877	.685
	2.50	-.028	.158	.184	.329	.476	.628	-.032	.421	.692	.764	.806	.901
	5.00	-.025	.138	.190	.321	.476	.575	-.042	.422	.614	.704	.750	.853
	7.50	-.022	.090	.130	.193	.241	.524	-.049	.424	.514	.607	.693	.789
	10.00	-.041	.084	.116	.210	.324	.524	-.049	.205	.286	.453	.709	.789
	12.50	-.040	.091	.135	.174	.232	.410	-.052	.174	.226	.427	.681	.781
	15.00	-.047	.110	.158	.200	.250	.393	-.113	.174	.226	.453	.703	.746
	20.00	-.088	.108	.150	.195	.239	.293	-.106	.183	.242	.358	.516	.635
Upper surface	25.00	-.134	.122	.156	.193	.222	.270	-.125	.193	.233	.275	.344	.464
	30.00	-.121	.147	.173	.203	.245	.234	-.195	.214	.244	.277	.326	.460
	35.00	-.154	.161	.198	.232	.261	.271	-.219	.228	.266	.303	.322	.424
	40.00	-.164	.174	.209	.243	.279	.260	-.229	.238	.278	.309	.337	.387
	45.00	-.138	.169	.219	.258	.300	.287	-.201	.233	.288	.327	.359	.390
	50.00	-.152	.192	.242	.278	.320	.300	-.214	.257	.347	.380	.490	.500
	55.00	-.109	.148	.148	.190	.230	.285	-.260	.278	.311	.392	.399	.447
	60.00	-.201	.222	.253	.288	.300	.316	-.243	.280	.316	.341	.384	.486
	65.00	-.211	.221	.252	.290	.341	.329	-.272	.288	.313	.349	.409	.496
	70.00	-.215	.228	.257	.294	.342	.319	-.270	.285	.320	.357	.403	.493
Lower surface	75.00	-.245	.243	.257	.291	.336	.308	-.298	.299	.316	.356	.414	.431
	80.00	-.245	.243	.257	.291	.336	.308	-.314	.299	.316	.356	.393	.423
	85.00	-.264	.244	.257	.290	.303	.291	-.314	.299	.316	.356	.393	.423
	90.00	-.241	.243	.248	.275	.277	.280	-.293	.295	.302	.344	.323	.317
	95.00	-.165	.233	.243	.274	.276	.289	-.202	.275	.299	.319	.307	.338
Upper surface	1.25	.291	.261	.262	.291	.332	.285	.420	.439	.440	.478	.526	.455
	5.00	.249	.173	.199	.229	.242	.246	.348	.359	.361	.394	.422	.390
	7.50	.208	.193	.155	.171	.172	.187	.347	.388	.386	.411	.460	.432
	10.00	.174	.174	.117	.124	.141	.143	.306	.327	.346	.356	.379	.420
	12.50	.140	.092	.082	.098	.108	.110	.265	.297	.301	.321	.351	.395
	15.00	.112	.074	.052	.058	.061	.052	.222	.184	.181	.187	.181	.145
	20.00	.081	.042	.038	.018	.027	.019	.180	.183	.146	.133	.145	.065
	25.00	.066	.045	.023	.004	.004	.008	.162	.147	.121	.109	.112	.004
	30.00	.066	.023	.006	.003	.012	.141	.153	.116	.102	.090	.082	.062
	35.00	.008	-.012	-.026	-.043	-.134	-.134	.080	.089	.075	.056	.053	.092
Lower surface	40.00	-.004	-.010	-.012	-.017	-.057	-.192	.090	.076	.056	.034	.031	.130
	45.00	-.018	-.018	-.046	-.091	-.056	-.235	.098	.050	.025	-.001	-.002	.184
	50.00	-.037	-.025	-.073	-.110	-.117	-.117	.053	.068	.067	-.002	-.002	.239
	55.00	-.065	-.075	-.090	-.122	-.147	-.277	.053	.068	.067	-.001	-.001	.255
	60.00	-.080	-.097	-.117	-.143	-.168	-.279	.002	-.022	-.034	-.001	-.001	.255
	65.00	-.090	-.103	-.123	-.163	-.192	-.278	.015	-.031	-.036	-.072	-.120	.266
	70.00	-.083	-.097	-.123	-.155	-.193	-.279	.028	-.032	-.044	-.071	-.122	.274
	75.00	-.125	-.122	-.131	-.162	-.217	-.266	.048	-.052	-.062	-.092	-.148	.271
	80.00	-.138	-.133	-.140	-.171	-.235	-.269	.051	-.058	-.070</td			

NACA RM L57G09a

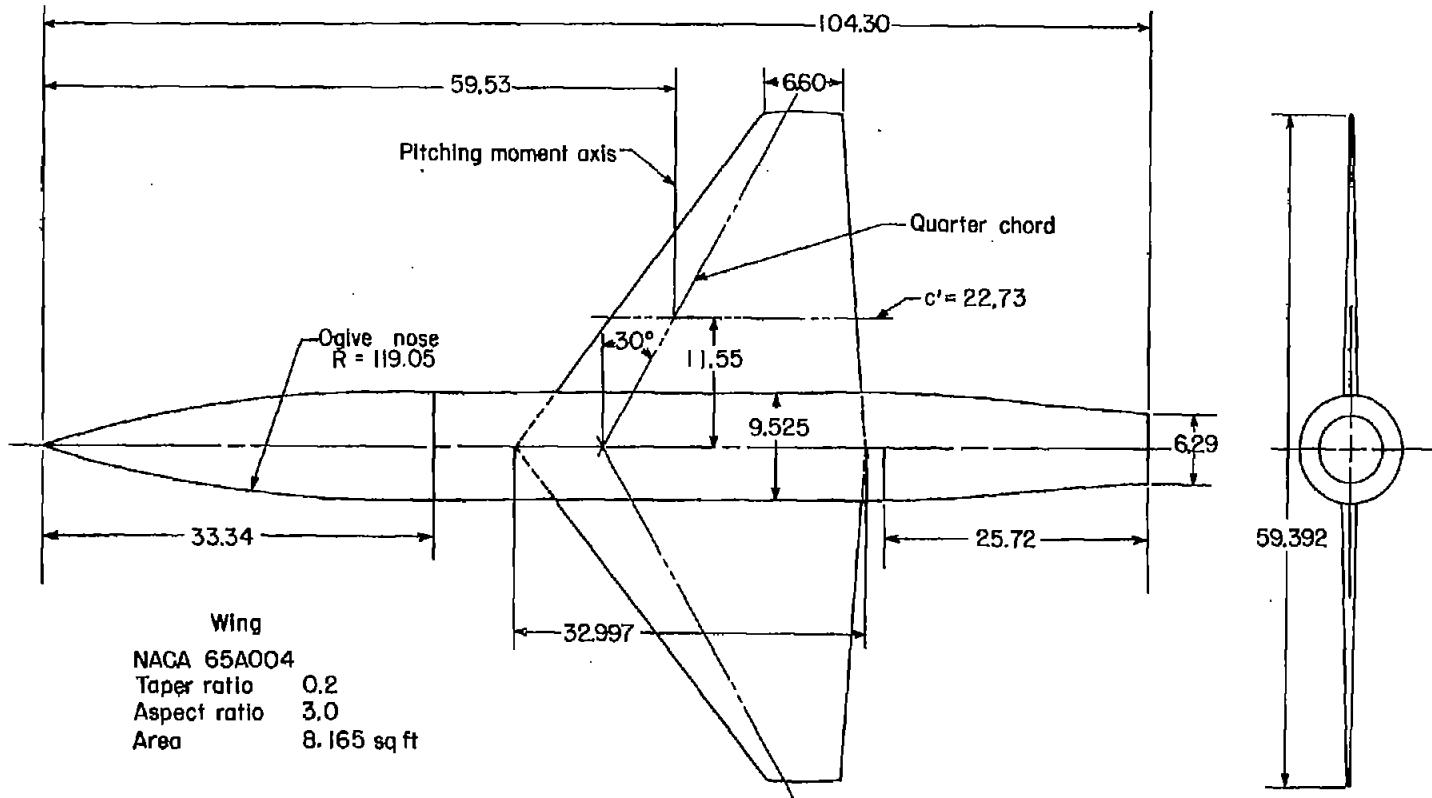
TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Continued

Pressure coefficient, P_c , at													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent c	M = 1.03	c = 5.95*					M = 1.03	c = 7.92*					
Upper surface	-0.93	+4.95	+3.99	+3.42	+2.90	+6.01	-0.98	+3.86	+2.36	+1.28	.031	+4.48	
0.00	-1.00	-0.94	-0.965	-1.008	-1.036	-0.834	-1.16	-1.030	-1.081	-1.113	-1.123	-0.963	
1.25	-1.08	-0.81	-0.873	-0.92	-0.976	-1.049	-1.22	-0.94	-0.94	-1.051	-1.072	-1.134	
2.50	-1.18	-0.62	-0.72	-0.808	-0.855	-0.908	-1.367	-0.716	-0.932	-0.977	-1.012	-1.079	
5.00	-1.31	-0.42	-0.52	-0.608	-0.685	-0.708	-1.357	-0.519	-0.871	-0.933	-0.986	-1.031	
7.50	-1.34	-0.352	-0.746	-0.813	-0.882	-0.927	-1.347	-0.386	-0.846	-0.906	-0.942	-1.005	
10.00	-1.315	-0.338	-0.716	-0.791	-0.838	-0.900	-1.347	-0.386	-0.846	-0.906	-0.942	-1.005	
15.00	-1.241	-0.314	-0.350	-0.730	-0.814	-0.874	-1.253	-0.358	-0.777	-0.852	-0.916	-0.977	
20.00	-1.223	-0.304	-0.298	-0.697	-0.782	-0.851	-1.217	-0.310	-0.748	-0.818	-0.885	-0.953	
25.00	-1.279	-0.203	-0.290	-0.675	-0.747	-0.845	-1.245	-0.299	-0.601	-0.684	-0.752	-0.820	
30.00	-1.336	-0.182	-0.216	-0.645	-0.718	-0.799	-1.277	-0.259	-0.555	-0.617	-0.682	-0.750	
35.00	-1.366	-0.162	-0.204	-0.647	-0.721	-0.723	-1.277	-0.216	-0.516	-0.546	-0.624	-0.693	
40.00	-1.331	-0.144	-0.190	-0.510	-0.549	-0.714	-1.315	-0.229	-0.357	-0.565	-0.615	-0.698	
45.00	-1.338	-0.147	-0.325	-0.349	-0.704	-0.709	-1.314	-0.328	-0.370	-0.509	-0.615	-0.805	
50.00	-1.311	-0.148	-0.331	-0.341	-0.578	-0.713	-1.290	-0.330	-0.380	-0.487	-0.509	-0.813	
55.00	-1.323	-0.169	-0.342	-0.380	-0.497	-0.716	-1.303	-0.345	-0.389	-0.473	-0.507	-0.814	
60.00	-1.370	-0.194	-0.354	-0.387	-0.464	-0.705	-1.346	-0.361	-0.400	-0.463	-0.503	-0.807	
65.00	-1.371	-0.189	-0.352	-0.399	-0.444	-0.714	-1.345	-0.366	-0.399	-0.456	-0.506	-0.811	
70.00	-1.376	-0.185	-0.354	-0.397	-0.445	-0.714	-1.345	-0.364	-0.399	-0.453	-0.625	-0.819	
75.00	-1.373	-0.191	-0.361	-0.397	-0.445	-0.716	-1.342	-0.367	-0.405	-0.452	-0.587	-0.823	
80.00	-1.401	-0.402	-0.356	-0.395	-0.449	-0.712	-1.366	-0.375	-0.411	-0.451	-0.566	-0.815	
85.00	-1.414	-0.405	-0.353	-0.395	-0.445	-0.711	-1.367	-0.375	-0.400	-0.441	-0.516	-0.815	
90.00	-1.385	-0.398	-0.340	-0.386	-0.381	-0.704	-1.355	-0.375	-0.395	-0.443	-0.425	-0.822	
95.00	-1.271	-0.369	-0.334	-0.367	-0.324	-0.710	-1.256	-0.364	-0.383	-0.426	-0.333	-0.833	
Lower surface													
Upper surface													
1.25	.535	+5.62	+5.93	+6.19	+6.42	+5.55	.705	+7.14	+6.87	+6.93	+7.03	+6.11	
2.50	.518	+4.51	+5.11	+5.32	+5.45	+4.90	.696	+6.14	+6.13	+6.18	+6.21	+5.48	
5.00	.472	+3.83	+4.35	+4.40	+4.53	+4.33	.638	+5.35	+5.28	+5.25	+5.32	+4.89	
7.50	.413	+3.27	+3.77	+3.84	+3.95	+3.63	.575	+4.76	+4.71	+4.66	+4.75	+4.27	
10.00	.361	+2.98	+3.45	+3.47	+3.45	+3.16	.511	+4.42	+4.36	+4.26	+4.21	+3.75	
15.00	.300	+2.49	+2.94	+2.97	+2.86	+2.25	.441	+3.81	+3.73	+3.68	+3.59	+2.84	
20.00	.250	+2.29	+2.49	+2.56	+2.40	+1.45	.385	+3.60	+3.50	+3.50	+3.40	+2.04	
25.00	.198	+1.77	+1.91	+1.95	+1.93	.048	.322	+3.13	+2.91	+2.70	+2.70	+1.41	
30.00	.155	+1.52	+1.54	+1.80	+1.72	.016	.317	+2.74	+2.60	+2.42	+2.35	+0.74	
35.00	.109	+1.24	+1.59	+1.44	+1.33	.010	.227	+2.45	+2.25	+2.03	+1.93	+0.59	
40.00	.121	+1.05	+1.39	+1.19	+1.10	-.066	.243	+2.21	+1.99	+1.72	+1.71	+0.15	
45.00	.124	+0.72	+1.06	.087	+0.76	-.124	.235	+1.86	+1.66	+1.38	+1.31	+0.75	
50.00	.057	+0.37	+0.80	+0.57	+0.44	-.153	.170	+1.49	+1.35	+1.09	+1.00	+0.105	
55.00	.021	+0.12	+0.63	+0.41	+0.34	-.182	.134	+1.27	+1.18	+0.91	+0.61	+0.136	
60.00	.025	-0.06	+0.41	+0.18	-0.022	-.197	.138	+1.06	+0.91	+0.66	+0.28	+0.154	
65.00	.004	-0.23	+0.26	-0.002	-0.051	-.215	.106	+0.85	+0.78	+0.43	+0.03	+0.186	
70.00	.025	-0.27	+0.21	-0.006	-0.052	-.230	.075	+0.79	+0.64	+0.34	+0.04	+0.190	
75.00	.039	-0.56	-0.01	-0.04	-0.04	-.248	.045	+0.62	+0.44	+0.24	+0.04	+0.208	
80.00	.075	-0.67	-0.13	-0.050	-0.120	-.192	.028	+0.36	+0.31	+0.04	+0.04	+0.165	
85.00	.082	-0.73	-0.14	-0.048	-0.120	-.236	.022	+0.30	+0.31	+0.02	+0.04	+0.212	
90.00	.066	-0.81	-0.19	-0.062	-0.111	-.210	.024	+0.17	+0.18	+0.02	+0.07	+0.182	
Lower surface													
Upper surface													
1.25	M = 1.03	c = 9.89°					M = 1.03	c = 13.68°					
0.00	-0.91	+2.06	+0.44	+1.08	+2.70	+2.39	-1.21	+1.59	+1.06	+1.59	+1.76	+2.90	
1.25	-2.60	-1.136	-1.163	-1.145	-1.183	-1.074	-1.483	-1.133	-1.087	-1.046	-1.065	-1.102	
2.50	-3.58	-1.068	-1.084	-1.136	-1.158	-1.198	-1.594	-1.073	-1.052	-1.048	-1.048	-1.120	
5.00	-5.13	-0.868	-1.012	-1.045	-1.072	-1.191	-1.574	-1.052	-1.042	-1.042	-1.043	-1.101	
7.50	-4.79	-0.868	-0.974	-1.020	-1.058	-1.126	-1.680	-0.956	-0.944	-0.940	-0.943	-1.041	
10.00	-4.79	-0.611	-0.958	-1.003	-1.038	-1.101	-1.640	-0.951	-1.021	-1.030	-1.008	-1.101	
15.00	-3.59	-0.518	-0.898	-0.946	-1.012	-1.058	-1.496	-0.880	-0.963	-1.003	-1.024	-1.091	
20.00	-3.02	-0.463	-0.703	-0.911	-0.982	-1.046	-1.421	-0.805	-0.907	-0.962	-1.020	-1.080	
25.00	-3.32	-0.426	-0.578	-0.896	-0.943	-1.028	-1.415	-0.537	-0.860	-0.958	-0.997	-1.056	
30.00	-3.73	-0.387	-0.532	-0.872	-0.929	-1.001	-1.438	-0.344	-0.828	-0.922	-0.978	-1.028	
35.00	-3.33	-0.371	-0.478	-0.857	-0.921	-0.922	-1.412	-0.295	-0.810	-0.902	-0.960	-0.975	
40.00	-3.64	-0.371	-0.430	-0.808	-0.912	-0.924	-1.427	-0.242	-0.794	-0.882	-0.941	-0.951	
45.00	-3.69	-0.371	-0.414	-0.661	-0.912	-0.897	-1.435	-0.245	-0.774	-0.866	-0.934	-0.959	
50.00	-3.35	-0.373	-0.419	-0.624	-0.809	-0.808	-1.444	-0.245	-0.754	-0.856	-0.918	-0.940	
55.00	-3.66	-0.371	-0.431	-0.620	-0.809	-0.808	-1.456	-0.245	-0.735	-0.836	-0.902	-0.944	
60.00	-3.66	-0.371	-0.442	-0.593	-0.910	-0.903	-1.443	-0.244	-0.722	-0.827	-0.883	-0.903	
65.00	-4.03	-0.419	-0.442	-0.640	-0.897	-0.908	-1.488	-0.500	-0.607	-0.812	-0.839	-0.903	
70.00	-4.07	-0.417	-0.440	-0.590	-0.897	-0.908	-1.498	-0.504	-0.543	-0.803	-0.798	-0.849	
75.00	-3.99	-0.424	-0.454	-0.557	-0.745	-0.922	-1.487	-0.508	-0.508	-0.805	-0.752	-0.845	
80.00	-4.424	-0.437	-0.454	-0.540	-0.644	-0.922	-1.521	-0.525	-0.500	-0.793	-0.714	-0.885	
85.00	-4.411	-0.438	-0.454	-0.527	-0.599	-0.922	-1.530	-0.530	-0.505	-0.777	-0.666	-0.877	
90.00	-4.424	-0.438	-0.443	-0.505	-0.507	-0.927	-1.518	-0.530	-0.504	-0.657	-0.618	-0.907	
95.00	-3.225	-0.426	-0.443	-0.472	-0.467	-0.946	-1.443	-0.499	-0.510	-0.547	-0.547	-0.908	
Lower surface													
Upper surface													
1.25	.805	.803	.757	.749	.741	.846	.958	.914	.846	.807	.771	.885	
2.50	.803	.714	.694	.689	.678	.598	.979	.880	.808	.777	.754	.857	
5.00	.742	.622	.611	.594	.594	.541	.902	.767	.735	.708	.693	.618	
7.50	.663	.562	.553	.542	.540	.481	.818	.704	.677	.657	.646	.567	
10.00	.598	.526	.511	.499	.490	.427	.741	.663	.640	.614	.602	.520	
15.00	.516	.463	.448	.438	.427	.335	.657	.595	.570	.554	.541	.438	
20.00	.449	.429	.394	.376	.373	.260	.586	.557	.515	.492	.488	.366	
25.00	.410	.378	.359	.340	.333	.195	.538	.501	.475	.455	.445	.301	
30.00	.376	.338	.323	.308	.292	.125	.496	.458	.417	.405	.395	.236	
35.00	.281	.305	.287	.288	.282	.132	.405	.316	.277	.245	.234	.139	
40.00	.222	.248	.225	.217	.207	.037	.406	.336	.265	.233	.224	.045	
45.00	.214	.241	.221	.195	.170	.024	.393	.333	.292	.205	.204	.045	
50.00	.213	.203	.193	.170	.156	.057	.327	.210	.299	.223	.225	.022	
55.00	.176	.178	.173	.151	.113	.086	.294	.279	.275	.252	.217	.022	
60.00	.185	.158	.146	.123	.084	.109	.291	.237	.240	.223	.181	.004	
65.00	.147	.133	.128	.099	.048	.141	.250	.227	.221	.192	.149	.037	
70.00	.113	.126	.114	.086	.047	.141	.205	.218	.204	.181	.144	.044	
75.00	.102	.096	.090	.062	.014	.149	.194	.186	.180	.157	.117	.056	
80.00	.083	.085	.080										

TABLE I. - STEEL WING PRESSURE COEFFICIENT DATA FOR THE TEST
 RANGE OF ANGLE OF ATTACK AND MACH NUMBER - Concluded

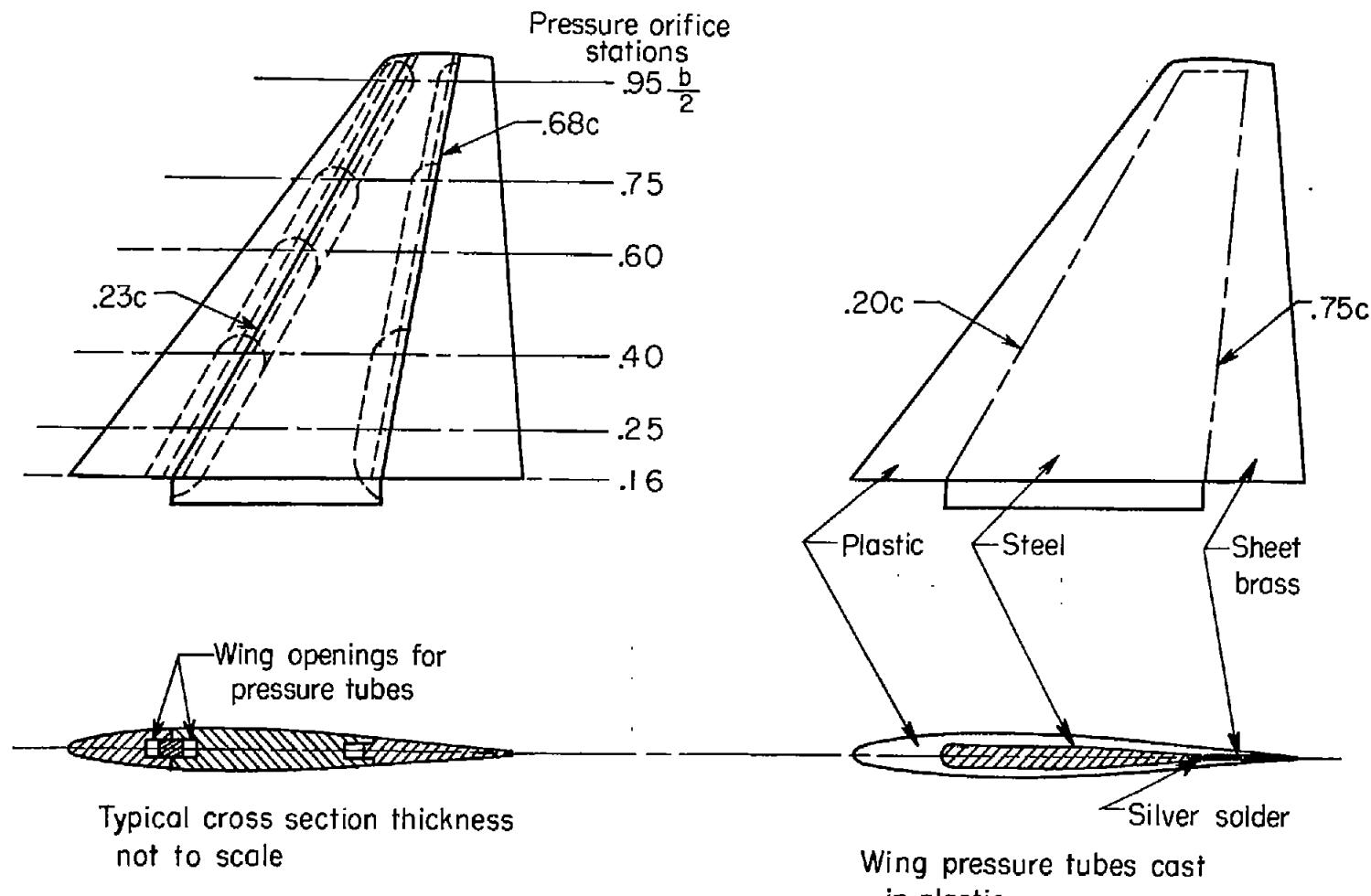
Pressure coefficient, P, at:													
	0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2		0.16b/2	0.25b/2	0.40b/2	0.60b/2	0.75b/2	0.95b/2
Percent c													
	M = 1.03	a = 15.85°					M = 1.05	a = 17.97°					
Upper surface	-1.152	-0.578	-0.580	-0.618	-0.732	-0.590	-1.172	-0.550	-0.765	-0.665	-1.062	-0.830	
	-0.404	-1.188	-1.129	-1.072	-1.005	-0.918	-0.709	-1.245	-1.193	-1.047	-0.973	-0.870	
	-0.713	-1.179	-1.108	-1.076	-1.003	-0.909	-0.833	-1.233	-1.166	-1.042	-0.973	-0.866	
	-0.827	-1.144	-1.132	-1.068	-1.002	-0.901	-0.936	-1.213	-1.196	-1.037	-0.979	-0.861	
	-0.794	-1.107	-1.107	-1.072	-0.990	-0.894	-0.852	-1.203	-1.162	-1.036	-0.977	-0.861	
	-0.761	-1.064	-1.103	-1.080	-0.985	-0.894	-0.866	-1.190	-1.093	-0.989	-0.860	-0.850	
	-0.602	-1.016	-1.064	-1.073	-0.992	-0.894	-0.733	-1.115	-1.158	-1.026	-1.002	-0.859	
	-0.517	-0.977	-1.023	-1.049	-0.990	-0.894	-0.618	-1.073	-1.125	-1.018	-1.007	-0.856	
	-0.493	-0.743	-0.984	-1.049	-0.981	-0.891	-0.561	-1.021	-1.098	-1.018	-1.004	-0.853	
	-0.506	-0.494	-0.936	-1.022	-0.976	-0.889	-0.565	-0.973	-1.078	-1.003	-0.994	-0.851	
Lower surface	-0.16	-0.54	-0.54	-0.54	-0.54	-0.54	-0.56	-0.56	-0.56	-0.56	-0.56	-0.56	
	-0.486	-0.478	-0.928	-0.992	-0.960	-0.898	-0.532	-0.544	-1.048	-0.933	-0.977	-0.849	
	-0.497	-0.493	-0.920	-0.977	-0.953	-0.879	-0.533	-0.540	-1.039	-0.965	-0.971	-0.846	
	-0.513	-0.503	-0.909	-0.966	-0.940	-0.872	-0.574	-0.571	-1.035	-0.950	-0.959	-0.841	
	-0.528	-0.527	-0.883	-0.953	-0.926	-0.864	-0.587	-0.592	-1.025	-0.933	-0.948	-0.837	
	-0.531	-0.532	-0.810	-0.927	-0.914	-0.858	-0.607	-0.615	-0.999	-0.913	-0.934	-0.835	
	-0.533	-0.561	-0.721	-0.910	-0.894	-0.847	-0.613	-0.620	-0.911	-0.899	-0.914	-0.828	
	-0.533	-0.566	-0.580	-0.894	-0.872	-0.843	-0.601	-0.624	-0.703	-0.888	-0.896	-0.828	
	-0.542	-0.573	-0.517	-0.873	-0.855	-0.843	-0.594	-0.632	-0.509	-0.864	-0.880	-0.828	
	-0.587	-0.585	-0.513	-0.844	-0.833	-0.843	-0.625	-0.643	-0.466	-0.555	-0.866	-0.825	
Upper surface	-0.593	-0.589	-0.526	-0.812	-0.804	-0.845	-0.641	-0.621	-0.517	-0.643	-0.839	-0.824	
	-0.579	-0.587	-0.522	-0.754	-0.772	-0.852	-0.618	-0.575	-0.549	-0.627	-0.811	-0.826	
	-0.507	-0.509	-0.518	-0.696	-0.773	-0.851	-0.431	-0.484	-0.580	-0.613	-0.620	-0.826	
	1.85	1.013	.950	.876	.822	.769	.688	1.047	.974	.882	.818	.755	.682
	1.048	.908	.855	.815	.781	.674	.650	1.103	.943	.852	.834	.792	.678
	.967	.830	.795	.761	.741	.650	.619	.885	.832	.798	.768	.670	
	.877	.767	.742	.713	.698	.609	.528	.823	.785	.754	.733	.635	
	.804	.727	.706	.677	.655	.566	.561	.778	.746	.718	.659	.596	
	.720	.660	.638	.613	.599	.487	.572	.710	.685	.657	.624	.525	
	.645	.615	.595	.566	.545	.418	.497	.660	.626	.599	.584	.456	
	.559	.539	.537	.515	.500	.425	.467	.597	.577	.553	.521	.356	
	.557	.514	.497	.480	.463	.292	.504	.567	.543	.525	.501	.329	
	.462	.475	.457	.437	.417	.259	.515	.526	.503	.481	.459	.299	
Lower surface	.463	.444	.425	.402	.388	.195	.515	.489	.469	.443	.427	.236	
	.448	.404	.390	.363	.352	.136	.494	.455	.434	.407	.393	.176	
	.380	.366	.354	.330	.318	.102	.431	.412	.398	.374	.358	.142	
	.342	.334	.331	.308	.278	.074	.380	.382	.370	.352	.314	.114	
	.339	.309	.297	.279	.242	.047	.382	.352	.337	.320	.277	.089	
	.295	.260	.278	.247	.205	.022	.339	.319	.313	.284	.245	.062	
	.250	.264	.235	.232	.200	.009	.269	.306	.291	.271	.236	.037	
	.247	.235	.232	.20	.165	.009	.271	.249	.244	.242	.204	.035	
	.209	.214	.210	.181	.153	.023	.266	.243	.241	.222	.179	.006	
	.175	.197	.197	.179	.133	.004	.207	.229	.225	.205	.156	.023	
Upper surface	.151	.173	.170	.156	.115	-.041	.178	.109	.192	.178	.134	-.021	
	.110	.126	.135	.105	.081	-.032	.125	.150	.130	.118	.092	-.019	

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 HEREIN IS UNCLASSIFIED



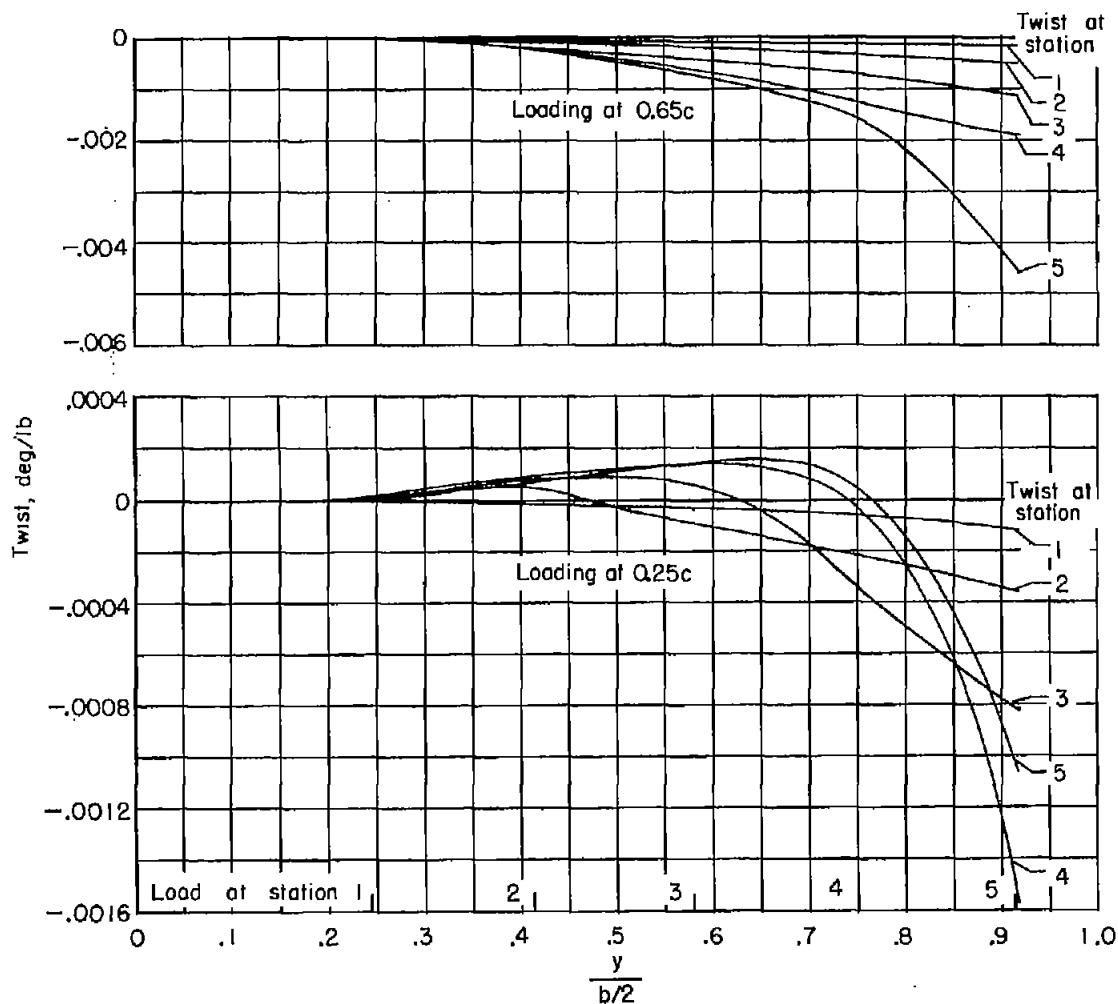
(a) Complete model.

Figure 1.-- General model arrangement. All dimensions in inches.



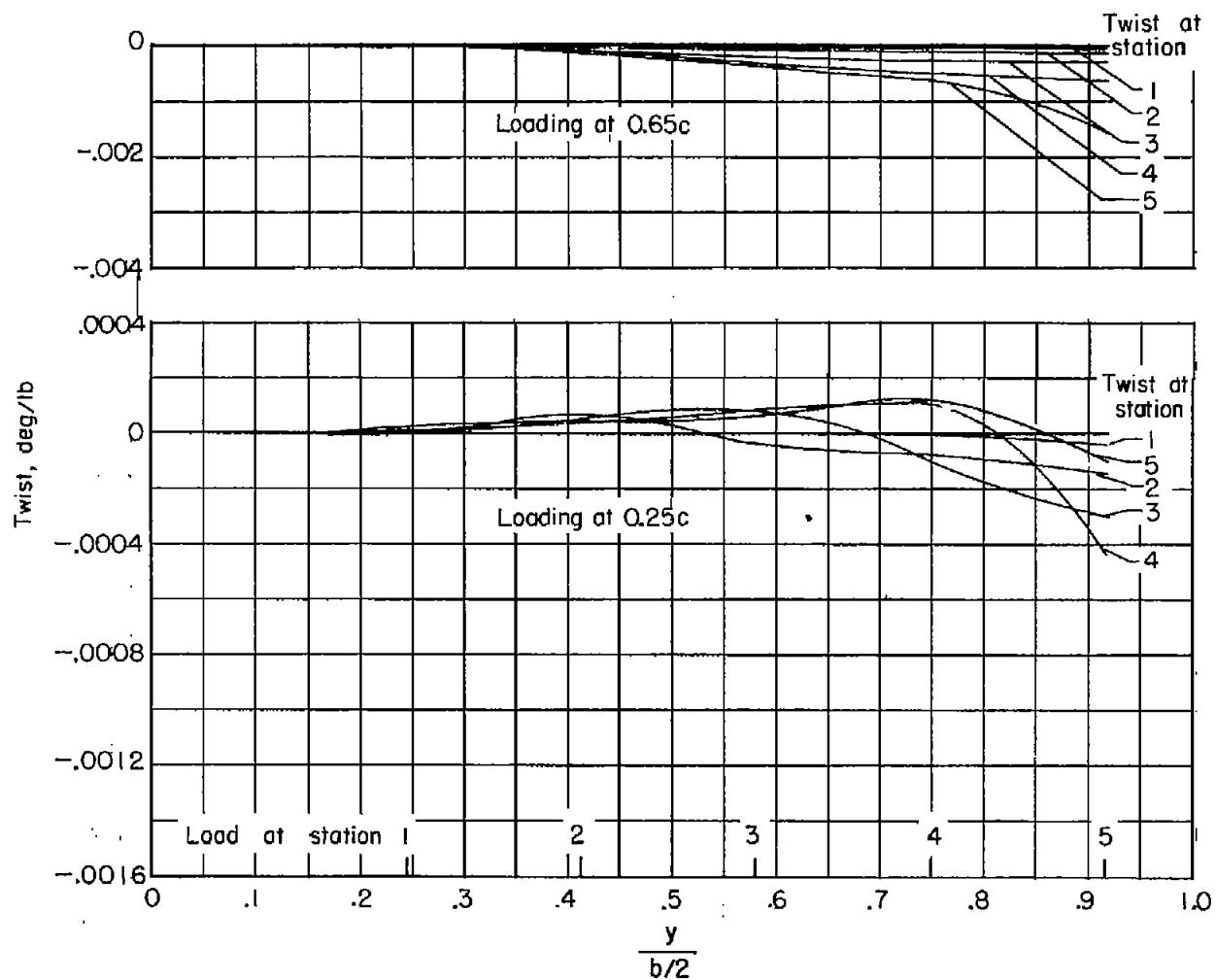
(b) Wings.

Figure 1.- Concluded.



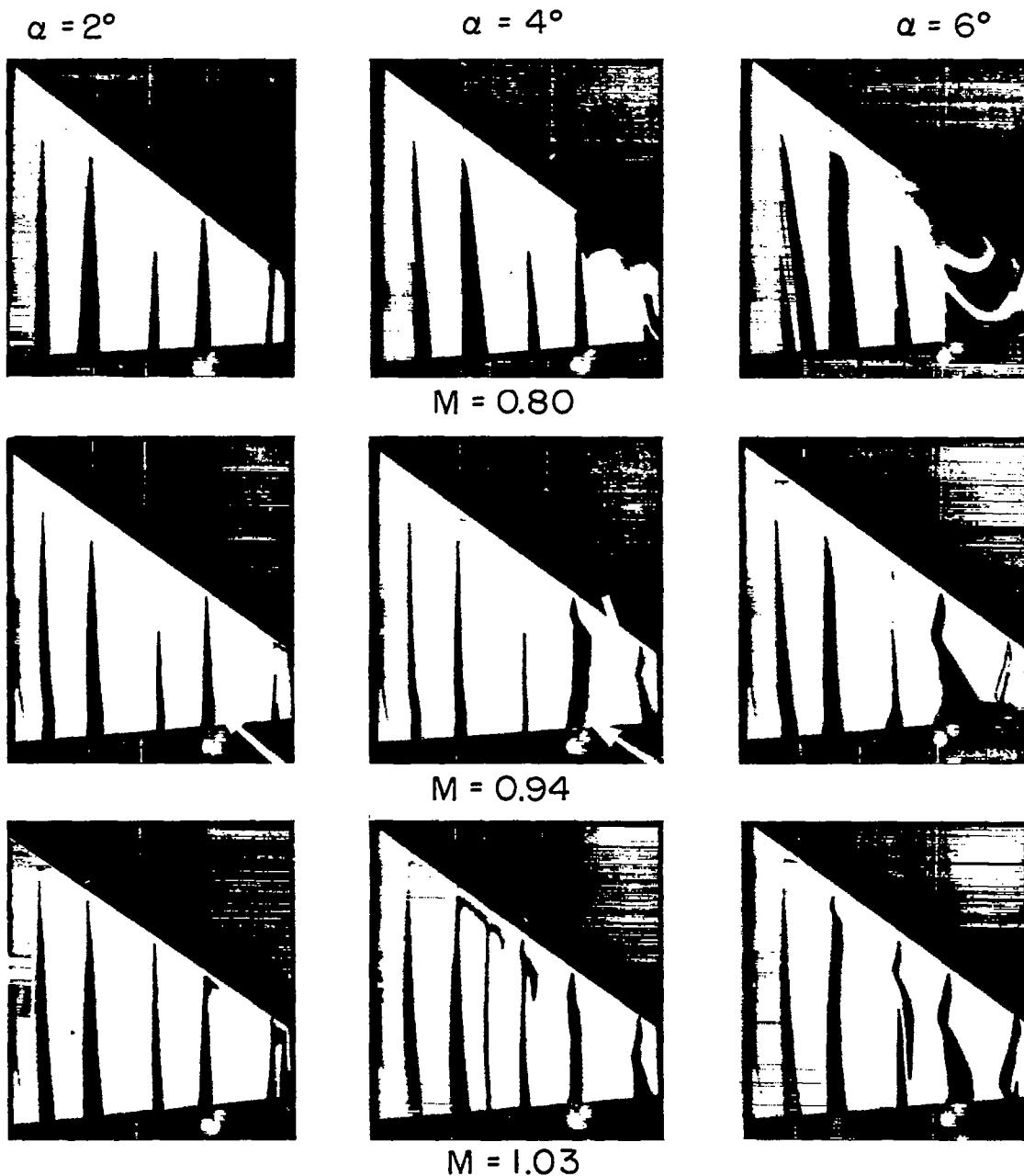
(a) Plastic wing.

Figure 2-- Wing elastic characteristics obtained experimentally, from which the influence coefficients were determined for twist in the angle-of-attack plane about 0.25c.



(b) Steel wing.

Figure 2.- Concluded.



(a) $\alpha = 2^\circ$ to 6° .

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Figure 3.- Typical flow study photographs for a range of Mach number and angle of attack, plastic wing.

$\alpha = 8^\circ$



$\alpha = 10^\circ$



$\alpha = 13^\circ$



$M = 0.80$



$M = 0.94$



$M = 1.03$

(b) $\alpha = 8^\circ$ to 13° .

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Figure 3.- Continued.

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$M = 0.80$



$M = 0.94$

$\alpha = 15^\circ$



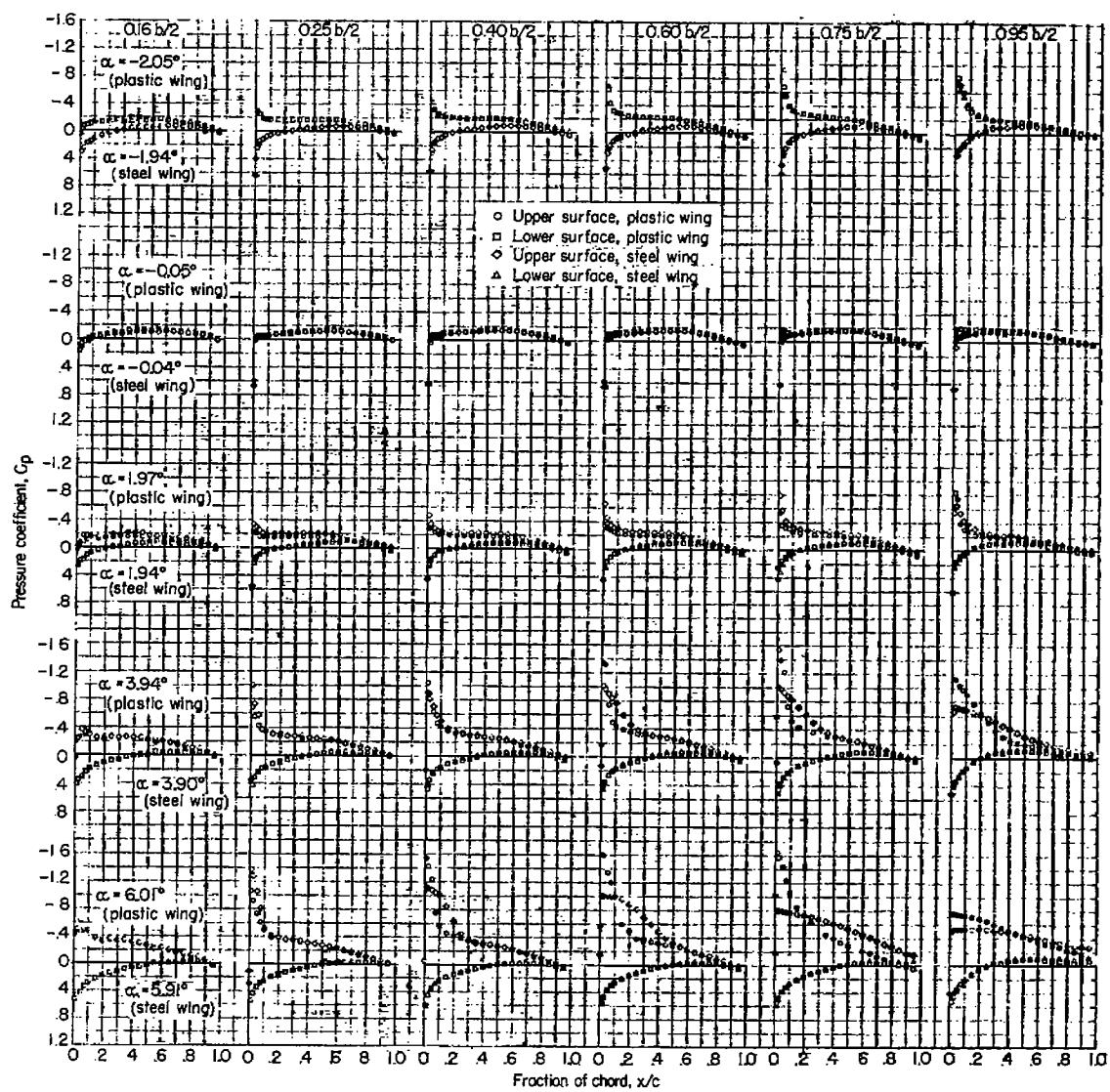
$M = 1.03$

(c) $\alpha = 15^\circ$ to 19° .

L-57-1641

Figure 3.- Concluded.

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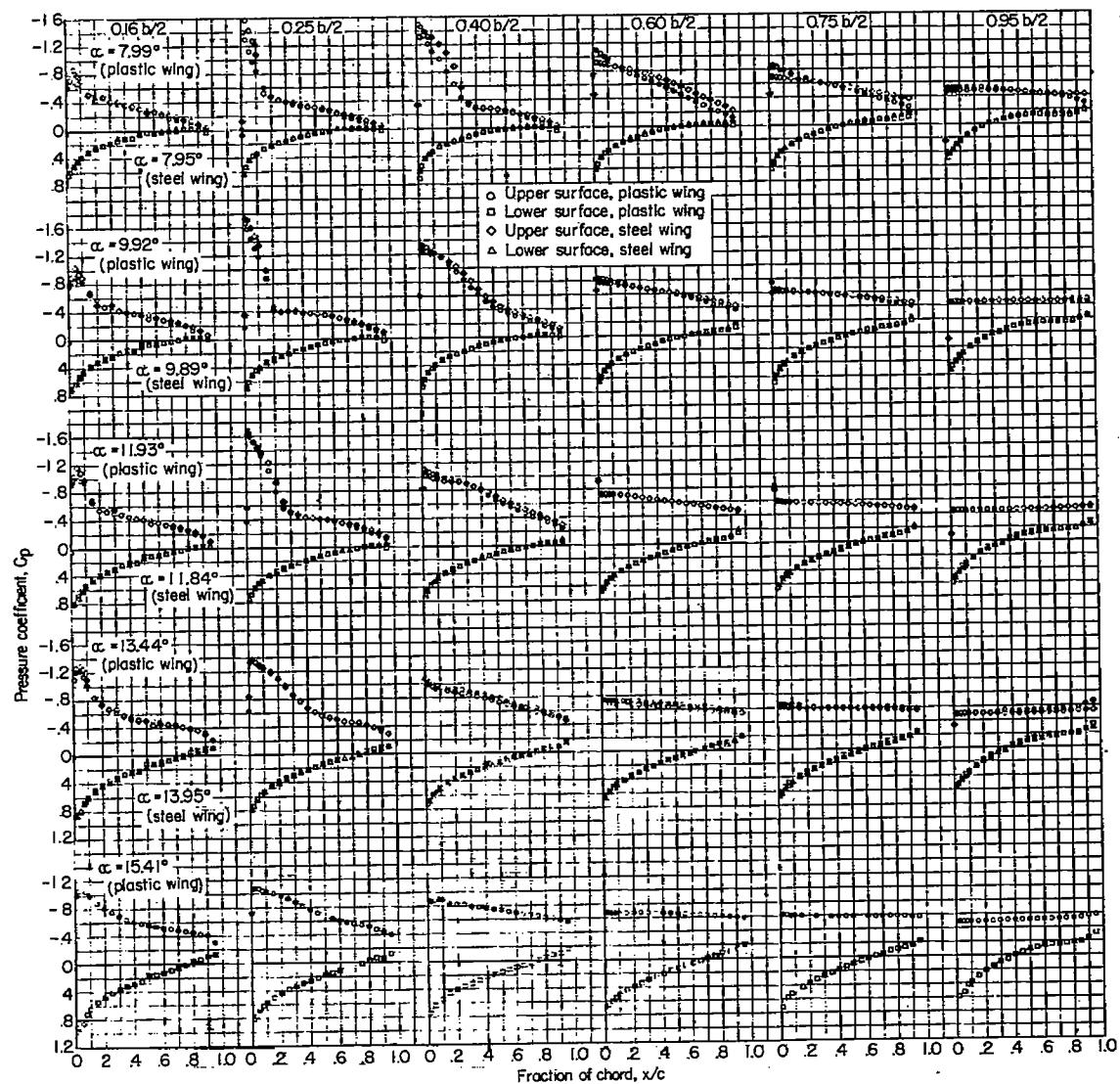
(a) $M = 0.80$.

Figure 4.- Comparison of chordwise pressure distributions for steel and plastic wings.

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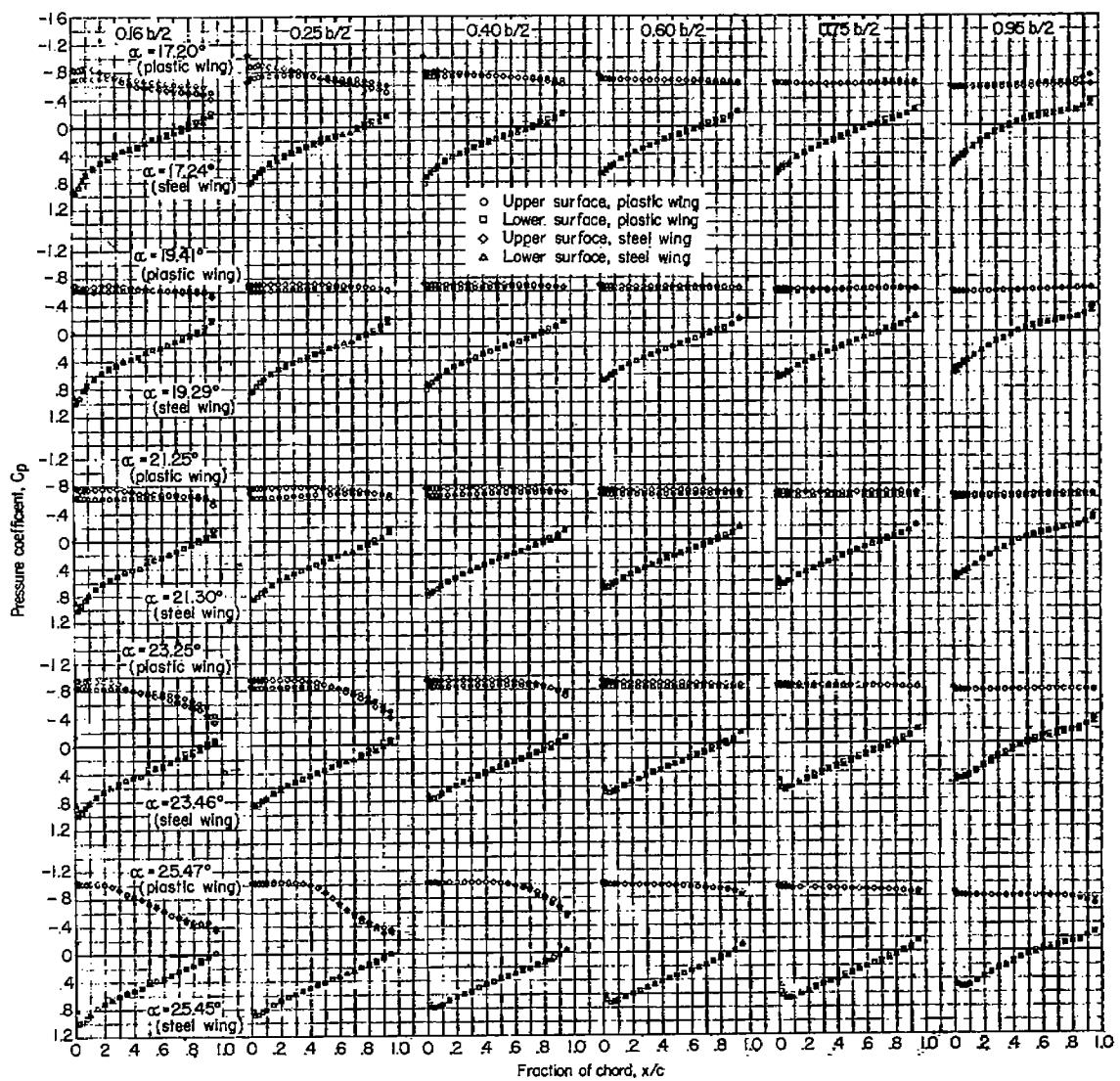
45



(a) $M = 0.80$, continued.

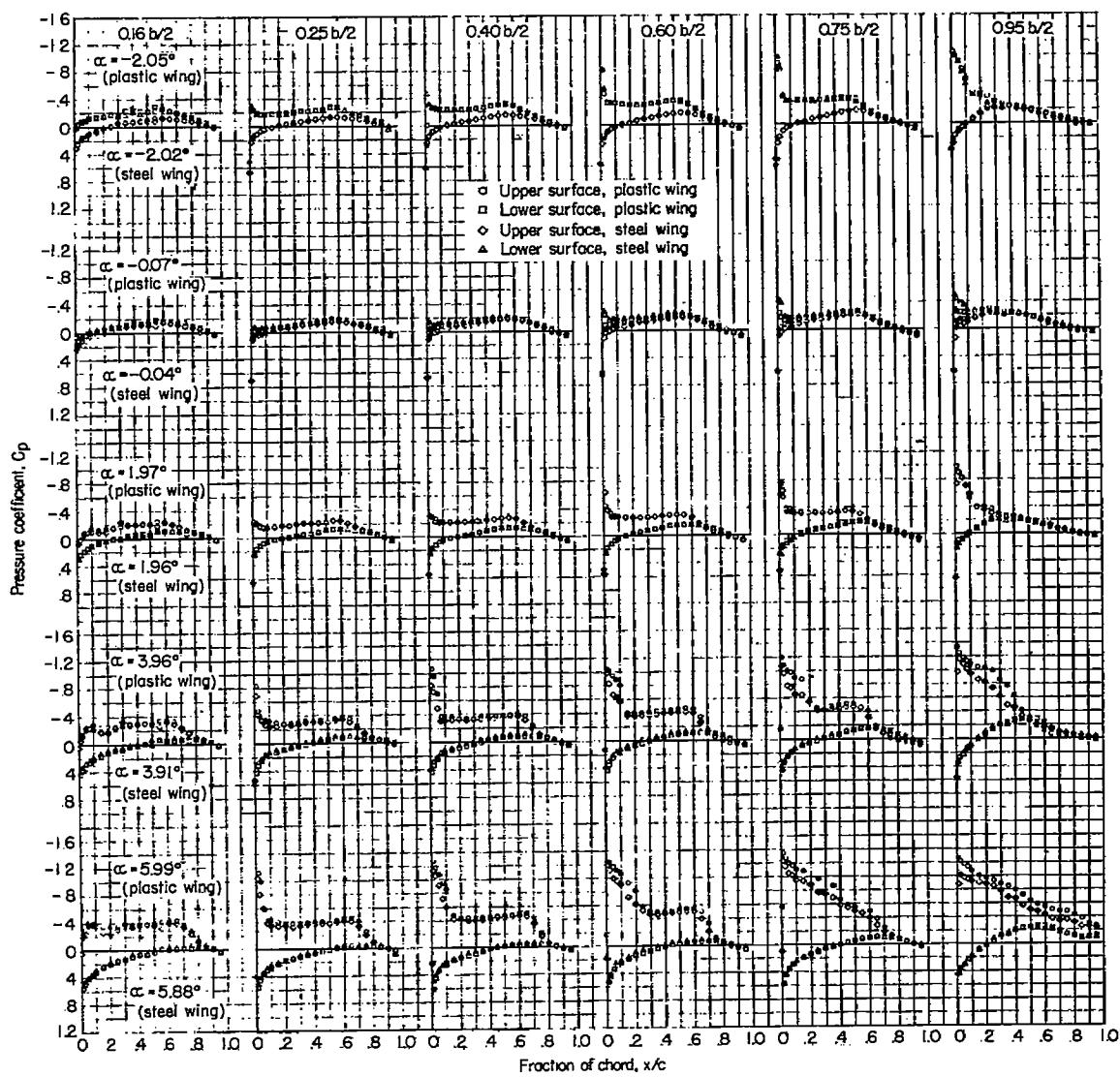
Figure 4.- Continued.

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(a) $M = 0.80$, concluded.

Figure 4.- Continued.

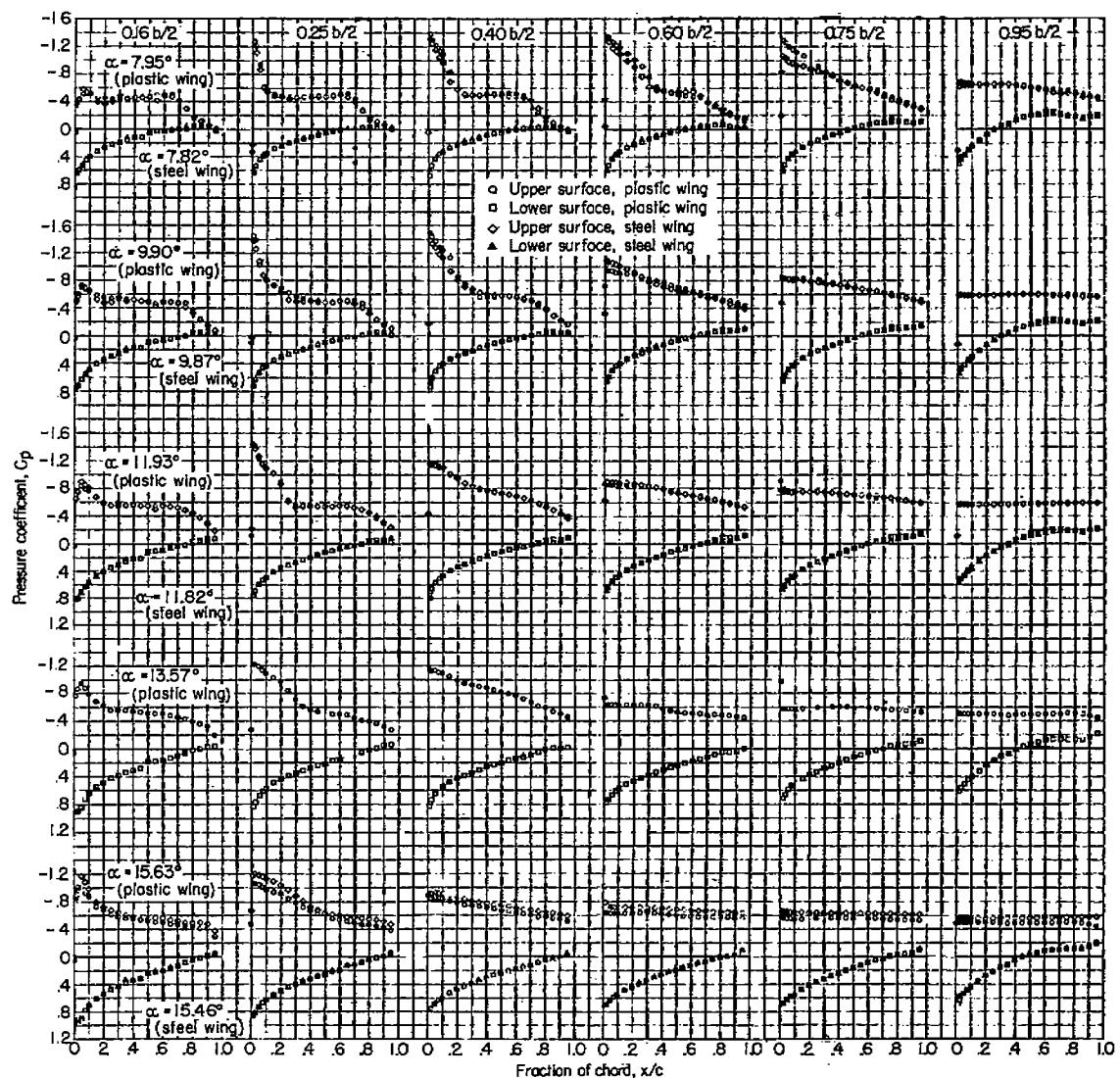


(b) $M = 0.90$.

Figure 4.- Continued.

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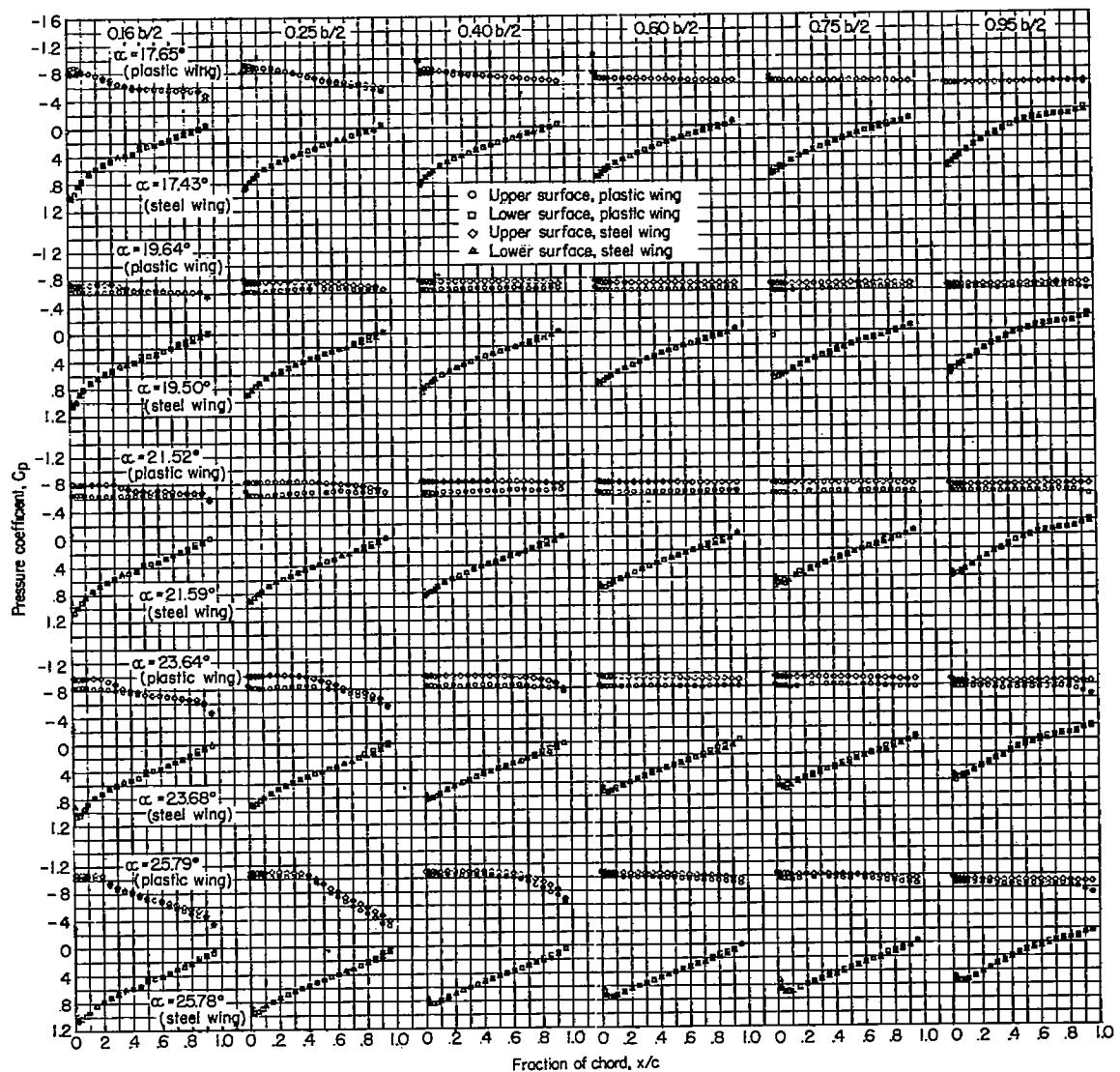
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(b) $M = 0.90$, continued.

Figure 4.- Continued.

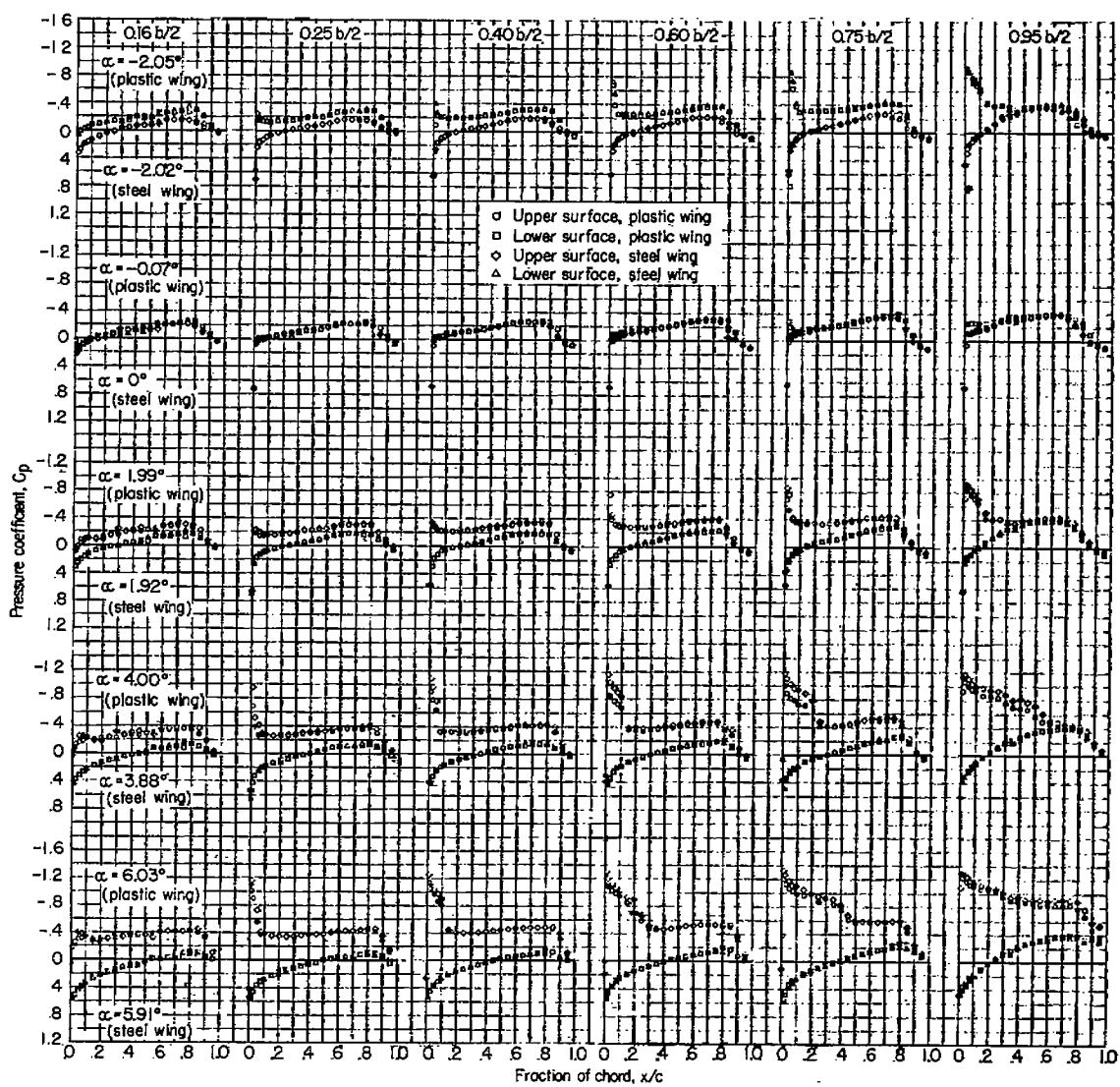
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(b) $M = 0.90$, concluded.

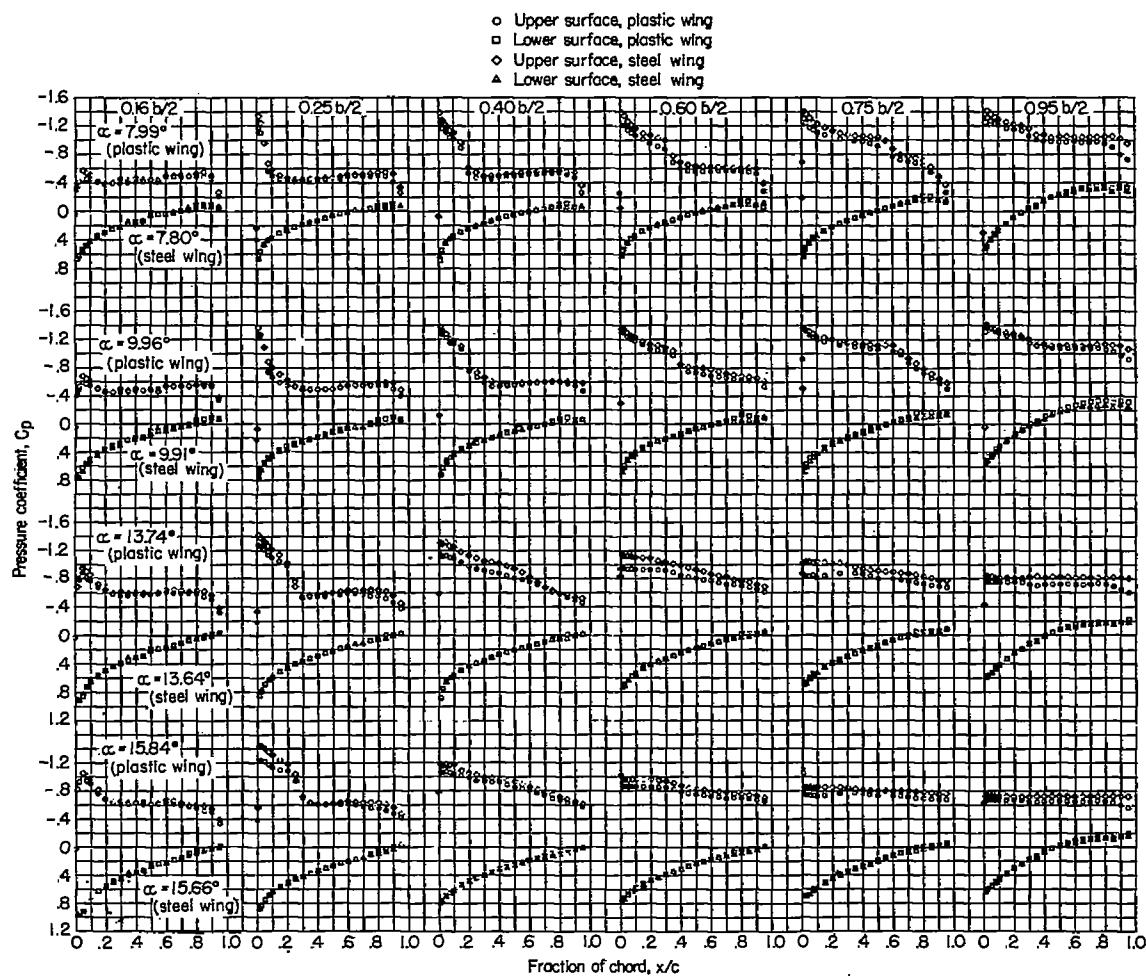
Figure 4.- Continued.

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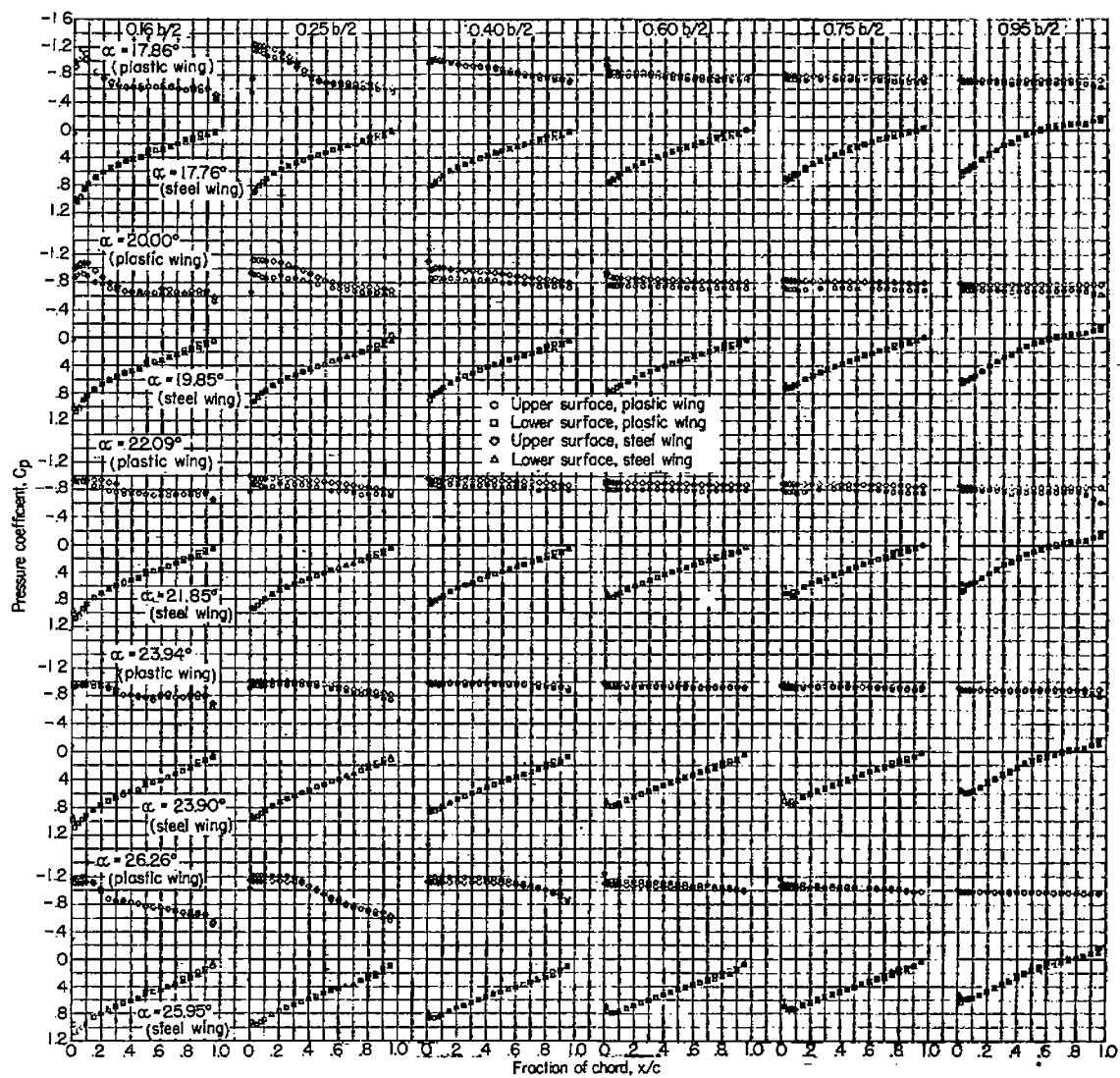
(c) $M = 0.94$.

Figure 4.- Continued.



(c) $M = 0.94$, continued.

Figure 4.- Continued.

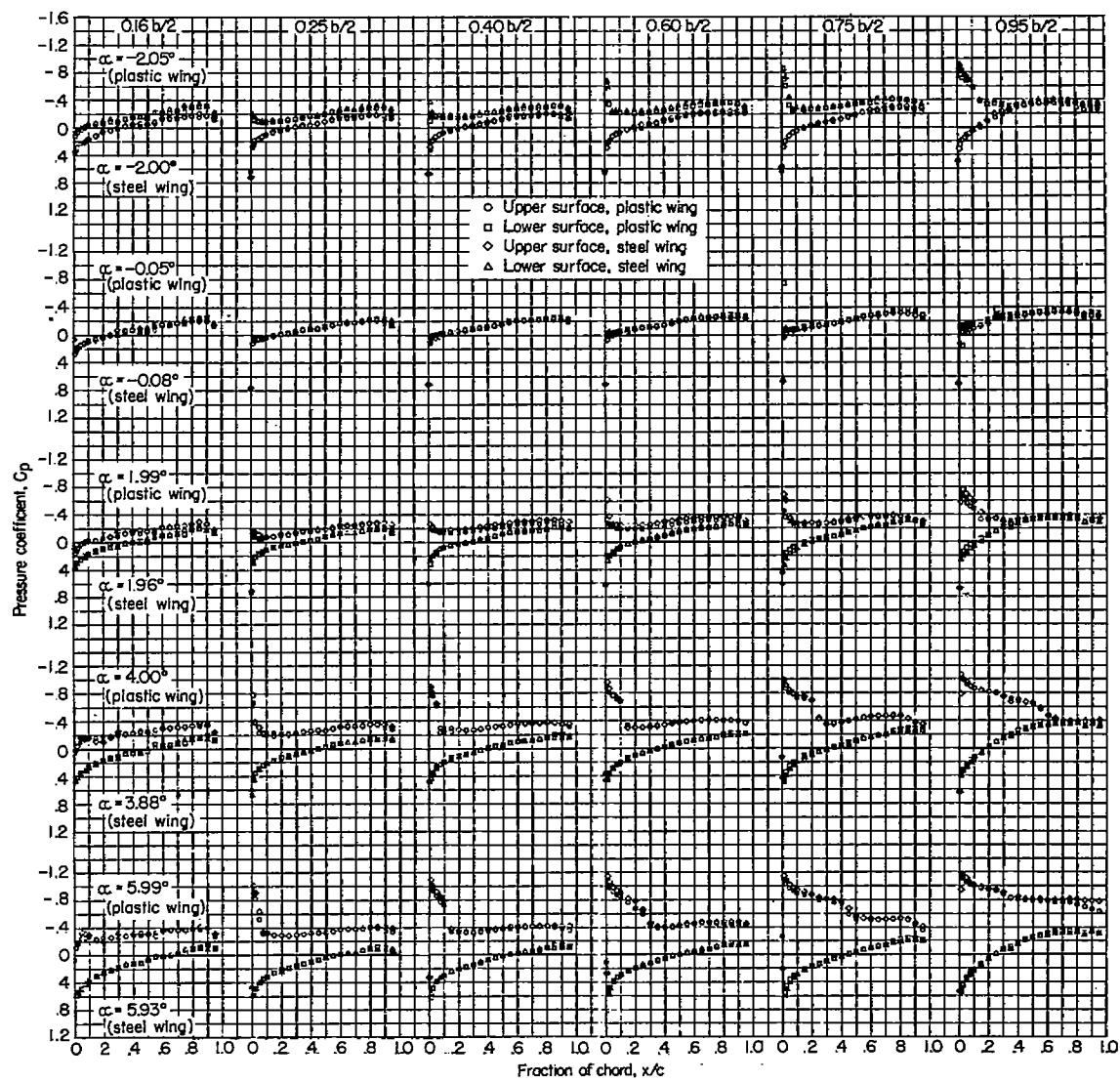


(c) $M = 0.94$, concluded.

Figure 4.- Continued.

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(d) $M = 0.98$.

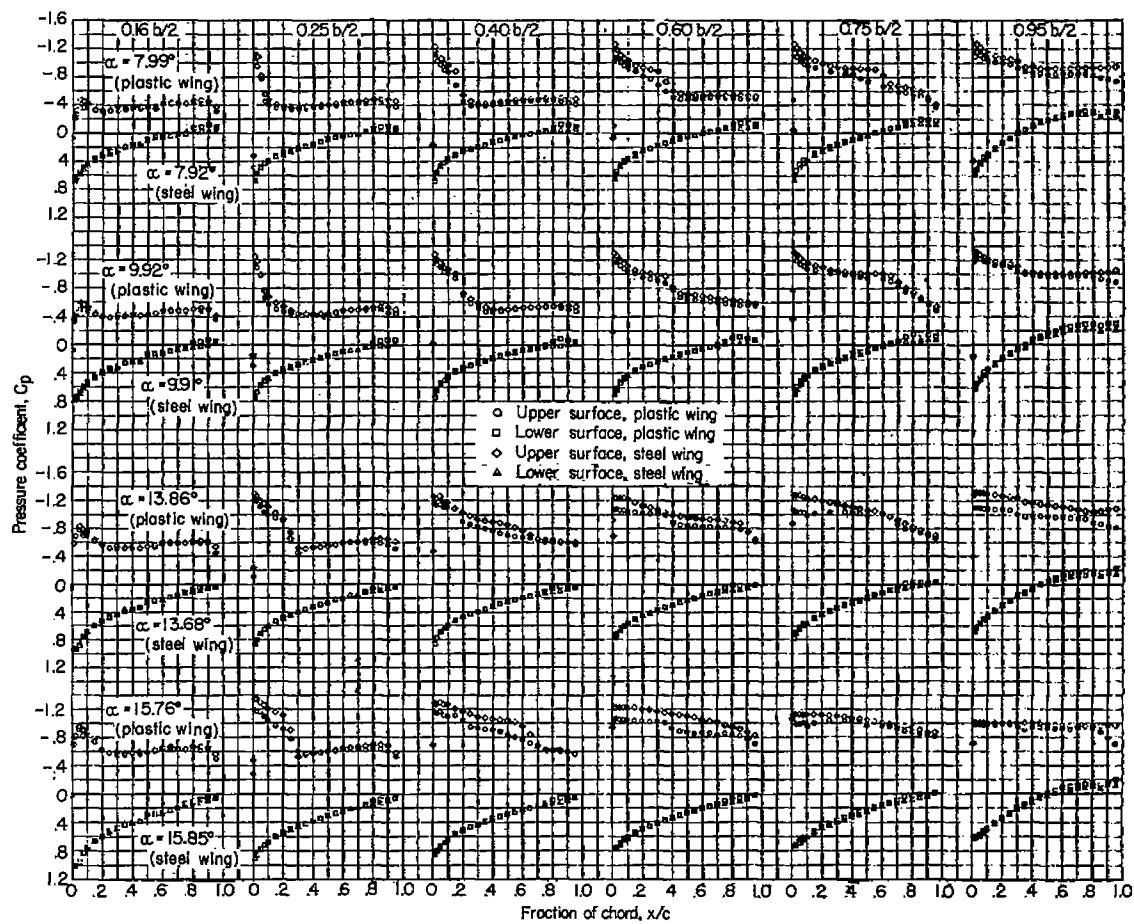
Figure 4.- Continued.

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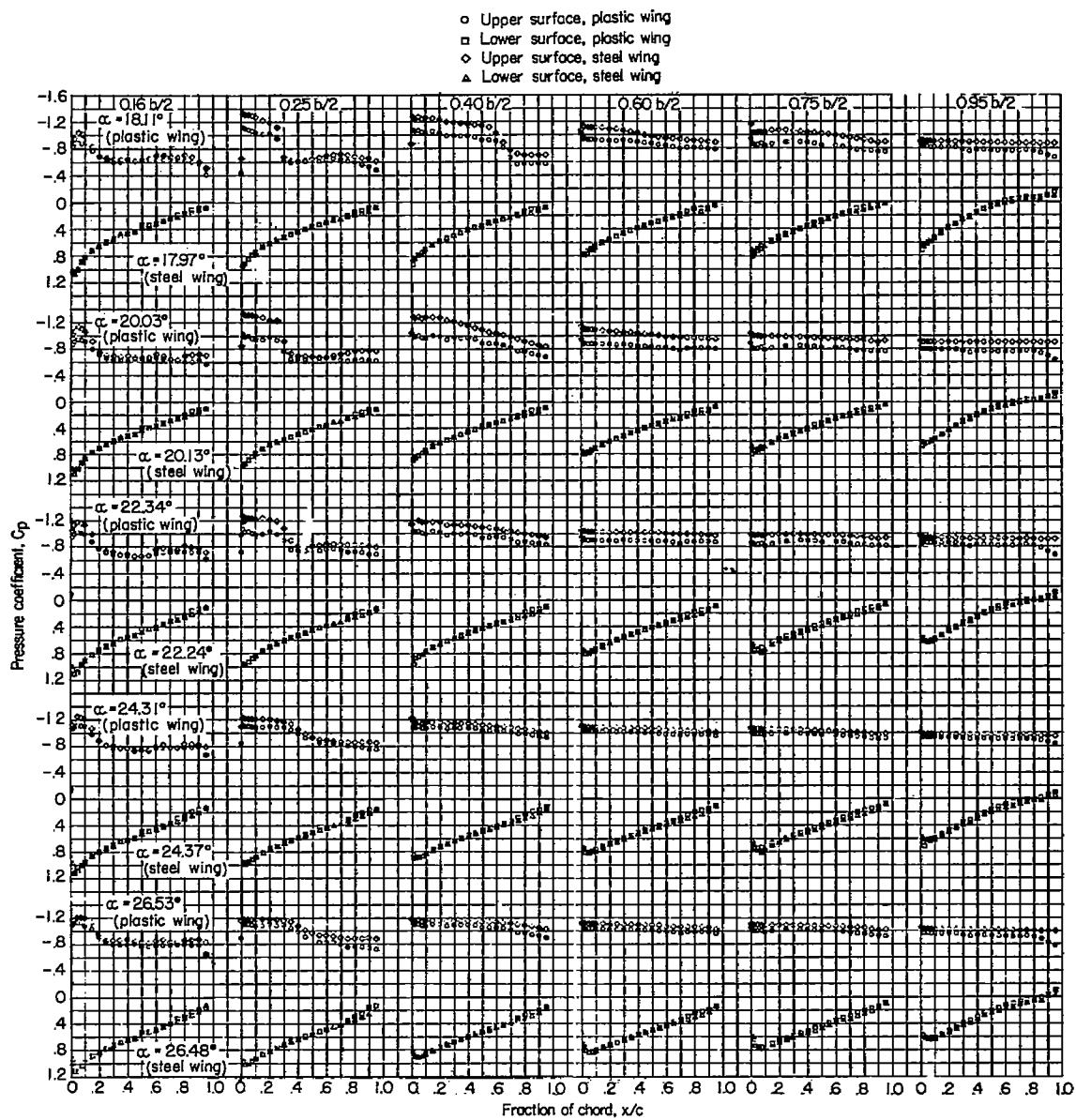
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(d) $M = 0.98$, continued.

Figure 4.- Continued.

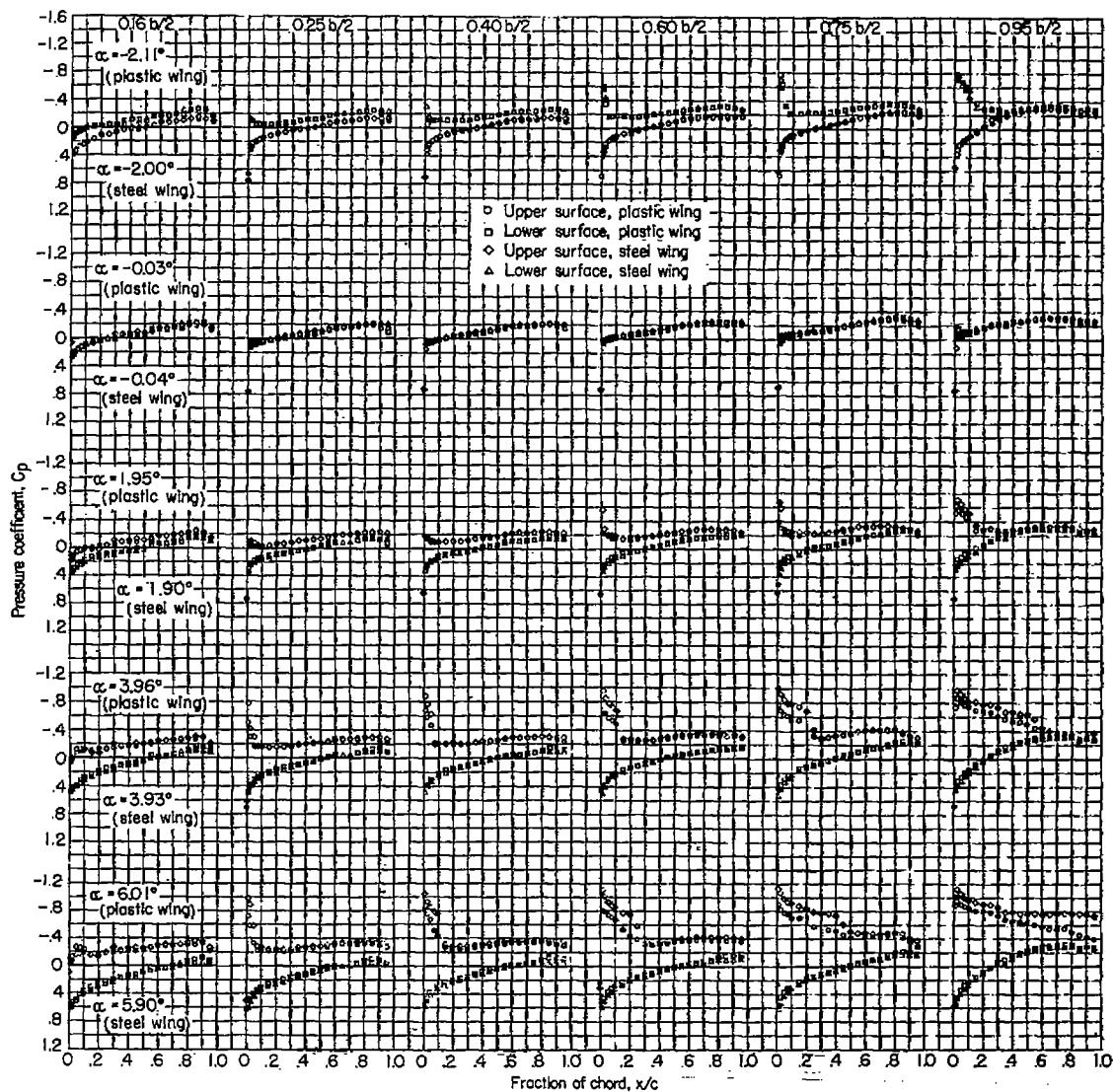
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(d) $M = 0.98$, concluded.

Figure 4.- Continued.

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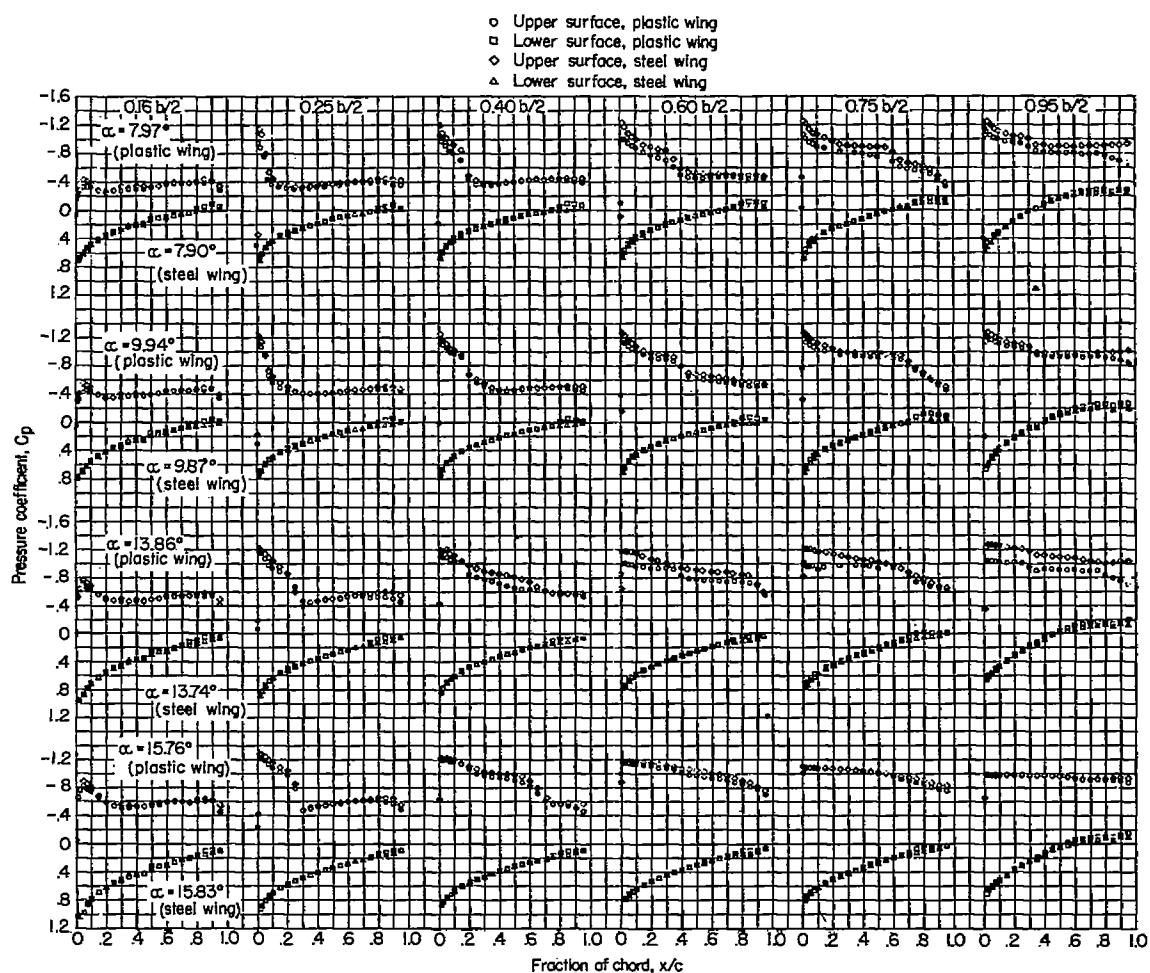
(e) $M = 1.00$.

Figure 4.- Continued.

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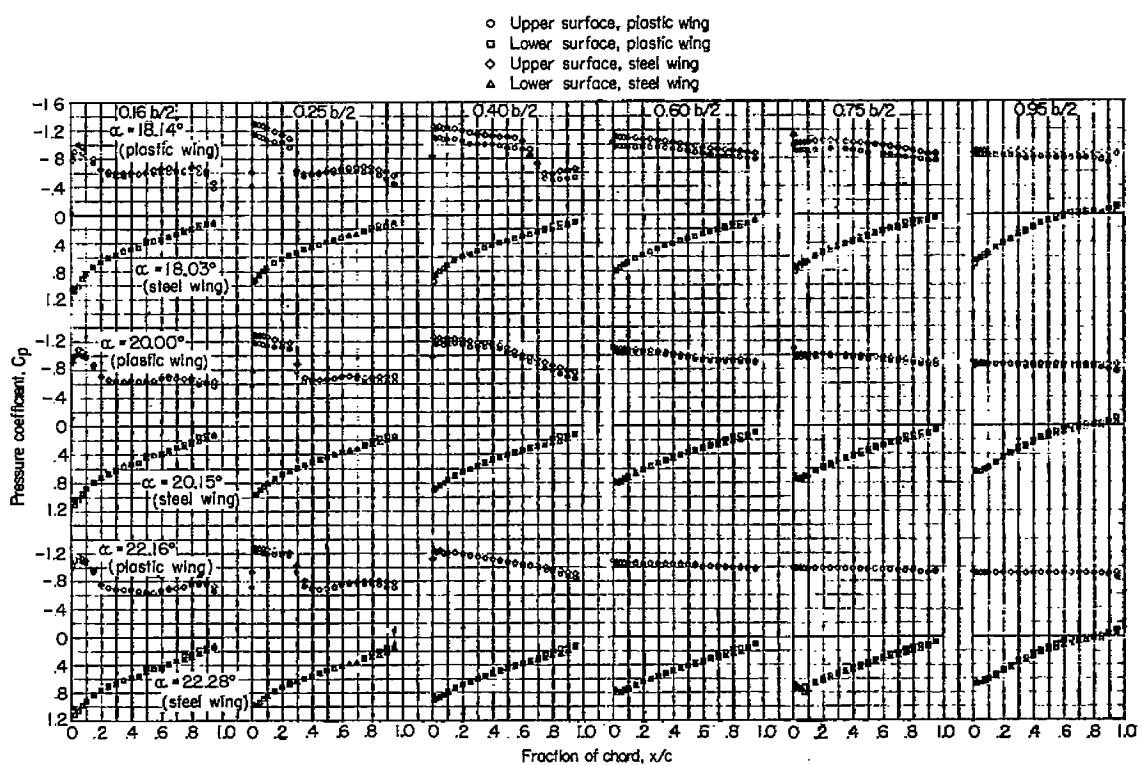
57



(e) $M = 1.00$, continued.

Figure 4.- Continued.

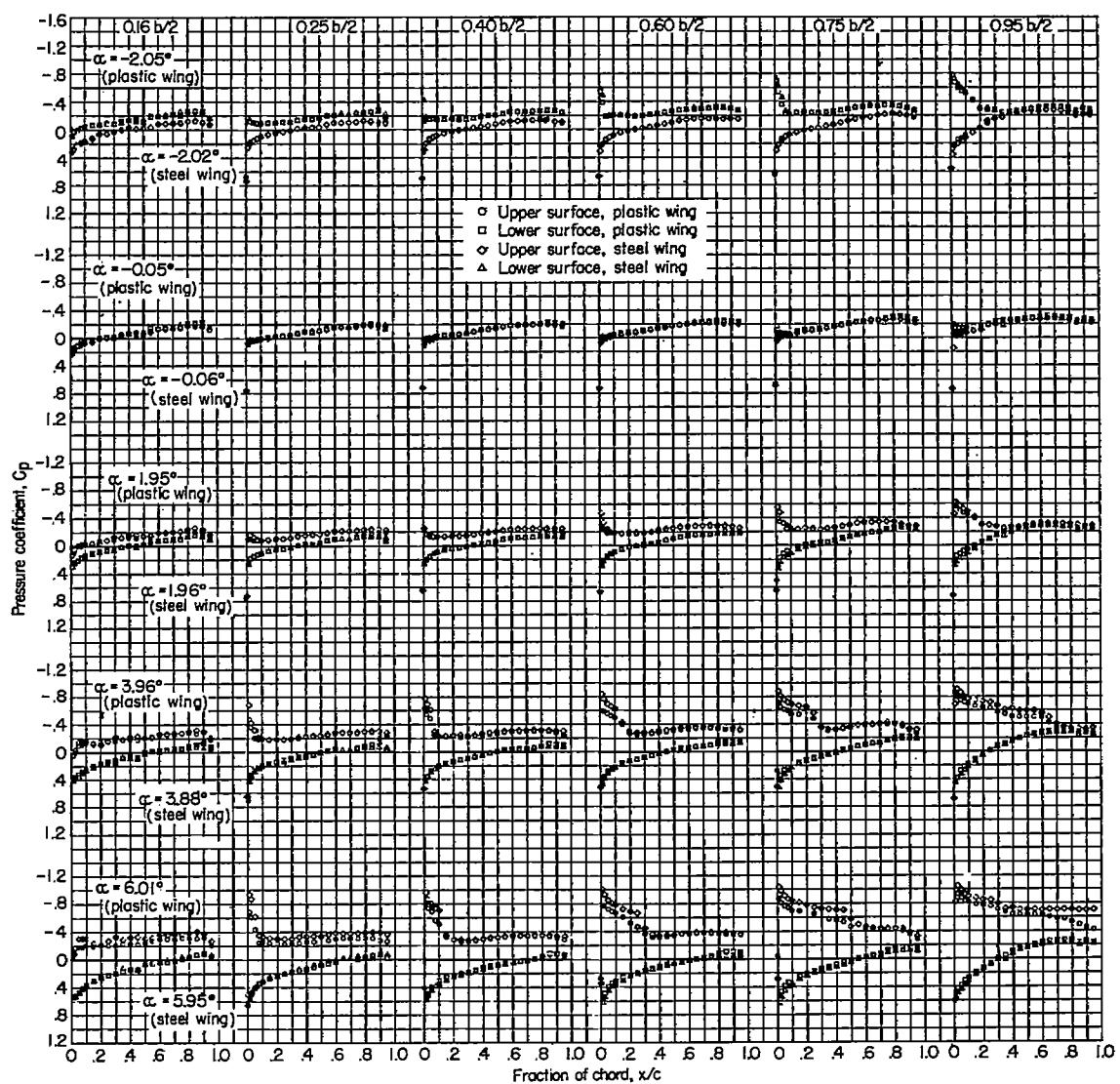
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(e) $M = 1.00$, concluded.

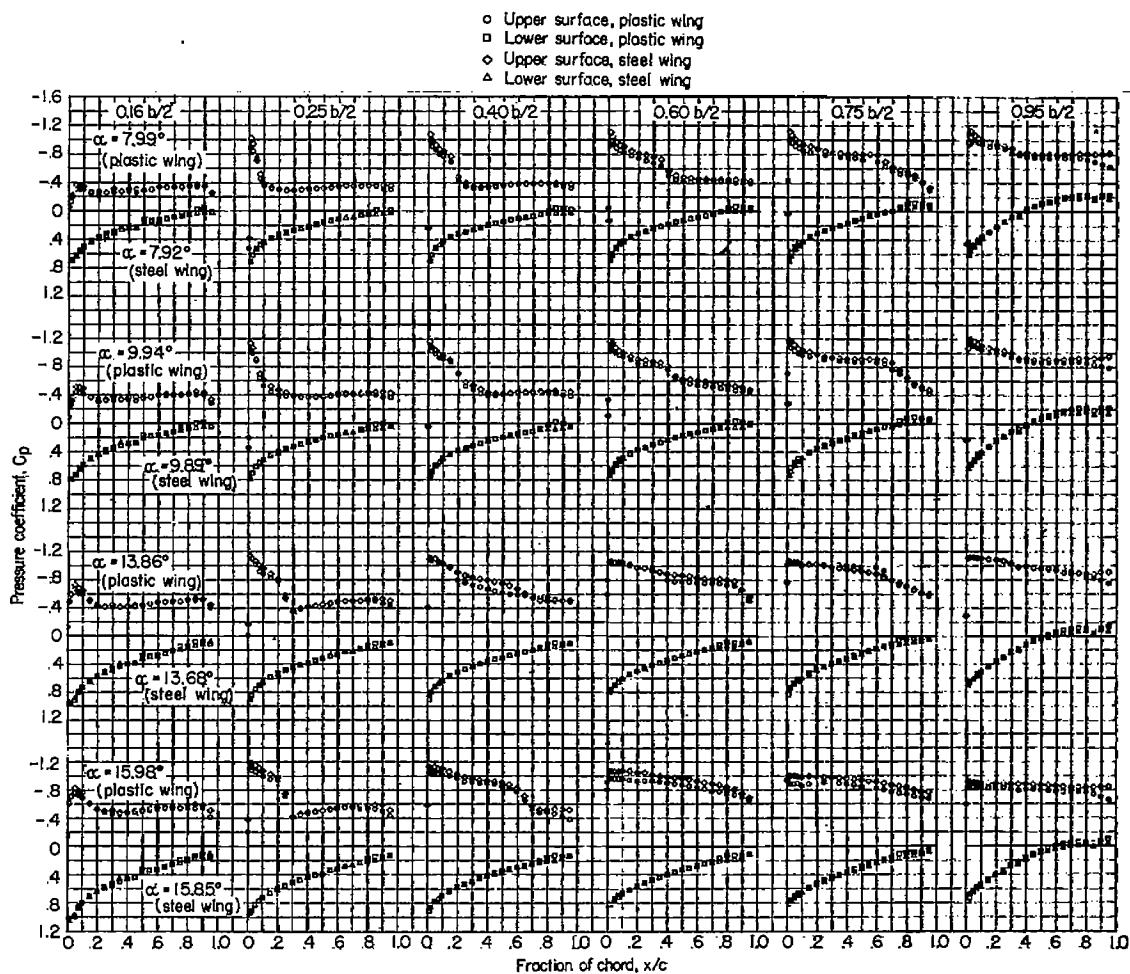
Figure 4.- Continued.

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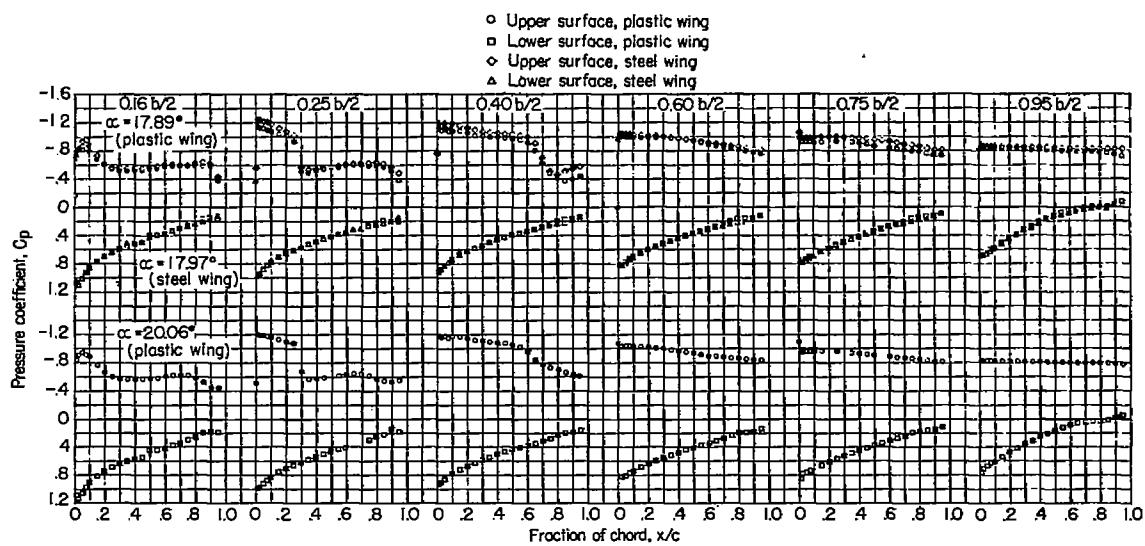
(f) $M = 1.03$.

Figure 4.- Continued.



(f) $M = 1.03$, continued.

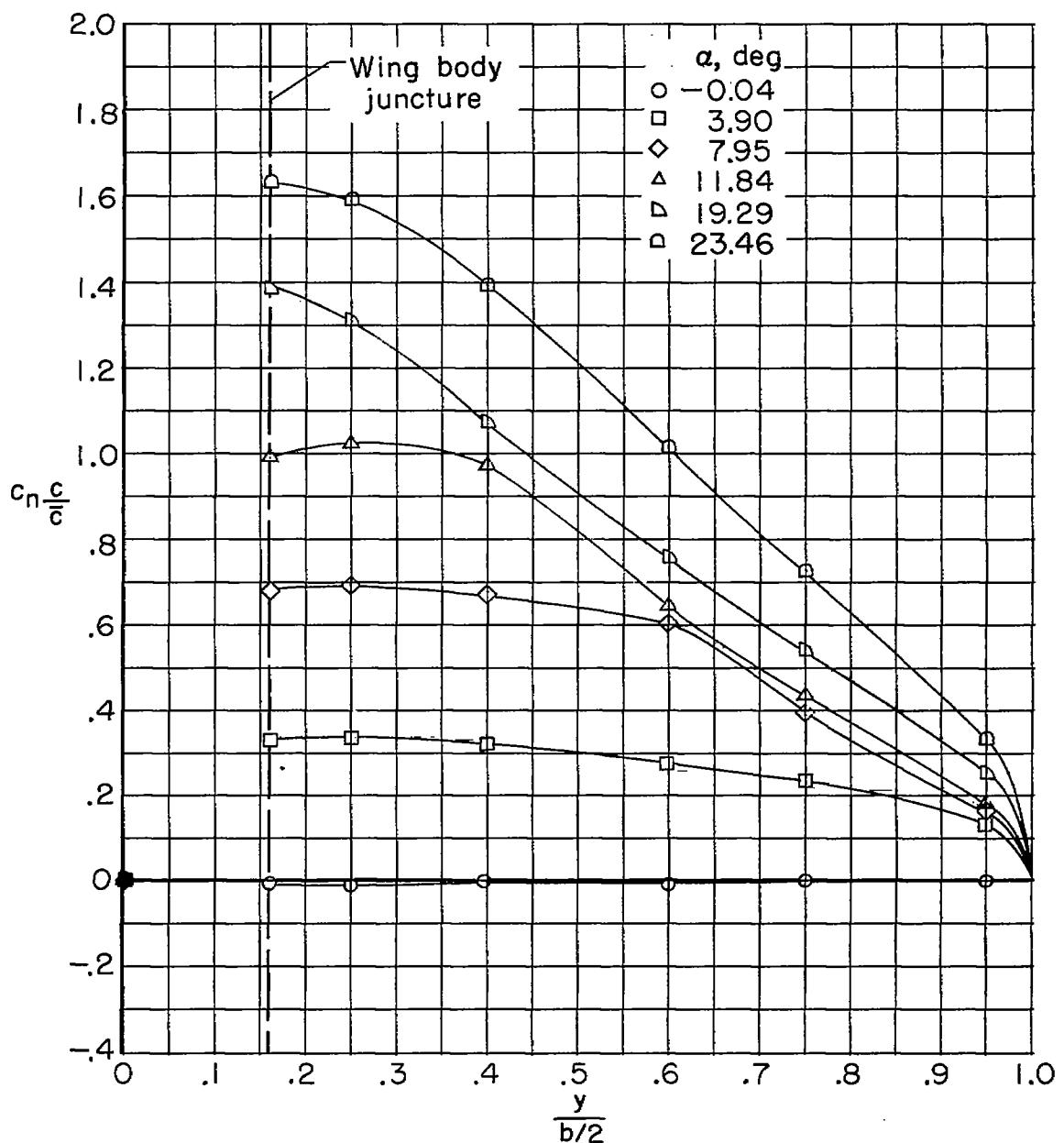
Figure 4.- Continued.



(f) $M = 1.03$, concluded.

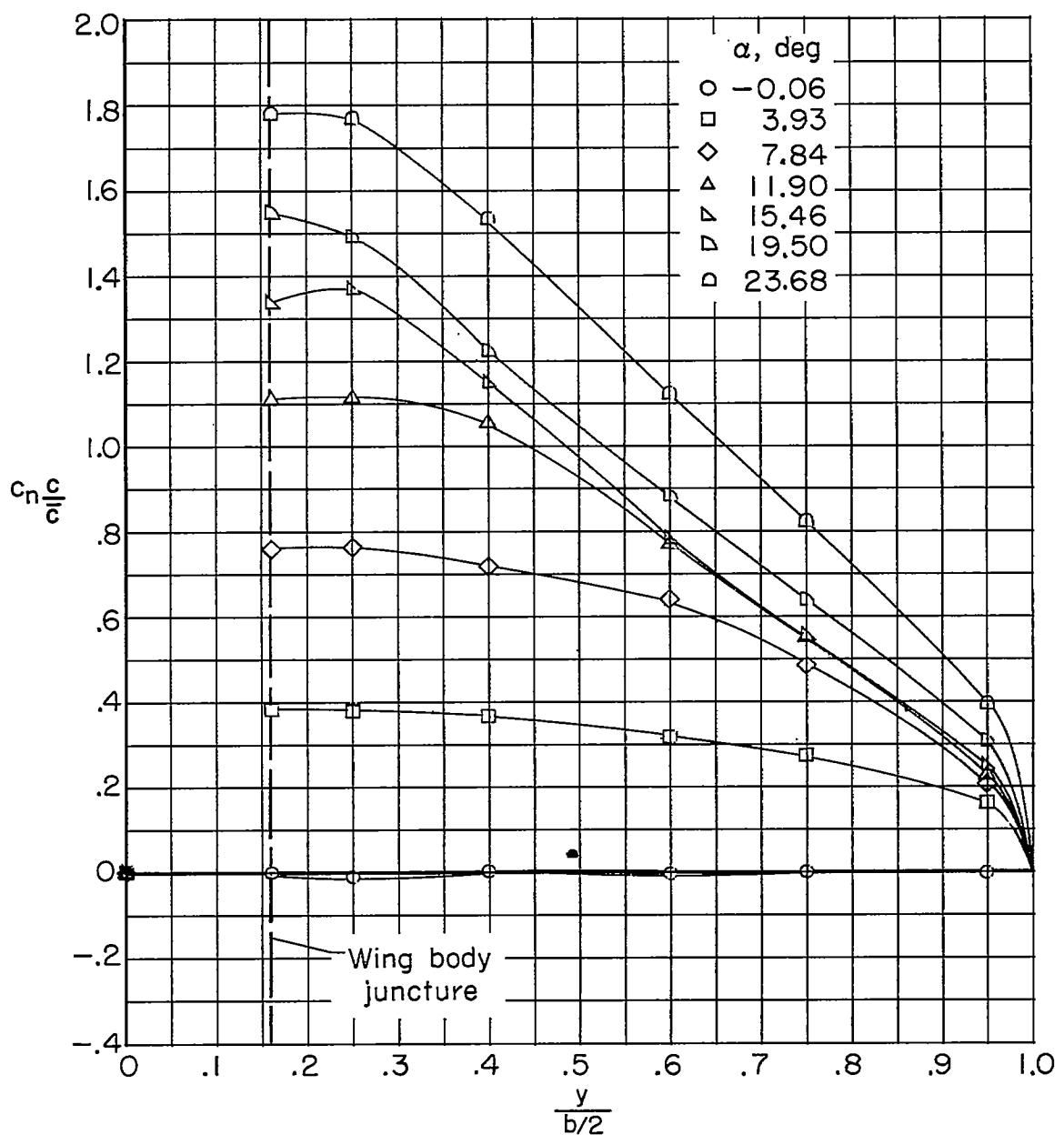
Figure 4.- Concluded.

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(a) $M = 0.80$.

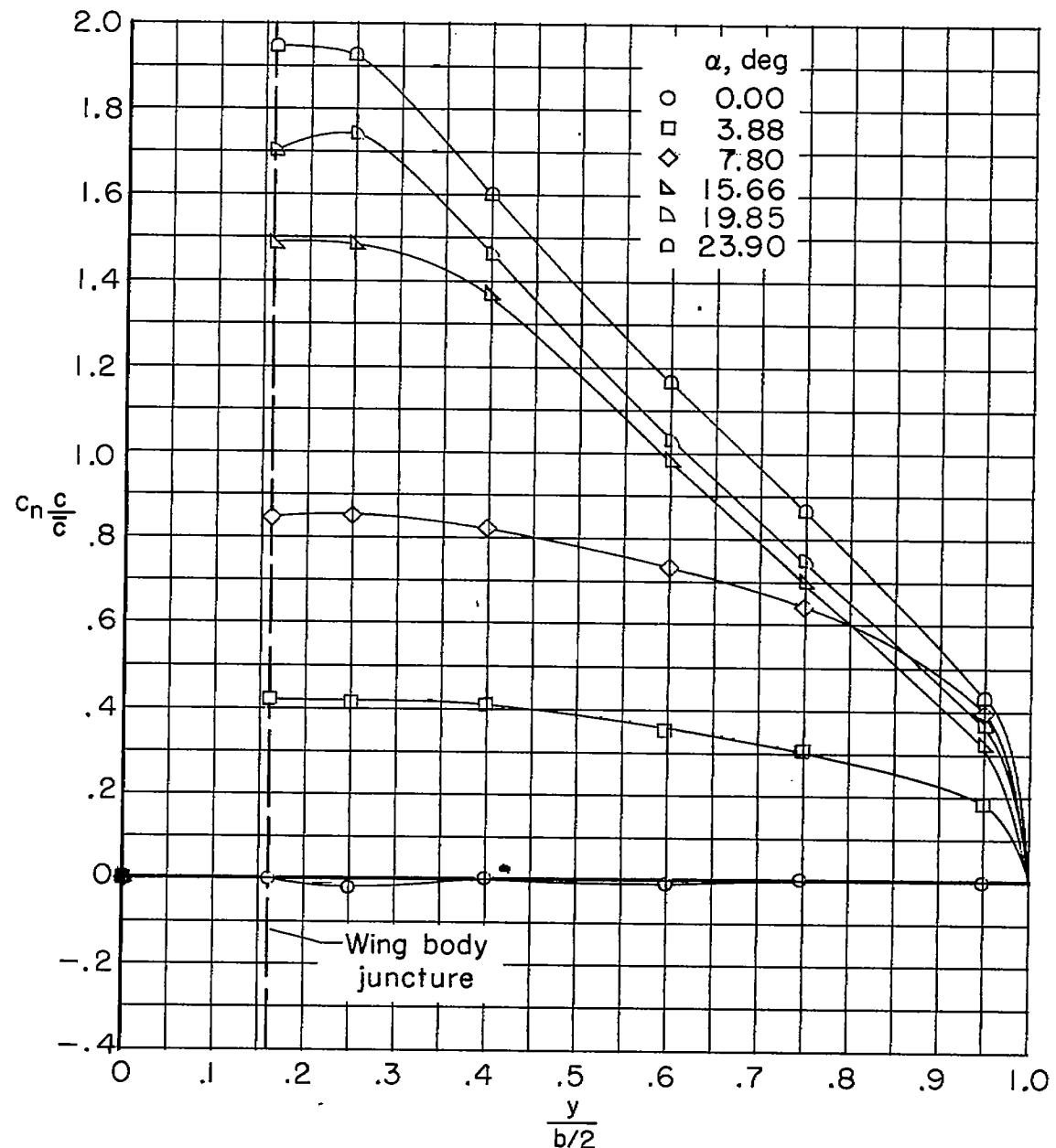
Figure 5.- Spanwise variation of normal-load parameter for steel wing at various angles of attack and Mach numbers.



(b) $M = 0.90.$

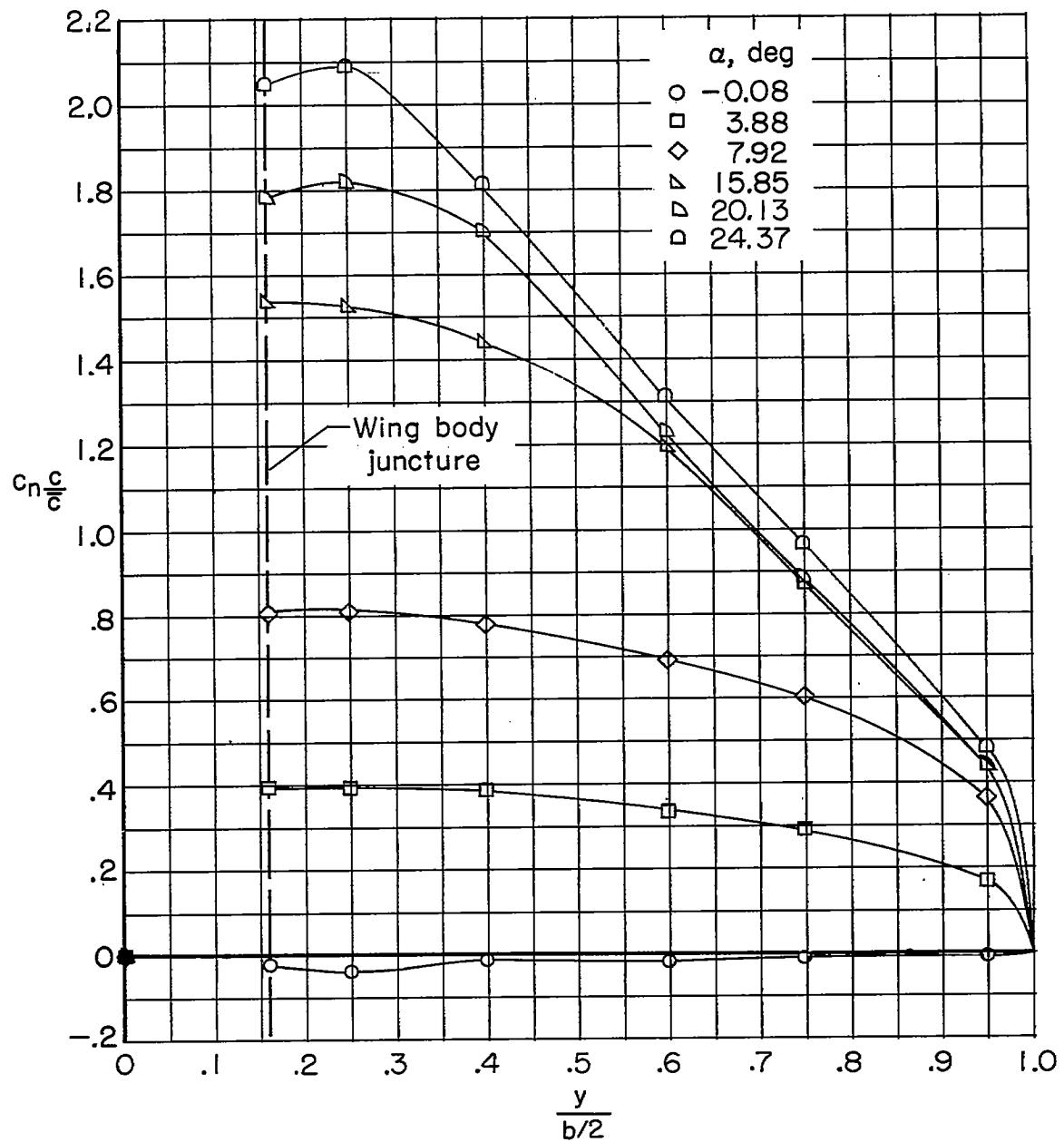
Figure 5.- Continued.

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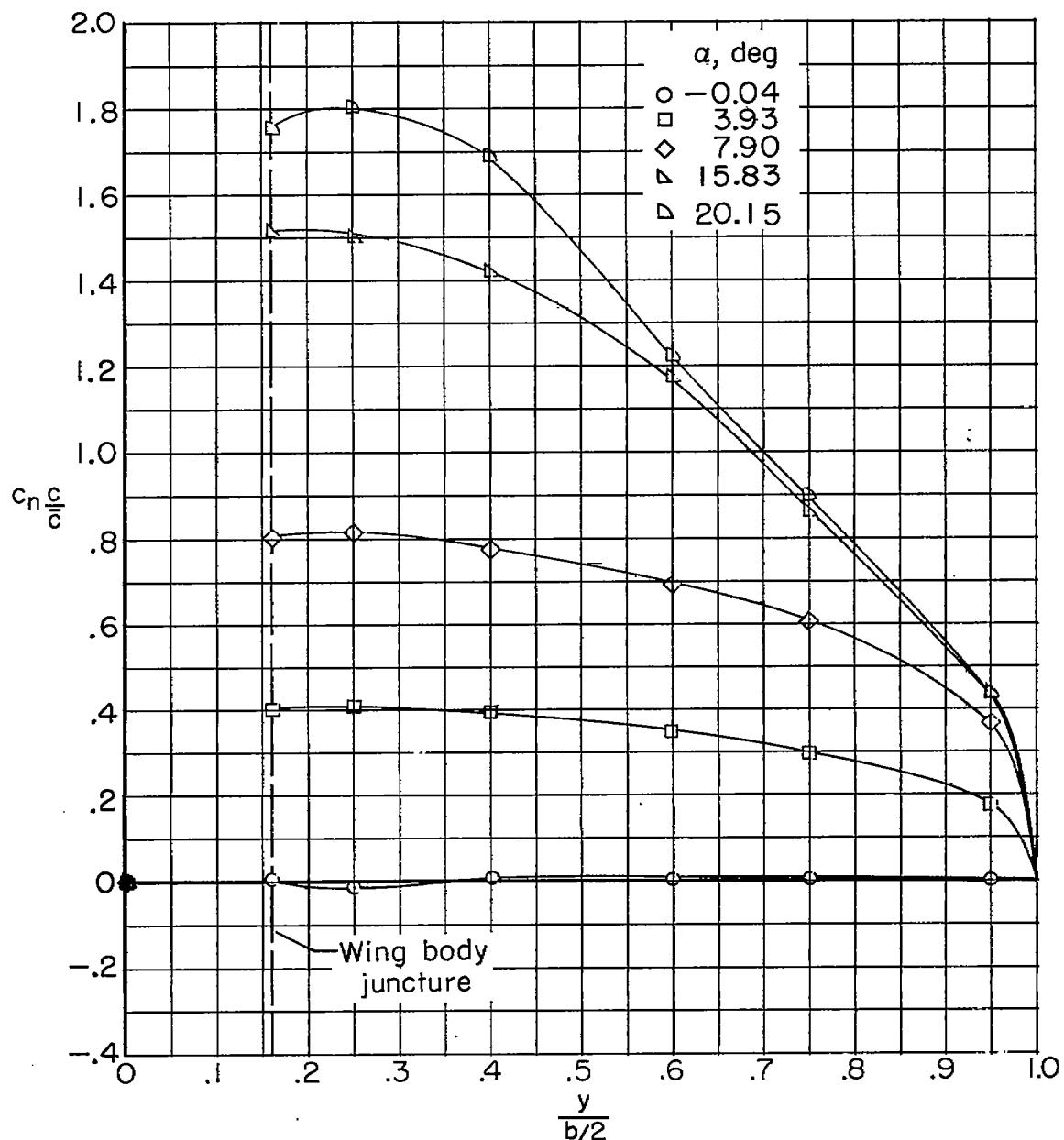
(c) $M = 0.94.$

Figure 5.- Continued.



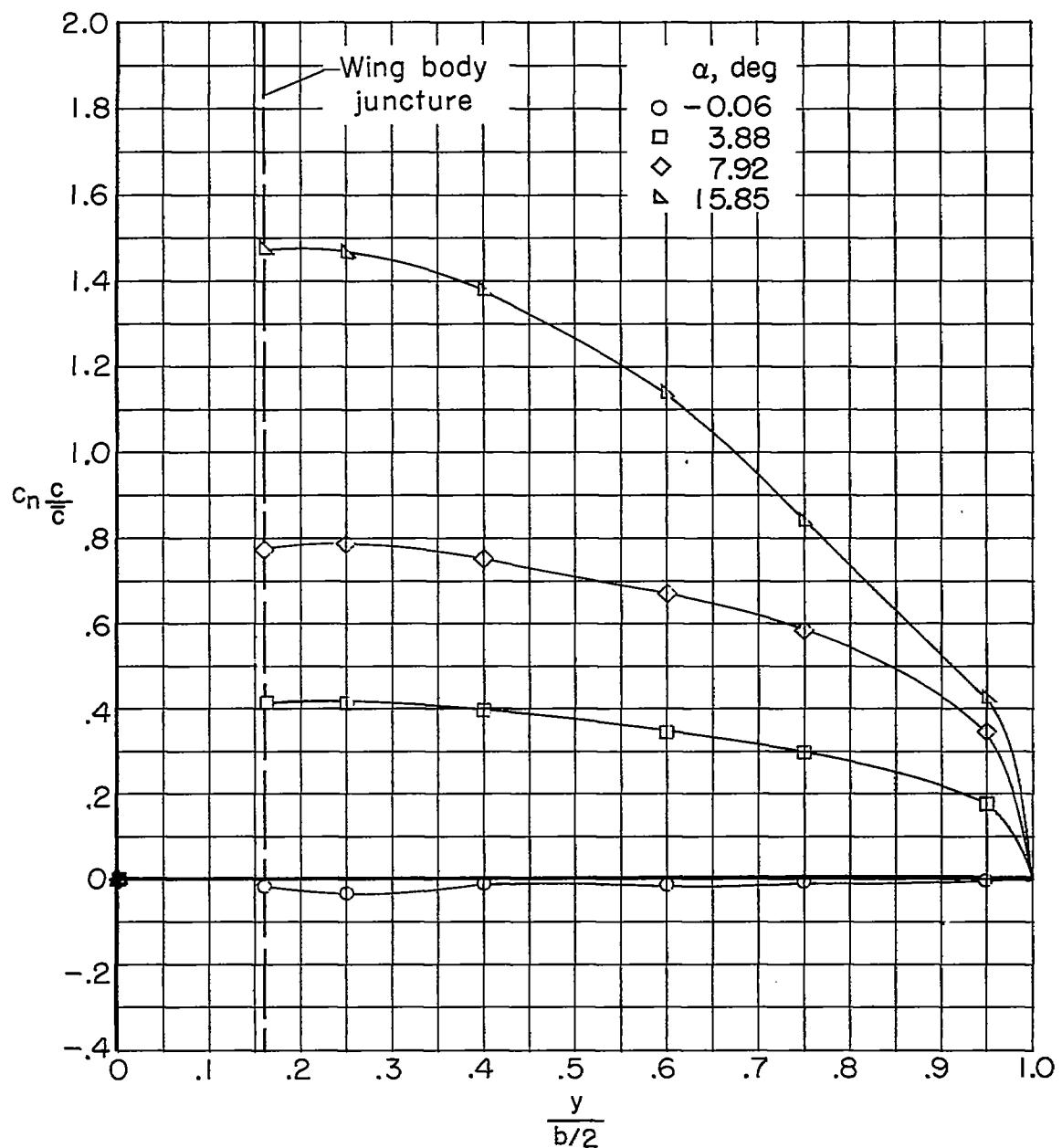
(a) $M = 0.98.$

Figure 5.- Continued.



(e) $M = 1.00$.

Figure 5.- Continued.



(f) $M = 1.03$.

Figure 5.- Concluded.

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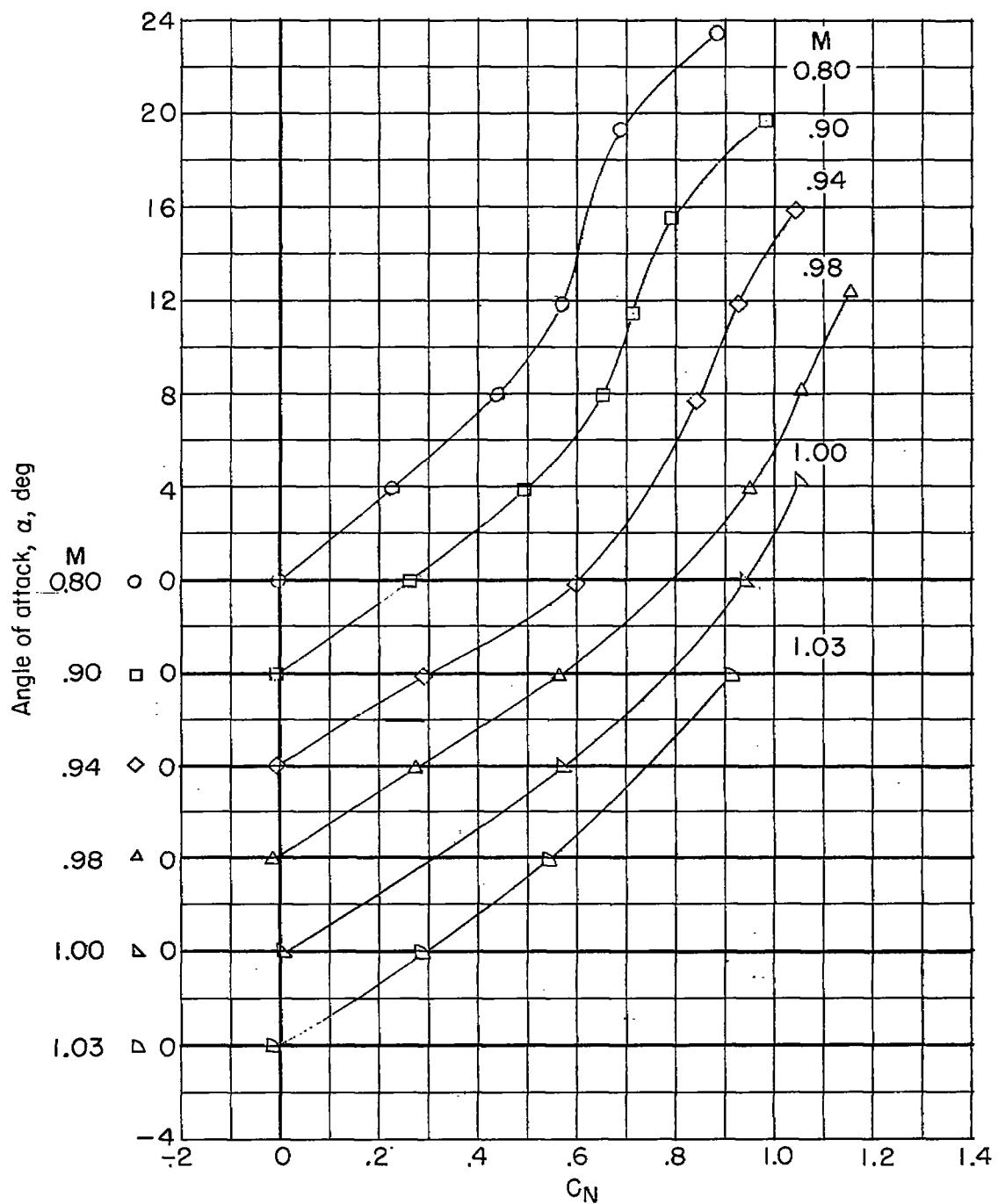


Figure 6.- Variation of angle of attack with wing normal-force coefficient for several Mach numbers. Steel wing.

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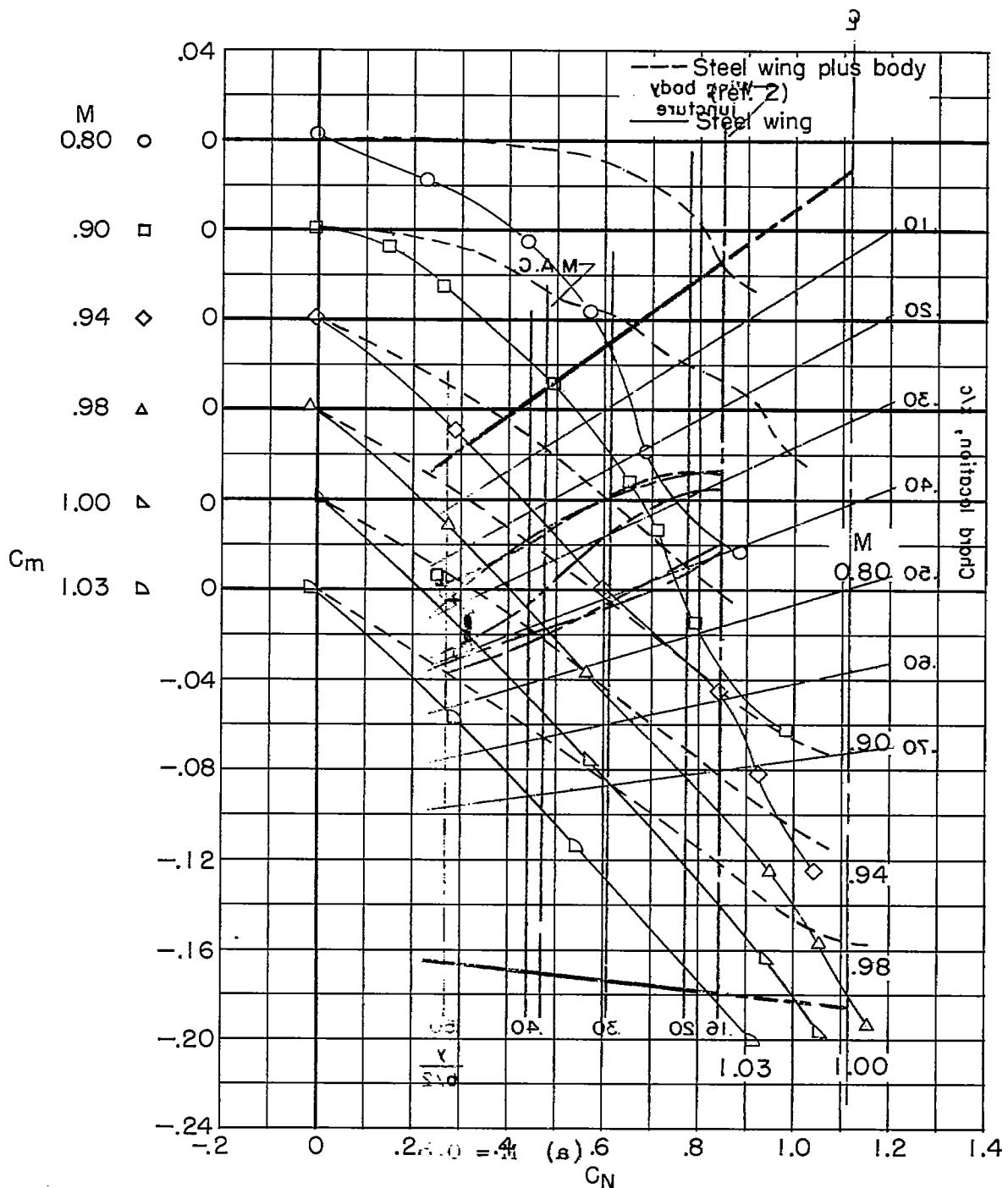
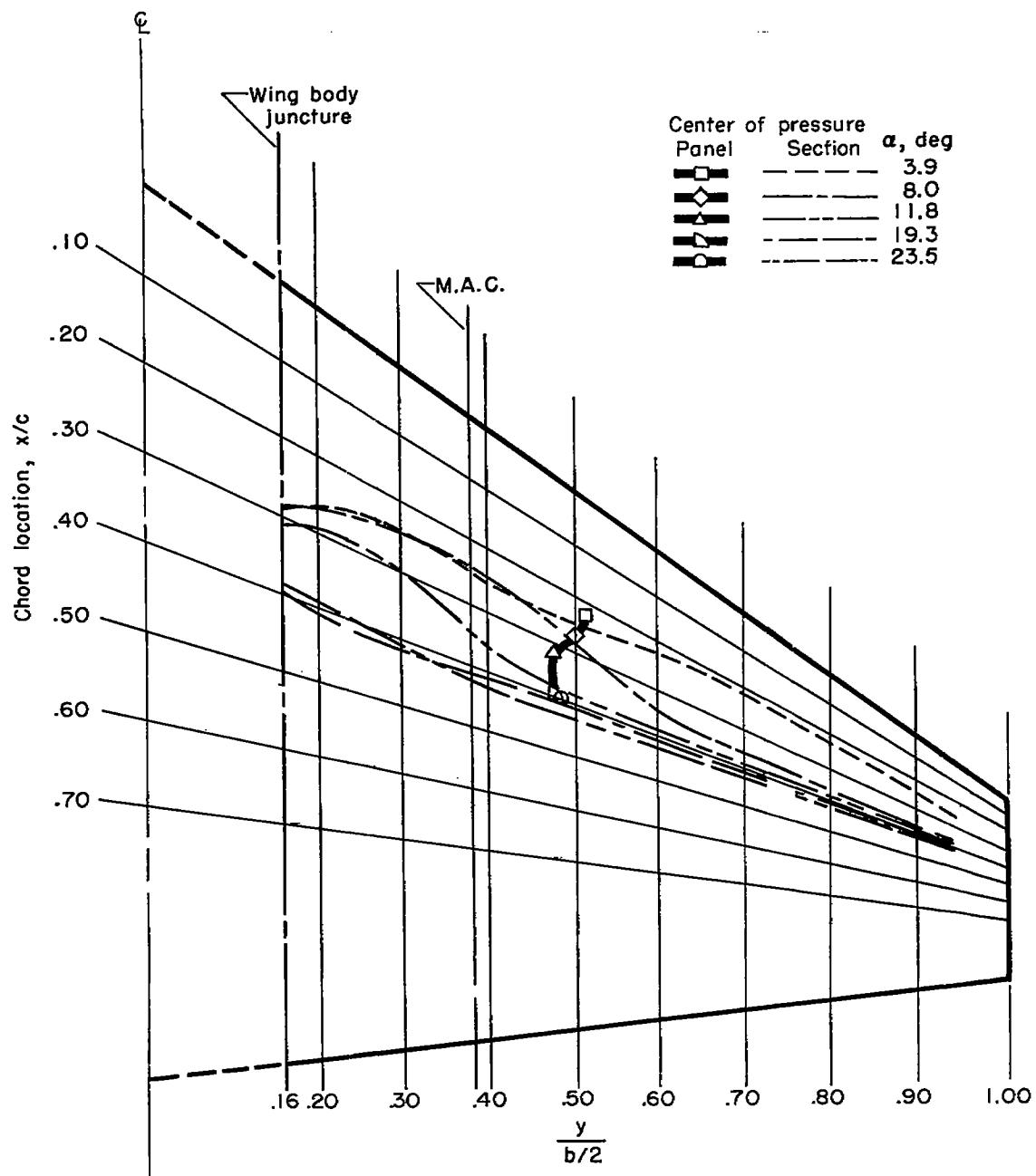


Figure 7.- Variation of wing pitching-moment coefficients with wing normal-force coefficient for several Mach numbers. Steel wing

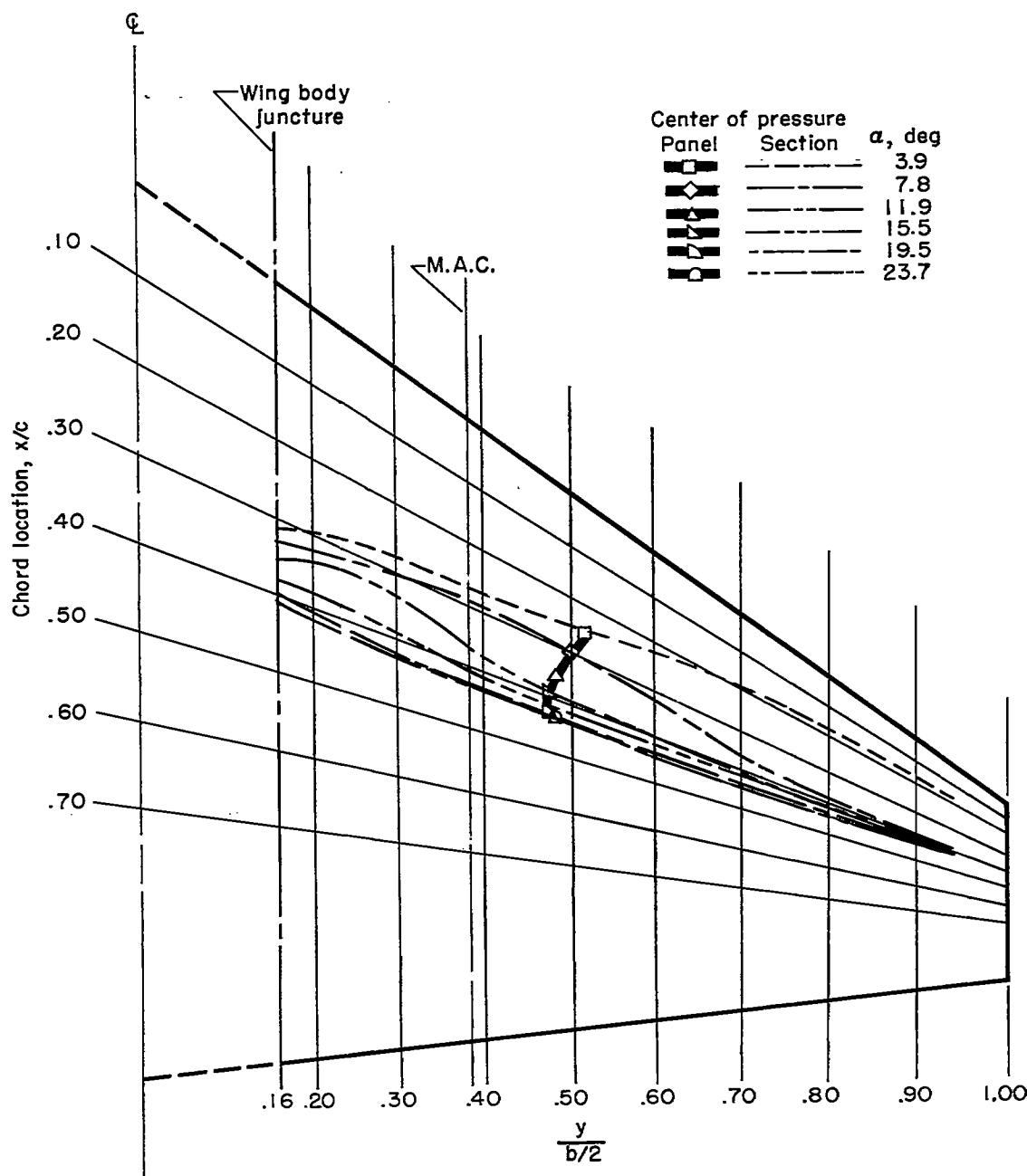
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(a) $M = 0.80$.

Figure 8.- Variation of center-of-pressure location for wing panel and for local sections with angle of attack for several Mach numbers.
Steel wing.

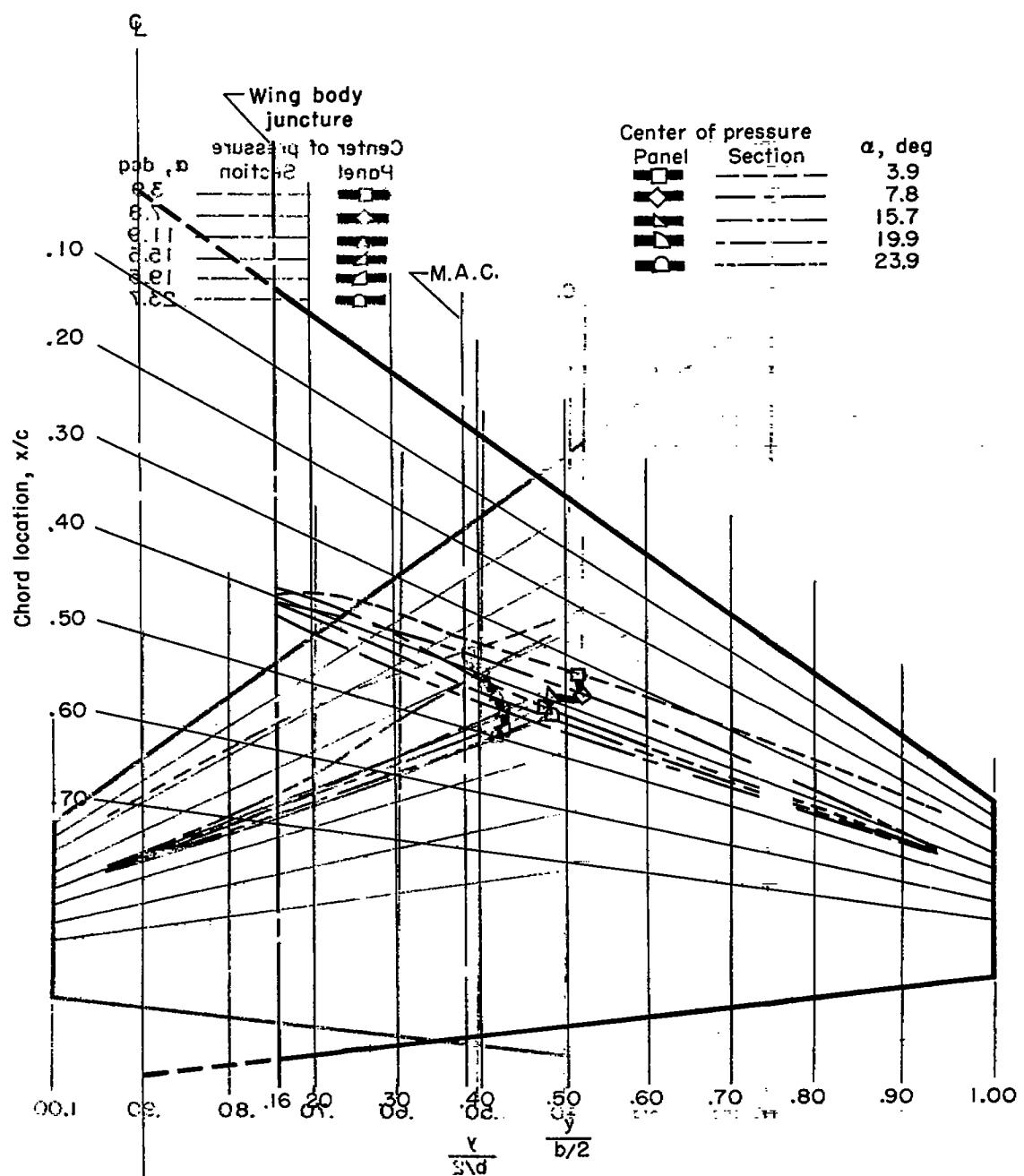
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(b) $M = 0.90.$

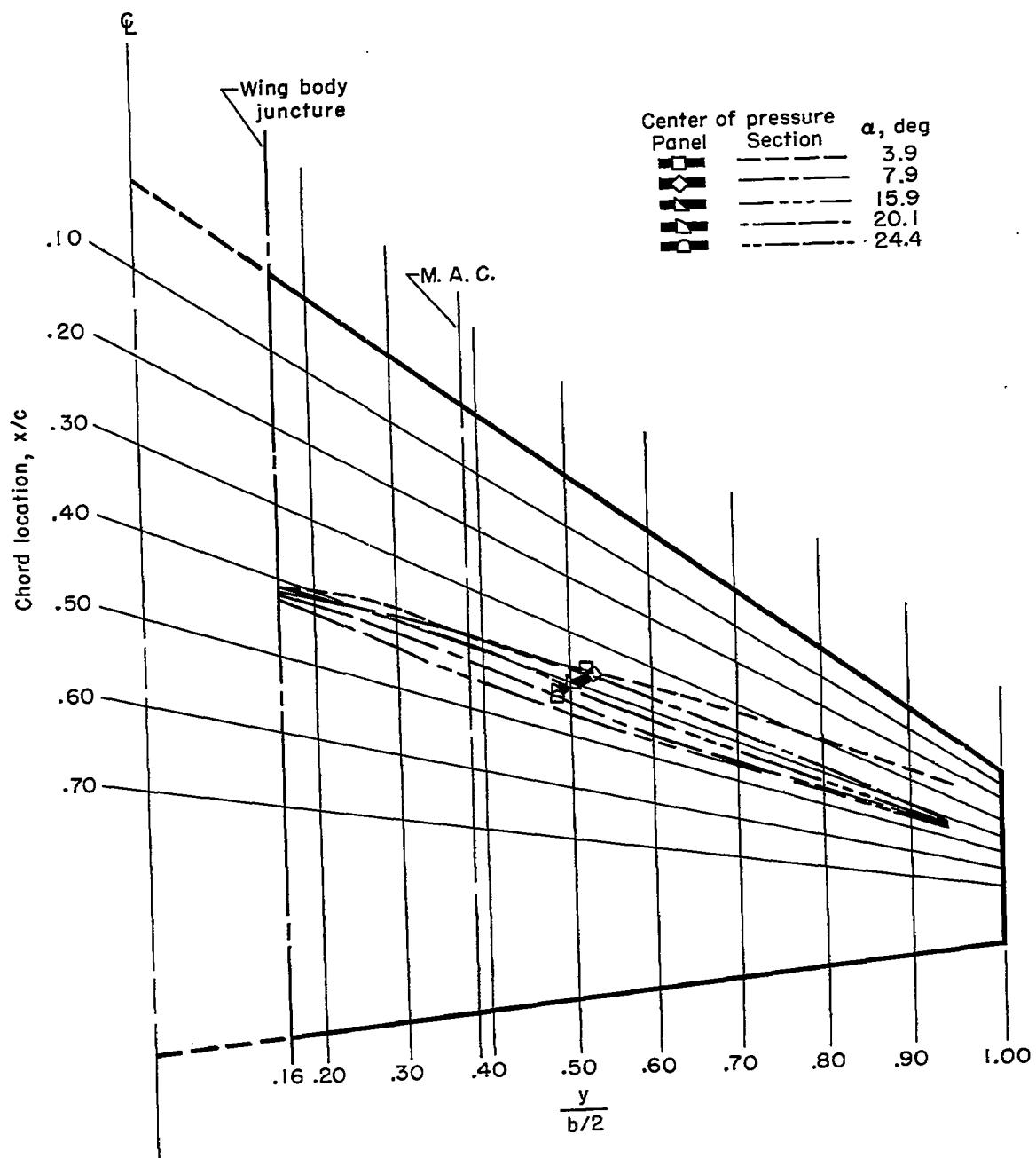
Figure 8.- Continued.

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(e) $M = 0.94$.

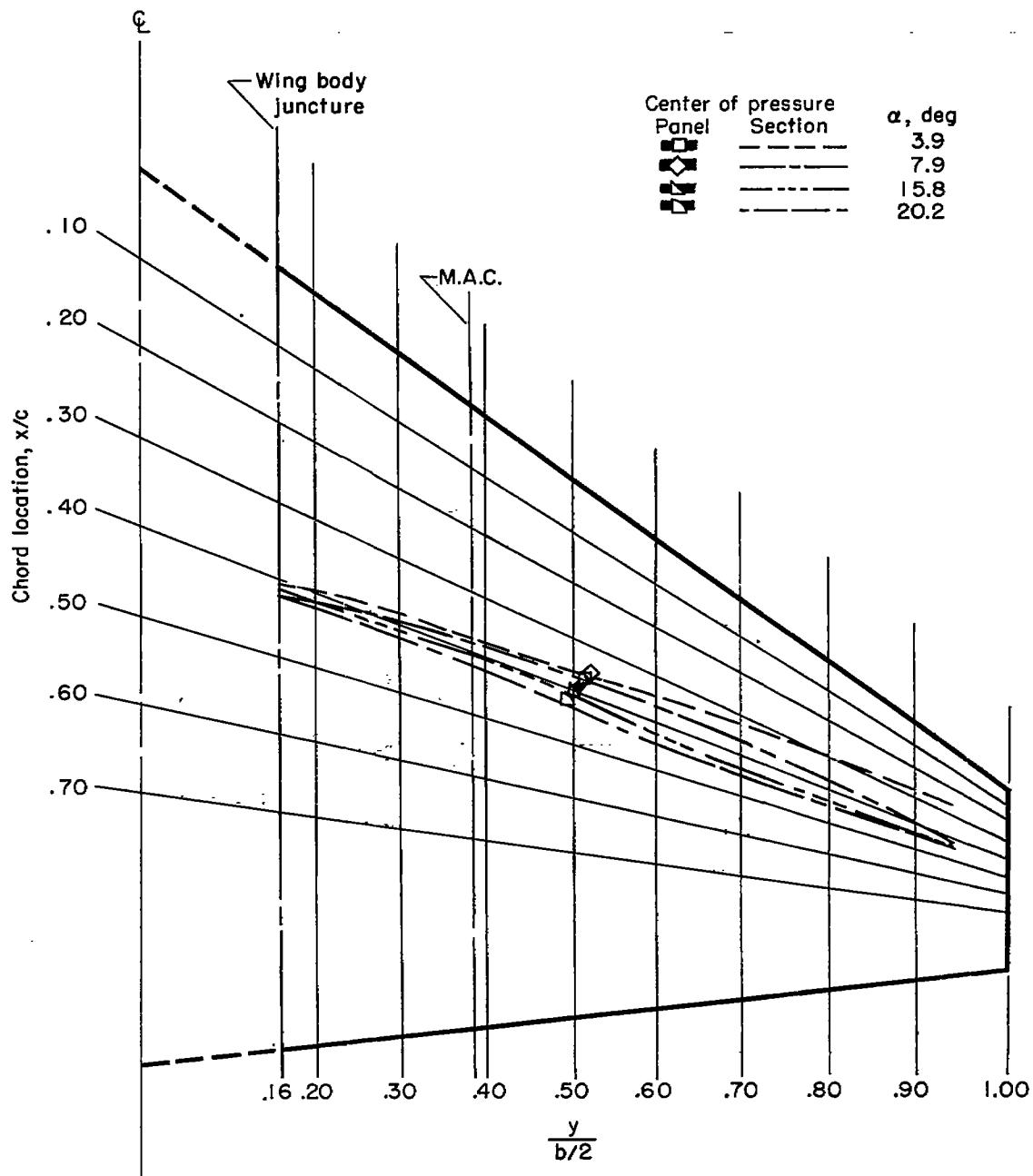
Figure 8.- Continued.



(d) $M = 0.98$.

Figure 8.- Continued.

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(e) $M = 1.00.$

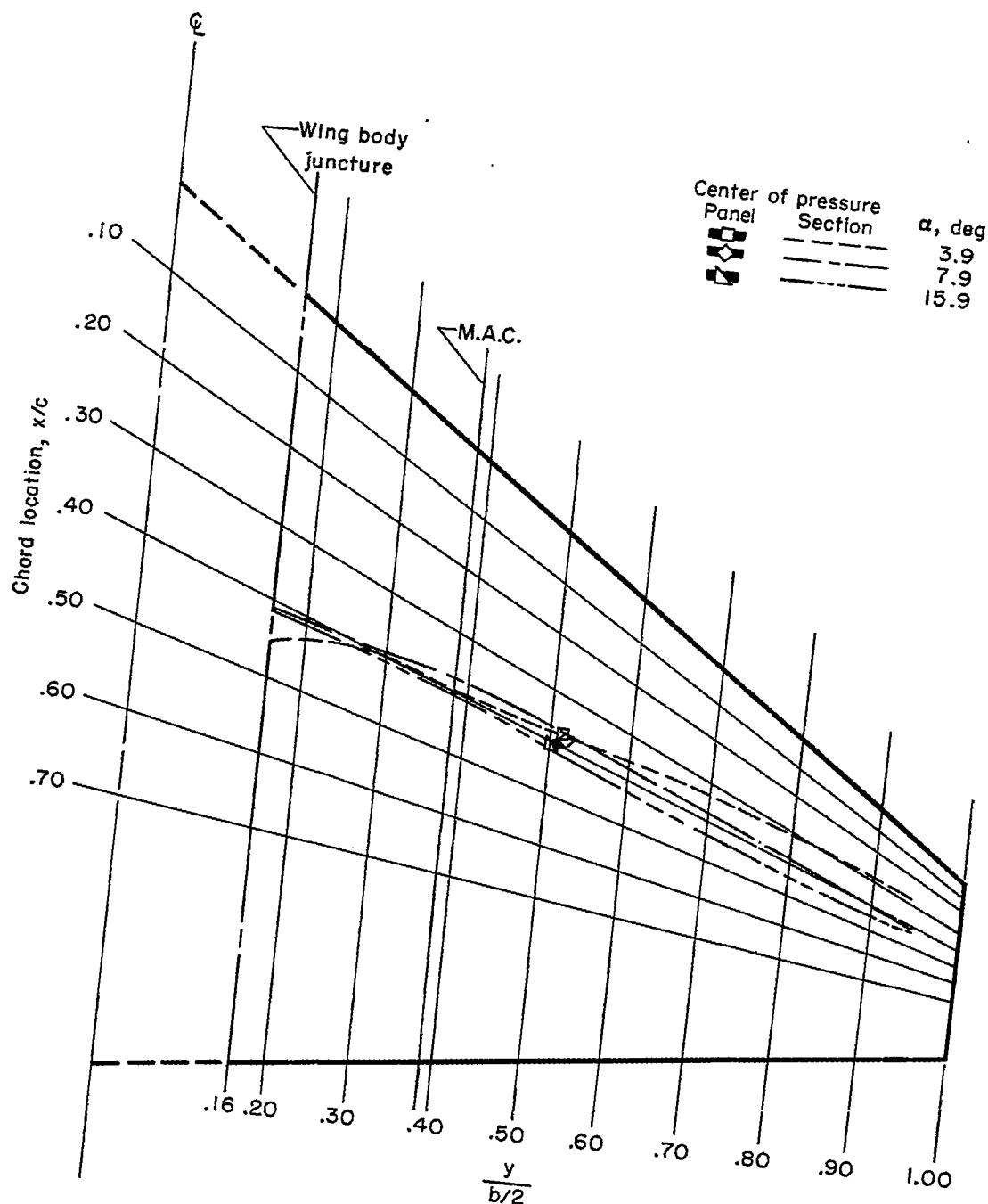
Figure 8.- Continued.

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(f) $M = 1.03$.

Figure 8.- Concluded.

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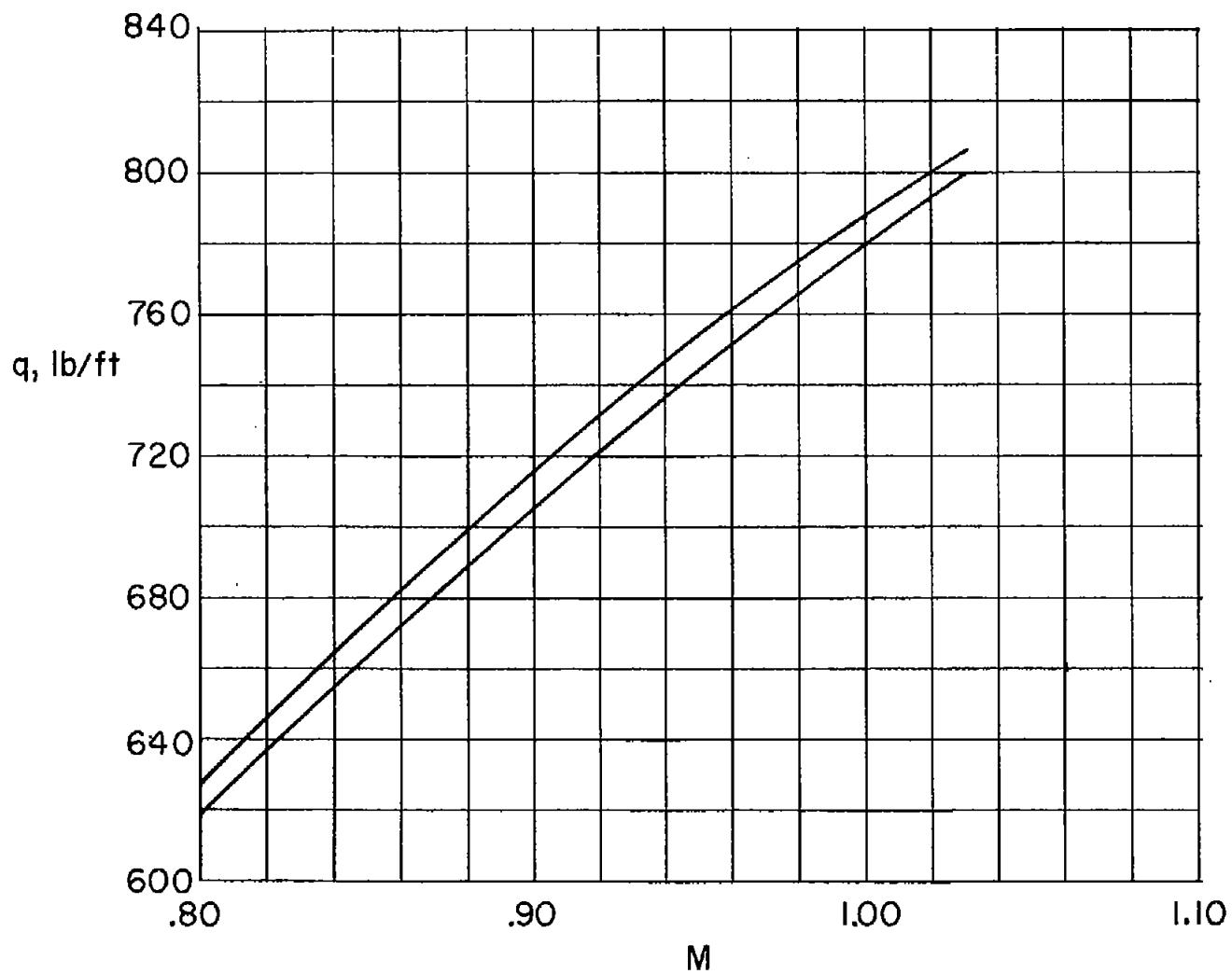
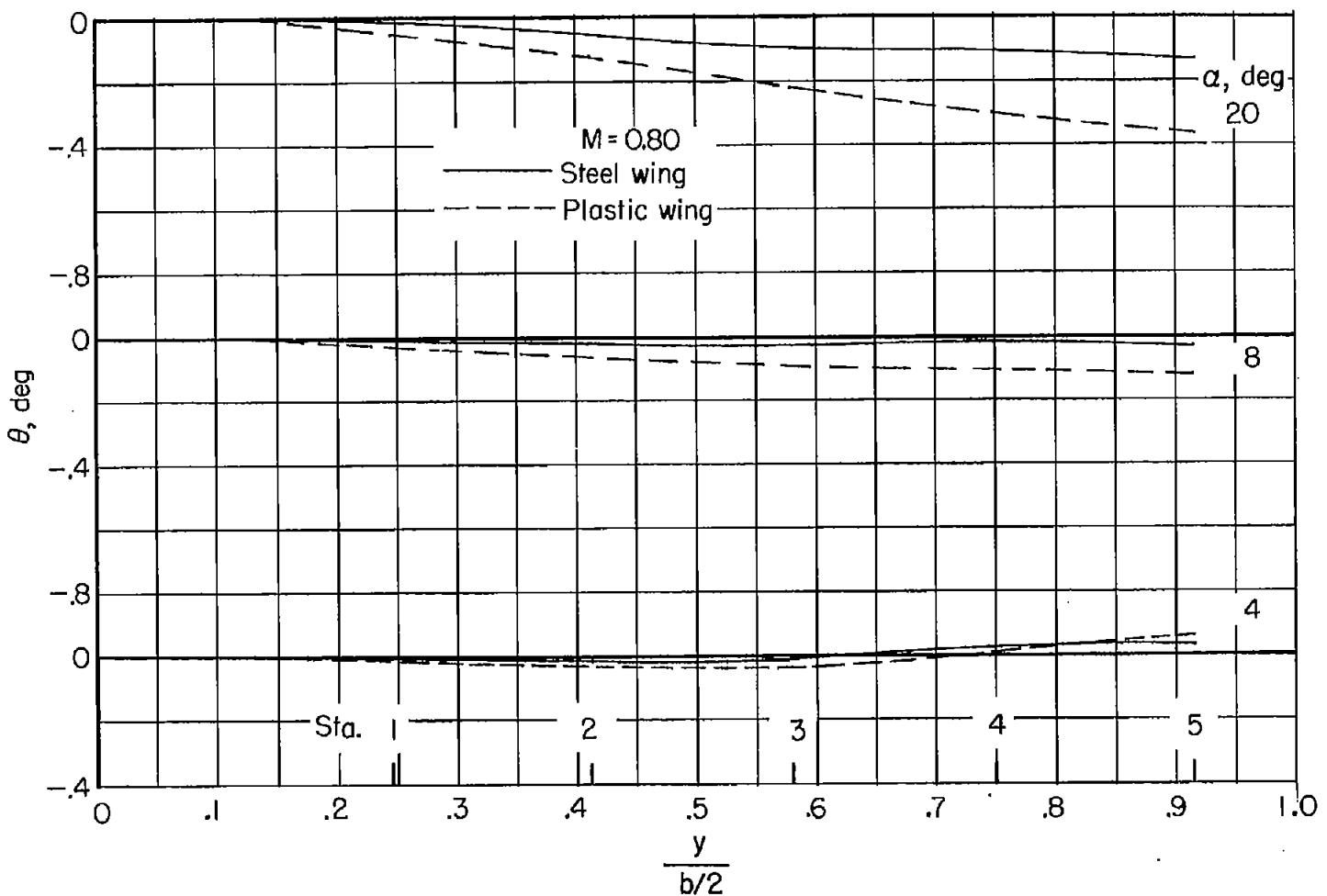
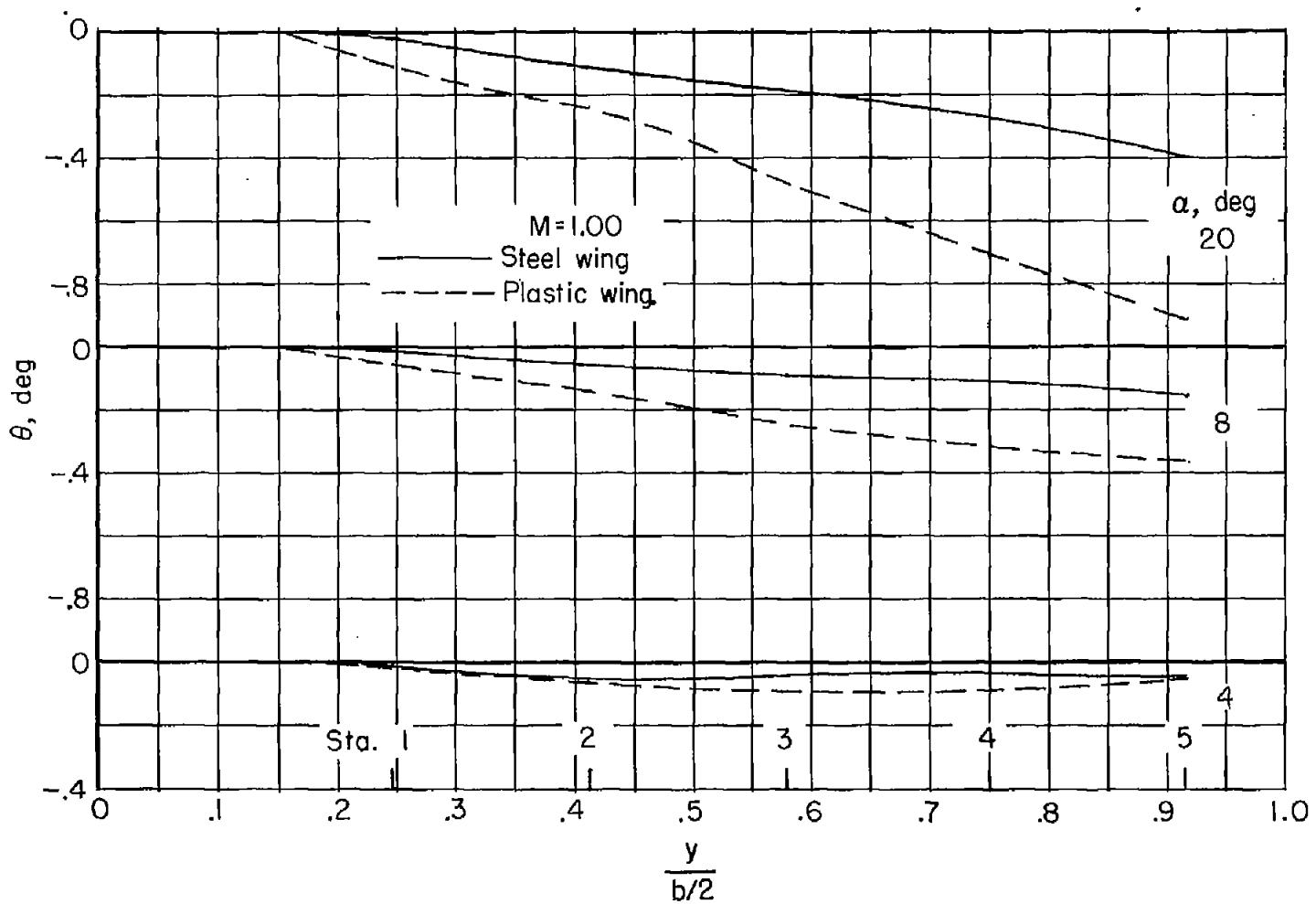


Figure 9.- Range of dynamic pressures for both steel and plastic wings for these tests.



(a) $M = 0.80$.

Figure 10.- Comparison of the calculated twist distribution due to experimental aerodynamic forces and moments, measured parallel to the angle-of-attack plane.



(b) $M = 1.00.$

Figure 10.- Concluded.

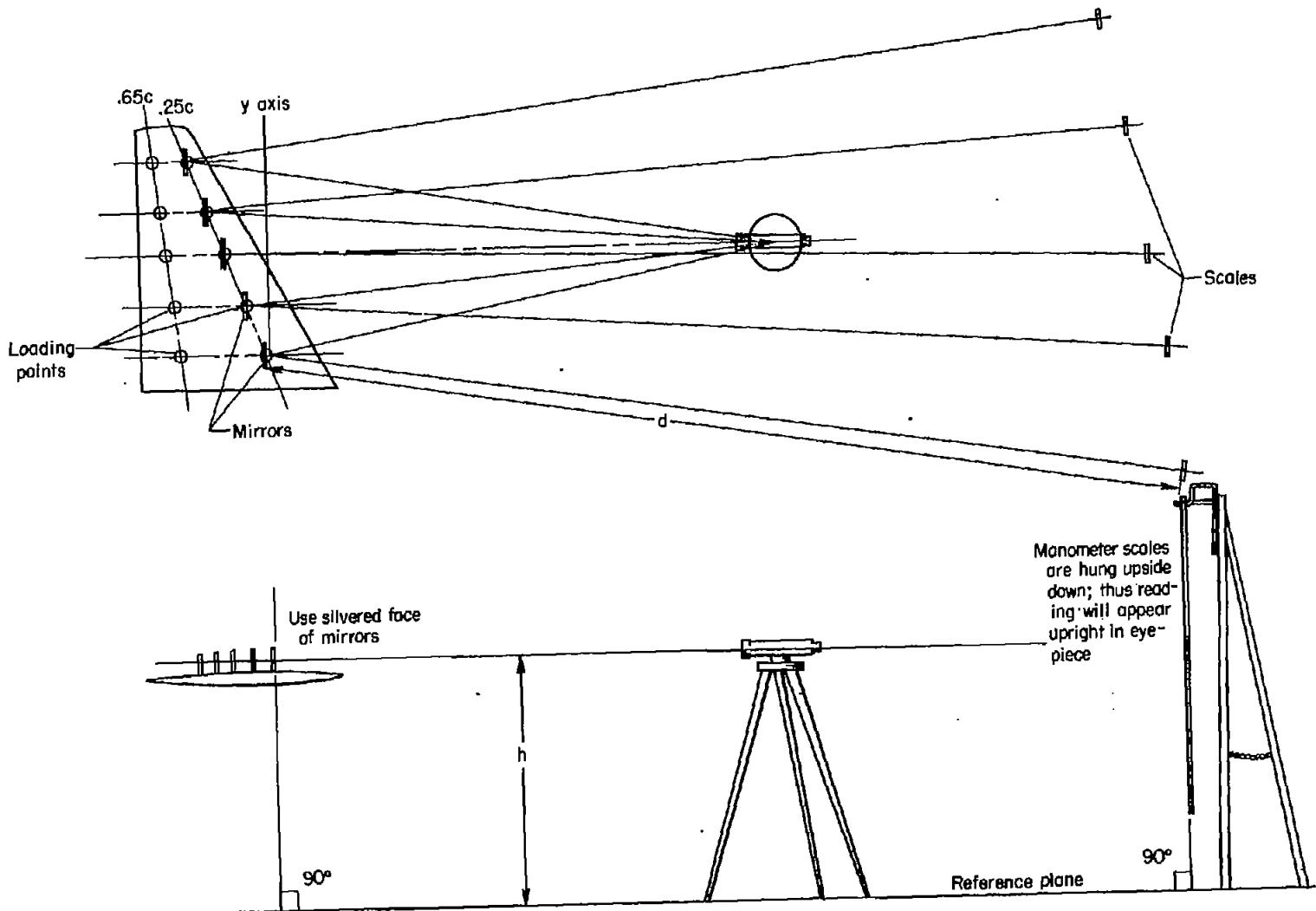


Figure 11.- Typical setup for measuring twist with mirrors.