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RESEARCH MEMORANDUM

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DISTRIBUTION OVER A 45° SWEPTBACK WING AT

MACH NUMBERS FROM 0.60 TO 1.03

By Joseph M. Hallissy, Jr., F. E. West, Jr.,
and George Liner

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NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS

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SUMMARY

An investigation was conducted with 73-percent-semispan inboard spoiler ailerons, projecting 4 percent of the local chord from the wing surface, and located at the 70-percent-chord line of a 45° sweptback-wing—fuselage combination. The model consisted of a wing with an aspect ratio of 3.98, taper ratio of 0.61, and NACA 65A006 airfoil sections parallel to the plane of symmetry in combination with a fuselage of fineness ratio 10. Pressure data were measured on the wing and spoiler at several spanwise stations at Mach numbers from 0.60 (Reynolds number 5.1×10^6) to 1.03 (Reynolds number 6.2×10^6) for angles of attack that usually extended to 20° or more.

Upper-surface spoilers resulted in normal-force decrements which were largest in the 0.6 to 0.8 semispan area of the wing for low and moderate angles of attack. Most of this decrement was associated with increased upper-surface pressures ahead of the spoiler, but some of the decrement resulted from decreased lower-surface pressures. The addition of a gap through the wing behind the spoiler relieved the low pressure behind the spoiler on the upper surface and thus increased the rolling effectiveness. Lower-surface spoilers give reversed rolling-moment effectiveness at angles of attack higher than about 10° primarily because there is a large decrease in pressure behind the spoiler on the lower wing surface at the higher angles of attack.

Spoiler loads were highest at the inboard end. For upper-surface spoilers, the loads on the spoiler decreased rapidly with increasing angle of attack, but for lower-surface spoilers they increased to the highest test angles of attack.

INTRODUCTION

Recently there has been considerable interest in spoiler ailerons, primarily because they maintain rolling effectiveness through the transonic speed range (ref. 1) and because they provide high reversal speeds for thin flexible wings. In addition, they can be designed to have very low hinge moments. However, very few pressure data for spoiler configurations have been available at high subsonic and transonic speeds (refs. 2 and 3) for load calculations or for studying the effects of spoilers on the flow about a wing.

Hence, a systematic test program has been initiated in the Langley 16-foot transonic tunnel to provide pressure data for various spoiler configurations in the transonic speed range at moderately high Reynolds numbers for a large angle-of-attack range. The initial investigation of this program was conducted on a 6-percent-thick 45° sweptback-wing—fuselage combination at 0° yaw and Mach numbers from 0.60 to 1.03. The spoilers investigated on this wing were of the retractable type, and they extended along the 70-percent-chord line from the fuselage (14 percent of the wing semispan) to 87 percent of the wing semispan and had a projection from the wing surface of 4 percent of the local wing chord.

This paper presents results for some of the configurations that were tested during the initial investigation. The effects of upper- and lower-surface spoilers and of a wing gap behind the spoilers are shown on the wing normal-force characteristics, chordwise pressure distributions, span-load distributions, and centers of load. Also included are tabulated wing static-pressure coefficients, spoiler pressure distributions, and spoiler span-load distributions. A limited amount of summary data from this investigation has already been published (ref. 4), and six-component force data obtained simultaneously with the pressure data are presented in reference 5.

SYMBOLS

b	wing span
c	section wing chord
$\bar{c}$	average wing chord
c'	wing mean aerodynamic chord

$c_m \dfrac{c^2}{\bar{c}c'}$ wing-section pitching-moment parameter with moment about the 25-percent position of the mean aerodynamic chord,

$$\frac{c^2}{\bar{c}c'} \int_0^1 \left(P_L - P_U\right)\left(\frac{x_1}{c} - \frac{x}{c}\right) d\frac{x}{c}$$

$c_n \dfrac{c}{\bar{c}}$ wing-section normal-load parameter,

$$\frac{c}{\bar{c}} \int_0^1 \left(P_L - P_U\right) d\frac{x}{c}$$

$c_{n_s} \dfrac{h}{\bar{h}}$ spoiler-section load parameter which acts parallel to plane of symmetry and perpendicular to h at a given spanwise station,

$$\frac{h}{\bar{h}} \int_0^1 \left(P_F - P_R\right) d\frac{z}{h}$$

C_N wing-panel normal-force coefficient,

$$\int_{0.135}^{1.0} c_n \frac{c}{\bar{c}} d\frac{y}{b/2}$$

C_l rolling-moment coefficient

h   length of chord of exposed front face of spoiler at any spanwise station

$\bar{h}$ average h, $\dfrac{(h \text{ at } 0.14b/2) + (h \text{ at } 0.87b/2)}{2}$

M   free-stream Mach number

P   pressure coefficient, $\dfrac{p - p_0}{q}$

p   local static pressure

p_0 free-stream static pressure

q   free-stream dynamic pressure

x   distance from wing leading edge at a given spanwise station, positive downstream

x_1 distance from wing leading edge at a given spanwise station to line perpendicular to plane of symmetry and passing through 25-percent position of mean aerodynamic chord, positive downstream

$\dfrac{x_{cp}}{c}$ longitudinal location of wing-section center of pressure,

$$0.25 - \frac{\displaystyle\int_0^1 \left(P_L - P_U\right)\left(0.25 - \frac{x}{c}\right)d\frac{x}{c}}{c_n}, \text{ fraction of section}$$

wing chord

$\dfrac{X_{cp}}{c'}$ longitudinal location of wing-panel center of pressure,

$$0.25 - \frac{\displaystyle\int_{0.135}^{1.0} \left(c_m \frac{c^2}{\bar{c}c'}\right)d\frac{y}{b/2}}{C_N}, \text{ fraction of mean aerodynamic chord}$$

y spanwise distance from the plane of symmetry

$\dfrac{Y_{cp}}{b/2}$ lateral location of wing-panel center of pressure,

$$\frac{\displaystyle\int_{0.135}^{1.0} \left(c_n \frac{c}{\bar{c}}\right)\left(\frac{y}{b/2}\right)d\frac{y}{b/2}}{C_N}, \text{ fraction of semispan}$$

z distance measured from wing surface along h at a given spanwise station (not perpendicular to x- and y-axes)

α angle of attack of fuselage center line relative to test-section center line

ΔP change in P across spoiler at a given spanwise station (P at 0.65c - P at 0.75c)

Subscripts:

F   forward surface of spoiler

L   lower surface of wing

R   rear surface of spoiler

U   upper surface of wing

APPARATUS AND TESTS

Tunnel.- The investigation was conducted in the Langley 16-foot transonic tunnel, which is a single-return wind tunnel having a slotted throat of octagonal cross section. The maximum variation of average Mach number was about ±0.002 along the test-section center line in the vicinity of the model. Additional details of the test-section config- uration and of the calibration of the tunnel are given in reference 6.

Model.- Figures 1 and 2 show details of the basic model and the spoiler configurations included in this investigation. The steel wing had NACA 65A006 airfoil sections parallel to the plane of symmetry, quarter-chord line sweep of 45°, taper ratio of 0.61, and aspect ratio of 3.98. The wing was designed to have no incidence, dihedral, or twist and was mounted in a midwing position on the fuselage. The fuse- lage, constructed of steel, had a fineness ratio of 10, and the quarter chord of the wing mean aerodynamic chord was located at the longitudinal position of the maximum fuselage diameter.

The spoilers for these tests (fig. 1) simulated retractable spoiler- aileron configurations pivoted about the 50-percent-chord line. These spoilers were located along the 70-percent-chord line of the wing and were projected four percent of the local wing chord from the wing sur- face. They extended from the fuselage (14 percent of the wing semispan) to the 87-percent wing semispan and had a sweep angle of 41.6°. Spoilers were tested without and with a gap in the wing behind the spoiler. The gap, when used, extended outboard from the 15-percent to the 87-percent wing semispan station. The lower-surface spoiler with gap configuration was obtained by inverting the model with upper-surface spoiler and wing gap. The oppositely deflected spoiler configuration had one spoiler mounted on the upper surface of the left wing and one on the lower sur- face of the right wing with no gap behind the spoilers.

Figure 2 shows location of the wing static-pressure orifices which were distributed over the left wing at seven spanwise stations. The orifices at the inboard station $\left(\text{average } \dfrac{y}{b/2} = 0.135\right)$ were actually located on the fuselage 0.1 inch from the wing surface. Pressure ori- fices were also located on the front and rear surfaces of the left wing spoiler and in the wing gap behind this spoiler at five spanwise sta- tions as shown in figure 2. The pressures were transmitted by means of small tubing through the model support system to mercury manometer boards.

Model support system.- A cantilever strut, described in reference 7, supported the sting-mounted model. The model was near the tunnel center line at all angles of attack. A straight coupling between the sting and

the model permitted variations in the angle of attack from -4° to 15°;
a 10° coupling extended the range.

Tests.- Tests were generally made for all configurations at angles
of attack of -2° to 26° for Mach numbers from 0.60 to 0.90. At Mach
numbers from 0.94 to 1.03, the maximum angle of attack of these tests
was limited by sting-support stresses or available tunnel power.

The Reynolds number variation over the Mach number range of the
tests is shown in figure 3.

DATA REDUCTION

Data reduction methods.- Extensive use of a punched-card system
greatly facilitated the reduction of data. Pressure data recorded with
manometer board cameras were first transferred to cards by the use of a
commercially available manual film reading device coupled to a card-
punch machine. The data were then processed on electronic computing
machines to obtain individual pressure coefficients as well as section
normal-force and pitching-moment coefficients (using a rectangular step
integration). The data cards were then fed to an automatic plotting
device for the preparation of the chordwise pressure plots of this paper
and were also used to prepare the tables of pressure data.

Corrections.- The angles of attack presented include an adjustment
for an incremental angle determined from static calibration of the model
angular deflection as a function of pitching moment and normal-force
loads. Based on the repeatability of deflection measurements made during
the static calibrations, the estimated maximum error of the angle-of-
attack measurements is ±0.1°. No corrections were made for tunnel-flow
angularity. The cumulative effect of model asymmetry and tunnel flow
angularity is shown to be small by the basic model normal-force curves
in figure 5. No corrections were made for sting interference. Sting
interference was not considered of importance for these tests because
all lateral-control configuration changes were made on the wing, which
was relatively remote from the sting. The data have not been corrected
for tunnel boundary-interference effects since the results of refer-
ence 8 indicate that these effects would be small.

In calculating wing section and panel coefficients, the effect of
the forces on the spoiler was neglected. The magnitude of the error
thus introduced was checked and found to be within the accuracy of the
data.

RESULTS AND DISCUSSION

Static-pressure measurements are given in coefficient form for the basic wing and the several spoiler configurations as follows:

Table	Static-pressure coefficients for -	Page
I	Basic wing	19 to 43
II	Wing with upper-surface spoiler (no gap)	44 to 63
III	Wing with upper-surface spoiler (with gap)	64 to 88
IV	Wing with lower-surface spoiler (with gap)	89 to 104

Each table shows the pressure coefficients at seven spanwise wing stations for various Mach numbers and angles of attack. Some of the high-angle-of-attack data for the upper-surface spoiler without gap and for the lower-surface spoiler with gap have been omitted since these configurations are of less interest because of loss of effectiveness or reversal at high angles of attack. No data have been tabulated for the oppositely deflected spoiler configuration, since, as will be shown, these were only slightly different from the data presented in table II.

In discussing the test results, some of the more important effects of spoiler operation on panel and section characteristics are first noted. Subsequent discussion makes use of chordwise pressure distributions to illustrate the manner in which the various spoiler configurations affect the air flow and the load distribution over the swept wing. Finally, the effect of a lower-surface spoiler on the opposite wing loading is considered and loads on the spoilers are discussed.

In figures which show comparisons at one angle of attack, the angle of attack given is an average for the compared configurations. This average does not differ more than $\pm 0.15°$ from the extreme value for any of the compared configurations.

Effect of Spoiler on Wing-Panel Loading

Since the rolling-moment coefficients produced by the spoiler configurations are given in reference 5, there was no need to integrate the present pressure data for rolling moment. In order to be certain,

however, that such integrations would indicate the same rolling moments
as were measured with the strain-gage balance, integrations have been
carried out for a few pressure-data points. A comparison with the bal-
ance measurements is made in figure 4. Even though the chordwise pres-
sure force rolling-moment component (about the stability roll axis) has
been neglected, as have crossover effects from the left wing to the right
wing, agreement between the two sets of data is generally excellent. It
is concluded, therefore, that an analysis of the pressure measurements
made in these tests will help to provide a correct understanding of the
functioning of a spoiler as a lateral control.

Figure 5 shows the variation of integrated wing normal-force coef-
ficient with angle of attack at all test Mach numbers for the basic wing
and three spoiler configurations. As in reference 5, the upper-surface
spoilers caused decreases in normal-force coefficient which were largest
in the region of 4° to 6° and which became small at the higher angles of
attack. The presence of a gap through the wing behind the spoiler pro-
vided an additional decrement which was more or less constant throughout
the angle-of-attack range. The beneficial effect of such a wing gap at
transonic speeds has been previously shown. (For example, see ref. 9.)
A lower-surface spoiler provided an increase in wing normal force at the
lower angles of attack but a reversal was indicated for angles of attack
above about 10° as was also shown in reference 5.

The increments in normal-force coefficient in figure 5 caused by
operation of the spoiler were about twice the magnitude of the lift-
coefficient increments shown on a similar figure in reference 5 for the
same configurations. The reason for this effect was that the lift coef-
ficient in reference 5 was based on total wing area, whereas the normal-
force coefficient in this report was based on the semispan wing area.

Figures 6 and 7 show, respectively, the longitudinal and lateral
locations of wing-panel center of pressure for the basic wing and three
spoiler configurations at all test Mach numbers. These curves show dis-
continuities at some low angle of attack in both longitudinal and lateral
center-of-pressure locations. These discontinuities indicate that, for
an upper-surface spoiler, there was extensive positive loading inboard
and negative loading outboard for the condition of zero panel lift.

Changes in center-of-pressure location caused by operation of the
upper-surface spoiler were generally less for the spoiler with no gap
than for the spoiler with a gap. At moderately high angles of attack, the
center-of-pressure locations were affected only slightly by the spoilers,
although the spoilers were still effective in reducing normal force at
these angles. (See fig. 5.)

Effect of Spoiler on Wing Section Loadings

Figure 8 presents the semispan load distributions for the basic wing and the three spoiler configurations at all test Mach numbers. For the lower angles of attack, when the spoilers were most effective, the important loading changes caused by the spoiler occurred outboard of 0.3 semispan, the largest decrements being in the region between 0.6 and 0.8 semispan. This large influence over the outboard regions of the wing was the cause of the inboard position of the panel center of pressure for upper-surface spoilers (or outboard for lower-surface spoilers) at low positive load conditions. The loss in effectiveness for the upper-surface spoilers as the angle of attack was increased beyond 6° is evident as a reduction in the load decrement beginning near the tip.

Addition of a gap through the wing behind the spoiler produced an added decrement in section normal-load parameter which extended across most of the semispan.

Figure 9 shows the wing-section center-of-pressure locations across the span of the wing at all test Mach numbers. For a swept wing the line of section centers of pressure tends to be somewhat less swept than the wing itself as shown by the basic wing data in this figure. The effect of adding the upper-surface spoilers was to exaggerate this tendency, the local center of pressure being farther rearward inboard and farther forward outboard. This effect was most noticeable at low angles of attack ($\alpha = 4°$ and $6°$) but rapidly decreased at higher angles for two reasons: The spoiler decrements were smaller in absolute magnitude at high angles of attack and were a smaller proportionate amount of the total normal force.

The lower-surface spoiler at low angles of attack had the opposite effect, that is, the center of pressure was more forward inboard and more rearward outboard at low angles of attack ($\alpha = 4°$) than it was for the basic wing.

Figure 9 also shows that the section center-of-pressure locations moved ahead of the leading edge at low angles of attack for the upper-surface-spoiler configurations. This movement occurred whenever the section normal force approached zero while a finite section moment remained.

Chordwise Pressure Distributions

In the discussion which follows, selected chordwise pressure distributions for the basic wing and the three spoiler configurations are used in conjunction with unpublished tuft photographs obtained on one spoiler configuration (upper-surface spoiler - no gap) to permit the study of the effect of the spoilers on the flow over the wing.

Upper-surface spoiler without a gap.- Figure 10 shows the chordwise
pressure distributions obtained at seven spanwise stations at several
Mach numbers. For a Mach number of 0.60 (fig. 10(a)) and low angles of
attack, the presence of the spoiler resulted in increased pressures on
the upper surface ahead of the spoiler. The highest pressures were
immediately ahead of the spoiler, the peak being in the corner ahead of
the spoiler-fuselage juncture. This peak was sharp, but elsewhere along
the spoiler face a relatively flat peak about 0.1 chord in width indi-
cated a separated flow region. Tuft studies confirmed this result and
showed that the flow on the wing surface in this region was toward the
tip and parallel to the spoiler.

Behind the spoiler on the upper surface the pressures (fig. 10(a))
and tuft studies also indicated a separated flow condition. Immediately
adjacent to the fuselage, the separation extended only a few percent of
the chord behind the spoiler and was followed by complete recovery of the
flow. Since the expansion or turn made by the air over the top of the
spoiler was very abrupt, the pressures reached at this point were quite
low, being about the same as those reached at the leading edge at high
angles of attack. Somewhat farther out on the wing (at 0.25 semispan),
the extent of the separation was greater, recovery being made at about
the trailing edge. Because of the increased extent of the separated
region, the air turned down toward the surface less abruptly than at the
more inward locations, and the pressures reached were not as low. Out-
board of 0.25 semispan, complete separation of the flow behind the spoiler
was indicated by the flat pressure distributions. The pressure in this
region steadily increased toward the wing tip but was always less than
for the basic wing.

Apparently the flow about the spoiler was somewhat similar to that
described in reference 10 for a two-dimensional supersonic case and as
illustrated in figure 11 but combined with the circulatory flow patterns
in the boundary layer was the outboard movement of the boundary layer in
the regions ahead and behind the spoiler. The pressure distributions
were somewhat similar to the two-dimensional case, and the circulation
in the separated areas also appeared to be present. Ahead of the spoiler
this circulation was evidenced by the spoiler face pressure distributions
to be discussed later, whereas behind the spoiler the direction of the
tufts indicated that the air on the wing surface was moving toward the
spoiler (in addition to moving outboard). Since this circulation was
combined with a spanwise movement, the flow may be described as two
vortex-type motions, one ahead of the spoiler and the other behind the
spoiler.

The lower-surface pressures on the wing, as shown in figure 10(a),
were not changed in the inboard areas because of the presence of a spoiler
on the upper surface. At about 0.30 semispan, however, the separated area
behind the spoiler on the upper surface reached the trailing edge and from

this point on the semispan to the tip the pressures on the lower surface were reduced because of the influence of the upper-surface flow. Outboard of 0.55 semispan the reduction in lower-surface pressure extended all the way to the leading edge.

As the angle of attack was increased, it was apparent that the effect of the spoiler on the wing did not change appreciably until angles of attack were reached where the flow separation on the basic wing began to progress inboard from the tip. (See fig. 10(a).) At these angles of attack, the spoiler effectiveness was reduced, as would be expected, since raising the spoiler into a separated flow region where the air is already moving parallel to the spoiler should not have any effect. (A discussion pertaining to the flow over the basic wing may be found in ref. 11.)

As the Mach number was increased from 0.6 at zero angle of attack (fig. 10(a)), there was no change apparent in the way which the spoiler affected the flow until about Mach number 1.0 (fig. 10(e)). Beginning at this speed the lower-surface influence was less extensive, being generally confined to the area behind the 0.70-chord line. At higher angles of attack the upper-surface influence ahead of the spoilers was also less extensive for the higher speeds. This effect was mainly noticeable over the inboard stations and was probably caused by the presence of a shock wave associated with the separation point ahead of the spoiler. The presence of this shock wave would have opposed the transmission of the pressure increase ahead of this point except outboard where the boundary layer was considerably thickened.

The effects of these pressure changes on the rolling moment were as follows: The pressures on the upper surface ahead of the spoiler and on all the lower surface changed in a direction to decrease the lift and thus contribute to the rolling moment, whereas the pressure decreases behind the spoiler on the upper surface were adverse. Inboard this adverse contribution was enough to completely offset the small favorable contribution which occurred at these stations. Thus, the span load distributions (fig. 8) show the largest normal-force decrements to have occurred outboard (between 0.6 and 0.8 semispan) and that the contribution of that part of the wing inboard of 0.3 semispan was generally unfavorable. These pressure changes also indicate the reasons for the discontinuities in the panel center-of-pressure locations shown in figures 6 and 7. Zero panel lift occurred at a small positive angle of attack and for each angle of attack the unaffected inboard sections were positively loaded, whereas the outboard sections, where the spoiler was most effective, were negatively loaded.

The ineffectiveness of the spoiler inboard of 0.3 semispan is not too important since the roll moment arm is small, but the large pressure difference across the spoiler near the fuselage is undesirable since it

contributes heavily to the drag. These adverse roll and drag effects inboard may indicate that an improvement could be obtained by removing the inboard part of the spoiler, but there is a likelihood that the region of adverse effects would then move outboard. In other words, the trouble may be associated with the inner end of the spoiler more than with the inboard area of the wing.

Effect of a gap through the wing behind an upper-surface spoiler.- Figure 12 compares chordwise pressure distributions of the basic wing with those of the spoiler-with-gap configuration throughout the Mach number and angle-of-attack range, and figure 13 compares the configurations with and without gap at a few points.

It appeared that the gap served to relieve the pressure difference between the upper- and lower-surface trailing-edge regions but its presence did not affect the extent of flow separation behind the spoiler. Evidently, the quantity of flow through the gap was too small to affect the extent of flow separation or the flow was not directed through the gap properly to decrease the extent of flow separation.

At all angles of attack and Mach numbers the gap was effective in increasing the upper-surface pressures behind the spoiler. The gap was also effective in increasing upper-surface pressures ahead of the spoiler, but this effect was very small at low angles of attack. Both of these effects increased the rolling effectiveness. On the lower surface, effects of the gap were limited to localized pressure changes.

Lower-surface spoiler with a gap.- The effect of a lower-surface spoiler ahead of a wing gap on the wing pressures is shown in figure 14. At the lower angles of attack, the lower-surface spoiler was equivalent in its effect on the flow to the upper-surface spoiler, the basic configuration being completely symmetrical about the chord plane. The appropriate part of the discussion on upper-surface spoilers therefore applies. As the angle of attack was increased, however, the lower-surface spoiler became ineffective and above about 10° produced losses in lift rather than increases. The changes leading to these losses in lift were as follows:

(1) The region of increased pressure ahead of the spoiler on the lower surface became less extensive.

(2) Behind the spoiler, the lower-surface pressures became much less than corresponding basic wing pressures and hence there was a large reduction in normal force over the trailing-edge region.

(3) When the angle of attack was reached where separation existed on the upper surface, the influence of the lower-surface spoiler in reducing upper-surface pressures vanished.

Thus, the two favorable influences noted for upper-surface spoilers both became less for the lower-surface spoiler as the angle of attack was increased, whereas the unfavorable influence became greater. This increase with angle of attack of the unfavorable trailing-edge loading did not occur with the spoiler on the upper surface.

Oppositely Deflected Spoilers

A configuration was tested in which the left wing had an upper-surface spoiler and the right wing had a lower-surface spoiler. There was no gap through the wing behind either spoiler.

Comparisons showing the effect of the lower-surface spoiler on span-load distributions for the wing having the upper-surface spoiler are presented in figure 15 for three representative Mach numbers. Study of this figure and unpublished comparisons at other Mach numbers showed that the presence of the right-wing lower-surface spoiler reduced the effectiveness of the left-wing upper-surface spoiler at an angle of attack of 0° for Mach numbers above 0.90. For all other conditions the reverse was true, although the differences appeared to be small in every case.

At about 11° there were inconsistencies in the span loadings throughout the speed range, possibly because at this angle of attack the extent of the separated flow on the wing was not always consistent. Small differences in surface conditions on the wing could probably have varied the extent of separation at this angle of attack enough to account for the differences shown.

In order to determine the magnitude of the rolling moment represented by the differences shown in the span-load plots of figure 15, the differences were plotted to a larger scale and integrated for moment about the plane of symmetry. The rolling-moment-coefficient increments so obtained in general were less than ±0.0016, with no consistent Mach number effects discernible. Thus, the carry-over effects between wings were quite small, probably because of the inability of the spoiler to affect the inboard wing section loads to any great extent. This indication should lend credence to the use of reflection-plane test techniques for obtaining data on this type of control on swept wings.

Chordwise pressure differences have been compared at one speed only (fig. 16) to show the effect of adding the lower-surface spoiler to the opposite wing. The generally small differences were typical of all speeds.

Spoiler Loadings

Pressures at each spanwise station on the spoilers were integrated in such a manner as to obtain the pressure force coefficient normal to the spoiler chord line as indicated in the list of symbols. Figure 17 shows distributions across the wing span of these spoiler section normal-force coefficients for the three spoiler configurations weighted for spoiler height.

For upper-surface spoilers, the highest loads occurred at zero angle of attack. As the angle of attack was increased, the spoiler loads, especially near the tip, fell rather rapidly. At about an angle of attack of 11°, when flow separation existed over a considerable portion of the outboard wing area (see figs. 10 and 12), the spoilers were unloaded outboard of 0.40 semispan for all Mach numbers. This loss of spoiler load contrasted with the wing span-load distributions (fig. 8) which show that lift decrements caused by the spoilers extended much farther outboard at this angle of attack. Apparently, the inboard portions of the spoiler had an influence on the separated flow over the outboard wing areas. At higher angles of attack, where flow separation extended over more of the wing, this influence diminished.

Addition of a gap through the wing behind the spoiler resulted in a reduction of the loads on the spoiler for nearly all conditions. Figure 18, which makes a few comparisons of pressures on the upper-surface spoiler with and without gap, shows that this reduction resulted from increases in the low pressure on the back of the spoiler. These increases were probably due to the flow of high pressure air from the lower surface through the gap. The largest relief, as might be expected, was inboard where the pressures behind the spoiler were lowest.

Figure 18 shows that, at 0.25 semispan for angles of attack up to 16° and at other stations for low angles, the front face pressures on the spoiler were somewhat lower in the center of the spoiler than at the top and bottom. This type of pressure distribution is similar to that shown in reference 12 and probably indicates that there was a circulation of the separated air ahead of the spoiler as illustrated in figure 11, since such a circulation would result in higher velocities (and lower pressures) near the center than at the top or bottom.

For a lower-surface spoiler, figure 17 indicates that the loads continued to increase to the highest angles of attack of these tests. Figure 19, which compares the pressures on upper- and lower-surface spoilers, shows that the load on the lower-surface spoiler increased with angle of attack because the pressure coefficient on the front face of the spoiler remained at an approximately constant positive value through the angle-of-attack range, whereas the rear face pressure coefficient became more negative with increasing angle of attack.

Inasmuch as the spoiler pressure distributions were quite rectangular for most conditions, it would seem that a satisfactory measure of the spoiler loads could be obtained from a pair of orifices at each station located in the wing at the base of the spoiler, one orifice being immediately ahead of the spoiler and the other immediately behind. In order to test this supposition, the loads on the spoiler have been determined by this method at two speeds, Mach number 0.60 and 0.98, by using the closest available wing orifices, which were at 0.65- and 0.75-chord locations. The pressure at the 0.65-chord location was assumed to be the same as that on the front face of the spoiler and the pressure at 0.75-chord location was assumed to be the same as that on the rear face. The results are shown by the symbols in figures 17(a) and 17(f). Agreement was good for most conditions but would probably have been better if orifices closer to the spoiler had been available. This is especially true at the inboard stations where the extent of the separated flow ahead and behind the spoiler was small. It is therefore believed that a pair of properly located orifices on the wing at each station would give loads on this type spoiler as good as those obtained in the present tests with seven orifices on the spoiler at each station.

CONCLUSIONS

An investigation was conducted with 73-percent-semispan inboard-spoiler ailerons having heights of 4 percent of the local chord and located on the 70-percent-chord line of a 45° sweptback-wing—fuselage combination. Pressure data were measured on the wing and spoiler at several spanwise stations at Mach numbers from 0.60 (Reynolds number 5.1×10^6) to 1.03 (Reynolds number 6.2×10^6) for angles of attack that usually extended to 20° or more. The results of the investigation indicate the following conclusions:

(1) Operation of upper-surface spoilers at low and moderate angles of attack produces normal-force decrements which are largest in the 0.6 to 0.8 semispan area of the wing. Most of the normal-force decrement is associated with increases in the upper-surface pressures ahead of the spoiler due to a deceleration of the air approaching the spoiler. An additional contributing factor is a decrease in lower-surface pressures resulting from transmission of upper-surface pressure changes around the trailing edge.

(2) Rolling-moment effectiveness is reduced for upper-surface spoilers at high angles of attack because they do not have much effect on the separated flow which occurs on the basic swept wing at these angles of attack.

(3) A gap through the wing behind the spoiler is effective in increasing the rolling-moment effectiveness because it permits a relief of the pressure difference between the upper- and lower-wing surfaces.

(4) Lower-surface spoilers give reversed rolling-moment effectiveness at angles of attack higher than about 10° primarily because there is a large decrease in pressure behind the spoiler on the lower-wing surface at the higher angles of attack.

(5) A lower-surface spoiler has only a small effect on the rolling-moment effectiveness of a spoiler located on the upper surface of the opposite wing.

(6) Spoiler section loadings are highest at the inboard end. For upper-surface spoilers, the spoiler loading decreases rapidly with increasing angle of attack, especially outboard. For a lower-surface spoiler, however, the spoiler loading increases with angle of attack.

(7) Spoiler section load at any point along a spoiler of this type can be determined by measurement at the wing surface of the pressure drop across the spoiler.

Langley Aeronautical Laboratory,
      National Advisory Committee for Aeronautics,
            Langley Field, Va., March 8, 1954.

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TABLE 1   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.019	.485	.442	.684	.449	.467	.443
1.25	.137	-.180	-.144	-.093	-.044	-.091	-.088
2.50	.063	-.097	-.180	-.098	-.103	-.130	-.071
5.00	.002	-.093	-.112	-.098	-.069	-.071	-.096
7.50	-.026	-.105	-.094	-.091	-.102	-.090	-.111
10.00	-.038	-.116	-.189	-.107	-.110	-.101	-.123
15.00	-.069	-.124	-.136	-.125	-.114	-.124	-.104
20.00	-.081	-.132	-.146	-.134	-.126	-.125	-.122
25.00	-.101	-.146	-.156	-.139	-.137	-.126	-.112
30.00	-.119	-.154	-.164	-.147	-.133	-.134	-.112
35.00	-.118	-.159	-.169	-.150	-.138	-.141	-.114
40.00	-.130	-.169	-.169	-.154	-.140	-.138	-.106
45.00	-.145	-.170	-.169	-.155	-.136	-.137	-.103
50.00	-.159	-.174	-.169	-.150	-.135	-.130	-.095
55.00	-.137	-.169	-.155	-.149	-.128	-.125	-.083
60.00	-.149	-.164	-.145	-.100	-.115	-.104	-.059
65.00	-.157	-.146	-.180	-.099	-.099	-.082	-.048
70.00	-.117						-.040
75.00	-.106	-.115	-.085	-.074	-.061	-.046	-.017
80.00	-.139	-.083	-.055	-.044	-.038	-.017	-.010
85.00	-.114	-.054	-.005	-.020	-.000	-.011	-.037
90.00	-.099	-.030	-.002	-.009	-.023	-.039	-.052
95.00	-.064	.005	.032	.017	.048	.066	.070

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.134	-.092	-.125	-.134	-.124		-.140
2.50	-.069	-.069	-.098	-.098	-.091	-.074	-.109
5.00	-.011	-.071	-.098	-.047	-.101	-.107	-.109
7.50	-.001	-.087	-.106	-.080	-.114	-.114	-.137
10.00	-.028	-.099	-.115	-.106	-.116	-.103	-.136
15.00	-.053	-.121	-.128	-.129	-.122	-.111	-.140
20.00	-.090	-.130	-.144	-.139	-.132	-.128	-.136
25.00	-.065	-.142	-.150	-.144	-.142	-.137	-.118
30.00	-.117	-.152	-.154	-.145	-.144	-.138	-.118
35.00	-.124	-.163	-.158	-.147	-.143	-.139	-.115
40.00	-.126	-.162	-.163	-.147	-.146	-.136	-.111
45.00	-.141	-.170	-.163	-.148	-.147	-.139	-.108
50.00	-.163	-.178	-.163	-.148	-.137	-.131	-.099
55.00	-.159	-.170	-.157	-.143	-.138	-.126	-.092
60.00	-.158	-.155	-.136	-.129	-.110	-.110	-.075
65.00	-.161	-.138	-.189	-.115	-.086	-.084	-.050
70.00	-.143						-.039
75.00	-.131	-.108	-.084	-.069	-.048	-.042	-.029
80.00	-.103	-.078	-.057	-.051	-.031	-.015	-.011
85.00	-.183	-.058	-.032	-.010	-.008	-.022	-.015
90.00	-.096	-.031	-.007	-.008	-.014	-.020	-.031
95.00	-.102	.003	.032	.045	.044	.050	.057

M = 0.60   α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.013	-.241	-.471	-.349	-.905	-.969	-.673
1.25	-.170	-1.092	-1.312	-1.238	-1.471	-1.344	-1.376
2.50	-.243	-.588	-.718	-.766	-.844	-.901	-.679
5.00	-.275	-.465	-.546	-.561	-.541	-.555	-.512
7.50	-.277	-.400	-.488	-.479	-.493	-.472	-.440
10.00	-.264	-.373	-.429	-.448	-.446	-.424	-.374
15.00	-.266	-.341	-.394	-.393	-.370	-.370	-.275
20.00	-.261	-.322	-.355	-.356	-.343	-.319	-.251
25.00	-.264	-.312	-.338	-.331	-.315	-.287	-.219
30.00	-.270	-.307	-.326	-.317	-.296	-.268	-.200
35.00	-.256	-.300	-.310	-.302	-.281	-.243	-.191
40.00	-.260	-.297	-.301	-.286	-.261	-.222	-.172
45.00	-.264	-.291	-.285	-.265	-.244	-.201	-.161
50.00	-.276	-.283	-.270	-.256	-.224	-.188	-.147
55.00	-.239	-.273	-.244	-.241	-.205	-.166	-.135
60.00	-.247	-.252	-.217	-.175	-.177	-.135	-.101
65.00	-.251	-.224	-.188	-.172	-.149	-.105	-.085
70.00	-.198						-.075
75.00	-.198	-.171	-.127	-.114	-.086	-.051	-.047
80.00	-.205	-.131	-.093	-.077	-.057	-.022	-.027
85.00	-.178	-.094	-.046	-.047	-.019	-.007	-.002
90.00	-.142	-.056	-.025	-.007	-.013	-.040	-.013
95.00	-.093	-.012	.016	.008	.039	.067	.030

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.308	.357	.377	.362	.413		.376
2.50	.272	.280	.297	.293	.331	.353	.287
5.00	.217	.201	.204	.238	.240	.244	.180
7.50	.189	.149	.163	.194	.183	.187	.101
10.00	.164	.116	.127	.153	.145	.165	.054
15.00	.120	.069	.084	.087	.103	.092	-.005
20.00	.071	.037	.041	.050	.061	.059	-.041
25.00	.075	-.004	.012	.019	.033	.027	-.056
30.00	.026	-.021	.011	.002	.009	-.003	-.071
35.00	.003	-.040	-.033	-.017	-.006	-.026	-.075
40.00	-.004	-.053	-.048	-.031	-.019	-.041	-.080
45.00	-.027	-.070	-.055	-.046	-.035	-.055	-.063
50.00	-.052	-.083	-.070	-.051	-.040	-.064	-.082
55.00	-.061	-.081	-.069	-.052	-.045	-.065	-.082
60.00	-.066	-.077	-.058	-.052	-.039	-.056	-.073
65.00	-.075	-.075	-.058	-.044	-.022	-.043	-.055
70.00	-.068						-.049
75.00	-.067	-.063	-.039	-.028	-.007	-.014	-.043
80.00	-.047	-.035	-.023	-.007	-.005	-.002	-.035
85.00	-.069	-.027	-.009	-.007	-.017	-.028	-.003
90.00	-.055	-.016	-.012	-.016	-.033	-.027	-.003
95.00	-.054	.006	.036	.041	.057	.056	.017

TABLE I

BASIC WING

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60   α = 6.0°

	PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	.00	-.019	-.984	-1.088	-.764	-1.570	-1.268	-1.403
	1.25	-.348	-1.613	-1.834	-1.511	-1.396	-1.055	-1.440
	2.50	-.413	-.948	-1.067	-1.838	-1.160	-.992	-1.358
	5.00	-.415	-.698	-.908	-.967	-.893	-.863	-1.242
	7.50	-.401	-.588	-.756	-.771	-.783	-.783	-1.027
	10.00	-.373	-.538	-.686	-.663	-.678	-.707	-.662
	15.00	-.359	-.460	-.570	-.532	-.557	-.585	-.273
	20.00	-.341	-.420	-.490	-.466	-.483	-.496	-.269
	25.00	-.335	-.398	-.440	-.420	-.433	-.417	-.238
	30.00	-.331	-.374	-.411	-.388	-.399	-.369	-.223
	35.00	-.313	-.360	-.384	-.370	-.369	-.324	-.211
	40.00	-.312	-.351	-.364	-.349	-.335	-.285	-.194
	45.00	-.311	-.337	-.338	-.323	-.310	-.256	-.186
	50.00	-.319	-.323	-.311	-.293	-.277	-.220	-.168
	55.00	-.277	-.304	-.279	-.268	-.243	-.192	-.162
	60.00	-.283	-.281	-.250	-.208	-.213	-.160	-.137
	65.00	-.282	-.249	-.212	-.199	-.180	-.131	-.117
	70.00	-.218						-.109
	75.00	-.222	-.187	-.141	-.137	-.116	-.077	-.098
	80.00	-.222	-.142	-.105	-.099	-.094	-.049	-.081
	85.00	-.190	-.099	-.047	-.069	-.062	-.026	-.066
	90.00	-.148	-.059	-.028	-.034	-.025	-.003	-.055
	95.00	-.088	-.009	-.010	-.016	-.001	.024	-.044
LOWER SURFACE	1.25	.366	.459	.454	.447	.453		.424
	2.50	.336	.391	.396	.396	.408	.410	.361
	5.00	.310	.309	.312	.337	.330	.319	.256
	7.50	.282	.254	.259	.276	.270	.262	.169
	10.00	.255	.211	.220	.233	.225	.235	.108
	15.00	.214	.160	.169	.171	.174	.163	.032
	20.00	.163	.123	.117	.125	.121	.109	.008
	25.00	.154	.087	.092	.095	.091	.071	-.041
	30.00	.101	.061	.060	.070	.062	.037	-.063
	35.00	.075	.034	.036	.036	.032	.008	-.070
	40.00	.064	.019	.017	.017	.016	-.014	-.079
	45.00	.035	.004	.002	.006	.002	-.031	-.083
	50.00	.011	-.023	-.015	-.005	-.012	-.044	-.085
	55.00	-.004	-.026	-.017	-.009	-.022	-.052	-.088
	60.00	-.013	-.027	-.013	-.014	-.022	-.053	-.080
	65.00	-.016	-.028	-.014	-.014	-.013	-.043	-.066
	70.00	-.017						-.059
	75.00	-.025	-.024	-.008	-.001	.000	-.026	-.057
	80.00	-.004	-.003	-.002	-.011	.000	-.015	-.044
	85.00	-.025	-.001	-.017	-.021	-.007	-.016	-.027
	90.00	-.021	-.009	-.023	-.022	-.025	-.005	-.018
	95.00	-.017	-.021	-.048	-.041	-.036	-.023	-.005

M = 0.60   α = 8.0°

	PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	.00	-.003	-1.279	-1.541	-.768	-1.252	-1.157	-1.483
	1.25	-.600	-1.213	-1.282	-1.042	-.953	-.936	-1.172
	2.50	-.653	-1.139	-1.221	-1.006	-.944	-.907	-1.095
	5.00	-.624	-1.030	-1.137	-.956	-.906	-.862	-.982
	7.50	-.594	-.905	-1.030	-.901	-.859	-.833	-.865
	10.00	-.548	-.829	-.965	-.857	-.816	-.798	-.739
	15.00	-.503	-.713	-.836	-.779	-.738	-.730	-.526
	20.00	-.466	-.625	-.674	-.709	-.693	-.668	-.402
	25.00	-.450	-.560	-.573	-.657	-.647	-.601	-.335
	30.00	-.442	-.511	-.502	-.603	-.591	-.551	-.297
	35.00	-.411	-.469	-.457	-.549	-.524	-.480	-.277
	40.00	-.405	-.441	-.411	-.490	-.449	-.425	-.255
	45.00	-.396	-.412	-.373	-.438	-.388	-.367	-.243
	50.00	-.398	-.388	-.349	-.389	-.323	-.315	-.226
	55.00	-.345	-.360	-.303	-.340	-.275	-.267	-.221
	60.00	-.348	-.333	-.281	-.268	-.231	-.226	-.208
	65.00	-.341	-.297	-.240	-.252	-.188	-.190	-.191
	70.00	-.272						-.182
	75.00	-.283	-.225	-.168	-.176	-.118	-.125	-.178
	80.00	-.266	-.180	-.131	-.142	-.094	-.098	-.166
	85.00	-.230	-.132	-.081	-.095	-.062	-.076	-.143
	90.00	-.181	-.087	-.052	-.065	-.034	-.044	-.131
	95.00	-.113	-.035	-.025	-.040	-.012	-.021	-.117
LOWER SURFACE	1.25	.368	.484	.467	.476	.467		.425
	2.50	.353	.448	.449	.439	.449	.461	.393
	5.00	.369	.382	.381	.389	.388	.380	.308
	7.50	.365	.327	.337	.336	.334	.322	.222
	10.00	.337	.285	.289	.304	.301	.302	.166
	15.00	.288	.223	.234	.232	.238	.216	.083
	20.00	.233	.182	.183	.185	.190	.165	.017
	25.00	.220	.146	.141	.155	.151	.124	.000
	30.00	.160	.112	.117	.121	.118	.089	-.030
	35.00	.139	.082	.081	.093	.090	.053	-.035
	40.00	.111	.063	.060	.071	.067	.026	-.053
	45.00	.080	.035	.039	.049	.043	.004	-.056
	50.00	.051	.017	.026	.030	.029	-.015	-.058
	55.00	.030	.009	.019	.020	.017	-.026	-.063
	60.00	.017	.004	.017	.014	.008	-.033	-.061
	65.00	.013	-.002	.006	.014	.013	-.026	-.052
	70.00	.008						-.044
	75.00	-.011	-.008	.009	.014	.013	-.022	-.047
	80.00	-.011	.007	.012	.017	.010	-.010	-.039
	85.00	-.010	.001	.022	.027	.013	-.014	-.027
	90.00	-.013	.011	.022	.027	.023	-.008	-.036
	95.00	-.009	.015	.032	.035	.023	.006	-.045

TABLE I

BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60   α = 11.2°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.001	-2.007	-1.789	-1.385	-.820	-.550	-.552
1.25	-1.057	-1.304	-1.371	-1.227	-.794	-.536	-.459
2.50	-1.123	-1.336	-1.367	-1.239	-.794	-.525	-.461
5.00	-1.063	-1.353	-1.367	-1.246	-.791	-.510	-.463
7.50	-.949	-1.368	-1.231	-1.266	-.780	-.514	-.455
10.00	-.848	-1.428	-1.226	-1.281	-.770	-.504	-.439
15.00	-.726	-1.387	-1.192	-1.202	-.758	-.487	-.385
20.00	-.652	-1.245	-1.159	-1.111	-.737	-.465	-.336
25.00	-.632	-1.044	-1.111	-1.024	-.719	-.437	-.298
30.00	-.609	-.806	-1.048	-.936	-.705	-.422	-.271
35.00	-.563	-.597	-.973	-.864	-.689	-.401	-.257
40.00	-.532	-.467	-.888	-.798	-.672	-.382	-.230
45.00	-.496	-.396	-.787	-.739	-.661	-.369	-.215
50.00	-.484	-.371	-.698	-.675	-.641	-.354	-.210
55.00	-.419	-.348	-.591	-.623	-.618	-.341	-.200
60.00	-.409	-.334	-.520	-.534	-.588	-.325	-.195
65.00	-.392	-.300	-.432	-.499	-.548	-.325	-.193
70.00	-.321	-.232	-.292	-.407	-.492	-.315	-.155
75.00	-.351	-.180	-.235	-.364	-.466	-.306	-.187
80.00	-.297	-.129	-.157	-.316	-.423	-.301	-.191
85.00	-.255	-.087	-.109	-.268	-.376	-.282	-.189
90.00	-.192	-.025	-.066	-.247	-.338	-.276	-.187
95.00	-.126						-.189

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.380	.491	.438	.500	.469	.477	.416
2.50	.351	.527	.493	.492	.499	.414	.398
5.00	.442	.492	.459	.472	.451	.368	.319
7.50	.466	.445	.418	.432	.399	.345	.245
10.00	.471	.412	.382	.397	.356	.266	.195
15.00	.438	.340	.272	.317	.302	.207	.129
20.00	.362	.298	.230	.275	.244	.152	.057
25.00	.334	.250	.197	.228	.205	.117	.018
30.00	.281	.217	.168	.194	.170	.074	-.005
35.00	.239	.183	.137	.160	.131	.043	-.015
40.00	.214	.154	.113	.132	.105	.010	-.035
45.00	.180	.126	.087	.108	.071	-.020	-.057
50.00	.154	.101	.071	.080	.051	-.040	-.069
55.00	.120	.087	.071	.059	.031	-.055	-.076
60.00	.099	.074	.053	.046	.008	-.055	-.076
65.00	.093	.066		.040	.005		-.075
70.00	.077	.055	.035	.015	-.025	-.075	-.078
75.00	.043	.055	.036	.005	-.051	-.077	-.092
80.00	.059	.051	.038	-.004	-.068	-.098	-.087
85.00	.039	.043	.029	-.026	-.057	-.121	-.094
90.00	.032	.044	.038	-.052	-.136	-.155	-.109
95.00	.025						-.124

M = 0.60   α = 15.5°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.007	-2.324	-1.264	-1.045	-.666	-.468	-.371
1.25	-1.591	-1.981	-1.234	-.857	-.647	-.454	-.335
2.50	-1.809	-1.987	-1.238	-.854	-.649	-.453	-.334
5.00	-1.888	-1.993	-1.253	-.850	-.642	-.440	-.331
7.50	-1.613	-2.040	-1.239	-.847	-.636	-.443	-.330
10.00	-1.294	-2.132	-1.246	-.848	-.632	-.432	-.328
15.00	-1.064	-2.105	-1.233	-.833	-.621	-.426	-.318
20.00	-.970	-1.998	-1.234	-.804	-.608	-.415	-.309
25.00	-.807	-1.806	-1.235	-.798	-.595	-.401	-.304
30.00	-.722	-1.511	-1.228	-.787	-.584	-.404	-.298
35.00	-.663	-1.093	-1.205	-.785	-.575	-.394	-.295
40.00	-.629	-.766	-1.176	-.774	-.564	-.385	-.290
45.00	-.606	-.599	-1.127	-.772	-.557	-.379	-.289
50.00	-.586	-.544	-1.079	-.762	-.551	-.373	-.291
55.00	-.525	-.496	-1.018	-.754	-.547	-.368	-.287
60.00	-.509	-.449	-.962	-.734	-.546	-.360	-.284
65.00	-.483	-.392	-.905	-.702	-.540		-.003
70.00	-.416	-.300	-.787	-.678	-.518	-.344	-.284
75.00	-.477	-.244	-.716	-.666	-.515	-.340	-.277
80.00	-.375	-.193	-.620	-.632	-.483	-.332	-.273
85.00	-.334	-.147	-.535	-.606	-.452	-.319	-.271
90.00	-.269	-.104	-.471		-.434	-.313	
95.00	-.202						

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.257	.424	.378	.476	.433	.467	.410
2.50	.375	.557	.515	.530	.500	.445	.416
5.00	.473	.575	.528	.514	.489	.402	.358
7.50	.597	.543	.504	.491	.452	.386	.290
10.00	.595	.517	.471	.461	.415	.309	-.165
15.00	.558	.447	.422	.392	.354	.246	-.093
20.00	.491	.403	.359	.344	.303	.193	-.054
25.00	.450	.358	.319	.295	.254	.146	-.013
30.00	.398	.315	.275	.257	.207	.098	-.017
35.00	.358	.277	.240	.215	.167	.058	-.040
40.00	.321	.245	.207	.181	.138	.021	-.067
45.00	.280	.209	.172	.145	.091	.016	-.085
50.00	.239	.175	.141	.111	.057	-.049	-.099
55.00	.210	.158	.113	.082	.020	-.071	-.106
60.00	.184	.131	.105	.053	-.007	-.087	-.114
65.00	.164	.112	.073	.028	-.029		-.137
70.00	.145		.031	-.029	-.071	-.111	-.138
75.00	.091	.075	.014	-.059	-.106	-.130	-.157
80.00	.103	.070	-.004	-.092	-.139	-.149	
85.00	.075	.043	-.042	-.162	-.143	-.171	
90.00	.044	.035	-.090	-.244	-.231	-.197	-.186
95.00	.029	.001					

TABLE I   BASIC WING

M = 0.60 α = 19.5° — UPPER SURFACE

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.081	-1.359	-1.070	-1.060	-.604	-.507	-.453
1.25	-.930	-1.348	-1.037	-.801	-.599	-.498	-.433
2.50	-1.886	-1.336	-1.038	-.794	-.596	-.502	-.428
5.00	-1.383	-1.331	-1.088	-.793	-.591	-.489	-.424
7.50	-1.344	-1.336	-.996	-.790	-.591	-.493	-.415
10.00	-1.315	-1.319	-1.003	-.783	-.587	-.492	-.424
15.00	-1.277	-1.305	-.986	-.766	-.580	-.486	-.421
20.00	-1.234	-1.198	-.975	-.757	-.574	-.480	-.419
25.00	-1.192	-1.182	-.965	-.740	-.569	-.471	-.424
30.00	-1.140	-1.167	-.947	-.730	-.563	-.476	-.424
35.00	-1.081	-1.146	-.938	-.720	-.554	-.472	-.423
40.00	-1.022	-1.184	-.930	-.714	-.552	-.470	-.423
45.00	-.968	-1.095	-.915	-.707	-.551	-.466	-.421
50.00	-.923	-1.063	-.904	-.705	-.547	-.459	-.414
55.00	-.850	-1.030	-.888	-.706	-.546	-.454	-.409
60.00	-.816	-.997	-.874	-.703	-.542	-.450	-.403
65.00	-.785	-.955	-.861	-.691	-.537	-.438	-.393
70.00	-.707					-.423	-.395
75.00	-.829	-.881	-.815	-.670	-.526	-.410	-.378
80.00	-.660	-.836	-.782	-.650	-.516	-.400	-.366
85.00	-.619	-.778	-.738	-.636	-.500	-.385	-.356
90.00	-.555	-.724	-.704	-.608	-.484	-.368	-.346
95.00	-.481	-.668	-.687	-.591	-.450		-.331

M = 0.60 α = 19.5° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.155	.408	.331	.423	.387		.358
2.50	.224	.571	.506	.518	.495	.486	.408
5.00	.512	.606	.548	.527	.507	.470	.374
7.50	.673	.589	.535	.510	.483	.441	.322
10.00	.669	.566	.511	.488	.455	.426	.273
15.00	.633	.508	.467	.430	.397	.353	.200
20.00	.565	.466	.411	.381	.345	.292	.116
25.00	.523	.414	.364	.338	.297	.241	.068
30.00	.471	.371	.322	.287	.249	.186	.021
35.00	.419	.389	.279	.243	.202	.139	-.017
40.00	.387	.293	.238	.204	.164	.094	-.023
45.00	.344	.254	.204	.156	.116	.051	-.070
50.00	.305	.216	.158	.116	.083	.015	-.093
55.00	.264	.184	.125	.080	.044	-.022	-.116
60.00	.232	.152	.093	.048	.010	-.046	-.119
65.00	.209	.127	.052	.012		-.075	-.128
70.00	.178					-.105	-.139
75.00	.118	.057	-.030	-.059	-.069	-.139	-.156
80.00	.113	.033	-.067	-.091	-.107	-.160	-.164
85.00	.076	-.021	-.108	-.127	-.145	-.185	-.181
90.00	.024	-.060	-.180	-.195	-.153	-.222	-.191
95.00	-.007	-.184	-.269	-.264	-.249		-.217

M = 0.60 α = 25.8° — UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.055	-1.024	-1.008	-.923	-.740	-.604	-.524
1.25	-.914	-1.018	-.993	-.879	-.735	-.593	-.519
2.50	-1.073	-1.015	-.982	-.879	-.733	-.599	-.516
5.00	-1.034	-1.021	-.997	-.880	-.729	-.590	-.511
7.50	-1.026	-1.023	-.981	-.875	-.725	-.591	-.512
10.00	-1.028	-1.028	-.995	-.874	-.723	-.591	-.509
15.00	-1.023	-1.033	-.995	-.868	-.710	-.587	-.506
20.00	-1.024	-1.034	-.993	-.863	-.708	-.582	-.509
25.00	-1.022	-1.035	-.990	-.847	-.705	-.571	-.512
30.00	-1.017	-1.035	-.985	-.843	-.695	-.574	-.513
35.00	-1.008	-1.032	-.981	-.833	-.690	-.571	-.515
40.00	-.999	-1.035	-.976	-.825	-.684	-.566	-.514
45.00	-.984	-1.033	-.969	-.819	-.680	-.561	-.508
50.00	-.978	-1.031	-.963	-.812	-.671	-.552	-.500
55.00	-.963	-1.026	-.954	-.803	-.665	-.543	-.492
60.00	-.962	-1.021	-.942	-.793	-.658	-.536	-.476
65.00	-.961	-1.007	-.937	-.776	-.646	-.524	-.465
70.00	-.935						-.450
75.00	-1.024	-.978	-.897	-.750	-.625	-.500	-.444
80.00	-.918	-.937	-.884	-.738	-.616	-.486	-.433
85.00	-.893	-.937	-.864	-.724	-.604	-.472	-.419
90.00	-.842	-.897	-.853	-.712	-.589	-.452	-.405
95.00	-.792	-.839	-.858	-.703	-.580	-.438	-.398

M = 0.60 α = 25.8° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.069	.314	.177	.285	.217		.239
2.50	.088	.558	.460	.468	.445	.451	.377
5.00	.501	.658	.567	.538	.523	.503	.405
7.50	.709	.668	.584	.554	.530	.500	.375
10.00	.785	.660	.583	.547	.517	.495	.339
15.00	.731	.619	.509	.510	.480	.441	.274
20.00	.683	.584	.464	.469	.436	.385	.196
25.00	.641	.534	.423	.424	.394	.335	.137
30.00	.595	.495	.382	.383	.343	.282	.081
35.00	.552	.454	.337	.339	.299	.230	.040
40.00	.514	.416	.297	.296	.254	.187	-.016
45.00	.471	.372	.260	.248	.208	.138	-.031
50.00	.425	.336	.211	.206	.159	.089	-.060
55.00	.386	.291	.178	.160	.119	.046	-.084
60.00	.346	.254	.117	.116	.078	.014	-.097
65.00	.314	.213		.073	.045	.080	-.112
70.00	.275					-.076	-.128
75.00	.209	.126	.016	-.016	-.033	-.093	-.147
80.00	.186	.087	-.031	-.061	-.081	-.130	-.164
85.00	.133	.006	-.094	-.117	-.132	-.150	-.182
90.00	.057	-.069	-.189	-.201	-.161	-.190	-.207
95.00	-.009	-.201	-.307	-.292	-.281	-.237	-.243

TABLE I   BASIC WING

PRESSURE COEFFICIENT, P, AT:

M = 0.85   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.026	.516	.458	.712	.467	.487	.454
1.25	-.193	-.097	-.127	-.144	-.048	-.092	-.098
2.50	-.122	-.080	-.110	-.138	-.113	-.156	-.095
5.00	-.050	-.078	-.115	-.146	-.082	-.083	-.112
7.50	-.011	-.093	-.130	-.141	-.120	-.107	-.145
10.00	-.004	-.107	-.138	-.140	-.135	-.123	-.178
15.00	-.041	-.121	-.155	-.164	-.135	-.152	-.162
20.00	-.066	-.138	-.172	-.171	-.154	-.156	-.176
25.00	-.093	-.157	-.188	-.179	-.167	-.163	-.163
30.00	-.115	-.170	-.201	-.190	-.170	-.174	-.154
35.00	-.116	-.187	-.210	-.191	-.177	-.178	-.148
40.00	-.136	-.202	-.215	-.194	-.176	-.181	-.139
45.00	-.158	-.212	-.221	-.193	-.175	-.176	-.130
50.00	-.187	-.224	-.216	-.190	-.171	-.163	-.116
55.00	-.161	-.231	-.198	-.181	-.162	-.149	-.100
60.00	-.188	-.217	-.184	-.126	-.143	-.122	-.070
65.00	-.206	-.196	-.155	-.127	-.118	-.099	-.056
70.00	-.157						-.036
75.00	-.149	-.163	-.106	-.091	-.072	-.043	-.013
80.00	-.185	-.125	-.075	-.059	-.043	-.012	-.015
85.00	-.174	-.088	-.021	-.032	-.003	.020	-.041
90.00	-.145	-.055	-.009	-.003	-.027	.049	-.061
95.00	-.103	-.008	.027	.019	.053	.078	.084

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.176	-.102	-.160	-.167	-.183		-.219
2.50	-.114	-.073	-.117	-.138	-.143	-.117	-.180
5.00	-.045	-.073	-.119	-.087	-.147	-.140	-.170
7.50	-.026	-.093	-.132	-.120	-.161	-.150	-.204
10.00	-.005	-.104	-.146	-.141	-.163	-.147	-.215
15.00	-.038	-.130	-.165	-.161	-.156	-.156	-.216
20.00	-.083	-.141	-.181	-.183	-.173	-.172	-.191
25.00	-.055	-.159	-.195	-.191	-.179	-.177	-.169
30.00	-.126	-.178	-.204	-.193	-.183	-.182	-.160
35.00	-.134	-.196	-.212	-.195	-.185	-.187	-.151
40.00	-.140	-.206	-.223	-.199	-.188	-.184	-.143
45.00	-.166	-.223	-.223	-.200	-.190	-.177	-.132
50.00	-.204	-.235	-.221	-.193	-.179	-.166	-.118
55.00	-.200	-.223	-.205	-.182	-.168	-.148	-.102
60.00	-.208	-.213	-.185	-.161	-.146	-.121	-.078
65.00	-.219	-.201	-.168	-.139	-.116	-.095	-.052
70.00	-.197						-.038
75.00	-.185	-.161	-.114	-.087	-.060	-.039	-.014
80.00	-.153	-.121	-.085	-.053	-.041	-.004	-.005
85.00	-.175	-.094	-.049	-.023	-.011	-.033	-.028
90.00	-.152	-.055	-.018	-.001	-.017	-.035	-.049
95.00	-.150	-.010	.031	.046	.048	.066	.077

M = 0.85   α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.036	.098	-.057	.175	.338	-.410	-.261
1.25	-.023	-.998	-1.176	-1.343	-1.284	-1.205	-1.170
2.50	-.124	-.863	-1.080	-1.186	-1.216	-1.106	-1.136
5.00	-.193	-.424	-.547	-.743	-.949	-.843	-.882
7.50	-.213	-.380	-.484	-.512	-.681	-.695	-.688
10.00	-.212	-.360	-.469	-.465	-.521	-.593	-.549
15.00	-.229	-.338	-.435	-.455	-.430	-.472	-.356
20.00	-.236	-.328	-.414	-.433	-.405	-.408	-.275
25.00	-.254	-.332	-.406	-.404	-.381	-.363	-.229
30.00	-.269	-.338	-.406	-.377	-.350	-.327	-.212
35.00	-.261	-.345	-.396	-.349	-.332	-.285	-.199
40.00	-.276	-.357	-.380	-.330	-.309	-.255	-.186
45.00	-.295	-.361	-.371	-.306	-.285	-.234	-.173
50.00	-.328	-.369	-.350	-.281	-.260	-.200	-.152
55.00	-.288	-.349	-.399	-.257	-.233	-.174	-.135
60.00	-.321	-.330	-.362	-.186	-.196	-.141	-.103
65.00	-.338	-.299	-.320	-.180	-.158	-.111	-.086
70.00	-.265						-.069
75.00	-.273	-.283	-.140	-.114	-.085	-.052	-.046
80.00	-.274	-.164	-.101	-.073	-.052	-.019	-.022
85.00	-.251	-.110	-.046	-.036	-.013	-.012	.000
90.00	-.195	-.062	-.018	-.008	-.022	-.042	-.011
95.00	-.123	-.010	.022	.019	.049	.066	.020

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.335	.356	.357	.348	.387		.360
2.50	.309	.283	.278	.276	.307	.328	.279
5.00	.253	.211	.194	.245	.219	.230	.179
7.50	.222	.163	.149	.187	.164	.173	.094
10.00	.196	.137	.114	.130	.123	.160	.043
15.00	.149	.078	.069	.070	.088	.084	-.043
20.00	.098	.046	.027	.040	.043	.039	-.068
25.00	.101	.015	-.003	.009	.014	-.003	-.103
30.00	.044	-.013	-.030	-.018	-.009	-.030	-.108
35.00	.016	-.036	-.048	-.031	-.031	-.060	-.108
40.00	.006	-.051	-.065	-.045	-.046	-.077	-.107
45.00	-.023	-.076	-.077	-.061	-.064	-.096	-.105
50.00	-.052	-.092	-.087	-.068	-.068	-.106	-.100
55.00	-.064	-.092	-.085	-.069	-.074	-.104	-.088
60.00	-.075	-.092	-.077	-.068	-.067	-.093	-.070
65.00	-.086	-.089	-.073	-.053	-.055	-.076	-.050
70.00	-.080						-.038
75.00	-.080	-.076	-.050	-.034	-.028	-.036	-.024
80.00	-.064	-.051	-.026	-.013	-.019	-.007	-.010
85.00	-.095	-.040	-.003	-.008	-.001	-.007	-.001
90.00	-.071	-.020	-.011	-.028	-.020	-.023	-.025
95.00	-.088	-.008	.044	.049	.036	.051	.044

TABLE I BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 6.0°

UPPER SURFACE

	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.025	-.207	-.347	-.035	-.710	-.822	-.718
1.25	-.158	-1.194	-1.298	-1.331	-1.465	-1.326	-1.007
2.50	-.273	-1.098	-1.115	-1.239	-1.435	-1.273	-.994
5.00	-.344	-.785	-.935	-1.073	-1.348	-1.168	-.930
7.50	-.368	-.628	-.817	-.944	-1.254	-1.093	-.863
10.00	-.345	-.563	-.756	-.868	-1.175	-1.002	-.828
15.00	-.349	-.483	-.668	-.752	-.880	-.777	-.728
20.00	-.346	-.466	-.600	-.664	-.614	-.633	-.632
25.00	-.363	-.448	-.563	-.595	-.444	-.492	-.543
30.00	-.360	-.445	-.545	-.521	-.375	-.396	-.450
35.00	-.351	-.454	-.523	-.459	-.346	-.338	-.372
40.00	-.363	-.466	-.500	-.405	-.317	-.294	-.314
45.00	-.378	-.470	-.469	-.357	-.289	-.253	-.272
50.00	-.419	-.479	-.425	-.317	-.261	-.216	-.241
55.00	-.375	-.451	-.352	-.285	-.230	-.183	-.216
60.00	-.415	-.410	-.299	-.211	-.190	-.147	-.189
65.00	-.443	-.369	-.250	-.202	-.155	-.117	-.172
70.00	-.352						-.162
75.00	-.350	-.262	-.156	-.135	-.089	-.062	-.146
80.00	-.338	-.193	-.116	-.099	-.055	-.033	-.134
85.00	-.302	-.131	-.059	-.061	-.021	-.006	-.109
90.00	-.227	-.079	-.030	-.023	-.015	-.021	-.090
95.00	-.136	-.019	-.005	-.006	-.039	-.043	-.070

LOWER SURFACE

	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.381	.454	.437	.415	.453		.420
2.50	.375	.381	.368	.345	.390	.410	.354
5.00	.338	.303	.284	.308	.307	.317	.256
7.50	.311	.247	.235	.255	.250	.260	.174
10.00	.282	.217	.199	.198	.209	.219	.114
15.00	.232	.153	.145	.143	.163	.163	.015
20.00	.174	.113	.096	.105	.114	.108	.035
25.00	.169	.079	.067	.074	.080	.068	.083
30.00	.112	.052	.032	.051	.051	.031	.101
35.00	.079	.023	.013	.028	.027	.004	.107
40.00	.065	.003	.009	.008	.007	.030	.104
45.00	.034	.023	.028	.017	.015	.056	.106
50.00	.002	.048	.041	.028	.025	.074	.094
55.00	.016	.047	.048	.033	.037	.081	.094
60.00	.027	.050	.040	.033	.036	.074	.077
65.00	.040	.053	.039	.029	.028	.065	.062
70.00	.035						.046
75.00	.044	.047	.033	.017	.013	.031	.034
80.00	.029	.026	.013	.000	.011	.008	.021
85.00	.050	.021	.003	.012	.001	.033	.110
90.00	.045	.009	.014	.021	.011	.016	.005
95.00	.053	.010	.044	.041	.029	.036	.012

M = 0.85   α = 8.0°

UPPER SURFACE

	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.032	-.494	-.599	-.228	-.960	-.834	-.957
1.25	-.273	-1.215	-1.478	-1.466	-1.277	-.749	-1.105
2.50	-.404	-1.198	-1.417	-1.427	-1.262	-.742	-1.082
5.00	-.495	-1.190	-1.371	-1.319	-1.226	-.713	-1.067
7.50	-.503	-1.139	-1.190	-1.223	-1.197	-.717	-1.095
10.00	-.503	-1.097	-1.069	-1.139	-1.172	-.699	-1.111
15.00	-.481	-.935	-.939	-1.034	-1.091	-.661	-.964
20.00	-.448	-.658	-.846	-.901	-1.023	-.628	-.463
25.00	-.454	-.423	-.781	-.818	-.967	-.584	-.231
30.00	-.457	-.490	-.786	-.718	-.897	-.559	-.236
35.00	-.434	-.526	-.685	-.610	-.830	-.523	-.250
40.00	-.429	-.545	-.640	-.518	-.753	-.487	-.243
45.00	-.423	-.548	-.566	-.445	-.673	-.449	-.243
50.00	-.438	-.571	-.466	-.384	-.585	-.414	-.238
55.00	-.467	-.567	-.363	-.333	-.498	-.384	-.223
60.00	-.527	-.511	-.313	-.247	-.402	-.356	-.207
65.00	-.560	-.438	-.289	-.235	-.301	-.319	-.204
70.00	-.460						-.200
75.00	-.452	-.262	-.167	-.161	-.158	-.277	-.191
80.00	-.410	-.189	-.126	-.127	-.113	-.250	-.186
85.00	-.337	-.126	-.074	-.091	-.065	-.231	-.170
90.00	-.238	-.074	-.047	-.050	-.084	-.199	-.161
95.00	-.142	-.015	-.018	-.023	-.002	-.181	-.152

LOWER SURFACE

	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.403	.520	.484	.460	.478	.448	.437
2.50	.427	.462	.431	.411	.440		.378
5.00	.419	.386	.367	.368	.369	.365	.289
7.50	.403	.387	.306	.316	.314	.306	.210
10.00	.369	.392	.270	.260	.262	.287	.153
15.00	.317	.226	.216	.221	.221	.205	.062
20.00	.256	.185	.164	.171	.169	.145	.011
25.00	.248	.146	.123	.141	.138	.100	.058
30.00	.185	.114	.097	.109	.099	.064	.097
35.00	.143	.084	.068	.077	.073	.023	.103
40.00	.128	.061	.046	.037	.047	.006	.105
45.00	.093	.034	.030	.021	.021	.038	.113
50.00	.062	.013	.006	.021	.008	.063	.114
55.00	.039	.003	.001	.011	.018	.078	.102
60.00	.021	.003	.000	.001	.018	.079	.097
65.00	.014	.008	.008	.001	.018	.078	.084
70.00	.009						.079
75.00	.009	.018	.006	.008	.011	.060	.076
80.00	.011	.004	.004	.013	.014	.049	.064
85.00	.010	.008	.018	.024	.021	.068	.068
90.00	.014	.009	.016	.034	.031	.058	.062
95.00	.016	.080	.037	.038	.018	.067	.078

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 11.3°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.007	-.887	-1.015	-.660	-.873	-.514	-.515
1.25	-.451	-1.479	-1.384	-1.146	-.787	-.483	-.421
2.50	-.607	-1.464	-1.367	-1.158	-.783	-.481	-.422
5.00	-.749	-1.499	-1.246	-1.136	-.764	-.465	-.430
7.50	-.767	-1.492	-1.203	-1.134	-.755	-.468	-.430
10.00	-.749	-1.461	-1.193	-1.131	-.747	-.463	-.427
15.00	-.735	-1.378	-1.163	-1.093	-.731	-.454	-.397
20.00	-.670	-1.330	-1.111	-1.050	-.711	-.441	-.356
25.00	-.648	-1.268	-1.063	-1.007	-.687	-.420	-.323
30.00	-.627	-.970	-1.017	-.963	-.675	-.415	-.302
35.00	-.601	-.546	-.967	-.921	-.660	-.405	-.287
40.00	-.588	-.566	-.912	-.876	-.647	-.391	-.276
45.00	-.588	-.596	-.850	-.829	-.630	-.384	-.274
50.00	-.624	-.620	-.783	-.785	-.614	-.377	-.270
55.00	-.568	-.619	-.702	-.737	-.598	-.372	-.269
60.00	-.616	-.577	-.637	-.701	-.582	-.367	-.266
65.00	-.656	-.490	-.581	-.642	-.566	-.367	-.274
70.00	-.579						-.272
75.00	-.579	-.307	-.446	-.535	-.520	-.360	-.269
80.00	-.498	-.240	-.388	-.495	-.505	-.352	-.265
85.00	-.379	-.173	-.310	-.450	-.478	-.345	-.268
90.00	-.273	-.111	-.243	-.403	-.444	-.333	-.261
95.00	-.186	-.054	-.190	-.362	-.418	-.323	-.256

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.383	.576	.511	.515	.489		.437
2.50	.443	.556	.507	.490	.491	.482	.412
5.00	.519	.501	.456	.464	.441	.412	.331
7.50	.541	.448	.413	.418	.389	.362	.255
10.00	.509	.411	.376	.373	.351	.299	.202
15.00	.454	.343	.383	.308	.297	.260	.113
20.00	.383	.298	.269	.263	.243	.198	.009
25.00	.356	.256	.222	.225	.196	.147	-.015
30.00	.294	.220	.192	.190	.161	.099	-.059
35.00	.250	.182	.159	.153	.122	.053	-.093
40.00	.228	.156	.130	.125	.090	.012	-.114
45.00	.188	.124	.104	.094	.054	-.030	-.122
50.00	.155	.096	.079	.067	.027	-.068	-.136
55.00	.124	.079	.064	.048	.001	-.098	-.144
60.00	.099	.065	.056	.033	-.021	-.121	-.146
65.00	.089	.052	.039	.016	-.037	-.141	-.156
70.00	.077						-.159
75.00	.037	.034	.022	-.011	-.069	-.162	-.160
80.00	.049	.039	.023	-.021	-.100	-.188	-.177
85.00	.030	.011	.023	-.036	-.125	-.197	-.183
90.00	.018	.018	.006	-.073	-.172	-.212	-.184
95.00	.017	.008	-.001	-.107	-.217	-.229	-.199

M = 0.85   α = 15.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.007	-1.294	-1.090	-.950	-.666	-.466	-.419
1.25	-.644	-1.561	-1.026	-.791	-.654	-.456	-.398
2.50	-.865	-1.529	-1.006	-.784	-.652	-.456	-.399
5.00	-1.052	-1.505	-1.047	-.784	-.644	-.448	-.409
7.50	-1.071	-1.482	-1.035	-.788	-.642	-.452	-.407
10.00	-1.055	-1.454	-1.040	-.791	-.639	-.448	-.394
15.00	-1.024	-1.364	-1.023	-.767	-.632	-.441	-.396
20.00	-.931	-1.318	-.991	-.753	-.620	-.435	-.395
25.00	-.832	-1.269	-.959	-.743	-.605	-.417	-.392
30.00	-.716	-1.224	-.944	-.738	-.598	-.423	-.390
35.00	-.628	-1.171	-.928	-.728	-.587	-.419	-.387
40.00	-.637	-1.106	-.909	-.715	-.578	-.414	-.385
45.00	-.676	-1.031	-.894	-.705	-.569	-.412	-.385
50.00	-.709	-.967	-.879	-.697	-.560	-.411	-.381
55.00	-.643	-.897	-.855	-.687	-.550	-.406	-.377
60.00	-.676	-.836	-.838	-.684	-.544	-.403	-.377
65.00	-.699	-.790	-.841	-.680	-.546	-.412	-.388
70.00	-.623						-.001
75.00	-.663	-.663	-.783	-.645	-.512	-.397	-.367
80.00	-.601	-.607	-.763	-.629	-.503	-.390	-.359
85.00	-.545	-.537	-.731	-.611	-.488	-.386	-.356
90.00	-.449	-.466	-.707	-.582	-.475	-.382	-.347
95.00	-.360	-.403	-.696	-.569	-.462	-.377	-.336

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.340	.579	.489	.527	.459	.495	.413
2.50	.438	.619	.550	.520	.502	.449	.415
5.00	.607	.594	.528	.509	.476	.404	.385
7.50	.684	.554	.496	.474	.436	.351	.287
10.00	.654	.519	.466	.437	.398	.302	.239
15.00	.589	.453	.413	.374	.347	.244	.143
20.00	.510	.405	.358	.386	.289	.190	.003
25.00	.475	.361	.314	.278	.242	.135	-.068
30.00	.410	.318	.270	.240	.196	.083	-.121
35.00	.361	.275	.238	.196	.154	.035	-.146
40.00	.333	.245	.196	.156	.112	-.014	-.165
45.00	.288	.204	.168	.118	.068	-.062	-.185
50.00	.245	.174	.128	.080	.029	-.104	-.201
55.00	.214	.146	.097	.048	-.007	-.135	-.225
60.00	.186	.122	.076	.013	-.038	-.171	-.238
65.00	.163	.094	.036	-.025	-.073		-.230
70.00	.144						-.230
75.00	.080	.055	-.019	-.068	-.114	-.213	-.263
80.00	.090	.043	-.045	-.109	-.154	-.240	-.259
85.00	.059	-.010	-.079	-.145	-.185	-.266	-.259
90.00	.038	-.040	-.146	-.201	-.232	-.281	-.259
95.00	.003	-.100	-.217	-.258	-.287	-.288	-.277

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 19.6°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.030	-1.020	-.895	-.841	-.666	-.567	-.492
1.25	-.648	-1.010	-.870	-.737	-.662	-.552	-.477
2.50	-.818	-1.008	-.851	-.734	-.663	-.558	-.476
5.00	-1.057	-.997	-.863	-.742	-.652	-.548	-.481
7.50	-1.039	-.989	-.844	-.752	-.649	-.556	-.474
10.00	-1.027	-.984	-.846	-.742	-.648	-.556	-.467
15.00	-1.023	-.963	-.844	-.726	-.643	-.549	-.461
20.00	-.987	-.954	-.835	-.720	-.639	-.541	-.462
25.00	-.947	-.942	-.827	-.717	-.638	-.523	-.459
30.00	-.904	-.936	-.823	-.715	-.634	-.530	-.466
35.00	-.858	-.925	-.818	-.709	-.618	-.528	-.469
40.00	-.817	-.910	-.809	-.701	-.612	-.520	-.468
45.00	-.785	-.895	-.805	-.696	-.608	-.519	-.467
50.00	-.781	-.886	-.797	-.690	-.603	-.519	-.466
55.00	-.729	-.873	-.786	-.686	-.595	-.513	-.460
60.00	-.738	-.857	-.778	-.683	-.596	-.507	-.453
65.00	-.734	-.858	-.783	-.679	-.599	-.508	-.460
70.00	-.686						-.440
75.00	-.772	-.818	-.751	-.661	-.579	-.488	-.435
80.00	-.686	-.804	-.735	-.655	-.572	-.477	-.421
85.00	-.672	-.784	-.722	-.646	-.563	-.465	-.417
90.00	-.641	-.763	-.703	-.631	-.553	-.453	-.402
95.00	-.584	-.740	-.689	-.621	-.538	-.436	-.386

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.217	.573	.459	.509	.421		.374
2.50	.402	.661	.573	.541	.506	.492	.421
5.00	.661	.668	.583	.542	.512	.475	.394
7.50	.774	.640	.563	.522	.486	.446	.337
10.00	.754	.612	.539	.500	.455	.396	.297
15.00	.696	.554	.492	.444	.409	.361	.209
20.00	.621	.505	.437	.398	.353	.305	.122
25.00	.580	.460	.393	.349	.306	.248	.050
30.00	.520	.415	.352	.307	.260	.195	-.018
35.00	.469	.376	.308	.266	.218	.138	-.074
40.00	.437	.338	.271	.219	.173	.090	-.105
45.00	.392	.299	.231	.179	.125	.039	-.142
50.00	.350	.260	.191	.136	.087	-.014	-.169
55.00	.311	.227	.152	.097	.045	-.062	-.194
60.00	.276	.196	.126	.061	.011	-.100	-.204
65.00	.255	.165	.078	.024	-.025	-.141	-.231
70.00	.222						-.242
75.00	.154	.105	-.001	-.048	-.089	-.198	-.242
80.00	.151	.076	-.038	-.082	-.134	-.234	-.272
85.00	.111	.010	-.085	-.128	-.172	-.267	-.285
90.00	.055	-.053	-.155	-.184	-.239	-.296	-.285
95.00	.020	-.163	-.230	-.254	-.297	-.319	-.306

M = 0.85   α = 26.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.115	-.881	-.880	-.811	-.780	-.697	-.600
1.25	-.554	-.865	-.879	-.796	-.791	-.694	-.587
2.50	-.921	-.860	-.865	-.798	-.791	-.709	-.587
5.00	-.897	-.884	-.880	-.803	-.788	-.706	-.591
7.50	-.889	-.886	-.868	-.807	-.791	-.732	-.586
10.00	-.885	-.887	-.872	-.819	-.790	-.750	-.577
15.00	-.887	-.881	-.875	-.812	-.813	-.711	-.573
20.00	-.882	-.887	-.873	-.811	-.824	-.682	-.572
25.00	-.878	-.886	-.877	-.815	-.799	-.662	-.569
30.00	-.880	-.888	-.887	-.820	-.786	-.671	-.575
35.00	-.873	-.889	-.886	-.817	-.776	-.669	-.578
40.00	-.865	-.889	-.879	-.816	-.769	-.662	-.578
45.00	-.859	-.889	-.873	-.813	-.769	-.657	-.577
50.00	-.853	-.889	-.870	-.813	-.765	-.655	-.573
55.00	-.839	-.887	-.865	-.809	-.759	-.649	-.565
60.00	-.837	-.885	-.861	-.802	-.753	-.639	-.552
65.00	-.836	-.890	-.868	-.804	-.755	-.644	-.556
70.00	-.805						-.530
75.00	-.898	-.871	-.848	-.783	-.786	-.611	-.515
80.00	-.811	-.867	-.840	-.776	-.718	-.594	-.501
85.00	-.804	-.857	-.830	-.767	-.703	-.577	-.494
90.00	-.783	-.843	-.826	-.758	-.693	-.562	-.476
95.00	-.736	-.825	-.823	-.753	-.678	-.541	-.465

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.046	.511	.358	.420	.295		.256
2.50	.298	.686	.567	.530	.475	.460	.395
5.00	.661	.749	.640	.577	.541	.498	.420
7.50	.842	.743	.639	.576	.543	.498	.395
10.00	.840	.738	.632	.571	.538	.471	.366
15.00	.816	.687	.600	.543	.499	.444	.301
20.00	.758	.649	.557	.505	.454	.396	.209
25.00	.717	.605	.518	.468	.413	.347	.144
30.00	.668	.565	.478	.428	.368	.294	.070
35.00	.619	.526	.441	.388	.336	.242	.009
40.00	.583	.488	.398	.354	.285	.192	-.048
45.00	.541	.443	.356	.294	.238	.136	-.079
50.00	.500	.404	.316	.251	.193	.083	-.118
55.00	.460	.369	.277	.200	.149	.029	-.151
60.00	.423	.338	.240	.167	.107	.015	-.173
65.00	.399	.290	.192	.123	.070	.067	-.208
70.00	.358						-.237
75.00	.292	.222	.096	.041	.005	-.143	-.246
80.00	.259	.185	.050	.001	.064	-.160	-.273
85.00	.210	.122	.021	.031	.112	-.207	-.300
90.00	.136	.077	.081	.223	.145	-.229	-.317
95.00	.076	.092	.173	.214	.274	-.341	-.349

BASIC WING

TABLE I

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 0.0°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	—	.530	.459	.720	.464	.487	.453
1.25	.030	.078	.112	.111	.051	.079	.098
2.50	.816	.064	.097	.114	.122	.161	.099
5.00	.145	.066	.103	.121	.087	.088	.117
7.50	.072	.079	.112	.121	.132	.113	.155
10.00	.032	.094	.131	.128	.148	.131	.197
15.00	.014	.110	.150	.172	.149	.163	.213
20.00	.027	.131	.170	.174	.168	.166	.209
25.00	.050	.152	.191	.189	.181	.176	.174
30.00	.081	.172	.209	.193	.183	.189	.165
35.00	.104	.190	.217	.197	.191	.198	.155
40.00	.108	.212	.231	.197	.189	.207	.143
45.00	.130	.227	.242	.198	.186	.197	.134
50.00	.158	.247	.247	.185	.184	.178	.116
55.00	.190	.241	.233	.174	.176	.156	.102
60.00	.166	.242	.185	—	.154	.126	.067
65.00	.204	.231	—	.104	.130	.098	.052
70.00	.229	—	.104	.053	.081	.041	.029
75.00	.177	.196	.069	.017	.047	.010	.003
80.00	.175	.146	.016	.016	.007	.025	.024
85.00	.220	.098	.000	.034	.027	.056	.050
90.00	.214	.059	.034	—	.054	.088	.071
95.00	.178	.012	—	—	—	—	.088
	.128						

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.194	.093	.153	.172	.208	.137	.240
2.50	.131	.063	.108	.141	.170	.154	.202
5.00	.061	.062	.112	.082	.167	.163	.178
7.50	.039	.084	.125	.126	.182	.161	.230
10.00	.009	.096	.143	.144	.187	.171	.240
15.00	.087	.127	.162	.191	.176	.188	.276
20.00	.073	.138	.183	.197	.189	.195	.244
25.00	.047	.162	.200	.200	.193	.203	.183
30.00	.118	.181	.219	.205	.196	.215	.167
35.00	.130	.202	.237	.209	.199	.215	.153
40.00	.139	.217	.241	.206	.201	.203	.148
45.00	.168	.245	.249	.197	.206	.179	.137
50.00	.201	.260	.252	.182	.193	.157	.122
55.00	.215	.257	.230	.156	.184	.127	.103
60.00	.229	.246	.191	.131	.158	.096	.073
65.00	.244	.238	.166	—	.126	—	.046
70.00	.228	—	—	.082	.068	.036	.029
75.00	.219	.190	.112	.046	.044	.003	.007
80.00	.190	.139	.079	.013	.016	.034	.015
85.00	.211	.104	.039	.015	.010	.046	.031
90.00	.171	.066	.005	.058	.052	.075	.064
95.00	.177	.013	.041				.084

M = 0.90   α = 4.0°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.036	.165	.038	.280	.215	.309	.217
1.25	.012	.921	1.015	1.081	1.121	1.131	1.193
2.50	.090	.830	.937	1.103	1.135	1.199	1.167
5.00	.165	.395	.858	.966	1.041	1.070	.987
7.50	.192	.361	.474	.548	.975	1.030	.943
10.00	.194	.350	.450	.438	.833	.986	.889
15.00	.217	.328	.487	.473	.482	.680	.484
20.00	.225	.325	.418	.466	.507	.347	.291
25.00	.249	.335	.485	.488	.529	.286	.157
30.00	.262	.341	.440	.498	.487	.276	.147
35.00	.260	.356	.443	.506	.386	.247	.165
40.00	.271	.379	.489	.528	.286	.204	.169
45.00	.298	.385	.479	.489	.286	.171	.174
50.00	.341	.416	.484	.382	.251	.155	.155
55.00	.300	.430	.475	.253	.230	.128	.139
60.00	.346	.421	.462	.156	.195	.104	.108
65.00	.392	.402	.389	.155	.156	—	.091
70.00	.328	—	.135	.104	.082	.047	.078
75.00	.340	.413	.094	.068	.046	.015	.053
80.00	.380	.301	.040	.027	.007	.019	.030
85.00	.405	.169	.011	.008	.028	.045	.006
90.00	.349	.089	.082	.021	.052	.070	.006
95.00	.225	.028					.025

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.335	.343	.333	.310	.361	.318	.354
2.50	.308	.270	.258	.241	.380	.217	.268
5.00	.254	.199	.179	.221	.193	.160	.175
7.50	.232	.151	.131	.165	.140	.132	.090
10.00	.194	.127	.099	.108	.103	.077	.032
15.00	.149	.068	.051	.048	.071	.039	.030
20.00	.092	.031	.011	.015	.083	.007	.127
25.00	.097	.062	.030	.018	.003	.039	.162
30.00	.037	.053	.050	.029	.097	.074	.150
35.00	.007	.071	.068	.051	.045	.098	.188
40.00	.004	.102	.104	.069	.061	.122	.184
45.00	.036	.118	.115	.084	.080	.134	.117
50.00	.078	.120	.111	.085	.085	.128	.110
55.00	.084	.120	.101	.086	.083	.108	.096
60.00	.098	.132	.096	.080	.070	—	.079
65.00	.117	—	—	.070	—	.038	.058
70.00	.106	.107	.073	.043	.040	.089	.046
75.00	.110	.083	.045	.030	.030	.029	.025
80.00	.093	.072	.019	.009	.009	.059	.009
85.00	.115	.047	.008	.019	.006		.010
90.00	.104	.015	.034	.047	.042		.037
95.00	.128						.046

BASIC WING

TABLE I

M = 0.90   α = 6.0°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00		−.072	−.197	−.086	−.511	−.627	−.581
1.25	−.025	−1.019	−1.257	−1.277	−1.311	−1.297	−1.138
2.50	−.087	−1.008	−1.204	−1.313	−1.317	−1.363	−1.126
5.00	−.199	−.735	−1.096	−1.235	−1.255	−1.260	−1.070
7.50	−.284	−.622	−.961	−1.121	−1.199	−1.238	−1.018
10.00	−.308	−.566	−.771	−1.058	−1.157	−1.202	−.957
15.00	−.305	−.473	−.535	−.885	−1.052	−1.127	−.832
20.00	−.313	−.435	−.491	−.545	−1.027	−1.058	−.728
25.00	−.305	−.421	−.497	−.541	−.814	−.848	−.646
30.00	−.335	−.416	−.516	−.558	−.622	−.588	−.540
35.00	−.347	−.426	−.522	−.575	−.596	−.475	−.459
40.00	−.335	−.442	−.536	−.597	−.563	−.359	−.390
45.00	−.338	−.450	−.555	−.616	−.386	−.252	−.336
50.00	−.359	−.474	−.565	−.623	−.217	−.189	−.288
55.00	−.400	−.492	−.565	−.537	−.153	−.145	−.251
60.00	−.356	−.489	−.565	−.258	−.119	−.111	−.224
65.00	−.404	−.452	−.516	−.172	−.095	−.075	−.196
70.00	−.446		−.219	−.079	−.047	−.026	−.187
75.00	−.386	−.502	−.128	−.045	−.024	−.001	−.167
80.00	−.393	−.455	−.057	−.011	−.008	−.026	−.158
85.00	−.436	−.297	−.018	−.021	−.037	−.050	−.129
90.00	−.472	−.150	−.017	−.031	−.056	−.071	−.114
95.00	−.453	−.058					−.091
	−.339						
LOWER SURFACE							
1.25	.387	.448	.426	.399	.435	.389	.407
2.50	.385	.378	.350	.317	.367	.293	.339
5.00	.344	.298	.270	.292	.284	.239	.243
7.50	.315	.241	.219	.236	.228	.201	.165
10.00	.284	.213	.188	.172	.186	.146	.107
15.00	.234	.149	.132	.122	.147	.091	.001
20.00	.179	.110	.085	.082	.098	.053	−.069
25.00	.173	.073	.051	.052	.065	.017	−.138
30.00	.113	.042	.022	.030	.038	−.021	−.152
35.00	.076	.014	.006	.001	.015	−.050	−.148
40.00	.065	−.005	−.027	−.015	.004	−.080	−.134
45.00	.030	−.037	−.046	−.035	−.026	−.100	−.128
50.00	.005	−.057	−.061	−.046	−.035	−.106	−.109
55.00	−.024	−.063	−.061	−.049	−.046	−.099	−.097
60.00	−.036	−.068	−.062	−.049	−.043	−.083	−.077
65.00	−.051	−.073		−.040	−.033		−.056
70.00	−.048	−.071	−.047	−.022	−.013	−.034	−.049
75.00	−.057	−.053	−.027	−.003	−.008	−.006	−.036
80.00	−.046	−.049	−.006	−.011	−.007	−.028	−.011
85.00	−.070	−.040	−.005	−.025	−.021	−.032	−.000
90.00	−.071	−.021	−.037	−.048	−.046	−.062	−.014
95.00	−.097						−.016

M = 0.90   α = 7.9°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	−.018	−.330	−.413	−.095	−.738	−.876	−.750
1.25	−.188	−1.139	−1.419	−1.411	−1.403	−1.079	−.798
2.50	−.317	−1.135	−1.351	−1.433	−1.401	−1.098	−.797
5.00	−.415	−1.119	−1.336	−1.380	−1.355	−.989	−.802
7.50	−.443	−1.031	−1.250	−1.322	−1.313	−.997	−.782
10.00	−.436	−.967	−1.175	−1.275	−1.232	−.975	−.752
15.00	−.410	−.795	−.881	−1.155	−1.190	−.925	−.713
20.00	−.423	−.600	−.689	−.939	−1.133	−.827	−.644
25.00	−.422	−.478	−.683	−.786	−1.021	−.764	−.527
30.00	−.409	−.468	−.609	−.719	−.864	−.718	−.474
35.00	−.410	−.483	−.615	−.686	−.743	−.663	−.450
40.00	−.418	−.504	−.627	−.671	−.701	−.612	−.421
45.00	−.462	−.516	−.636	−.676	−.623	−.565	−.395
50.00	−.480	−.538	−.642	−.607	−.485	−.494	−.375
55.00	−.474	−.557	−.598	−.305	−.339	−.460	−.358
60.00	−.523	−.564		−.195	−.245	−.418	−.338
65.00	−.464	−.519	−.286	−.075	−.162	−.356	−.327
70.00	−.459		−.179	−.044	−.124	−.317	−.321
75.00	−.502	−.578	−.099	−.024	−.075	−.279	−.307
80.00	−.533	−.546	−.052	−.002	−.032	−.231	−.296
85.00	−.523	−.412	−.013	−.013	−.004	−.196	−.284
90.00	−.420	−.199					−.272
95.00		−.092					−.260
LOWER SURFACE							
1.25	.413	.517	.489	.449	.472	.435	.432
2.50	.444	.452	.437	.386	.422	.353	.380
5.00	.428	.378	.351	.356	.348	.295	.294
7.50	.407	.322	.302	.296	.292	.247	.213
10.00	.376	.281	.265	.248	.248	.200	.154
15.00	.323	.176	.210	.193	.202	.147	.061
20.00	.260	.137	.158	.153	.154	.100	.016
25.00	.247	.105	.125	.118	.116	.062	−.060
30.00	.185	.075	.088	.086	.087	.022	−.120
35.00	.144	.053	.059	.060	.062	−.011	−.134
40.00	.127	.022	.035	.035	.037	−.044	−.138
45.00	.098	.003	.013	.016	.014	−.075	−.136
50.00	.058	−.014	−.006	.003	.002	−.089	−.127
55.00	.034	−.023	−.016	−.012	−.012	−.092	−.118
60.00	.014	−.035	−.021	−.014	−.018	−.088	−.105
65.00	−.004		−.025	−.018	−.021		−.092
70.00	−.008	−.039		−.006	−.017	−.060	−.089
75.00	−.031	−.034	−.022	−.004	−.011	−.040	−.083
80.00	−.007	−.036	−.004	−.017	−.002	−.039	−.076
85.00	−.031	−.036	−.010	−.020	−.005	−.051	−.084
90.00	−.043	−.030	−.029	−.038	−.019	−.066	−.091
95.00	−.065						−.110

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 11.4°

Upper surface

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.005	-.713	-.800	-.436	-.568	-.361	-.478
1.25	-.346	-1.358	-1.426	-1.073	.523	.529	-.400
2.50	-.495	-1.344	-1.349	-1.073	.503	.446	-.402
5.00	-.636	-1.380	-1.388	-1.085	.463	.425	-.417
7.50	-.664	-1.348	-1.282	-1.115	.403	.373	-.407
10.00	-.657	-1.303	-1.249	-1.129	.367	.329	-.385
15.00	-.658	-1.208	-1.189	-1.102	.299	.255	-.370
20.00	-.604	-1.143	-1.131	-1.064	.246	.208	-.353
25.00	-.592	-1.076	-1.087	-1.048	.203	.157	-.327
30.00	-.576	-.934	-1.047	-1.019	.165	.105	-.318
35.00	-.556	-.683	-1.009	-.981	.126	.060	-.311
40.00	-.550	-.574	-.971	-.934	.089	.012	-.307
45.00	-.547	-.595	-.983	-.887	.059	.034	-.309
50.00	-.578	-.631	-.879	-.837	.025	.076	-.313
55.00	-.585	-.651	-.886	-.788	.009	.116	-.313
60.00	-.571	-.661	-.781	-.756	.036	.141	-.314
65.00	-.618	-.631	-.712	-.708	.062	.167	-.332
70.00	-.575						.016
75.00	-.595	-.651	-.492	-.619	.114	.193	-.322
80.00	-.623	-.593	-.416	-.581	.138	.201	-.319
85.00	-.643	-.383	-.338	-.546	.154	.209	-.322
90.00	-.587	-.244	-.280	-.497	.187	.231	-.315
95.00	-.433	-.159	-.237	-.467	.243	.251	-.311

Lower surface

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.388	.587	.532	.508	.824		-.439
2.50	.474	.558	.508	.473	.811	.489	-.414
5.00	.540	.498	.448	.445	.775	.506	-.334
7.50	.557	.444	.404	.396	.765	.506	-.255
10.00	.524	.410	.368	.353	.758	.501	-.203
15.00	.464	.339	.313	.288	.746	.487	-.109
20.00	.388	.293	.257	.244	.736	.467	-.009
25.00	.363	.250	.216	.200	.702	.447	.038
30.00	.297	.210	.179	.168	.702	.445	.087
35.00	.251	.176	.146	.132	.680	.444	.129
40.00	.229	.148	.115	.099	.663	.437	.152
45.00	.188	.113	.088	.069	.647	.426	.155
50.00	.150	.082	.059	.043	.628	.426	.172
55.00	.120	.063	.040	.022	.614	.423	.185
60.00	.096	.047	.029	.005	.598	.423	.187
65.00	.080	.029	.006	-.018	.584	.442	.209
70.00	.068						.213
75.00	.015	.009	-.017	-.041	.522	.436	.211
80.00	.037	.008	-.018	-.051	.513	.436	.244
85.00	.016	-.018	-.025	-.071	.497	.436	.243
90.00	.001	-.038	-.044	-.110	.488	.407	.242
95.00	-.008	-.053	-.056	-.155	.458	.375	.255

M = 0.90   α = 15.6°

Upper surface

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.000	-1.065	-1.027	-.865	-.684	-.517	-.460
1.25	-.491	-1.468	-.951	-.775	-.670	-.505	-.436
2.50	-.700	-1.443	-.925	-.771	-.667	-.509	-.435
5.00	-.880	-1.452	-.954	-.770	-.660	-.496	-.445
7.50	-.907	-1.457	-.946	-.782	-.656	-.499	-.445
10.00	-.896	-1.439	-.954	-.792	-.655	-.497	-.430
15.00	-.882	-1.352	-.962	-.780	-.650	-.492	-.428
20.00	-.812	-1.291	-.948	-.769	-.640	-.482	-.428
25.00	-.764	-1.206	-.932	-.758	-.639	-.468	-.420
30.00	-.718	-1.154	-.923	-.751	-.622	-.468	-.421
35.00	-.670	-1.089	-.908	-.742	-.612	-.466	-.420
40.00	-.622	-1.008	-.893	-.730	-.604	-.458	-.416
45.00	-.566	-.903	-.881	-.718	-.594	-.454	-.416
50.00	-.553	-.835	-.867	-.709	-.587	-.453	-.415
55.00	-.537	-.795	-.846	-.699	-.576	-.446	-.403
60.00	-.600	-.758	-.827	-.695	-.572	-.442	-.403
65.00	-.651	-.727	-.834	-.690	-.578	-.449	-.413
70.00	-.593						.002
75.00	-.628	-.673	-.777	-.660	-.549	-.433	-.391
80.00	-.611	-.628	-.757	-.646	-.537	-.424	-.381
85.00	-.619	-.551	-.731	-.633	-.525	-.417	-.381
90.00	-.569	-.480	-.712	-.607	-.511	-.412	-.361
95.00	-.448	-.419	-.705	-.599	-.497	-.404	-.356

Lower surface

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.357	.621	.521	.548	.472		.419
2.50	.482	.646	.566	.531	.510	.498	.422
5.00	.643	.618	.541	.516	.481	.448	.378
7.50	.713	.575	.507	.478	.448	.406	.303
10.00	.678	.541	.474	.441	.406	.391	.254
15.00	.618	.475	.423	.383	.351	.310	.161
20.00	.534	.428	.368	.335	.298	.250	.073
25.00	.498	.383	.324	.289	.248	.197	.002
30.00	.435	.339	.281	.250	.205	.143	.071
35.00	.384	.298	.246	.208	.165	.088	.127
40.00	.356	.269	.207	.168	.123	.043	.168
45.00	.314	.230	.175	.128	.080	.014	.191
50.00	.273	.195	.137	.090	.043	.063	.217
55.00	.239	.171	.106	.058	.006	.109	.235
60.00	.208	.148	.086	.025	.028	.147	.244
65.00	.190	.121	.081	.008	.055	.187	.269
70.00	.166						.269
75.00	.102	.080	.008	.069	.109	.237	.269
80.00	.115	.063	.036	.094	.153	.285	.244
85.00	.083	.026	.067	.131	.186	.315	.297
90.00	.044	.022	.133	.190	.239	.385	.295
95.00	.023	.086	.196	.251	.293	.334	.305

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 19.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.043	-1.106	-.932	-.859	-.724	-.596	-.533
1.25	-.601	-1.086	-.911	-.763	-.728	-.589	-.520
2.50	-.834	-1.087	-.885	-.766	-.730	-.598	-.518
5.00	-1.127	-1.086	-.905	-.778	-.697	-.580	-.526
7.50	-1.117	-1.072	-.887	-.792	-.687	-.594	-.528
10.00	-1.083	-1.060	-.887	-.788	-.682	-.596	-.518
15.00	-1.063	-1.027	-.887	-.757	-.680	-.592	-.509
20.00	-.981	-1.017	-.873	-.752	-.674	-.583	-.507
25.00	-.920	-.997	-.861	-.752	-.665	-.565	-.503
30.00	-.854	-.989	-.856	-.749	-.664	-.572	-.509
35.00	-.798	-.973	-.848	-.745	-.656	-.571	-.517
40.00	-.765	-.954	-.837	-.737	-.651	-.566	-.513
45.00	-.738	-.932	-.829	-.730	-.645	-.563	-.514
50.00	-.746	-.916	-.821	-.726	-.639	-.562	-.510
55.00	-.695	-.896	-.813	-.721	-.631	-.556	-.504
60.00	-.719	-.875	-.801	-.717	-.625	-.552	-.496
65.00	-.724	-.866	-.806	-.715	-.632	-.558	-.503
70.00	-.665						-.490
75.00	-.725	-.822	-.773	-.699	-.609	-.539	-.471
80.00	-.688	-.807	-.764	-.689	-.604	-.528	-.459
85.00	-.661	-.779	-.748	-.682	-.597	-.515	-.453
90.00	-.624	-.755	-.732	-.670	-.590	-.504	-.439
95.00	-.550	-.727	-.723	-.664	-.586	-.487	-.422

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.233	.604	.487	.533	.423		.378
2.50	.443	.686	.591	.552	.514	.499	.431
5.00	.699	.690	.601	.553	.518	.484	.406
7.50	.807	.662	.583	.532	.495	.455	.354
10.00	.779	.636	.560	.507	.466	.417	.313
15.00	.719	.574	.514	.457	.421	.373	.286
20.00	.644	.529	.461	.412	.368	.317	.140
25.00	.603	.488	.417	.363	.330	.262	.062
30.00	.546	.440	.376	.326	.277	.209	-.011
35.00	.496	.402	.337	.284	.233	.159	-.070
40.00	.464	.366	.296	.241	.190	.109	-.115
45.00	.420	.336	.261	.197	.145	.055	-.155
50.00	.377	.288	.218	.157	.103	.008	-.190
55.00	.339	.257	.186	.120	.062	-.051	-.222
60.00	.306	.228	.158	.083	.027	-.098	-.238
65.00	.289	.200	.115	.046	-.007	-.138	-.268
70.00	.252						-.291
75.00	.188	.143	.040	-.027	-.072	-.201	-.299
80.00	.181	.118	.002	-.059	-.117	-.252	-.327
85.00	.140	-.044	-.043	-.099	-.160	-.291	-.343
90.00	.089	-.002	-.110	-.162	-.230	-.332	-.348
95.00	.052	-.104	-.185	-.232	-.288	-.372	-.360

M = 0.90   α = 26.2°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.161	-.920	-.901	-.804	-.811	-.781	-.640
1.25	-.475	-.903	-.881	-.777	-.790	-.762	-.611
2.50	-.925	-.898	-.862	-.780	-.783	-.789	-.605
5.00	-.912	-.899	-.881	-.788	-.778	-.803	-.584
7.50	-.896	-.900	-.864	-.798	-.783	-.859	-.595
10.00	-.900	-.905	-.872	-.787	-.783	-.893	-.603
15.00	-.899	-.896	-.867	-.805	-.774	-.767	-.596
20.00	-.904	-.909	-.876	-.805	-.776	-.701	-.599
25.00	-.905	-.912	-.886	-.820	-.779	-.677	-.608
30.00	-.896	-.906	-.886	-.817	-.775	-.680	-.609
35.00	-.888	-.905	-.884	-.817	-.774	-.678	-.610
40.00	-.871	-.906	-.874	-.818	-.776	-.679	-.613
45.00	-.867	-.904	-.868	-.817	-.778	-.675	-.614
50.00	-.867	-.896	-.861	-.813	-.776	-.674	-.612
55.00	-.842	-.895	-.854	-.818	-.776	-.674	-.613
60.00	-.846	-.895	-.856	-.804	-.769	-.672	-.600
65.00	-.842	-.856	-.827	-.779	-.739	-.648	-.573
70.00	-.798						-.590
75.00	-.885	-.875	-.845	-.789	-.748	-.650	-.570
80.00	-.815	-.869	-.845	-.782	-.744	-.640	-.558
85.00	-.806	-.852	-.840	-.778	-.731	-.624	-.530
90.00	-.781	-.841	-.829	-.763	-.718	-.599	-.516
95.00	-.723	-.824	-.822	-.760	-.701	-.578	-.500

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.069	.539	.394	.440	.380		.273
2.50	.387	.706	.629	.560	.493	.474	.409
5.00	.691	.766	.660	.601	.557	.518	.437
7.50	.865	.762	.665	.603	.560	.518	.413
10.00	.863	.750	.655	.598	.548	.492	.386
15.00	.838	.705	.626	.569	.518	.470	.334
20.00	.777	.668	.583	.533	.474	.428	.226
25.00	.737	.626	.545	.491	.435	.373	.165
30.00	.689	.583	.505	.455	.393	.327	.099
35.00	.641	.543	.470	.414	.352	.278	.053
40.00	.606	.508	.430	.373	.314	.227	-.011
45.00	.563	.462	.393	.331	.266	.174	-.061
50.00	.588	.425	.380	.284	.226	.121	-.103
55.00	.486	.394	.313	.247	.182	.067	-.143
60.00	.449	.361	.278	.206	.142	.083	-.174
65.00	.431	.331	.236	.173	.113	-.008	-.186
70.00	.377						-.222
75.00	.319	.253	.148	.083	.031	-.083	-.261
80.00	.286	.219	.097	.048	.027	-.152	-.253
85.00	.239	.150	.046	.001	.071	-.186	-.299
90.00	.168	.082	-.026	-.076	-.097	-.230	-.339
95.00	.112	-.038	-.110	-.158	-.227	-.313	-.368

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.027	.541	.462	.723	.445	.485	.465
1.25	.234	.053	.098	.109	.077	.072	.081
2.50	.166	.042	.084	.120	.150	.171	.080
5.00	.095	.045	.095	.135	.122	.095	.097
7.50	.054	.062	.105	.135	.167	.118	.137
10.00	.035	.076	.126	.143	.191	.131	.178
15.00	.005	.096	.148	.197	.200	.151	.220
20.00	.035	.119	.174	.218	.235	.157	.279
25.00	.067	.141	.195	.246	.259	.171	.270
30.00	.090	.161	.231	.254	.249	.190	.234
35.00	.095	.187	.250	.270	.219	.202	.183
40.00	.119	.208	.272	.295	.172	.220	.129
45.00	.146	.228	.285	.325	.157	.244	.108
50.00	.185	.257	.296	.325	.171	.253	.098
55.00	.164	.273	.323	.255	.175	.205	.082
60.00	.204	.267	.338	.103	.161	.115	.055
65.00	.243	.264	.309	.092	.138	.070	.038
70.00	.196						.017
75.00	.194	.294	.142	.076	.100	.021	.010
80.00	.261	.274	.063	.050	.062	.011	.040
85.00	.283	.232	.005	.020	.014	.041	.064
90.00	.275	.136	.015	.012	.029	.074	.085
95.00	.243	.042	.047	.025	.062	.100	.104

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.209	.086	.155	.188	.244		.256
2.50	.151	.057	.110	.158	.205	.171	.224
5.00	.078	.053	.111	.101	.209	.181	.206
7.50	.053	.072	.128	.149	.231	.186	.298
10.00	.025	.083	.139	.168	.248	.181	.246
15.00	.012	.116	.171	.216	.247	.184	.303
20.00	.061	.131	.192	.249	.267	.199	.290
25.00	.034	.152	.211	.263	.280	.307	.264
30.00	.108	.177	.237	.276	.274	.221	.226
35.00	.120	.202	.255	.304	.239	.221	.170
40.00	.130	.218	.285	.324	.212	.220	.145
45.00	.163	.247	.307	.346	.209	.241	.107
50.00	.198	.273	.333	.344	.195	.251	.102
55.00	.215	.287	.335	.280	.184	.198	.088
60.00	.227	.290	.336	.178	.160	.116	.066
65.00	.251	.287	.331	.125	.121	.069	.036
70.00	.247						.017
75.00	.257	.297	.171	.074	.075	.015	.001
80.00	.241	.272	.079	.045	.054	.011	.024
85.00	.288	.285	.030	.016	.017	.039	.031
90.00	.285	.157	.006	.010	.037	.062	.074
95.00	.304	.049	.048	.052	.060	.089	.094

M = 0.94   α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.028	.244	.120	.365	.057	.127	.048
1.25	.061	.823	.935	.934	.946	.976	1.072
2.50	.037	.726	.651	.970	.976	1.047	1.050
5.00	.118	.336	.504	.850	.895	.931	.912
7.50	.150	.312	.396	.488	.831	.893	.906
10.00	.151	.310	.388	.403	.713	.868	.900
15.00	.179	.293	.381	.432	.447	.767	.866
20.00	.188	.287	.373	.439	.479	.528	.808
25.00	.222	.293	.384	.456	.503	.514	.527
30.00	.231	.308	.398	.464	.520	.553	.387
35.00	.226	.319	.412	.478	.538	.568	.105
40.00	.244	.348	.427	.502	.556	.582	.021
45.00	.262	.358	.453	.521	.575	.469	.034
50.00	.301	.385	.466	.539	.593	.155	.057
55.00	.271	.401	.472	.547	.570	.047	.068
60.00	.313	.404	.472	.487	.319	.009	.057
65.00	.357	.373	.472	.487	.160	.003	.054
70.00	.308						.039
75.00	.309	.420	.432	.168	.043	.015	.038
80.00	.356	.406	.277	.094	.003	.035	.005
85.00	.393	.363	.148	.042	.030	.058	.016
90.00	.389	.249	.075	.001	.058	.077	.028
95.00	.336	.137	.093	.025	.078	.098	.039

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.348	.339	.318	.272	.312		.389
2.50	.321	.269	.245	.208	.236	.278	.247
5.00	.264	.201	.167	.192	.149	.176	.157
7.50	.235	.153	.118	.135	.098	.126	.076
10.00	.207	.130	.087	.079	.058	.093	.021
15.00	.158	.071	.043	.014	.032	.049	.082
20.00	.103	.032	.004	.020	.014	.005	.157
25.00	.107	.000	.036	.050	.042	.029	.273
30.00	.046	.028	.074	.075	.064	.058	.271
35.00	.012	.080	.093	.102	.080	.092	.245
40.00	.001	.112	.120	.118	.093	.118	.198
45.00	.032	.138	.142	.134	.107	.153	.084
50.00	.071	.143	.159	.137	.111	.189	.050
55.00	.087	.149	.162	.134	.113	.205	.038
60.00	.104	.156	.161	.119	.103	.193	.087
65.00	.129		.158	.104	.083	.134	.001
70.00	.124						
75.00	.131	.155	.121	.070	.055	.026	.001
80.00	.125	.138	.089	.043	.044	.006	.012
85.00	.150	.132	.057	.017	.018	.031	.039
90.00	.154	.122	.035	.001	.008	.053	.048
95.00	.203	.086	.000	.037	.048	.084	.067

TABLE I BASIC WING

M = 0.94 α = 5.9°

Surface	Percent Chord	PRESSURE COEFFICIENT, P, AT: 0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	.00	-.024	-.017	-.095	-.204	-.332	-.410	-.362
	1.25	-.035	-.976	-1.186	-1.165	-1.193	-1.181	-1.269
	2.50	-.147	-1.002	-1.146	-1.197	-1.211	-1.243	-1.261
	5.00	-.234	-.678	-1.099	-1.130	-1.144	-1.141	-1.175
	7.50	-.266	-.548	-1.011	-1.062	-1.090	-1.117	-1.152
	10.00	-.269	-.492	-.886	-1.016	-1.065	-1.083	-1.132
	15.00	-.281	-.428	-.464	-.917	-1.013	-1.055	-1.106
	20.00	-.274	-.405	-.431	-.531	-.976	-1.021	-1.077
	25.00	-.298	-.394	-.445	-.482	-.849	-.990	-.989
	30.00	-.307	-.390	-.464	-.504	-.608	-.960	-.821
	35.00	-.307	-.398	-.477	-.527	-.567	-.948	-.522
	40.00	-.317	-.413	-.495	-.554	-.584	-.820	-.426
	45.00	-.330	-.434	-.515	-.575	-.610	-.649	-.399
	50.00	-.372	-.445	-.530	-.599	-.645	-.447	-.349
	55.00	-.329	-.465	-.541	-.624	-.676	-.263	-.257
	60.00	-.374	-.470	-.543	-.559	-.669	-.113	-.169
	65.00	-.420	-.439	-.530	-.602	-.347	.000	-.116
	70.00	-.368						-.098
	75.00	-.361	-.484	-.519	-.290	-.102	.061	-.076
	80.00	-.408	-.488	-.374	-.173	-.042	.074	-.068
	85.00	-.448	-.437	-.224	-.100	-.010	.085	-.061
	90.00	-.437	-.334	-.142	-.039	.050	.096	-.047
	95.00	-.413	-.182	-.080	-.004	.077	.108	-.034
LOWER SURFACE	1.25	.397	.452	.425	.387	.409		.396
	2.50	.398	.380	.345	.307	.334	.360	.321
	5.00	.356	.309	.265	.287	.250	.262	.226
	7.50	.330	.253	.214	.222	.192	.206	.148
	10.00	.296	.221	.180	.160	.153	.162	.092
	15.00	.246	.154	.126	.104	.112	.118	.007
	20.00	.186	.111	.078	.064	.061	.068	-.089
	25.00	.181	.074	.039	.031	.028	.025	-.193
	30.00	.121	.041	.005	-.004	.000	-.007	-.246
	35.00	.082	.011	-.021	-.029	-.024	-.043	-.282
	40.00	.068	-.013	-.047	-.053	-.045	-.076	-.288
	45.00	.031	-.045	-.072	-.076	-.065	-.113	-.291
	50.00	.000	-.071	-.091	-.089	-.074	-.149	-.258
	55.00	-.026	-.082	-.101	-.096	-.030	-.172	-.169
	60.00	-.043	-.090	-.106	-.096	-.079	-.179	-.088
	65.00	-.060	-.095	-.113	-.084	-.067	-.159	-.049
	70.00	-.065						-.026
	75.00	-.078	-.105	-.111	-.069	-.046	-.070	-.005
	80.00	-.072	-.099	-.089	-.044	-.040	-.015	.011
	85.00	-.100	-.105	-.071	-.024	-.020	-.013	.028
	90.00	-.111	-.112	-.059	-.011	.003	.046	.040
	95.00	-.150	-.099	-.034	-.020	.037	.080	.056

M = 0.94 α = 7.9°

Surface	Percent Chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	.00	-.023	-.202	-.282	-.033	-.561	-.675	-.627
	1.25	-.117	-1.073	-1.275	-1.253	-1.286	-1.259	-.731
	2.50	-.242	-1.067	-1.219	-1.282	-1.296	-1.317	-.734
	5.00	-.343	-1.023	-1.207	-1.228	-1.241	-1.226	-.759
	7.50	-.375	-.908	-1.133	-1.173	-1.196	-1.218	-.742
	10.00	-.373	-.843	-1.099	-1.131	-1.173	-1.186	-.726
	15.00	-.379	-.684	-.921	-1.092	-1.130	-1.152	-.739
	20.00	-.360	-.528	-.646	-1.020	-1.101	-1.104	-.729
	25.00	-.376	-.441	-.554	-.979	-1.079	-.985	-.707
	30.00	-.379	-.435	-.533	-.736	-1.028	-.793	-.683
	35.00	-.369	-.435	-.537	-.656	-1.005	-.715	-.635
	40.00	-.373	-.455	-.548	-.626	-.978	-.686	-.590
	45.00	-.381	-.469	-.563	-.623	-.849	-.652	-.552
	50.00	-.423	-.490	-.584	-.637	-.754	-.605	-.523
	55.00	-.378	-.507	-.583	-.656	-.666	-.583	-.493
	60.00	-.427	-.522	-.590	-.600	-.483	-.554	-.460
	65.00	-.475	-.486	-.561	-.649	-.342	-.493	-.418
	70.00	-.426						-.398
	75.00	-.414	-.533	-.542	-.345	-.130	-.426	-.378
	80.00	-.465	-.514	-.414	-.213	-.077	-.380	-.360
	85.00	-.492	-.492	-.274	-.125	-.054	-.328	-.330
	90.00	-.493	-.359	-.190	-.060	-.041	-.262	-.312
	95.00	-.458	-.200	-.127	-.019	-.026	-.211	-.286
LOWER SURFACE	1.25	.430	.528	.490	.449	.453		.431
	2.50	.460	.466	.424	.379	.394	.408	.375
	5.00	.443	.395	.345	.345	.314	.319	.284
	7.50	.424	.335	.297	.288	.258	.264	.206
	10.00	.388	.301	.257	.229	.217	.219	.150
	15.00	.335	.229	.205	.176	.168	.170	.043
	20.00	.269	.185	.154	.133	.118	.114	-.029
	25.00	.259	.145	.114	.096	.078	.071	-.126
	30.00	.195	.109	.076	.060	.049	.034	-.186
	35.00	.151	.077	.046	.033	.020	.005	-.229
	40.00	.133	.053	.020	.005	.005	-.041	-.240
	45.00	.096	.021	-.009	-.021	-.030	-.079	-.246
	50.00	.060	-.010	-.037	-.044	-.045	-.120	-.240
	55.00	.031	-.021	-.045	-.060	-.058	-.145	-.205
	60.00	.011	-.034	-.056	-.064	-.058	-.161	-.166
	65.00	.000	-.045	-.066	-.064	-.054	-.160	-.133
	70.00	-.007						-.117
	75.00	-.030	-.058	-.080	-.062	-.038	-.120	-.104
	80.00	-.019	-.060	-.072	-.036	-.038	-.082	-.080
	85.00	-.050	-.085	-.063	-.020	-.028	-.074	-.075
	90.00	-.063	-.095	-.063	-.011	-.019	-.067	-.083
	95.00	-.107	-.096	-.055	-.015	-.005	-.076	-.103

TABLE I

BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 11.4°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.011	-.585	-.648	-.253	-.871	-.738	-.564
1.25	-.264	-1.242	-1.277	-1.156	-.964	-.699	-.506
2.50	-.405	-1.226	-1.208	-1.155	-.970	-.705	-.505
5.00	-.549	-1.261	-1.182	-1.142	-.954	-.680	-.538
7.50	-.579	-1.222	-1.089	-1.142	-.957	-.686	-.502
10.00	-.577	-1.174	-1.038	-1.145	-.951	-.677	-.472
15.00	-.584	-1.079	-.991	-1.101	-.959	-.670	-.464
20.00	-.536	-1.019	-.941	-1.059	-.930	-.638	-.453
25.00	-.527	-.962	-.904	-1.027	-.887	-.604	-.419
30.00	-.516	-.851	-.871	-.986	-.866	-.607	-.420
35.00	-.496	-.676	-.840	-.933	-.834	-.593	-.405
40.00	-.494	-.514	-.813	-.890	-.791	-.573	-.392
45.00	-.499	-.498	-.793	-.847	-.740	-.553	-.383
50.00	-.530	-.535	-.781	-.799	-.702	-.543	-.379
55.00	-.483	-.564	-.763	-.757	-.670	-.522	-.370
60.00	-.530	-.591	-.765	-.731	-.644	-.503	-.368
65.00	-.574	-.580	-.752	-.699		-.503	-.389
70.00	-.525	-.601	-.610	-.622	-.564	-.460	-.390
75.00	-.530	-.591	-.536	-.592	-.540	-.440	-.360
80.00	-.557	-.567	-.460	-.551	-.507	-.426	-.354
85.00	-.582	-.404	-.405	-.505	-.475	-.413	-.346
90.00	-.571	-.234	-.362	-.471	-.447	-.397	-.341
95.00	-.530						-.445

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.408	-.607	-.540	-.521	-.492	-.469	-.415
2.50	-.508	-.574	-.516	-.479	-.476	-.396	-.334
5.00	-.566	-.513	-.458	-.449	-.417	-.344	-.259
7.50	-.561	-.461	-.410	-.397	-.365	-.295	-.205
10.00	-.547	-.426	-.374	-.348	-.326	-.247	-.113
15.00	-.468	-.356	-.318	-.289	-.271	-.187	-.012
20.00	-.411	-.308	-.265	-.242	-.219	-.135	-.059
25.00	-.386	-.266	-.220	-.197	-.174	-.088	-.120
30.00	-.318	-.228	-.184	-.163	-.137	-.039	-.166
35.00	-.273	-.191	-.149	-.127	-.099	-.004	-.191
40.00	-.250	-.162	-.116	-.093	-.065	-.054	-.209
45.00	-.209	-.127	-.088	-.062	-.028	-.105	-.231
50.00	-.173	-.094	-.057	-.032	-.000	-.146	-.241
55.00	-.140	-.075	-.038	-.009	-.031	-.181	-.239
60.00	-.111	-.055	-.020	-.009	-.053	-.212	-.257
65.00	-.096	-.038	-.003	-.031	-.072	-.246	-.255
70.00	-.079	-.015	-.034	-.063	-.106	-.270	-.278
75.00	-.026	-.008	-.037	-.077	-.140	-.292	-.277
80.00	-.048	-.019	-.041	-.096	-.164	-.311	-.277
85.00	-.024	-.058	-.066	-.137	-.208	-.315	-.286
90.00	-.008	-.090	-.098	-.179	-.254		
95.00	-.001						

M = 0.94   α = 15.7°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.018	-.953	-1.047	-.776	-.759	-.600	-.528
1.25	-.418	-1.383	-1.113	-.861	-.755	-.594	-.512
2.50	-.624	-1.361	-1.065	-.860	-.758	-.596	-.509
5.00	-.806	-1.375	-1.105	-.856	-.745	-.583	-.513
7.50	-.833	-1.385	-1.080	-.862	-.741	-.591	-.510
10.00	-.829	-1.369	-1.081	-.878	-.735	-.583	-.503
15.00	-.820	-1.311	-1.077	-.864	-.734	-.579	-.504
20.00	-.756	-1.302	-1.041	-.851	-.720	-.571	-.499
25.00	-.714	-1.282	-1.010	-.826	-.703	-.551	-.493
30.00	-.676	-1.262	-.998	-.822	-.703	-.560	-.497
35.00	-.643	-1.230	-.978	-.808	-.696	-.556	-.491
40.00	-.631	-1.090	-.962	-.792	-.687	-.545	-.488
45.00	-.628	-.721	-.945	-.780	-.681	-.539	-.485
50.00	-.653	-.583	-.932	-.771	-.674	-.541	-.472
55.00	-.601	-.599	-.909	-.760	-.660	-.533	-.488
60.00	-.614	-.640	-.888	-.757	-.654	-.526	-.010
65.00	-.607	-.640	-.920	-.756	-.667	-.537	-.463
70.00	-.540		-.832	-.715	-.630	-.512	-.454
75.00	-.577	-.679	-.808	-.706	-.618	-.503	-.498
80.00	-.574	-.644	-.773	-.692	-.605	-.496	-.448
85.00	-.610	-.555	-.750	-.669	-.593	-.494	-.438
90.00	-.603	-.397	-.735	-.655	-.580	-.485	
95.00	-.505	-.339					

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.358	-.642	-.542	-.567	-.477	-.496	-.381
2.50	-.502	-.663	-.581	-.542	-.513	-.454	-.316
5.00	-.663	-.632	-.555	-.527	-.485	-.411	-.267
7.50	-.731	-.586	-.521	-.487	-.447	-.361	-.181
10.00	-.695	-.555	-.489	-.446	-.410	-.319	-.081
15.00	-.629	-.486	-.440	-.398	-.357	-.260	-.005
20.00	-.546	-.438	-.382	-.346	-.302	-.208	-.071
25.00	-.511	-.394	-.339	-.299	-.259	-.156	-.128
30.00	-.448	-.353	-.298	-.263	-.214	-.104	-.176
35.00	-.397	-.315	-.263	-.220	-.174	-.057	-.204
40.00	-.370	-.280	-.224	-.180	-.134	-.005	-.240
45.00	-.326	-.243	-.191	-.144	-.092	-.052	-.266
50.00	-.287	-.207	-.157	-.106	-.055	-.101	-.282
55.00	-.252	-.184	-.125	-.074	-.016	-.143	-.307
60.00	-.219	-.160	-.107	-.043	-.015	-.182	-.326
65.00	-.206	-.134	-.074	-.017	-.040		-.333
70.00	-.176		-.018	-.046	-.094	-.243	-.363
75.00	-.110	-.094	-.006	-.073	-.141	-.282	-.390
80.00	-.128	-.080	-.034	-.104	-.173	-.309	-.399
85.00	-.090	-.037	-.091	-.158	-.241	-.351	-.407
90.00	-.048	-.010	-.153	-.223	-.286	-.393	
95.00	-.031	-.070					

TABLE 1   BASIC WING

M = 0.94   α = 20.0°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.062	-1.170	-.984	-.899	-.821	-.638	-.573
1.25	-.507	-1.251	-.965	-.791	-.818	-.632	-.566
2.50	-.773	-1.237	-.931	-.790	-.808	-.641	-.563
5.00	-1.031	-1.232	-.965	-.795	-.742	-.625	-.570
7.50	-1.059	-1.218	-.953	-.800	-.725	-.636	-.564
10.00	-1.054	-1.200	-.960	-.820	-.718	-.638	-.558
15.00	-1.027	-1.154	-.957	-.809	-.718	-.631	-.555
20.00	-.904	-1.140	-.941	-.811	-.715	-.620	-.556
25.00	-.800	-1.116	-.926	-.805	-.707	-.602	-.555
30.00	-.734	-1.100	-.916	-.794	-.705	-.612	-.561
35.00	-.693	-1.078	-.905	-.779	-.700	-.610	-.566
40.00	-.688	-1.055	-.897	-.770	-.693	-.605	-.567
45.00	-.693	-1.027	-.889	-.762	-.689	-.601	-.566
50.00	-.718	-.997	-.884	-.758	-.682	-.603	-.564
55.00	-.677	-.958	-.870	-.753	-.673	-.598	-.561
60.00	-.704	-.932	-.858	-.749	-.670	-.596	-.552
65.00	-.723	-.892	-.864	-.749	-.675	-.600	-.556
70.00	-.673						-.535
75.00	-.715	-.836	-.822	-.730	-.648	-.584	-.533
80.00	-.689	-.811	-.812	-.720	-.645	-.578	-.519
85.00	-.686	-.760	-.793	-.715	-.638	-.572	-.512
90.00	-.666	-.720	-.785	-.702	-.629	-.567	-.499
95.00	-.559	-.683	-.779	-.693	-.620	-.558	-.483
LOWER SURFACE							
1.25	.253	.633	.512	.564	.448		.390
2.50	.484	.712	.615	.579	.535	.516	.452
5.00	.735	.716	.624	.581	.544	.504	.434
7.50	.836	.688	.607	.556	.523	.479	.384
10.00	.807	.658	.583	.529	.497	.430	.344
15.00	.750	.604	.539	.486	.452	.403	.268
20.00	.674	.560	.489	.444	.399	.348	.169
25.00	.634	.512	.446	.396	.357	.299	.093
30.00	.576	.473	.405	.363	.313	.247	.022
35.00	.526	.430	.370	.321	.271	.195	.038
40.00	.494	.398	.331	.275	.229	.146	-.062
45.00	.452	.360	.294	.237	.186	.095	-.132
50.00	.411	.321	.258	.199	.148	.041	-.171
55.00	.374	.293	.226	.163	.107	-.010	-.203
60.00	.342	.263	.197	.129	.073	-.054	-.233
65.00	.325	.240	.160	.094	.045	-.098	-.254
70.00	.284						-.282
75.00	.234	.184	.081	.023	-.022	-.165	-.301
80.00	.214	.163	.050	.007	-.070	-.217	-.328
85.00	.176	.102	.011	-.046	-.106	-.257	-.364
90.00	.121	.052	-.057	-.108	-.167	-.297	-.392
95.00	.084	-.039	-.135	-.172	-.237	-.352	-.421

M = 0.94   α = 24.2°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.200	-.998	-.955	-.899	-.789	-.717	-.647
1.25	-.456	-.947	-.893	-.863	-.756	-.695	-.606
2.50	-.882	-.941	-.867	-.871	-.751	-.704	-.600
5.00	-.962	-.947	-.888	-.896	-.752	-.694	-.567
7.50	-.940	-.943	-.874	-.898	-.748	-.719	-.579
10.00	-.942	-.950	-.887	-.825	-.749	-.738	-.597
15.00	-.940	-.937	-.889	-.788	-.736	-.702	-.588
20.00	-.949	-.950	-.895	-.783	-.741	-.674	-.588
25.00	-.946	-.958	-.892	-.808	-.748	-.660	-.604
30.00	-.910	-.940	-.883	-.793	-.741	-.660	-.597
35.00	-.877	-.940	-.879	-.793	-.735	-.659	-.596
40.00	-.834	-.936	-.868	-.791	-.732	-.660	-.602
45.00	-.815	-.931	-.857	-.788	-.727	-.661	-.601
50.00	-.824	-.917	-.845	-.776	-.721	-.649	-.601
55.00	-.776	-.907	-.837	-.776	-.723	-.654	-.603
60.00	-.792	-.904	-.841	-.764	-.719	-.656	-.592
65.00	-.798	-.849	-.796	-.739	-.683	-.614	-.557
70.00	-.741						-.601
75.00	-.805	-.869	-.822	-.755	-.700	-.634	-.574
80.00	-.762	-.853	-.821	-.752	-.705	-.629	-.567
85.00	-.748	-.829	-.810	-.745	-.696	-.618	-.535
90.00	-.720	-.816	-.798	-.736	-.687	-.593	-.525
95.00	-.657	-.802	-.782	-.729	-.677	-.576	-.509
LOWER SURFACE							
1.25	.154	.601	.460	.500	.384		.330
2.50	.406	.734	.617	.585	.526	.507	.440
5.00	.735	.773	.667	.610	.570	.532	.454
7.50	.864	.761	.664	.607	.567	.524	.424
10.00	.872	.742	.648	.598	.550	.493	.394
15.00	.832	.691	.616	.559	.513	.464	.340
20.00	.769	.650	.570	.521	.470	.416	.251
25.00	.725	.609	.589	.481	.425	.368	.163
30.00	.675	.569	.493	.447	.387	.321	.096
35.00	.625	.528	.485	.404	.348	.271	.054
40.00	.591	.496	.418	.363	.307	.224	.000
45.00	.548	.454	.379	.383	.262	.174	-.058
50.00	.513	.415	.340	.281	.224	.132	-.108
55.00	.472	.384	.304	.241	.182	.071	-.143
60.00	.437	.383	.274	.206	.146	.087	-.166
65.00	.424	.388	.236	.178	.132	.003	-.176
70.00	.365						-.200
75.00	.314	.258	.146	.090	.044	-.070	-.252
80.00	.283	.223	.107	.055	-.010	-.161	-.239
85.00	.239	.159	.059	.016	-.051	-.199	-.288
90.00	.172	.100	-.008	-.053	-.130	-.206	-.332
95.00	.124	-.009	-.088	-.126	-.189	-.285	-.368

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.036	.526	.443	.707	.375	.383	.377
1.25	.229	-.146	-.201	-.204	-.202	-.220	-.266
2.50	.159	-.103	-.151	-.200	-.238	-.320	-.266
5.00	.082	-.074	-.189	-.175	-.188	-.223	-.234
7.50	.045	-.082	-.132	-.158	-.219	-.244	-.266
10.00	.027	-.094	-.151	-.159	-.239	-.267	-.301
15.00	-.010	-.104	-.166	-.212	-.247	-.303	-.316
20.00	-.037	-.126	-.186	-.231	-.278	-.318	-.406
25.00	-.071	-.145	-.212	-.263	-.311	-.341	-.424
30.00	-.089	-.159	-.236	-.283	-.326	-.367	-.436
35.00	-.092	-.184	-.254	-.303	-.347	-.390	-.446
40.00	-.111	-.211	-.276	-.328	-.369	-.419	-.462
45.00	-.140	-.226	-.302	-.342	-.391	-.440	-.482
50.00	-.180	-.254	-.314	-.361	-.428	-.467	-.494
55.00	-.158	-.276	-.320	-.390	-.453	-.516	-.465
60.00	-.197	-.275	-.335	-.344	-.450	-.493	-.172
65.00	-.238	-.254	-.332	-.376	-.389	-.343	-.048
70.00	-.195						.042
75.00	-.191	-.299	-.346	-.300	-.231	-.146	.083
80.00	-.255	-.287	-.292	-.208	-.171	-.026	.108
85.00	-.280	-.276	-.189	-.150	-.123	.045	.130
90.00	-.282	-.240	-.137	-.103	-.079	.094	.143
95.00	-.264	-.155	-.083	-.056	-.048	.131	.159

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.262	.038	-.022	-.072	-.114	-.105	-.180
2.50	.212	.042	-.003	-.052	-.102	-.163	-.177
5.00	.145	.021	-.029	-.020	-.135	-.191	-.187
7.50	.115	.004	-.054	-.071	-.170	-.191	-.234
10.00	.091	-.021	-.073	-.103	-.191	-.214	-.253
15.00	.049	-.058	-.106	-.155	-.204	-.232	-.321
20.00	-.003	-.071	-.133	-.184	-.231	-.268	-.361
25.00	-.023	-.094	-.153	-.205	-.258	-.287	-.404
30.00	-.052	-.124	-.186	-.230	-.287	-.322	-.425
35.00	-.067	-.150	-.208	-.259	-.306	-.353	-.437
40.00	-.079	-.169	-.237	-.281	-.331	-.378	-.448
45.00	-.109	-.196	-.263	-.309	-.368	-.400	-.455
50.00	-.155	-.228	-.287	-.336	-.389	-.424	-.455
55.00	-.166	-.237	-.290	-.347	-.406	-.449	-.441
60.00	-.182	-.246	-.296	-.349	-.394	-.431	-.230
65.00	-.212	-.253	-.310	-.353	-.351	-.342	-.047
70.00	-.193						.040
75.00	-.215	-.206	-.306	-.254	-.187	-.182	.072
80.00	-.201	-.245	-.260	-.180	-.153	-.046	.089
85.00	-.248	-.237	-.186	-.133	-.122	.036	.105
90.00	-.255	-.227	-.136	-.097	-.101	.069	.131
95.00	-.301	-.154	-.071	-.051	-.059	.113	.147

M = 0.98   α = 3.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.041	.305	.191	.423	.042	.027	.105
1.25	-.107	-.750	-.646	-.609	-.823	-.867	-.917
2.50	-.011	-.658	-.702	-.656	-.863	-.901	-.902
5.00	-.068	-.377	-.528	-.751	-.789	-.809	-.783
7.50	-.105	-.366	-.380	-.457	-.784	-.778	-.779
10.00	-.108	-.360	-.389	-.349	-.619	-.746	-.773
15.00	-.136	-.353	-.381	-.374	-.400	-.646	-.745
20.00	-.146	-.352	-.319	-.379	-.430	-.474	-.683
25.00	-.178	-.354	-.330	-.398	-.459	-.472	-.487
30.00	-.194	-.361	-.345	-.409	-.473	-.511	-.458
35.00	-.190	-.281	-.362	-.421	-.485	-.529	-.483
40.00	-.205	-.300	-.379	-.442	-.507	-.553	-.510
45.00	-.236	-.312	-.402	-.465	-.524	-.576	-.544
50.00	-.264	-.338	-.424	-.486	-.551	-.599	-.567
55.00	-.252	-.359	-.432	-.510	-.580	-.645	-.574
60.00	-.274	-.365	-.429	-.439	-.593	-.665	-.506
65.00	-.318	-.335	-.430	-.483	-.562	-.559	-.308
70.00	-.271						-.122
75.00	-.268	-.383	-.442	-.431	-.317	-.172	-.052
80.00	-.318	-.368	-.372	-.263	-.228	-.105	.004
85.00	-.354	-.357	-.237	-.183	-.168	-.055	.052
90.00	-.353	-.282	-.158	-.118	-.121	.004	.075
95.00	-.321	-.166	-.099	-.068	-.083	.046	.089

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.368	.356	.332	.284	.290		.278
2.50	.348	.288	.259	.231	.215	.323	.198
5.00	.292	.220	.184	.204	.131	.121	.118
7.50	.261	.176	.142	.143	.076	.068	.041
10.00	.234	.152	.107	.098	.039	.030	-.006
15.00	.184	.087	.058	.021	.007	.015	-.096
20.00	.130	.058	.015	-.015	-.046	-.060	-.148
25.00	.135	.034	-.023	-.048	-.082	-.092	-.260
30.00	.069	-.006	-.057	-.071	-.111	-.110	-.306
35.00	.039	-.035	-.079	-.108	-.140	-.135	-.342
40.00	.026	-.057	-.111	-.131	-.167	-.158	-.347
45.00	-.010	-.096	-.135	-.161	-.196	-.192	-.355
50.00	-.044	-.124	-.160	-.181	-.199	-.229	-.373
55.00	-.065	-.132	-.166	-.195	-.193	-.257	-.377
60.00	-.081	-.144	-.170	-.208	-.178	-.283	-.364
65.00	-.109	-.152	-.182	-.195	-.155	-.292	-.304
70.00	-.109					-.273	-.205
75.00	-.123	-.158	-.190	-.145	-.118	-.273	-.123
80.00	-.119	-.148	-.156	-.114	-.120	-.207	-.025
85.00	-.144	-.157	-.122	-.093	-.113	-.131	.043
90.00	-.149	-.161	-.100	-.073	-.110	-.053	.071
95.00	-.210	-.126	-.062	-.046	-.096	.013	.099

TABLE 1   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98   α = 5.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.038	-.102	-.006	-.311	-.206	-.238	-.162
1.25	-.017	-.924	-1.044	-1.014	-1.032	-1.032	-1.086
2.50	-.087	-.926	-1.014	-1.053	-1.058	-1.082	-1.079
5.00	-.175	-.588	-.957	-.991	-1.000	-.987	-.984
7.50	-.210	-.466	-.880	-.919	-.956	-.972	-.973
10.00	-.219	-.419	-.801	-.872	-.927	-.943	-.964
15.00	-.235	-.366	-.422	-.812	-.875	-.921	-.945
20.00	-.228	-.351	-.380	-.514	-.854	-.893	-.926
25.00	-.254	-.345	-.394	-.430	-.783	-.866	-.878
30.00	-.264	-.343	-.409	-.458	-.577	-.866	-.819
35.00	-.262	-.352	-.426	-.476	-.515	-.838	-.811
40.00	-.272	-.368	-.444	-.502	-.533	-.761	-.811
45.00	-.290	-.385	-.464	-.517	-.560	-.662	-.808
50.00	-.331	-.402	-.484	-.543	-.591	-.630	-.768
55.00	-.290	-.420	-.494	-.573	-.626	-.652	-.697
60.00	-.335	-.430	-.501	-.514	-.652	-.680	-.554
65.00	-.378	-.399	-.482	-.566	-.646	-.624	-.406
70.00	-.331						-.359
75.00	-.323	-.443	-.503	-.520	-.414	-.247	-.301
80.00	-.372	-.432	-.427	-.325	-.281	-.191	-.243
85.00	-.406	-.416	-.278	-.224	-.316	-.145	-.149
90.00	-.407	-.331	-.185	-.157	-.161	-.089	-.085
95.00	-.386	-.190	-.125	-.104	-.123	-.045	-.043

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.413	.460	.429	.379	.387		.378
2.50	.418	.388	.352	.309	.312	.327	.290
5.00	.375	.320	.272	.282	.236	.227	.212
7.50	.347	.267	.223	.225	.170	.174	.131
10.00	.317	.234	.189	.162	.129	.133	.081
15.00	.264	.168	.136	.097	.087	.087	.016
20.00	.206	.126	.085	.056	.032	.037	-.094
25.00	.199	.088	.046	.022	-.006	-.003	-.203
30.00	.139	.056	.012	.007	-.037	-.036	-.260
35.00	.099	.024	-.017	-.040	-.061	-.076	-.304
40.00	.086	-.003	-.045	-.070	-.087	-.103	-.328
45.00	.049	-.041	-.069	-.096	-.110	-.141	-.349
50.00	.014	-.066	-.093	-.122	-.119	-.184	-.369
55.00	-.012	-.076	-.105	-.138	-.136	-.219	-.381
60.00	-.030	-.087	-.112	-.140	-.140	-.252	-.375
65.00	-.052	-.094	-.121	-.140	-.126	-.267	-.357
70.00	-.053						-.324
75.00	-.071	-.103	-.140	-.113	-.115	-.273	-.282
80.00	-.066	-.100	-.120	-.099	-.118	-.210	-.175
85.00	-.095	-.112	-.100	-.086	-.119	-.186	-.112
90.00	-.101	-.125	-.088	-.083	-.111	-.130	-.048
95.00	-.151	-.115	-.070	-.068	-.116	-.063	.000

M = 0.98   α = 7.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.030	-.106	-.161	-.133	-.429	-.488	-.440
1.25	-.061	-1.030	-1.148	-1.111	-1.139	-1.116	-1.180
2.50	-.164	-1.023	-1.105	-1.149	-1.160	-1.176	-1.171
5.00	-.285	-.910	-1.093	-1.094	-1.108	-1.088	-1.084
7.50	-.318	-.749	-1.028	-1.042	-1.066	-1.082	-1.079
10.00	-.320	-.674	-1.001	-1.006	-1.044	-1.052	-1.069
15.00	-.330	-.557	-.905	-.974	-1.005	-1.033	-1.042
20.00	-.315	-.475	-.634	-.917	-.984	-1.007	-1.023
25.00	-.334	-.428	-.495	-.903	-.973	-.975	-.975
30.00	-.335	-.409	-.468	-.717	-.927	-.984	-.930
35.00	-.329	-.410	-.477	-.584	-.906	-.972	-.915
40.00	-.336	-.423	-.491	-.555	-.894	-.961	-.905
45.00	-.346	-.437	-.511	-.557	-.823	-.949	-.893
50.00	-.367	-.457	-.531	-.574	-.714	-.936	-.839
55.00	-.343	-.470	-.544	-.605	-.680	-.951	-.630
60.00	-.388	-.484	-.549	-.547	-.674	-.764	-.659
65.00	-.434	-.453	-.541	-.606	-.666	-.609	-.663
70.00	-.386						-.662
75.00	-.373	-.496	-.548	-.558	-.435	-.584	-.649
80.00	-.429	-.481	-.465	-.371	-.347	-.572	-.613
85.00	-.456	-.466	-.309	-.260	-.290	-.486	-.541
90.00	-.456	-.374	-.213	-.191	-.238	-.293	-.500
95.00	-.434	-.213	-.154	-.121	-.190	-.034	-.462

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.445	.539	.488	.456	.446		.415
2.50	.476	.472	.433	.379	.382	.387	.350
5.00	.455	.396	.346	.336	.300	.296	.261
7.50	.436	.342	.298	.284	.246	.243	.185
10.00	.403	.308	.260	.232	.203	.193	.132
15.00	.346	.240	.208	.173	.156	.149	.037
20.00	.281	.194	.153	.131	.102	.094	-.046
25.00	.272	.155	.116	.089	.063	.052	-.159
30.00	.204	.120	.079	.059	.031	.012	-.225
35.00	.163	.086	.049	.024	-.002	-.029	-.273
40.00	.145	.058	.014	-.010	-.026	-.063	-.303
45.00	.105	.025	-.010	-.035	-.060	-.106	-.333
50.00	.069	-.004	-.035	-.064	-.080	-.147	-.356
55.00	.042	-.018	-.049	-.076	-.099	-.191	-.372
60.00	.019	-.033	-.060	-.080	-.104	-.224	-.376
65.00	.004	-.044	-.079	-.090	-.096	-.245	-.366
70.00	-.001						-.333
75.00	-.022	-.056	-.100	-.099	-.100	-.267	-.286
80.00	-.019	-.058	-.085	-.090	-.115	-.211	-.174
85.00	-.046	-.083	-.070	-.082	-.117	-.184	-.150
90.00	-.054	-.103	-.083	-.082	-.125	-.137	-.135
95.00	-.098	-.106	-.082	-.074	-.135	-.041	-.171

TABLE I　　　　　BASIC WING

M = 0.98　α = 11.5°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.006	-.465	-.511	-.121	-.758	-.861	-.794
1.25	-.180	-1.125	-1.176	-1.284	-1.310	-1.080	-1.017
2.50	-.313	-1.112	-1.189	-1.291	-1.313	-1.086	-1.027
5.00	-.456	-1.142	-1.152	-1.254	-1.281	-1.045	-.992
7.50	-.489	-1.105	-1.053	-1.218	-1.252	-1.067	-.910
10.00	-.493	-1.052	-.987	-1.137	-1.230	-1.048	-.837
15.00	-.499	-.962	-.921	-1.076	-1.190	-1.030	-.836
20.00	-.460	-.907	-.861	-1.076	-1.147	-.990	-.837
25.00	-.454	-.849	-.817	-1.052	-1.118	-.938	-.819
30.00	-.446	-.755	-.790	-.998	-1.093	-.933	-.804
35.00	-.426	-.601	-.769	-.922	-1.067	-.894	-.772
40.00	-.424	-.460	-.755	-.881	-1.035	-.844	-.736
45.00	-.430	-.441	-.744	-.856	-.954	-.798	-.702
50.00	-.462	-.474	-.737	-.834	-.864	-.751	-.673
55.00	-.421	-.501	-.719	-.807	-.839	-.707	-.640
60.00	-.464	-.525	-.719	-.755	-.828	-.665	-.610
65.00	-.504	-.530	-.716	-.686	-.812	-.653	-.602
70.00	-.464		-.660	-.531	-.781	-.620	-.577
75.00	-.459	-.543	-.579	-.459	-.773	-.610	-.545
80.00	-.498	-.540	-.482	-.385	-.737	-.594	-.527
85.00	-.517	-.533	-.404	-.320	-.683	-.581	-.522
90.00	-.516	-.450	-.351	-.276	-.611	-.556	-.510
95.00	-.496	-.255					-.501
LOWER SURFACE							
1.25	.439	.640	.563	.558	.503	.481	.460
2.50	.545	.602	.536	.495	.478	.408	.433
5.00	.598	.541	.471	.465	.417	.356	.356
7.50	.611	.487	.427	.408	.364	.306	.281
10.00	.578	.454	.391	.352	.325	.259	.231
15.00	.515	.383	.337	.299	.273	.203	.145
20.00	.440	.338	.282	.253	.219	.157	.002
25.00	.415	.293	.241	.209	.175	.110	-.046
30.00	.351	.255	.203	.179	.140	.065	-.118
35.00	.302	.220	.170	.140	.104	.022	-.176
40.00	.281	.188	.137	.104	.072	-.025	-.217
45.00	.239	.153	.109	.072	.033	-.073	-.248
50.00	.206	.119	.079	.043	.005	-.117	-.277
55.00	.169	.100	.062	.019	-.022	-.154	-.298
60.00	.141	.081	.045	.002	-.043	-.181	-.300
65.00	.131	.067	.021	-.014	-.059		-.310
70.00	.108						-.312
75.00	.045	.045	-.022	-.048	-.082	-.229	-.316
80.00	.072	.040	-.087	-.060	-.108	-.259	-.325
85.00	.045	.001	-.030	-.081	-.123	-.288	-.354
90.00	.025	.033	-.051	-.108	-.158	-.307	-.364
95.00	.081	.080	-.078	-.134	-.190	-.344	-.392

M = 0.98　α = 15.9°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.157	-.839	-.933	-.736	-1.040	-.665	-.503
1.25	-.385	-1.263	-1.193	-1.152	-.937	-.660	-.481
2.50	-.532	-1.241	-1.127	-1.128	-.938	-.662	-.482
5.00	-.704	-1.257	-1.171	-1.111	-.933	-.641	-.482
7.50	-.741	-1.263	-1.150	-1.114	-.933	-.647	-.497
10.00	-.737	-1.247	-1.168	-1.118	-.930	-.642	-.528
15.00	-.729	-1.189	-1.176	-1.098	-.925	-.632	-.547
20.00	-.673	-1.181	-1.177	-1.083	-.911	-.625	-.563
25.00	-.631	-1.167	-1.173	-1.089	-.892	-.608	-.578
30.00	-.597	-1.158	-1.170	-1.078	-.878	-.622	-.587
35.00	-.565	-1.145	-1.162	-1.059	-.858	-.619	-.589
40.00	-.556	-1.079	-1.154	-1.035	-.834	-.615	-.592
45.00	-.556	-.753	-1.144	-1.009	-.811	-.610	-.593
50.00	-.581	-.596	-1.135	-.980	-.791	-.608	-.593
55.00	-.546	-.577	-1.117	-.954	-.770	-.605	-.588
60.00	-.580	-.593	-1.124	-.930	-.751	-.604	-.580
65.00	-.615	-.596	-1.118	-.896	-.739	-.611	-.584
70.00	-.582		-1.058	-.825	-.696	-.611	-.580
75.00	-.606	-.640	-.962	-.810	-.684	-.610	-.570
80.00	-.623	-.638	-.862	-.787	-.670	-.607	-.562
85.00	-.634	-.630	-.750	-.756	-.655	-.604	-.558
90.00	-.629	-.491	-.564	-.727	-.641	-.597	-.548
95.00	-.568	-.314					-.540
LOWER SURFACE							
1.25	.378	.678	.574	.589	.502	.529	.453
2.50	.539	.694	.604	.565	.537	.488	.473
5.00	.702	.660	.578	.550	.513	.448	.428
7.50	.764	.617	.546	.509	.475	.436	.381
10.00	.729	.583	.513	.470	.441	.362	.335
15.00	.658	.518	.462	.421	.395	.307	.141
20.00	.580	.471	.410	.374	.342	.255	.061
25.00	.546	.427	.366	.296	.300	.208	.018
30.00	.483	.385	.292	.255	.261	.162	-.071
35.00	.433	.346	.257	.228	.224	.116	-.113
40.00	.401	.316	.224	.186	.190	.066	-.154
45.00	.362	.276	.192	.155	.147	.014	-.198
50.00	.325	.244	.167	.127	.117	-.034	-.286
55.00	.288	.219	.144	.106	.084	-.077	-.246
60.00	.256	.196	.112	.088	.056	-.113	-.270
65.00	.247	.175			.030		-.295
70.00	.208					-.179	-.313
75.00	.148	.135	.068	.039	-.023	-.193	-.333
80.00	.146	.119	.049	.018	-.066	-.243	-.363
85.00	.113	.067	.039	-.016	-.099	-.293	-.393
90.00	.063	.021	.020	-.071	-.107	-.341	-.432
95.00	.039	-.052	.007	-.135	-.212		

CONFIDENTIAL

BASIC WING

TABLE I

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98 α = 20.2° — UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.258	-1.067	-1.105	-.931	-.808	-.727	-.662
1.25	-.408	-1.217	-1.070	-.850	-.787	-.710	-.638
2.50	-.685	-1.206	-1.028	-.851	-.780	-.714	-.635
5.00	-.933	-1.211	-1.064	-.856	-.780	-.694	-.618
7.50	-.951	-1.210	-1.047	-.853	-.780	-.708	-.635
10.00	-.939	-1.219	-1.063	-.843	-.773	-.699	-.627
15.00	-.918	-1.183	-1.050	-.863	-.782	-.684	-.625
20.00	-.841	-1.191	-1.057	-.856	-.786	-.687	-.631
25.00	-.769	-1.200	-1.052	-.867	-.778	-.681	-.623
30.00	-.711	-1.152	-1.030	-.856	-.772	-.680	-.621
35.00	-.674	-1.160	-1.016	-.854	-.770	-.675	-.620
40.00	-.659	-1.158	-.992	-.840	-.764	-.668	-.615
45.00	-.654	-1.123	-.970	-.829	-.759	-.669	-.613
50.00	-.674	-1.014	-.952	-.825	-.757	-.667	-.610
55.00	-.645	-.860	-.931	-.818	-.750		-.602
60.00	-.666	-.747	-.930	-.791	-.725	-.641	-.582
65.00	-.684	-.689	-.885				-.853
70.00	-.649	-.660	-.892	-.797	-.738	-.653	-.589
75.00	-.673	-.583	-.886	-.793	-.727	-.647	-.583
80.00	-.664	-.544	-.865	-.781	-.715	-.639	-.568
85.00	-.632	-.460	-.852	-.769	-.696	-.624	-.560
90.00	-.597	-.385	-.850	-.761	-.686	-.610	-.553
95.00	-.546						

M = 0.98 α = 20.2° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.279	.665	.542	.569	.464	.534	.410
2.50	.517	.740	.641	.602	.553	.528	.474
5.00	.768	.742	.650	.603	.567	.501	.459
7.50	.868	.712	.631	.580	.543	.463	.417
10.00	.836	.683	.608	.556	.517	.429	.376
15.00	.778	.686	.564	.513	.476	.379	.305
20.00	.705	.585	.516	.473	.437	.326	.202
25.00	.665	.500	.473	.429	.383	.262	.134
30.00	.608	.460	.435	.393	.343	.236	.060
35.00	.558	.428	.398	.351	.305	.184	.006
40.00	.525	.389	.361	.313	.264	.135	.056
45.00	.484	.351	.291	.275	.222	.084	.093
50.00	.449	.325	.262	.237	.184	.033	.134
55.00	.408	.298	.235	.200	.147	.008	.192
60.00	.376	.277	.200	.171	.111	.044	.210
65.00	.364			.141	.089		.259
70.00	.315	.223	.131	.071	.024	.111	.270
75.00	.363	.201	.100	.042	.081	.161	.273
80.00	.237	.143	.064	.008	.062	.212	.320
85.00	.199	.094	.008	.053	.120	.234	.353
90.00	.140	.010	.061	.116	.180	.296	.389
95.00	.094						

M = 1.00 α = 0.0° — UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00		.074	.562	.503	.747	.473	.434
1.25		.288	.006	.045	.074	.063	.123
2.50		.227	.015	.034	.068	.180	.129
5.00		.157	.011	.044	.097	.187	.148
7.50		.117	.005	.050	.096	.161	.166
10.00		.097	.021	.075	.103	.186	.207
15.00		.057	.036	.096	.144	.239	.338
20.00		.028	.057	.121	.164	.265	.361
25.00		.005	.079	.147	.195	.298	.374
30.00		.030	.100	.175	.228	.326	.392
35.00		.034	.127	.196	.245	.360	.414
40.00		.055	.152	.220	.267	.384	.433
45.00		.124	.168	.248	.288	.418	.445
50.00		.103	.197	.265	.305	.456	.468
55.00		.144	.224	.286	.339	.464	.418
60.00		.187	.232	.286	.291	.390	.350
65.00		.147	.205		.326	.344	.308
70.00		.137	.247	.298	.266	.238	.147
75.00		.200	.242	.259	.164	.183	.091
80.00		.232	.237	.161	.131	.185	.022
85.00		.234	.210	.114	.086	.071	.030
90.00		.220	.132	.063	.045	.027	.066
95.00							

M = 1.00 α = 0.0° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25		.265	.013	.079	.115	.180	.245
2.50		.211	.012	.045	.103	.144	.243
5.00		.140	.011	.050	.051	.159	.202
7.50		.116	.007	.069	.093	.211	.245
10.00		.094	.024	.083	.118	.228	.300
15.00		.053	.052	.113	.164	.215	.334
20.00		.001	.064	.136	.187	.234	.376
25.00		.044	.083	.155	.205	.263	.391
30.00		.068	.113	.179	.222	.306	.408
35.00		.088	.130	.202	.257	.358	.444
40.00		.097	.164	.223	.279	.373	.444
45.00		.136	.213	.261	.308	.403	.448
50.00		.151	.224	.290	.345	.433	.470
55.00		.169	.233	.290	.348	.473	.277
60.00		.197	.235			.497	.304
65.00		.190		.298	.298	.418	.136
70.00		.204	.246	.264	.197	.227	.089
75.00		.164	.233	.151	.150	.149	.022
80.00		.237	.237	.189	.084	.122	.021
85.00		.214	.214	.189	.038	.086	.052
90.00		.287	.136	.060		.039	

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00   α = 3.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.067	-.333	-.281	-.456	-.073	-.053	-.176
1.25	-.151	-.704	-.804	-.768	-.773	-.821	-.857
2.50	-.041	-.681	-.739	-.813	-.817	-.854	-.846
5.00	-.038	-.846	-.510	-.714	-.746	-.766	-.735
7.50	-.074	-.839	-.898	-.441	-.686	-.735	-.727
10.00	-.078	-.833	-.301	-.333	-.596	-.709	-.783
15.00	-.108	-.286	-.299	-.358	-.372	-.681	-.702
20.00	-.118	-.285	-.306	-.355	-.406	-.449	-.644
25.00	-.151	-.230	-.306	-.378	-.437	-.450	-.463
30.00	-.167	-.235	-.380	-.385	-.452	-.488	-.430
35.00	-.163	-.251	-.338	-.398	-.463	-.506	-.455
40.00	-.179	-.273	-.386	-.420	-.483	-.528	-.479
45.00	-.201	-.289	-.376	-.441	-.503	-.553	-.511
50.00	-.239	-.313	-.396	-.464	-.528	-.573	-.536
55.00	-.306	-.333	-.409	-.490	-.558	-.616	-.568
60.00	-.349	-.348	-.409	-.426	-.576	-.639	-.571
65.00	-.293	-.312	-.396	-.460	-.550	-.609	-.565
70.00	-.250						-.386
75.00	-.242	-.360	-.426	-.458	-.364	-.250	-.182
80.00	-.290	-.348	-.366	-.281	-.242	-.183	-.133
85.00	-.330	-.339	-.238	-.186	-.179	-.136	-.087
90.00	-.329	-.275	-.154	-.124	-.132	-.092	-.049
95.00	-.299	-.158	-.092	-.063	-.100	-.062	-.016

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.385	-.372	-.340	-.292	-.295	.225	-.281
2.50	-.368	-.307	-.271	-.240	-.219	-.127	-.203
5.00	-.313	-.242	-.199	-.213	-.136	-.074	-.124
7.50	-.281	-.195	-.153	-.149	-.083	-.040	-.051
10.00	-.254	-.169	-.121	-.108	-.042	-.007	-.006
15.00	-.207	-.109	-.077	-.033	-.011	-.056	-.078
20.00	-.151	-.079	-.029	-.003	-.039	-.097	-.142
25.00	-.156	-.047	-.009	-.039	-.078	-.127	-.236
30.00	-.093	-.016	-.038	-.066	-.105	-.153	-.283
35.00	-.059	-.015	-.063	-.098	-.134	-.164	-.324
40.00	-.049	-.038	-.093	-.124	-.162	-.189	-.330
45.00	-.013	-.074	-.119	-.154	-.195	-.221	-.346
50.00	-.024	-.105	-.147	-.173	-.212	-.251	-.353
55.00	-.043	-.113	-.157	-.185	-.212	-.275	-.359
60.00	-.062	-.126	-.160	-.200	-.191	-.283	-.380
65.00	-.089	-.138	-.169	-.200	-.174		-.333
70.00	-.089						-.305
75.00	-.104	-.141	-.100	-.151	-.127	-.275	-.275
80.00	-.100	-.132	-.152	-.119	-.119	-.209	-.197
85.00	-.130	-.141	-.119	-.097	-.107	-.191	-.143
90.00	-.138	-.146	-.099	-.083	-.105	-.165	-.108
95.00	-.193	-.112	-.089	-.054	-.098	-.101	-.036

M = 1.00   α = 5.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.044	-.142	-.030	-.333	-.154	-.187	-.091
1.25	-.053	-.873	-.975	-.939	-.950	-.961	-1.015
2.50	-.051	-.862	-.946	-.990	-.984	-1.008	-1.011
5.00	-.138	-.545	-.898	-.925	-.927	-.919	-.930
7.50	-.173	-.414	-.809	-.856	-.883	-.899	-.909
10.00	-.183	-.378	-.755	-.806	-.860	-.875	-.900
15.00	-.199	-.325	-.383	-.765	-.804	-.856	-.881
20.00	-.194	-.314	-.349	-.493	-.785	-.826	-.861
25.00	-.221	-.310	-.366	-.401	-.743	-.804	-.821
30.00	-.230	-.309	-.379	-.423	-.547	-.803	-.768
35.00	-.230	-.317	-.394	-.443	-.480	-.783	-.753
40.00	-.240	-.334	-.412	-.471	-.496	-.736	-.753
45.00	-.256	-.349	-.433	-.491	-.523	-.625	-.753
50.00	-.296	-.369	-.451	-.512	-.554	-.590	-.744
55.00	-.360	-.387	-.463	-.540	-.567	-.608	-.698
60.00	-.302	-.398	-.473	-.483	-.612	-.635	-.620
65.00	-.347	-.369	-.457	-.533	-.607	-.628	-.557
70.00	-.304						-.441
75.00	-.288	-.411	-.477	-.517	-.472	-.262	-.348
80.00	-.343	-.399	-.419	-.344	-.290	-.219	-.315
85.00	-.375	-.390	-.275	-.220	-.214	-.180	-.268
90.00	-.371	-.314	-.177	-.154	-.163	-.130	-.228
95.00	-.360	-.174	-.119	-.094	-.126	-.102	-.159

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.431	-.480	-.441	-.395	-.396	-.330	-.307
2.50	-.436	-.408	-.367	-.325	-.325	-.318	-.318
5.00	-.397	-.339	-.300	-.299	-.241	-.234	-.287
7.50	-.368	-.286	-.240	-.240	-.184	-.180	-.152
10.00	-.338	-.255	-.203	-.179	-.144	-.144	-.107
15.00	-.290	-.188	-.151	-.114	-.103	-.095	-.003
20.00	-.228	-.149	-.102	-.076	-.049	-.044	-.076
25.00	-.224	-.113	-.063	-.041	-.010	-.008	-.170
30.00	-.163	-.080	-.089	-.011	-.055	-.025	-.238
35.00	-.123	-.048	-.003	-.080	-.058	-.057	-.281
40.00	-.108	-.080	-.053	-.053	-.077	-.088	-.297
45.00	-.072	-.014	-.081	-.077	-.103	-.125	-.317
50.00	-.037	-.044	-.081	-.101	-.118	-.165	-.339
55.00	-.010	-.055	-.092	-.116	-.124	-.200	-.352
60.00	-.009	-.071	-.093	-.131	-.131	-.229	-.349
65.00	-.031	-.083	-.107	-.131	-.116	-.245	-.349
70.00	-.031						-.326
75.00	-.053	-.086	-.125	-.105	-.099	-.257	-.260
80.00	-.047	-.081	-.109	-.094	-.103	-.202	-.260
85.00	-.076	-.097	-.092	-.076	-.099	-.197	-.134
90.00	-.094	-.108	-.084	-.072	-.100	-.188	-.171
95.00	-.189	-.097	-.063	-.050	-.108	-.186	-.111

TABLE I — BASIC WING

PRESSURE COEFFICIENT, P, AT:

M = 1.00   α = 7.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.001	-.061	-.136	-.168	-.370	-.431	-.374
1.25	-.086	-1.002	-1.076	-1.048	-1.066	-1.061	-1.104
2.50	-.143	-.984	-1.035	-1.079	-1.082	-1.105	-1.099
5.00	-.243	-.858	-1.025	-1.031	-1.035	-1.021	-1.015
7.50	-.276	-.671	-.962	-.984	-.996	-1.010	-1.002
10.00	-.280	-.580	-.937	-.943	-.978	-.985	-.995
15.00	-.290	-.477	-.836	-.915	-.939	-.965	-.979
20.00	-.278	-.426	-.607	-.858	-.918	-.943	-.963
25.00	-.296	-.398	-.463	-.842	-.911	-.914	-.917
30.00	-.298	-.383	-.434	-.702	-.865	-.921	-.874
35.00	-.293	-.382	-.437	-.552	-.837	-.908	-.867
40.00	-.300	-.395	-.487	-.522	-.827	-.900	-.865
45.00	-.319	-.405	-.475	-.524	-.780	-.890	-.868
50.00	-.354	-.423	-.499	-.541	-.685	-.873	-.872
55.00	-.315	-.439	-.506	-.570	-.643	-.893	-.848
60.00	-.356	-.452	-.517	-.574	-.635	-.885	-.870
65.00	-.398	-.423	-.505	-.576	-.627	-.608	-.879
70.00	-.358						-.621
75.00	-.335	-.461	-.520	-.568	-.463	-.544	-.660
80.00	-.403	-.449	-.460	-.391	-.341	-.546	-.669
85.00	-.422	-.439	-.395	-.360	-.285	-.509	-.632
90.00	-.419	-.360	-.205	-.186	-.238	-.393	-.609
95.00	-.404	-.201	-.140	-.134	-.203	-.220	-.563

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.463	.552	.505	.463	.450		.435
2.50	.494	.483	.441	.394	.388	.395	.371
5.00	.471	.416	.361	.348	.306	.302	.288
7.50	.447	.360	.311	.295	.251	.250	.212
10.00	.418	.325	.277	.245	.213	.201	.160
15.00	.367	.258	.220	.183	.162	.158	.064
20.00	.301	.214	.167	.148	.111	.104	.005
25.00	.291	.173	.132	.104	.072	.068	-.121
30.00	.226	.135	.089	.073	.038	.026	-.190
35.00	.182	.102	.062	.040	.008	-.015	-.243
40.00	.163	.076	.031	.005	-.019	-.049	-.271
45.00	.125	.039	.008	-.023	-.046	-.086	-.297
50.00	.090	.012	-.018	-.054	-.067	-.128	-.323
55.00	.061	-.002	-.030	-.070	-.086	-.167	-.341
60.00	.035	-.017	-.043	-.078	-.094	-.202	-.344
65.00	.020	-.029	-.059	-.086	-.092	-.222	-.344
70.00	.013						-.344
75.00	-.022	-.037	-.087	-.084	-.086	-.249	-.341
80.00	-.002	-.031	-.082	-.075	-.097	-.204	-.261
85.00	-.024	-.003	-.074	-.071	-.101	-.207	-.233
90.00	-.036	-.079	-.073	-.071	-.114	-.212	-.190
95.00	-.053	-.089	-.064	-.065	-.136	-.109	-.200

M = 1.00   α = 11.5°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.118	-.440	-.472	-.083	-.713	-.822	-.756
1.25	-.164	-1.103	-1.141	-1.227	-1.268	-1.210	-1.085
2.50	-.296	-1.090	-1.092	-1.240	-1.267	-1.231	-1.078
5.00	-.440	-1.115	-1.126	-1.203	-1.238	-1.166	-1.053
7.50	-.475	-1.083	-1.039	-1.170	-1.207	-1.165	-1.019
10.00	-.481	-1.024	-.977	-1.141	-1.184	-1.157	-.984
15.00	-.488	-.934	-.903	-1.090	-1.156	-1.125	-.952
20.00	-.450	-.881	-.839	-1.031	-1.124	-1.060	-.935
25.00	-.443	-.826	-.802	-.998	-1.106	-1.017	-.904
30.00	-.433	-.735	-.774	-.953	-1.093	-1.016	-.870
35.00	-.416	-.567	-.755	-.888	-1.081	-.965	-.825
40.00	-.415	-.455	-.741	-.839	-1.070	-.895	-.762
45.00	-.419	-.432	-.731	-.817	-.993	-.840	-.751
50.00	-.446	-.463	-.735	-.800	-.848	-.807	-.730
55.00	-.413	-.491	-.766	-.774	-.789	-.777	-.709
60.00	-.452	-.514	-.708	-.729	-.777	-.754	-.684
65.00	-.494	-.510	-.703	-.666	-.775	-.740	-.677
70.00	-.463						-.645
75.00	-.438	-.533	-.661	-.534	-.777	-.713	-.619
80.00	-.502	-.529	-.585	-.476	-.780	-.696	-.600
85.00	-.508	-.528	-.484	-.412	-.754	-.669	-.578
90.00	-.507	-.454	-.402	-.358	-.709	-.643	-.572
95.00	-.493	-.355	-.348	-.293	-.689	-.606	-.561

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.436	.644	.575	.570	.516	.485	.474
2.50	.547	.608	.544	.508	.490	.409	.444
5.00	.604	.547	.482	.477	.486	.360	.365
7.50	.615	.492	.437	.422	.375	.313	.293
10.00	.579	.458	.401	.364	.338	.267	.245
15.00	.580	.389	.347	.311	.287	.210	.156
20.00	.443	.340	.293	.268	.235	.163	.068
25.00	.416	.297	.251	.226	.189	.117	-.034
30.00	.352	.260	.212	.198	.154	.078	-.106
35.00	.304	.234	.180	.154	.119	.031	-.164
40.00	.279	.192	.148	.131	.087	-.014	-.207
45.00	.248	.156	.121	.087	.083	-.064	-.243
50.00	.208	.123	.090	.050	.083	-.107	-.274
55.00	.171	.102	.073	.036	-.004	-.146	-.301
60.00	.141	.084	.055	.016	-.024	-.176	-.305
65.00	.130	.069	.031	.004	-.043		-.319
70.00	.103						-.317
75.00	.035	.042	-.011	-.039	-.068	-.222	-.330
80.00	.057	.006	-.017	-.048	-.096	-.206	-.357
85.00	.030	.005	-.017	-.063	-.114	-.237	-.358
90.00	-.004	-.029	-.036	-.096	-.134	-.234	-.368
95.00	-.012	-.074	-.068	-.131	-.174	-.334	-.398

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00   α = 15.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.285	-.788	-.879	-.696	-1.003	-.835	-.403
1.25	-.286	-1.207	-1.138	-1.127	-.975	-.784	-.380
2.50	-.490	-1.186	-1.074	-1.105	-.973	-.788	-.382
5.00	-.664	-1.199	-1.114	-1.088	-.969	-.754	-.391
7.50	-.699	-1.206	-1.092	-1.088	-.960	-.763	-.414
10.00	-.697	-1.192	-1.115	-1.088	-.954	-.753	-.440
15.00	-.691	-1.137	-1.130	-1.081	-.943	-.731	-.475
20.00	-.634	-1.129	-1.122	-1.072	-.933	-.721	-.512
25.00	-.595	-1.116	-1.120	-1.096	-.920	-.711	-.545
30.00	-.564	-1.105	-1.114	-1.094	-.904	-.713	-.567
35.00	-.534	-1.092	-1.109	-1.091	-.888	-.698	-.579
40.00	-.522	-1.030	-1.099	-1.088	-.870	-.679	-.587
45.00	-.522	-.732	-1.091	-1.077	-.855	-.659	-.591
50.00	-.542	-.567	-1.081	-1.038	-.830	-.645	-.590
55.00	-.518	-.545	-1.067	-.979	-.810	-.633	-.593
60.00	-.545	-.562	-1.079	-.947	-.794	-.624	-.586
65.00	-.581	-.565	-1.066	-.911	-.773	-.618	-.589
70.00	-.556						-.275
75.00	-.556	-.609	-1.064	-.852	-.728	-.617	-.583
80.00	-.598	-.607	-1.017	-.831	-.713	-.613	-.569
85.00	-.600	-.603	-.941	-.808	-.688	-.609	-.567
90.00	-.600	-.499	-.835	-.794	-.671	-.605	-.559
95.00	-.547	-.315	-.626	-.774	-.653	-.599	-.550

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.391	.689	.588	.595	.519		.482
2.50	.558	.703	.621	.575	.548	.540	.494
5.00	.718	.670	.590	.556	.522	.500	.444
7.50	.784	.629	.557	.521	.484	.461	.385
10.00	.745	.593	.525	.480	.449	.418	.341
15.00	.677	.529	.476	.427	.403	.377	.258
20.00	.597	.483	.423	.384	.351	.320	.153
25.00	.563	.437	.381	.341	.307	.274	.083
30.00	.500	.397	.342	.307	.269	.229	.013
35.00	.449	.359	.305	.267	.232	.180	-.043
40.00	.421	.328	.268	.229	.197	.137	-.092
45.00	.379	.289	.238	.193	.157	.086	-.132
50.00	.344	.254	.206	.158	.128	.038	-.173
55.00	.305	.230	.180	.131	.095	-.007	-.200
60.00	.274	.210	.158	.106	.069	-.052	-.222
65.00	.268	.190	.124	.086	.048	-.087	-.243
70.00	.221						-.285
75.00	.165	.151	.068	.041	-.002	-.145	-.290
80.00	.157	.135	.048	.022	-.041	-.204	-.309
85.00	.124	.086	.033	-.005	-.076	-.241	-.339
90.00	.067	.039	-.000	-.058	-.123	-.258	-.367
95.00	.041	-.033	-.025	-.118	-.182	-.302	-.404

M = 1.03   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.043	.578	.501	.746	.486	.505	.471
1.25	.240	-.007	-.038	-.048	-.017	.015	-.079
2.50	.183	-.002	-.029	-.066	-.086	-.133	-.087
5.00	.118	-.004	-.036	-.080	-.059	-.079	-.101
7.50	.081	-.016	-.041	-.078	-.106	-.115	-.129
10.00	.065	-.032	-.070	-.090	-.130	-.139	-.173
15.00	.035	-.043	-.089	-.130	-.147	-.185	-.189
20.00	.011	-.065	-.116	-.147	-.179	-.202	-.289
25.00	-.022	-.083	-.139	-.178	-.210	-.224	-.321
30.00	-.042	-.099	-.166	-.199	-.231	-.252	-.334
35.00	-.044	-.124	-.181	-.221	-.250	-.274	-.360
40.00	-.060	-.149	-.209	-.253	-.274	-.299	-.370
45.00	-.089	-.167	-.233	-.274	-.286	-.328	-.395
50.00	-.118	-.194	-.252	-.290	-.314	-.361	-.411
55.00	-.114	-.219	-.259	-.307	-.345	-.411	-.432
60.00	-.140	-.224	-.267	-.268	-.350	-.423	-.408
65.00	-.179	-.205	-.263	-.300	-.310	-.351	-.271
70.00	-.154						-.189
75.00	-.115	-.240	-.281	-.287	-.164	-.196	-.111
80.00	-.207	-.230	-.247	-.167	-.102	-.140	-.059
85.00	-.214	-.227	-.165	-.100	-.057	-.084	.000
90.00	-.218	-.206	-.098	-.046	-.017	-.031	-.056
95.00	-.210	-.128	-.042	-.024	-.004	.015	.087

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.207	-.048	-.104	-.131	-.101	-.132	-.237
2.50	.164	-.017	-.059	-.106	-.137	-.163	-.203
5.00	.095	-.011	-.060	-.058	-.140	-.163	-.189
7.50	.069	-.028	-.070	-.091	-.163	-.177	-.218
10.00	.056	-.037	-.087	-.106	-.178	-.195	-.236
15.00	.034	-.069	-.108	-.157	-.191	-.205	-.273
20.00	-.020	-.077	-.135	-.178	-.206	-.238	-.313
25.00	-.007	-.094	-.153	-.195	-.233	-.254	-.345
30.00	-.050	-.114	-.178	-.213	-.258	-.302	-.361
35.00	-.073	-.141	-.194	-.243	-.272	-.309	-.368
40.00	-.073	-.157	-.221	-.268	-.293	-.331	-.384
45.00	-.102	-.185	-.245	-.295	-.328	-.364	-.414
50.00	-.132	-.213	-.276	-.328	-.348	-.389	-.433
55.00	-.156	-.234	-.278	-.329	-.370	-.432	-.461
60.00	-.166	-.233	-.278	-.331	-.367	-.460	-.489
65.00	-.188	-.238	-.285	-.325	-.344	-.419	-.306
70.00	-.183						-.204
75.00	-.199	-.242	-.290	-.302	-.159	-.181	-.102
80.00	-.179	-.230	-.287	-.173	-.109	-.128	-.053
85.00	-.224	-.225	-.197	-.096	-.069	-.083	-.004
90.00	-.212	-.211	-.117	-.048	-.034	-.040	-.046
95.00	-.268	-.189	-.043	-.004	-.004	.003	.082

TABLE I   BASIC WING

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 1.03 α = 3.9°							
UPPER SURFACE							
.00	-.054	-.358	-.250	-.497	-.116	-.105	-.200
1.25	-.113	-.681	-.741	-.698	-.703	-.752	-.789
2.50	-.028	-.602	-.696	-.750	-.746	-.770	-.776
5.00	-.054	-.386	-.570	-.681	-.684	-.695	-.670
7.50	-.092	-.332	-.474	-.529	-.636	-.668	-.670
10.00	-.102	-.286	-.381	-.337	-.593	-.646	-.667
15.00	-.120	-.218	-.305	-.310	-.352	-.606	-.646
20.00	-.122	-.216	-.278	-.322	-.345	-.443	-.628
25.00	-.150	-.222	-.286	-.342	-.380	-.383	-.488
30.00	-.164	-.236	-.297	-.352	-.396	-.422	-.387
35.00	-.161	-.238	-.314	-.365	-.413	-.447	-.403
40.00	-.172	-.261	-.332	-.383	-.430	-.469	-.428
45.00	-.193	-.273	-.349	-.403	-.446	-.493	-.465
50.00	-.224	-.296	-.370	-.424	-.471	-.516	-.491
55.00	-.207	-.315	-.383	-.447	-.505	-.555	-.521
60.00	-.237	-.328	-.390	-.396	-.530	-.578	-.528
65.00	-.278	-.303	-.369	-.432	-.506	-.551	-.527
70.00	-.248						-.345
75.00	-.209	-.339	-.396	-.423	-.333	-.221	-.177
80.00	-.294	-.325	-.344	-.250	-.199	-.152	-.128
85.00	-.304	-.316	-.215	-.144	-.135	-.110	-.086
90.00	-.307	-.258	-.115	-.083	-.088	-.070	-.044
95.00	-.283	-.132	-.055	-.062	-.056	-.037	-.009
LOWER SURFACE							
1.25	.320	.361	.344	.300	.329		.307
2.50	.330	.299	.276	.253	.257	.272	.235
5.00	.285	.233	.204	.231	.176	.174	.152
7.50	.263	.194	.161	.172	.123	.123	.077
10.00	.238	.167	.127	.128	.086	.087	.035
15.00	.198	.111	.088	.053	.057	.045	.052
20.00	.145	.083	.043	.028	-.010	-.004	-.124
25.00	.155	.080	.010	.006	-.027	-.041	-.207
30.00	.095	.019	-.022	-.035	-.056	-.076	-.252
35.00	.089	.007	-.048	-.065	-.083	-.106	-.287
40.00	.049	-.029	-.075	-.086	-.106	-.127	-.302
45.00	.018	-.061	-.097	-.111	-.137	-.144	-.311
50.00	.015	-.087	-.125	-.135	-.155	-.173	-.329
55.00	-.041	-.100	-.130	-.143	-.163	-.204	-.329
60.00	-.061	-.109	-.133	-.146	-.144	-.226	-.316
65.00	-.072	-.123	-.140	-.150	-.127	-.236	-.301
70.00	-.072						-.290
75.00	-.100	-.123	-.135	-.101	-.083	-.226	-.256
80.00	-.079	-.107	-.111	-.073	-.075	-.185	-.187
85.00	-.107	-.113	-.083	-.050	-.060	-.164	-.136
90.00	-.115	-.111	-.056	-.036	-.056	-.130	-.093
95.00	-.133	-.084	-.021	-.012	-.050	-.074	-.032
M = 1.03 α = 5.9°							
UPPER SURFACE							
.00	-.066	-.183	-.074	-.378	-.105	-.134	-.040
1.25	-.060	-.855	-.896	-.861	-.874	-.886	-.925
2.50	-.035	-.812	-.875	-.912	-.906	-.932	-.921
5.00	-.126	-.676	-.829	-.850	-.855	-.847	-.827
7.50	-.167	-.375	-.741	-.789	-.815	-.830	-.822
10.00	-.177	-.326	-.709	-.733	-.797	-.806	-.817
15.00	-.191	-.294	-.428	-.709	-.731	-.793	-.802
20.00	-.185	-.287	-.314	-.572	-.718	-.759	-.791
25.00	-.207	-.286	-.334	-.377	-.716	-.735	-.745
30.00	-.216	-.284	-.346	-.374	-.600	-.732	-.686
35.00	-.212	-.292	-.358	-.395	-.460	-.721	-.682
40.00	-.220	-.309	-.374	-.420	-.442	-.714	-.684
45.00	-.239	-.321	-.395	-.443	-.467	-.654	-.694
50.00	-.269	-.340	-.416	-.464	-.498	-.577	-.699
55.00	-.247	-.359	-.427	-.493	-.534	-.564	-.694
60.00	-.278	-.371	-.438	-.439	-.556	-.578	-.635
65.00	-.319	-.346	-.422	-.490	-.555	-.573	-.508
70.00	-.289						-.432
75.00	-.242	-.378	-.436	-.473	-.442	-.244	-.331
80.00	-.335	-.366	-.384	-.301	-.248	-.183	-.310
85.00	-.339	-.355	-.233	-.175	-.176	-.147	-.253
90.00	-.339	-.276	-.133	-.110	-.125	-.108	-.203
95.00	-.326	-.136	-.073	-.073	-.089	-.073	-.135
LOWER SURFACE							
1.25	.376	.481	.454	.417	.426		.406
2.50	.411	.414	.382	.350	.354	.358	.333
5.00	.389	.346	.303	.323	.270	.265	.250
7.50	.373	.294	.257	.264	.216	.210	.178
10.00	.342	.262	.226	.206	.175	.174	.130
15.00	.297	.199	.176	.144	.139	.124	.034
20.00	.238	.162	.127	.106	.087	.075	-.065
25.00	.238	.129	.092	.070	.050	.035	-.141
30.00	.177	.095	.056	.048	.019	.002	-.201
35.00	.136	.070	.032	.009	-.013	-.032	-.243
40.00	.125	.047	.003	-.017	-.040	-.056	-.263
45.00	.089	.012	-.026	-.038	-.071	-.091	-.286
50.00	.054	-.017	-.049	-.055	-.088	-.130	-.306
55.00	.029	-.026	-.060	-.068	-.097	-.162	-.317
60.00	.008	-.044	-.064	-.085	-.095	-.191	-.314
65.00	-.006	-.058	-.072	-.095	-.086	-.208	-.311
70.00	-.009						-.304
75.00	-.063	-.063	-.074	-.077	-.056	-.219	-.290
80.00	-.033	-.047	-.062	-.058	-.065	-.184	-.241
85.00	-.054	-.054	-.083	-.048	-.060	-.173	-.196
90.00	-.069	-.058	-.044	-.038	-.059	-.160	-.143
95.00	-.061	-.055	-.023	-.017	-.068	-.098	-.096

TABLE I   BASIC WING

M = 1.03   α = 7.9°

UPPER SURFACE

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.106	-.019	-.094	-.211	-.318	-.368	-.319
1.25	-.003	-1.001	-1.038	-1.005	-1.032	-1.008	-1.062
2.50	-.104	-.972	-.991	-1.043	-1.046	-1.056	-1.056
5.00	-.212	-.922	-.987	-.990	-.998	-.971	-.981
7.50	-.252	-.801	-.921	-.948	-.957	-.966	-.968
10.00	-.258	-.584	-.911	-.910	-.939	-.939	-.953
15.00	-.273	-.415	-.860	-.878	-.903	-.921	-.935
20.00	-.257	-.368	-.683	-.847	-.879	-.894	-.915
25.00	-.275	-.352	-.456	-.839	-.869	-.862	-.869
30.00	-.277	-.344	-.399	-.767	-.854	-.876	-.831
35.00	-.270	-.349	-.396	-.575	-.838	-.869	-.825
40.00	-.274	-.359	-.410	-.495	-.829	-.866	-.824
45.00	-.289	-.370	-.487	-.480	-.810	-.869	-.835
50.00	-.319	-.389	-.450	-.487	-.728	-.867	-.841
55.00	-.292	-.403	-.461	-.513	-.635	-.866	-.811
60.00	-.327	-.412	-.474	-.462	-.599	-.863	-.518
65.00	-.364	-.391	-.465	-.523	-.577	-.550	-.529
70.00	-.335						-.587
75.00	-.284	-.418	-.473	-.521	-.406	-.521	-.643
80.00	-.363	-.407	-.483	-.353	-.305	-.548	-.649
85.00	-.384	-.397	-.269	-.218	-.252	-.543	-.644
90.00	-.378	-.313	-.162	-.146	-.205	-.473	-.627
95.00	-.369	-.164	-.096	-.112	-.167	-.336	-.601

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.409	.573	.534	.495	.490	.428	.468
2.50	.484	.508	.469	.423	.437	.341	.400
5.00	.489	.436	.395	.383	.351	.289	.319
7.50	.483	.383	.347	.331	.296	.245	.246
10.00	.450	.354	.313	.280	.256	.199	.198
15.00	.396	.285	.260	.225	.210	.146	.109
20.00	.329	.243	.208	.188	.157	.102	.014
25.00	.318	.206	.170	.143	.116	.070	-.081
30.00	.256	.171	.134	.116	.084	.031	-.146
35.00	.213	.142	.103	.083	.053	.000	-.190
40.00	.196	.114	.072	.056	.023	-.040	-.224
45.00	.161	.082	.049	.028	.006	-.080	-.258
50.00	.133	.051	.029	-.003	-.023	-.117	-.282
55.00	.095	.036	.017	-.026	-.040	-.147	-.297
60.00	.069	.019	.012	-.033	-.045	-.167	-.302
65.00	.063	.009	.001	-.041	-.043		-.305
70.00	.041						-.304
75.00	-.024	.003	-.038	-.045	-.040	-.195	-.304
80.00	.013	.020	-.036	-.034	-.051	-.179	-.263
85.00	-.012	-.002	-.031	-.029	-.053	-.177	-.232
90.00	.035	.023	-.031	-.031	-.068	-.177	-.202
95.00	-.026	-.042	-.020	-.022	-.083	-.070	-.216

M = 1.03   α = 11.5°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.174	-.383	-.408	-.026	-.638	-.741	-.678
1.25	-.114	-1.026	-1.061	-1.148	-1.162	-1.099	-1.028
2.50	-.238	-1.014	-1.012	-1.157	-1.167	-1.122	-1.015
5.00	-.389	-1.038	-1.040	-1.123	-1.142	-1.069	-.978
7.50	-.425	-1.007	-.952	-1.098	-1.115	-1.082	-.386
10.00	-.433	-.952	-.893	-1.063	-1.096	-1.068	-.992
15.00	-.440	-.866	-.883	-1.016	-1.065	-1.047	-.941
20.00	-.400	-.816	-.765	-.958	-1.035	-1.024	-.910
25.00	-.393	-.767	-.786	-.936	-1.080	-.976	-.893
30.00	-.381	-.684	-.701	-.887	-2.002	-.981	-.836
35.00	-.365	-.549	-.681	-.819	-.994	-.953	-.790
40.00	-.358	-.407	-.669	-.774	-.986	-.873	-.755
45.00	-.363	-.370	-.659	-.753	-.940	-.768	-.736
50.00	-.387	-.399	-.653	-.738	-.803	-.725	-.734
55.00	-.363	-.426	-.636	-.713	-.733	-.708	-.725
60.00	-.395	-.450	-.638	-.672	-.782	-.697	-.713
65.00	-.432	-.445	-.635	-.614	-.715	-.678	-.690
70.00	-.408						-.659
75.00	-.367	-.468	-.601	-.490	-.723	-.661	-.658
80.00	-.450	-.465	-.530	-.433	-.728	-.645	-.632
85.00	-.447	-.460	-.432	-.366	-.707	-.620	-.604
90.00	-.445	-.402	-.389	-.306	-.669	-.591	-.582
95.00	-.433	-.208	-.304	-.261	-.601	-.559	-.562

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.431	.672	.605	.595	.542		.499
2.50	.563	.634	.576	.536	.516	.513	.472
5.00	.628	.575	.515	.504	.483	.438	.398
7.50	.645	.525	.470	.449	.403	.391	.327
10.00	.610	.489	.435	.390	.366	.338	.288
15.00	.552	.432	.381	.340	.314	.298	.199
20.00	.476	.374	.328	.299	.266	.245	.089
25.00	.448	.331	.285	.254	.222	.196	-.009
30.00	.384	.293	.248	.222	.186	.156	-.065
35.00	.338	.259	.217	.186	.153	.111	-.117
40.00	.313	.230	.185	.153	.121	.071	-.168
45.00	.275	.191	.157	.118	.087	.028	-.199
50.00	.243	.161	.129	.089	.061	-.023	-.238
55.00	.206	.140	.110	.067	.030	-.064	-.254
60.00	.176	.121	.094	.053	.011	-.102	-.266
65.00	.168	.109	.072	.039	-.004	-.139	-.272
70.00	.137						-.283
75.00	.073	.089	.088	.006	-.088	-.175	-.285
80.00	.089	.084	.088	-.007	-.087	-.167	-.306
85.00	.059	.047	.083	-.024	-.077	-.232	-.316
90.00	.021	.013	.007	-.060	-.113	-.252	-.318
95.00	.012	.089	.019	-.092	-.139	-.289	-.343

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 0.60 α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.233	-.476	-.451	.687	.437	.435	.330
1.25	.354	-.080	-.029	.039	.171	.189	.154
2.50	.083	-.066	-.027	.016	.077	.085	.103
5.00	.021	-.069	-.034	.004	.061	.089	.048
7.50	-.009	-.075	-.031	.010	.033	.055	.016
10.00	-.021	-.084	-.052	.005	.015	.040	.016
15.00	-.046	-.082	-.054	-.011	.013	.014	-.030
20.00	-.059	-.087	-.051	-.009	.009	.016	-.045
25.00	-.075	-.087	-.044	-.002	.008	.019	-.033
30.00	-.086	-.081	-.032	.010	.019	.019	-.042
35.00	-.079	-.062	-.009	.033	.042	.033	-.040
40.00	-.083	-.039	-.028	.054	.072	.054	-.041
45.00	-.080	-.006	.068	.095	.108	.084	-.033
50.00	-.072	.076	.133	.151	.162	.129	-.034
55.00	-.018	.164	.225	.230	.240	.194	-.042
60.00	.070	.272	.312	.317	.320	.254	-.038
65.00	.277	.266	.319	.317	.315	.246	-.035
70.00	.523	.230	.328	.325	.364	.228	-.042
75.00	-1.514	-.834	-.389	-.336	-.269	-.174	-.040
80.00	-.606	-1.015	-.413	-.346	-.268	-.164	-.047
85.00	-.275	-.918	-.443	-.352	-.267	-.153	-.068
90.00	-.036	-.659	-.451	-.361	-.271	-.138	-.081
95.00	-.022	-.297	-.414	-.339	-.263	-.138	-.079

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.126	-.127	-.188	-.236	-.364	-.448	-.467
2.50	.068	-.094	-.135	-.172	-.255	-.292	-.324
5.00	.028	-.091	-.120	-.106	-.218	-.255	-.252
7.50	-.010	-.105	-.133	-.133	-.210	-.235	-.246
10.00	-.033	-.111	-.139	-.149	-.204	-.183	-.238
15.00	-.060	-.130	-.158	-.174	-.191	-.208	-.216
20.00	-.098	-.146	-.164	-.176	-.202	-.215	-.205
25.00	-.074	-.152	-.169	-.183	-.212	-.216	-.178
30.00	-.125	-.164	-.174	-.184	-.213	-.217	-.171
35.00	-.135	-.176	-.179	-.197	-.216	-.222	-.171
40.00	-.141	-.179	-.188	-.200	-.222	-.222	-.175
45.00	-.156	-.184	-.190	-.206	-.225	-.218	-.163
50.00	-.175	-.190	-.191	-.208	-.225	-.218	-.156
55.00	-.177	-.180	-.183	-.205	-.222	-.214	-.144
60.00	-.179	-.172	-.155	-.196	-.214	-.197	-.133
65.00	-.178	-.158	-.159	-.186	-.199	-.178	-.116
70.00	-.165						-.117
75.00	-.159	-.108	-.124	-.177	-.181	-.130	-.099
80.00	-.141	-.091	-.144	-.158	-.169	-.120	-.087
85.00	-.130	-.072	-.142	-.151	-.164	-.122	-.083
90.00	-.094	-.031	-.157	-.161	-.134	-.127	-.063
95.00	-.065	-.003	-.167	-.178	-.176	-.121	-.061

M = 0.60 α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.160	-.151	-.251	-.071	-.358	-.238	-.060
1.25	-.142	-.964	-1.042	-.920	-.857	-.866	-.684
2.50	-.214	-.553	-.570	-.603	-.567	-.544	-.456
5.00	-.244	-.419	-.426	-.416	-.338	-.313	-.310
7.50	-.249	-.363	-.350	-.333	-.296	-.266	-.267
10.00	-.238	-.336	-.321	-.291	-.276	-.232	-.229
15.00	-.238	-.291	-.271	-.242	-.202	-.196	-.160
20.00	-.231	-.265	-.230	-.200	-.169	-.149	-.141
25.00	-.231	-.244	-.194	-.165	-.133	-.110	-.110
30.00	-.230	-.217	-.163	-.131	-.103	-.087	-.088
35.00	-.209	-.183	-.121	-.088	-.067	-.047	-.077
40.00	-.203	-.143	-.071	-.045	-.012	-.008	-.063
45.00	-.188	-.076	-.014	-.015	.046	.049	-.057
50.00	-.171	.013	.066	.083	.112	.111	-.044
55.00	-.094	.120	.134	.143	.175	.155	-.038
60.00	-.008	.155	.155	.187	.186	.164	-.036
65.00	.201	.157	.152	.175	.180	.147	-.027
70.00	.431	.097	.160	.188	.194	.144	-.028
75.00	-1.390	-.764	-.387	-.329	-.247	-.155	-.030
80.00	-.779	-.889	-.398	-.330	-.248	-.144	-.036
85.00	-.362	-.837	-.419	-.342	-.243	-.136	-.038
90.00	-.166	-.693	-.428	-.353	-.247	-.138	-.042
95.00	-.045	-.473	-.405	-.340	-.258	-.121	-.035

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.303	.346	.363	.331	.341	.330	.256
2.50	.270	.264	.270	.257	.257	.246	.175
5.00	.222	.186	.179	.191	.168	.147	.097
7.50	.179	.140	.138	.140	.116	.101	.033
10.00	.146	.107	.099	.099	.075	.090	-.015
15.00	.115	.062	.062	.043	.041	.028	-.067
20.00	.065	.030	.019	.007	.003	-.021	-.087
25.00	.062	.000	-.016	-.027	-.038	-.049	-.090
30.00	.016	-.023	-.037	-.048	-.056	-.074	-.107
35.00	-.007	-.050	-.059	-.071	-.076	-.092	-.110
40.00	-.022	-.058	-.074	-.088	-.094	-.110	-.121
45.00	-.045	-.079	-.086	-.107	-.110	-.127	-.119
50.00	-.072	-.091	-.102	-.121	-.126	-.134	-.123
55.00	-.079	-.093	-.106	-.128	-.136	-.146	-.117
60.00	-.087	-.090	-.090	-.129	-.136	-.142	-.101
65.00	-.096	-.094	-.106	-.134	-.134	-.133	-.099
70.00	-.085						-.094
75.00	-.093	-.062	-.134	-.139	-.132	-.080	-.070
80.00	-.083	-.056	-.115	-.128	-.131	-.088	-.065
85.00	-.083	-.045	-.117	-.130	-.132	-.088	-.064
90.00	-.065	-.039	-.144	-.146	-.104	-.097	-.041
95.00	-.065	-.042	-.154	-.170	-.158	-.096	-.028

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M 0.60   α 6.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.138	-.852	-.743	-.331	-1.080	-.834	-.739
1.25	-.337	-1.463	-.877	-.758	-1.025	-.817	-.927
2.50	-.400	-.912	-.807	-.716	-.903	-.650	-.686
5.00	-.404	-.676	-.723	-.657	-.705	-.560	-.538
7.50	-.393	-.570	-.632	-.588	-.595	-.499	-.454
10.00	-.364	-.508	-.570	-.527	-.497	-.444	-.353
15.00	-.345	-.422	-.463	-.433	-.357	-.350	-.235
20.00	-.325	-.370	-.369	-.353	-.278	-.272	-.174
25.00	-.314	-.330	-.305	-.285	-.214	-.201	-.132
30.00	-.307	-.289	-.248	-.227	-.165	-.153	-.108
35.00	-.276	-.246	-.196	-.177	-.119	-.097	-.087
40.00	-.263	-.198	-.137	-.126	-.066	-.052	-.064
45.00	-.245	-.126	-.080	-.066	-.014	-.004	-.047
50.00	-.224	-.036	-.015	-.011	-.034	-.043	-.040
55.00	-.135	.065	.058	.046	.084	.086	-.040
60.00	-.039	.099	.105	.115	.120	.112	-.044
65.00	-.173	.086	.115	.110	.135	.116	-.048
70.00	-.418	.034	.130	.130	.170	.116	-.058
75.00	-1.273	-.721	-.380	-.314	-.255	-.155	-.065
80.00	-.919	-.829	-.396	-.318	-.259	-.146	-.070
85.00	-.435	-.775	-.410	-.332	-.267	-.134	-.070
90.00	-.213	-.669	-.419	-.331	-.270	-.126	-.077
95.00	-.094	-.514	-.392	-.312	-.261	-.121	-.068

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.360	.450	.447	.426	.440	.437	.387
2.50	.340	.381	.376	.363	.374	.370	.303
5.00	.302	.296	.288	.296	.288	.259	.205
7.50	.276	.244	.230	.248	.221	.208	.134
10.00	.243	.203	.195	.197	.184	.197	.071
15.00	.200	.148	.149	.130	.129	.124	.014
20.00	.147	.107	.096	.089	.081	.067	.007
25.00	.140	.070	.060	.049	.043	.023	-.055
30.00	.091	.044	.032	.026	.012	-.008	-.077
35.00	.061	.017	.008	-.006	-.018	-.037	-.081
40.00	.043	-.001	-.017	-.027	-.035	-.059	-.101
45.00	.014	-.025	-.035	-.051	-.063	-.083	-.097
50.00	-.013	-.041	-.054	-.069	-.079	-.101	-.100
55.00	-.026	-.047	-.062	-.087	-.092	-.111	-.100
60.00	-.035	-.047	-.052	-.093	-.095	-.113	-.089
65.00	-.051	-.050	-.075	-.094	-.099	-.108	-.082
70.00	-.043						-.084
75.00	-.056	-.037	-.090	-.108	-.103	-.066	-.062
80.00	-.049	-.039	-.092	-.102	-.104	-.074	-.062
85.00	-.055	-.035	-.102	-.106	-.107	-.082	-.064
90.00	-.045	-.037	-.124	-.121	-.084	-.092	-.042
95.00	-.035	-.069	-.137	-.146	-.134	-.093	-.042

M = 0.60   α = 8.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.127	-1.176	-1.101	-.689	-1.337	-.914	-.987
1.25	-.575	-1.129	-.931	-1.090	-.983	-.667	-.814
2.50	-.618	-1.069	-.894	-.999	-.985	-.650	-.786
5.00	-.596	-.987	-.847	-.900	-.920	-.611	-.740
7.50	-.566	-.875	-.782	-.760	-.872	-.596	-.714
10.00	-.520	-.776	-.739	-.655	-.824	-.564	-.655
15.00	-.473	-.645	-.639	-.550	-.640	-.517	-.551
20.00	-.435	-.552	-.544	-.493	-.460	-.443	-.436
25.00	-.411	-.470	-.479	-.447	-.353	-.387	-.323
30.00	-.397	-.407	-.409	-.387	-.286	-.344	-.236
35.00	-.357	-.345	-.343	-.335	-.237	-.297	-.186
40.00	-.337	-.286	-.277	-.280	-.194	-.236	-.137
45.00	-.313	-.221	-.219	-.230	-.159	-.179	-.113
50.00	-.286	-.148	-.156	-.176	-.111	-.122	-.094
55.00	-.187	-.057	-.087	-.132	-.080	-.072	-.094
60.00	-.078	-.007	-.063	-.087	-.056	-.036	-.094
65.00	-.116	-.043	-.066	-.105	-.037	-.049	-.094
70.00	-.385	-.069	-.007	-.036	-.029	-.018	-.106
75.00	-1.193	-.675	-.398	-.337	-.292	-.194	-.106
80.00	-.933	-.768	-.430	-.351	-.302	-.179	-.105
85.00	-.535	-.696	-.410	-.324	-.291	-.160	-.095
90.00	-.274	-.566	-.372	-.280	-.263	-.137	-.099
95.00	-.160	-.431	-.384	-.253	-.239	-.127	-.089

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.374	.484	.466	.473	.461	.459	.431
2.50	.367	.444	.425	.434	.436	.428	.374
5.00	.371	.370	.359	.383	.365	.340	.285
7.50	.366	.321	.310	.326	.304	.278	.204
10.00	.327	.278	.272	.279	.265	.268	.138
15.00	.287	.218	.215	.203	.211	.182	.065
20.00	.237	.174	.162	.158	.158	.139	.014
25.00	.210	.130	.120	.113	.110	.079	-.009
30.00	.155	.101	.087	.074	.080	.047	-.038
35.00	.121	.070	.060	.054	.050	.009	-.052
40.00	.099	.049	.027	.023	.023	.019	-.071
45.00	.070	.023	.011	.008	.004	-.046	-.068
50.00	.042	.003	-.008	-.018	-.023	-.060	-.069
55.00	.022	-.005	-.019	-.033	-.040	-.082	-.068
60.00	.005	-.011	-.014	-.045	-.049	-.086	-.063
65.00	-.006	-.023	-.045	-.052	-.053	-.083	-.061
70.00	-.001						-.062
75.00	-.023	-.008	-.069	-.069	-.062	-.066	-.044
80.00	-.012	-.020	-.066	-.065	-.070	-.072	-.044
85.00	-.020	-.020	-.071	-.069	-.072	-.072	-.048
90.00	-.024	-.028	-.097	-.087	-.056	-.089	-.043
95.00	-.012	-.063	-.103	-.106	-.104	-.087	-.044

TABLE II — WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60   α = 11.3°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.034	-1.770	-1.529	-1.124	-.786	-.470	-.416
1.25	-1.063	-1.393	-1.100	-.957	-.675	-.439	-.327
2.50	-1.134	-1.422	-1.079	-.964	-.675	-.434	-.330
5.00	-1.079	-1.455	-1.098	-.969	-.670	-.431	-.314
7.50	-.980	-1.533	-1.073	-.971	-.666	-.425	-.306
10.00	-.865	-1.640	-1.070	-.965	-.661	-.420	-.303
15.00	-.737	-1.582	-1.040	-.954	-.652	-.408	-.293
20.00	-.650	-1.390	-1.007	-.944	-.642	-.395	-.281
25.00	-.596	-1.065	-.976	-.930	-.635	-.377	-.278
30.00	-.571	-.658	-.934	-.899	-.627	-.372	-.254
35.00	-.519	-.358	-.892	-.863	-.616	-.360	-.268
40.00	-.478	-.234	-.839	-.820	-.603	-.345	-.262
45.00	-.429	-.175	-.772	-.771	-.585	-.333	-.249
50.00	-.376	-.117	-.697	-.714	-.562	-.321	-.232
55.00	-.262	-.016	-.604	-.654	-.535	-.309	-.215
60.00	-.141	-.074	-.531	-.560	-.502	-.297	-.200
65.00	-.002	-.060	-.485	-.535	-.466	-.285	-.004
70.00	-.305	-.001	-.387	-.482	-.411	-.274	-.183
75.00	-1.130	-.678	-.471	-.442	-.412	-.277	-.182
80.00	-.905	-.738	-.443	-.463	-.439	-.271	-.173
85.00	-.606	-.682	-.339	-.440	-.435	-.268	-.176
90.00	-.372	-.554	-.261	-.383	-.403	-.250	-.169
95.00	.234	-.390	-.197	-.344	-.375	-.245	-.169

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.366	.467	.461	.501	.476	.477	.411
2.50	.382	.524	.504	.508	.491	.477	.378
5.00	.534	.490	.467	.470	.438	.403	.310
7.50	.494	.446	.425	.429	.390	.351	.237
10.00	.465	.405	.390	.388	.348	.250	.176
15.00	.433	.328	.328	.312	.288	.194	.130
20.00	.364	.287	.276	.260	.240	.146	.046
25.00	.331	.243	.232	.221	.194	.100	-.018
30.00	.285	.205	.197	.185	.152	.060	-.014
35.00	.236	.172	.171	.149	.115	.028	-.031
40.00	.214	.145	.135	.128	.091	.002	-.056
45.00	.174	.110	.112	.091	.055	-.030	-.070
50.00	.128	.089	.081	.067	.032	-.052	-.081
55.00	.127	.069	.070	.045	.014	-.067	-.087
60.00	.095	.055	.059	.032	-.023		-.064
65.00	.084	.052	.043	.021	-.062	-.061	-.077
70.00	.070	.042	.013	-.019	-.074	-.082	-.083
75.00	.033	.021	.020	-.016	-.099	-.108	-.081
80.00	.039	.005	-.013	-.023	-.097	-.124	-.075
85.00	.041	-.002	-.005	-.055	-.170	-.146	-.087
90.00	-.017	-.035	-.002	-.091			-.090
95.00	-.013						-.104

M = 0.60   α = 15.5°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.088	-2.006	-1.203	-.642	-.526	-.462	-.457
1.25	-1.570	-1.964	-1.167	-.763	-.518	-.446	-.395
2.50	-1.809	-1.948	-1.187	-.759	-.516	-.448	-.394
5.00	-1.866	-1.946	-1.194	-.754	-.534	-.443	-.398
7.50	-1.594	-1.994	-1.184	-.754	-.525	-.450	-.387
10.00	-1.274	-2.070	-1.182	-.745	-.524	-.451	-.383
15.00	-1.053	-2.025	-1.163	-.734	-.525	-.452	-.381
20.00	-.941	-1.939	-1.157	-.721	-.519	-.451	-.382
25.00	-.770	-1.751	-1.164	-.716	-.515	-.442	-.380
30.00	-.681	-1.433	-1.166	-.714	-.507	-.446	-.373
35.00	-.618	-1.058	-1.156	-.703	-.498	-.437	-.367
40.00	-.580	-.739	-1.129	-.686	-.492	-.439	-.357
45.00	-.534	-.518	-1.073	-.673	-.484	-.421	-.351
50.00	-.472	-.362	-1.015	-.657	-.479	-.409	-.340
55.00	-.362	-.190	-.947	-.623	-.467	-.407	-.336
60.00	-.266	-.253	-.872	-.560	-.455	-.405	-.321
65.00	-.205	-.198	-.841	-.534	-.436	-.393	-.320
70.00	-.025	-.616	-.849	-.551	-.434	-.344	-.001
75.00	-1.179	-.687	-.657	-.564	-.429	-.338	-.309
80.00	-.731	-.617	-.665	-.543	-.418	-.325	-.302
85.00	-.496	-.448	-.610	-.529	-.404	-.319	-.290
90.00	-.368	-.246	-.565				-.280
95.00	-.247		-.589				-.265

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.257	.435	.396	.476	.445	.430	.397
2.50	.317	.570	.589	.528	.508	.480	.400
5.00	.530	.583	.540	.477	.477	.436	.352
7.50	.613	.555	.510	.498	.436	.392	.287
10.00	.593	.456	.480	.448	.401	.377	.155
15.00	.569	.417	.371	.389	.343	.297	.080
20.00	.497	.366	.384	.394	.289	.238	.048
25.00	.458	.324	.346	.350	.242	.184	.000
30.00	.411	.288	.313	.173	.208	.140	.030
35.00	.330	.257	.280	.136	.181	.098	-.027
40.00	.291	.189	.257	.108	.079	.051	-.101
45.00	.236	.169	.180	.070	.041	.008	-.101
50.00	.220	.146	.187	.108	.006	.022	-.107
55.00	.195	.128	.108	.014	.017	.056	-.114
60.00	.170		.076		.038	.074	-.133
65.00	.146			.068	.090	.093	-.139
70.00	.106		.034	.076	.115	.112	-.139
75.00	.107	.087	.014	.104	.146	.147	-.144
80.00	.108	.077	.011	.154	.146	.175	-.167
85.00	.061	.059	.059			.201	
90.00	.049	.040	.189				

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 0.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00				-.749	-.476	-.465	-.366
1.25	-.177	-.512	-.478	-.008	-.161	-.200	-.173
2.50	-.209	-.068	-.041	-.005	-.066	-.087	-.123
5.00	-.133	-.058	-.033	-.013	-.054	-.095	-.062
7.50	-.061	-.060	-.039	-.001	-.025	-.062	-.032
10.00	-.022	-.071	-.040	-.002	-.009	-.048	-.014
15.00	-.007	-.082	-.051	-.015	-.011	-.018	-.045
20.00	-.028	-.087	-.051	-.009	-.011	-.020	-.058
25.00	-.050	-.090	-.042	-.000	-.017	-.023	-.044
30.00	-.071	-.090	-.033	-.017	-.031	-.026	-.038
35.00	-.087	-.080	-.019	-.039	-.054	-.042	-.034
40.00	-.080	-.056	-.003	-.067	-.083	-.061	-.021
45.00	-.086	-.013	-.037	-.118	-.126	-.095	-.039
50.00	-.082	-.055	-.083	-.174	-.185	-.147	-.048
55.00	-.067	-.144	-.156	-.260	-.270	-.224	-.062
60.00	-.006	-.251	-.283	-.347	-.323	-.266	-.049
65.00	-.138	-.277	-.318	-.333	-.322	-.240	-.053
70.00	-.343	-.277	-.325	-.349	-.352	-.236	-.057
75.00	-.571	-.289	-.340	-.321	-.272	-.169	-.071
80.00	-1.165	-.764	-.397	-.322	-.268	-.182	-.091
85.00	-.635	-.837	-.407	-.326	-.270	-.170	-.100
90.00	-.479	-.796	-.481	-.331	-.275	-.165	-.097
95.00	-.236	-.711	-.430	-.326	-.281	-.159	
	-.169	-.557	-.416				

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
			-.168	-.219	-.370	-.478	-.560
1.25	-.179	-.102	-.123	-.183	-.267	-.329	-.416
2.50	-.119	-.075	-.131	-.110	-.239	-.279	-.303
5.00	-.068	-.076	-.134	-.144	-.233	-.271	-.315
7.50	-.021	-.095	-.145	-.170	-.233	-.250	-.321
10.00	-.003	-.105	-.169	-.211	-.218	-.266	-.273
15.00	-.040	-.129	-.183	-.216	-.240	-.273	-.251
20.00	-.064	-.147	-.200	-.223	-.247	-.277	-.221
25.00	-.126	-.164	-.218	-.231	-.257	-.288	-.212
30.00	-.136	-.183	-.226	-.242	-.270	-.280	-.207
35.00	-.147	-.200	-.242	-.253	-.276	-.276	-.209
40.00	-.172	-.208	-.249	-.263	-.292	-.263	-.202
45.00	-.204	-.229	-.253	-.268	-.285	-.254	-.191
50.00	-.208	-.243	-.242	-.265	-.285	-.239	-.178
55.00	-.221	-.237	-.285	-.260	-.273	-.207	-.156
60.00	-.233	-.231	-.208	-.255	-.251		-.136
65.00	-.211	-.219		-.241	-.223	-.146	-.124
70.00	-.216	-.180	-.216	-.221	-.205	-.132	-.110
75.00	-.207	-.155	-.202	-.211	-.197	-.128	-.104
80.00	-.195	-.136	-.205	-.214	-.148	-.137	-.096
85.00	-.167	-.103	-.216	-.227	-.205	-.135	-.076
90.00	-.138	-.107	-.225				-.076
95.00							

M = 0.85   α = 4.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00			-1.000	-.251	-.183	-.096	-.043
1.25	-.196	-.110	-1.019	-1.006	-.917	-.882	-.826
2.50	-.020	-.930	-.833	-.812	-.784	-.726	-.677
5.00	-.123	-.789	-.463	-.437	-.382	-.331	-.347
7.50	-.186	-.400	-.395	-.358	-.344	-.303	-.319
10.00	-.207	-.371	-.354	-.310	-.306	-.264	-.271
15.00	-.207	-.346	-.288	-.260	-.284	-.217	-.167
20.00	-.222	-.313	-.231	-.211	-.179	-.168	-.136
25.00	-.230	-.290	-.190	-.173	-.145	-.121	-.101
30.00	-.241	-.269	-.157	-.130	-.103	-.086	-.076
35.00	-.245	-.235	-.112	-.082	-.055	-.040	-.059
40.00	-.230	-.184	-.063	-.035	-.001	-.009	-.046
45.00	-.225	-.114	-.002	-.030	-.054	-.062	-.041
50.00	-.211	-.016	-.073	-.098	-.118	-.115	-.039
55.00	-.182	-.093	-.136	-.150	-.165	-.143	-.042
60.00	-.071	-.173	-.185	-.193	-.186	-.151	-.037
65.00	-.050	-.185	-.157	-.188	-.190	-.143	-.041
70.00	-.259	-.032	-.174	-.198	-.206	-.133	-.048
75.00	-.457	-.781	-.405	-.320	-.251	-.173	-.046
80.00	-1.038	-.753	-.412	-.322	-.247	-.164	-.048
85.00	-.743	-.711	-.486	-.328	-.248	-.154	-.055
90.00	-.621	-.638	-.437	-.333	-.251	-.150	-.060
95.00	-.407	-.538	-.480	-.329	-.252	-.146	-.053
	-.241						

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
				-.347	-.337	-.337	-.274
1.25	-.328	-.336	-.347	-.333	-.261	-.258	-.190
2.50	-.303	-.264	-.269	-.259	-.168	-.147	-.105
5.00	-.259	-.193	-.182	-.195	-.110	-.096	-.027
7.50	-.211	-.142	-.136	-.143	-.075	-.095	-.034
10.00	-.180	-.113	-.096	-.097	-.041	-.013	-.105
15.00	-.138	-.066	-.052	-.040	-.012	-.034	-.128
20.00	-.083	-.031	-.032	-.001	-.046	-.072	-.135
25.00	-.080	-.001	-.083	-.037	-.075	-.108	-.143
30.00	-.003	-.027	-.099	-.060	-.101	-.138	-.157
35.00	-.014	-.052	-.115	-.085	-.121	-.164	-.155
40.00	-.041	-.072	-.131	-.107	-.148	-.183	-.152
45.00	-.076	-.096	-.135	-.131	-.160	-.196	-.144
50.00	-.088	-.115	-.135	-.147	-.175	-.199	-.126
55.00	-.099	-.117	-.135	-.159	-.178	-.194	-.113
60.00	-.115	-.131		-.163		-.177	-.105
65.00		-.133		-.167	-.172		-.086
70.00	-.105	-.109	-.164	-.178	-.169	-.126	-.078
75.00	-.117	-.107	-.154	-.167	-.164	-.121	-.066
80.00	-.117	-.102	-.168	-.165	-.127	-.104	-.051
85.00	-.124	-.110	-.185	-.177	-.182	-.127	-.038
90.00	-.109	-.153	-.196	-.199		-.182	
95.00	-.117						

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 0.85   α = 5.9°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.206	-.178	-.275	-.109	-.530	-.444	-.368
1.25	-.139	-1.194	-1.134	-.779	-1.040	-.742	-.821
2.50	-.251	-1.169	-.895	-.734	-.869	-.628	-.798
5.00	-.381	-.768	-.765	-.665	-.732	-.574	-.726
7.50	-.338	-.574	-.665	-.607	-.636	-.544	-.683
10.00	-.326	-.491	-.600	-.551	-.566	-.492	-.639
15.00	-.331	-.441	-.482	-.473	-.452	-.435	-.447
20.00	-.329	-.420	-.372	-.386	-.338	-.358	-.275
25.00	-.336	-.381	-.300	-.315	-.249	-.288	-.151
30.00	-.331	-.327	-.239	-.251	-.190	-.225	-.095
35.00	-.317	-.253	-.183	-.194	-.134	-.167	-.054
40.00	-.312	-.169	-.130	-.143	-.080	-.108	-.049
45.00	-.286	-.072	-.075	-.091	-.031	-.054	-.042
50.00	-.247	-.029	-.011	-.038	-.019	-.002	-.041
55.00	-.113	-.119	-.048	-.012	-.057	-.038	-.053
60.00	.015	.113	.080	.074	.095	.067	-.057
65.00	.227	.048	.083	.047	.115	.051	-.064
70.00	.434	.005	.111	.085	.158	.085	-.075
75.00	-1.012	-.716	-.404	-.338	-.287	-.191	-.078
80.00	-.771	-.741	-.419	-.347	-.293	-.183	-.078
85.00	-.645	-.701	-.434	-.357	-.296	-.176	-.078
90.00	-.443	-.638	-.439	-.350	-.289	-.163	-.075
95.00	-.295	-.545	-.413	-.338	-.265	-.149	-.068
LOWER SURFACE							
1.25	.378	.441	.438	.420	.429	.428	.386
2.50	.373	.366	.360	.344	.359	.355	.303
5.00	.337	.288	.276	.292	.264	.247	.207
7.50	.299	.234	.223	.241	.206	.189	.126
10.00	.263	.202	.186	.193	.162	.180	.069
15.00	.220	.143	.136	.116	.117	.095	-.031
20.00	.162	.102	.085	.074	.062	.039	-.072
25.00	.154	.067	.048	.034	.032	.004	-.106
30.00	.098	.032	.013	.008	.008	-.038	-.123
35.00	.068	.011	-.011	-.023	-.040	-.078	-.128
40.00	.048	-.015	-.037	-.051	-.066	-.110	-.134
45.00	.018	-.040	-.060	-.077	-.092	-.136	-.134
50.00	.014	-.063	-.081	-.096	-.112	-.158	-.130
55.00	-.031	-.071	-.089	-.115	-.130	-.167	-.126
60.00	-.049	-.077	-.093	-.123	-.135	-.163	-.108
65.00	-.063	-.084	-.100	-.130	-.137	-.154	-.098
70.00	-.059						-.093
75.00	-.076	-.077	-.130	-.147	-.139	-.120	-.068
80.00	-.076	-.086	-.134	-.140	-.141	-.102	-.068
85.00	-.092	-.095	-.139	-.142	-.145	-.091	-.063
90.00	-.083	-.109	-.162	-.157	-.104	-.110	-.046
95.00	-.111	-.145	-.181	-.176	-.159	-.109	-.041

M = 0.85   α = 8.0°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.204	-.493	-.543	-.070	-.843	-.797	-.785
1.25	-.277	-1.370	-.956	-.946	-1.008	-.693	-.829
2.50	-.407	-1.388	-.897	-.877	-.972	-.679	-.815
5.00	-.500	-1.243	-.859	-.828	-.943	-.645	-.805
7.50	-.533	-.842	-.774	-.781	-.922	-.631	-.801
10.00	-.499	-.735	-.733	-.750	-.896	-.610	-.788
15.00	-.484	-.647	-.668	-.696	-.772	-.572	-.717
20.00	-.452	-.600	-.589	-.661	-.567	-.533	-.624
25.00	-.447	-.531	-.518	-.637	-.438	-.492	-.500
30.00	-.433	-.424	-.456	-.585	-.365	-.462	-.372
35.00	-.441	-.323	-.389	-.507	-.323	-.420	-.260
40.00	-.448	-.243	-.380	-.407	-.280	-.378	-.183
45.00	-.391	-.157	-.300	-.300	-.243	-.324	-.155
50.00	-.319	-.068	-.201	-.215	-.201	-.271	-.140
55.00	-.170	.016	-.142	-.149	-.166	-.225	-.140
60.00	-.036	.083	-.118	-.078	-.189	-.186	-.140
65.00	.173	.073	-.124	-.105	-.089	-.178	-.144
70.00	.381	.075	-.062	-.035	-.012	-.107	-.147
75.00	-.977	-.716	-.420	-.350	-.313	-.241	-.143
80.00	-.796	-.727	-.451	-.366	-.317	-.228	-.137
85.00	-.683	-.682	-.443	-.342	-.288	-.193	-.128
90.00	-.531	-.617	-.412	-.305	-.257	-.162	-.120
95.00	-.399	-.529	-.370	-.263	-.237	-.143	-.109
LOWER SURFACE							
1.25	.403	.511	.492	.503	.475	.473	.433
2.50	.434	.452	.433	.409	.428	.420	.375
5.00	.414	.376	.356	.367	.348	.334	.285
7.50	.394	.320	.304	.314	.287	.277	.210
10.00	.356	.286	.258	.268	.248	.267	.143
15.00	.311	.218	.207	.191	.193	.179	.051
20.00	.243	.174	.158	.148	.138	.119	.020
25.00	.238	.138	.114	.108	.100	.075	-.063
30.00	.170	.104	.079	.071	.060	.033	-.093
35.00	.135	.069	.055	.036	.032	.010	-.104
40.00	.108	.044	.024	.006	.003	-.045	-.111
45.00	.077	.017	.001	-.025	-.035	-.079	-.114
50.00	-.046	-.008	-.028	-.046	-.047	-.105	-.110
55.00	-.023	-.018	-.041	-.063	-.069	-.122	-.104
60.00	-.001	-.034	-.048	-.074	-.081	-.128	-.091
65.00	-.011	-.043	-.059	-.089	-.081	-.131	-.083
70.00	-.018						-.078
75.00	-.038	-.046	-.111	-.105	-.090	-.083	-.060
80.00	-.053	-.065	-.099	-.101	-.091	-.083	-.059
85.00	-.055	-.088	-.107	-.106	-.096	-.082	-.057
90.00	-.060	-.100	-.128	-.123	-.066	-.089	-.049
95.00	-.107	-.149	-.140	-.133	-.120	-.088	-.055

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 11.3°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.170	-.886	-.990	-.835	-.730	-.459	-.457
1.25	-.450	-1.468	-1.135	-.975	-.658	-.424	-.359
2.50	-.614	-1.446	-1.090	-.970	-.654	-.422	-.360
5.00	-.735	-1.483	-1.108	-.956	-.650	-.410	-.359
7.50	-.769	-1.476	-1.080	-.963	-.642	-.418	-.353
10.00	-.749	-1.440	-1.054	-.957	-.636	-.412	-.351
15.00	-.723	-1.350	-.959	-.944	-.617	-.404	-.348
20.00	-.670	-1.298	-.862	-.934	-.599	-.395	-.345
25.00	-.641	-1.216	-.830	-.927	-.581	-.377	-.340
30.00	-.621	-.975	-.850	-.913	-.569	-.377	-.332
35.00	-.598	-.529	-.851	-.899	-.556	-.368	-.328
40.00	-.588	-.303	-.835	-.875	-.540	-.361	-.317
45.00	-.589	-.142	-.808	-.841	-.524	-.351	-.306
50.00	-.582	-.067	-.768	-.795	-.504	-.346	-.289
55.00	-.361	-.001	-.701	-.738	-.483	-.340	-.276
60.00	-.195	-.009	-.627	-.622	-.464	-.334	-.262
65.00	-.036	-.132	-.575	-.619	-.442	-.328	-.253
70.00	-.252	-.159	-.477	-.581	-.400	-.321	-.255
75.00	-.965	-.741	-.547	-.491	-.409	-.307	-.238
80.00	-.791	-.738	-.533	-.518	-.426	-.302	-.232
85.00	-.651	-.705	-.454	-.506	-.428	-.296	-.230
90.00	-.554	-.628	-.383	-.464	-.407	-.283	-.230
95.00	-.463	-.512	-.311	-.415	-.389	-.275	-.224

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.411	.568	.515	.522	.498	.489	.441
2.50	.484	.550	.509	.495	.489	.479	.402
5.00	.528	.491	.455	.466	.434	.409	.329
7.50	.551	.439	.410	.416	.386	.346	.259
10.00	.506	.407	.378	.369	.338	.337	.197
15.00	.461	.334	.318	.305	.288	.252	.099
20.00	.382	.292	.261	.251	.232	.193	.004
25.00	.355	.245	.283	.211	.188	.141	-.032
30.00	.302	.209	.185	.178	.146	.092	-.079
35.00	.248	.175	.156	.141	.113	.043	-.111
40.00	.227	.149	.120	.109	.078	.005	-.130
45.00	.191	.114	.092	.077	.041	-.038	-.142
50.00	.135	.085	.062	.048	.016	-.077	-.151
55.00	.133	.066	.047	.024	-.014	-.110	-.160
60.00	.100	.053	.027	.009	-.034	-.128	-.154
65.00	.088	.035	.007	-.008	-.054	-.146	-.152
70.00	.066						-.155
75.00	.022	.022	-.045	-.051	-.093	-.108	-.149
80.00	.031	-.007	-.029	-.042	-.114	-.134	-.158
85.00	.029	-.033	-.035	-.056	-.140	-.160	-.163
90.00	-.005	-.062	-.051	-.090	-.140	-.191	-.162
95.00	-.009	-.125	-.064	-.137	-.223	-.201	-.176

M = 0.95   α = 15.5°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.055	-1.282	-1.085	-.910	-.559	-.495	-.491
1.25	-.640	-1.646	-1.035	-.766	-.555	-.484	-.454
2.50	-.862	-1.612	-1.009	-.759	-.560	-.491	-.449
5.00	-1.040	-1.617	-1.043	-.747	-.565	-.483	-.450
7.50	-1.065	-1.621	-1.042	-.739	-.569	-.493	-.446
10.00	-1.040	-1.598	-1.048	-.728	-.571	-.495	-.435
15.00	-1.010	-1.483	-1.038	-.700	-.573	-.495	-.429
20.00	-.939	-1.397	-1.016	-.688	-.573	-.492	-.429
25.00	-.866	-1.314	-.991	-.675	-.567	-.479	-.435
30.00	-.805	-1.257	-.979	-.664	-.562	-.485	-.434
35.00	-.717	-1.182	-.957	-.646	-.559	-.477	-.434
40.00	-.628	-1.082	-.935	-.630	-.555	-.473	-.431
45.00	-.579	-.953	-.898	-.615	-.548	-.466	-.427
50.00	-.603	-.800	-.863	-.607	-.538	-.462	-.420
55.00	-.544	-.680	-.837	-.601	-.527	-.463	-.411
60.00	-.420	-.644	-.800	-.544	-.521	-.476	-.401
65.00	-.318	-.702	-.820	-.596	-.526	-.495	-.403
70.00	-.096	-.525	-.775	-.557	-.493	-.479	-.008
75.00	-1.147	-.844	-.735	-.558	-.475	-.410	-.378
80.00	-.894	-.814	-.708	-.565	-.477	-.421	-.357
85.00	-.734	-.591	-.693	-.573	-.473	-.418	-.351
90.00	-.565	-.457	-.669	-.560	-.470	-.406	-.334
95.00	-.430	-.371	-.653	-.553	-.462	-.387	-.312

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.331	.575	.500	.563	.469	.449	.420
2.50	.476	.614	.556	.541	.504	.488	.420
5.00	.599	.592	.539	.538	.475	.443	.374
7.50	.698	.546	.504	.491	.433	.392	.314
10.00	.650	.520	.472	.447	.395	.383	.255
15.00	.597	.449	.423	.393	.346	.303	.160
20.00	.512	.404	.365	.348	.293	.242	.074
25.00	.478	.358	.325	.295	.244	.191	.005
30.00	.484	.318	.284	.254	.199	.136	-.055
35.00	.362	.270	.248	.218	.154	.082	-.106
40.00	.340	.243	.209	.174	.113	.037	-.136
45.00	.298	.207	.175	.134	.072	.014	-.155
50.00	.233	.174	.141	.095	.034	-.063	-.173
55.00	.273	.148	.116	.061	-.005	-.105	-.187
60.00	.193	.127	.091	.038	-.036	-.138	-.190
65.00	.178	.099	.060	.004	-.066	-.174	-.213
70.00	.145						-.208
75.00	.087	.075	-.011	-.086	-.183	-.131	-.203
80.00	.088	.045	-.081	-.090	-.153	-.171	-.233
85.00	.088	-.015	-.058	-.127	-.189	-.218	-.228
90.00	.033	-.015	-.116	-.161	-.187	-.279	-.227
95.00	.007	-.062	-.194	-.244	-.287	-.386	-.242

TABLE II　　　　WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90　α = 0.0°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.451	.522	.484	.754	.480	.477	.372
1.25	.421	-.071	-.056	-.001	.146	.203	.152
2.50	.147	-.061	-.045	-.009	.055	.073	.101
5.00	.074	-.061	-.044	-.009	.046	.092	.041
7.50	.034	-.074	-.046	-.010	.020	.057	.022
10.00	-.014	-.084	-.051	-.005	.003	.042	-.036
15.00	-.022	-.093	-.049	-.027	.007	.007	-.077
20.00	-.046	-.096	-.037	-.018	.007	.012	-.087
25.00	-.070	-.096	-.026	-.009	.015	.022	-.071
30.00	-.087	-.081	-.012	-.004	.030	.022	-.054
35.00	-.087	-.052	-.011	.030	.051	.035	-.044
40.00	-.088	-.003	-.040	.058	.082	.058	-.036
45.00	-.086	-.073	.085	.107	.124	.092	-.055
50.00	-.069	.170	.158	.170	.186	.146	-.076
55.00	-.012	.271	.251	.256	.270	.226	-.089
60.00	.160	.280	.310	.348	.318	.257	-.074
65.00	.359	.274	.314	.337	.320	.228	-.068
70.00	.567	.233	.334	.353	.329	.230	-.073
75.00	-1.159	-.793	-.385	-.336	-.284	-.200	-.077
80.00	-.592	-.842	-.480	-.336	-.281	-.193	-.087
85.00	-.495	-.802	-.432	-.339	-.281	-.186	-.109
90.00	-.322	-.729	-.439	-.340	-.285	-.177	-.117
95.00	-.218	-.592	-.426	-.330	-.286	-.172	-.115

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.400	-.074	-.125	-.194	-.325	-.404	-.503
2.50	.137	-.056	-.100	-.168	-.243	-.301	-.387
5.00	.095	-.061	-.104	-.105	-.220	-.265	-.298
7.50	.039	-.074	-.120	-.137	-.228	-.268	-.323
10.00	-.014	-.093	-.131	-.164	-.233	-.212	-.335
15.00	-.022	-.116	-.150	-.217	-.219	-.250	-.335
20.00	-.072	-.137	-.181	-.222	-.237	-.276	-.307
25.00	-.058	-.158	-.206	-.241	-.258	-.297	-.253
30.00	-.112	-.182	-.227	-.244	-.258	-.305	-.235
35.00	-.129	-.199	-.240	-.256	-.278	-.316	-.208
40.00	-.145	-.215	-.259	-.264	-.290	-.341	-.217
45.00	-.169	-.245	-.276	-.272	-.313	-.327	-.221
50.00	-.178	-.265	-.286	-.274	-.316	-.311	-.212
55.00	-.213	-.262	-.268	-.282	-.317	-.271	-.191
60.00	-.229	-.259	-.243	-.277	-.295	-.244	-.169
65.00	-.231	-.230	-.206	-.265	-.274	-.201	-.134
70.00	-.238						-.132
75.00	-.245	-.207	-.212	-.267	-.247	-.125	-.119
80.00	-.239	-.184	-.216	-.247	-.228	-.132	-.097
85.00	-.235	-.147	-.223	-.226	-.206	-.128	-.090
90.00	-.204	-.117	-.236	-.234	-.152	-.128	-.081
95.00	-.171	-.117	-.240	-.237	-.207	-.131	-.061

M = 0.90　α = 3.9°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.349	.175	.060	.309	.067	.063	.064
1.25	.017	-.903	-1.039	-.981	-.998	-.940	-.899
2.50	-.087	-.794	-.926	-.860	-.896	-.862	-.805
5.00	-.160	-.390	-.509	-.458	-.415	-.344	-.371
7.50	-.188	-.355	-.419	-.346	-.352	-.308	-.353
10.00		-.339	-.368	-.323	-.327	-.292	-.321
15.00	-.214	-.323	-.283	-.283	-.256	-.240	-.191
20.00	-.225	-.307	-.217	-.226	-.207	-.184	-.142
25.00	-.241	-.298	-.177	-.185	-.161	-.138	-.102
30.00		-.264	-.147	-.146	-.116	-.100	-.082
35.00	-.247	-.183	-.106	-.100	-.066	-.054	-.067
40.00	-.246	-.091	-.060	-.045	-.016	-.001	-.052
45.00	-.237	-.015	-.002	-.019	-.043	-.052	-.052
50.00	-.194	-.127	-.073	-.081	-.107	-.102	-.052
55.00	-.064	-.192	-.128	-.138	-.148	-.137	-.064
60.00	-.070	-.167	-.145	-.191	-.172	-.150	-.060
65.00	-.268	-.014	-.144	-.181	-.177	-.140	-.064
70.00	-.467	-.081	-.163	-.193		-.134	-.064
75.00	-1.082	-.755	-.430	-.339	-.269	-.191	-.063
80.00	-.668	-.767	-.433	-.340	-.269	-.182	-.062
85.00	-.586	-.733	-.442	-.344	-.269	-.176	-.069
90.00	-.454	-.672	-.449	-.351	-.271	-.171	-.070
95.00	-.306	-.583	-.436	-.346	-.264	-.165	-.065

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.337	.341	.349	.328	.332	.338	.283
2.50	.314	.270	.267	.249	.254	.255	.200
5.00	.260	.200	.186	.197	.166	.150	.111
7.50	.224	.148	.138	.142	.109	.097	.031
10.00	.188	.121	.104	.098	.071	.097	-.027
15.00	.148	.073	.058	.037	.031	.011	-.119
20.00	.093	.036	-.013	-.008	-.016	-.039	-.154
25.00	.089	.004	-.022	-.038	-.055	-.081	-.172
30.00	.035	-.024	-.051	-.059	-.079	-.113	-.180
35.00	.008	-.056	-.075	-.088	-.113	-.153	-.177
40.00	-.011	-.069	-.099	-.115	-.137	-.166	-.179
45.00	-.036	-.100	-.120	-.139	-.163	-.217	-.180
50.00	-.067	-.119	-.137	-.158	-.175	-.239	-.170
55.00	-.087	-.183	-.143	-.178	-.189	-.234	-.159
60.00	-.104	-.131	-.142	-.179	-.200	-.223	-.142
65.00	-.181	-.134	-.144	-.184	-.202	-.204	-.125
70.00	-.113						-.119
75.00	-.131	-.119	-.184	-.196	-.202	-.132	-.095
80.00	-.131	-.119	-.173	-.188	-.198	-.128	-.089
85.00	-.136	-.183	-.180	-.185	-.192	-.125	-.084
90.00	-.119	-.124	-.202	-.200	-.151	-.140	-.060
95.00	-.141	-.169	-.218	-.219	-.200	-.133	-.049

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 5.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.259	-1.082	-1.189	-1.165	-1.440	-.404	-.345
1.25	-.085	-1.067	-1.206	-1.086	-1.130	-.748	-.877
2.50	-.200	-1.093	-1.187	-1.026	-1.022	-.622	-.861
5.00	-.283	-.782	-.910	-.919	-.836	-.576	-.815
7.50	-.310	-.636	-.776	-.788	-.713	-.560	-.788
10.00	-.303	-.549	-.693	-.657	-.609	-.526	-.747
15.00	-.315	-.462	-.560	-.496	-.507	-.466	-.603
20.00	-.309	-.427	-.383	-.370	-.396	-.396	-.411
25.00	-.329	-.411	-.266	-.297	-.281	-.324	-.211
30.00	-.344	-.404	-.202	-.243	-.203	-.262	-.090
35.00	-.333	-.363	-.158	-.189	-.147	-.207	-.056
40.00	-.334	-.160	-.119	-.137	-.094	-.152	-.039
45.00	-.342	-.031	-.072	-.075	-.053	-.098	-.040
50.00	-.339	.072	-.017	-.014	-.014	-.046	-.044
55.00	-.135	.146	-.036	-.047	-.025	-.004	-.064
60.00	-.025	.134	-.060	-.121	-.061	-.023	-.071
65.00	.232	.021	-.055	-.113	-.082	-.008	-.088
70.00	.434	.000	-.083	-.134	-.617	-.045	-.098
75.00	-1.066	-.751	-.437	-.354	-.280	-.209	-.098
80.00	-.679	-.768	-.444	-.356	-.287	-.207	-.096
85.00	-.599	-.740	-.454	-.363	-.294	-.193	-.092
90.00	-.470	-.677	-.459	-.363	-.290	-.172	-.086
95.00	-.332	-.592	-.440	-.351	-.273	-.153	-.075

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.394	.452	.439	.417	.430	.442	.386
2.50	.396	.357	.362	.354	.362	.368	.307
5.00	.364	.300	.278	.293	.271	.260	.213
7.50	.323	.248	.224	.241	.214	.201	.131
10.00	.285	.216	.187	.191	.171	.197	.064
15.00	.242	.155	.137	.115	.123	.107	-.036
20.00	.181	.115	.085	.076	.067	.048	-.100
25.00	.173	.078	.047	.030	.027	.004	-.153
30.00	.115	.046	.016	.006	-.005	-.036	-.164
35.00	.083	.016	-.011	-.027	-.038	-.079	-.166
40.00	.062	-.007	-.039	-.059	-.064	-.117	-.162
45.00	.031	-.037	-.062	-.086	-.100	-.155	-.161
50.00	-.001	-.058	-.084	-.111	-.117	-.182	-.156
55.00	-.022	-.067	-.096	-.128	-.138	-.194	-.145
60.00	-.042	-.074	-.101	-.140	-.147	-.191	-.130
65.00	-.053	-.085	-.107	-.144	-.150	-.171	-.107
70.00	-.055						-.102
75.00	-.076	-.078	-.143	-.171	-.162	-.116	-.085
80.00	-.073	-.089	-.153	-.162	-.162	-.104	-.077
85.00	-.095	-.102	-.165	-.163	-.161	-.107	-.070
90.00	-.091	-.115	-.194	-.185	-.124	-.111	-.055
95.00	-.125	-.171	-.211	-.205	-.178	-.105	-.047

M = 0.90   α = 8.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.257	-.340	-.401	-.031	-.689	-.765	-.685
1.25	-.193	-1.165	-1.146	-1.172	-.904	-.837	-.774
2.50	-.319	-1.176	-1.001	-1.111	-.868	-.771	-.764
5.00	-.420	-1.109	-.989	-1.000	-.836	-.720	-.751
7.50	-.452	-1.003	-.830	-.909	-.808	-.702	-.746
10.00	-.441	-.926	-.793	-.845	-.780	-.692	-.738
15.00	-.441	-.778	-.688	-.755	-.723	-.662	-.701
20.00	-.416	-.637	-.592	-.682	-.602	-.628	-.643
25.00	-.436	-.538	-.516	-.658	-.508	-.558	-.557
30.00	-.423	-.494	-.431	-.600	-.445	-.514	-.453
35.00	-.415	-.481	-.358	-.523	-.403	-.445	-.354
40.00	-.430	-.335	-.294	-.418	-.361	-.445	-.283
45.00	-.433	-.106	-.245	-.293	-.326	-.361	-.241
50.00	-.462	-.012	-.207	-.184	-.287	-.281	-.221
55.00	-.365	-.111	-.175	-.105	-.255	-.206	-.210
60.00	-.068	-.114	-.181	-.026	-.221	-.152	-.201
65.00	-.152	-.039	-.181	-.063	-.177	-.152	-.193
70.00	-.370	-.006	-.118	-.004	-.356	-.061	-.190
75.00	-1.061	-.774	-.471	-.362	-.340	-.248	-.185
80.00	-.686	-.776	-.508	-.374	-.341	-.233	-.172
85.00	-.609	-.753	-.482	-.363	-.310	-.201	-.158
90.00	-.000	-.688	-.448	-.333	-.278	-.171	-.148
95.00	-.421	-.602	-.409	-.308	-.244	-.146	-.135

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.482	.521	.490	.476	.470	.468	.433
2.50	.455	.459	.438	.400	.418	.420	.371
5.00	.436	.385	.351	.360	.337	.323	.287
7.50	.415	.339	.298	.306	.279	.259	.204
10.00	.371	.297	.260	.257	.236	.259	.143
15.00	.326	.229	.203	.185	.183	.170	.046
20.00	.258	.184	.150	.139	.137	.108	.017
25.00	.242	.143	.109	.093	.085	.059	-.091
30.00	.180	.110	.076	.065	.052	.022	-.123
35.00	.142	.077	.045	.030	.017	-.024	-.137
40.00	.119	.050	.016	.000	-.013	-.063	-.154
45.00	.089	.020	-.011	-.038	-.047	-.098	-.143
50.00	.053	-.007	-.038	-.061	-.067	-.131	-.133
55.00	.025	-.019	-.052	-.078	-.089	-.150	-.128
60.00	.008	-.033	-.062	-.089	-.100	-.154	-.107
65.00	-.009	-.045	-.074	-.101	-.105	-.150	-.092
70.00	-.012						-.089
75.00	-.036	-.045	-.135	-.123	-.118	-.106	-.067
80.00	-.036	-.068	-.136	-.119	-.122	-.102	-.067
85.00	-.060	-.088	-.137	-.130	-.122	-.099	-.065
90.00	-.068	-.112	-.159	-.137	-.087	-.101	-.057
95.00	-.113	-.175	-.173	-.159	-.140	-.099	-.065

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 11.3°

UPPER SURFACE / LOWER SURFACE

M = 0.90   α = 15.5°

UPPER SURFACE / LOWER SURFACE

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.291	.536	.489	.779	.479	.471	.378
1.25	-.241	-.060	-.068	-.014	-.116	-.180	-.145
2.50	-.170	-.047	-.049	-.019	-.026	-.050	-.100
5.00	-.096	-.051	-.048	-.018	-.018	-.072	-.042
7.50	-.053	-.064	-.047	-.005	-.009	-.037	-.023
10.00	-.036	-.076	-.054	-.010	-.026	-.035	-.041
15.00	-.007	-.086	-.045	-.036	-.023	-.009	-.100
20.00	-.037	-.095	-.039	-.029	-.020	-.000	-.146
25.00	-.060	-.101	-.015	-.023	-.008	-.007	-.107
30.00	-.079	-.086	-.002	-.009	-.011	-.009	-.083
35.00	-.080	-.048	-.019	-.013	-.028	-.020	-.053
40.00	-.089	-.016	-.046	-.040	-.067	-.037	-.056
45.00	-.083	-.098	-.088	-.087	-.112	-.074	-.078
50.00	-.066	-.196	-.156	-.152	-.177	-.135	-.106
55.00	-.025	-.295	-.248	-.248	-.262	-.211	-.127
60.00	-.167	-.295	-.302	-.337	-.308	-.241	-.103
65.00	-.375	-.297	-.302	-.330	-.311	-.216	-.088
70.00	-.604	-.248	-.323	-.346	-.323	-.216	-.093
75.00	-1.192	-.852	-.424	-.368	-.309	-.225	-.096
80.00	-.648	-.895	-.462	-.369	-.305	-.221	-.109
85.00	-.519	-.895	-.465	-.367	-.306	-.214	-.131
90.00	-.397	-.781	-.468	-.367	-.310	-.205	-.136
95.00	-.318	-.650	-.486	-.360	-.317	-.198	-.135

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.218	-.054	-.100	-.171	-.320	-.412	-.535
2.50	.161	-.034	-.079	-.153	-.240	-.319	-.409
5.00	.110	-.038	-.084	-.096	-.231	-.289	-.315
7.50	.059	-.059	-.105	-.134	-.247	-.291	-.342
10.00	.035	-.072	-.118	-.160	-.261	-.240	-.354
15.00	.000	-.104	-.147	-.214	-.253	-.297	-.355
20.00	-.052	-.125	-.172	-.237	-.277	-.325	-.374
25.00	-.035	-.144	-.197	-.262	-.309	-.350	-.381
30.00	-.095	-.166	-.224	-.269	-.322	-.362	-.349
35.00	-.108	-.184	-.247	-.295	-.343	-.378	-.295
40.00	-.126	-.200	-.271	-.320	-.365	-.384	-.293
45.00	-.151	-.231	-.297	-.358	-.399	-.382	-.282
50.00	-.170	-.258	-.319	-.373	-.409	-.396	-.253
55.00	-.202	-.267	-.329	-.383	-.389	-.431	-.206
60.00	-.220	-.269	-.329	-.370	-.343	-.392	-.162
65.00	-.229	-.264	-.314	-.324	-.309	-.386	-.129
70.00	-.237						-.127
75.00	-.253	-.276	-.262	-.308	-.300	-.127	-.121
80.00	-.260	-.279	-.251	-.292	-.281	-.117	-.107
85.00	-.275	-.252	-.254	-.270	-.278	-.119	-.103
90.00	-.275	-.197	-.278	-.262	-.239	-.135	-.091
95.00	-.269	-.162	-.290	-.268	-.276	-.148	-.095

M = 0.94   α = 3.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.277	.235	.115	.352	-.011	-.088	-.078
1.25	-.054	-.850	-.973	-.847	-.915	-.907	-.970
2.50	-.043	-.793	-.893	-.705	-.854	-.882	-.889
5.00	-.125	-.352	-.544	-.497	-.503	-.560	-.543
7.50	-.160	-.334	-.430	-.393	-.383	-.367	-.434
10.00	-.161	-.325	-.413	-.339	-.354	-.329	-.339
15.00	-.188	-.305	-.391	-.282	-.276	-.277	-.296
20.00	-.200	-.302	-.201	-.235	-.234	-.216	-.174
25.00	-.230	-.306	-.115	-.201	-.202	-.130	-.109
30.00	-.239	-.308	-.103	-.158	-.147	-.077	-.092
35.00	-.234	-.304	-.081	-.119	-.098	-.035	-.080
40.00	-.253	-.069	-.044	-.072	-.041	-.040	-.073
45.00	-.268	-.060	-.010	-.018	-.021	-.095	-.075
50.00	-.273	-.167	-.081	-.055	-.092	-.127	-.087
55.00	-.080	-.212	-.187	-.117	-.132	-.139	-.102
60.00	-.086	-.168	-.142	-.177	-.156	-.139	-.092
65.00	-.266	-.135	-.136	-.163	-.160	-.129	-.094
70.00	-.473	-.024	-.154	-.173	-.175	-.119	-.090
75.00	-1.218	-.863	-.497	-.386	-.283	-.210	-.087
80.00	-.717	-.908	-.495	-.382	-.283	-.206	-.085
85.00	-.688	-.854	-.486	-.383	-.285	-.203	-.085
90.00	-.527	-.768	-.481	-.383	-.289	-.197	-.087
95.00	-.395	-.660	-.469	-.376	-.286	-.191	-.076

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.347	.342	.338	.323	.383	.331	.280
2.50	.326	.273	.258	.246	.248	.251	.199
5.00	.279	.204	.179	.188	.160	.140	.112
7.50	.235	.156	.130	.135	.104	.089	.036
10.00	.200	.128	.098	.090	.066	.090	.080
15.00	.153	.080	.052	.028	.030	.004	.124
20.00	.102	.043	.007	.011	.085	.050	.109
25.00	.100	.007	.032	.048	.059	.095	.202
30.00	.042	.022	.060	.070	.091	.127	.273
35.00	.016	.050	.085	.100	.118	.166	.262
40.00	-.008	.072	.113	.124	.151	.204	.245
45.00	-.034	.104	.134	.147	.189	.253	.225
50.00	-.063	.128	.134	.170	.210	.299	.189
55.00	-.086	.135	.161	.187	.235	.330	.156
60.00	-.107	.144	.135	.199	.247	.347	.130
65.00	-.127	.147	.148	.216	.247	.321	.132
70.00	-.119						-.107
75.00	-.144	.136	.155	.253	.239	.145	.099
80.00	-.142	.137	.179	.251	.229	.130	.090
85.00	-.161	.185	.204	.253	.238	.133	.066
90.00	-.141	.100	.243	.256	.204	.143	.053
95.00	-.174	.122	.282	.258	.265		

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 0.94   α = 5.9°

UPPER SURFACE

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT: 0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.289	-.014	-1.096	-.253	-.361	-.381	-.313
1.25	-.028	-.997	-1.180	-1.155	-1.176	-1.013	-.967
2.50	-.139	-1.013	-1.137	-1.183	-1.176	-.947	-.954
5.00	-.229	-.697	-1.091	-1.117	-1.103	-.834	-.872
7.50	-.263	-.542	-1.002	-1.065	-1.031	-.759	-.817
10.00	-.260	-.476	-.864	-1.013	-.906	-.665	-.758
15.00	-.276	-.417	-.484	-.668	-.468	-.496	-.625
20.00	-.273	-.398	-.441	-.266	-.317	-.402	-.505
25.00	-.291	-.391	-.366	-.197	-.257	-.318	-.371
30.00	-.300	-.388	-.179	-.148	-.203	-.257	-.238
35.00	-.305	-.392	-.111	-.118	-.155	-.197	-.137
40.00	-.313	-.327	-.062	-.081	-.093	-.137	-.084
45.00	-.326	-.054	-.011	-.027	-.017	-.080	-.072
50.00	-.361	-.083	-.043	-.057	.041	-.023	-.076
55.00	-.211	-.144	-.086	-.107	.071	-.025	-.091
60.00	-.036	-.117	-.106	-.183	.116	-.055	-.096
65.00	-.187	-.079	-.106	-.178	.142	-.054	-.112
70.00	-.410	-.004	-.129	-.188	.152	-.068	-.115
75.00	-1.185	-.839	-.510	-.395	-.283	-.218	-.115
80.00	-.689	-.876	-.510	-.393	-.284	-.221	-.109
85.00	-.641	-.837	-.503	-.390	-.286	-.218	-.104
90.00	-.529	-.758	-.498	-.387	-.289	-.206	-.096
95.00	-.397	-.653	-.488	-.378	-.286	-.189	-.076

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.406	.458	.437	.412	.426	.431	.385
2.50	.409	.384	.359	.316	.356	.358	.306
5.00	.371	.311	.279	.284	.265	.249	.217
7.50	.337	.359	.224	.236	.210	.186	.133
10.00	.300	.227	.188	.185	.168	.096	.075
15.00	.257	.166	.134	.114	.122	.038	.034
20.00	.193	.125	.086	.073	.066	.009	-.126
25.00	.182	.086	.049	.031	.025	-.050	-.215
30.00	.125	.053	.015	.010	.012	-.093	-.266
35.00	.091	.024	-.013	-.024	-.046	-.135	-.264
40.00	.068	.000	-.038	-.053	-.083	-.181	-.295
45.00	.036	-.030	-.064	-.081	-.115	-.227	-.278
50.00	-.006	-.057	-.086	-.108	-.146	-.267	-.251
55.00	-.014	-.070	-.096	-.128	-.172	-.295	-.204
60.00	-.037	-.079	-.098	-.145	-.184	-.311	-.150
65.00	-.059	-.086	-.100	-.164	-.189		-.114
70.00	-.054		-.130	-.203	-.199	-.173	-.108
75.00	-.078	-.078	-.130	-.205	-.208	-.171	-.094
80.00	-.077	-.085	-.149	-.214	-.218	-.148	-.090
85.00	-.098	-.082	-.171	-.224	-.192	-.115	-.081
90.00	-.091	-.085	-.219	-.241			-.061
95.00	-.129	-.119	-.257		-.253	-.125	-.048

M = 0.94   α = 7.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.286	-.211	-.280	-.121	-.585	-.612	-.599
1.25	-.120	-1.096	-1.244	-1.288	-1.297	-.725	-.843
2.50	-.242	-1.101	-1.191	-1.316	-1.290	-.690	-.835
5.00	-.346	-1.032	-1.157	-1.261	-1.246	-.657	-.824
7.50	-.382	-.887	-1.051	-1.215	-1.181	-.640	-.819
10.00	-.377	-.802	-.934	-1.178	-1.077	-.609	-.811
15.00	-.385	-.665	-.773	-1.064	-.838	-.572	-.779
20.00	-.367	-.558	-.614	-.720	-.720	-.506	-.729
25.00	-.379	-.494	-.492	-.552	-.626	-.497	-.645
30.00	-.379	-.464	-.382	-.464	-.561	-.479	-.548
35.00	-.375	-.463	-.300	-.349	-.489	-.459	-.426
40.00	-.381	-.467	-.245	-.233	-.414	-.439	-.322
45.00	-.389	-.179	-.200	-.148	-.345	-.418	-.261
50.00	-.432	-.013	-.158	-.079	-.285	-.397	-.232
55.00	-.310	-.105	-.133	-.023	-.232	-.367	-.220
60.00	-.130	-.102	-.133	-.059	-.194	-.328	-.205
65.00	-.111	-.105	-.146	-.065	-.178	-.267	-.203
70.00	-.355	-.007	-.098	-.104	-.132	-.311	-.199
75.00	-1.166	-.853	-.535	-.430	-.333	-.301	-.186
80.00	-.714	-.880	-.548	-.427	-.346	-.261	-.174
85.00	-.567	-.864	-.534	-.427	-.334	-.236	-.162
90.00	-.456	-.788	-.511	-.415	-.312	-.194	-.149
95.00	-.431	-.677	-.487	-.397	-.281		-.137

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.436	.528	.468	.451	.454	.455	.419
2.50	.472	.463	.425	.376	.398	.400	.350
5.00	.449	.389	.345	.345	.316	.303	.267
7.50	.424	.335	.289	.289	.257	.242	.193
10.00	.383	.299	.256	.244	.216	.148	.127
15.00	.338	.237	.203	.171	.162	.090	.081
20.00	.270	.191	.146	.127	.109	.038	.051
25.00	.254	.150	.106	.085	.064	.003	-.159
30.00	.193	.115	.070	.056	.027	-.050	-.211
35.00	.153	.082	.040	.020	.006	-.088	-.258
40.00	.129	.054	.010	.014	-.043	-.136	-.278
45.00	.095	.020	-.017	-.045	-.079	-.186	-.288
50.00	.061	.007	-.041	-.079	-.106	-.224	-.280
55.00	.037	-.021	-.056	-.098	-.140	-.255	-.238
60.00	.010	-.034	-.064	-.120	-.148	-.275	-.152
65.00	-.006	-.042	-.074	-.135	-.180		-.105
70.00	-.006		-.130	-.179	-.174	-.144	-.097
75.00	-.037	-.043	-.145	-.182	-.193	-.134	-.081
80.00	-.034	-.059	-.167	-.186	-.201	-.133	-.083
85.00	-.058	-.074	-.208	-.194	-.173	-.095	-.070
90.00	-.060	-.090		-.218		-.099	-.072
95.00	-.103	-.145	-.244	-.218	-.225		

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 11.3°

	Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	.00	.243	-.563	-.625	.181	.878	.738	.521
	1.25	-.258	-1.216	-1.229	-1.350	-1.094	-.672	-.444
	2.50	-.406	-1.197	-1.101	-1.357	-1.094	-.675	-.437
	5.00	-.528	-1.228	-1.048	-1.319	-1.075	-.653	-.445
	7.50	-.571	-1.201	-.986	-1.279	-1.060	-.656	-.438
	10.00	-.562	-1.146	-.951	-1.229	-1.046	-.643	-.426
	15.00	-.569	-1.049	-.893	-1.069	-1.021	-.622	-.418
	20.00	-.530	-.996	-.814	-.944	-.992	-.593	-.410
	25.00	-.513	-.918	-.719	-.912	-.967	-.563	-.401
	30.00	-.503	-.798	-.632	-.873	-.937	-.558	-.400
	35.00	-.491	-.624	-.561	-.840	-.908	-.544	-.397
	40.00	-.482	-.504	-.505	-.806	-.875	-.525	-.391
	45.00	-.490	-.432	-.529	-.757	-.844	-.504	-.387
	50.00	-.523	-.057	-.597	-.685	-.808	-.487	-.380
	55.00	-.421	-.033	-.628	-.575	-.766	-.465	-.374
	60.00	-.271	-.055	-.635	-.407	-.706	-.451	-.363
	65.00	-.113	-.025	-.669	-.403	-.656	-.449	-.367
	70.00	-.208	-.081	-.579	-.351	-.361	-.421	-.337
	75.00	-1.121	-.922	-.733	-.462	-.547	-.413	-.335
	80.00	-.634	-.953	-.633	-.469	-.569	-.416	-.324
	85.00	-.537	-.910	-.559	-.435	-.530	-.411	-.323
	90.00	-.510	-.836	-.518	-.397	-.475	-.398	-.317
	95.00	-.472	-.731	-.477	-.361	-.428	-.382	-.308
LOWER SURFACE	1.25	.426	.607	.546	.552	.488	.478	.456
	2.50	.537	.573	.518	.483	.470	.465	.415
	5.00	.646	.509	.459	.451	.408	.391	.343
	7.50	.579	.457	.411	.395	.356	.330	.276
	10.00	.537	.422	.375	.344	.310	.322	.211
	15.00	.464	.351	.318	.283	.259	.238	.114
	20.00	.408	.306	.264	.238	.203	.177	.021
	25.00	.361	.263	.222	.192	.157	.125	-.050
	30.00	.324	.225	.184	.155	.119	.079	-.117
	35.00	.268	.185	.153	.117	.078	.030	-.162
	40.00	.249	.159	.115	.077	.044	.012	-.191
	45.00	.209	.121	.087	.043	.004	-.062	-.212
	50.00	.154	.090	.056	.011	-.024	-.108	-.238
	55.00	.147	.071	.037	-.020	-.053	-.147	-.242
	60.00	.110	.052	.017	-.046	-.073	-.180	-.238
	65.00	.096	.036	-.009	-.072	-.092	-.207	-.252
	70.00	.075						-.249
	75.00	.024	-.026	-.093	-.131	-.126	-.137	-.237
	80.00	.035	-.001	-.062	-.115	-.146	-.180	-.264
	85.00	.032	-.024	-.113	-.125	-.157	-.226	-.257
	90.00	.008	-.057	-.160	-.157	-.135	-.287	-.249
	95.00	-.000	-.130	-.202	-.198	-.203	-.299	-.249

M = 0.94   α = 15.6°

	Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE	.00	-.160	-.925	-1.042	-.741	-.615	-.546	-.556
	1.25	-.406	-1.349	-1.231	-.741	-.596	-.540	-.527
	2.50	-.608	-1.322	-1.186	-.737	-.604	-.547	-.519
	5.00	-.777	-1.344	-1.186	-.725	-.605	-.539	-.514
	7.50	-.818	-1.351	-1.163	-.717	-.609	-.553	-.516
	10.00	-.800	-1.329	-1.154	-.718	-.614	-.553	-.516
	15.00	-.788	-1.265	-1.131	-.712	-.618	-.561	-.516
	20.00	-.735	-1.258	-1.101	-.727	-.617	-.561	-.516
	25.00	-.689	-1.237	-1.101	-.740	-.617	-.551	-.517
	30.00	-.653	-1.213	-1.112	-.740	-.617	-.563	-.520
	35.00	-.624	-1.202	-1.071	-.738	-.617	-.564	-.526
	40.00	-.608	-1.102	-1.014	-.727	-.614	-.561	-.525
	45.00	-.608	-.729	-.960	-.713	-.610	-.561	-.520
	50.00	-.636	-.243	-.923	-.700	-.604	-.556	-.516
	55.00	-.546	-.094	-.895	-.683	-.592	-.557	-.505
	60.00	-.431	-.085	-.848	-.604	-.564	-.570	-.497
	65.00	-.307	-.327	-.838	-.668	-.584	-.583	-.496
	70.00	-.097	-.102	-.780	-.626	-.561	-.573	-.004
	75.00	-1.102	-.922	-.791	-.637	-.561	-.507	-.479
	80.00	-.859	-.950	-.748	-.642	-.564	-.522	-.462
	85.00	-.637	-.898	-.783	-.643	-.556	-.522	-.447
	90.00	-.568	-.788	-.704	-.635	-.553	-.514	-.434
	95.00	-.465	-.617	-.626	-.626	-.550	-.495	-.413
LOWER SURFACE	1.25	.372	.645	.550	.587	.493	.464	.435
	2.50	.546	.667	.587	.558	.522	.501	.441
	5.00	.688	.635	.558	.545	.490	.456	.402
	7.50	.743	.592	.524	.501	.450	.411	.343
	10.00	.690	.559	.495	.461	.412	.402	.286
	15.00	.638	.494	.442	.403	.365	.324	.190
	20.00	.555	.446	.385	.351	.314	.266	.091
	25.00	.517	.399	.343	.309	.264	.212	.015
	30.00	.463	.359	.305	.271	.223	.164	-.053
	35.00	.402	.382	.269	.233	.184	.113	-.115
	40.00	.377	.288	.233	.193	.144	.066	-.159
	45.00	.337	.249	.199	.153	.101	.014	-.192
	50.00	.278	.219	.167	.118	.067	-.043	-.228
	55.00	.271	.195	.141	.084	.023	-.090	-.254
	60.00	.234	.171	.114	.056	-.001	-.131	-.265
	65.00	.216	.152	.085	.028	-.027	-.171	-.287
	70.00	.184						-.301
	75.00	.122	.127	.011	-.053	-.093	-.166	-.316
	80.00	.126	.087	-.005	-.087	-.126	-.210	-.340
	85.00	.126	.050	-.023	-.090	-.163	-.265	-.360
	90.00	.068	.014	-.071	-.139	-.167	-.338	-.377
	95.00	.044	-.051	-.129	-.211	-.276	-.379	-.373

TABLE II

WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98 α = -0.1°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	---	.561	.507	.803	.494	.486	.430
1.25	.344	.034	.064	.010	.121	.145	.108
2.50	.270	.018	.039	.005	.034	.022	.072
5.00	.201	.019	.033	.010	.028	.053	.038
7.50	.128	.035	.029	.032	.000	.018	.008
10.00	.084	.054	.031	.016	.080	.006	.091
15.00	.072	.066	.018	.012	.020	.032	.173
20.00	.024	.081	.003	.007	.020	.021	.164
25.00	.006	.097	.021	.004	.011	.013	.123
30.00	.037	.079	.034	.005	.002	.007	.085
35.00	.058	.026	.053	.025	.025	.006	.075
40.00	.058	.052	.078	.048	.051	.019	.093
45.00	.076	.138	.115	.090	.097	.046	.139
50.00	.083	.236	.182	.152	.159	.101	.207
55.00	.051	.329	.264	.240	.249	.185	.215
60.00	.054	.325	.311	.339	.303	.228	.193
65.00	.225	.327	.310	.338	.308	.213	.188
70.00	.398	.277	.328	.348	.323	.210	.187
75.00	.616	.943	.503	.459	.407	.327	.309
80.00	1.187	1.013	.585	.462	.406	.319	.219
85.00	.695	.941	.604	.469	.401	.306	.219
90.00	.626	.885	.613	.469	.401	.294	
95.00	.457	.644	.592	.456	.403	.278	
	.343						

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	---	.246	.057	.128	.257	.321	.410
2.50	---	.192	.040	.110	.186	.246	.307
5.00	---	.143	.050	.057	.188	.243	.251
7.50	---	.090	.072	.095	.205	.349	.277
10.00	---	.064	.082	.120	.217	.196	.292
15.00	---	.027	.108	.171	.288	.257	.294
20.00	---	.029	.136	.197	.245	.287	.358
25.00	---	.006	.161	.226	.276	.313	.369
30.00	---	.070	.183	.235	.287	.330	.363
35.00	---	.082	.206	.264	.309	.351	.339
40.00	---	.091	.233	.288	.335	.375	.361
45.00	---	.125	.259	.314	.371	.406	.369
50.00	---	.144	.282	.345	.382	.435	.401
55.00	---	.174	.290	.354	.405	.487	.426
60.00	---	.193	.296	.354	.411	.493	.414
65.00	---	.201	.285	.336	.366	.413	.313
70.00	---	.208	.295	.311	.344	.337	.316
75.00	---	.227	.247	.286	.333	.324	.308
80.00	---	.230	.258	.259	.338	.320	.275
85.00	---	.249	.246	.237	.388	.314	.254
90.00	---	.255	.208	.249	.360	.323	.228
95.00	---	.258	.147	.275			.186

M = 0.98 α = 3.9°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.324	.297	.179	.417	.058	.048	.127
1.25	.104	.776	.905	.884	.793	.833	.905
2.50	.009	.718	.831	.938	.737	.852	.849
5.00	.070	.394	.599	.846	.507	.665	.679
7.50	.109	.286	.346	.628	.352	.358	.491
10.00	.110	.274	.346	.300	.386	.282	.315
15.00	.143	.265	.340	.135	.265	.259	.273
20.00	.151	.264	.334	.115	.181	.212	.261
25.00	.182	.264	.300	.115	.136	.165	.178
30.00	.199	.266	.064	.110	.086	.135	.126
35.00	.196	.284	.083	.084	.036	.094	.111
40.00	.209	.199	.011	.041	.025	.000	.100
45.00	.228	.071	.059	.019	.086	.065	.118
50.00	.268	.190	.116	.088	.136	.105	.143
55.00	.123	.220	.152	.147	.166	.117	.189
60.00	.058	.149	.160	.200	.173	.108	.207
65.00	.250	.140	.174	.180	.186	.097	.201
70.00	.463	.056	.596	.191	.409	.312	.209
75.00	1.249	1.002	.609	.473	.405	.307	.213
80.00	.700	1.041	.616	.483	.403	.301	.213
85.00	.549	.938	.615	.488	.399	.295	
90.00	.466	.838	.603	.477	.391	.288	
95.00	.384	.633					

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.370	.362	.347	.321	.333	.337	.299
2.50	.357	.295	.273	.244	.261	.262	.224
5.00	.323	.228	.196	.196	.168	.155	.144
7.50	.267	.180	.147	.148	.112	.107	.074
10.00	.235	.152	.113	.100	.071	.113	.019
15.00	.193	.107	.071	.036	.041	.027	.077
20.00	.134	.069	.081	.000	.016	.024	.160
25.00	.134	.036	.018	.036	.052	.070	.259
30.00	.076	.004	.047	.074	.072	.098	.297
35.00	.046	.025	.074	.100	.086	.136	.315
40.00	.027	.048	.100	.130	.108	.171	.330
45.00	.004	.082	.130	.149	.149	.202	.347
50.00	.035	.110	.153	.163	.178	.215	.331
55.00	.056	.119	.160	.164	.202		.327
60.00	.077	.139	.162	.143	.220		.313
65.00	.107	.138	.159	.154	.250	.295	.315
70.00	.101	.138	.182	.200	.256	.311	.277
75.00	.121	.145	.187	.206	.243	.335	.269
80.00	.128	.126	.179	.223	.343	.364	.268
85.00	.156	.090	.222	.258		.343	.255
90.00	.138	.052		.292			.197
95.00	.173						

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.98 α = 5.9°							
UPPER SURFACE							
.00	-.319	.094	-.010	-.326	-.251	-.301	-.217
1.25	-.023	-.960	-1.071	-1.050	-1.070	-1.042	-1.112
2.50	-.052	-.945	-1.041	-1.102	-1.100	-1.127	-1.106
5.00	-.174	-.655	-1.004	-1.037	-1.038	-1.033	-1.000
7.50	-.210	-.455	-.923	-.985	-.994	-.996	-.974
10.00	-.210	-.409	-.854	-.943	-.960	-.952	-.946
15.00	-.234	-.367	-.439	-.867	-.795	-.582	-.496
20.00	-.229	-.355	-.391	-.341	-.353	-.288	-.367
25.00	-.250	-.353	-.404	-.180	-.167	-.235	-.186
30.00	-.258	-.351	-.202	-.139	-.139	-.203	-.163
35.00	-.265	-.359	-.095	-.104	-.100	-.158	-.150
40.00	-.270	-.354	-.044	-.062	-.062	-.111	-.138
45.00	-.285	-.062	-.009	-.007	-.017	-.051	-.147
50.00	-.327	-.096	-.070	-.060	-.035	-.002	-.172
55.00	-.211	-.154	-.110	-.129	-.091	-.046	-.214
60.00	-.045	-.116	-.126	-.197	-.137	-.084	-.235
65.00	-.188	-.129	-.181	-.187	-.171	-.099	-.258
70.00	-.413	-.011	-.145	-.197	-.187	-.100	-.252
75.00	-1.252	-1.010	-.617	-.496	-.440	-.337	-.245
80.00	-.732	-1.032	-.688	-.501	-.435	-.332	-.235
85.00	-.476	-.940	-.633	-.507	-.430	-.324	-.237
90.00	-.438	-.850	-.634	-.509	-.427	-.319	-.231
95.00	-.400	-.679	-.683	-.504	-.419	-.310	-.222
LOWER SURFACE							
1.25	.420	.465	.443	.403	.416	.430	.395
2.50	.427	.396	.365	.308	.346	.359	.324
5.00	.397	.319	.284	.278	.258	.253	.237
7.50	.356	.271	.233	.235	.199	.199	.159
10.00	.316	.242	.198	.183	.161	.193	.103
15.00	.273	.179	.145	.114	.118	.105	.005
20.00	.211	.139	.093	.070	.065	.048	-.094
25.00	.203	.103	.057	.038	.037	.002	-.193
30.00	.142	.069	.081	.010	.004	-.035	-.257
35.00	.111	.037	-.005	-.023	-.034	-.079	-.306
40.00	.088	.012	-.037	-.048	-.071	-.116	-.335
45.00	.057	-.021	-.061	-.068	-.105	-.168	-.347
50.00	.023	-.051	-.083	-.097	-.130	-.217	-.358
55.00	-.002	-.063	-.092	-.113	-.156	-.260	-.346
60.00	-.024	-.075	-.096	-.123	-.174	-.303	-.332
65.00	-.046	-.083	-.093	-.138	-.185	-.326	-.320
70.00	-.044						-.317
75.00	-.071	-.074	-.102	-.182	-.214	-.298	-.310
80.00	-.070	-.089	-.111	-.185	-.232	-.318	-.309
85.00	-.100	-.076	-.133	-.202	-.248	-.356	-.302
90.00	-.085	-.062	-.176	-.234	-.226	-.386	-.280
95.00	-.124	-.054	-.214	-.277	-.316	-.369	-.218
M = 0.98 α = 7.9°							
UPPER SURFACE							
.00	-.316	-.114	-.175	-.203	-.452	-.529	-.502
1.25	-.060	-1.053	-1.180	-1.164	-1.195	-1.051	-1.054
2.50	-.179	-1.052	-1.130	-1.200	-1.212	-1.080	-1.052
5.00	-.282	-.969	-1.126	-1.145	-1.157	-.998	-1.006
7.50	-.320	-.765	-1.061	-1.099	-1.115	-.965	-.964
10.00	-.318	-.671	-1.039	-1.073	-1.086	-.903	-.914
15.00	-.330	-.551	-.964	-1.027	-.979	-.709	-.790
20.00	-.317	-.484	-.672	-.903	-.747	-.572	-.702
25.00	-.332	-.446	-.487	-.582	-.563	-.495	-.629
30.00	-.334	-.427	-.340	-.444	-.409	-.475	-.584
35.00	-.330	-.426	-.170	-.344	-.339	-.461	-.537
40.00	-.338	-.434	-.102	-.217	-.287	-.439	-.504
45.00	-.350	-.201	-.089	-.080	-.242	-.409	-.460
50.00	-.390	.015	-.020	.018	-.203	-.392	-.427
55.00	-.293	.101	-.016	.083	-.178	-.375	-.408
60.00	-.128	.089	-.036	.176	-.153	-.354	-.392
65.00	-.108	-.100	-.042	.182	-.140	-.345	-.388
70.00	-.360	-.004	-.073	.199	-.099	-.288	-.377
75.00	-1.250	-1.014	-.639	-.516	-.500	-.448	-.356
80.00	-.779	-1.027	-.658	-.530	-.519	-.440	-.334
85.00	-.472	-.943	-.660	-.526	-.514	-.412	-.315
90.00	-.389	-.849	-.654	-.524	-.501	-.382	-.300
95.00	-.430	-.708	-.637	-.520	-.482	-.353	-.278
LOWER SURFACE							
1.25	.452	.543	.505	.465	.465	.463	.425
2.50	.490	.476	.436	.383	.407	.407	.368
5.00	.465	.402	.359	.348	.325	.310	.278
7.50	.444	.349	.301	.304	.269	.250	.203
10.00	.401	.317	.269	.255	.229	.251	.144
15.00	.353	.251	.215	.187	.177	.159	.044
20.00	.287	.208	.160	.144	.122	.100	-.037
25.00	.272	.165	.121	.108	.081	.051	-.155
30.00	.208	.126	.087	.072	.042	.009	-.223
35.00	.172	.095	.085	.037	.010	-.039	-.278
40.00	.145	.070	.084	.008	-.025	-.080	-.305
45.00	.110	.033	.000	-.028	-.062	-.127	-.334
50.00	.079	.009	-.025	-.048	-.090	-.175	-.353
55.00	.053	-.004	-.040	-.071	-.120	-.222	-.371
60.00	.025	-.022	-.045	-.087	-.142	-.263	-.366
65.00	.007	-.031	-.049	-.104	-.154	-.293	-.361
70.00	-.004						-.364
75.00	-.023	-.026	-.088	-.152	-.187	-.258	-.349
80.00	-.019	-.044	-.094	-.163	-.204	-.285	-.340
85.00	-.044	-.033	-.117	-.184	-.284	-.332	-.330
90.00	-.044	-.051	-.163	-.217	-.206	-.364	-.312
95.00	-.085	-.064	-.207	-.262	-.300	-.396	-.230

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98   α = 11.4°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.291	-.453	-.496	-.050	-.759	-.850	-.742
1.25	-.185	-1.112	-1.130	-1.263	-1.223	-.901	-.714
2.50	-.327	-1.096	-1.051	-1.277	-1.214	-.910	-.708
5.00	-.448	-1.121	-1.004	-1.228	-1.197	-.881	-.699
7.50	-.494	-1.093	-.925	-1.196	-1.167	-.894	-.691
10.00	-.488	-1.031	-.876	-1.160	-1.130	-.887	-.682
15.00	-.496	-.939	-.820	-1.036	-1.006	-.877	-.663
20.00	-.463	-.889	-.747	-.797	-.877	-.865	-.640
25.00	-.449	-.820	-.656	-.763	-.841	-.834	-.612
30.00	-.441	-.716	-.573	-.744	-.811	-.836	-.589
35.00	-.424	-.582	-.496	-.723	-.788	-.816	-.565
40.00	-.424	-.473	-.438	-.690	-.763	-.792	-.543
45.00	-.433	-.427	-.452	-.637	-.745	-.761	-.524
50.00	-.465	-.047	-.535	-.571	-.734	-.728	-.508
55.00	-.362	-.066	-.583	-.498	-.709	-.693	-.490
60.00	-.233	-.085	-.601	-.389	-.689	-.654	-.471
65.00	-.083	-.132	-.646	-.408	-.659	-.619	-.465
70.00	-.223	-.030	-.590	-.358	-.607	-.579	-.450
75.00	-1.041	-.980	-.750	-.557	-.611	-.567	-.448
80.00	-.770	-.980	-.696	-.554	-.632	-.567	-.440
85.00	-.473	-.902	-.614	-.536	-.616	-.555	-.433
90.00	-.442	-.814	-.583	-.509	-.585	-.529	-.421
95.00	-.433	-.694	-.563	-.475	-.553	-.501	-.409

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.451	.634	.573	.593	.510	.494	.466
2.50	.569	.598	.542	.508	.486	.475	.427
5.00	.716	.531	.481	.471	.420	.402	.361
7.50	.605	.480	.433	.417	.370	.346	.295
10.00	.567	.448	.399	.367	.324	.336	.233
15.00	.518	.379	.342	.305	.232	.252	.138
20.00	.438	.332	.289	.259	.177	.193	.009
25.00	.407	.287	.244	.213	.138	.101	-.048
30.00	.352	.248	.211	.182	.103	.055	-.122
35.00	.296	.216	.178	.147	.065	.009	-.175
40.00	.272	.185	.147	.109	.025	-.041	-.208
45.00	.235	.148	.117	.074	-.007	-.089	-.239
50.00	.182	.117	.088	.043	-.042	-.134	-.269
55.00	.175	.100	.066	.016	-.063	-.176	-.288
60.00	.138	.080	.050	-.009	-.080	-.210	-.291
65.00	.123	.066	.029	-.037			-.307
70.00	.100		-.020	-.102	-.118	-.198	-.311
75.00	.047	-.063	-.033	-.100	-.143	-.223	-.311
80.00	-.056	-.035	-.066	-.124	-.164	-.275	-.322
85.00	-.055	-.006	-.111	-.161	-.160	-.324	-.340
90.00	-.024	-.016	-.159	-.209	-.251	-.354	-.351
95.00	-.020	-.067					-.360

M = 0.98   α = 15.8°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.196	-.814	-.913	-.698	-.695	-.642	-.607
1.25	-.316	-1.235	-1.172	-.903	-.678	-.659	-.586
2.50	-.521	-1.206	-1.092	-.901	-.670	-.645	-.581
5.00	-.691	-1.233	-1.126	-.888	-.653	-.619	-.574
7.50	-.732	-1.232	-1.111	-.893	-.641	-.629	-.575
10.00	-.719	-1.214	-1.180	-.899	-.631	-.626	-.574
15.00	-.712	-1.149	-1.132	-.928	-.629	-.627	-.574
20.00	-.659	-1.142	-1.092	-.979	-.645	-.631	-.569
25.00	-.618	-1.121	-1.054	-1.035	-.687	-.619	-.570
30.00	-.584	-1.103	-1.015	-1.053	-.713	-.630	-.574
35.00	-.553	-1.092	-.983	-1.052	-.719	-.621	-.577
40.00	-.543	-1.034	-.962	-1.034	-.733	-.614	-.576
45.00	-.545	-.741	-.970	-.974	-.719	-.610	-.575
50.00	-.565	-.284	-1.012	-.903	-.713	-.602	-.573
55.00	-.488	-.106	-1.091	-.847	-.704	-.595	-.571
60.00	-.391	-.099	-1.149	-.711	-.700	-.589	-.575
65.00	-.280	-.357	-1.086	-.773	-.687	-.582	-.143
70.00	-.078	-.115	-.994	-.733	-.636	-.581	-.566
75.00	-1.062	-1.048	-.963	-.723	-.629	-.581	-.564
80.00	-.831	-1.030	-.988	-.765	-.650	-.582	-.559
85.00	-.620	-.944	-.854	-.793	-.647	-.580	-.552
90.00	-.523	-.846	-.750	-.755	-.637	-.579	-.537
95.00	-.523	-.673	-.668	-.691	-.625	-.573	

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.395	.676	.583	.600	.519	.490	.461
2.50	.585	.694	.614	.579	.547	.530	.476
5.00	.734	.661	.583	.565	.516	.489	.439
7.50	.777	.616	.547	.520	.475	.443	.378
10.00	.726	.584	.518	.481	.439	.436	.327
15.00	.667	.519	.466	.424	.391	.361	.243
20.00	.583	.472	.413	.380	.340	.307	.154
25.00	.548	.428	.368	.336	.298	.255	.060
30.00	.493	.385	.334	.300	.256	.213	-.013
35.00	.434	.348	.298	.260	.216	.164	-.072
40.00	.405	.315	.262	.225	.185	.119	-.120
45.00	.366	.279	.232	.188	.140	.068	-.153
50.00	.313	.244	.194	.148	.109	.018	-.192
55.00	.304	.222	.171	.119	.077	-.029	-.215
60.00	.263	.200	.145	.090	.049	-.069	-.234
65.00	.251	.180	.119	.063	.030	-.109	-.259
70.00	.212						-.276
75.00	.145	-.135	-.041	-.010	-.026	-.143	-.296
80.00	.150	-.119	-.036	-.008	-.057	-.183	-.315
85.00	.150	-.081	-.004	-.026	-.092	-.236	-.348
90.00	.080	-.034	-.046	-.073	-.096	-.279	-.374
95.00	.047	-.030	-.095	-.133	-.200	-.322	-.412

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 1.00   α = 0.0°

PERCENT CHORD	| PRESSURE COEFFICIENT, P, AT: 0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	.410	.583	.518	.621	.511	.494	.438
1.25	.291	-.007	-.051	.028	.138	.162	.123
2.50	.226	-.006	-.029	.028	.056	.038	.082
5.00	.159	-.006	-.024	.035	.048	.067	.045
7.50	.115	-.013	-.015	.058	.022	.031	.011
10.00	.096	-.025	-.012	.045	.000	.019	.016
15.00	.052	-.045	-.004	.016	.002	.017	.070
20.00	.085	-.059	-.029	.020	.000	.006	.154
25.00	.010	-.079	-.046	.023	.009	.001	.160
30.00	-.030	-.086	-.058	.031	.022	.008	.126
35.00	-.035	-.005	-.077	.050	.044	.021	.091
40.00	-.056	-.078	-.102	.072	.072	.033	.065
45.00	-.070	-.164	-.141	.113	.111	.058	.084
50.00	-.042	-.262	-.206	.173	.174	.107	.139
55.00	-.079	-.353	-.285	.259	.260	.189	.234
60.00	-.251	-.346	-.328	.355	.312	.237	.279
65.00	-.421	-.356	-.384	.348	.318	.219	.305
70.00	-.631	-.300	-.341	.361	.325	.216	.296
75.00	-1.148	-.936	-.580	.464	.466	.378	.272
80.00	-.648	-1.001	-.581	.471	.473	.372	.261
85.00	-.568	-.923	-.599	.482	.483	.362	.268
90.00	-.405	-.859	-.609	.487	.499	.362	.280
95.00	-.317	-.580	-.587	.483	.510	.353	.277
LOWER SURFACE							
1.25	.269	.002	-.032	.092	.236	.303	.402
2.50	.220	.025	-.016	.062	.163	.227	.294
5.00	.173	.020	-.036	.031	.166	.228	.241
7.50	.120	.002	-.048	.069	.182	.230	.264
10.00	.096	.016	-.057	.094	.195	.180	.281
15.00	.059	.045	-.084	.145	.204	.241	.285
20.00	.005	.065	-.111	.169	.224	.273	.327
25.00	.023	.083	-.136	.198	.255	.293	.356
30.00	.039	.108	-.159	.211	.272	.311	.357
35.00	.051	.131	-.181	.239	.286	.337	.341
40.00	.064	.144	-.206	.263	.308	.361	.368
45.00	.089	.171	-.233	.289	.347	.394	.391
50.00	.111	.199	-.258	.319	.369	.418	.397
55.00	.144	.209	-.265	.338	.385	.462	.423
60.00	.166	.217	-.270	.331	.389	.483	.427
65.00	.179	.211	-.262	.319	.360	.437	.383
70.00	.179		-.305		.322	.312	.358
75.00	.197	.228	-.284	.305	.312	.305	.315
80.00	.199	.239	-.248	.264	.312	.307	.295
85.00	.217	.226	-.206	.261	.311	.310	.298
90.00	.220	.194	-.219	.280	.268	.327	.290
95.00	.225	.122	-.247	.306	.336		.276

M = 1.00   α = 3.9°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	.376	-.323	-.230	-.446	.077	.082	.165
1.25	.135	-.733	-.825	-.835	.752	.797	.857
2.50	.042	-.677	-.784	-.895	.692	.817	.802
5.00	-.038	-.256	-.872	-.799	.469	.659	.662
7.50	-.074	-.854	-.312	-.605	.348	.331	.469
10.00	-.074	-.840	-.312	-.350	.278	.876	.274
15.00	-.108	-.230	-.311	-.137	.230	.847	.237
20.00	-.116	-.234	-.304	-.110	.203	.192	.231
25.00	-.149	-.234	-.233	-.093	.169	.148	.150
30.00	-.170	-.240	-.048	-.066	.136	.116	.103
35.00	-.164	-.256	-.004	-.044	.076	.071	.089
40.00	-.178	-.211	-.011	-.007	.083	.029	.081
45.00	-.179	-.093	-.075	-.045	.036	.020	.095
50.00	-.239	-.211	-.131	-.110	.101	.077	.133
55.00	-.115	-.237	-.145	-.164	.161	.114	.193
60.00	-.073	-.164	-.174	-.216	.198	.126	.231
65.00	-.268	-.131	-.166	-.196	.200	.117	.253
70.00	-.476	-.075	-.191	-.206	.212	.101	.238
75.00	-1.196	-.985	-.595	-.491	.445	.381	.232
80.00	-.655	-1.028	-.619	-.509	.448	.367	.237
85.00	-.481	-.917	-.616	-.515	.439	.352	.242
90.00	-.436	-.802	-.616	-.516	.440	.337	.244
95.00	-.371	-.601	-.601	-.514		.338	.344
LOWER SURFACE							
1.25	.390	.379	.364	.331	.340	.331	.307
2.50	.377	.311	.306	.254	.269	.256	.234
5.00	.341	.247	.215	.206	.180	.153	.158
7.50	.288	.203	.168	.156	.129	.103	.091
10.00	.255	.172	.135	.114	.088	.038	.043
15.00	.217	.125	.089	.047	.030	.018	.055
20.00	.153	.090	.041	.010	.004	.030	.143
25.00	.154	.055	.028	.026	.046	.061	.225
30.00	.097	.084	.084	.051	.071	.119	.266
35.00	.068	.005	.083	.107	.095	.149	.289
40.00	.053	.087	.107	.237	.122	.192	.300
45.00	.020	.064	.141	.159	.136	.246	.297
50.00	.018	.096	.149	.163	.145	.246	.308
55.00	.036	.103	.151	.168	.169	.321	.321
60.00	.061	.113	.184	.147	.196	.321	.308
65.00	.085				.197		.301
70.00	.081	.189	.115	.178	.226	.270	.302
75.00	.106	.138	.111	.177	.231	.290	.303
80.00	.111	.135	.116	.198	.313	.321	.309
85.00	.133	.103	.150	.223	.313	.348	.305
90.00	.121				.899		.281
95.00	.160	.043	.197	.263		.351	

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 1.00   α = 5.9°

			PRESSURE COEFFICIENT, P, AT:				
PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.365	-.135		-.344	-.191	-.249	-1.039*
1.25	-.051	-.927	-1.004	-.979	-.999	-.989	-1.039
2.50	-.051	-.891	-.976	-1.029	-1.029	-1.063	-1.036
5.00	-.145	-.626	-.939	-.963	-.965	-.976	-.939
7.50	-.179	-.410	-.858	-.915	-.935	-.942	-.920
10.00	-.179	-.362	-.806	-.871	-.901	-.902	-.893
15.00	-.203	-.330	-.406	-.816	-.803	-.663	-.611
20.00	-.195	-.316	-.364	-.369	-.415	-.277	-.234
25.00	-.221	-.317	-.368	-.155	-.142	-.209	-.149
30.00	-.234	-.319	-.398	-.118	-.119	-.184	-.128
35.00	-.236	-.325	-.073	-.080	-.083	-.143	-.134
40.00	-.243	-.331	-.018	-.037	-.041	-.094	-.125
45.00	-.259	-.044	-.034	-.028	-.003	-.043	-.139
50.00	-.304	-.123	-.091	-.085	-.085	-.011	-.172
55.00	-.207	-.177	-.129	-.152	-.108	-.057	-.223
60.00	-.035	-.126	-.145	-.210	-.157	-.093	-.255
65.00	-.208	-.119	-.138	-.205	-.192	-.114	-.277
70.00	-.426	-.034	-.163	-.215	-.214	-.105	-.276
75.00	-1.202	-.995	-.615	-.505	-.476	-.403	-.272
80.00	-.699	-1.012	-.632	-.510	-.479	-.391	-.272
85.00	-.440	-.913	-.633	-.534	-.475	-.377	-.272
90.00	-.407	-.814	-.687	-.529	-.476	-.365	-.272
95.00	-.373	-.653	-.612	-.525	-.479	-.356	-.264
LOWER SURFACE							
1.25	.433	.486	.460	.423	.420	.430	.411
2.50	.441	.410	.385	.329	.351	.359	.333
5.00	.398	.340	.304	.308	.265	.255	.254
7.50	.371	.288	.252	.256	.207	.200	.182
10.00	.336	.260	.218	.205	.169	.200	.124
15.00	.288	.199	.166	.138	.124	.114	.032
20.00	.229	.159	.116	.098	.072	.058	.070
25.00	.219	.118	.077	.053	.035	.012	.167
30.00	.163	.087	.044	.026	.010	.021	.235
35.00	.128	.053	.016	.005	.022	.062	.274
40.00	.107	.039	.018	-.034	-.051	-.099	-.304
45.00	.074	-.005	-.041	-.059	-.091	-.143	-.324
50.00	.040	-.033	-.072	-.078	-.113	-.195	-.338
55.00	.009	-.043	-.077	-.085	-.139	-.235	-.328
60.00	-.011	-.060	-.078	-.087	-.158	-.279	-.308
65.00	-.034	-.068	-.078	-.108	-.170	-.306	-.294
70.00	-.033						-.294
75.00	-.065	-.070	-.070	-.151	-.196	-.279	-.291
80.00	-.057	-.076	-.080	-.155	-.208	-.300	-.295
85.00	-.086	-.070	-.098	-.171	-.223	-.314	-.307
90.00	-.079	-.061	-.140	-.202	-.203	-.378	-.309
95.00	-.111	-.041	-.182	-.245	-.291	-.377	-.289

M = 1.00   α = 7.8°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.364	-.053	-.195	-.255	-.395	-.470	-.433
1.25	-.019	-1.018	-1.116	-1.092	-1.131	-1.062	-1.088
2.50	-.134	-1.002	-1.069	-1.131	-1.152	-1.139	-1.086
5.00	-.235	-.931	-1.068	-1.074	-1.101	-1.048	-1.019
7.50	-.277	-.696	-1.001	-1.033	-1.059	-1.036	-.984
10.00	-.275	-.571	-.987	-1.004	-1.031	-.980	-.935
15.00	-.286	-.467	-.921	-.967	-.972	-.788	-.752
20.00	-.274	-.432	-.689	-.900	-.772	-.580	-.583
25.00	-.287	-.397	-.467	-.581	-.556	-.463	-.488
30.00	-.290	-.383	-.355	-.396	-.351	-.436	-.456
35.00	-.290	-.386	-.147	-.296	-.280	-.414	-.443
40.00	-.296	-.395	-.069	-.178	-.231	-.390	-.431
45.00	-.307	-.177	-.081	-.048	-.190	-.365	-.416
50.00	-.349	-.041	-.031	-.046	-.151	-.341	-.409
55.00	-.270	-.183	-.070	-.117	-.120	-.322	-.404
60.00	-.105	-.098	-.098	-.213	-.097	-.299	-.400
65.00	-.139	-.107	-.108	-.207	-.080	-.246	-.403
70.00	-.389	-.025	-.134	-.227	-.039	-.283	-.391
75.00	-1.181	-.975	-.632	-.504	-.517	-.463	-.375
80.00	-.717	-.982	-.649	-.509	-.537	-.474	-.361
85.00	-.439	-.895	-.647	-.515	-.541	-.456	-.349
90.00	-.348	-.800	-.638	-.519	-.527	-.433	-.334
95.00	-.408	-.666	-.618	-.511	-.512	-.407	-.334
LOWER SURFACE							
1.25	.475	.561	.519	.484	.474	.469	.444
2.50	.509	.499	.453	.396	.415	.412	.376
5.00	.488	.422	.378	.361	.333	.315	.300
7.50	.467	.369	.321	.318	.277	.258	.289
10.00	.425	.338	.288	.267	.233	.226	.170
15.00	.360	.272	.232	.201	.189	.169	.078
20.00	.315	.226	.181	.159	.135	.115	.017
25.00	.295	.191	.137	.115	.093	.063	-.180
30.00	.236	.155	.104	.089	.058	.025	-.190
35.00	.200	.120	.077	.055	.025	.021	-.242
40.00	.168	.094	.044	.028	.007	-.053	-.280
45.00	.141	.060	.019	.008	-.043	-.104	-.305
50.00	.107	.087	-.009	-.029	-.069	-.155	-.328
55.00	.077	.018	-.019	-.047	-.102	-.201	-.341
60.00	.053	.004	-.036	-.060	-.121	-.238	-.337
65.00	.032	-.013	-.034	-.083	-.133	-.269	-.334
70.00	.028						-.337
75.00	-.015	-.003	-.052	-.124	-.164	-.253	-.330
80.00	-.001	-.020	-.064	-.136	-.161	-.274	-.328
85.00	-.012	-.021	-.067	-.152	-.201	-.316	-.330
90.00	-.017	-.026	-.130	-.184	-.184	-.367	-.333
95.00	-.028	-.031	-.170	-.229	-.272	-.369	-.317

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 1.00   α = 11.4° — UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.303	-.431	-.453	-.008	-.713	-.811	-.732
1.25	-.158	-1.085	-1.088	-1.217	-1.203	-.969	-.790
2.50	-.299	-1.065	-1.031	-1.232	-1.197	-.972	-.785
5.00	-.420	-1.089	-.998	-1.190	-1.175	-.938	-.773
7.50	-.469	-1.059	-.916	-1.155	-1.145	-.956	-.769
10.00	-.462	-.995	-.857	-1.120	-1.104	-.943	-.759
15.00	-.470	-.903	-.799	-1.014	-.992	-.918	-.737
20.00	-.438	-.852	-.725	-.763	-.836	-.883	-.717
25.00	-.424	-.789	-.636	-.723	-.792	-.840	-.689
30.00	-.419	-.688	-.551	-.704	-.768	-.832	-.671
35.00	-.406	-.567	-.481	-.688	-.746	-.810	-.651
40.00	-.402	-.464	-.424	-.661	-.725	-.789	-.629
45.00	-.410	-.419	-.439	-.613	-.708	-.763	-.615
50.00	-.439	-.036	-.517	-.553	-.693	-.743	-.598
55.00	-.360	-.077	-.566	-.484	-.679	-.721	-.580
60.00	-.218	-.091	-.621	-.373	-.668	-.694	-.554
65.00	-.078	-.140	-.563	-.342	-.644	-.663	-.540
70.00	-.245	-.020	-.735	-.548	-.630	-.614	-.525
75.00	-1.033	-.957	-.691	-.548	-.618	-.610	-.515
80.00	-.747	-.957	-.600	-.534	-.642	-.606	-.504
85.00	-.451	-.877	-.568	-.507	-.629	-.596	-.496
90.00	-.425	-.795	-.542	-.489	-.604	-.576	-.486
95.00	-.423	-.676			-.574	-.550	-.476

M = 1.00   α = 11.4° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.458	.647	.581	.597	.516	.503	.477
2.50	.582	.606	.548	.516	.491	.484	.442
5.00	.781	.543	.488	.479	.426	.412	.377
7.50	.617	.492	.439	.428	.376	.352	.306
10.00	.568	.457	.406	.376	.333	.345	.250
15.00	.523	.389	.349	.315	.281	.260	.153
20.00	.443	.342	.298	.270	.233	.203	.049
25.00	.413	.296	.255	.227	.166	.153	-.036
30.00	.357	.261	.219	.191	.148	.109	-.106
35.00	.303	.223	.186	.155	.075	.064	-.164
40.00	.280	.193	.153	.122	.038	.020	-.198
45.00	.241	.156	.127	.086	.006	-.029	-.236
50.00	.191	.125	.096	.056	-.028	-.078	-.266
55.00	.180	.104	.079	.028	-.050	-.125	-.290
60.00	.141	.085	.064	.005	-.068	-.163	-.293
65.00	.130	.074	.042	-.024		-.195	-.302
70.00	.101					-.185	-.308
75.00	.038	.071	-.004	-.085	-.107	-.230	-.314
80.00	.050	.045	-.018	-.085	-.133	-.274	-.325
85.00	.064	.019	-.049	-.107	-.152	-.320	-.340
90.00	.008	-.000	-.092	-.143	-.145	-.320	-.353
95.00	-.006	-.051	-.139	-.192	-.236	-.351	-.378

M = 1.03   α = 0.0° — UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.679	.576	.513	.832	.551	.529	.468
1.25	.245	-.020	-.065	.037	.185	.242	.169
2.50	.191	-.009	-.047	.042	.101	.084	.133
5.00	.125	-.009	-.050	.055	.095	.109	.091
7.50	.083	-.028	-.055	.084	.067	.074	.049
10.00	.069	-.042	-.083	.056	.043	.064	.027
15.00	.035	-.059	-.090	.064	.043	.025	-.017
20.00	.012	-.074	-.042	.071	.051	.037	-.108
25.00	-.020	-.094	-.089	.080	.063	.042	-.118
30.00	-.042	-.110	-.113	.096	.083	.048	-.086
35.00	-.044	-.108	-.145	.116	.112	.060	-.049
40.00	-.061	-.059	-.189	.155	.155	.073	-.025
45.00	-.086	-.228	-.256	.215	.214	.097	-.041
50.00	-.109	-.290	-.330	.294	.298	.144	-.094
55.00	-.015	-.388	-.368	.346	.346	.225	-.190
60.00	-.255	-.432	-.363	.369	.349	.267	-.245
65.00	-.408	-.421	-.588	.364	.270	.248	-.269
70.00	-.600	-.369	-.588	.376	-.420	.243	-.260
75.00	-1.114	-.883	-.519	-.428	-.420	-.342	-.231
80.00	-.574	-.939	-.534	-.439	-.425	-.339	-.219
85.00	-.383	-.866	-.547	-.441	-.435	-.334	-.232
90.00	-.200	-.800	-.547	-.446	-.448	-.325	-.243
95.00	-.124	-.602	-.534	-.443	-.457	-.316	-.243

M = 1.03   α = 0.0° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.220	.013	.033	-.043	.203	.273	-.368
2.50	.184	.005	.021	-.045	.139	.193	-.265
5.00	.126	.005	.034	-.004	.139	.195	-.203
7.50	.088	-.014	.049	-.038	.145	.194	-.231
10.00	.067	-.030	.059	-.062	.157	.204	-.247
15.00	.039	-.056	.085	-.114	.166	.237	-.259
20.00	.008	-.076	.112	-.137	.187	.257	-.290
25.00	-.009	-.092	.131	-.166	.216	.272	-.307
30.00	-.039	-.106	.153	-.180	.234	.296	-.315
35.00	-.062	-.133	.166	-.206	.253	.321	-.329
40.00	-.067	-.145	.192	-.235	.275	.357	-.342
45.00	-.091	-.174	.218	-.260	.308	.385	-.352
50.00	-.119	-.205	.242	-.282	.333	.426	-.360
55.00	-.141	-.211	.248	-.298	.356	.447	-.388
60.00	-.165	-.220	.249	-.298	.350	.433	-.389
65.00	-.184	-.217	.249	-.296	.339		-.384
70.00	-.183				-.286	-.294	-.351
75.00	-.201	-.283	-.261	-.279	-.270	-.278	-.275
80.00	-.199	-.283	-.224	-.224	-.268	-.290	-.277
85.00	-.214	-.302	-.177	-.219	-.233	-.296	-.273
90.00	-.214	-.176	-.188	-.234	-.233	-.293	-.256
95.00	-.208	-.113	-.209	-.269	-.293	-.293	-.245

TABLE II   WING WITH UPPER SURFACE SPOILER (NO GAP)

M = 1.03   α = 3.9°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	.547	.353	.246	.482	-.123	-.106	-.202
1.25	.114	-.713	-.705	-.767	-.761	-.722	-.782
2.50	.029	-.644	-.743	-.823	-.792	-.732	-.734
5.00	-.056	-.259	-.634	-.742	-.715	-.537	-.603
7.50	-.092	-.249	-.307	-.645	-.616	-.296	-.440
10.00	-.098	-.235	-.297	-.419	-.310	-.246	-.241
15.00	-.121	-.228	-.297	-.281	-.084	-.217	-.194
20.00	-.125	-.224	-.292	-.093	-.091	-.165	-.186
25.00	-.150	-.227	-.292	-.073	-.082	-.118	-.100
30.00	-.162	-.231	-.062	-.040	-.059	-.082	-.056
35.00	-.162	-.244	-.012	-.009	-.025	-.036	-.043
40.00	-.175	-.251	.049	-.035	-.022	-.008	-.036
45.00	-.194	.083	.090	-.092	-.078	-.056	-.049
50.00	-.227	.217	.138	-.156	-.144	-.107	-.086
55.00	-.165	.235	.166	-.204	-.208	-.149	-.155
60.00	-.068	.135	.178	-.254	-.239	-.166	-.196
65.00	-.264	-.114	.174	-.237	-.246	-.160	-.227
70.00	-.469	-.112	.204	-.248	-.416	-.150	-.229
75.00	-1.128	-.914	-.551	-.453	-.416	-.350	-.217
80.00	-.644	-.944	-.570	-.457	-.415	-.330	-.207
85.00	-.414	-.845	-.566	-.472	-.414	-.323	-.211
90.00	-.334	-.738	-.556	-.478	-.417	-.310	-.216
95.00	-.309	-.580	-.538	-.471	-.420	-.301	-.215
LOWER SURFACE							
1.25	.324	.366	.360	.346	.353	.374	.341
2.50	.336	.304	.290	.269	.285	.299	.269
5.00	.325	.241	.217	.223	.201	.195	.200
7.50	.273	.198	.170	.174	.148	.147	.131
10.00	.237	.167	.142	.133	.111	.151	.086
15.00	.206	.125	.098	.068	.080	.070	.011
20.00	.149	.089	.054	.035	.029	.022	-.100
25.00	.149	.057	.018	.000	.008	.008	-.180
30.00	.097	.039	-.013	-.024	-.035	-.036	-.227
35.00	.071	.000	-.041	-.056	-.063	-.075	-.255
40.00	.053	-.018	-.066	-.077	-.083	-.107	-.257
45.00	.024	-.052	-.089	-.105	-.108	-.148	-.257
50.00	-.005	-.078	-.116	-.125	-.106	-.198	-.267
55.00	-.028	-.091	-.124	-.130	-.122	-.243	-.281
60.00	-.050	-.098	-.121	-.128	-.140	-.278	-.267
65.00	-.073	-.113	-.123	-.113	-.154	-.299	-.261
70.00	-.073						-.259
75.00	-.099	-.106	-.077	-.121	-.178	-.259	-.257
80.00	-.099	-.112	-.079	-.125	-.186	-.270	-.265
85.00	-.105	-.098	-.077	-.140	-.197	-.290	-.269
90.00	-.105	-.077	-.111	-.165	-.175	-.306	-.272
95.00	-.106	-.018	-.148	-.209	-.257	-.311	-.256

M = 1.03   α = 5.8°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	.508	.182	.071	.382	-.139	-.190	-.123
1.25	-.061	-.879	-.930	-.908	-.926	-.923	-.970
2.50	-.032	-.833	-.908	-.968	-.964	-.984	-.962
5.00	-.127	-.766	-.876	-.898	-.910	-.895	-.874
7.50	-.171	-.381	-.802	-.852	-.867	-.868	-.851
10.00	-.175	-.314	-.770	-.812	-.835	-.837	-.833
15.00	-.195	-.296	-.479	-.775	-.767	-.715	-.627
20.00	-.190	-.293	-.382	-.583	-.546	-.321	-.229
25.00	-.209	-.291	-.340	-.153	-.128	-.172	-.136
30.00	-.219	-.291	-.280	-.079	-.064	-.137	-.124
35.00	-.218	-.297	-.055	-.040	-.031	-.097	-.120
40.00	-.223	-.314	.006	-.001	-.007	-.048	-.106
45.00	-.239	-.033	.060	-.008	-.049	-.004	-.106
50.00	-.278	.152	.116	-.122	-.095	-.043	-.128
55.00	-.222	.191	.150	-.187	-.146	-.085	-.177
60.00	-.021	.185	.166	-.252	-.192	-.121	-.211
65.00	-.224	.111	.160	-.240	-.229	-.153	-.243
70.00	-.438	.070	.190	-.252	-.412	-.128	-.247
75.00	-1.126	.912	-.572	-.467	-.436	-.364	-.248
80.00	-.674	.931	-.591	-.477	-.437	-.352	-.245
85.00	-.396	.840	-.588	-.485	-.440	-.338	-.244
90.00	-.386	.744	-.574	-.492	-.445	-.329	-.244
95.00	-.310	.600	-.557	-.487	-.445	-.321	-.239
LOWER SURFACE							
1.25	.379	.486	.468	.449	.451	.461	.432
2.50	.420	.416	.395	.344	.383	.390	.360
5.00	.393	.348	.317	.320	.298	.268	.287
7.50	.372	.298	.267	.278	.243	.235	.211
10.00	.341	.275	.235	.228	.203	.232	.159
15.00	.304	.212	.184	.159	.163	.148	.064
20.00	.237	.170	.138	.116	.111	.093	.070
25.00	.235	.139	.101	.080	.075	.044	-.121
30.00	.178	.107	.070	.056	.047	-.014	-.187
35.00	.147	.077	.042	.025	.020	-.025	-.234
40.00	.123	.058	.012	-.006	-.009	-.061	-.264
45.00	.096	.025	-.012	-.023	-.048	-.104	-.264
50.00	.066	.002	-.036	-.040	-.073	-.151	-.298
55.00	.041	-.013	-.048	-.051	-.097	-.192	-.291
60.00	.012	-.034	-.047	-.055	-.115	-.232	-.270
65.00	.002	.039	-.047	-.069	-.127	-.259	-.260
70.00	.002						-.256
75.00	-.047	-.034	-.036	-.110	-.151	-.239	-.252
80.00	-.043	-.038	-.039	-.117	-.161	-.269	-.257
85.00	-.036	-.035	-.085	-.136	-.175	-.305	-.276
90.00	-.065	-.017	-.098	-.160	-.159	-.331	-.277
95.00	-.056	.000	-.138	-.200	-.240	-.334	-.263

TABLE II WING WITH UPPER SURFACE SPOILER (NO GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 1.03 α = 7.8°							
UPPER SURFACE							
.00	.470	-.009	-.082	-.297	-.339	-.411	-.377
1.25	.009	-1.002	-1.043	-1.025	-1.047	-1.000	-1.038
2.50	-.093	-.974	-.999	-1.062	-1.066	-1.062	-1.038
5.00	-.199	-.935	-.999	-1.007	-1.019	-.977	-.968
7.50	-.246	-.827	-.936	-.968	-.980	-.965	-.948
10.00	-.251	-.603	-.932	-.940	-.958	-.920	-.908
15.00	-.268	-.409	-.871	-.903	-.897	-.763	-.764
20.00	-.253	-.359	-.722	-.856	-.730	-.551	-.562
25.00	-.266	-.347	-.473	-.586	-.512	-.427	-.420
30.00	-.269	-.339	-.379	-.405	-.314	-.391	-.380
35.00	-.265	-.346	-.152	-.305	-.245	-.370	-.372
40.00	-.267	-.355	-.045	-.197	-.208	-.352	-.371
45.00	-.280	-.160	-.019	-.051	-.176	-.333	-.373
50.00	-.316	-.081	-.082	-.077	-.146	-.316	-.376
55.00	-.264	-.146	-.121	-.160	-.135	-.300	-.376
60.00	-.084	-.103	-.142	-.249	-.110	-.283	-.373
65.00	-.151	-.105	-.142	-.254	-.101	-.279	-.372
70.00	-.430	-.037	-.171	-.270	-.110	-.325	-.368
75.00	-1.092	-.898	-.580	-.450	-.485	-.446	-.356
80.00	-.685	-.910	-.601	-.457	-.511	-.437	-.346
85.00	-.388	-.826	-.598	-.462	-.505	-.419	-.326
90.00	-.302	-.735	-.582	-.463	-.487	-.393	-.314
95.00	-.337	-.609	-.563	-.461	-.469	-.373	-.305
LOWER SURFACE							
1.25	.418	.575	.537	.515	.506	.501	.473
2.50	.499	.509	.467	.428	.448	.443	.412
5.00	.491	.441	.394	.398	.368	.349	.334
7.50	.486	.388	.348	.350	.313	.293	.263
10.00	.447	.360	.314	.299	.274	.293	.208
15.00	.402	.296	.261	.233	.226	.207	.117
20.00	.334	.251	.210	.193	.174	.150	-.003
25.00	.319	.215	.170	.152	.132	.103	-.077
30.00	.261	.179	.135	.123	.101	.065	-.150
35.00	.225	.147	.108	.090	.067	.019	-.200
40.00	.199	.123	.078	.063	.031	.017	-.231
45.00	.166	.087	.053	.035	-.003	-.060	-.266
50.00	.136	.062	.089	.007	-.030	-.108	-.294
55.00	.107	.049	.018	-.008	-.057	-.151	-.306
60.00	.078	.030	.016	-.028	-.078	-.189	-.305
65.00	.065	.019	.009	-.047	-.089	-.221	-.301
70.00	.052						-.302
75.00	.005	.031	-.016	-.085	-.119	-.231	-.297
80.00	-.010	.019	-.026	-.094	-.134	-.247	-.295
85.00	-.020	.016	-.051	-.115	-.152	-.280	-.296
90.00	-.017	.018	-.091	-.143	-.138	-.324	-.301
95.00	-.018	.000	-.130	-.186	-.223	-.341	-.285

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60, α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.220	.482	.439	.692	.441	.424	.315
1.25	−.059	−.064	−.002	−.074	−.189	−.276	−.172
2.50	−.042	−.058	−.006	−.051	−.103	−.131	−.117
5.00	−.028	−.054	−.009	−.027	−.075	−.102	−.058
7.50	−.005	−.061	−.006	−.027	−.048	−.070	−.020
10.00	−.013	−.072	−.033	−.023	−.034	−.058	−.006
15.00	−.036	−.074	−.033	−.004	−.030	−.031	−.026
20.00	−.058	−.076	−.027	−.010	−.026	−.036	−.042
25.00	−.072	−.072	−.023	−.021	−.031	−.036	−.035
30.00	−.074	−.062	−.011	−.030	−.041	−.036	−.034
35.00	−.066	−.044	−.011	−.048	−.056	−.053	−.034
40.00	−.070	−.013	−.053	−.073	−.090	−.069	−.034
45.00	−.064	−.037	−.090	−.108	−.123	−.100	−.026
50.00	−.050	−.116	−.154	−.166	−.173	−.146	−.030
55.00	−.000	−.228	−.246	−.240	−.252	−.209	−.039
60.00	−.094	−.296	−.316	−.334	−.320	−.273	−.031
65.00	−.180	−.278	−.309	−.335	−.313	−.253	−.031
70.00	−.312	−.240	−.322	−.343	−.320	−.244	−.050
75.00	−.556	−.661	−.327	−.287	−.230	−.154	−.040
80.00	−.509	−.727	−.338	−.284	−.230	−.143	−.052
85.00	−.395	−.693	−.353	−.288	−.232	−.134	−.072
90.00	−.247	−.622	−.372	−.293	−.234	−.124	−.087
95.00	−.158	−.502	−.362	−.299	−.238	−.121	−.080

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.125	−.144	−.223	−.295	−.411	−.471	−.491
2.50	.069	−.109	−.158	−.213	−.286	−.307	−.347
5.00	.027	−.101	−.145	−.132	−.231	−.263	−.256
7.50	−.007	−.112	−.149	−.150	−.223	−.230	−.245
10.00	−.031	−.122	−.154	−.163	−.211	−.192	−.233
15.00	−.062	−.141	−.168	−.192	−.207	−.207	−.219
20.00	−.095	−.153	−.182	−.194	−.212	−.219	−.178
25.00	−.081	−.160	−.192	−.205	−.219	−.218	−.178
30.00	−.124	−.172	−.200	−.209	−.226	−.216	−.178
35.00	−.138	−.190	−.210	−.217	−.227	−.218	−.191
40.00	−.149	−.200	−.222	−.223	−.231	−.218	−.168
45.00	−.157	−.219	−.226	−.228	−.238	−.216	−.162
50.00	−.204	−.236	−.233	−.234	−.240	−.213	−.155
55.00	−.190	−.234	−.232	−.234	−.241	−.208	−.130
60.00	−.207	−.247	−.227	−.233	−.232	−.201	−.117
65.00	−.239	−.278	−.242	−.234	−.210	−.178	−.121
70.00	−.273						−.093
75.00	−.191	.024	−.079	−.152	−.152	−.160	−.090
80.00	−.089	−.067	−.134	−.154	−.157	−.122	−.093
85.00	−.098	−.079	−.149	−.154	−.157	−.110	−.065
90.00	−.065	−.085	−.166	−.168	−.144	−.115	−.059
95.00	−.082	−.113	−.175	−.181	−.159	−.114	
GAP		−.784	−.453	−.273	−.262	−.177	

M = 0.60, α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	−.195	−.134					−.001
1.25	−.453	−.913					−.624
2.50	−.410	−.487					−.416
5.00	−.323	−.393					−.262
7.50	−.257	−.336					−.242
10.00	−.220	−.309					−.200
15.00	−.221	−.265					−.132
20.00	−.220	−.238					−.123
25.00	−.220	−.212					−.091
30.00	−.212	−.188					−.069
35.00	−.187	−.151					−.058
40.00	−.183	−.102					−.049
45.00	−.165	−.032					−.038
50.00	−.144	.062					−.028
55.00	−.067	.161					−.029
60.00	−.015	.181					−.017
65.00	−.096	.184					−.017
70.00	−.211	.112					−.023
75.00	−.788	−.678					−.023
80.00	−.651	−.690					−.028
85.00	−.467	−.654					−.031
90.00	−.294	−.592					−.038
95.00	−.185	−.497					−.033

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.310	.338					.245
2.50	.278	.256					.165
5.00	.238	.184					.092
7.50	.191	.134					.036
10.00	.153	.107					.009
15.00	.121	.054					−.069
20.00	.072	.027					−.085
25.00	.066	.005					−.088
30.00	.024	−.033					−.099
35.00	−.007	−.058					−.108
40.00	−.026	−.077					−.127
45.00	−.041	−.104					−.119
50.00	−.095	−.126					−.115
55.00	−.087	−.139					−.111
60.00	−.108	−.160					−.097
65.00	−.144	−.199					−.085
70.00	−.190						−.093
75.00	−.129	.081					−.069
80.00	−.025	.021					−.060
85.00	−.045	.042					−.063
90.00	−.046	.068					−.032
95.00	−.062	.111					−.023
GAP		−.775					

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

M = 0.60, α = 6.0°

UPPER SURFACE

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.158	-.815	-.874	-.290	-.896	-.949	-.738
1.25	-.588	-1.280	-1.165	-.759	-.919	-1.106	-1.086
2.50	-.533	-.982	-.918	-.699	-.754	-.689	-.685
5.00	-.474	-.691	-.753	-.629	-.613	-.518	-.504
7.50	-.398	-.570	-.593	-.543	-.523	-.450	-.428
10.00	-.349	-.496	-.509	-.479	-.449	-.390	-.326
15.00	-.330	-.403	-.400	-.374	-.334	-.306	-.211
20.00	-.318	-.350	-.310	-.296	-.257	-.237	-.165
25.00	-.306	-.307	-.249	-.230	-.200	-.175	-.121
30.00	-.289	-.266	-.194	-.178	-.147	-.132	-.092
35.00	-.255	-.221	-.141	-.123	-.096	-.080	-.073
40.00	-.243	-.163	-.086	-.073	-.046	-.034	-.053
45.00	-.223	-.088	-.020	-.016	-.005	-.009	-.042
50.00	-.198	.005	.044	.037	.056	.057	.037
55.00	-.111	.103	.114	.089	.104	.092	.037
60.00	-.028	.129	.151	.153	.186	.113	.042
65.00	-.126	.107	.164	.150	.142	.112	.051
70.00	-.214	.037	.182	.161	.157	.112	.068
75.00	-.824	-.707	-.347	-.261	-.324	-.150	.069
80.00	-.710	-.711	-.353	-.261	-.228	-.143	.073
85.00	-.505	-.672	-.362	-.263	-.235	-.134	.076
90.00	-.335	-.605	-.367	-.263	-.235	-.127	.079
95.00	-.213	-.509	-.355	-.264	-.233	-.125	.069

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.363	.442	.455	.423	.442	.436	.391
2.50	.342	.364	.385	.357	.366	.362	.305
5.00	.306	.293	.296	.307	.275	.257	.207
7.50	.282	.234	.238	.240	.174	.198	.128
10.00	.239	.209	.197	.194	.118	.170	.076
15.00	.207	.137	.146	.128	.074	.101	.002
20.00	.150	.100	.093	.083	.037	.052	-.032
25.00	.135	.060	.052	.047	.004	.016	-.057
30.00	.095	.032	.017	.017	-.021	-.016	-.079
35.00	.056	.000	-.006	-.014	-.021	-.051	-.091
40.00	.032	-.022	-.037	-.037	-.046	-.070	-.114
45.00	-.015	-.056	-.054	-.062	-.072	-.093	-.106
50.00	-.037	-.083	-.077	-.084	-.089	-.108	-.106
55.00	-.037	-.096	-.086	-.099	-.101	-.120	-.104
60.00	-.063	-.125	-.101	-.116	-.114	-.126	-.092
65.00	-.102	-.165	-.143	-.134	-.126	-.119	-.081
70.00	-.157						-.086
75.00	-.101	-.105	-.030	-.037	-.045	-.084	-.073
80.00	-.002	-.002	-.055	-.084	-.078	-.083	-.063
85.00	-.015	-.029	-.083	-.083	-.088	-.078	-.067
90.00	-.083	-.066	-.109	-.117	-.093	-.087	-.045
95.00	-.046	-.110	-.130	-.131	-.125	-.087	-.039
GAP		-.793	-.522	-.256	-.279	-.161	

M = 0.60, α = 8.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.105	-1.171	-1.398	-.441	-1.086	-.714	-.798
1.25	-.654	-1.080	-1.181	-.784	-.930	-.557	-.640
2.50	-.616	-1.014	-1.106	-.753	-.913	-.520	-.603
5.00	-.581	-.926	-1.001	-.712	-.893	-.497	-.575
7.50	-.532	-.853	-.910	-.666	-.872	-.483	-.557
10.00	-.504	-.812	-.818	-.626	-.861	-.459	-.519
15.00	-.459	-.694	-.594	-.541	-.808	-.416	-.479
20.00	-.425	-.571	-.428	-.467	-.739	-.374	-.363
25.00	-.401	-.477	-.339	-.419	-.585	-.335	-.289
30.00	-.380	-.395	-.279	-.366	-.386	-.298	-.216
35.00	-.339	-.327	-.229	-.309	-.384	-.263	-.169
40.00	-.320	-.256	-.181	-.249	-.107	-.230	-.138
45.00	-.292	-.176	-.134	-.180	-.036	-.198	-.121
50.00	-.265	-.095	-.080	-.124	-.022	-.171	-.110
55.00	-.165	-.005	-.089	-.075	.066	-.158	-.112
60.00	-.059	.052	-.004	-.026	.108	-.145	-.111
65.00	-.029	.014	.084	.027	.134	-.138	-.114
70.00	-.125	.015	.073	-.306	.196	-.083	-.133
75.00	-.744	-.697	-.335	-.313	-.254	-.289	-.136
80.00	-.674	-.700	-.343	-.314	-.263	-.244	-.120
85.00	-.536	-.672	-.355	-.311	-.263	-.226	-.116
90.00	-.378	-.605	-.369	-.287	-.254	-.187	-.106
95.00	-.258	-.485	-.355		-.231	-.164	-.093

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.389	.480	.471	.495	.476	.454	.413
2.50	.381	.437	.440	.433	.430	.412	.355
5.00	.377	.369	.362	.381	.356	.322	.264
7.50	.370	.314	.315	.321	.295	.238	.196
10.00	.325	.282	.272	.277	.246	.164	.141
15.00	.298	.214	.214	.205	.184	.109	.054
20.00	.227	.172	.161	.158	.134	.067	.009
25.00	.210	.131	.114	.107	.096	.088	-.014
30.00	.162	.094	.077	.079	.049	.005	-.040
35.00	.117	.059	.046	.046	.024	-.031	-.052
40.00	.093	.031	.017	.018	-.004	-.055	-.067
45.00	.070	.000	-.009	-.010	-.033	-.077	-.067
50.00	-.013	-.031	-.033	-.033	-.055	-.091	-.066
55.00	-.014	-.052	-.055	-.064	-.075	-.101	-.059
60.00	-.018	-.081	-.073	-.087	-.096	-.097	-.060
65.00	-.056	-.132	-.118	-.105	-.117		-.058
70.00	-.119						-.046
75.00	-.064	.133	.052	.002	.006	.033	-.036
80.00	-.036	.020	.035	.048	.060	.051	-.037
85.00	-.015	-.010	-.067	-.053	-.072	-.051	-.037
90.00	-.003	-.048	-.096	-.088	-.083	-.068	-.030
95.00	.013	-.089	-.123	-.106	-.111	-.068	
GAP		-.783	-.526	-.256	-.313	-.218	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60   α = 11.3°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.009	-1.708	-1.506	-.988	-.645	-.454	-.396
1.25	-1.041	-1.344	-1.072	-.904	-.576	-.402	-.294
2.50	-1.110	-1.356	-1.060	-.893	-.572	-.389	-.291
5.00	-1.058	-1.368	-1.064	-.885	-.572	-.375	-.279
7.50	-.946	-1.404	-1.030	-.869	-.567	-.375	-.274
10.00	-.838	-1.467	-1.019	-.857	-.562	-.371	-.268
15.00	-.709	-1.403	-.973	-.834	-.550	-.362	-.261
20.00	-.632	-1.217	-.930	-.811	-.539	-.352	-.247
25.00	-.584	-.925	-.886	-.791	-.531	-.341	-.236
30.00	-.556	-.684	-.838	-.764	-.524	-.335	-.233
35.00	-.504	-.436	-.776	-.733	-.512	-.322	-.229
40.00	-.461	-.314	-.707	-.698	-.502	-.311	-.223
45.00	-.411	-.216	-.689	-.648	-.493	-.301	-.215
50.00	-.358	-.120	-.555	-.601	-.470	-.285	-.209
55.00	-.245	-.012	-.476	-.559	-.446	-.272	-.203
60.00	-.119	.058	-.406	-.466	-.412	-.263	-.189
65.00	-.015	.021	-.353	-.451	-.381	-.247	-.185
70.00	.336	-.010	-.271	-.412	-.471	-.232	-.182
75.00	-1.088	-.681	-.401	-.469	-.348	-.226	-.175
80.00	-.726	-.683	-.483	-.517	-.387	-.236	-.171
85.00	-.577	-.666	-.476	-.497	-.401	-.245	-.169
90.00	-.425	-.609	-.439	-.446	-.381	-.239	-.169
95.00	-.295	-.490	-.372	-.399	-.351	-.234	-.165

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.390	.497	.468	.504	.490	.482	.413
2.50	.377	.524	.506	.497	.485	.465	.378
5.00	.560	.490	.462	.467	.433	.392	.309
7.50	.498	.442	.417	.417	.380	.338	.240
10.00	.463	.407	.381	.370	.337	.312	.188
15.00	.432	.333	.319	.297	.273	.237	.106
20.00	.361	.288	.260	.244	.220	.175	.039
25.00	.324	.236	.214	.197	.171	.125	.015
30.00	.283	.194	.177	.157	.134	.086	-.016
35.00	.228	.159	.139	.119	.099	.045	-.037
40.00	.192	.125	.103	.085	.062	.010	-.055
45.00	.156	.084	.076	.055	.032	-.024	-.067
50.00	.103	.053	.041	.022	.001	-.049	-.076
55.00	.097	.023	.015	.008	-.033	-.072	-.083
60.00	.053	-.007	-.009	-.039	-.056	-.090	-.085
65.00	.020	-.059	-.061	-.073	-.090	-.093	-.081
70.00	-.063						-.084
75.00	-.029	.185	.138	.093	.039	-.049	-.092
80.00	.103	.064	.038	.001	.040	-.064	-.091
85.00	.066	-.004	-.003	-.025	-.079	-.084	-.091
90.00	.030	-.008	-.033	-.068	-.085	-.125	-.103
95.00	.011	-.061	-.052	-.113	-.163	-.146	-.119
GAP		-.779	-.624	-.412	-.423	-.211	

M = 0.60   α = 15.6°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.146	-1.951	-1.140	-.879	-.483	-.423	-.548
1.25	-1.541	-1.894	-1.101	-.698	-.478	-.420	-.483
2.50	-1.787	-1.887	-1.097	-.688	-.479	-.411	-.473
5.00	-1.838	-1.906	-1.116	-.682	-.482	-.406	-.467
7.50	-1.532	-1.951	-1.096	-.672	-.486	-.413	-.476
10.00	-1.244	-1.997	-1.097	-.671	-.487	-.412	-.469
15.00	-1.098	-1.949	-1.071	-.657	-.490	-.413	-.471
20.00	-.917	-1.853	-1.069	-.647	-.491	-.413	-.475
25.00	-.760	-1.675	-1.075	-.645	-.488	-.407	-.473
30.00	-.684	-1.408	-1.082	-.644	-.482	-.407	-.467
35.00	-.618	-1.077	-1.074	-.636	-.471	-.403	-.459
40.00	-.569	-.774	-1.045	-.623	-.464	-.397	-.454
45.00	-.523	-.539	-1.001	-.602	-.458	-.385	-.447
50.00	-.461	-.371	-.950	-.581	-.453	-.373	-.448
55.00	-.344	-.233	-.898	-.562	-.446	-.377	-.435
60.00	-.243	-.186	-.832	-.507	-.437	-.381	-.430
65.00	-.183	-.255	-.853	-.530	-.420	-.376	-.422
70.00	-.010	-.133	-.855	-.476	-.518	-.376	-.426
75.00	-1.062	-.680	-.854	-.508	-.391	-.385	-.414
80.00	-.679	-.718	-.673	-.526	-.411	-.327	-.403
85.00	-.571	-.659	-.688	-.521	-.405	-.327	-.389
90.00	-.446	-.570	-.562	-.499	-.390	-.317	-.379
95.00	-.348	-.425	-.510	-.481	-.375	-.307	.356

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.274	.436	.415	.486	.459	.446	.310
2.50	.311	.553	.532	.536	.506	.483	.312
5.00	.542	.580	.533	.532	.480	.436	.263
7.50	.610	.547	.506	.494	.442	.398	.200
10.00	.595	.521	.475	.461	.403	.374	.148
15.00	.570	.453	.420	.388	.344	.299	.055
20.00	.501	.404	.361	.334	.289	.234	.032
25.00	.456	.383	.311	.305	.237	.181	.059
30.00	.407	.304	.267	.249	.194	.137	.107
35.00	.351	.260	.228	.201	.184	.092	.135
40.00	.306	.231	.192	.166	.119	.047	.172
45.00	.277	.185	.154	.124	.073	.007	.175
50.00	.212	.144	.119	.086	.037	-.027	.193
55.00	.211	.116	.088	.047	.001	-.061	.207
60.00	.158	.074	.050	.007	-.042	-.090	.216
65.00	.112	.008	-.020	.022	-.086	-.102	.225
70.00	.016						.235
75.00	.045	.247	.202	.105	.047	.033	.229
80.00	.173	.120	.077	.006	.045	.077	.237
85.00	.127	.065	.027	.053	.093	.105	.243
90.00	.076	.036	.027	.132	.110	.153	.250
95.00	.051	.008	.089	.128	.126	.153	.266
GAP		-.761	-.766	-.480	-.498	-.336	

TABLE III — WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.138b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60 α = 19.5°

UPPER SURFACE

% chord	0.138b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	—	—	-1.014	-.853	-.668	-.833	-.463
1.25	-.194	-1.145	-.943	-.768	-.659	-.527	-.436
2.50	-.831	-1.128	-.985	-.756	-.654	-.527	-.431
5.00	-1.122	-1.117	-.985	-.754	-.651	-.518	-.423
7.50	-1.256	-1.116	-.935	-.753	-.647	-.518	-.421
10.00	-1.220	-1.114	-.984	-.747	-.646	-.519	-.417
15.00	-1.195	-1.101	-.921	-.740	-.639	-.515	-.416
20.00	-1.167	-1.092	-.913	-.734	-.628	-.507	-.417
25.00	-1.134	-1.087	-.897	-.723	-.620	-.495	-.418
30.00	-1.092	-1.076	-.878	-.715	-.609	-.490	-.412
35.00	-1.052	-1.064	-.865	-.703	-.596	-.480	-.406
40.00	-1.018	-1.052	-.852	-.694	-.585	-.471	-.403
45.00	-.957	-1.033	-.833	-.679	-.585	-.475	-.396
50.00	-.923	-1.010	-.809	-.685	-.597	-.494	-.389
55.00	-.877	-.984	-.794	-.691	-.626	-.528	-.379
60.00	-.809	-.957	-.787	-.645	-.626	-.549	-.370
65.00	-.743	-.943	-.780	-.668	-.591	-.549	-.364
70.00	-.648	-.936	-.755	-.646	-.657	-.533	-.351
75.00	-.465	-.949	-.716	-.650	-.449	-.565	-.339
80.00	-1.077	-.743	-.644	-.557	-.457	-.387	-.330
85.00	-.710	-.781	-.687	-.548	-.449	-.380	-.319
90.00	-.573	-.753	-.656	-.531	-.438	-.364	-.319
95.00	-.530	-.722	-.648	-.515	-.419	-.346	-.305
	-.493	-.680	-.634				

LOWER SURFACE

% chord	0.138b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.182	-.487		-.438	-.383	-.387	-.369
2.50	-.283	-.576	-.355	-.517	-.494	-.488	-.414
5.00	-.563	-.614	-.509	-.545	-.508	-.476	-.397
7.50	-.700	-.593	-.547	-.514	-.486	-.446	-.344
10.00	-.673	-.569	-.533	-.487	-.455	-.428	-.297
15.00	-.646	-.507	-.508	-.422	-.402	-.357	-.208
20.00	-.576	-.467	-.464	-.375	-.344	-.299	-.128
25.00	-.536	-.415	-.399	-.326	-.295	-.243	-.078
30.00	-.481	-.370	-.355	-.284	-.250	-.193	-.035
35.00	-.426	-.327	-.311	-.237	-.203	-.143	-.004
40.00	-.382	-.287	-.267	-.198	-.161	-.097	+.015
45.00	-.348	-.241	-.232	-.147	-.115	-.053	-.053
50.00	-.279	-.193	-.184	-.097	-.072	-.018	-.075
55.00	-.368	-.151	-.138	-.053	-.089	-.024	-.087
60.00	-.213	-.100	-.096	-.006	-.014	-.061	-.095
65.00	-.165	-.022	-.046	-.058	-.077	-.080	-.106
70.00	-.060		-.038		-.079	-.006	-.118
75.00	-.066	-.247	-.165	-.099	-.038	-.065	-.128
80.00	-.186	-.103	-.080	-.015	-.092	-.099	-.141
85.00	-.128	-.004	-.052	-.070	-.109	-.163	-.147
90.00	-.068	-.059	-.135	-.148	-.207	-.193	-.163
95.00	-.024	-.163	-.216	-.223	-.614	-.374	-.193
GAP		-.872	-.865	-.561			

M = 0.60 α = 25.9°

UPPER SURFACE

% chord	0.138b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.340	-.878	-.900	-.829	-.706	-.607	-.505
1.25	-.790	-.876	-.882	-.798	-.703	-.591	-.492
2.50	-.914	-.873	-.869	-.799	-.699	-.591	-.494
5.00	-.871	-.878	-.881	-.800	-.698	-.588	-.483
7.50	-.865	-.880	-.873	-.799	-.693	-.585	-.480
10.00	-.864	-.882	-.879	-.798	-.686	-.583	-.477
15.00	-.868	-.880	-.873	-.789	-.677	-.568	-.480
20.00	-.867	-.889	-.872	-.780	-.672	-.551	-.483
25.00	-.867	-.894	-.865	-.771	-.665	-.551	-.484
30.00	-.871	-.893	-.861	-.765	-.665	-.543	-.484
35.00	-.873	-.896	-.859	-.771	-.673	-.546	-.481
40.00	-.873	-.899	-.868	-.781	-.691	-.562	-.482
45.00	-.873	-.898	-.885	-.799	-.709	-.584	-.475
50.00	-.871	-.882	-.885	-.811	-.713	-.615	-.463
55.00	-.865	-.868	-.867	-.805	-.685	-.653	-.452
60.00	-.856	-.855	-.836	-.739	-.653	-.678	-.446
65.00	-.838	-.843	-.804	-.755	-.719	-.655	-.430
70.00	-.797	-.835	-.725	-.747	-.646	-.448	-.419
75.00	-.914	-.833	-.728	-.635	-.855	-.457	-.403
80.00	-.834	-.833	-.782	-.640	-.848	-.445	-.394
85.00	-.818	-.809	-.716	-.638	-.543	-.432	-.375
90.00	-.798	-.790	-.710	-.625	-.538		
95.00	-.783			-.628			

LOWER SURFACE

% chord	0.138b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.040	-.341	-.387	-.319	-.340	-.347	-.260
2.50	-.160	-.570	-.475	-.477	-.450	-.453	-.383
5.00	-.582	-.655	-.574	-.564	-.492	-.491	-.415
7.50	-.723	-.657	-.575	-.543	-.530	-.493	-.388
10.00	-.722	-.614	-.546	-.505	-.514	-.486	-.354
15.00	-.741	-.579	-.504	-.461	-.476	-.377	-.272
20.00	-.687	-.530	-.416	-.418	-.430	-.389	-.209
25.00	-.641	-.481	-.369	-.373	-.384	-.375	-.140
30.00	-.598	-.439	-.381	-.321	-.336	-.282	-.087
35.00	-.544	-.398	-.285	-.276	-.288	-.175	-.044
40.00	-.497	-.346	-.225	-.225	-.240	-.183	-.013
45.00	-.461	-.391	-.178	-.180	-.146	-.077	+.023
50.00	-.396	-.351	-.119	-.066	-.093	-.087	-.046
55.00	-.376	-.194	-.083	-.007	-.046	-.018	-.069
60.00	-.319	-.101			-.030	-.050	-.082
65.00	-.265		-.214	-.156	-.185	-.034	-.101
70.00	-.151	-.300	-.087	-.094	-.094	-.070	-.118
75.00	-.191	-.133	-.051	-.055	-.073	-.100	-.130
80.00	-.233	-.048	-.119	-.143	-.115	-.169	-.146
85.00	-.173	-.173		-.243	-.236	-.222	-.166
90.00	-.088	-.195	-.289	-.243	-.725	-.285	-.190
95.00	-.002	-.892	-.897	-.634		-.430	-.224
GAP							

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85 α = 0.0°

	UPPER SURFACE						
.00	.251	.518	.477	.764	.478	.465	.332
1.25	.118	.057	.036	.019	.168	.275	.180
2.50	.086	.045	.024	.011	.085	.125	.112
5.00	.064	.045	.019	.004	.065	.100	.052
7.50	.033	.057	.026	.017	.032	.069	.025
10.00	.012	.070	.045	.015	.021	.057	.012
15.00	.020	.078	.038	.001	.031	.095	.032
20.00	.047	.083	.026	.007	.020	.031	.069
25.00	.069	.076	.014	.015	.031	.033	.057
30.00	.079	.062	.001	.039	.045	.035	.042
35.00	.071	.039	.022	.051	.065	.047	.036
40.00	.077	.010	.060	.078	.091	.068	.061
45.00	.074	.080	.104	.120	.132	.102	.059
50.00	.056	.174	.178	.184	.189	.151	.070
55.00	.014	.283	.266	.264	.271	.221	.056
60.00	.125	.300	.303	.356	.381	.258	.062
65.00	.206	.280	.273	.337	.318	.237	.067
70.00	.337	.231	.304	.358	.326	.183	.070
75.00	.621	.687	.358	.296	.251	.174	.083
80.00	.562	.701	.369	.296	.251	.164	.100
85.00	.415	.668	.376	.296	.251	.156	.115
90.00	.344	.611	.387	.305	.251	.152	.112
95.00	.220	.525	.385	.307	.253		

	LOWER SURFACE						
1.25	.183	.102	.169	.268	.407	.509	.608
2.50	.121	.076	.126	.197	.308	.356	.464
5.00	.068	.068	.123	.123	.248	.390	.324
7.50	.031	.087	.133	.158	.245	.269	.333
10.00	.002	.096	.144	.179	.241	.225	.330
15.00	.034	.117	.169	.225	.234	.253	.298
20.00	.077	.136	.191	.239	.250	.277	.273
25.00	.063	.155	.214	.240	.271	.279	.231
30.00	.117	.173	.236	.247	.278	.283	.226
35.00	.135	.196	.254	.257	.291	.293	.229
40.00	.146	.214	.273	.278	.300	.285	.217
45.00	.167	.243	.281	.281	.300	.274	.207
50.00	.227	.270	.281	.285	.299	.270	.193
55.00	.209	.285	.273	.274	.282	.259	.166
60.00	.233	.327	.266	.274	.264	.244	.149
65.00	.268	.336	.265	.279		.213	.147
70.00	.304						.125
75.00	.340	.001	.095	.210	.208	.203	.114
80.00	.163	.094	.163	.206	.208	.147	.105
85.00	.157	.100	.176	.196	.195	.138	.087
90.00	.142	.111	.202	.208	.189	.138	.088
95.00	.129	.147	.211	.211	.194	.132	
GAP		.756	.466	.298	.279	.203	

M = 0.85 α = 4.0°

	UPPER SURFACE						
.00	.247	.101	.061	.277	.106	.081	.066
1.25	.251	.847	1.089	.930	.841	.884	.794
2.50	.314	.717	.685	.717	.724	.668	.627
5.00	.188	.403	.437	.409	.358	.325	.319
7.50	.177	.364	.374	.333	.326	.290	.295
10.00	.200	.338	.341	.277	.291	.252	.262
15.00	.215	.301	.273	.238	.208	.212	.168
20.00	.232	.282	.215	.179	.172	.156	.139
25.00	.242	.255	.172	.146	.131	.119	.101
30.00	.239	.220	.132	.100	.095	.081	.075
35.00	.223	.169	.087	.057	.048	.040	.061
40.00	.221	.095	.032	.009	.006	.009	.046
45.00	.204	.001	.025	.051	.064	.063	.045
50.00	.173	.113	.094	.109	.120	.114	.042
55.00	.068	.195	.156	.154	.158	.143	.039
60.00	.040	.177	.178	.212	.173	.151	.046
65.00	.118	.108	.180	.202	.171	.141	.052
70.00	.270	.055	.396	.216	.182	.133	.053
75.00	.775	.698	.380	.299	.241	.176	.056
80.00	.648	.683	.380	.299	.243	.168	.063
85.00	.489	.647	.380	.301	.241	.159	.049
90.00	.487	.595	.384	.308	.241	.151	.065
95.00	.314	.519	.378	.306	.241	.145	

	LOWER SURFACE						
1.25	.336	.332	.345	.330	.323	.380	.255
2.50	.307	.259	.269	.255	.244	.243	.167
5.00	.274	.195	.183	.204	.155	.137	.090
7.50	.217	.140	.133	.148	.100	.086	.015
10.00	.178	.125	.101	.105	.064	.071	.037
15.00	.143	.066	.051	.037	.081	.005	.125
20.00	.087	.031	.006	.006	.083	.044	.138
25.00	.085	.001	.036	.038	.086	.081	.146
30.00	.033	.052	.066	.065	.113	.111	.160
35.00	.001	.082	.086	.093	.137	.149	.172
40.00	.017	.113	.116	.119	.157	.171	.166
45.00	.041	.131	.131	.143	.163	.189	.163
50.00	.107	.146	.156	.163	.177	.202	.154
55.00	.093	.163	.168	.177	.188	.202	.136
60.00	.117	.199	.173	.188	.196	.191	.130
65.00	.158	.236	.198	.207	.199		.115
70.00	.199						.095
75.00	.223	.068	.099	.099	.130	.160	.087
80.00	.064	.043	.138	.138	.164	.138	.080
85.00	.081	.076	.131	.143	.169	.154	.066
90.00	.076	.096	.164	.164	.188	.163	.046
95.00	.101	.143	.181	.181	.174	.196	
GAP		.783	.519	.396	.380	.196	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 6.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.242	-.217	-.299	.128	-.474	-.378	-.304
1.25	-.518	-1.041	-1.203	-.731	-.807	-.628	-.776
2.50	-.460	-1.036	-.975	-.680	-.762	-.500	-.646
5.00	-.392	-.900	-.791	-.626	-.720	-.453	-.552
7.50	-.356	-.794	-.671	-.573	-.689	-.434	-.514
10.00	-.330	-.674	-.599	-.516	-.656	-.405	-.453
15.00	-.333	-.487	-.469	-.443	-.573	-.361	-.340
20.00	-.340	-.414	-.352	-.361	-.478	-.315	-.253
25.00	-.346	-.367	-.270	-.289	-.367	-.264	-.180
30.00	-.333	-.310	-.211	-.227	-.251	-.232	-.133
35.00	-.313	-.243	-.154	-.173	-.153	-.195	-.104
40.00	-.307	-.155	-.096	-.120	-.071	-.165	-.083
45.00	-.281	-.060	-.042	-.067	-.004	-.132	-.070
50.00	-.240	.049	-.010	-.016	.057	-.106	-.068
55.00	-.114	.143	.062	.030	.113	-.088	-.075
60.00	.012	.142	.097	.097	.147	-.075	-.073
65.00	.092	.099	.098	.078	.156	-.069	-.088
70.00	.223	.032	.128	.108	.191	-.030	-.092
75.00	-.702	-.715	-.374	-.307	-.253	-.201	-.097
80.00	-.649	-.693	-.381	-.313	-.259	-.210	-.092
85.00	-.516	-.655	-.381	-.317	-.260	-.197	-.090
90.00	-.448	-.608	-.383	-.317	-.260	-.178	-.085
95.00	-.351	-.536	-.376	-.308	-.248	-.154	-.075

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.390	.443	.448	.447	.434	.424	.377
2.50	.384	.349	.374	.357	.363	.345	.291
5.00	.352	.293	.306	.305	.369	.344	.304
7.50	.314	.240	.233	.249	.209	.187	.121
10.00	.270	.214	.197	.205	.168	.169	.062
15.00	.235	.148	.145	.128	.108	.097	.042
20.00	.173	.104	.092	.086	.060	.030	.078
25.00	.160	.069	.051	.045	.021	.005	.113
30.00	.113	.037	.017	.019	.014	.043	.131
35.00	.071	.005	.013	.013	.043	.081	.136
40.00	.050	.081	.041	.045	.073	.111	.142
45.00	.027	.057	.065	.071	.104	.141	.137
50.00	.038	.092	.093	.097	.123	.165	.135
55.00	.031	.114	.117	.119	.145	.171	.126
60.00	.056	.148	.136	.136	.152	.171	.109
65.00	.099	.187	.156	.162	.167	.160	.098
70.00	.150						.095
75.00	.167	.098	.027	.044	.077	.101	.075
80.00	.018	.031	.074	.096	.119	.095	.070
85.00	.040	.055	.103	.098	.132	.095	.066
90.00	.049	.094	.136	.138	.135	.100	.044
95.00	.092	.144	.157	.145	.152	.095	.042
GAP		.761	.540	.275	.300	.202	

M = 0.85   α = 8.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.226	-.518	-.522	-.039	-.812	-.634	-.544
1.25	-.667	-1.207	-.902	-.838	-.900	-.874	-.656
2.50	-.624	-1.177	-.856	-.762	-.888	-.523	-.618
5.00	-.566	-1.147	-.837	-.741	-.880	-.498	-.597
7.50	-.529	-1.105	-.775	-.697	-.875	-.489	-.597
10.00	-.500	-1.055	-.723	-.653	-.870	-.476	-.590
15.00	-.486	-.893	-.632	-.601	-.845	-.457	-.552
20.00	-.465	-.710	-.555	-.588	-.803	-.440	-.487
25.00	-.468	-.539	-.486	-.587	-.747	-.421	-.373
30.00	-.457	-.391	-.428	-.532	-.660	-.418	-.268
35.00	-.429	-.277	-.364	-.451	-.535	-.410	-.209
40.00	-.426	-.187	-.307	-.355	-.341	-.415	-.186
45.00	-.401	-.098	-.255	-.268	-.171	-.419	-.188
50.00	-.332	.009	-.214	-.193	-.062	-.421	-.189
55.00	-.171	.118	-.177	-.137	-.014	-.421	-.201
60.00	-.069	.123	-.180	-.063	.067	-.400	-.193
65.00	-.029	.084	-.145	-.073	.098	-.341	-.193
70.00	-.168	.016	-.095	-.008	.157	-.298	-.189
75.00	-.740	-.704	-.397	-.336	-.270	-.355	-.174
80.00	-.668	-.686	-.419	-.343	-.276	-.366	-.160
85.00	-.559	-.659	-.409	-.348	-.267	-.362	-.149
90.00	-.485	-.623	-.399	-.327	-.250	-.318	-.143
95.00	-.433	-.559	-.381	-.298	-.223	-.171	-.137

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.410	.506	.493	.497	.475	.473	.421
2.50	.438	.445	.431	.418	.431	.414	.353
5.00	.420	.376	.347	.368	.348	.323	.269
7.50	.399	.318	.298	.318	.282	.266	.188
10.00	.350	.292	.261	.268	.240	.243	.133
15.00	.315	.214	.203	.189	.178	.168	.089
20.00	.245	.170	.149	.142	.125	.107	.005
25.00	.225	.131	.105	.098	.088	.059	.069
30.00	.175	.094	.067	.068	.047	.016	.099
35.00	.130	.060	.039	.038	.016	.036	.111
40.00	.099	.030	.004	.000	.019	.057	.123
45.00	.076	.009	.018	.030	.049	.091	.120
50.00	.013	.045	.053	.060	.073	.121	.117
55.00	.014	.070	.070	.088	.100	.137	.110
60.00	.016	.108	.090	.104	.113	.147	.094
65.00	.059	.153	.130	.138	.135	.147	.087
70.00	.114						.086
75.00	.132	.181	.053	.004	.020	.018	.071
80.00	.003	.006	.047	.063	.078	.059	.067
85.00	.011	.060	.068	.073	.094	.062	.070
90.00	.082	.101	.118	.109	.099	.069	.060
95.00	.061	.160	.133	.189	.180	.065	.068
GAP		.786	.579	.893	.313	.896	

TABLE III — WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 11.3°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.177	-.912	-.983	-.433	-.622	-.466	-.500
1.25	-.451	-1.476	-1.135	-.812	-.538	-.396	-.394
2.50	-.622	-1.458	-1.084	-.802	-.538	-.379	-.395
5.00	-.743	-1.489	-1.092	-.796	-.532	-.368	-.395
7.50	-.774	-1.480	-1.061	-.796	-.526	-.377	-.406
10.00	-.756	-1.452	-1.033	-.794	-.522	-.378	-.401
15.00	-.731	-1.377	-.953	-.785	-.514	-.378	-.399
20.00	-.675	-1.341	-.883	-.777	-.505	-.376	-.391
25.00	-.645	-1.260	-.889	-.780	-.501	-.370	-.374
30.00	-.621	-.905	-.907	-.780	-.494	-.368	-.361
35.00	-.601	-.438	-.895	-.779	-.489	-.363	-.347
40.00	-.592	-.258	-.866	-.769	-.479	-.357	-.335
45.00	-.598	-.114	-.814	-.741	-.468	-.345	-.326
50.00	-.573	-.040	-.748	-.708	-.451	-.337	-.311
55.00	-.345	.042	-.655	-.656	-.431	-.324	-.298
60.00	-.169	.038	-.570	-.551	-.414	-.316	-.286
65.00	-.012	.047	-.487	-.572	-.399	-.306	-.283
70.00	-.230	.076	-.401	-.533	-.399	-.291	-.284
75.00	-.998	-.704	-.475	-.556	-.356	-.272	-.271
80.00	-.676	-.685	-.534	-.613	-.384	-.283	-.266
85.00	-.568	-.654	-.514	-.587	-.396	-.287	-.262
90.00	-.502	-.612	-.482	-.528	-.381	-.281	-.259
95.00	-.427	-.545	-.489	-.469	-.366	-.274	-.250

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.422	.567	.516	.532	.508	.489	.445
2.50	.469	.544	.506	.504	.487	.468	.402
5.00	.530	.489	.447	.462	.427	.389	.326
7.50	.538	.437	.404	.410	.375	.340	.257
10.00	.499	.406	.365	.362	.334	.318	.195
15.00	.452	.334	.308	.293	.275	.234	.090
20.00	.374	.284	.250	.242	.216	.173	-.018
25.00	.340	.240	.206	.192	.170	.121	-.050
30.00	.288	.200	.166	.156	.131	.076	-.095
35.00	.239	.161	.131	.117	.094	.026	-.126
40.00	.201	.128	.095	.081	.056	-.013	-.149
45.00	.172	.088	.063	.044	.018	-.057	-.158
50.00	.115	.047	.028	.010	-.013	-.098	-.167
55.00	.111	.018	.001	-.024	-.047	-.138	-.174
60.00	.067	.023	-.029	-.056	-.072	-.150	-.168
65.00	.031	-.074	-.078	-.099	-.120	-.154	-.172
70.00	.045						-.174
75.00	-.077	.179	.118	.112	.017	-.107	-.172
80.00	.076	.047	.012	.001	.072	-.126	-.177
85.00	.049	-.003	-.031	-.035	-.116	-.152	-.176
90.00	.014	-.061	-.068	-.083	-.168	-.188	-.179
95.00	-.004	-.135	-.082	-.141	-.203	-.197	-.189
GAP		-.733	-.695	-.502	-.429	-.257	

M = 0.85   α = 15.6°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.089	-1.282	-1.042	-.829	-.543	-.482	-.532
1.25	-.622	-1.468	-.993	-.662	-.535	-.471	-.469
2.50	-.856	-1.441	-.978	-.652	-.540	-.471	-.465
5.00	-1.035	-1.480	-1.011	-.644	-.540	-.461	-.463
7.50	-1.057	-1.395	-1.000	-.633	-.542	-.473	-.468
10.00	-1.036	-1.371	-.998	-.625	-.542	-.473	-.460
15.00	-.998	-1.298	-.972	-.614	-.545	-.473	-.457
20.00	-.907	-1.269	-.939	-.616	-.545	-.473	-.456
25.00	-.798	-1.229	-.913	-.619	-.542	-.463	-.453
30.00	-.661	-1.184	-.894	-.614	-.537	-.464	-.456
35.00	-.593	-1.126	-.870	-.605	-.534	-.459	-.456
40.00	-.631	-1.060	-.847	-.593	-.529	-.450	-.450
45.00	-.681	-.974	-.809	-.582	-.521	-.444	-.447
50.00	-.694	-.883	-.773	-.578	-.511	-.435	-.442
55.00	-.559	-.743	-.747	-.573	-.502	-.439	-.436
60.00	-.422	-.709	-.707	-.560	-.493	-.450	-.423
65.00	-.307	-.615	-.683	-.562	-.490	-.455	-.421
70.00	-.078	-.529	-.610	-.538	-.515	-.448	-.416
75.00	-1.101	-.883	-.683	-.543	-.445	-.388	-.399
80.00	-.757	-.959	-.683	-.537	-.454	-.398	-.385
85.00	-.635	-.783	-.641	-.526	-.450	-.398	-.368
90.00	-.555	-.470	-.688	-.511	-.446	-.367	-.352
95.00	-.408	-.338	-.619		-.438	-.373	-.332

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.354	.584	.503	.571	.479	.463	.429
2.50	.477	.619	.585	.557	.507	.492	.427
5.00	.626	.598	.535	.535	.477	.445	.380
7.50	.693	.558	.501	.490	.437	.401	.310
10.00	.652	.528	.470	.450	.399	.377	.263
15.00	.601	.461	.417	.384	.347	.300	.152
20.00	.519	.414	.362	.338	.288	.240	.045
25.00	.476	.363	.311	.262	.238	.185	-.008
30.00	.425	.321	.271	.196	.180	.132	-.068
35.00	.368	.277	.229	.155	.130	.080	-.116
40.00	.331	.242	.190	.108	.111	-.032	-.151
45.00	.296	.199	.154	.066	.061	-.068	-.171
50.00	.233	.151	.112	.028	.021	-.110	-.200
55.00	.285	.119	.078	-.019	-.022	-.143	-.207
60.00	.176	.072	.041	-.079	-.064	-.161	-.217
65.00	.136	.012	-.025		-.119		-.221
70.00	.039						-.230
75.00	.007	.257	.184	.095	.089	-.083	-.242
80.00	-.165	.120	.046	.031	.084	-.124	-.239
85.00	-.118	-.065	-.017	-.080	-.141	-.193	-.240
90.00	-.070	-.011	-.093	-.150	-.206	-.243	-.240
95.00	-.043	-.044	-.162	-.218	-.248	-.262	-.258
GAP		-.789	-.751	-.613	-.566	-.390	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85 α = 19.6°

UPPER SURFACE

.00	-.028	-1.085	-.953	-.821	-.650	-.578	-.568
1.25	-.663	-1.067	-.867	-.711	-.646	-.573	-.536
2.50	-.842	-1.058	-.834	-.705	-.643	-.570	-.533
5.00	-1.092	-1.026	-.846	-.705	-.640	-.561	-.531
7.50	-1.090	-1.020	-.837	-.699	-.640	-.571	-.535
10.00	-1.075	-1.012	-.836	-.698	-.640	-.571	-.522
15.00	-1.065	-.988	-.827	-.688	-.637	-.571	-.515
20.00	-1.019	-.976	-.819	-.683	-.632	-.564	-.515
25.00	-.961	-.966	-.806	-.680	-.685	-.552	-.508
30.00	-.907	-.953	-.794	-.678	-.683	-.552	-.509
35.00	-.849	-.943	-.783	-.670	-.613	-.544	-.511
40.00	-.808	-.926	-.766	-.663	-.607	-.529	-.508
45.00	-.771	-.907	-.757	-.657	-.598	-.525	-.507
50.00	-.761	-.891	-.749	-.649	-.598	-.539	-.506
55.00	-.699	-.870	-.741	-.639	-.600	-.561	-.498
60.00	-.654	-.865	-.727	-.567	-.604	-.586	-.488
65.00	-.551	-.866	-.724	-.619	-.599	-.607	-.495
70.00	-.379	-.683	-.699	-.595	-.619	-.589	-.486
75.00	-.941	-.744	-.674	-.586	-.531	-.431	-.460
80.00	-.757	-.745	-.684	-.591	-.537	-.449	-.451
85.00	-.647	-.721	-.678	-.589	-.535	-.452	-.441
90.00	-.613	-.707	-.670	-.584	-.530	-.446	-.438
95.00	-.537	-.695	-.661	-.590	-.516	-.428	-.410

LOWER SURFACE

1.25	.245	.569	.470	.553	.426	.409	.387
2.50	.439	.656	.575	.567	.507	.497	.435
5.00	.691	.662	.585	.573	.512	.482	.416
7.50	.784	.635	.562	.533	.465	.446	.369
10.00	.745	.611	.539	.504	.452	.436	.318
15.00	.700	.549	.469	.446	.405	.363	.213
20.00	.621	.501	.435	.394	.348	.306	.117
25.00	.572	.450	.390	.347	.302	.253	.048
30.00	.523	.407	.347	.308	.255	.196	-.025
35.00	.467	.362	.302	.256	.211	.141	-.083
40.00	.420	.323	.260	.212	.166	.092	-.116
45.00	.386	.277	.219	.166	.118	.039	-.147
50.00	.319	.239	.173	.119	.071	-.019	-.170
55.00	.309	.190	.131	.071	.026	-.064	-.194
60.00	.259	.141	.089	.017	.019	-.110	-.210
65.00	.213	.068	.083	.051	.095	.140	-.235
70.00	.106						-.250
75.00	.066	.282	.194	.130	.070	.057	-.254
80.00	.214	.140	.047	.018	.058	.115	-.283
85.00	.152	.047	.083	.071	.126	.177	-.294
90.00	.090	.017	.106	.150	.166	.271	-.295
95.00	.048	.118	.162	.225	.261	.292	-.319
GAP		.732	.749	.591	.670	.414	

M = 0.85 α = 26.0°

UPPER SURFACE

.00	-.210	-.802	-.825	-.773	-.731	-.869	-.624
1.25	-.551	-.801	-.809	-.754	-.731	-.658	-.609
2.50	-.645	-.797	-.789	-.751	-.729	-.649	-.607
5.00	-.634	-.803	-.809	-.751	-.729	-.627	-.601
7.50	-.819	-.806	-.798	-.751	-.726	-.633	-.602
10.00	-.809	-.803	-.802	-.757	-.726	-.634	-.595
15.00	-.796	-.803	-.800	-.747	-.723	-.631	-.591
20.00	-.793	-.812	-.797	-.743	-.719	-.614	-.591
25.00	-.792	-.818	-.793	-.744	-.719	-.614	-.591
30.00	-.797	-.823	-.791	-.742	-.718	-.619	-.594
35.00	-.796	-.826	-.789	-.741	-.718	-.613	-.598
40.00	-.801	-.831	-.781	-.741	-.720	-.615	-.600
45.00	-.804	-.834	-.779	-.748	-.733	-.632	-.600
50.00	-.807	-.831	-.777	-.751	-.749	-.653	-.596
55.00	-.805	-.824	-.779	-.750	-.755	-.681	-.584
60.00	-.798	-.812	-.774	-.680	-.727	-.716	-.584
65.00	-.778	-.798	-.766	-.734	-.705	-.747	-.580
70.00	-.719	-.781	-.755	-.731	-.724	-.734	-.562
75.00	-.836	-.772	-.731	-.685	-.621	-.535	-.548
80.00	-.774	-.779	-.733	-.686	-.629	-.550	-.537
85.00	-.758	-.774	-.737	-.684	-.629	-.548	-.526
90.00	-.747	-.770	-.737	-.679	-.683	-.542	-.511
95.00	-.736	-.760	-.782	-.688	-.610	-.531	

LOWER SURFACE

1.25	.054	.512	.379	.465	.312	.877	.279
2.50	.328	.677	.568	.556	.479	.466	.404
5.00	.735	.737	.637	.619	.541	.505	.442
7.50	.833	.736	.639	.590	.543	.502	.415
10.00	.815	.728	.629	.588	.587	.499	.362
15.00	.809	.675	.593	.543	.498	.447	.295
20.00	.750	.636	.553	.504	.448	.394	.198
25.00	.704	.590	.511	.459	.404	.345	.130
30.00	.660	.546	.470	.418	.362	.293	.059
35.00	.606	.503	.429	.371	.318	.240	-.001
40.00	.562	.459	.384	.327	.275	.187	-.051
45.00	.525	.415	.340	.288	.234	.132	-.091
50.00	.463	.366	.294	.234	.178	.074	-.124
55.00	.445	.322	.247	.185	.123	.018	-.160
60.00	.393	.268	.193	.125	.072	-.033	-.186
65.00	.346	.192	.111	.051	.006	.078	-.215
70.00	.230						-.245
75.00	.200	.375	.271	.220	.152	.019	-.265
80.00	.306	.225	.186	.064	.011	.116	-.299
85.00	.237	.138	.044	.003	.070	.164	-.322
90.00	.165	.048	.042	.090	.146	.360	-.340
95.00	.097	.075	.131	.188	.836	.311	-.380
GAP		.660	.721	.598	.717	.459	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
	M = 0.90 α = 0.0°							
UPPER SURFACE	.00	.267	.525	.481	.783	.484	.469	.345
	1.25	.404	-.065	-.061	.011	.148	.257	.164
	2.50	.159	-.052	-.044	.003	.065	.107	.101
	5.00	.121	-.051	-.037	.007	.047	.084	.043
	7.50	.074	-.064	-.039	.007	.034	.053	.031
	10.00	.022	-.076	-.050	.004	.006	.048	.037
	15.00	-.013	-.085	-.043	-.010	.009	.008	.082
	20.00	-.043	-.094	-.032	.001	.009	.018	.094
	25.00	-.066	-.091	-.017	.020	.021	.019	.075
	30.00	-.079	-.078	-.004	.003	.033	.023	.059
	35.00	-.074	-.051	.024	.048	.056	.036	.046
	40.00	-.083	-.002	.060	.071	.083	.056	.045
	45.00	-.079	.092	.108	.116	.126	.091	.063
	50.00	.061	.181	.179	.180	.187	.144	.077
	55.00	.019	.294	.266	.265	.272	.212	.088
	60.00	.124	.350	.297	.354	.380	.243	.076
	65.00	.214	.347	.263	.340	.313	.229	.075
	70.00	.379	.285	.286	.356	.348	.222	.077
	75.00	-.588	-.710	-.388	-.318	-.272	-.198	.087
	80.00	-.536	-.730	-.397	-.314	-.273	-.191	.100
	85.00	-.430	-.695	-.403	-.316	-.272	-.185	.120
	90.00	-.378	-.643	-.414	-.316	-.272	-.174	.127
	95.00	-.272	-.561	-.408	-.316	-.278	-.171	.124
LOWER SURFACE	1.25	.206	-.068	-.116	-.212	-.362	-.436	-.533
	2.50	.150	-.047	-.097	-.169	-.272	-.328	-.416
	5.00	.100	-.047	-.103	-.107	-.247	-.281	-.313
	7.50	.052	-.066	-.119	-.144	-.251	-.268	-.336
	10.00	.024	-.077	-.134	-.165	-.253	-.227	-.337
	15.00	-.008	-.101	-.159	-.235	-.240	-.262	-.373
	20.00	-.056	-.122	-.167	-.243	-.254	-.289	-.319
	25.00	-.046	-.144	-.212	-.265	-.272	-.309	-.265
	30.00	-.097	-.162	-.234	-.277	-.279	-.317	-.345
	35.00	-.116	-.187	-.259	-.293	-.295	-.333	-.231
	40.00	-.131	-.204	-.289	-.280	-.316	-.341	-.233
	45.00	-.151	-.238	-.289	-.270	-.388	-.347	-.230
	50.00	-.198	-.263	-.375	-.282	-.333	-.316	-.221
	55.00	-.197	-.266	-.364	-.297	-.335	-.250	-.205
	60.00	-.223	-.323	-.289	-.289	-.320	-.264	-.182
	65.00	-.249	-.402	-.257	-.290	-.284	-.217	-.152
	70.00	-.282						-.145
	75.00	-.419	-.062	-.080	-.238	-.258	-.201	-.129
	80.00	-.228	-.107	-.168	-.238	-.238	-.166	-.111
	85.00	-.222	-.105	-.193	-.220	-.221	-.153	-.102
	90.00	-.163	-.113	-.239	-.227	-.210	-.147	-.092
	95.00	-.155	-.156	-.239	-.229	-.207	-.142	.097
	GAP		-.770	-.523	-.319	-.295	-.216	
	M = 0.90 α = 4.0°							
UPPER SURFACE	.00	-.265	.166	1.054	.349	-.052	-.042	.091
	1.25	-.073	.842	1.084	.907	-.056	-.904	-.824
	2.50	-.092	.766	.893	.784	.773	-.819	-.737
	5.00	-.115	.401	.514	.459	.484	.330	-.353
	7.50	-.141	.356	.423	.356	.348	.305	-.333
	10.00	-.179	.342	.380	.304	.316	.281	-.312
	15.00	-.203	.318	.279	.260	.236	.178	-.200
	20.00	-.223	.305	.211	.207	.191	.135	-.144
	25.00	-.244	.304	.168	.165	.147	.098	-.107
	30.00	-.244	.274	.131	.128	.106	.052	-.084
	35.00	-.237	.181	.090	.078	.053	.000	-.067
	40.00	-.244	.086	.039	.037	.002	-.036	-.053
	45.00	-.243	.021	.026	.036	.053	-.056	-.054
	50.00	-.198	.134	.094	.098	.114	-.106	-.057
	55.00	-.064	.199	.147	.141	.152	-.139	-.064
	60.00	-.060	.176	.164	.200	.169	-.146	-.061
	65.00	-.141	.053	.160	.190	.171	-.141	-.067
	70.00	-.264	.032	.179	.203	.181	-.133	-.072
	75.00	-.703	-.723	-.399	-.322	-.258	-.181	-.074
	80.00	-.613	-.709	-.405	-.321	-.258	-.172	-.080
	85.00	-.497	-.672	-.403	-.321	-.258	-.166	-.084
	90.00	-.457	-.623	-.401	-.326	-.258	-.162	-.079
	95.00	-.364	-.551	-.395	-.323			
LOWER SURFACE	1.25	.347	.338	.351	.334	.386	.328	.267
	2.50	.322	.264	.268	.251	.249	.249	.178
	5.00	.296	.197	.185	.203	.158	.142	.101
	7.50	.233	.151	.139	.144	.101	.078	.088
	10.00	.191	.132	.106	.107	.063	.076	.034
	15.00	.156	.071	.058	.028	.035	.007	-.148
	20.00	.100	.037	.030	.018	.026	-.047	-.167
	25.00	.094	-.002	-.064	-.046	-.063	-.090	-.188
	30.00	.048	-.026	-.092	-.070	-.093	-.123	-.191
	35.00	-.011	-.059	-.123	-.101	-.121	-.167	-.188
	40.00	-.008	-.081	-.143	-.137	-.153	-.195	-.188
	45.00	-.031	-.114	-.143	-.158	-.177	-.227	-.183
	50.00	-.095	-.149	-.165	-.175	-.197	-.247	-.173
	55.00	-.083	-.171	-.170	-.187	-.216	-.244	-.153
	60.00	-.111	-.235	-.182	-.199	-.217	-.233	-.134
	65.00	-.149	-.255	-.197	-.231	-.218	-.205	-.125
	70.00	-.186						-.110
	75.00	-.287	-.066	-.013	-.105	-.158	-.187	-.096
	80.00	-.085	-.050	-.166	-.165	-.189	-.155	-.080
	85.00	-.091	-.080	-.138	-.161	-.192	-.143	-.067
	90.00	-.084	-.106	-.179	-.186	-.190	-.143	-.059
	95.00	-.113	-.155	-.196	-.198	-.194	-.136	
	GAP		-.769	-.548	-.319	-.296	-.207	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 6.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.264	-.093	-.195	-.191	-.486	-.318	-.266
1.25	-.345	-.972	-1.252	-1.187	-.829	-.636	-.673
2.50	-.318	-.962	-1.192	-1.175	-.813	-.500	-.724
5.00	-.292	-.812	-1.181	-1.086	-.760	-.446	-.598
7.50	-.277	-.717	-.960	-.978	-.731	-.431	-.561
10.00	-.297	-.632	-.784	-.739	-.693	-.412	-.526
15.00	-.310	-.492	-.495	-.411	-.599	-.374	-.434
20.00	-.313	-.434	-.357	-.271	-.504	-.337	-.301
25.00	-.334	-.412	-.306	-.209	-.402	-.299	-.203
30.00	-.335	-.407	-.184	-.169	-.393	-.273	-.151
35.00	-.389	-.388	-.114	-.125	-.196	-.243	-.126
40.00	-.335	-.171	-.073	-.078	-.116	-.218	-.109
45.00	-.348	-.086	-.086	-.017	-.046	-.192	-.102
50.00	-.357	-.088	-.083	-.044	-.016	-.167	-.099
55.00	-.185	-.155	-.062	-.105	-.064	-.155	-.106
60.00	-.083	-.133	-.083	-.175	-.104	-.147	-.104
65.00	-.094	-.011	-.081	-.181	-.132	-.127	-.113
70.00	-.224	-.008	-.103	-.200	-.254	-.086	-.109
75.00	-.674	-.739	-.417	-.321	-.254	-.231	-.114
80.00	-.606	-.717	-.420	-.321	-.260	-.241	-.107
85.00	-.535	-.675	-.414	-.321	-.260	-.230	-.101
90.00	-.483	-.686	-.406	-.322	-.259	-.192	-.094
95.00	-.410	-.855	-.399	-.314	-.250	-.163	-.083

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.401	.447	.440	.431	.432	.425	.371
2.50	.397	.371	.362	.337	.359	.346	.284
5.00	.368	.292	.296	.296	.370	.344	.196
7.50	.325	.248	.226	.239	.311	.186	.116
10.00	.279	.221	.191	.200	.168	.168	.052
15.00	.244	.154	.134	.140	.114	.094	.064
20.00	.188	.110	.084	.078	.059	.035	.124
25.00	.169	.072	.040	.037	.020	.013	.170
30.00	.118	.042	.063	.005	.017	.052	.176
35.00	.076	.006	.024	.026	.050	.097	.175
40.00	.054	.018	.059	.062	.082	.136	.171
45.00	.027	.055	.079	.093	.114	.176	.171
50.00	.034	.092	.105	.119	.137	.207	.165
55.00	.027	.115	.119	.136	.163	.218	.151
60.00	.057	.171	.136	.155	.169	.211	.131
65.00	.097	.200	.164	.190	.182	.194	.117
70.00	.139						.104
75.00	.282	.102	.088	.055	.114	.133	.084
80.00	.034	.081	.096	.126	.153	.119	.074
85.00	.042	.061	.119	.138	.172	.114	.067
90.00	.055	.095	.161	.163	.170	.113	.050
95.00	.101	.148	.181	.173	.177	.109	.045
GAP		.768	.586	.309	.293	.225	

M = 0.90   α = 7.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.265	-.348	-.398	-.056	-.684	-.577	-.507
1.25	-.540	-1.116	-1.308	-1.301	-.802	-.577	-.700
2.50	-.504	-1.101	-1.218	-1.290	-.799	-.528	-.661
5.00	-.477	-1.069	-1.117	-1.223	-.790	-.506	-.631
7.50	-.445	-.997	-.977	-1.142	-.785	-.501	-.632
10.00	-.424	-.934	-.877	-.999	-.780	-.490	-.636
15.00	-.430	-.779	-.723	-.774	-.769	-.469	-.615
20.00	-.415	-.613	-.580	-.656	-.753	-.450	-.547
25.00	-.421	-.496	-.474	-.557	-.723	-.431	-.425
30.00	-.415	-.455	-.368	-.404	-.670	-.421	-.298
35.00	-.403	-.457	-.293	-.279	-.652	-.408	-.235
40.00	-.409	-.408	-.236	-.301	-.554	-.396	-.209
45.00	-.422	-.081	-.181	-.135	-.476	-.380	-.209
50.00	-.461	-.048	-.150	-.082	-.382	-.370	-.214
55.00	-.290	-.121	-.130	-.036	-.300	-.361	-.200
60.00	-.120	-.105	-.124	-.033	-.288	-.348	-.194
65.00	-.033	-.002	-.132	-.035	-.175	-.307	-.190
70.00	-.172	-.011	-.083	-.081	-.137	-.271	-.175
75.00	-.657	-.721	-.441	-.330	-.285	-.323	-.167
80.00	-.607	-.701	-.448	-.330	-.312	-.337	-.160
85.00	-.551	-.666	-.487	-.330	-.293	-.300	-.158
90.00	-.471	-.621	-.415	-.324	-.267	-.258	-.149
95.00	-.444	-.558	-.404	-.307	-.250	-.222	

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.431	.521	.490	.475	.474	.469	.418
2.50	.464	.456	.428	.398	.430	.410	.351
5.00	.443	.388	.350	.357	.335	.314	.267
7.50	.419	.332	.298	.301	.279	.260	.188
10.00	.371	.305	.262	.260	.238	.238	.127
15.00	.334	.231	.203	.180	.177	.159	.017
20.00	.265	.186	.148	.135	.121	.098	.040
25.00	.246	.145	.104	.093	.080	.044	.107
30.00	.194	.110	.068	.060	.041	.004	.140
35.00	.145	.073	.035	.025	.004	.044	.158
40.00	.122	.044	.000	.011	.030	.081	.152
45.00	.091	.007	.087	.043	.064	.125	.142
50.00	.089	.033	.053	.074	.109	.160	.127
55.00	.033	.060	.076	.097	.117	.182	.114
60.00	.000	.106	.099	.121	.170	.191	.105
65.00	.041	.147	.138	.154	.156	.174	.103
70.00	.089						.090
75.00	.160	.136	.083	.018	.056	.036	.083
80.00	.009	.011	.055	.089	.111	.073	.082
85.00	.001	.043	.091	.098	.127	.077	.076
90.00	.016	.087	.112	.139	.189	.092	.081
95.00	.060	.148	.130	.157	.135	.094	
GAP		.745	.617	.304	.325	.303	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
	M = 0.90 α = 11.3°							
UPPER SURFACE	.00	-.223	-.715	-.771	-.333	-.767	-.495	-.445
	1.25	-.335	-1.320	-1.147	-1.073	-.678	-.441	-.364
	2.50	-.498	-1.308	-1.060	-1.052	-.672	-.439	-.365
	5.00	-.617	-1.346	-1.051	-1.034	-.670	-.430	-.363
	7.50	-.658	-1.323	-1.014	-1.040	-.665	-.425	-.360
	10.00	-.646	-1.385	-.989	-1.039	-.659	-.422	-.355
	15.00	-.634	-1.198	-.902	-1.019	-.653	-.418	-.351
	20.00	-.598	-1.148	-.815	-.989	-.641	-.411	-.344
	25.00	-.573	-1.063	-.768	-.973	-.630	-.395	-.340
	30.00	-.559	-.891	-.717	-.941	-.624	-.395	-.336
	35.00	-.543	-.560	-.678	-.913	-.619	-.389	-.329
	40.00	-.540	-.465	-.658	-.869	-.609	-.378	-.323
	45.00	-.547	-.217	-.648	-.791	-.592	-.365	-.316
	50.00	-.576	.029	-.634	-.681	-.569	-.355	-.310
	55.00	-.427	.050	-.591	-.577	-.541	-.343	-.300
	60.00	-.256	.040	-.544	-.431	-.510	-.334	-.291
	65.00	-.067	.056	-.488	-.414	-.492	-.324	-.289
	70.00	-.184	-.093	-.399	-.375	-.438	-.315	-.284
	75.00	-1.009	-.748	-.517	-.444	-.447	-.295	-.268
	80.00	-.691	-.733	-.548	-.473	-.490	-.303	-.261
	85.00	-.568	-.706	-.508	-.453	-.486	-.311	-.258
	90.00	-.531	-.665	-.467	-.424	-.446	-.302	-.254
	95.00	-.446	-.603	-.427	-.383	-.404	-.297	-.251
LOWER SURFACE	1.25	.432	.589	.535	.541	.503	.500	.462
	2.50	.505	.557	.515	.496	.487	.480	.418
	5.00	.586	.501	.451	.455	.435	.407	.348
	7.50	.561	.447	.404	.403	.376	.354	.278
	10.00	.521	.416	.366	.359	.333	.332	.218
	15.00	.472	.346	.312	.288	.275	.188	.107
	20.00	.390	.297	.253	.241	.216	.135	.000
	25.00	.355	.253	.207	.188	.172	.135	-.043
	30.00	.306	.210	.168	.158	.131	.089	-.095
	35.00	.255	.172	.133	.114	.093	.041	-.133
	40.00	.216	.140	.096	.077	.057	.008	-.149
	45.00	.187	.100	.065	.041	.016	-.054	-.167
	50.00	.130	.056	.028	.006	-.017	-.096	-.174
	55.00	.126	.024	.001	-.025	-.048	-.129	-.179
	60.00	.083	-.022	-.032	-.058	-.078	-.159	-.179
	65.00	.044	-.071	-.083	-.105	-.129	-.157	-.189
	70.00	-.023						-.186
	75.00	-.093	.192	-.111	-.074	-.046	-.100	-.181
	80.00	.080	.057	-.009	-.025	-.051	-.127	-.190
	85.00	.057	.012	-.052	-.049	-.100	-.167	-.190
	90.00	.024	-.063	-.093	-.093	-.135	-.217	-.186
	95.00	.006	-.146	-.107	-.132	-.180	-.220	-.197
	GAP	-.746	-.695	-.393	-.513	-.274		
	M = 0.90 α = 15.8°							
UPPER SURFACE	.00	-.128	-1.094	-1.035	-.851	-.533	-.489	-.535
	1.25	-.503	-1.502	-.986	-.741	-.537	-.489	-.475
	2.50	-.722	-1.473	-.985	-.738	-.532	-.489	-.473
	5.00	-.895	-1.490	-.951	-.730	-.542	-.481	-.475
	7.50	-.931	-1.501	-.950	-.724	-.548	-.492	-.481
	10.00	-.918	-1.487	-.951	-.712	-.550	-.493	-.473
	15.00	-.898	-1.409	-.950	-.695	-.560	-.493	-.467
	20.00	-.829	-1.337	-.937	-.684	-.564	-.493	-.466
	25.00	-.773	-1.269	-.920	-.687	-.566	-.484	-.467
	30.00	-.734	-1.197	-.911	-.670	-.566	-.489	-.466
	35.00	-.697	-1.123	-.899	-.653	-.555	-.486	-.471
	40.00	-.671	-1.006	-.879	-.639	-.549	-.480	-.466
	45.00	-.621	-.850	-.861	-.624	-.543	-.478	-.461
	50.00	-.546	-.689	-.838	-.611	-.537	-.470	-.456
	55.00	-.462	-.544	-.793	-.601	-.529	-.470	-.449
	60.00	-.367	-.528	-.756	-.531	-.517	-.472	-.437
	65.00	-.267	-.659	-.755	-.598	-.509	-.479	-.443
	70.00	-.055	-.467	-.688	-.553	-.494	-.477	-.438
	75.00	-1.160	-.929	-.620	-.566	-.492	-.426	-.417
	80.00	-.821	-.940	-.669	-.573	-.495	-.442	-.408
	85.00	-.691	-.864	-.657	-.569	-.496	-.446	-.390
	90.00	-.699	-.746	-.641	-.559	-.493	-.438	-.373
	95.00	-.559	-.536	-.631	-.550	-.487	-.481	-.351
LOWER SURFACE	1.25	.359	.610	.530	.573	.489	.465	.439
	2.50	.508	.632	.570	.556	.512	.494	.439
	5.00	.666	.605	.541	.535	.479	.446	.392
	7.50	.709	.562	.507	.487	.440	.404	.329
	10.00	.665	.533	.472	.446	.401	.384	.274
	15.00	.618	.464	.418	.379	.349	.306	.166
	20.00	.536	.415	.362	.330	.290	.244	.064
	25.00	.485	.364	.313	.284	.243	.190	.005
	30.00	.430	.323	.273	.244	.197	.138	-.073
	35.00	.376	.283	.234	.199	.154	.063	-.131
	40.00	.333	.244	.194	.159	.113	.034	-.165
	45.00	.300	.200	.158	.115	.066	.022	-.191
	50.00	.238	.156	.119	.074	.027	-.076	-.204
	55.00	.230	.119	.085	.034	-.016	-.130	-.214
	60.00	.181	.070	.046	.010	-.083	-.170	-.231
	65.00	.140	.009	.016	.074	-.119	-.186	-.250
	70.00	.045						-.258
	75.00	-.015	.258	.194	.114	.039	-.111	-.257
	80.00	-.168	.117	.055	.030	-.078	-.145	-.291
	85.00	-.117	.042	-.008	-.078	-.148	-.215	-.282
	90.00	-.065	-.006	-.076	-.144	-.211	-.303	-.280
	95.00	-.036	-.067	-.137	-.213	-.259	-.325	-.269
	GAP		-.793	-.741	-.540	-.602	-.422	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.90   α = 19.8°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.019	-1.189	-.942	-.806	-.647	-.588	-.634
1.25	-.502	-1.111	-.884	-.709	-.640	-.582	-.607
2.50	-.834	-1.106	-.854	-.705	-.640	-.579	-.601
5.00	-1.130	-1.094	-.872	-.698	-.639	-.571	-.601
7.50	-1.126	-1.080	-.861	-.696	-.639	-.579	-.600
10.00	-1.079	-1.066	-.857	-.698	-.636	-.579	-.591
15.00	-1.059	-1.035	-.849	-.681	-.636	-.580	-.586
20.00	-.985	-1.028	-.835	-.673	-.633	-.580	-.584
25.00	-.917	-1.008	-.831	-.678	-.628	-.570	-.583
30.00	-.845	-.993	-.808	-.668	-.627	-.576	-.585
35.00	-.782	-.977	-.790	-.666	-.620	-.569	-.585
40.00	-.752	-.953	-.781	-.663	-.613	-.562	-.584
45.00	-.730	-.927	-.767	-.657	-.606	-.569	-.582
50.00	-.733	-.903	-.751	-.653	-.602	-.559	-.579
55.00	-.663	-.877	-.739	-.648	-.593	-.570	-.573
60.00	-.597	-.877	-.783	-.574	-.592	-.569	-.561
65.00	-.502	-.818	-.788	-.640	-.596	-.613	-.567
70.00	-.317	-.837	-.591	-.618	-.587	-.604	-.560
75.00	-.982	-.784	-.585	-.616	-.563	-.478	-.536
80.00	-.810	-.785	-.692	-.617	-.569	-.486	-.523
85.00	-.656	-.739	-.691	-.618	-.571	-.496	-.513
90.00	-.626	-.696	-.683	-.607	-.567	-.486	-.499
95.00	-.511	-.680	-.674	-.605	-.555	-.469	-.482

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.263	.604	.498	.573	.442	.416	.483
2.50	.479	.682	.596	.585	.521	.502	.477
5.00	.739	.690	.605	.585	.586	.490	.463
7.50	.815	.662	.583	.549	.500	.459	.411
10.00	.770	.633	.560	.516	.467	.446	.363
15.00	.727	.575	.513	.463	.483	.376	.355
20.00	.647	.530	.487	.418	.366	.319	.134
25.00	.601	.478	.411	.366	.388	.248	.061
30.00	.550	.436	.371	.339	.276	.212	.080
35.00	.495	.394	.389	.281	.880	.160	.085
40.00	.450	.354	.289	.237	.190	.106	.131
45.00	.416	.308	.249	.190	.143	.083	.170
50.00	.352	.261	.207	.143	.097	-.007	.194
55.00	.341	.222	.164	.099	.049	.058	.220
60.00	.291	.173	.117	.049	-.004	.118	.248
65.00	.247	.105	.044	-.019	-.067	.139	.287
70.00	.140						.310
75.00	.092	.325	.232	.166	.095	.042	.336
80.00	.246	.184	.085	.018	.032	.124	.359
85.00	.182	.107	.014	.040	.108	.213	.377
90.00	.127	.036	.063	.117	.175	.295	.385
95.00	.086	.060	.134	.190	.242	.338	.401
GAP		.701	.718	.584	.675	.443	

M = 0.90   α = 26.2°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.173	-.805	-.825	-.780	-.743	-.961	-.636
1.25	-.465	-.798	-.808	-.752	-.738	-.601	-.609
2.50	-.641	-.793	-.786	-.758	-.731	-.669	-.603
5.00	-.636	-.799	-.805	-.751	-.733	-.636	-.583
7.50	-.625	-.801	-.796	-.750	-.733	-.643	-.589
10.00	-.615	-.807	-.801	-.743	-.733	-.644	-.594
15.00	-.601	-.801	-.797	-.750	-.738	-.645	-.588
20.00	-.790	-.812	-.796	-.747	-.742	-.636	-.593
25.00	-.790	-.817	-.795	-.753	-.742	-.643	-.591
30.00	-.789	-.817	-.792	-.746	-.744	-.643	-.597
35.00	-.793	-.838	-.786	-.747	-.746	-.643	-.598
40.00	-.791	-.832	-.779	-.746	-.746	-.648	-.603
45.00	-.797	-.833	-.777	-.746	-.746	-.636	-.601
50.00	-.803	-.832	-.772	-.746	-.746	-.672	-.602
55.00	-.799	-.826	-.768	-.747	-.749	-.693	-.590
60.00	-.794	-.823	-.764	-.671	-.736	-.724	-.578
65.00	-.763	-.800	-.741	-.733	-.699	-.730	-.576
70.00	-.672	-.798	-.743	-.736	-.719	-.752	-.571
75.00	-.826	-.775	-.735	-.704	-.657	-.582	-.560
80.00	-.786	-.779	-.743	-.705	-.669	-.593	-.544
85.00	-.772	-.772	-.740	-.705	-.669	-.594	-.533
90.00	-.743	-.769	-.737	-.703	-.664	-.586	-.514
95.00	-.741	-.762	-.739	-.698	-.651	-.574	

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.088	.548	.419	.483	.338	.391	.502
2.50	.370	.705	.604	.578	.502	.483	.488
5.00	.602	.765	.662	.636	.563	.526	.466
7.50	.866	.761	.671	.613	.563	.583	.448
10.00	.846	.751	.656	.608	.550	.588	.416
15.00	.840	.705	.626	.570	.516	.470	.340
20.00	.780	.665	.583	.527	.473	.424	.242
25.00	.737	.620	.543	.486	.431	.371	.177
30.00	.691	.576	.502	.447	.390	.324	.104
35.00	.637	.532	.462	.402	.347	.274	.080
40.00	.594	.495	.419	.358	.305	.221	.009
45.00	.558	.448	.375	.314	.256	.170	.046
50.00	.501	.400	.332	.266	.211	.109	.081
55.00	.480	.359	.290	.219	.161	.054	.118
60.00	.430	.307	.233	.163	.109	.003	.145
65.00	.385	.234	.187	.093	.037	.040	.175
70.00	.267						.214
75.00	.233	.415	.315	.256	.188	.068	.246
80.00	.341	.270	.166	.100	.053	.105	.264
85.00	.275	.176	.094	.044	.087	.143	.309
90.00	.206	.097	.007	.043	.109	.283	.340
95.00	.141	.019	.075	.139	.186	.294	.371
GAP		.608	.662	.571	.682	.450	

TABLE III

WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = -0.3°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.282	.539	.489	.790	.482	.462	.321
1.25	.132	-.012	-.083	.048	.155	.264	.201
2.50	.114	-.010	-.012	.037	.073	.128	.130
5.00	.102	-.021	-.017	.014	.053	.098	.070
7.50	.083	-.042	-.016	.028	.027	.061	.035
10.00	.048	-.054	-.031	.025	.004	.050	-.021
15.00	.014	-.072	-.083	.004	-.009	.022	-.084
20.00	-.018	-.082	-.008	.010	-.009	.030	-.144
25.00	-.045	-.085	-.008	.013	.022	.030	-.093
30.00	-.059	-.072	-.024	.024	.035	.030	-.075
35.00	-.059	-.044	-.045	.042	.057	.039	-.066
40.00	-.074	-.008	-.077	.069	.088	.056	-.058
45.00	-.072	.118	-.180	.114	.131	.088	-.072
50.00	-.050	.205	.190	.181	.193	.143	-.098
55.00	-.036	.315	.272	.269	.274	.209	-.098
60.00	.148	.367	.304	.359	.312	.231	-.080
65.00	.231	.360	.267	.347	.309	.206	-.081
70.00	.358	.296	.286	.368	.324	.203	-.093
75.00	-.409	.761	-.443	-.318	-.276	-.197	-.099
80.00	-.458	.790	-.433	-.318	-.277	-.191	-.111
85.00	-.569	.732	-.426	-.318	-.277	-.184	-.128
90.00	-.431	-.677	-.425	-.318	-.277	-.181	-.130
95.00	-.355	-.601	-.418	-.318	-.277	-.181	-.133

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.217	-.092	-.187	-.221	-.371	-.484	-.633
2.50	.158	-.062	-.095	-.172	-.277	-.383	-.510
5.00	.110	-.043	-.096	-.100	-.250	-.320	-.343
7.50	.059	-.067	-.108	-.134	-.287	-.307	-.370
10.00	.029	-.060	-.120	-.157	-.263	-.265	-.382
15.00	-.005	-.100	-.145	-.210	-.267	-.319	-.405
20.00	-.052	-.120	-.170	-.236	-.289	-.355	-.414
25.00	-.044	-.141	-.192	-.255	-.328	-.377	-.416
30.00	-.098	-.160	-.220	-.263	-.346	-.396	-.400
35.00	-.112	-.183	-.242	-.300	-.372	-.425	-.360
40.00	-.123	-.200	-.269	-.328	-.406	-.440	-.284
45.00	-.143	-.230	-.294	-.371	-.447	-.450	-.216
50.00	-.195	-.257	-.331	-.419	-.478	-.416	-.186
55.00	-.193	-.254	-.367	-.448	-.459	-.387	-.180
60.00	-.211	-.296	-.411	-.448	-.351	-.313	-.163
65.00	-.235	-.365	-.449	-.349	-.306	-.211	-.144
70.00	-.258						-.144
75.00	-.435	-.152	-.198	-.270	-.296	-.160	-.130
80.00	-.234	-.231	-.216	-.270	-.258	-.120	-.117
85.00	-.257	-.238	-.232	-.268	-.247	-.124	-.109
90.00	-.261	-.284	-.356	-.349	-.240	-.137	-.094
95.00	-.261	-.207	-.286	-.231	-.240	-.137	-.105
GAP		.826	.512	.328	.297	.215	

M = 0.94   α = 3.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.282	.243	.130	.397	.084	.019	.117
1.25	-.140	-.798	-.979	-.865	-.872	-.917	-.907
2.50	-.130	-.781	-.881	-.770	-.809	-.849	-.835
5.00	-.133	-.340	-.588	-.545	-.477	-.451	-.482
7.50	-.138	-.380	-.387	-.348	-.352	-.328	-.364
10.00	-.156	-.313	-.394	-.277	-.318	-.308	-.383
15.00	-.174	-.296	-.378	-.248	-.249	-.248	-.293
20.00	-.187	-.292	-.218	-.211	-.217	-.203	-.188
25.00	-.217	-.293	-.098	-.165	-.177	-.161	-.107
30.00	-.283	-.299	-.084	-.117	-.187	-.118	-.089
35.00	-.219	-.302	-.063	-.076	-.078	-.069	-.077
40.00	-.241	-.072	-.028	-.026	-.020	-.082	-.065
45.00	-.256	-.065	-.089	-.034	-.041	-.040	-.068
50.00	-.266	-.176	-.090	-.093	-.096	-.093	-.077
55.00	-.080	-.217	-.140	-.138	-.132	-.126	-.089
60.00	-.056	-.177	-.154	-.190	-.148	-.136	-.085
65.00	-.170	-.045	-.148	-.173	-.143	-.130	-.090
70.00	-.291	-.085	-.168	-.184	-.170	-.120	-.091
75.00	-.451	-.793	-.483	-.335	-.278	-.197	-.091
80.00	-.502	-.803	-.456	-.335	-.278	-.190	-.093
85.00	-.585	-.746	-.451	-.331	-.278	-.187	-.093
90.00	-.500	-.670	-.441	-.330	-.276	-.182	-.096
95.00	-.431	-.585	-.437	-.328	-.272	-.178	-.090

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.358	.335	.341	.338	.315	.325	.266
2.50	.333	.264	.260	.246	.240	.242	.194
5.00	.289	.204	.184	.208	.180	.139	.110
7.50	.243	.156	.135	.149	.096	.086	.032
10.00	.205	.148	.107	.114	.062	.076	-.084
15.00	.169	.077	.052	.028	.020	.008	-.141
20.00	.111	.042	.008	.016	-.035	-.054	-.207
25.00	.102	.007	-.032	-.054	-.072	-.093	-.290
30.00	.055	-.082	-.068	-.074	-.105	-.131	-.304
35.00	.020	-.052	-.096	-.099	-.125	-.178	-.278
40.00	-.000	-.075	-.139	-.138	-.187	-.212	-.265
45.00	-.082	-.110	-.183	-.151	-.200	-.256	-.248
50.00	-.084	-.141	-.281	-.188	-.233	-.297	-.214
55.00	-.077	-.153	-.174	-.228	-.287	-.338	-.188
60.00	-.100	-.228	-.185	-.193	-.251	-.340	-.176
65.00	-.136	-.319	-.239	-.234	-.251	-.301	-.148
70.00	-.164						-.138
75.00	-.353	-.052	-.003	-.113	-.201	-.263	-.109
80.00	-.136	-.038	-.100	-.187	-.212	-.193	-.102
85.00	-.131	-.067	-.148	-.200	-.225	-.168	-.093
90.00	-.208	-.105	-.164	-.221	-.235	-.148	-.071
95.00	-.138	-.144	-.228	-.283	-.261	-.141	-.065
GAP		.815	-.617	.336	.311	.215	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT.						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 5.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.442	.011	-.083	.273	-.361	-.398	-.228
1.25	-.368	.943	-1.187	-1.150	-1.204	-1.063	-.937
2.50	-.313	.961	-1.114	-1.201	-1.209	-1.001	-.854
5.00	-.266	.715	-1.092	-1.126	-1.144	-.893	-.755
7.50	-.267	.567	-1.009	-1.070	-1.071	-.800	-.682
10.00	-.271	.507	-.663	-1.016	-.685	-.669	-.602
15.00	-.275	.419	-.472	-.652	-.415	-.494	-.486
20.00	-.278	.396	-.453	-.244	-.296	-.396	-.372
25.00	-.298	.387	-.411	-.181	-.234	-.308	-.261
30.00	-.301	.385	-.173	-.121	-.188	-.247	-.197
35.00	-.299	.393	-.100	-.085	-.136	-.180	-.153
40.00	-.312	.385	-.047	-.044	-.082	-.120	-.124
45.00	-.330	.053	-.003	-.006	-.026	-.058	-.116
50.00	-.367	.088	-.049	-.066	-.028	-.002	-.113
55.00	-.226	.140	-.085	-.120	-.074	-.042	-.121
60.00	-.011	.108	-.104	-.183	-.112	-.067	-.120
65.00	-.138	.105	-.097	-.167	-.119	-.071	-.128
70.00	-.251	.030	-.180	-.179	-.142	-.075	-.127
75.00	-.491	.779	-.478	-.348	-.261	-.210	-.121
80.00	-.534	.773	-.484	-.346	-.277	-.209	-.117
85.00	-.581	.789	-.460	-.343	-.277	-.207	-.108
90.00	-.515	.670	-.444	-.341	-.277	-.203	-.095
95.00	-.457	.592	-.433	-.330	-.271	-.193	

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.411	.449	.437	.407	.418	.431	.378
2.50	.409	.371	.361	.321	.349	.350	.303
5.00	.377	.303	.278	.285	.259	.247	.217
7.50	.335	.248	.221	.231	.202	.191	.138
10.00	.291	.229	.189	.194	.161	.173	.076
15.00	.255	.158	.135	.108	.107	.092	.032
20.00	.191	.117	.080	.065	.050	.030	-.108
25.00	.177	.079	-.037	.027	.010	-.020	-.227
30.00	.189	.047	-.001	.001	-.025	-.058	-.278
35.00	.087	.012	-.036	-.049	-.062	-.103	-.302
40.00	.063	-.013	-.074	-.065	-.099	-.141	-.288
45.00	.038	-.042	-.094	-.095	-.127	-.189	-.256
50.00	.021	-.087	-.115	-.126	-.147	-.249	-.212
55.00	-.020	-.107	-.187	-.148	-.192	-.274	-.170
60.00	-.049	-.185	-.151	-.147	-.219	-.303	-.160
65.00	-.083	-.269	-.177	-.219	-.195	-.290	-.132
70.00	-.122						-.124
75.00	-.261	.103	-.082	-.044	-.188	-.330	-.102
80.00	-.064	.016	-.081	-.152	-.175	-.221	-.096
85.00	-.057	-.048	-.119	-.164	-.204	-.194	-.093
90.00	-.057	-.093	-.175	-.194	-.216	-.139	-.065
95.00	-.104	-.146	-.211	-.206	-.245	-.139	-.057
GAP		-.785	-.647	-.337	-.321	-.220	

M = 0.94   α = 7.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.288	-.207	-.261	-.148	-.581	-.644	-.415
1.25	-.530	-1.074	-1.373	-1.348	-1.290	-.786	-.573
2.50	-.498	-1.063	-1.215	-1.288	-1.287	-.769	-.559
5.00	-.449	-1.051	-1.205	-1.232	-1.242	-.737	-.550
7.50	-.408	-.903	-1.132	-1.188	-1.196	-.732	-.543
10.00	-.373	-.818	-1.077	-1.126	-1.135	-.719	-.535
15.00	-.374	-.643	-.842	-1.071	-.830	-.702	-.517
20.00	-.363	-.502	-.607	-.829	-.685	-.683	-.499
25.00	-.373	-.438	-.483	-.447	-.553	-.650	-.483
30.00	-.369	-.423	-.345	-.378	-.474	-.630	-.466
35.00	-.368	-.437	-.337	-.302	-.403	-.595	-.448
40.00	-.370	-.453	-.178	-.160	-.328	-.564	-.429
45.00	-.385	-.181	-.138	-.055	-.251	-.532	-.415
50.00	-.425	-.038	-.090	-.009	-.174	-.471	-.396
55.00	-.328	-.093	-.061	-.068	-.108	-.431	-.379
60.00	-.061	-.089	-.053	-.136	-.057	-.376	-.352
65.00	-.113	-.120	-.058	-.138	-.039	-.320	-.316
70.00	-.245	-.059	-.018	-.160	-.007	-.355	-.306
75.00	-.540	-.787	-.531	-.379	-.295	-.302	-.295
80.00	-.571	-.774	-.584	-.375	-.305	-.323	-.271
85.00	-.593	-.736	-.486	-.373	-.302	-.289	-.247
90.00	-.519	-.687	-.477	-.370	-.297	-.249	-.222
95.00	-.503	-.619	-.459	-.361	-.285	-.203	-.199

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.443	.523	.492	.464	.454	.463	.420
2.50	.473	.455	.427	.383	.394	.404	.349
5.00	.451	.384	.345	.340	.310	.308	.267
7.50	.427	.331	.292	.283	.256	.249	.190
10.00	.377	.303	.262	.247	.213	.230	.130
15.00	.340	.229	.198	.170	.155	.152	.019
20.00	.271	.183	.144	.126	.099	.088	-.053
25.00	.249	.143	.099	.081	.054	.035	-.146
30.00	.198	.107	.089	.049	.017	.009	-.198
35.00	.158	.071	.084	.018	-.030	-.053	-.229
40.00	.123	.042	.009	-.036	-.056	-.097	-.243
45.00	.096	.004	-.036	-.063	-.089	-.150	-.258
50.00	.038	-.036	-.066	-.098	-.115	-.189	-.255
55.00	.038	-.061	-.088	-.130	-.164	-.221	-.226
60.00	-.005	-.138	-.112	-.134	-.168	-.264	-.171
65.00	-.032	-.188	-.142	-.206	-.167	-.264	-.135
70.00	-.076						-.119
75.00	-.216	.138	-.050	-.015	-.100	-.246	-.104
80.00	-.013	.012	-.063	-.139	-.149	-.193	-.102
85.00	-.004	-.031	-.109	-.146	-.188	-.160	-.100
90.00	-.017	-.077	-.167	-.177	-.300	-.128	-.086
95.00	-.061	-.146	-.205	-.194	-.230	-.118	-.090
GAP		-.783	-.685	-.361	-.340	-.289	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

M = 0.94   α = 11.4°

PERCENT CHORD	— PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.252	-.589	-.638	-.157	-.832	-.593	-.529
1.25	-.260	-1.224	-1.219	-1.159	-.815	-.539	-.448
2.50	-.416	-1.205	-1.108	-1.147	-.808	-.522	-.446
5.00	-.534	-1.242	-1.050	-1.131	-.803	-.500	-.451
7.50	-.577	-1.210	-.985	-1.133	-.799	-.511	-.455
10.00	-.574	-1.163	-.955	-1.128	-.797	-.505	-.446
15.00	-.571	-1.075	-.904	-1.074	-.803	-.495	-.441
20.00	-.537	-1.024	-.822	-1.030	-.805	-.487	-.435
25.00	-.519	-.945	-.733	-1.002	-.805	-.469	-.436
30.00	-.509	-.813	-.658	-.962	-.804	-.466	-.437
35.00	-.494	-.597	-.585	-.925	-.799	-.460	-.426
40.00	-.493	-.463	-.543	-.893	-.779	-.451	-.414
45.00	-.501	-.456	-.569	-.832	-.762	-.439	-.404
50.00	-.533	-.021	-.593	-.710	-.734	-.428	-.389
55.00	-.436	-.071	-.584	-.554	-.690	-.414	-.388
60.00	-.276	-.075	-.567	-.363	-.638	-.400	-.384
65.00	-.092	-.080	-.541	-.336	-.603	-.393	-.355
70.00	-.190	-.063	-.615	-.305	-.600	-.380	-.353
75.00	-1.083	-.856	-.643	-.476	-.562	-.344	-.348
80.00	-.694	-.849	-.599	-.487	-.615	-.372	-.348
85.00	-.581	-.814	-.548	-.466	-.576	-.381	
90.00	-.573	-.761	-.513	-.435	-.508	-.373	
95.00	-.482	-.689		-.401	-.447	-.362	
LOWER SURFACE							
1.25	-.439	-.603	-.545	-.538	-.500	-.491	-.483
2.50	-.527	-.570	-.515	-.487	-.475	-.468	-.437
5.00	-.636	-.510	-.452	-.444	-.415	-.393	-.359
7.50	-.577	-.457	-.404	-.391	-.364	-.342	-.264
10.00	-.534	-.429	-.367	-.351	-.320	-.321	-.219
15.00	-.486	-.356	-.308	-.276	-.262	-.236	-.098
20.00	-.403	-.305	-.254	-.229	-.202	-.175	-.003
25.00	-.368	-.259	-.204	-.183	-.160	-.122	-.080
30.00	-.319	-.222	-.164	-.146	-.114	-.074	-.150
35.00	-.267	-.182	-.128	-.104	-.075	-.021	-.202
40.00	-.228	-.148	-.091	-.068	-.039	-.023	-.234
45.00	-.200	-.105	-.058	-.024	-.008	-.072	-.256
50.00	-.141	-.063	-.025	-.014	-.041	-.118	-.263
55.00	-.135	-.026	-.002	-.050	-.078	-.164	-.244
60.00	-.093	-.025	-.037	-.081	-.101	-.220	-.270
65.00	-.055	-.071	-.085	-.146	-.140	-.231	-.280
70.00	-.008	-.204	-.115	-.058	-.035	-.131	-.282
75.00	-.128	-.069	-.019	-.089	-.061	-.134	-.303
80.00	-.077	-.005	-.073	-.097	-.127	-.199	-.302
85.00	-.061	-.046	-.141	-.135	-.165	-.263	-.286
90.00	-.032	-.117	-.176	-.173	-.191	-.286	-.288
95.00	-.011					-.325	
GAP		-.776	-.736	-.455	-.616		

M = 0.94   α = 15.7°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.156	-.968	-1.047	-.679	-.576	-.521	-.609
1.25	-.414	-1.390	-1.175	-.670	-.567	-.525	-.559
2.50	-.629	-1.364	-1.188	-.665	-.567	-.520	-.556
5.00	-.799	-1.385	-1.102	-.669	-.567	-.511	-.557
7.50	-.841	-1.394	-1.087	-.673	-.571	-.520	-.561
10.00	-.831	-1.374	-1.062	-.681	-.571	-.521	-.553
15.00	-.818	-1.314	-1.016	-.690	-.570	-.519	-.554
20.00	-.757	-1.313	-1.009	-.688	-.571	-.507	-.552
25.00	-.709	-1.298	-1.005	-.691	-.568	-.515	-.554
30.00	-.671	-1.281	-.972	-.695	-.568	-.511	-.556
35.00	-.643	-1.279	-.935	-.686	-.561	-.503	-.552
40.00	-.634	-1.130	-.915	-.673	-.557	-.497	-.550
45.00	-.633	-.629	-.892	-.655	-.549	-.492	-.547
50.00	-.655	-.117	-.886	-.641	-.539	-.493	-.535
55.00	-.536	-.037	-.831	-.557	-.539	-.500	-.548
60.00	-.420	-.051	-.774	-.633	-.572	-.497	-.528
65.00	-.290	-.270	-.691	-.582	-.513	-.475	-.518
70.00	-.088	-.188	-.772	-.600	-.518	-.482	-.511
75.00	-1.092	-.925	-.792	-.608	-.517	-.485	-.494
80.00	-.747	-.931	-.672	-.599	-.517	-.484	-.474
85.00	-.684	-.885	-.647	-.587	-.510	-.474	
90.00	-.628	-.831		-.589			
95.00	-.526	-.737					
LOWER SURFACE							
1.25	-.365	-.633	-.551	-.584	-.500	-.480	-.463
2.50	-.534	-.651	-.585	-.571	-.522	-.508	-.467
5.00	-.699	-.620	-.552	-.546	-.491	-.462	-.428
7.50	-.729	-.575	-.519	-.497	-.452	-.421	-.359
10.00	-.685	-.547	-.488	-.458	-.411	-.398	-.304
15.00	-.628	-.478	-.430	-.390	-.359	-.324	-.192
20.00	-.540	-.489	-.375	-.344	-.303	-.265	-.075
25.00	-.499	-.380	-.336	-.293	-.286	-.210	-.006
30.00	-.447	-.339	-.330	-.307	-.215	-.164	-.087
35.00	-.391	-.297	-.310	-.170	-.173	-.110	-.151
40.00	-.348	-.262	-.173	-.130	-.189	-.059	-.201
45.00	-.315	-.215	-.133	-.086	-.084	-.009	-.261
50.00	-.252	-.171	-.096	-.044	-.130	-.049	-.266
55.00	-.246	-.134	-.060	-.001	-.033	-.114	-.307
60.00	-.198	-.085	-.096	-.065	-.094	-.201	-.340
65.00	-.156	-.037					-.356
70.00	-.064	-.272	-.202	-.147	-.070	-.107	-.418
75.00	-.018	-.134	-.061	-.006	-.046	-.185	-.433
80.00	-.121	-.066	-.005	-.045	-.131	-.230	-.489
85.00	-.128	-.008	-.069	-.111	-.194	-.308	
90.00	-.076	-.079	-.116	-.182	-.244	-.355	
95.00	-.050					-.463	
GAP		-.739	-.772	-.548	-.624		

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

	PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
		0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE		M = 0.94 α = 20.0°						
	.00	-.046	-1.192	-.977	-.847	-.654	-.632	-.659
	1.25	-.582	-1.288	-.969	-.757	-.654	-.629	-.643
	2.50	-.793	-1.260	-.942	-.752	-.656	-.628	-.642
	5.00	-1.047	-1.261	-.976	-.750	-.656	-.616	-.639
	7.50	-1.070	-1.245	-.968	-.748	-.656	-.626	-.641
	10.00	-1.060	-1.227	-.970	-.764	-.660	-.625	-.633
	15.00	-1.050	-1.180	-.960	-.724	-.667	-.623	-.631
	20.00	-.924	-1.172	-.932	-.705	-.671	-.618	-.631
	25.00	-.807	-1.144	-.911	-.707	-.671	-.605	-.633
	30.00	-.727	-1.125	-.894	-.706	-.675	-.611	-.638
	35.00	-.694	-1.108	-.881	-.706	-.675	-.611	-.641
	40.00	-.707	-1.080	-.858	-.699	-.672	-.607	-.640
	45.00	-.718	-1.041	-.838	-.694	-.666	-.602	-.640
	50.00	-.742	-.979	-.798	-.688	-.661	-.604	-.639
	55.00	-.682	-.944	-.776	-.683	-.653	-.606	-.635
	60.00	-.590	-.975	-.784	-.605	-.643	-.615	-.634
	65.00	-.470	-.859	-.730	-.680	-.634	-.630	-.634
	70.00	-.337	-.797	-.730	-.648	-.671	-.633	-.637
	75.00	-1.045	-.912	-.742	-.671	-.613	-.559	-.605
	80.00	-.877	-.939	-.754	-.677	-.621	-.569	-.589
	85.00	-.695	-.795	-.746	-.673	-.621	-.575	-.579
	90.00	-.700	-.713	-.737	-.668	-.621	-.570	-.565
	95.00	-.610	-.663	-.733	-.668	-.616	-.556	-.548
LOWER SURFACE	1.25	.277	.627	.518	.574	.452	.425	.419
	2.50	.507	.702	.611	.596	.531	.515	.477
	5.00	.776	.706	.617	.602	.535	.504	.470
	7.50	.837	.679	.599	.568	.513	.475	.420
	10.00	.792	.654	.573	.535	.480	.464	.378
	15.00	.743	.594	.529	.483	.437	.397	.273
	20.00	.666	.546	.475	.436	.382	.340	.153
	25.00	.620	.499	.436	.392	.337	.288	.083
	30.00	.570	.457	.390	.352	.293	.239	.001
	35.00	.515	.416	.350	.307	.251	.186	.070
	40.00	.469	.377	.310	.263	.207	.133	.084
	45.00	.437	.331	.272	.221	.161	.079	.167
	50.00	.374	.304	.229	.177	.114	.028	.195
	55.00	.365	.248	.195	.132	.071	.095	.224
	60.00	.315	.196	.147	.068	.022	.116	.272
	65.00	.271	.132	.075	.013	.042		.302
	70.00	.164						
	75.00	.108	.354	.263	.210	.185	.007	.331
	80.00	.269	.214	.152	.051	.003	.096	.348
	85.00	.205	.142	.030	.004	.085	.192	.493
	90.00	.146	.074	.083	.079	.162	.271	.440
	95.00	.107	.013	.087	.156	.219	.333	.468
	GAP		.690	.716	.584	.693	.493	
UPPER SURFACE		M = 0.94 α = 24.2°						
	.00	-.094	-.944	-.942	-.838	-.760	-.691	-.749
	1.25	-.415	-.931	-.896	-.796	-.756	-.755	-.731
	2.50	-.664	-.984	-.867	-.784	-.751	-.688	-.724
	5.00	-.933	-.930	-.866	-.795	-.751	-.690	-.704
	7.50	-.919	-.927	-.881	-.790	-.751	-.691	-.710
	10.00	-.916	-.931	-.884	-.788	-.751	-.692	-.711
	15.00	-.919	-.923	-.888	-.795	-.746	-.692	-.705
	20.00	-.918	-.933	-.887	-.787	-.746	-.695	-.704
	25.00	-.912	-.934	-.869	-.793	-.747	-.686	-.706
	30.00	-.899	-.928	-.860	-.786	-.747	-.692	-.704
	35.00	-.877	-.929	-.846	-.779	-.745	-.691	-.706
	40.00	-.854	-.926	-.837	-.778	-.743	-.695	-.710
	45.00	-.833	-.919	-.837	-.774	-.741	-.700	-.713
	50.00	-.838	-.909	-.831	-.766	-.737	-.719	-.714
	55.00	-.793	-.903	-.815	-.757	-.736	-.739	-.703
	60.00	-.765	-.907	-.796	-.734	-.735	-.744	-.696
	65.00	-.667	-.879	-.789	-.720	-.718	-.771	-.690
	70.00	-.535	-.885	-.786	-.730	-.737	-.638	-.691
	75.00	-.917	-.840	-.795	-.737	-.698	-.645	-.680
	80.00	-.822	-.812	-.795	-.734	-.710	-.648	-.647
	85.00	-.768	-.812	-.787	-.734	-.713	-.635	-.647
	90.00	-.776	-.797	-.787	-.734	-.709	-.635	-.634
	95.00	-.716	-.787	-.781	-.728	-.697	-.634	
LOWER SURFACE	1.25	.170	.596	.465	.508	.389	.348	.353
	2.50	.439	.725	.618	.590	.585	.503	.465
	5.00	.638	.765	.660	.637	.567	.531	.496
	7.50	.887	.752	.657	.608	.559	.520	.466
	10.00	.854	.737	.644	.592	.541	.514	.431
	15.00	.829	.688	.608	.550	.504	.459	.344
	20.00	.761	.645	.561	.506	.458	.410	.238
	25.00	.718	.601	.519	.461	.414	.360	.161
	30.00	.672	.557	.476	.424	.373	.310	.078
	35.00	.618	.515	.437	.381	.330	.260	.016
	40.00	.572	.475	.395	.339	.286	.200	.039
	45.00	.535	.432	.356	.293	.242	.152	.087
	50.00	.475	.384	.312	.248	.196	.098	.118
	55.00	.463	.345	.269	.200	.147	.042	.150
	60.00	.410	.292	.220	.144	.101	.014	.181
	65.00	.370	.224	.145	.077	.029	.053	.221
	70.00	.254						.239
	75.00	.208	.417	.310	.258	.191	.076	.298
	80.00	.338	.275	.165	.096	.058	.101	.318
	85.00	.269	.190	.093	.039	.085	.162	.366
	90.00	.206	.116	.014	.121	.102	.219	.416
	95.00	.148	.009	.087		.172	.293	.469
	GAP		.614	.664	.581	.691	.470	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.98 α = 0.0°							
UPPER SURFACE							
.00	.303	.562	.503	.833	.507	.478	.414
1.25	.073	-.088	-.070	-.019	-.111	-.201	-.122
2.50	.085	-.016	-.039	-.018	-.039	-.049	-.075
5.00	.089	-.017	-.080	-.005	-.030	-.046	-.045
7.50	.081	-.033	-.080	-.024	-.007	-.019	-.030
10.00	.073	-.047	-.031	-.022	-.014	-.010	-.029
15.00	.032	-.065	-.017	-.005	-.006	-.023	-.081
20.00	-.003	-.081	-.085	-.013	-.014	-.010	-.165
25.00	-.033	-.093	-.082	-.013	-.011	-.002	-.164
30.00	-.049	-.077	-.035	-.025	-.006	-.016	-.109
35.00	-.082	-.031	-.059	-.038	-.030	-.029	-.083
40.00	-.068	-.083	-.087	-.062	-.062	-.056	-.082
45.00	-.078	-.148	-.137	-.104	-.105	-.109	-.097
50.00	-.046	-.840	-.203	-.167	-.170	-.109	-.136
55.00	-.054	-.348	-.281	-.249	-.258	-.183	-.192
60.00	-.146	-.376	-.303	-.322	-.311	-.210	-.189
65.00	-.331	-.363	-.270	-.328	-.316	-.198	-.154
70.00	-.373	-.299	-.286	-.342	-.338	-.189	-.158
75.00	-.624	-.819	-.583	-.424	-.351	-.290	-.168
80.00	-.648	-.866	-.534	-.424	-.353	-.265	-.179
85.00	-.581	-.779	-.519	-.423	-.349	-.274	-.187
90.00	-.554	-.705	-.514	-.423	-.344	-.252	-.196
95.00	-.416	-.602	-.507	-.400	-.339	-.310	-.198
LOWER SURFACE							
1.25	.258	-.007	-.054	-.105	-.223	-.284	-.392
2.50	.205	-.006	-.025	-.085	-.160	-.225	-.296
5.00	.157	-.007	-.030	-.038	-.163	-.229	-.335
7.50	.104	-.012	-.053	-.068	-.179	-.219	-.265
10.00	.079	-.023	-.061	-.085	-.192	-.185	-.275
15.00	.046	-.055	-.093	-.154	-.203	-.240	-.257
20.00	-.003	-.072	-.116	-.173	-.225	-.272	-.315
25.00	-.005	-.094	-.147	-.206	-.264	-.312	-.366
30.00	-.040	-.111	-.162	-.205	-.276	-.322	-.344
35.00	-.063	-.134	-.186	-.233	-.293	-.343	-.290
40.00	-.074	-.149	-.211	-.261	-.326	-.371	-.333
45.00	-.097	-.179	-.236	-.300	-.364	-.409	-.377
50.00	-.096	-.208	-.868	-.345	-.394	-.433	-.381
55.00	-.144	-.205	-.297	-.371	-.429	-.476	-.402
60.00	-.164	-.238	-.330	-.391	-.430	-.461	-.212
65.00	-.159	-.867	-.331	-.358	-.314	-.312	-.237
70.00	-.215						-.263
75.00	-.383	-.094	-.189	-.187	-.251	-.291	-.186
80.00	-.185	-.177	-.183	-.224	-.270	-.352	-.174
85.00	-.199	-.179	-.179	-.217	-.292	-.294	-.160
90.00	-.207	-.179	-.201	-.250	-.291	-.219	-.160
95.00	-.214	-.145	-.230	-.282	-.297	-.250	-.128
GAP		-.833	-.597	-.441	-.380	-.294	
M = 0.98 α = 3.9°							
UPPER SURFACE							
.00	.314	-.292	-.176	-.449	-.048	-.057	-.152
1.25	.079	-.707	-.838	-.800	-.736	-.749	-.770
2.50	-.022	-.636	-.763	-.818	-.682	-.746	-.713
5.00	-.046	-.378	-.576	-.729	-.485	-.303	-.586
7.50	-.083	-.363	-.386	-.570	-.344	-.303	-.420
10.00	-.094	-.257	-.341	-.333	-.292	-.263	-.291
15.00	-.123	-.248	-.333	-.150	-.237	-.237	-.258
20.00	-.144	-.247	-.319	-.118	-.202	-.190	-.253
25.00	-.169	-.253	-.888	-.101	-.165	-.147	-.167
30.00	-.179	-.254	-.063	-.081	-.116	-.117	-.116
35.00	-.177	-.269	-.084	-.059	-.069	-.073	-.098
40.00	-.194	-.204	-.017	-.016	-.019	-.030	-.090
45.00	-.216	-.079	-.063	-.044	-.036	-.019	-.104
50.00	-.253	-.200	-.113	-.102	-.094	-.071	-.128
55.00	-.123	-.239	-.150	-.141	-.141	-.107	-.173
60.00	-.119	-.161	-.160	-.188	-.164	-.109	-.163
65.00	-.283	-.103	-.157	-.165	-.172	-.105	-.181
70.00	-.349	-.049	-.180	-.178	-.188	-.091	-.175
75.00	-.571	-.815	-.531	-.436	-.353	-.287	-.172
80.00	-.551	-.840	-.547	-.434	-.353	-.282	-.168
85.00	-.536	-.761	-.540	-.432	-.349	-.274	-.180
90.00	-.626	-.670	-.586	-.431	-.345	-.262	-.189
95.00	-.507	-.567	-.519	-.424	-.340	-.251	-.191
LOWER SURFACE							
1.25	.385	.360	.354	.335	.315	.323	.277
2.50	.364	.294	.276	.250	.242	.246	.199
5.00	.330	.233	.201	.213	.149	.144	.126
7.50	.275	.184	.154	.158	.093	.098	.055
10.00	.237	.168	.126	.124	.058	.088	.006
15.00	.204	.109	.074	.029	.009	.014	-.110
20.00	.144	.075	.088	.013	-.042	-.032	-.183
25.00	.140	.042	-.007	-.050	-.068	-.067	-.258
30.00	.090	-.013	-.043	-.090	-.088	-.110	-.296
35.00	.052	-.017	-.076	-.133	-.117	-.154	-.306
40.00	.036	-.042	-.114	-.166	-.166	-.177	-.315
45.00	-.009	-.073	-.183	-.217	-.186	-.808	-.323
50.00	-.052	-.103	-.204	-.189	-.189	-.272	-.325
55.00	-.043	-.112	-.246	-.161	-.232	-.314	-.336
60.00	-.069	-.166	-.280	-.217	-.288	-.355	-.303
65.00	-.105	-.254	-.266	-.266	-.266	-.356	-.284
70.00	-.119						-.291
75.00	-.332	-.004	-.019	-.041	-.144	-.361	-.300
80.00	-.117	-.073	-.077	-.148	-.200	-.320	-.289
85.00	-.132	-.105	-.109	-.164	-.239	-.320	-.266
90.00	-.185	-.115	-.145	-.204	-.268	-.325	-.210
95.00	-.158	-.117	-.185	-.240	-.296	-.311	-.150
GAP		-.842	-.678	-.414	-.398	-.305	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98   α = 5.9°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.309	-.067	-.030	-.338	-.873	-.333	-.194
1.25	-.258	-.888	-1.032	-.994	-1.009	-1.021	-1.043
2.50	-.230	-.894	-.989	-1.031	-1.014	-1.049	-1.019
5.00	-.217	-.643	-.941	-.971	-.950	-.957	-.889
7.50	-.213	-.499	-.846	-.908	-.891	-.897	-.873
10.00	-.213	-.442	-.799	-.836	-.862	-.860	-.851
15.00	-.235	-.376	-.458	-.783	-.751	-.579	-.450
20.00	-.242	-.362	-.410	-.374	-.380	-.522	-.272
25.00	-.262	-.353	-.416	-.193	-.185	-.260	-.183
30.00	-.265	-.348	-.369	-.141	-.145	-.213	-.152
35.00	-.263	-.358	-.113	-.094	-.101	-.159	-.137
40.00	-.274	-.365	-.054	-.043	-.056	-.103	-.126
45.00	-.294	-.070	-.091	-.021	-.008	-.048	-.129
50.00	-.334	-.100	-.049	-.078	-.047	-.010	-.145
55.00	-.240	-.143	-.086	-.136	-.101	-.059	-.183
60.00	-.004	-.088	-.104	-.181	-.133	-.091	-.194
65.00	-.130	-.018	-.100	-.164	-.147	-.097	-.213
70.00	-.280	-.127	-.127	-.175	-.169	-.097	-.211
75.00	-.537	-.834	-.569	-.477	-.386	-.312	-.213
80.00	-.553	-.841	-.588	-.471	-.386	-.307	-.208
85.00	-.567	-.774	-.567	-.469	-.383	-.298	-.214
90.00	-.608	-.698	-.547	-.471	-.380	-.286	-.211
95.00	-.538	-.604	-.532	-.461	-.375	-.276	-.207

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.430	.468	.445	.414	.417	.429	.395
2.50	.431	.392	.368	.325	.343	.354	.314
5.00	.400	.323	.286	.289	.254	.250	.234
7.50	.360	.271	.234	.240	.199	.195	.156
10.00	.315	.249	.203	.203	.166	.184	.100
15.00	.280	.180	.148	.110	.110	.101	-.020
20.00	.215	.140	.092	.066	.055	.040	-.113
25.00	.201	.103	.051	.027	.013	.000	-.207
30.00	.152	.070	.010	.006	.028	-.036	-.267
35.00	.110	.036	-.026	-.027	-.055	-.063	-.305
40.00	.085	.012	-.070	-.063	-.087	-.128	-.334
45.00	.061	.035	-.115	-.086	-.116	-.180	-.361
50.00	-.004	-.062	-.162	-.111	-.160	-.216	-.353
55.00	-.002	-.078	-.115	-.163	-.173	-.272	-.339
60.00	-.025	-.148	-.135	-.171	-.195	-.311	-.300
65.00	-.066	-.246	-.190	-.184	-.225	-.349	-.282
70.00	-.097						-.280
75.00	-.296	-.101	-.051	-.000	-.097	-.334	-.291
80.00	-.080	-.016	-.062	-.126	-.168	-.330	-.292
85.00	-.086	-.030	-.112	-.145	-.209	-.335	-.270
90.00	-.069	-.068	-.149	-.193	-.248	-.360	-.243
95.00	.097	-.116	-.191	-.230	-.292	-.343	-.178
GAP		-.826	-.702	-.433	-.446	-.336	

M = 0.98   α = 7.9°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.313	-.139	-.184	-.226	-.484	-.561	-.458
1.25	-.419	-1.044	-1.149	-1.121	-1.151	-1.087	-.911
2.50	-.386	-1.029	-1.195	-1.157	-1.157	-1.098	-.905
5.00	-.347	-.960	-1.098	-1.108	-1.110	-1.022	-.862
7.50	-.318	-.762	-1.036	-1.063	-1.071	-.980	-.827
10.00	-.309	-.662	-1.010	-1.016	-1.047	-.889	-.797
15.00	-.327	-.538	-.930	-.988	-.972	-.670	-.691
20.00	-.321	-.473	-.608	-.913	-.701	-.560	-.641
25.00	-.330	-.436	-.493	-.607	-.533	-.504	-.601
30.00	-.331	-.419	-.418	-.408	-.415	-.481	-.558
35.00	-.324	-.419	-.214	-.324	-.352	-.455	-.518
40.00	-.334	-.428	-.119	-.183	-.292	-.435	-.478
45.00	-.348	-.222	-.056	-.037	-.238	-.408	-.438
50.00	-.389	-.015	-.011	-.053	-.179	-.375	-.410
55.00	-.311	-.081	-.022	-.112	-.124	-.355	-.394
60.00	-.031	-.040	-.055	-.189	-.084	-.334	-.374
65.00	-.145	-.162	-.064	-.182	-.065	-.300	-.357
70.00	-.207	-.056	-.095	-.194	-.042	-.259	-.349
75.00	-.676	-.838	-.606	-.507	-.434	-.391	-.334
80.00	-.614	-.834	-.627	-.501	-.446	-.380	-.319
85.00	-.554	-.785	-.598	-.499	-.439	-.359	-.295
90.00	-.526	-.722	-.570	-.502	-.427	-.359	-.283
95.00	-.519	-.637	-.560	-.491	-.412	-.333	-.261

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.462	.540	.511	.477	.466	.467	.432
2.50	.493	.473	.445	.398	.407	.408	.363
5.00	.469	.404	.361	.355	.324	.311	.285
7.50	.446	.350	.310	.299	.269	.257	.207
10.00	.398	.322	.278	.266	.231	.242	.152
15.00	.362	.250	.220	.184	.172	.159	.039
20.00	.292	.204	.165	.140	.115	.099	-.050
25.00	.273	.164	.120	.099	.071	.049	-.142
30.00	.219	.128	.079	.067	.037	.007	-.209
35.00	.171	.091	.044	.031	.002	-.046	-.265
40.00	.144	.064	.005	.000	-.039	-.079	-.296
45.00	.118	.026	-.030	-.038	-.085	-.120	-.332
50.00	.056	-.012	-.047	-.083	-.099	-.179	-.360
55.00	.056	-.038	-.057	-.102	-.119	-.243	-.338
60.00	.026	-.114	-.093	-.124	-.182	-.266	-.296
65.00	.015	-.209	-.136	-.165	-.187	-.331	-.297
70.00	-.048						-.302
75.00	-.231	-.164	-.075	-.034	-.059	-.261	-.301
80.00	-.016	-.036	-.030	-.111	-.140	-.254	-.294
85.00	-.000	-.018	-.079	-.121	-.183	-.304	-.274
90.00	-.003	-.050	-.126	-.171	-.231	-.347	-.215
95.00	.034	-.113	-.170	-.224	-.273	-.361	
GAP		-.785	-.709	-.472	-.489	-.390	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

M = 0.98, α = 11.4°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.395	-.467	-.490	-.013	-.722	-.763	-.717
1.25	-.172	-1.106	-1.092	-1.065	-.826	-.711	-.643
2.50	-.323	-1.087	-1.036	-1.059	-.820	-.686	-.635
5.00	-.441	-1.120	-.984	-1.045	-.818	-.664	-.623
7.50	-.483	-1.080	-.986	-1.030	-.817	-.674	-.624
10.00	-.486	-1.030	-.868	-.999	-.817	-.674	-.613
15.00	-.455	-.944	-.824	-.924	-.817	-.670	-.597
20.00	-.442	-.898	-.757	-.871	-.818	-.661	-.581
25.00	-.432	-.830	-.672	-.834	-.814	-.646	-.567
30.00	-.420	-.723	-.591	-.798	-.805	-.651	-.557
35.00	-.419	-.565	-.513	-.767	-.793	-.643	-.549
40.00	-.427	-.430	-.448	-.736	-.775	-.631	-.541
45.00	-.460	-.419	-.457	-.698	-.760	-.612	-.534
50.00	-.385	-.004	-.518	-.648	-.744	-.592	-.530
55.00	-.235	-.103	-.536	-.576	-.727	-.565	-.522
60.00	-.060	-.103	-.533	-.421	-.699	-.540	-.512
65.00	-.230	-.100	-.513	-.418	-.653	-.510	-.511
70.00	-1.021	-.023	-.468	-.385	-.712	-.488	-.510
75.00	-.669	-.851	-.661	-.600	-.653	-.490	-.504
80.00	-.537	-.853	-.697	-.603	-.701	-.498	-.497
85.00	-.539	-.803	-.665	-.571	-.696	-.500	-.494
90.00	-.456	-.744	-.681	-.543	-.662	-.488	-.486
95.00		-.666	-.589	-.507	-.613	-.474	-.483
LOWER SURFACE							
1.25	.467	.638	.575	.569	.525	.508	.365
2.50	.567	.598	.541	.509	.495	.483	.324
5.00	.708	.540	.477	.468	.431	.408	.259
7.50	.613	.487	.430	.418	.361	.355	.193
10.00	.571	.458	.394	.377	.343	.337	.138
15.00	.520	.384	.339	.307	.284	.255	.032
20.00	.439	.336	.282	.258	.226	.198	-.075
25.00	.403	.291	.237	.211	.180	.143	-.153
30.00	.355	.253	.198	.177	.142	.100	-.221
35.00	.302	.218	.159	.138	.103	.055	-.266
40.00	.265	.182	.123	.097	.065	.007	-.300
45.00	.236	.142	.095	.060	.025	-.050	-.329
50.00	.182	.098	.063	.020	-.010	-.111	-.376
55.00	.173	.060	.037	-.012	-.061	-.151	-.393
60.00	.130	.001	.095	-.034	-.111	-.188	-.350
65.00	.099	.034	.040	-.121	-.101	-.274	-.347
70.00	.028						-.373
75.00	.130	.242	.169	-.135	-.053	-.116	-.392
80.00	.111	.112	.034	-.040	-.060	-.141	-.412
85.00	.093	.049	-.021	-.077	-.116	-.206	-.432
90.00	.057	.004	-.076	-.126	-.172	-.281	-.447
95.00	.042	-.067	-.122	-.176	-.215	-.319	-.468
GAP		-.724	-.724	-.544	-.731	-.472	

M = 0.98, α = 15.8°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.187	-.849	-.921	-.706	-.563	-.630	-.658
1.25	-.319	-1.357	-1.178	-.849	-.552	-.660	-.589
2.50	-.534	-1.334	-1.111	-.842	-.554	-.638	-.588
5.00	-.701	-1.354	-1.143	-.829	-.563	-.611	-.590
7.50	-.742	-1.360	-1.184	-.828	-.580	-.626	-.592
10.00	-.736	-1.343	-1.143	-.841	-.597	-.628	-.590
15.00	-.726	-1.186	-1.146	-.812	-.640	-.631	-.590
20.00	-.670	-1.186	-1.115	-.808	-.679	-.633	-.588
25.00	-.627	-1.175	-1.083	-.836	-.699	-.621	-.585
30.00	-.593	-1.158	-1.047	-.847	-.711	-.626	-.587
35.00	-.564	-1.147	-1.024	-.896	-.711	-.619	-.584
40.00	-.555	-1.063	-1.016	-.867	-.708	-.614	-.580
45.00	-.557	-.695	-1.025	-.819	-.702	-.609	-.575
50.00	-.579	-.866	-1.040	-.799	-.689	-.600	-.571
55.00	-.493	-.094	-1.146	-.780	-.678	-.589	-.566
60.00	-.392	-.093	-1.110	-.670	-.665	-.580	-.563
65.00	-.390	-.358	-.900	-.756	-.648	-.572	-.566
70.00	-.080	-.118	-.855	-.727	-.630	-.563	-.572
75.00	-.992	-.780	-.804	-.643	-.636	-.579	-.569
80.00	-.709	-.771	-.939	-.729	-.648	-.581	-.568
85.00	-.608	-.748	-.744	-.730	-.644	-.570	-.564
90.00	-.619	-.705	-.657	-.700	-.626	-.565	-.559
95.00	-.584	-.640	-.578	-.690	-.613	-.561	-.550
LOWER SURFACE							
1.25	.398	.669	.581	.593	.524	.494	.479
2.50	.575	.683	.609	.586	.542	.526	.489
5.00	.748	.652	.578	.565	.509	.483	.448
7.50	.746	.608	.541	.520	.471	.440	.385
10.00	.721	.577	.510	.480	.434	.421	.339
15.00	.663	.511	.457	.418	.381	.349	.238
20.00	.590	.463	.404	.378	.328	.294	.125
25.00	.536	.416	.367	.320	.282	.239	.051
30.00	.495	.375	.315	.284	.239	.194	-.038
35.00	.459	.333	.278	.240	.200	.144	-.097
40.00	.385	.297	.239	.198	.161	.098	-.128
45.00	.353	.264	.206	.157	.120	.048	-.184
50.00	.296	.208	.167	.115	.081	-.007	-.210
55.00	.266	.172	.131	.074	.043	-.069	-.240
60.00	.240	.135	.094	.031	.011	-.121	-.202
65.00	.203	.070	.033	.034	.047	-.176	-.246
70.00	.105						-.283
75.00	.003	.308	.229	.210	.136	-.053	-.311
80.00	.216	.173	.090	.040	.022	-.116	-.335
85.00	.159	.104	.089	.009	-.063	-.187	-.364
90.00	.103	.043	-.036	-.046	-.129	-.262	-.394
95.00	.070	-.036	-.088	-.106	-.189	-.312	-.443
GAP		-.654	-.727	-.638	-.662	-.516	

TABLE III WING WITH UPPER SURFACE SPOILER (WITH GAP)

M = 0.98   α = 20.2°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.053	-1.079	-1.144	-.736	-.717	-.682	-.698
1.25	-.409	-1.307	-1.171	-.673	-.717	-.703	-.688
2.50	-.698	-1.283	-1.111	-.673	-.720	-.689	-.688
5.00	-.941	-1.301	-1.146	-.688	-.720	-.673	-.676
7.50	-.968	-1.306	-1.117	-.690	-.725	-.685	-.685
10.00	-.951	-1.309	-1.110	-.699	-.727	-.686	-.686
15.00	-.931	-1.264	-1.074	-.723	-.732	-.687	-.686
20.00	-.853	-1.275	-1.053	-.762	-.736	-.685	-.685
25.00	-.773	-1.279	-1.053	-.796	-.737	-.672	-.684
30.00	-.716	-1.236	-1.066	-.807	-.736	-.683	-.683
35.00	-.683	-1.262	-1.044	-.807	-.732	-.683	-.683
40.00	-.669	-1.292	-1.010	-.804	-.730	-.683	-.681
45.00	-.667	-1.215	-.984	-.795	-.726	-.678	-.679
50.00	-.680	-.906	-.961	-.784	-.721	-.672	-.680
55.00	-.603	-.530	-.924	-.772	-.714	-.669	-.680
60.00	-.514	-.369	-.888	-.677	-.707	-.666	-.675
65.00	-.474	-.396	-.874	-.759	-.697	-.669	-.673
70.00	-.379	-.269	-.849	-.728	-.723	-.646	-.682
75.00	-.945	-1.015	-.741	-.751	-.679	-.649	-.672
80.00	-.786	-1.082	-.831	-.771	-.686	-.649	-.670
85.00	-.651	-1.019	-.825	-.757	-.688	-.651	-.661
90.00	-.633	-.872	-.818	-.745	-.682	-.648	-.650
95.00	-.580	-.656	-.814	-.723	-.673	-.641	-.635

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.300	.660	.549	.564	.478	.447	.432
2.50	.545	.732	.645	.607	.556	.536	.494
5.00	.819	.732	.644	.622	.560	.530	.490
7.50	.870	.705	.628	.590	.539	.503	.445
10.00	.823	.679	.603	.564	.508	.492	.402
15.00	.777	.622	.559	.510	.468	.427	.312
20.00	.696	.575	.505	.467	.417	.375	.203
25.00	.652	.527	.465	.420	.373	.324	.139
30.00	.603	.486	.425	.381	.332	.276	.048
35.00	.549	.443	.386	.336	.288	.224	-.018
40.00	.504	.408	.347	.295	.248	.179	-.079
45.00	.471	.363	.306	.253	.206	.124	-.110
50.00	.411	.318	.266	.212	.162	.066	-.161
55.00	.400	.282	.229	.170	.118	.007	-.139
60.00	.351	.231	.182	.122	.080	-.048	-.165
65.00	.311	.171	.118	.057	.009	-.087	-.213
70.00	.202						-.271
75.00	.128	.384	.300	.256	.182	-.034	-.283
80.00	.300	.247	.164	.096	.059	-.098	-.307
85.00	.233	.180	-.105	-.042	-.025	-.158	-.347
90.00	.171	.107	-.034	-.021	-.096	-.215	-.389
95.00	.122	-.015	-.023	-.099	-.157	-.280	-.434
GAP		-.619	-.687	-.572	-.680	-.500	

M = 1.00   α = -0.1°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.311	.573	.509	.830	.510	.463	.401
1.25	.135	.001	-.045	.051	.136	.225	.147
2.50	.188	-.011	-.024	.049	.063	.083	.098
5.00	.118	-.005	-.019	.040	.056	.067	.073
7.50	.109	-.013	-.014	.054	.029	.036	.054
10.00	.091	-.088	-.015	.049	.008	.028	-.010
15.00	.055	-.047	-.004	.030	.012	.005	-.074
20.00	.020	-.066	-.026	.034	.005	.004	-.150
25.00	-.010	-.082	-.048	.036	.014	.011	-.169
30.00	-.029	-.075	-.061	.047	.031	.014	-.131
35.00	-.033	-.027	-.080	.061	.046	.029	-.078
40.00	-.054	-.090	-.109	.084	.079	.037	-.073
45.00	-.070	-.167	-.158	.124	.117	.060	-.091
50.00	-.039	-.257	-.224	.185	.178	.105	-.139
55.00	.073	-.362	-.304	.269	.265	.179	-.225
60.00	.432	-.404	-.324	.365	.321	.224	-.259
65.00	.328	-.391	-.288	.350	.329	.228	-.256
70.00	.425	-.326	-.306	.368	.132	.216	-.264
75.00	-.549	-.830	-.585	-.455	-.432	-.346	-.259
80.00	-.568	-.867	-.531	-.462	-.430	-.342	-.265
85.00	-.602	-.798	-.528	-.458	-.429	-.334	-.272
90.00	-.473	-.720	-.527	-.460	-.427	-.317	-.265
95.00	-.393	-.601	-.520	-.466	-.428	-.311	-.265

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.269	-.008	-.035	-.107	-.230	-.299	-.402
2.50	.217	-.010	-.018	-.083	-.163	-.233	-.309
5.00	.172	.022	-.037	-.030	-.158	-.223	-.241
7.50	.128	-.002	-.048	-.068	-.172	-.218	-.264
10.00	.095	-.003	-.062	-.085	-.187	-.182	-.272
15.00	.059	-.042	-.087	-.143	-.218	-.236	-.259
20.00	-.010	-.060	-.113	-.161	-.218	-.268	-.309
25.00	-.015	-.083	-.141	-.196	-.256	-.311	-.364
30.00	-.032	-.102	-.155	-.195	-.262	-.336	-.345
35.00	-.054	-.124	-.181	-.225	-.281	-.362	-.306
40.00	-.063	-.143	-.204	-.250	-.312	-.382	-.332
45.00	-.085	-.170	-.231	-.289	-.349	-.397	-.388
50.00	-.105	-.199	-.257	-.325	-.379	-.427	-.403
55.00	-.134	-.193	-.281	-.354	-.414	-.475	-.432
60.00	-.153	-.225	-.319	-.376	-.424	-.493	-.438
65.00	-.153	-.256	-.329	-.355	-.368	-.400	-.359
70.00	-.198						-.520
75.00	-.368	-.101	-.141	-.200	-.226	-.286	-.275
80.00	-.177	-.182	-.191	-.221	-.260	-.331	-.220
85.00	-.195	-.182	-.181	-.218	-.287	-.283	-.230
90.00	-.207	-.187	-.196	-.244	-.290	-.243	-.243
95.00	-.211	-.148	-.225	-.269	-.297	-.273	-.234
GAP		-.037	-.597	-.474	-.450	-.367	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00   α = 3.8°

UPPER SURFACE

%	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.325	.320	.283	.487	.083	.018	.206
1.25	-.148	-.657	-.786	-.755	-.677	-.711	-.719
2.50	-.095	-.585	-.720	-.777	-.627	-.698	-.666
5.00	-.074	-.347	-.507	-.686	-.446	-.547	-.481
7.50	-.071	-.337	-.302	-.524	-.327	-.361	-.371
10.00	-.074	-.330	-.306	-.321	-.265	-.250	-.255
15.00	-.099	-.322	-.302	-.145	-.207	-.323	-.220
20.00	-.119	-.223	-.296	-.108	-.183	-.175	-.232
25.00	-.146	-.228	-.233	-.086	-.150	-.133	-.156
30.00	-.156	-.233	-.044	-.056	-.108	-.102	-.104
35.00	-.154	-.249	-.005	-.031	-.060	-.061	-.084
40.00	-.172	-.205	-.033	-.009	-.009	-.018	-.076
45.00	-.194	-.090	-.081	-.065	-.050	-.028	-.092
50.00	-.132	-.211	-.134	-.120	-.110	-.083	-.130
55.00	-.107	-.238	-.174	-.163	-.157	-.120	-.188
60.00	-.108	-.174	-.183	-.209	-.181	-.128	-.230
65.00	-.268	-.099	-.183	-.186	-.189	-.121	-.253
70.00	-.355	-.070	-.204	-.199	-.203	-.108	-.244
75.00	-.517	-.802	-.537	-.471	-.414	-.335	-.235
80.00	-.554	-.849	-.555	-.471	-.418	-.330	-.222
85.00	-.628	-.763	-.550	-.471	-.418	-.330	-.229
90.00	-.566	-.676	-.540	-.471	-.418	-.323	-.231
95.00	-.481	-.566	-.529	-.474	-.417	-.311	-.232

LOWER SURFACE

%	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.392	.363	.356	.328	.318	.301	.266
2.50	.373	.299	.284	.249	.246	.209	.189
5.00	.355	.240	.210	.211	.156	.129	.124
7.50	.285	.193	.163	.151	.100	.081	.055
10.00	.246	.177	.133	.116	.061	.078	.012
15.00	.213	.119	.088	.039	.020	.011	.098
20.00	.155	.082	.041	-.001	-.040	-.044	-.153
25.00	.148	.051	-.005	-.040	-.086	-.084	-.245
30.00	.100	.021	-.027	-.075	-.118	-.121	-.291
35.00	.043	.008	-.055	-.119	-.136	-.160	-.302
40.00	.044	-.030	-.094	-.156	-.150	-.175	-.309
45.00	.020	-.065	-.131	-.201	-.179	-.223	-.317
50.00	-.044	-.096	-.180	-.241	-.214	-.252	-.331
55.00	-.034	-.097	-.220	-.209	-.215	-.316	-.331
60.00	-.057	-.150	-.263	-.216	-.240	-.345	-.323
65.00	-.096	-.236	-.281	-.248	-.262	-.379	-.280
70.00	-.104						-.279
75.00	-.314	-.000	-.012	-.030	-.105	-.309	-.278
80.00	-.108	-.075	-.072	-.137	-.170	-.280	-.289
85.00	-.123	-.100	-.107	-.148	-.207	-.296	-.290
90.00	-.130	-.129	-.138	-.188	-.240	-.317	-.293
95.00	-.157	-.124	-.178	-.227	-.274	-.326	-.272
GAP		.826	.679	.443	.474	.348	

M = 1.00   α = 5.8°

UPPER SURFACE

%	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.327	.127	.035	.378	-.179	-.245	-.115
1.25	-.401	-.819	-.966	-.934	-.940	-.966	-.974
2.50	-.279	-.822	-.925	-.974	-.943	-.976	-.955
5.00	-.286	-.579	-.874	-.917	-.885	-.669	-.825
7.50	-.301	-.449	-.789	-.850	-.836	-.835	-.812
10.00	-.180	-.395	-.737	-.786	-.805	-.803	-.796
15.00	-.194	-.333	-.397	-.738	-.707	-.570	-.436
20.00	-.300	-.318	-.362	-.354	-.334	-.246	-.252
25.00	-.221	-.313	-.372	-.167	-.153	-.190	-.159
30.00	-.237	-.310	-.236	-.118	-.117	-.168	-.133
35.00	-.236	-.381	-.076	-.070	-.078	-.128	-.102
40.00	-.239	-.328	-.019	-.019	-.031	-.076	-.113
45.00	-.259	-.047	-.034	-.039	-.003	-.022	-.143
50.00	-.298	-.130	-.080	-.095	-.066	-.036	-.200
55.00	-.207	-.176	-.113	-.145	-.117	-.085	-.235
60.00	-.006	-.189	-.139	-.203	-.153	-.113	-.268
65.00	-.140	-.134	-.138	-.181	-.161	-.101	-.258
70.00	-.247	-.016	-.156	-.193	-.181	-.117	-.257
75.00	-.500	-.818	-.558	-.493	-.433	-.347	-.249
80.00	-.508	-.838	-.581	-.493	-.441	-.345	-.255
85.00	-.599	-.755	-.560	-.560	-.441	-.341	-.254
90.00	-.573	-.677	-.540	-.494	-.440	-.339	-.248
95.00	-.537	-.582	-.589	-.494	-.435	-.316	

LOWER SURFACE

%	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.439	.474	.459	.413	.392	.424	.391
2.50	.442	.401	.381	.320	.302	.350	.311
5.00	.416	.338	.299	.267	.248	.250	.233
7.50	.370	.282	.282	.238	.194	.195	.162
10.00	.327	.259	.216	.199	.155	.179	.109
15.00	.293	.192	.164	.111	.113	.072	.004
20.00	.230	.153	.113	.066	.060	.089	.097
25.00	.217	.115	.069	.028	.000	-.003	-.186
30.00	.164	.083	.033	-.017	-.028	-.038	-.254
35.00	.124	.050	-.080	-.055	-.057	-.074	-.300
40.00	.099	-.086	-.041	-.058	-.089	-.098	-.381
45.00	.076	-.011	-.089	-.078	-.109	-.157	-.335
50.00	-.011	-.043	-.143	-.092	-.121	-.217	-.333
55.00	-.021	-.084	-.163	-.139	-.164	-.243	-.331
60.00	-.009	-.130	-.164	-.169	-.193	-.193	-.263
65.00	-.044	-.215	-.176	-.180	-.235		
70.00	-.063					-.270	-.277
75.00	-.277	-.068	-.090	-.007	-.059	-.281	-.287
80.00	-.069	-.008	-.038	-.113	-.141	-.304	-.295
85.00	-.083	-.049	-.077	-.186	-.218	-.338	-.304
90.00	-.080	-.075	-.114	-.167	-.282	-.339	-.283
95.00	-.118	-.093	-.161	-.206	-.261		
GAP		.819	.674	.441	.500	.361	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00 α = 7.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.331	-.069	-.126	-.469	-.404	-.483	-.383
1.25	-.500	-.991	-1.071	-1.046	-1.064	-1.069	-.984
2.50	-.416	-.965	-1.030	-1.079	-1.072	-1.073	-.978
5.00	-.344	-.890	-1.016	-1.033	-1.029	-.994	-.895
7.50	-.299	-.687	-.956	-.988	-.990	-.965	-.860
10.00	-.278	-.557	-.929	-.931	-.976	-.895	-.821
15.00	-.286	-.446	-.826	-.915	-.903	-.649	-.646
20.00	-.282	-.410	-.564	-.823	-.652	-.490	-.547
25.00	-.294	-.391	-.450	-.564	-.476	-.427	-.505
30.00	-.292	-.378	-.399	-.362	-.358	-.406	-.462
35.00	-.287	-.382	-.188	-.285	-.296	-.383	-.434
40.00	-.298	-.393	-.088	-.146	-.249	-.370	-.408
45.00	-.314	-.184	-.026	-.005	-.194	-.348	-.391
50.00	-.354	-.042	-.087	.075	-.142	-.318	-.377
55.00	-.279	-.106	-.067	.134	-.094	-.302	-.378
60.00	-.109	-.064	-.097	.211	-.053	-.293	-.372
65.00	-.057	-.141	-.107	.196	-.033	-.252	-.366
70.00	-.169	-.032	-.132	.213	-.033	-.230	-.363
75.00	-.623	-.829	-.591	-.515	-.449	-.433	-.366
80.00	-.627	-.839	-.617	-.516	-.464	-.435	-.349
85.00	-.567	-.767	-.581	-.514	-.461	-.427	-.332
90.00	-.503	-.698	-.558	-.514	-.452	-.405	-.323
95.00	-.517	-.608	-.546	-.510	-.436	-.388	-.309

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.473	.546	.517	.480	.471	.469	.435
2.50	.506	.478	.450	.391	.390	.387	.367
5.00	.482	.410	.364	.350	.324	.312	.286
7.50	.456	.355	.315	.299	.271	.255	.218
10.00	.408	.329	.282	.258	.228	.237	.162
15.00	.370	.259	.224	.183	.176	.161	.053
20.00	.302	.212	.171	.139	.122	.103	.006
25.00	.283	.176	.127	.101	.061	.059	-.138
30.00	.228	.137	.082	.069	.040	.019	-.206
35.00	.184	.106	.048	.033	.010	-.029	-.260
40.00	.157	.075	.003	.004	-.025	-.075	-.295
45.00	.130	.038	-.034	-.023	-.068	-.122	-.324
50.00	.065	.003	-.043	-.070	-.112	-.157	-.338
55.00	.071	-.018	-.050	-.109	-.115	-.220	-.353
60.00	.039	-.093	-.080	-.119	-.149	-.259	-.354
65.00	.001	-.194	-.127	-.143	-.186	-.317	-.286
70.00	-.029						-.291
75.00	-.239	.181	.099	.054	.032	-.230	-.299
80.00	.025	.056	-.019	-.094	-.121	-.231	-.303
85.00	-.009	-.015	-.063	-.105	-.166	-.277	-.314
90.00	-.005	-.033	-.104	-.152	-.212	-.338	-.319
95.00	-.010	-.091	-.147	-.199	-.246	-.354	-.306
GAP		.778	.690	.468	.508	.423	

M = 1.00 α = 11.4°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.302	-.441	-.459	-.008	-.693	-.750	-.608
1.25	-.153	-1.080	-1.057	-1.004	-.787	-.699	-.546
2.50	-.302	-1.063	-1.018	-.992	-.781	-.676	-.538
5.00	-.418	-1.094	-.977	-.978	-.779	-.655	-.525
7.50	-.463	-1.049	-.896	-.967	-.778	-.666	-.523
10.00	-.464	-1.000	-.848	-.945	-.778	-.666	-.510
15.00	-.468	-.915	-.803	-.899	-.781	-.663	-.497
20.00	-.438	-.867	-.739	-.842	-.784	-.656	-.482
25.00	-.426	-.802	-.663	-.813	-.780	-.643	-.468
30.00	-.417	-.699	-.584	-.781	-.772	-.648	-.457
35.00	-.404	-.551	-.509	-.750	-.762	-.640	-.448
40.00	-.402	-.417	-.455	-.728	-.749	-.631	-.443
45.00	-.411	-.406	-.464	-.689	-.736	-.615	-.436
50.00	-.440	-.002	-.520	-.647	-.732	-.596	-.430
55.00	-.372	-.113	-.529	-.596	-.706	-.575	-.424
60.00	-.223	-.108	-.520	-.459	-.684	-.550	-.414
65.00	-.054	-.110	-.493	-.460	-.638	-.535	-.414
70.00	-.253	-.018	-.456	-.429	-.715	-.503	-.415
75.00	-.989	-.830	-.644	-.612	-.646	-.504	-.406
80.00	-.641	-.831	-.670	-.618	-.689	-.512	-.403
85.00	-.513	-.783	-.643	-.586	-.694	-.515	-.398
90.00	-.527	-.722	-.601	-.555	-.663	-.506	-.393
95.00	-.444	-.645	-.576	-.521	-.630	-.492	-.389

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.472	.647	.588	.579	.531	.517	.481
2.50	.577	.606	.554	.521	.500	.493	.442
5.00	.692	.546	.489	.481	.438	.417	.374
7.50	.620	.494	.445	.428	.388	.367	.309
10.00	.578	.466	.406	.388	.348	.348	.255
15.00	.528	.395	.349	.315	.291	.267	.151
20.00	.446	.344	.293	.270	.235	.210	.048
25.00	.412	.301	.248	.221	.188	.158	-.034
30.00	.368	.262	.209	.185	.149	.116	-.102
35.00	.310	.225	.175	.146	.110	.071	-.153
40.00	.271	.190	.138	.109	.074	.024	-.188
45.00	.243	.151	.107	.069	.036	-.032	-.214
50.00	.190	.108	.072	.038	-.006	-.097	-.259
55.00	.161	.070	.048	.002	-.049	-.135	-.285
60.00	.138	.006	.019	-.016	-.107	-.169	-.247
65.00	.108	-.024	-.023	-.105	-.099	-.256	-.235
70.00	.034						-.258
75.00	-.153	.253	.182	.152	.071	.101	-.281
80.00	.125	.183	.047	.018	.049	.140	-.302
85.00	.094	.072	.095	.064	.103	.206	-.321
90.00	.050	.017	.057	.110	.157	.268	-.342
95.00	.033	.058	.105	.164	.202	.305	-.365
GAP		.706	.704	.544	.726	.481	

WING WITH UPPER SURFACE SPOILER (WITH GAP)

TABLE III

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00   α = 15.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.207	.786	.865	.653	1.149	.712	.627
1.25	.270	1.163	1.104	.829	.552	.719	.575
2.50	.482	1.146	1.042	.821	.548	.684	.576
5.00	.646	1.159	1.066	.814	.546	.649	.555
7.50	.690	1.164	1.053	.811	.548	.648	.567
10.00	.684	1.156	1.067	.812	.553	.640	.576
15.00	.676	1.105	1.064	.837	.582	.627	.575
20.00	.623	1.107	1.049	.871	.623	.631	.573
25.00	.579	1.083	1.083	.937	.667	.627	.574
30.00	.547	1.096	.987	.959	.690	.631	.567
35.00	.542	1.078	.965	.931	.695	.633	.564
40.00	.511	1.070	.953	.881	.697	.636	.559
45.00	.514	.998	.961	.877	.695	.631	.552
50.00	.536	.665	.974	.850	.693	.612	.547
55.00	.456	.222	1.045	.822	.678	.593	.541
60.00	.362	.057	1.059	.691	.648	.580	.533
65.00	.243	.069	.886	.739	.773	.558	.520
70.00	.031	.328	.900	.725	.597	.556	.528
75.00	.959	.084	.834	.773	.630	.556	.530
80.00	.684	.788	.947	.841	.644	.564	.528
85.00	.562	.783	.768	.877	.636	.564	.524
90.00	.600	.755	.664	.842	.624	.556	.525
95.00	.511	.710	.616	.771		.547	.520

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.418	.692	.598	.594	.538	.509	.476
2.50	.599	.703	.624	.596	.558	.539	.482
5.00	.777	.671	.587	.576	.527	.499	.444
7.50	.762	.627	.553	.530	.487	.456	.390
10.00	.736	.596	.520	.494	.451	.441	.343
15.00	.682	.531	.468	.428	.399	.367	.246
20.00	.600	.484	.414	.381	.344	.309	.148
25.00	.554	.437	.371	.332	.297	.260	.065
30.00	.504	.395	.330	.299	.213	.212	.009
35.00	.448	.353	.293	.253	.175	.166	.062
40.00	.405	.319	.257	.173	.136	.118	.120
45.00	.376	.275	.221	.129	.096	.072	.154
50.00	.319	.229	.182	.092	.053	.022	.187
55.00	.308	.193	.146	.047	.022	.039	.211
60.00	.263	.147	.113	.012	.015	.113	.171
65.00	.227	.095	.051		.149	.145	.203
70.00	.127		.248	.230	.040	.014	.253
75.00	.017	.330	.106	.055	.045	.125	.269
80.00	.235	.198	.050	.009	.100	.169	.271
85.00	.176	.131	.013	.045	.153	.208	.300
90.00	.118	.071	.067	.104		.271	.338
95.00	.079	.009				.483	.377
GAP		.622	.709	.663	.628		

M = 1.03   α = 0.3°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.252	.573	.507	.846	.544	.525	.449
1.25	.074	.001	.051	.054	.180	.304	.189
2.50	.078	.009	.030	.059	.113	.130	.142
5.00	.074	.003	.034	.054	.101	.116	.110
7.50	.070	.013	.044	.079	.075	.084	.023
10.00	.068	.028	.067	.074	.056	.078	.022
15.00	.042	.043	.080	.068	.057	.042	.015
20.00	.012	.062	.043	.076	.051	.053	.098
25.00	.020	.080	.095	.078	.056	.059	.113
30.00	.031	.093	.114	.098	.073	.063	.081
35.00	.033	.096	.145	.105	.087	.079	.028
40.00	.055	.049	.194	.124	.122	.087	.039
45.00	.083	.838	.259	.166	.163	.111	.086
50.00	.102	.897	.339	.223	.220	.158	.174
55.00	.015	.394	.362	.301	.306	.235	.213
60.00	.202	.430	.326	.378	.361	.280	.213
65.00	.342	.418	.346	.371	.372	.272	.212
70.00	.472	.350	.484	.386	.394	.262	.218
75.00	.507	.771	.473	.408	.374	.301	.212
80.00	.513	.825	.467	.413	.380	.297	.220
85.00	.485	.735	.464	.413	.380	.290	.232
90.00	.421	.656		.421	.381	.275	.226
95.00	.324	.540		.426		.268	

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.226	.012	.036	.067	.193	.257	.358
2.50	.166	.005	.018	.051	.131	.185	.260
5.00	.139	.019	.032	.000	.114	.174	.194
7.50	.091	.005	.044	.037	.129	.166	.214
10.00	.070	.005	.057	.053	.141	.130	.220
15.00	.044	.036	.084	.114	.152	.185	.210
20.00	.001	.054	.108	.131	.172	.214	.248
25.00	.006	.075	.130	.163	.207	.238	.302
30.00	.025	.090	.145	.163	.218	.252	.288
35.00	.053	.112	.162	.191	.231	.276	.254
40.00	.058	.131	.185	.215	.256	.298	.284
45.00	.073	.161	.208	.245	.291	.333	.333
50.00	.092	.184	.235	.278	.317	.361	.349
55.00	.125	.209	.245	.300	.352	.409	.379
60.00	.144	.883	.273	.318	.365	.437	.389
65.00	.144		.281	.302	.317	.363	.334
70.00	.184	.090	.131	.174	.200	.253	.266
75.00	.360	.159	.168	.163	.212	.291	.176
80.00	.167	.154	.148	.198	.232	.243	.185
85.00	.178	.146	.159	.216	.232	.238	.195
90.00	.190	.106	.178	.243	.243	.226	.189
95.00	.186				.398	.323	
GAP		.780	.537	.425			

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.03   α = 3.8°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.259	-.357	-.254	-.529	-.110	-.150	-.239
1.25	-.114	-.637	-.788	-.727	-.685	-.656	-.673
2.50	-.088	-.579	-.677	-.754	-.681	-.644	-.626
5.00	-.085	-.239	-.551	-.663	-.609	-.469	-.472
7.50	-.088	-.230	-.282	-.559	-.516	-.268	-.342
10.00	-.096	-.219	-.287	-.348	-.304	-.222	-.218
15.00	-.112	-.214	-.289	-.278	-.082	-.191	-.178
20.00	-.121	-.214	-.284	-.097	-.082	-.144	-.181
25.00	-.145	-.219	-.284	-.067	-.073	-.101	-.103
30.00	-.152	-.232	-.057	-.032	-.046	-.067	-.056
35.00	-.151	-.236	-.016	-.003	-.011	-.022	-.040
40.00	-.166	-.244	-.055	-.049	-.039	-.019	-.030
45.00	-.168	-.091	-.097	-.108	-.090	-.066	-.044
50.00	-.221	-.219	-.141	-.160	-.152	-.117	-.082
55.00	-.160	-.236	-.171	-.196	-.193	-.161	-.146
60.00	-.072	-.144	-.189	-.240	-.219	-.174	-.191
65.00	-.217	-.108	-.186	-.240	-.227	-.165	-.221
70.00	-.337	-.099	-.217	-.232	-.241	-.157	-.217
75.00	-.522	-.737	-.485	-.425	-.381	-.299	-.213
80.00	-.532	-.759	-.501	-.435	-.404	-.295	-.197
85.00	-.521	-.683	-.497	-.424	-.390	-.294	-.195
90.00	-.501	-.606	-.482	-.431	-.392	-.288	-.201
95.00	-.448	-.510	-.469	-.433	-.393	-.281	-.199

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.329	-.353	-.357	-.341	-.348	-.353	-.308
2.50	-.333	-.290	-.289	-.260	-.277	-.278	-.234
5.00	-.304	-.235	-.215	-.225	-.191	-.178	-.169
7.50	-.266	-.189	-.171	-.172	-.136	-.126	-.103
10.00	-.227	-.177	-.144	-.135	-.099	-.112	-.062
15.00	-.201	-.118	-.097	-.065	-.061	-.055	-.046
20.00	-.149	-.086	-.053	-.029	-.008	-.005	-.057
25.00	-.146	-.056	-.022	-.007	-.039	-.026	-.192
30.00	-.101	-.027	-.012	-.039	-.073	-.063	-.242
35.00	-.063	-.000	-.036	-.078	-.107	-.091	-.263
40.00	-.047	-.019	-.066	-.116	-.131	-.122	-.269
45.00	-.027	-.049	-.094	-.159	-.130	-.173	-.269
50.00	-.033	-.079	-.139	-.197	-.155	-.200	-.287
55.00	-.023	-.077	-.177	-.213	-.162	-.259	-.286
60.00	-.045	-.122	-.216	-.179	-.187	-.297	-.284
65.00	-.076	-.198	-.267	-.219	-.223	-.387	-.241
70.00	-.086						-.237
75.00	-.305	-.015	-.040	-.010	-.050	-.252	-.231
80.00	-.091	-.056	-.041	-.092	-.117	-.241	-.241
85.00	-.089	-.080	-.073	-.103	-.155	-.265	-.251
90.00	-.100	-.090	-.099	-.140	-.192	-.269	-.253
95.00	-.102	-.095	-.135	-.174	-.219	-.276	-.243
GAP		-.771	-.615	-.395	-.443	-.313	

M = 1.03   α = 5.8°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.278	-.171	-.076	-.423	-.140	-.197	-.241
1.25	-.308	-.844	-.904	-.879	-.891	-.905	-.669
2.50	-.344	-.795	-.867	-.913	-.910	-.918	-.626
5.00	-.204	-.675	-.830	-.857	-.864	-.831	-.466
7.50	-.182	-.388	-.751	-.806	-.820	-.794	-.342
10.00	-.192	-.315	-.452	-.742	-.780	-.763	-.219
15.00	-.187	-.294	-.452	-.717	-.688	-.617	-.177
20.00	-.187	-.286	-.332	-.542	-.487	-.276	-.181
25.00	-.205	-.284	-.347	-.176	-.162	-.231	-.108
30.00	-.206	-.383	-.390	-.086	-.073	-.163	-.059
35.00	-.204	-.290	-.061	-.040	-.035	-.096	-.039
40.00	-.214	-.304	-.008	-.020	-.010	-.048	-.030
45.00	-.233	-.031	-.057	-.076	-.051	-.003	-.044
50.00	-.267	-.147	-.104	-.135	-.098	-.054	-.082
55.00	-.220	-.188	-.134	-.182	-.148	-.094	-.147
60.00	-.013	-.106	-.153	-.237	-.179	-.118	-.192
65.00	-.206	-.117	-.153	-.226	-.189	-.117	-.220
70.00	-.294	-.047	-.181	-.238	-.244	-.116	-.214
75.00	-.604	-.741	-.508	-.449	-.401	-.322	-.211
80.00	-.565	-.749	-.532	-.449	-.413	-.318	-.195
85.00	-.507	-.675	-.504	-.451	-.417	-.310	-.195
90.00	-.470	-.605	-.482	-.455	-.417	-.301	-.197
95.00	-.444	-.582	-.469	-.452	-.415	-.291	-.197

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.390	-.485	-.478	-.445	-.439	-.456	-.309
2.50	-.428	-.414	-.404	-.357	-.369	-.385	-.237
5.00	-.409	-.347	-.386	-.327	-.281	-.286	-.170
7.50	-.384	-.299	-.277	-.274	-.227	-.231	-.104
10.00	-.342	-.277	-.246	-.231	-.192	-.216	-.060
15.00	-.311	-.213	-.196	-.155	-.149	-.147	-.045
20.00	-.248	-.175	-.145	-.111	-.099	-.089	-.056
25.00	-.237	-.141	-.108	-.065	-.062	-.042	-.193
30.00	-.190	-.110	-.073	-.029	-.023	-.005	-.241
35.00	-.148	-.080	-.039	-.015	-.011	-.041	-.264
40.00	-.127	-.052	-.002	-.047	-.043	-.061	-.268
45.00	-.108	-.004	-.040	-.035	-.066	-.106	-.286
50.00	-.047	-.012	-.093	-.048	-.084	-.166	-.285
55.00	-.055	-.073	-.132	-.080	-.134	-.203	-.282
60.00	-.087	-.073	-.187	-.113	-.136	-.254	-.242
65.00	-.001	-.163	-.139	-.132	-.184	-.289	-.235
70.00	-.026						-.230
75.00	-.253	-.094	-.138	-.048	-.019	-.282	-.242
80.00	-.089	-.085	-.089	-.065	-.095	-.236	-.250
85.00	-.029	-.073	-.084	-.080	-.135	-.263	-.250
90.00	-.047	-.066	-.061	-.117	-.175	-.296	-.253
95.00	-.038	-.085	-.121	-.158	-.213	-.303	-.242
GAP		-.756	-.617	-.401	-.468	-.332	

TABLE III   WING WITH UPPER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.03   α = 7.8°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.264	-.024	-.085	-.308	-.352	-.423	-.083
1.25	-.521	-.963	-1.006	-.980	-1.002	-.969	-.931
2.50	-.430	-.920	-.967	-1.017	-1.012	-.920	-.900
5.00	-.359	-.889	-.964	-.968	-.975	-.897	-.785
7.50	-.304	-.763	-.903	-.925	-.935	-.862	-.774
10.00	-.260	-.548	-.881	-.880	-.913	-.788	-.756
15.00	-.267	-.390	-.807	-.865	-.839	-.587	-.541
20.00	-.263	-.360	-.640	-.818	-.644	-.464	-.289
25.00	-.273	-.348	-.439	-.578	-.438	-.411	-.133
30.00	-.268	-.342	-.385	-.368	-.329	-.390	-.111
35.00	-.265	-.346	-.195	-.315	-.283	-.369	-.102
40.00	-.271	-.357	-.076	-.217	-.255	-.361	-.088
45.00	-.289	-.172	-.061	-.024	-.224	-.364	-.093
50.00	-.319	-.067	-.058	-.125	-.197	-.324	-.119
55.00	-.276	-.124	-.099	-.184	-.161	-.317	-.169
60.00	-.044	-.070	-.133	-.267	-.167	-.312	-.198
65.00	-.158	-.114	-.142	-.274	-.143	-.293	-.230
70.00	-.242	-.000	-.170	-.295	-.214	-.247	-.231
75.00	-.061	-.753	-.543	-.463	-.435	-.430	-.233
80.00	-.034	-.756	-.565	-.457	-.448	-.435	-.224
85.00	-.511	-.693	-.526	-.457	-.425	-.437	-.224
90.00	-.443	-.627	-.498	-.460	-.402	-.394	-.236
95.00	-.445	-.545	-.488	-.457	-.384	-.375	-.218

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.432	.571	.541	.513	.504	.225	.420
2.50	.499	.502	.476	.430	.444	.442	.344
5.00	.494	.435	.394	.387	.365	.332	.269
7.50	.464	.384	.349	.336	.309	.294	.198
10.00	.435	.358	.313	.293	.273	.261	.146
15.00	.401	.289	.260	.223	.220	.204	.043
20.00	.329	.246	.208	.180	.162	.124	.075
25.00	.308	.209	.166	.144	.118	.064	-.133
30.00	.256	.174	.125	.114	.061	.066	-.201
35.00	.211	.143	.090	.081	.054	.016	-.252
40.00	.186	.116	.044	.047	.018	.025	-.276
45.00	.163	.080	.063	.028	.013	.073	-.295
50.00	.103	.047	.082	.018	.063	.107	-.310
55.00	.104	.028	.094	.062	.078	.166	-.310
60.00	.074	.044	.033	.074	.097	.221	-.284
65.00	.041	.140	.077	.091	.136	.261	-.236
70.00	.006						-.230
75.00	-.238	.208	.145	.096	.081	.165	-.230
80.00	.013	.114	.028	.044	.070	.187	-.244
85.00	.013	.101	.025	.062	.110	.237	-.253
90.00	.006	.068	.058	.105	.152	.285	-.267
95.00	.023	.041	.103	.149	.194	.306	-.258
GAP		-.722	-.631	-.425	-.472	-.419	

M = 1.03   α = 11.4°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.305	-.382	-.396	-.054	-.620	-.695	-.679
1.25	-.101	-1.004	-.986	-.930	-.730	-.664	-.634
2.50	-.241	-.988	-.945	-.918	-.726	-.647	-.624
5.00	-.365	-1.014	-.900	-.900	-.785	-.623	-.604
7.50	-.413	-.972	-.889	-.861	-.783	-.634	-.600
10.00	-.417	-.925	-.788	-.861	-.783	-.635	-.593
15.00	-.421	-.846	-.742	-.806	-.785	-.635	-.577
20.00	-.388	-.804	-.681	-.750	-.738	-.630	-.568
25.00	-.372	-.743	-.607	-.728	-.785	-.620	-.546
30.00	-.364	-.648	-.530	-.695	-.717	-.630	-.532
35.00	-.351	-.511	-.463	-.676	-.704	-.623	-.523
40.00	-.344	-.375	-.411	-.647	-.689	-.615	-.516
45.00	-.358	-.347	-.431	-.618	-.679	-.601	-.509
50.00	-.378	-.050	-.477	-.588	-.664	-.589	-.504
55.00	-.334	-.161	-.488	-.540	-.648	-.567	-.496
60.00	-.172	-.151	-.483	-.416	-.639	-.549	-.488
65.00	-.004	-.077	-.447	-.424	-.588	-.519	-.483
70.00	-.302	-.024	-.415	-.395	-.633	-.495	-.476
75.00	-.917	-.769	-.595	-.581	-.606	-.506	-.473
80.00	-.577	-.771	-.587	-.589	-.644	-.516	-.467
85.00	-.444	-.722	-.599	-.560	-.647	-.518	-.463
90.00	-.476	-.660	-.557	-.532	-.636	-.508	-.463
95.00	-.393	-.584	-.589	-.501	-.589	-.493	-.460

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.469	.674	.616	.597	.555	.539	.465
2.50	.594	.635	.581	.545	.586	.514	.487
5.00	.735	.578	.517	.507	.462	.439	.358
7.50	.651	.526	.472	.458	.414	.390	.290
10.00	.609	.498	.435	.418	.376	.376	.238
15.00	.543	.427	.381	.342	.317	.293	.133
20.00	.479	.377	.385	.296	.263	.236	.018
25.00	.444	.335	.278	.253	.219	.185	-.087
30.00	.395	.296	.237	.217	.181	.144	-.132
35.00	.343	.259	.206	.181	.141	.099	-.183
40.00	.304	.226	.167	.140	.104	.062	-.223
45.00	.279	.185	.139	.104	.067	.004	-.248
50.00	.286	.142	.107	.067	.045	.058	-.290
55.00	.218	.108	.084	.033	.007	.102	-.331
60.00	.174	.039	.058	.016	.063	.128	-.291
65.00	.145	.018	.013	.059	.071	.210	-.268
70.00	.068						-.290
75.00	-.146	.286	.213	.189	.114	.058	-.314
80.00	-.161	.159	.088	.021	.007	.133	-.331
85.00	-.183	.105	.030	.020	.058	.153	-.354
90.00	.075	.062	.013	.071	.113	.287	-.377
95.00	.056	.005	.063	.128	.159	.368	-.405
GAP		-.654	-.656	-.521	-.681	-.473	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.60, α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.017	.465	.434	.647	.406	.399	.271
1.25	-.106	-.160	-.242	-.300	-.378	-.496	-.456
2.50	-.059	-.123	-.185	-.236	-.284	-.317	-.338
5.00	-.013	-.113	-.158	-.164	-.231	-.256	-.261
7.50	-.031	-.126	-.166	-.183	-.225	-.239	-.260
10.00	-.051	-.133	-.173	-.188	-.219	-.230	-.245
15.00	-.082	-.153	-.184	-.213	-.206	-.217	-.210
20.00	-.117	-.166	-.198	-.216	-.219	-.226	-.206
25.00	-.128	-.182	-.213	-.225	-.225	-.227	-.188
30.00	-.145	-.190	-.217	-.221	-.231	-.226	-.183
35.00	-.154	-.202	-.227	-.234	-.234	-.227	-.176
40.00	-.159	-.217	-.235	-.241	-.234	-.226	-.180
45.00	-.183	-.232	-.242	-.249	-.243	-.225	-.176
50.00	-.199	-.247	-.248	-.254	-.241	-.224	-.173
55.00	-.210	-.254	-.244	-.250	-.241	-.219	-.162
60.00	-.218	-.265	-.236	-.247	-.233	-.203	-.141
65.00	-.239	-.750	-.249	-.248	-.221	-.184	-.128
70.00	-.282	.003	-.490	-.303	-.369	-.180	-.118
75.00	-.219	-.057	-.103	-.156	-.138	-.150	-.108
80.00	-.088	-.080	-.153	-.171	-.158	-.128	-.092
85.00	-.106	-.090	-.156	-.165	-.159	-.129	-.084
90.00	-.099	-.090	-.181	-.178	-.166	-.125	-.074
95.00	-.089	-.115	-.184	-.191	-.172	-.117	-.070

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.159	.040	.008	.036	.206	.221	.173
2.50	.091	.036	.001	.005	.102	.098	.122
5.00	.030	.042	.015	.029	.084	.103	.052
7.50	.004	.056	.001	.035	.053	.069	.017
10.00	.009	.066	.032	.011	.034	.055	.006
15.00	.033	.069	.040	.002	.029	.026	.023
20.00	.047	.070	.035	.000	.025	.028	.041
25.00	.062	.068	.023	.010	.030	.031	.034
30.00	.074	.060	.013	.019	.039	.031	.033
35.00	.067	.038	.013	.039	.057	.041	.032
40.00	.067	.008	.044	.061	.086	.061	.034
45.00	.062	-.056	.086	.099	.122	.088	.033
50.00	-.051	-.118	.141	.151	.176	.133	.037
55.00	-.004	-.234	.235	.227	.253	.196	.044
60.00	-.096	-.291	.309	.312	.321	.253	.032
65.00	-.296	-.278	.302	.306	.320	.233	.035
70.00	-.503						.038
75.00	-1.095	-.672	-.340	-.295	-.239	-.164	.047
80.00	-.523	-.735	-.351	-.296	-.235	-.157	.059
85.00	-.328	-.704	-.367	-.304	-.235	-.147	.079
90.00	-.281	-.623	-.384	-.314	-.239	-.136	.090
95.00	-.118	-.510	-.374	-.322	-.246	-.133	.085
GAP		-.229	-.315	-.320	-.332	-.222	

M = 0.60, α = 3.8°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.021	-.200	-.483	-.224	-.454	-.354	-.577
1.25	-.157	-1.054	-1.383	-1.274	-.995	-.931	-.975
2.50	-.231	-.581	-.734	-.878	-.856	-.803	-.825
5.00	-.256	-.436	-.547	-.610	-.753	-.742	-.696
7.50	-.242	-.385	-.484	-.533	-.673	-.674	-.618
10.00	-.257	-.354	-.443	-.490	-.611	-.583	-.541
15.00	-.252	-.340	-.406	-.453	-.510	-.534	-.407
20.00	-.274	-.323	-.382	-.405	-.457	-.467	-.358
25.00	-.275	-.320	-.368	-.388	-.424	-.421	-.310
30.00	-.282	-.315	-.352	-.356	-.389	-.379	-.278
35.00	-.271	-.317	-.345	-.349	-.367	-.344	-.259
40.00	-.268	-.315	-.337	-.336	-.345	-.322	-.258
45.00	-.279	-.326	-.330	-.338	-.337	-.295	-.245
50.00	-.291	-.330	-.304	-.319	-.315	-.280	-.237
55.00	-.295	-.320	-.279	-.303	-.301	-.257	-.223
60.00	-.297	-.317	-.273	-.286	-.276	-.233	-.204
65.00	-.309	-.383	-.361	-.266	-.247	-.206	-.192
70.00	-.333	-.635	-.152	-.258	-.248	-.177	-.195
75.00	-.271	-.031	-.174	-.224	-.202	-.200	-.178
80.00	-.132	-.073	-.170	-.196	-.196	-.166	-.164
85.00	-.138	-.072	-.180	-.182	-.182	-.160	-.167
90.00	-.116	-.078	-.178	-.180	-.180	-.142	-.160
95.00	-.100	.078		-.179	-.171	-.132	-.150

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.309	.373	.408	.465	.466	.355	.398
2.50	.283	.294	.332	.361	.384	.311	.341
5.00	.245	.216	.285	.260	.319	.258	.239
7.50	.204	.169	.236	.213	.265	.234	.168
10.00	.178	.139	.179	.206	.226	.166	.124
15.00	.137	.107	.148	.173	.194	.145	.066
20.00	.107	.085	.126	.149	.166	.127	.017
25.00	.079	.067	.112	.136	.150	.113	.002
30.00	.057	.064	.100	.127	.143	.105	.010
35.00	.053	.070	.111	.133	.143	.107	.027
40.00	.044	.083	.124	.142	.147	.123	.036
45.00	.037	.121	.153	.164	.173	.152	.047
50.00	.045	.173	.192	.202	.211	.200	.054
55.00	.069	.267	.266	.265	.268	.230	.061
60.00	.165	.321	.310	.338	.316	.209	.057
65.00	.367	.296	.311	.328	.313		.060
70.00	.579						.073
75.00	-1.002	-.586	-.887	-.251	-.209	-.143	.081
80.00	-.465	-.671	-.295	-.259	-.214	-.136	.094
85.00	-.220	-.638	-.310	-.269	-.213	-.128	.107
90.00	-.142	-.544	-.332	-.281	-.221	-.120	.109
95.00	-.047	-.414	-.387	-.286	-.222	-.129	.106
GAP		-.255	-.315	-.330	-.317	-.195	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
M = 0.60 α = 6.0°							
UPPER SURFACE							
.00	.008	-.677	-.782	-.431	-.830	-.741	-.770
1.25	-.397	-1.146	-.945	-.970	-.981	-1.003	-.912
2.50	-.468	-1.043	-.914	-.947	-.965	-.962	-.892
5.00	-.457	-.878	-.877	-.917	-.928	-.954	-.851
7.50	-.410	-.757	-.827	-.884	-.890	-.915	-.838
10.00	-.426	-.673	-.776	-.842	-.847	-.891	-.806
15.00	-.394	-.569	-.683	-.728	-.744	-.824	-.729
20.00	-.407	-.499	-.604	-.637	-.663	-.779	-.666
25.00	-.403	-.456	-.558	-.565	-.598	-.645	-.589
30.00	-.397	-.430	-.511	-.507	-.547	-.558	-.531
35.00	-.370	-.418	-.472	-.468	-.497	-.475	-.482
40.00	-.359	-.403	-.442	-.427	-.451	-.396	-.457
45.00	-.362	-.403	-.414	-.396	-.414	-.340	-.425
50.00	-.374	-.397	-.386	-.367	-.374	-.299	-.403
55.00	-.365	-.380	-.358	-.341	-.341	-.299	-.388
60.00	-.361	-.368	-.323	-.318	-.308	-.262	-.366
65.00	-.370	-.359	-.306	-.289	-.269	-.227	-.359
70.00	-.377	-.619	-.352	-.257	-.260	-.185	-.354
75.00	-.314	-.101	-.205	-.262	-.230	-.219	-.339
80.00	-.171	-.111	-.205	-.225	-.213	-.177	-.327
85.00	-.167	-.101	-.189	-.199	-.201	-.169	-.324
90.00	-.137	-.083	-.188	-.185	-.198	-.146	-.294
95.00	-.105	-.071	-.163	-.168	-.169	-.129	-.257
LOWER SURFACE							
1.25	.345	.462	.461	.512	.483	.490	.419
2.50	.353	.408	.422	.428	.450	.426	.395
5.00	.348	.328	.351	.351	.402	.390	.307
7.50	.313	.275	.339	.310	.342	.341	.229
10.00	.285	.240	.269	.290	.306	.305	.179
15.00	.235	.196	.228	.246	.256	.235	.119
20.00	.198	.160	.196	.214	.224	.204	.050
25.00	.161	.136	.177	.197	.203	.176	.018
30.00	.130	.124	.158	.183	.187	.156	.000
35.00	.121	.124	.161	.180	.184	.144	-.017
40.00	.107	.131	.166	.182	.187	.141	-.028
45.00	.092	.158	.186	.200	.199	.146	-.040
50.00	.098	.210	.218	.229	.229	.164	-.049
55.00	.114	.285	.289	.282	.283	.206	-.060
60.00	.200	.344	.332	.355	.333	.241	-.057
65.00	.397	.324	.334	.349	.339	.223	-.062
70.00	.636						-.072
75.00	-.997	-.568	-.282	-.243	-.206	-.125	-.081
80.00	-.429	-.684	-.292	-.252	-.211	-.119	-.095
85.00	-.181	-.639	-.307	-.264	-.218	-.115	-.106
90.00	-.099	-.527	-.323	-.279	-.224	-.119	-.106
95.00	-.005	-.367	-.308	-.266	-.219	-.131	-.112
GAP		-.283	-.337	-.355	-.336	-.204	
M = 0.60 α = 8.1°							
UPPER SURFACE							
.00	.003	-.990	-1.143	-.910	-1.024	-.692	-.548
1.25	-.646	-1.162	-1.038	-1.306	-.984	-.802	-.579
2.50	-.703	-1.124	-1.022	-1.300	-.993	-.771	-.569
5.00	-.665	-1.063	-1.006	-1.284	-.986	-.785	-.541
7.50	-.589	-.998	-.972	-1.283	-.970	-.775	-.547
10.00	-.605	-.981	-.933	-1.300	-.958	-.774	-.535
15.00	-.539	-.912	-.861	-1.278	-.925	-.743	-.515
20.00	-.514	-.755	-.791	-1.234	-.902	-.713	-.476
25.00	-.501	-.633	-.748	-1.114	-.879	-.687	-.445
30.00	-.488	-.541	-.682	-.897	-.847	-.666	-.423
35.00	-.458	-.487	-.610	-.678	-.808	-.640	-.403
40.00	-.439	-.455	-.548	-.471	-.763	-.610	-.391
45.00	-.423	-.443	-.488	-.336	-.711	-.570	-.361
50.00	-.426	-.433	-.431	-.261	-.645	-.534	-.344
55.00	-.412	-.410	-.387	-.232	-.585	-.495	-.332
60.00	-.399	-.386	-.338	-.213	-.515	-.460	-.317
65.00	-.404	-.367	-.311	-.206	-.486	-.409	-.313
70.00	-.409	-.600	-.351	-.230	-.358	-.372	-.311
75.00	-.342	-.152	-.221	-.161	-.344	-.356	-.287
80.00	-.200	-.137	-.209	-.138	-.314	-.345	-.283
85.00	-.189	-.121	-.181	-.125	-.278	-.330	-.279
90.00	-.151	-.081	-.177	-.126	-.258	-.286	-.259
95.00	-.101	-.050	-.145	-.129	-.199	-.263	-.251
LOWER SURFACE							
1.25	.349	.488	.471	.520	.490	.487	.422
2.50	.384	.469	.467	.482	.489	.445	.408
5.00	.438	.399	.410	.417	.452	.417	.325
7.50	.404	.353	.407	.373	.399	.371	.245
10.00	.380	.313	.338	.352	.362	.333	.205
15.00	.336	.264	.293	.304	.308	.266	.141
20.00	.280	.224	.254	.273	.270	.231	.073
25.00	.237	.196	.230	.246	.242	.204	.039
30.00	.199	.180	.207	.227	.224	.174	.018
35.00	.165	.173	.205	.217	.212	.155	-.002
40.00	.165	.176	.205	.217	.212	.145	-.019
45.00	.147	.195	.220	.228	.219	.147	-.027
50.00	.148	.235	.246	.252	.243	.166	-.038
55.00	.154	.308	.302	.299	.287	.203	-.055
60.00	.235	.367	.355	.372	.338	.244	-.052
65.00	.426	.350	.360	.367	.344	.239	-.064
70.00	.673						-.087
75.00	-1.003	-.555	-.278	-.247	-.251	-.178	-.094
80.00	-.355	-.707	-.288	-.253	-.256	-.163	-.113
85.00	-.189	-.644	-.303	-.266	-.265	-.179	-.127
90.00	-.061	-.502	-.319	-.282	-.272	-.200	-.134
95.00	-.046	-.303	-.295	-.268	-.266	-.224	-.148
GAP		.311	.362	.369	.345	.211	

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

M = 0.60   α = 12.1° — UPPER SURFACE

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.004	-1.854	-1.556	-1.046	-.775	-.488	-.411
1.25	-1.253	-1.714	-1.175	-.911	-.686	-.442	-.356
2.50	-1.377	-1.759	-1.190	-.911	-.634	-.420	-.349
5.00	-1.241	-1.842	-1.281	-.907	-.618	-.432	-.334
7.50	-1.059	-1.968	-1.238	-.907	-.611	-.429	-.342
10.00	-1.053	-2.115	-1.260	-.908	-.608	-.427	-.342
15.00	-.825	-1.815	-1.304	-.890	-.592	-.415	-.338
20.00	-.752	-.963	-1.375	-.878	-.576	-.404	-.337
25.00	-.691	-.347	-1.394	-.861	-.566	-.393	-.317
30.00	-.644	-.309	-1.351	-.858	-.556	-.389	-.313
35.00	-.577	-.340	-1.303	-.857	-.541	-.382	-.304
40.00	-.538	-.381	-1.210	-.840	-.530	-.375	-.304
45.00	-.516	-.403	-1.111	-.827	-.521	-.361	-.284
50.00	-.500	-.401	-.984	-.803	-.517	-.362	-.274
55.00	-.475	-.388	-.836	-.782	-.514	-.352	-.266
60.00	-.451	-.369	-.691	-.747	-.509	-.348	-.255
65.00	-.443	-.532	-.545	-.718	-.493	-.338	-.251
70.00	-.427	-.125	-.454	-.712	-.529	-.333	-.251
75.00	-.357	-.117	-.270	-.614	-.489	-.319	-.238
80.00	-.286	-.087	-.225	-.638	-.485	-.301	-.235
85.00	-.192	-.046	-.168	-.586	-.485	-.295	-.234
90.00	-.149	.011	-.143	-.559	-.499	-.287	-.222
95.00	-.114		-.109	-.518	-.512	-.278	-.212

M = 0.60   α = 12.1° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.280	.467	.438	.503	.473	.471	.408
2.50	.375	.542	.519	.509	.504	.444	.405
5.00	.549	.515	.502	.479	.483	.429	.336
7.50	.556	.478	.513	.433	.435	.384	.274
10.00	.539	.439	.437	.419	.396	.346	.223
15.00	.481	.386	.386	.366	.342	.278	.158
20.00	.422	.340	.343	.327	.292	.239	.084
25.00	.367	.307	.309	.295	.260	.201	.045
30.00	.323	.281	.281	.267	.229	.161	.014
35.00	.298	.268	.267	.246	.205	.137	.001
40.00	.273	.260	.257	.230	.191	.120	-.038
45.00	.247	.272	.260	.231	.187	.117	-.065
50.00	.244	.292	.276	.239	.196	.125	-.092
55.00	.238	.351	.322	.270	.230	.162	-.124
60.00	.304	.412	.371	.350	.298	.213	-.127
65.00	.484	.393	.373	.351	.318	.199	-.144
70.00	.697	.558	.366	.497	.654	.385	-.146
75.00	-1.050	.787	.390	.577	.694	.358	-.156
80.00	.202	.673	.392	.646	.728	.329	-.152
85.00	.059	.406	.392	.616	.737	.307	-.152
90.00	.110	.095	.349	.501	.718	.291	-.157
95.00	.123	.359	.374	.352	.314	.167	-.170
GAP							

M = 0.85   α = 0.0° — UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.022	.509	.480	.715	.460	.453	.307
1.25	-.169	-.093	-.147	-.223	-.311	-.426	-.458
2.50	-.104	-.074	-.119	-.188	-.244	-.299	-.370
5.00	-.035	-.074	-.113	-.126	-.213	-.251	-.284
7.50	-.012	-.092	-.131	-.156	-.218	-.244	-.308
10.00	-.007	-.101	-.142	-.170	-.224	-.238	-.308
15.00	-.041	-.133	-.167	-.215	-.215	-.260	-.253
20.00	-.093	-.151	-.190	-.216	-.237	-.275	-.248
25.00	-.114	-.174	-.217	-.237	-.256	-.271	-.227
30.00	-.128	-.191	-.229	-.239	-.255	-.279	-.218
35.00	-.143	-.207	-.245	-.244	-.267	-.276	-.203
40.00	-.151	-.225	-.262	-.257	-.278	-.264	-.210
45.00	-.178	-.256	-.269	-.273	-.291	-.253	-.212
50.00	-.195	-.285	-.272	-.278	-.292	-.233	-.202
55.00	-.221	-.299	-.267	-.276	-.276	-.198	-.188
60.00	-.239	-.329	-.318	-.271	-.252	-.197	-.164
65.00	-.259	-.318	-.489	-.266	-.278	-.162	-.139
70.00	-.320	-.732	-.105	-.303	-.187	-.143	-.120
75.00	-.332	-.023	-.166	-.193	-.193	-.137	-.099
80.00	-.146	-.083	-.175	-.201	-.187	-.128	-.096
85.00	-.153	-.103	-.205	-.190	-.190	-.127	-.081
90.00	-.144	-.119	-.208	-.203	-.193		-.081
95.00	-.150	-.152		-.207		.207	.153

M = 0.85   α = 0.0° — LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.203	.067	.044	.007	.164	.207	.106
2.50	.130	.054	.035	.011	.064	.073	.036
5.00	.062	.055	.035	.041	.060	.097	.001
7.50	.024	.066	.043	.028	.030	.066	.026
10.00	.007	.072	.041	.015	.015	.053	.051
15.00	-.027	.082	.039	.012	.012	.031	.063
20.00	-.045	.087	.015	.010	.014	.028	.047
25.00	-.067	.084	.022	.008	.028	.032	.040
30.00	-.079	.072	.054	.021	.041	.043	.039
35.00	-.081	.000	-.101	.048	.059	.063	.049
40.00	-.076	-.072	-.168	.070	.089	.097	.058
45.00	-.058	-.167	-.294	.114	.132	.150	.058
50.00	-.010	-.871	-.293	.176	.192	.223	.055
55.00	-.136	-.864	-.305	.255	.270	.252	.054
60.00	-.333	-.243		.330	.315	.218	.070
65.00	-.533			.315	.304		.072
70.00	-.998	-.684	-.364	.298	.251	.182	.085
75.00	-.543	-.705	-.368	.298	.249	.174	.100
80.00	-.378	-.674	-.377	.301	.249	.164	.109
85.00	-.280	-.617	-.388	.308	.246	.154	.108
90.00	-.191	-.836	-.383	.310	.319	.217	
95.00		-.195	-.305	.333			
GAP							

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

M = 0.85, α = 4.0°

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT						
	0.135b/2	0.25b/2	0.46b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
	UPPER SURFACE						
.00	-.027	-.123	-.017	-.231	-.117	-.129	-.381
1.25	-.051	-.917	-1.124	-1.284	-1.245	-1.326	-1.253
2.50	-.156	-.731	-.980	-1.126	-1.192	-1.216	-1.202
5.00	-.207	-.451	-.628	-.803	-1.029	-1.163	-1.048
7.50	-.203	-.405	-.537	-.686	-.899	-1.073	-.981
10.00	-.236	-.379	-.487	-.624	-.805	-.877	-.902
15.00	-.243	-.362	-.464	-.561	-.643	-.706	-.697
20.00	-.281	-.355	-.455	-.527	-.558	-.582	-.569
25.00	-.226	-.358	-.449	-.510	-.508	-.490	-.455
30.00	-.308	-.365	-.447	-.479	-.468	-.426	-.358
35.00	-.296	-.376	-.447	-.451	-.447	-.389	-.304
40.00	-.298	-.384	-.467	-.415	-.432	-.354	-.294
45.00	-.323	-.414	-.480	-.398	-.418	-.321	-.282
50.00	-.347	-.432	-.460	-.381	-.388	-.296	-.280
55.00	-.360	-.436	-.384	-.360	-.362	-.272	-.270
60.00	-.373	-.475	-.327	-.334	-.324	-.240	-.261
65.00	-.398	-.522	-.305	-.306	-.277	-.218	-.250
70.00	-.424	-.681	-.382	-.270	-.249	-.185	-.253
75.00	-.476	-.084	-.170	-.296	-.265	-.234	-.249
80.00	-.282	-.117	-.202	-.258	-.239	-.188	-.241
85.00	-.238	-.025	-.206	-.246	-.217	-.184	-.243
90.00	-.184	-.098	-.219	-.216	-.161	-.162	-.241
95.00	-.124	-.106	-.216	-.211	-.202	-.150	-.222
	LOWER SURFACE						
1.25	.341	.375	.404	.470	.478	.505	.411
2.50	.327	.299	.331	.345	.369	.371	.358
5.00	.282	.235	.258	.261	.320	.329	.261
7.50	.240	.179	.287	.205	.267	.275	.192
10.00	.215	.148	.190	.212	.233	.243	.139
15.00	.165	.114	.159	.179	.199	.186	.071
20.00	.133	.089	.137	.160	.171	.165	-.003
25.00	.098	.073	.135	.146	.156	.144	-.027
30.00	.073	.071	.117	.142	.150	.124	-.036
35.00	.065	.081	.127	.147	.149	.117	-.047
40.00	.055	.106	.143	.158	.162	.117	-.054
45.00	.047	.154	.171	.185	.187	.130	-.069
50.00	.059	.225	.224	.230	.228	.161	-.080
55.00	.091	.313	.295	.291	.287	.212	-.089
60.00	.211	.321	.331	.355	.324	.233	-.080
65.00	.420	.281	.326	.341	.320	.211	-.085
70.00	.650						-.095
75.00	-.960	-.619	-.319	-.263	-.228	-.160	-.100
80.00	-.508	-.676	-.325	-.268	-.232	-.152	-.115
85.00	-.275	-.636	-.332	-.276	-.236	-.147	-.120
90.00	-.201	-.562	-.344	-.284	-.241	-.147	-.119
95.00	-.110	-.452	-.339	-.283	-.243	-.151	-.121
GAP		.238	.333	.347	.327	.197	

M = 0.85, α = 6.0°

PERCENT CHORD	0.135b/2	0.25b/2	0.46b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
	UPPER SURFACE						
.00	-.013	-.114	-.237	.015	-.378	-.324	-.466
1.25	-.184	-1.148	-1.304	-1.331	-1.397	-1.100	-.632
2.50	-.308	-1.114	-1.201	-1.221	-1.380	-1.020	-.819
5.00	-.351	-.911	-.951	-1.048	-1.309	-1.029	-.764
7.50	-.338	-.758	-.821	-.961	-1.245	-1.001	-.761
10.00	-.384	-.570	-.738	-.903	-1.195	-.958	-.736
15.00	-.360	-.465	-.658	-.824	-1.055	-.885	-.679
20.00	-.391	-.448	-.595	-.760	-.945	-.826	-.633
25.00	-.406	-.450	-.576	-.716	-.878	-.801	-.561
30.00	-.411	-.455	-.564	-.641	-.746	-.736	-.526
35.00	-.388	-.464	-.561	-.585	-.637	-.687	-.464
40.00	-.381	-.475	-.569	-.513	-.531	-.642	-.448
45.00	-.409	-.498	-.573	-.453	-.456	-.589	-.431
50.00	-.427	-.516	-.558	-.408	-.388	-.543	-.415
55.00	-.446	-.519	-.472	-.375	-.341	-.498	-.396
60.00	-.461	-.545	-.372	-.347	-.308	-.447	-.390
65.00	-.469	-.590	-.328	-.315	-.269	-.379	-.367
70.00	-.497	-.692	-.377	-.277	-.260	-.356	-.366
75.00	-.543	-.154	-.210	-.301	-.246	-.347	-.351
80.00	-.370	-.141	-.218	-.270	-.227	-.326	-.328
85.00	-.306	-.118	-.218	-.240	-.209	-.296	-.327
90.00	-.221	-.087	-.286	-.226	-.203	-.240	-.309
95.00	-.140	-.074	-.217	-.210	-.196	-.220	-.286
	LOWER SURFACE						
1.25	.373	.464	.471	.463	.517	.524	.427
2.50	.396	.395	.412	.410	.449	.416	.395
5.00	.375	.313	.335	.334	.398	.387	.303
7.50	.331	.262	.301	.285	.357	.336	.240
10.00	.303	.232	.260	.261	.302	.298	.180
15.00	.244	.185	.223	.239	.253	.235	.112
20.00	.203	.154	.192	.214	.222	.206	.027
25.00	.164	.131	.175	.194	.202	.180	-.007
30.00	.133	.123	.162	.188	.191	.155	-.031
35.00	.123	.128	.166	.182	.186	.144	-.045
40.00	.104	.145	.174	.189	.193	.138	-.054
45.00	.093	.183	.199	.210	.209	.145	-.069
50.00	.103	.243	.241	.246	.243	.166	-.078
55.00	.123	.326	.310	.303	.298	.210	-.086
60.00	.238	.343	.349	.371	.339	.238	-.080
65.00	.447	.300	.346	.359	.340	.220	-.088
70.00	.703						-.106
75.00	-.962	-.610	-.318	-.265	-.233	-.174	-.111
80.00	-.492	-.697	-.384	-.271	-.238	-.158	-.131
85.00	-.234	-.655	-.331	-.279	-.250	-.162	-.139
90.00	-.170	-.560	-.340	-.289	-.257	-.172	-.145
95.00	-.090	-.416	-.330	-.284	-.255	-.189	-.163
GAP		.256	.353	.364	.343	.202	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.85   α = 8.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.012	-.384	-.433	-.188	-.595	-.402	-.434
1.25	-.303	-1.818	-1.384	-1.464	-1.177	-.731	-.544
2.50	-.449	-1.153	-1.204	-1.423	-1.168	-.680	-.537
5.00	-.495	-1.035	-1.081	-1.312	-1.110	-.699	-.510
7.50	-.484	-.969	-1.082	-1.234	-1.110	-.697	-.522
10.00	-.528	-.912	-.985	-1.181	-1.091	-.690	-.518
15.00	-.486	-.825	-.931	-1.096	-1.039	-.660	-.516
20.00	-.495	-.714	-.860	-1.027	-1.002	-.631	-.493
25.00	-.495	-.634	-.825	-.973	-.966	-.597	-.464
30.00	-.491	-.573	-.771	-.865	-.908	-.584	-.458
35.00	-.454	-.552	-.739	-.784	-.861	-.567	-.438
40.00	-.460	-.547	-.714	-.698	-.806	-.543	-.433
45.00	-.484	-.562	-.677	-.609	-.753	-.516	-.407
50.00	-.504	-.580	-.612	-.525	-.702	-.500	-.390
55.00	-.519	-.586	-.508	-.457	-.655	-.479	-.375
60.00	-.532	-.606	-.415	-.397	-.601	-.464	-.354
65.00	-.532	-.644	-.354	-.334	-.500	-.446	-.340
70.00	-.556	-.688	-.361	-.284	-.531	-.433	-.329
75.00	-.626	-.225	-.256	-.300	-.459	-.385	-.304
80.00	-.450	-.146	-.244	-.267	-.432	-.384	-.302
85.00	-.360	-.104	-.230	-.229	-.395	-.373	-.302
90.00	-.233	-.066	-.226	-.216	-.364	-.349	-.283
95.00	-.128	-.024	-.201	-.203	-.310	-.342	-.274

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.391	.528	.513	.465	.528	.523	.439
2.50	.456	.476	.473	.450	.490	.447	.420
5.00	.470	.399	.407	.396	.447	.424	.332
7.50	.432	.349	.370	.360	.390	.374	.279
10.00	.401	.312	.328	.342	.357	.339	.213
15.00	.339	.263	.288	.296	.301	.271	.143
20.00	.291	.229	.250	.266	.270	.239	.054
25.00	.246	.202	.289	.244	.245	.205	.013
30.00	.209	.187	.209	.227	.225	.178	-.017
35.00	.193	.186	.207	.222	.214	.156	-.041
40.00	.174	.196	.211	.231	.216	.143	-.059
45.00	.154	.225	.230	.235	.226	.144	-.081
50.00	.160	.273	.264	.265	.252	.160	-.100
55.00	.172	.348	.388	.317	.301	.199	-.117
60.00	.276	.373	.370	.388	.348	.232	-.117
65.00	.483	.330	.368	.377	.349	.216	-.129
70.00	.741						-.148
75.00	.958	-.593	-.319	-.275	-.324	-.269	-.157
80.00	-.421	-.720	-.388	-.293	-.331	-.257	-.172
85.00	-.188	-.664	-.336	-.308	-.383	-.273	-.183
90.00	-.107	-.538	-.346	-.317	-.362	-.296	-.189
95.00	-.036	-.384	-.382	-.297	-.345	-.322	-.197
GAP		-.291	-.373	-.380	-.350	-.196	

M = 0.85   α = 12.1°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.002	-.752	-.838	-.515	-.729	-.456	-.372
1.25	-.539	-1.461	-1.118	-.843	-.715	-.487	-.341
2.50	-.730	-1.454	-1.103	-.836	-.702	-.475	-.335
5.00	-.799	-1.424	-1.083	-.832	-.695	-.474	-.315
7.50	-.794	-1.419	-1.063	-.835	-.681	-.473	-.324
10.00	-.828	-1.390	-1.039	-.825	-.663	-.452	-.321
15.00	-.783	-1.375	-1.089	-.814	-.646	-.434	-.317
20.00	-.752	-1.355	-1.086	-.789	-.627	-.420	-.303
25.00	-.726	-1.357		-.774	-.620	-.412	-.281
30.00	-.693	-1.158	-.990	-.767	-.606	-.408	-.280
35.00	-.644	-.527	-.969	-.745	-.595	-.401	-.283
40.00	-.627	-.395	-.945	-.728	-.587	-.391	-.276
45.00	-.636	-.386	-.918	-.710	-.576	-.391	-.260
50.00	-.635	-.409	-.889	-.690	-.564	-.386	-.258
55.00	-.619	-.466	-.850	-.665	-.554	-.385	-.259
60.00	-.561	-.553	-.825	-.630	-.521	-.388	-.267
65.00	-.510	-.633	-.767	-.620	-.529	-.385	-.266
70.00	-.497	-.737	-.740	-.585	-.513	-.360	-.263
75.00	-.557	-.408	-.709	-.603	-.501	-.338	-.269
80.00	-.444	-.898	-.675	-.573	-.486	-.338	-.273
85.00	-.425	-.847	-.681	-.563	-.483	-.340	-.269
90.00	-.336	-.188	-.558	-.563	-.457	-.325	-.270
95.00	-.233	-.098	-.470	-.554			

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.351	.574	.586	.495	.509	.504	.441
2.50	.507	.576	.543	.499	.512	.464	.442
5.00	.620	.583	.503	.471	.484	.453	.371
7.50	.595	.471	.477	.429	.435	.408	.314
10.00	.571	.438	.432	.417	.401	.371	.259
15.00	.498	.388	.383	.364	.343	.302	.190
20.00	.434	.343	.340	.325	.265	.266	.104
25.00	.379	.309	.310	.294	.237	.230	.056
30.00	.338	.288	.281	.266	.214	.192	.022
35.00	.313	.277	.265	.246	.214	.166	-.008
40.00	.282	.275	.254	.238	.204	.148	-.036
45.00	.257	.289	.259	.233	.203	.142	-.077
50.00	.253	.324	.276	.249	.221	.154	-.119
55.00	.254	.380	.382	.289	.263	.194	-.162
60.00	.339	.412	.374	.373	.328	.242	-.170
65.00	.534	.374	.378	.369	.342	.221	-.188
70.00	.777						-.191
75.00	-1.103	-.702	-.484	-.613	-.636	-.390	-.191
80.00	-.281	-1.023	-.639	-.679	-.635	-.381	-.183
85.00	-.218	-.857	-.634	-.705	-.635	-.368	-.187
90.00	-.089	-.336	-.603	-.693	-.685	-.360	-.201
95.00	-.069				-.503	-.333	
GAP		.355	.381	.371	.342	.192	

TABLE IV — WING WITH LOWER SURFACE SPOILER (WITH GAP)

M = 0.90   α = 0.1°

UPPER SURFACE

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.034	-.526	-.486	-.730	-.464	-.460	-.320
1.25	-.195	-.075	-.128	-.203	-.323	-.422	-.480
2.50	-.132	-.053	-.103	-.175	-.254	-.314	-.389
5.00	-.064	-.054	-.102	-.117	-.235	-.257	-.291
7.50	-.038	-.070	-.121	-.150	-.232	-.260	-.326
10.00	-.017	-.086	-.131	-.167	-.239	-.260	-.330
15.00	-.082	-.117	-.158	-.217	-.232	-.254	-.350
20.00	-.075	-.132	-.184	-.233	-.242	-.279	-.303
25.00	-.093	-.155	-.216	-.261	-.265	-.303	-.258
30.00	-.111	-.174	-.230	-.260	-.268	-.310	-.239
35.00	-.122	-.194	-.255	-.269	-.287	-.323	-.222
40.00	-.134	-.212	-.284	-.260	-.298	-.332	-.233
45.00	-.163	-.245	-.319	-.264	-.316	-.337	-.227
50.00	-.183	-.271	-.354	-.276	-.327	-.306	-.215
55.00	-.208	-.287	-.334	-.288	-.327	-.259	-.201
60.00	-.226	-.328	-.257	-.277	-.313	-.239	-.175
65.00	-.244	-.398	-.244	-.284	-.277	-.210	-.148
70.00	-.295	-.756	-.520	-.315	-.283	-.205	-.145
75.00	-.378	-.046	-.085	-.214	-.236	-.182	-.124
80.00	-.206	-.080	-.165	-.230	-.222	-.152	-.106
85.00	-.202	-.095	-.183	-.212	-.208	-.151	-.106
90.00	-.166	-.108	-.220	-.218	-.207	-.137	-.089
95.00	-.162	-.142	-.230	-.221	-.199	-.136	-.090

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.230	-.046	-.046	-.009	.163	.212	.157
2.50	.160	-.033	-.034	-.012	.065	.070	.110
5.00	.090	-.037	-.035	-.038	.056	.098	.039
7.50	.051	-.051	-.039	-.043	.030	.065	.004
10.00	.029	-.058	-.038	-.020	.014	.049	-.030
15.00	-.006	-.072	-.038	-.008	.013	.018	-.069
20.00	-.030	-.078	-.024	-.001	.013	.024	-.081
25.00	-.053	-.081	-.011	-.009	.029	.025	-.060
30.00	-.070	-.069	.000	.023	.041	.025	-.047
35.00	-.069	-.036	.025	.046	.058	.037	-.042
40.00	-.074	-.016	.057	.074	.089	.058	-.042
45.00	-.071	.097	.104	.120	.130	.094	-.054
50.00	-.051	.194	.172	.181	.193	.148	-.069
55.00	-.025	.288	.257	.263	.273	.218	-.082
60.00	.163	.271	.293	.337	.315	.242	-.066
65.00	.355	.236	.289	.324	.304	.213	-.066
70.00	.552						-.075
75.00	.998	.688	.377	.304	.261	.193	-.082
80.00	.512	.705	.384	.305	.262	.184	-.096
85.00	.378	.676	.391	.305	.259	.174	-.110
90.00	.307	.622	.401	.309	.262	.166	-.115
95.00	.195	.539	.395	.314	.260	.164	-.115
GAP		.193	.312	.341	.318	.210	

M = 0.90   α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.028	-.214	-.090	-.341	-.004	-.022	-.260
1.25	-.002	-.806	-.981	-1.151	-1.221	-1.281	-1.299
2.50	-.102	-.708	-.910	-1.121	-1.209	-1.317	-1.280
5.00	-.163	-.403	-.566	-.954	-1.077	-1.189	-1.162
7.50	-.166	-.351	-.475	-.665	-1.016	-1.100	-1.146
10.00	-.200	-.320	-.441	-.494	-.961	-1.048	-1.089
15.00	-.210	-.338	-.418	-.481	-.625	-.980	-.918
20.00	-.258	-.327	-.414	-.489	-.526	-.849	-.648
25.00	-.274	-.327	-.424	-.495	-.560	-.657	-.502
30.00	-.277	-.331	-.431	-.490	-.570	-.595	-.336
35.00	-.273	-.349	-.442	-.511	-.560	-.579	-.223
40.00	-.283	-.365	-.455	-.530	-.592	-.490	-.196
45.00	-.298	-.391	-.483	-.558	-.614	-.295	-.184
50.00	-.324	-.414	-.508	-.583	-.551	-.181	-.215
55.00	-.344	-.432	-.525	-.584	-.401	-.169	-.235
60.00	-.363	-.447	-.554	-.451	-.333	-.177	-.235
65.00	-.375	-.502	-.517	-.328	-.288	-.190	-.230
70.00	-.403	-.739	-.375	-.278	-.248	-.163	-.232
75.00	-.514	-.325	-.292	-.311	-.253	-.147	-.235
80.00	-.353	-.324	-.256	-.273	-.211	-.153	-.227
85.00	-.378	-.224	-.243	-.241	-.183	-.157	-.222
90.00	-.366	-.150	-.249	-.229	-.183	-.154	-.216
95.00	-.266	-.139	-.247	-.219	-.182	-.154	-.205

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.385	.370	.388	.459	.466	.490	.405
2.50	.340	.295	.316	.328	.369	.355	.348
5.00	.294	.224	.243	.236	.304	.315	.252
7.50	.246	.181	.213	.184	.253	.262	.188
10.00	.230	.147	.180	.194	.223	.231	.131
15.00	.170	.115	.147	.163	.189	.176	.059
20.00	.135	.088	.128	.145	.162	.156	.034
25.00	.103	.072	.117	.134	.147	.135	-.073
30.00	.075	.071	.110	.129	.143	.116	-.089
35.00	.066	.082	.117	.136	.144	.109	-.096
40.00	.055	.118	.133	.150	.160	.109	-.093
45.00	.046	.165	.163	.179	.184	.121	-.091
50.00	.059	.239	.212	.217	.229	.153	-.092
55.00	.094	.285	.287	.291	.288	.201	-.099
60.00	.225	.317	.383	.343	.333	.220	-.092
65.00	.433	.363	.380	.337	.318	.193	-.097
70.00	.667					.173	-.102
75.00	.995	.657	.352	.276	.236	.168	-.116
80.00	.471	.695	.354	.279	.234	.163	-.127
85.00	.295	.663	.359	.284	.244	.163	-.127
90.00	.199	.578	.369	.290	.260	.159	-.134
95.00	.145	.463	.385	.297	.263	.168	-.126
GAP		.218	.332	.346	.324	.179	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

M = 0.90, α = 6.0°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00		-.014	-.103	-.142	-.214	-.230	-.470
1.25	-.021	-1.062	-1.197	-1.352	-1.391	-1.312	-1.060
2.50	-.104	-1.063	-1.173	-1.335	-1.385	-1.251	-1.052
5.00	-.232	-.841	-.953	-1.241	-1.294	-1.252	-.985
7.50	-.281	-.656	-.788	-1.137	-1.249	-1.201	-.995
10.00	-.329	-.496	-.683	-1.069	-1.218	-1.160	-.965
15.00	-.318	-.419	-.593	-.866	-1.104	-1.104	-.905
20.00	-.343	-.405	-.542	-.658	-1.047	-1.029	-.796
25.00	-.357	-.414	-.534	-.606	-.950	-.971	-.726
30.00	-.360	-.413	-.531	-.575	-.755	-.883	-.638
35.00	-.339	-.426	-.538	-.589	-.701	-.794	-.530
40.00	-.339	-.435	-.550	-.608	-.672	-.717	-.519
45.00	-.366	-.461	-.566	-.633	-.663	-.648	-.498
50.00	-.388	-.486	-.583	-.656	-.586	-.589	-.478
55.00	-.408	-.489	-.596	-.644	-.419	-.522	-.457
60.00	-.426	-.507	-.604	-.506	-.325	-.445	-.442
65.00	-.433	-.547	-.528	-.359	-.272	-.359	-.406
70.00	-.455	-.746	-.380	-.270	-.248	-.337	-.403
75.00	-.575	-.410	-.420	-.391	-.276	-.292	-.388
80.00	-.410	-.422	-.350	-.303	-.258	-.274	-.363
85.00	-.430	-.252	-.316	-.252	-.230	-.243	-.358
90.00	-.428	-.158	-.295	-.231	-.225	-.191	-.344
95.00	-.329	-.102	-.264	-.221	-.209	-.172	-.318
LOWER SURFACE							
1.25	.393	.470	.467	.471	.506	.514	.426
2.50	.416	.399	.404	.391	.433	.402	.395
5.00	.390	.318	.327	.318	.373	.370	.301
7.50	.347	.238	.293	.267	.320	.320	.238
10.00	.320	.192	.253	.266	.282	.284	.178
15.00	.260	.160	.217	.226	.241	.226	.105
20.00	.230	.134	.189	.202	.210	.199	.006
25.00	.177	.131	.171	.184	.194	.176	-.040
30.00	.145	.136	.156	.174	.183	.153	-.066
35.00	.134	.158	.157	.175	.191	.141	-.080
40.00	.118	.199	.167	.181	.210	.136	-.084
45.00	.103	.261	.190	.204	.248	.141	-.092
50.00	.115	.342	.232	.245	.302	.163	-.098
55.00	.136	.343	.303	.306	.341	.210	-.101
60.00	.256	.290	.346	.372	.340	.233	-.093
65.00	.469		.342	.357		.210	-.099
70.00	.729	.678	.358	.267	.231	.174	-.117
75.00	.996	.741	.358	.273	.238	.158	-.127
80.00	.427	.686	.363	.283	.247	.161	-.142
85.00	.268	.586	.369	.288	.254	.166	-.146
90.00	.188	.433	.348	.474	.251	.177	-.155
95.00	.129			.366	.343	.193	-.171
GAP		.243	.353	.366			

M = 0.90, α = 8.0°

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
UPPER SURFACE							
.00	-.009	-.177	-.277	-.038	-.425	-.864	-.446
1.25	-.212	-1.121	-1.218	-1.444	-1.211	-.791	-.639
2.50	-.357	-1.097	-1.141	-1.434	-1.218	-.819	-.628
5.00	-.412	-.986	-.999	-1.365	-1.181	-.819	-.591
7.50	-.413	-.914	-.909	-1.300	-1.152	-.812	-.609
10.00	-.461	-.861	-.859	-1.238	-1.139	-.782	-.604
15.00	-.437	-.790	-.801	-1.072	-1.083	-.741	-.631
20.00	-.451	-.682	-.737	-.915	-1.050	-.680	-.580
25.00	-.455	-.569	-.714	-.870	-.919	-.664	-.523
30.00	-.456	-.480	-.680	-.795	-.876	-.631	-.521
35.00	-.426	-.464	-.670	-.762	-.833	-.596	-.497
40.00	-.426	-.468	-.664	-.718	-.786	-.565	-.481
45.00	-.443	-.502	-.663	-.679	-.726	-.548	-.451
50.00	-.460	-.534	-.670	-.627	-.660	-.537	-.431
55.00	-.480	-.542	-.657	-.560	-.603	-.505	-.407
60.00	-.494	-.560	-.608	-.470	-.502	-.473	-.387
65.00	-.500	-.586	-.582	-.379	-.624	-.471	-.377
70.00	-.521	-.766	-.482	-.328	-.510	-.387	-.364
75.00	-.634	-.505	-.364	-.350	-.471	-.408	-.340
80.00	-.477	-.511	-.319	-.296	-.436	-.389	-.339
85.00	-.501	-.291	-.388	-.279	-.414	-.355	-.320
90.00	-.504	-.152	-.252	-.257	-.361	-.357	-.313
95.00	-.388	-.051					
LOWER SURFACE							
1.25	.406	.527	.511	.476	.523	.521	.435
2.50	.468	.474	.464	.441	.472	.432	.415
5.00	.475	.396	.394	.376	.426	.409	.331
7.50	.434	.345	.358	.336	.369	.359	.272
10.00	.403	.311	.318	.325	.334	.323	.211
15.00	.338	.259	.275	.277	.285	.257	.139
20.00	.293	.232	.242	.247	.249	.228	.045
25.00	.244	.196	.218	.226	.239	.198	-.004
30.00	.205	.183	.200	.211	.212	.170	-.033
35.00	.191	.184	.196	.205	.203	.150	-.062
40.00	.178	.196	.200	.206	.206	.138	-.077
45.00	.158	.229	.216	.223	.218	.153	-.099
50.00	.159	.281	.254	.256	.247	.192	-.119
55.00	.171	.355	.321	.313	.298	.225	-.137
60.00	.283	.370	.363	.363	.344	.208	-.134
65.00	.493	.317	.364	.370	.344	.286	-.141
70.00	.753	.704	.380	.311	.350	.271	-.159
75.00	1.030	.795	.384	.327	.367	.284	-.170
80.00	.376	.725	.393	.346	.375	.298	-.185
85.00	.279	.599	.398	.351	.355	.342	-.194
90.00	.173	.353	.371	.321	.347	.186	-.201
95.00	.106	.269		.374			-.208
GAP							

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

M = 0.90   α = 12.1°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.001	-.578	-.660	-.452	-.673	-.482	-.423
1.25	-.426	-1.354	-1.233	-.865	-.700	-.524	-.384
2.50	-.611	-1.364	-1.164	-.872	-.694	-.493	-.381
5.00	-.690	-1.352	-1.150	-.881	-.682	-.507	-.359
7.50	-.693	-1.345	-1.137	-.892	-.674	-.505	-.372
10.00	-.732	-1.318	-1.130	-.902	-.662	-.504	-.366
15.00	-.701	-1.287	-1.120	-.853	-.654	-.490	-.355
20.00	-.684	-1.252	-1.102	-.835	-.641	-.473	-.350
25.00	-.661	-1.241	-1.094	-.809	-.633	-.462	-.336
30.00	-.639	-1.130	-1.067	-.782	-.622	-.453	-.330
35.00	-.595	-.711	-1.041	-.771	-.613	-.445	-.323
40.00	-.579	-.489	-.993	-.751	-.602	-.439	-.322
45.00	-.591	-.557	-.941	-.735	-.590	-.431	-.311
50.00	-.609	-.597	-.901	-.716	-.580	-.428	-.309
55.00	-.620	-.592	-.859	-.701	-.570	-.425	-.305
60.00	-.635	-.584	-.836	-.685	-.542	-.422	-.305
65.00	-.644	-.585	-.791	-.662	-.550	-.418	-.304
70.00	-.649	-.777	-.734	-.636	-.539	-.411	-.305
75.00	-.706	-.449	-.732	-.618	-.522	-.391	-.299
80.00	-.568	-.410	-.695	-.633	-.504	-.370	-.302
85.00	-.491	-.312	-.644	-.609	-.499	-.371	-.302
90.00	-.408	-.203	-.583	-.600	-.471	-.366	-.300
95.00	-.322	-.103	-.495	-.585		-.354	-.302

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.378	-.594	-.546	-.498	-.515	-.498	-.435
2.50	-.534	-.585	-.549	-.497	-.511	-.457	-.442
5.00	-.636	-.528	-.505	-.467	-.485	-.450	-.374
7.50	-.615	-.481	-.477	-.428	-.435	-.404	-.313
10.00	-.585	-.443	-.435	-.417	-.401	-.369	-.262
15.00	-.507	-.390	-.386	-.364	-.344	-.302	-.190
20.00	-.444	-.348	-.346	-.328	-.306	-.266	-.097
25.00	-.387	-.316	-.314	-.293	-.270	-.227	-.043
30.00	-.342	-.294	-.292	-.269	-.243	-.191	-.005
35.00	-.320	-.283	-.271	-.248	-.221	-.167	-.027
40.00	-.293	-.301	-.263	-.236	-.210	-.148	-.062
45.00	-.265	-.334	-.266	-.255	-.211	-.141	-.107
50.00	-.261	-.393	-.286	-.295	-.227	-.150	-.163
55.00	-.261	-.419	-.334	-.377	-.270	-.186	-.212
60.00	-.355	-.374	-.381	-.371	-.333	-.229	-.216
65.00	-.554		-.384	-.627	-.344	-.216	-.224
70.00	-.798	-.727	-.629	-.693	-.639	-.429	-.222
75.00	-1.083	-1.056	-.644	-.719	-.633	-.418	-.215
80.00	-.377	-.883	-.641	-.703	-.625	-.402	-.208
85.00	-.243	-.320	-.613	-.652	-.611	-.383	-.215
90.00	-.046	-.069	-.553	-.374	-.585	-.361	-.230
95.00	-.053	-.333	-.386		-.344	-.184	-.253
GAP							

M = 0.94   α = 0.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.023	-.533	-.496	-.739	-.476	-.468	-.335
1.25	-.205	-.072	-.108	-.181	-.299	-.432	-.532
2.50	-.147	-.049	-.083	-.155	-.233	-.328	-.428
5.00	-.073	-.051	-.085	-.097	-.226	-.289	-.322
7.50	-.046	-.067	-.103	-.136	-.240	-.291	-.353
10.00	-.028	-.084	-.118	-.167	-.256	-.300	-.358
15.00	-.013	-.111	-.147	-.205	-.258	-.305	-.369
20.00	-.066	-.128	-.172	-.234	-.285	-.341	-.382
25.00	-.088	-.150	-.195	-.258	-.321	-.368	-.388
30.00	-.107	-.171	-.280	-.302	-.337	-.377	-.354
35.00	-.117	-.191	-.271	-.332	-.365	-.392	-.305
40.00	-.127	-.209	-.299	-.376	-.394	-.385	-.287
45.00	-.158	-.237	-.338	-.415	-.432	-.378	-.258
50.00	-.184	-.266	-.370	-.441	-.437	-.383	-.232
55.00	-.205	-.279	-.411	-.409	-.390	-.401	-.197
60.00	-.223	-.309	-.425	-.323	-.328	-.344	-.167
65.00	-.239	-.370	-.528	-.347	-.287	-.239	-.148
70.00	-.277	-.834	-.177	-.232	-.257	-.223	-.144
75.00	-.399	-.168	-.201	-.253	-.252	-.190	-.129
80.00	-.238	-.186	-.214	-.249	-.252	-.140	-.112
85.00	-.267	-.185	-.250	-.248	-.251	-.142	-.112
90.00	-.258	-.183	-.271	-.246	-.253	-.143	-.096
95.00	-.281	-.186					-.102

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	-.240	-.040	-.053	-.015	-.129	-.191	-.160
2.50	-.174	-.033	-.037	-.006	-.036	-.047	-.113
5.00	-.101	-.037	-.038	-.028	-.031	-.083	-.043
7.50	-.060	-.053	-.031	-.024	-.003	-.051	-.002
10.00	-.039	-.064	-.041	-.018	-.016	-.036	-.030
15.00	-.001	-.079	-.037	-.023	-.014	-.003	-.096
20.00	-.025	-.090	-.081	-.017	-.013	-.013	-.138
25.00	-.054	-.096	-.010	-.090	-.003	-.017	-.094
30.00	-.074	-.054	-.000	-.001	-.023	-.016	-.078
35.00	-.077	-.044	-.082	-.023	-.044	-.026	-.062
40.00	-.085	-.018	-.081	-.058	-.078	-.042	-.056
45.00	-.084	-.106	-.096	-.097	-.184	-.080	-.073
50.00	-.063	-.209	-.168	-.164	-.271	-.135	-.094
55.00	-.021	-.297	-.244	-.251	-.320	-.208	-.108
60.00	-.174	-.368	-.280	-.329	-.315	-.236	-.088
65.00	-.360	-.216	-.285	-.383		-.206	-.093
70.00	-.559	-.759	-.444	-.330	-.286	-.209	-.101
75.00	-1.040	-.775	-.433	-.389	-.283	-.204	-.118
80.00	-.496	-.728	-.430	-.389	-.278	-.196	-.131
85.00	-.441	-.672	-.433	-.350	-.280	-.190	-.134
90.00	-.368	-.599	-.485	-.334	-.283	-.186	-.134
95.00	-.273	-.174	-.305	-.340	-.239	-.205	
GAP							

TABLE IV WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 4.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.024	.873	.171	.430	.115	.093	.151
1.25	.043	.716	.895	1.013	1.061	1.102	1.130
2.50	.061	.646	.846	.997	1.059	1.062	1.123
5.00	.123	.366	.583	.867	.936	1.036	1.016
7.50	.134	.331	.408	.620	.889	.961	1.021
10.00	.169	.303	.388	.435	.654	.929	.968
15.00	.183	.293	.372	.431	.559	.882	.823
20.00	.224	.296	.374	.447	.474	.790	.828
25.00	.244	.303	.382	.457	.509	.592	.646
30.00	.254	.305	.391	.451	.520	.553	.626
35.00	.241	.323	.404	.472	.541	.580	.509
40.00	.249	.336	.421	.495	.556	.605	.523
45.00	.273	.365	.448	.521	.589	.638	.526
50.00	.295	.389	.473	.558	.615	.673	.508
55.00	.315	.397	.486	.568	.646	.715	.310
60.00	.333	.412	.506	.578	.641	.574	.156
65.00	.345	.451	.534	.507	.450	.280	.145
70.00	.369	.614	.454	.331	.321	.220	.154
75.00	.500	.306	.431	.529	.605	.255	.153
80.00	.331	.342	.358	.451	.489	.184	.155
85.00	.355	.308	.330	.406	.401	.171	.162
90.00	.358	.237	.346	.383	.347	.137	.165
95.00	.341	.173	.356	.346	.267	.142	.173

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.366	.361	.377	.442	.444	.468	.390
2.50	.350	.290	.306	.301	.338	.323	.329
5.00	.302	.221	.237	.218	.276	.265	.236
7.50	.258	.175	.206	.171	.224	.237	.166
10.00	.231	.145	.176	.179	.193	.204	.120
15.00	.179	.107	.144	.144	.160	.148	.048
20.00	.144	.083	.125	.127	.135	.134	.052
25.00	.106	.066	.116	.111	.124	.116	.098
30.00	.077	.065	.105	.107	.119	.101	.117
35.00	.069	.080	.112	.111	.125	.094	.123
40.00	.054	.116	.125	.125	.141	.094	.126
45.00	.043	.174	.154	.155	.171	.110	.142
50.00	.060	.251	.201	.208	.218	.142	.163
55.00	.098	.334	.278	.275	.280	.192	.172
60.00	.239	.315	.309	.339	.312	.208	.155
65.00	.445	.250	.305	.322	.305	.163	.149
70.00	.680						.148
75.00	1.057	.763	.438	.332	.278	.184	.143
80.00	.450	.817	.434	.335	.276	.182	.147
85.00	.396	.755	.434	.336	.278	.184	.147
90.00	.517	.673	.438	.337	.278	.189	.148
95.00	.240	.554	.428	.331	.268	.192	.147
GAP		.204	.315	.330	.316	.171	

M = 0.94   α = 6.0°

UPPER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.019	.093	.006	.247	.075	.075	.343
1.25	.053	1.084	1.176	1.250	1.281	1.306	1.326
2.50	.177	1.042	1.147	1.231	1.277	1.214	1.311
5.00	.239	.775	1.076	1.155	1.190	1.236	1.185
7.50	.250	.576	.971	1.096	1.152	1.192	1.218
10.00	.289	.479	.757	1.051	1.132	1.154	1.194
15.00	.290	.416	.506	.925	1.067	1.105	1.093
20.00	.310	.397	.461	.610	1.031	1.058	1.072
25.00	.333	.390	.456	.535	.977	1.055	1.046
30.00	.340	.387	.465	.516	.742	1.026	1.004
35.00	.318	.398	.474	.537	.629	1.014	.934
40.00	.319	.405	.495	.558	.607	.974	.856
45.00	.339	.430	.514	.584	.628	.866	.758
50.00	.361	.453	.540	.612	.653	.765	.701
55.00	.375	.458	.580	.631	.687	.667	.768
60.00	.395	.476	.566	.633	.679	.536	.742
65.00	.418	.507	.580	.533	.472	.441	.664
70.00	.419	.818	.460	.353	.354	.336	.550
75.00	.587	.394	.510	.627	.710	.389	.438
80.00	.389	.411	.481	.521	.535	.291	.349
85.00	.408	.339	.380	.445	.437	.225	.313
90.00	.418	.255	.382	.405	.375	.147	.278
95.00	.389	.186	.368	.357	.282	.133	.264

LOWER SURFACE

Percent chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.406	.470	.469	.493	.490	.507	.424
2.50	.428	.399	.402	.379	.411	.390	.383
5.00	.397	.320	.387	.304	.346	.352	.293
7.50	.368	.869	.393	.251	.293	.299	.238
10.00	.388	.236	.253	.254	.256	.266	.173
15.00	.270	.192	.218	.211	.220	.207	.101
20.00	.288	.156	.190	.187	.187	.184	.003
25.00	.186	.136	.172	.167	.170	.164	.058
30.00	.150	.189	.156	.155	.163	.142	.087
35.00	.138	.138	.157	.154	.160	.131	.107
40.00	.121	.162	.163	.162	.171	.128	.120
45.00	.104	.208	.186	.186	.192	.135	.137
50.00	.116	.274	.225	.229	.235	.162	.156
55.00	.142	.352	.296	.291	.294	.208	.154
60.00	.269	.315	.334	.358	.331	.230	.156
65.00	.482	.273	.332	.344	.331	.204	.164
70.00	.747						.168
75.00	1.074	.780	.446	.339	.280	.177	.168
80.00	.466	.877	.445	.342	.277	.165	.166
85.00	.401	.797	.449	.344	.277	.170	.166
90.00	.324	.690	.451	.343	.271	.176	.168
95.00	.281	.511	.435	.338	.261	.181	.168
GAP		.228	.342	.352	.336	.189	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.94   α = 8.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.015	-.066	-.164	.079	-.270	-.244	-.468
1.25	-.139	-1.086	-1.163	-1.324	-1.103	-.817	-.725
2.50	-.279	-1.109	-1.138	-1.308	-1.090	-.748	-.713
5.00	-.338	-.976	-1.045	-1.249	-1.064	-.783	-.660
7.50	-.348	-.866	-.935	-1.210	-1.045	-.785	-.673
10.00	-.394	-.799	-.856	-1.171	-1.035	-.783	-.671
15.00	-.381	-.693	-.760	-1.075	-1.008	-.785	-.706
20.00	-.394	-.567	-.670	-1.000	-.983	-.776	-.657
25.00	-.405	-.477	-.635	-.872	-.947	-.751	-.604
30.00	-.407	-.429	-.606	-.738	-.881	-.741	-.616
35.00	-.378	-.428	-.599	-.698	-.829	-.714	-.625
40.00	-.378	-.439	-.598	-.654	-.783	-.677	-.571
45.00	-.396	-.465	-.600	-.618	-.743	-.626	-.516
50.00	-.414	-.493	-.613	-.605	-.702	-.587	-.490
55.00	-.433	-.498	-.618	-.599	-.667	-.544	-.469
60.00	-.446	-.514	-.617	-.578	-.623	-.511	-.447
65.00	-.455	-.534	-.589	-.505	-.545	-.477	-.449
70.00	-.469	-.806	-.502	-.373	-.596	-.475	-.422
75.00	-.593	-.465	-.552	-.610	-.586	-.416	-.385
80.00	-.435	-.471	-.464	-.491	-.544	-.419	-.367
85.00	-.455	-.412	-.416	-.399	-.506	-.396	-.359
90.00	-.466	-.300	-.387	-.363	-.462	-.358	-.348
95.00	-.424	-.115	-.351	-.330	-.430	-.358	-.339

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.439	.544	.523	.494	.533	.534	.442
2.50	.491	.484	.471	.445	.468	.427	.420
5.00	.492	.404	.402	.373	.420	.404	.334
7.50	.453	.355	.367	.330	.359	.349	.273
10.00	.424	.320	.323	.320	.327	.317	.213
15.00	.358	.271	.284	.272	.276	.250	.139
20.00	.308	.235	.250	.243	.241	.223	.036
25.00	.266	.207	.238	.220	.216	.193	.024
30.00	.236	.196	.206	.202	.202	.163	-.059
35.00	.208	.199	.200	.197	.194	.146	-.082
40.00	.187	.214	.202	.196	.197	.132	-.101
45.00	.168	.251	.218	.214	.210	.134	-.138
50.00	.175	.306	.252	.246	.242	.151	-.163
55.00	.190	.378	.318	.307	.296	.191	-.182
60.00	.308	.379	.361	.378	.341	.225	-.181
65.00	.516	.319	.362	.366	.344	.209	-.196
70.00	.774						-.200
75.00	-1.054	-.775	-.464	-.366	-.392	-.300	-.211
80.00	-.471	-.895	-.467	-.378	-.403	-.285	-.215
85.00	-.357	-.814	-.469	-.389	-.425	-.286	-.216
90.00	-.257	-.680	-.472	-.393	-.435	-.289	-.216
95.00	-.180	-.360	-.441	-.366	-.431	-.299	-.220
GAP		.270	.368	.371	.345	.186	

M = 0.98   α = 0.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.048	.561	.511	.767	.494	.487	.393
1.25	.244	.015	.042	.101	-.201	-.290	-.366
2.50	.187	-.002	-.088	-.091	-.157	-.216	-.289
5.00	.117	-.003	-.037	-.049	-.162	-.215	-.248
7.50	.093	-.023	-.059	-.084	-.123	-.224	-.280
10.00	.070	-.037	-.074	-.107	-.201	-.243	-.288
15.00	.032	-.066	-.103	-.153	-.213	-.249	-.303
20.00	.021	-.083	-.127	-.180	-.235	-.286	-.348
25.00	-.044	-.107	-.156	-.212	-.273	-.314	-.389
30.00	-.064	-.129	-.173	-.218	-.289	-.331	-.374
35.00	-.075	-.150	-.197	-.248	-.315	-.358	-.374
40.00	-.084	-.168	-.220	-.277	-.347	-.385	-.402
45.00	-.114	-.191	-.250	-.314	-.387	-.419	-.428
50.00	-.141	-.219	-.281	-.356	-.412	-.449	-.431
55.00	-.166	-.230	-.308	-.388	-.444	-.500	-.453
60.00	-.179	-.252	-.342	-.400	-.448	-.506	-.431
65.00	-.196	-.304	-.381	-.397	-.392	-.419	-.327
70.00	-.227	-.891	-.689	-.464	-.424	-.320	-.336
75.00	-.350	-.129	-.161	-.170	-.235	-.380	-.304
80.00	-.196	-.172	-.183	-.231	-.380	-.321	-.297
85.00	-.234	-.184	-.180	-.240	-.397	-.318	-.284
90.00	-.237	-.169	-.215	-.270	-.321	-.324	-.247
95.00	-.253	-.142	-.247	-.298	-.339	-.316	-.215

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.271	-.022	-.069	-.009	-.102	-.132	-.097
2.50	.206	-.009	-.045	-.021	-.019	-.004	-.065
5.00	.135	-.015	-.037	-.031	-.023	-.048	-.010
7.50	.093	-.030	-.025	-.028	-.003	-.015	-.014
10.00	.071	-.040	-.029	-.010	-.022	-.004	-.039
15.00	.031	-.060	-.019	-.007	-.021	-.023	-.102
20.00	.004	-.074	-.008	-.008	-.020	-.013	-.174
25.00	-.026	-.089	-.023	-.005	-.011	-.005	-.125
30.00	-.049	-.076	-.031	-.015	-.007	-.001	-.086
35.00	-.056	-.018	-.051	-.034	-.027	-.010	-.083
40.00	-.069	-.061	-.077	-.059	-.057	-.024	-.099
45.00	-.075	-.148	-.119	-.103	-.101	-.053	-.149
50.00	-.043	-.252	-.182	-.165	-.166	-.107	-.213
55.00	-.053	-.330	-.262	-.249	-.257	-.188	-.230
60.00	-.215	-.299	-.296	-.327	-.316	-.237	-.210
65.00	-.388	-.289	-.296	-.318	-.313	-.199	-.207
70.00	-.583						-.197
75.00	-1.023	-.860	-.538	-.445	-.379	-.312	-.197
80.00	-.587	-.910	-.542	-.446	-.380	-.306	-.215
85.00	-.452	-.824	-.539	-.441	-.378	-.294	-.231
90.00	-.370	-.735	-.537	-.446	-.375	-.281	-.237
95.00	-.284	-.628	-.533	-.450	-.371	-.267	-.236
GAP		.194	.314	.334	.327	.197	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98   α = 4.0°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.045	.332	.235	.494	.192	.177	.036
1.25	.093	.617	.777	.863	.905	.930	.944
2.50	.007	.574	.738	.846	.902	.904	.945
5.00	.074	.288	.484	.729	.787	.876	.854
7.50	.087	.260	.328	.567	.750	.801	.849
10.00	.119	.247	.320	.373	.720	.781	.794
15.00	.137	.249	.313	.362	.501	.742	.678
20.00	.174	.251	.311	.385	.416	.676	.700
25.00	.194	.257	.327	.399	.454	.533	.720
30.00	.212	.257	.333	.394	.465	.485	.563
35.00	.202	.273	.350	.413	.480	.509	.463
40.00	.204	.287	.370	.436	.496	.534	.477
45.00	.228	.314	.393	.465	.529	.567	.491
50.00	.249	.339	.418	.492	.552	.596	.527
55.00	.276	.345	.430	.511	.582	.633	.565
60.00	.288	.364	.446	.516	.595	.663	.586
65.00	.297	.390	.471	.514	.554	.565	.578
70.00	.323	.847	.534	.430	.411	.352	.558
75.00	.450	.264	.398	.500	.574	.596	.524
80.00	.290	.300	.349	.416	.518	.593	.508
85.00	.314	.287	.297	.372	.470	.495	.479
90.00	.321	.256	.301	.375	.460	.407	.435
95.00	.314	.136	.325	.389	.431	.348	.295

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.387	.374	.384	.435	.438	.452	.380
2.50	.372	.307	.316	.312	.326	.296	.318
5.00	.326	.237	.248	.228	.266	.264	.223
7.50	.280	.193	.220	.190	.216	.211	.158
10.00	.255	.166	.190	.192	.186	.184	.117
15.00	.203	.130	.165	.157	.149	.130	.042
20.00	.168	.104	.146	.138	.122	.114	.058
25.00	.130	.087	.139	.122	.110	.097	.114
30.00	.100	.087	.129	.115	.103	.080	.135
35.00	.091	.107	.133	.117	.105	.073	.143
40.00	.076	.143	.145	.127	.121	.075	.137
45.00	.065	.208	.171	.155	.151	.088	.159
50.00	.084	.286	.219	.202	.201	.122	.200
55.00	.127	.366	.292	.268	.263	.176	.258
60.00	.272	.338	.322	.330	.296	.195	.255
65.00	.472	.264	.317	.312	.289	.169	.248
70.00	.705						.247
75.00	1.029	.820	.512	.435	.396	.306	.237
80.00	.513	.905	.519	.442	.399	.297	.247
85.00	.410	.831	.518	.449	.399	.289	.249
90.00	.350	.728	.520	.459	.403	.282	.249
95.00	.244	.557	.514	.459	.398	.275	.246
GAP		.219	.328	.321	.299	.153	

M = 0.98   α = 5.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.040	.174	.079	.324	.020	.031	.210
1.25	.013	.848	.972	1.038	1.059	1.071	1.089
2.50	.105	.864	.962	1.026	1.064	1.024	1.083
5.00	.167	.597	.858	.951	.980	1.023	.985
7.50	.180	.438	.779	.873	.947	.980	1.003
10.00	.218	.379	.705	.799	.924	.961	.975
15.00	.225	.344	.421	.724	.840	.920	.658
20.00	.252	.333	.374	.537	.799	.873	.877
25.00	.268	.334	.386	.467	.799	.860	.890
30.00	.281	.331	.395	.448	.649	.798	.790
35.00	.264	.340	.408	.468	.551	.792	.696
40.00	.267	.346	.429	.487	.535	.780	.722
45.00	.286	.372	.449	.515	.559	.738	.750
50.00	.304	.394	.476	.545	.582	.691	.761
55.00	.323	.401	.486	.562	.618	.674	.767
60.00	.345	.414	.497	.570	.635	.672	.720
65.00	.349	.433	.513	.558	.596	.549	.636
70.00	.372	.827	.513	.423	.432	.414	.648
75.00	.498	.336	.487	.591	.651	.642	.648
80.00	.339	.360	.406	.507	.610	.630	.590
85.00	.361	.336	.343	.435	.561	.547	.590
90.00	.372	.288	.337	.423	.523	.466	.588
95.00	.364	.118	.355	.418	.470	.396	.500

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.422	.479	.475	.516	.491	.501	.426
2.50	.442	.410	.409	.389	.401	.370	.376
5.00	.418	.332	.336	.308	.339	.334	.285
7.50	.373	.283	.303	.262	.285	.282	.224
10.00	.341	.252	.267	.258	.250	.249	.173
15.00	.287	.209	.234	.217	.209	.192	.102
20.00	.242	.176	.205	.198	.176	.171	.009
25.00	.203	.156	.192	.173	.159	.146	.070
30.00	.167	.148	.176	.159	.146	.127	.103
35.00	.155	.157	.173	.155	.145	.114	.124
40.00	.139	.187	.180	.160	.155	.110	.134
45.00	.122	.238	.201	.182	.177	.116	.160
50.00	.136	.308	.242	.224	.220	.139	.206
55.00	.164	.383	.310	.285	.281	.188	.270
60.00	.299	.365	.346	.353	.318	.214	.277
65.00	.506	.291	.342	.334	.314	.190	.280
70.00	.767						.284
75.00	1.024	.808	.504	.433	.411	.326	.288
80.00	.469	.989	.510	.445	.418	.312	.303
85.00	.388	.853	.508	.453	.437	.307	.302
90.00	.305	.732	.513	.468	.430	.306	.303
95.00	.230	.496	.496	.468	.430	.306	.308
GAP		.245	.353	.341	.321	.169	

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 0.98 α = 7.9°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.029	.015	-.079	-.159	-.167	-.155	-.398
1.25	-.073	-1.026	-1.120	-1.188	-1.189	-1.176	-.929
2.50	-.211	-1.058	-1.189	-1.168	-1.191	-1.097	-.918
5.00	-.274	-.901	-1.068	-1.112	-1.124	-1.133	-.847
7.50	-.287	-.732	-1.017	-1.070	-1.095	-1.100	-.878
10.00	-.338	-.616	-.972	-1.035	-1.079	-1.076	-.869
15.00	-.326	-.538	-.869	-.956	-1.033	-1.033	-.836
20.00	-.340	-.483	-.604	-.901	-1.007	-.984	-.829
25.00	-.349	-.445	-.524	-.894	-1.003	-.962	-.807
30.00	-.358	-.416	-.487	-.701	-.934	-.902	-.800
35.00	-.334	-.411	-.485	-.647	-.903	-.864	-.759
40.00	-.335	-.414	-.499	-.617	-.884	-.826	-.751
45.00	-.349	-.434	-.519	-.601	-.823	-.777	-.722
50.00	-.366	-.456	-.543	-.601	-.739	-.724	-.706
55.00	-.385	-.461	-.553	-.611	-.699	-.685	-.685
60.00	-.401	-.473	-.564	-.619	-.665	-.676	-.657
65.00	-.405	-.487	-.573	-.589	-.587	-.641	-.634
70.00	-.420	-.805	-.513	-.422	-.547	-.626	-.620
75.00	-.547	-.430	-.562	-.658	-.717	-.653	-.599
80.00	-.393	-.439	-.466	-.580	-.610	-.587	-.591
85.00	-.414	-.391	-.393	-.491	-.560	-.576	-.588
90.00	-.426	-.326	-.384	-.453	-.514	-.541	-.566
95.00	-.408	-.123	-.392	-.427	-.460	-.513	-.544

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.450	.555	.532	.506	.536	.523	.451
2.50	.509	.494	.478	.447	.465	.418	.436
5.00	.508	.418	.408	.375	.413	.395	.338
7.50	.471	.370	.374	.334	.353	.344	.270
10.00	.440	.335	.333	.323	.316	.310	.224
15.00	.376	.286	.295	.276	.267	.244	.149
20.00	.327	.246	.260	.245	.232	.218	.039
25.00	.280	.224	.240	.222	.211	.192	.029
30.00	.242	.214	.221	.205	.196	.164	-.069
35.00	.226	.217	.215	.196	.189	.148	-.099
40.00	.204	.237	.215	.195	.192	.135	-.117
45.00	.183	.277	.230	.209	.210	.135	-.150
50.00	.195	.333	.263	.246	.243	.150	-.204
55.00	.210	.403	.388	.303	.299	.190	-.279
60.00	.332	.395	.367	.373	.344	.221	-.296
65.00	.539	.329	.366	.360	.344	.202	-.320
70.00	.806						-.339
75.00	-1.016	-.788	-.506	-.426	-.424	-.424	-.342
80.00	-.425	-.961	-.514	-.441	-.427	-.405	-.354
85.00	-.354	-.665	-.511	-.450	-.437	-.422	-.366
90.00	-.270	-.716	-.511	-.458	-.440	-.444	-.370
95.00	-.194	-.316	-.480	-.449	-.436	-.466	-.376
GAP		.284	.375	.364	.347	.175	

M = 1.00 α = 0.0°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	.069	.576	.583	.772	.510	.501	.407
1.25	.260	-.001	-.028	-.084	-.194	-.284	-.365
2.50	.208	.017	-.013	-.075	-.143	-.203	-.284
5.00	.138	-.015	-.030	-.036	-.147	-.202	-.236
7.50	.112	-.007	-.044	-.072	-.166	-.209	-.269
10.00	.092	-.020	-.058	-.088	-.183	-.222	-.275
15.00	.049	-.050	-.085	-.137	-.195	-.232	-.289
20.00	.002	-.066	-.109	-.164	-.216	-.264	-.332
25.00	-.024	-.089	-.136	-.192	-.252	-.292	-.369
30.00	-.044	-.110	-.154	-.200	-.269	-.309	-.374
35.00	-.057	-.134	-.178	-.232	-.292	-.337	-.370
40.00	-.063	-.150	-.203	-.259	-.321	-.364	-.388
45.00	-.094	-.176	-.230	-.294	-.360	-.399	-.413
50.00	-.125	-.204	-.260	-.332	-.393	-.432	-.425
55.00	-.148	-.217	-.285	-.364	-.426	-.480	-.449
60.00	-.162	-.231	-.317	-.385	-.437	-.504	-.448
65.00	-.179	-.280	-.356	-.388	-.406	-.459	-.406
70.00	-.207	-.273	-.616	-.470	-.467	-.363	-.341
75.00	-.331	-.116	-.154	-.170	-.198	-.318	-.284
80.00	-.180	-.160	-.180	-.215	-.255	-.288	-.292
85.00	-.208	-.172	-.168	-.227	-.275	-.297	-.291
90.00	-.209	-.161	-.199	-.252	-.299	-.301	-.285
95.00	-.239	-.131	-.287	-.278	-.312	-.306	-.279

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.289	.000	-.049	.009	.133	.157	.121
2.50	.326	.010	-.038	.001	.045	.019	.069
5.00	.158	-.006	-.082	-.020	.047	.072	.036
7.50	.117	-.009	-.008	-.014	.022	.039	-.002
10.00	.097	-.028	-.010	.006	.001	.027	-.015
15.00	.056	-.040	-.004	-.012	-.002	-.004	-.074
20.00	.037	-.055	-.030	-.017	-.001	-.009	-.152
25.00	-.005	-.077	-.046	-.023	-.008	-.015	-.162
30.00	-.031	-.078	-.056	-.034	-.027	-.020	-.119
35.00	-.036	-.003	-.076	-.051	-.046	-.030	-.075
40.00	-.051	-.078	-.101	-.077	-.074	-.041	-.073
45.00	-.065	-.168	-.139	-.118	-.117	-.067	-.088
50.00	-.035	-.271	-.200	-.181	-.181	-.118	-.140
55.00	-.073	-.355	-.277	-.263	-.270	-.200	-.220
60.00	-.242	-.380	-.308	-.341	-.389	-.240	-.254
65.00	-.413	-.364	-.313	-.335	-.330	-.217	-.273
70.00	-.589						-.272
75.00	-.906	-.035	-.528	-.456	-.424	-.337	-.258
80.00	-.582	-.884	-.532	-.458	-.427	-.331	-.261
85.00	-.408	-.808	-.531	-.459	-.430	-.329	-.278
90.00	-.338	-.714	-.530	-.468	-.431	-.320	-.284
95.00	-.268	-.608	-.587	-.476	-.433	-.313	-.279
GAP		.238	.332	.347	.341	.213	

TABLE IV — WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00 α = 4.0°

UPPER SURFACE

.00	-.053	-.389	-.362	-.511	-.214	-.203	-.013
1.25	-.113	-.601	-.770	-.855	-.895	-.908	-.939
2.50	-.032	-.558	-.788	-.843	-.892	-.886	-.942
5.00	-.046	-.365	-.483	-.733	-.786	-.863	-.846
7.50	-.061	-.240	-.399	-.579	-.748	-.798	-.847
10.00	-.092	-.223	-.397	-.360	-.719	-.777	-.805
15.00	-.112	-.225	-.292	-.340	-.513	-.739	-.685
20.00	-.152	-.230	-.294	-.363	-.391	-.681	-.702
25.00	-.170	-.234	-.303	-.377	-.427	-.540	-.728
30.00	-.186	-.236	-.312	-.374	-.440	-.461	-.587
35.00	-.179	-.252	-.386	-.393	-.456	-.484	-.469
40.00	-.183	-.261	-.347	-.413	-.474	-.508	-.469
45.00	-.209	-.291	-.369	-.439	-.501	-.540	-.471
50.00	-.230	-.315	-.396	-.467	-.527	-.568	-.505
55.00	-.249	-.381	-.408	-.486	-.557	-.605	-.547
60.00	-.266	-.337	-.481	-.491	-.569	-.637	-.570
65.00	-.274	-.362	-.446	-.491	-.539	-.598	-.580
70.00	-.295	-.320	-.525	-.420	-.489	-.401	-.574
75.00	-.424	-.343	-.390	-.503	-.563	-.555	-.554
80.00	-.273	-.304	-.341	-.413	-.522	-.560	-.538
85.00	-.295	-.274	-.288	-.357	-.464	-.509	-.556
90.00	-.303	-.254	-.282	-.355	-.450	-.443	-.555
95.00	-.292	-.120	-.304	-.369	-.427	-.402	-.495

LOWER SURFACE

1.25	.401	.394	.400	.455	.453	.465	.389
2.50	.390	.326	.333	.330	.347	.314	.332
5.00	.344	.357	.266	.248	.287	.281	.239
7.50	.301	.316	.238	.200	.235	.231	.190
10.00	.276	.187	.208	.207	.206	.204	.133
15.00	.223	.150	.184	.170	.171	.148	.061
20.00	.187	.124	.168	.159	.142	.131	-.041
25.00	.150	.106	.159	.144	.129	.114	-.102
30.00	.119	.105	.151	.136	.128	.099	-.127
35.00	.109	.126	.155	.137	.123	.091	-.138
40.00	.095	.166	.164	.146	.139	.091	-.136
45.00	.082	.230	.192	.174	.167	.101	-.154
50.00	.102	.314	.238	.221	.215	.131	-.202
55.00	.145	.387	.309	.286	.277	.183	-.278
60.00	.292	.360	.338	.346	.310	.203	-.299
65.00	.490	.861	.334	.328	.303	.181	-.313
70.00	.719						-.314
75.00	.996	.796	.498	.437	.420	.356	-.315
80.00	-.490	-.883	-.507	-.445	-.426	-.348	-.324
85.00	-.392	-.814	-.500	-.454	-.432	-.343	-.328
90.00	-.322	-.706	-.507	-.464	-.440	-.342	-.322
95.00	-.233	-.526	-.503	-.468	-.445	-.345	-.316
GAP		.240	.345	.334	.311	.162	

M = 1.00 α = 5.9°

UPPER SURFACE

.00	-.033	-.806	-.103	-.346	-.047	-.056	-.181
1.25	-.037	-.844	-.959	-1.023	-1.049	-1.062	-1.078
2.50	-.088	-.866	-.948	-1.013	-1.053	-1.005	-1.072
5.00	-.149	-.601	-.866	-.940	-.974	-1.011	-.970
7.50	-.157	-.421	-.797	-.879	-.941	-.972	-.992
10.00	-.198	-.362	-.731	-.819	-.918	-.950	-.969
15.00	-.205	-.326	-.412	-.748	-.854	-.914	-.864
20.00	-.229	-.311	-.353	-.548	-.821	-.869	-.879
25.00	-.254	-.311	-.363	-.448	-.815	-.866	-.886
30.00	-.258	-.310	-.375	-.425	-.673	-.815	-.808
35.00	-.244	-.317	-.385	-.444	-.545	-.808	-.726
40.00	-.248	-.336	-.406	-.463	-.517	-.798	-.757
45.00	-.263	-.351	-.489	-.490	-.535	-.759	-.775
50.00	-.284	-.372	-.457	-.520	-.559	-.699	-.787
55.00	-.306	-.377	-.464	-.543	-.593	-.665	-.801
60.00	-.388	-.394	-.474	-.550	-.613	-.659	-.784
65.00	-.331	-.410	-.489	-.541	-.567	-.574	-.688
70.00	-.347	-.798	-.501	-.418	-.433	-.444	-.686
75.00	-.477	-.320	-.477	-.578	-.639	-.598	-.671
80.00	-.319	-.342	-.402	-.506	-.608	-.611	-.647
85.00	-.340	-.381	-.332	-.439	-.569	-.570	-.652
90.00	-.354	-.285	-.317	-.408	-.533	-.519	-.652
95.00	-.347	-.103	-.336	-.406	-.474	-.468	-.574

LOWER SURFACE

1.25	.438	.498	.488	.531	.500	.511	.434
2.50	.452	.425	.482	.404	.413	.380	.387
5.00	.434	.352	.351	.326	.349	.342	.299
7.50	.393	.303	.380	.277	.297	.291	.242
10.00	.365	.270	.284	.278	.265	.258	.188
15.00	.308	.225	.251	.237	.225	.201	.119
20.00	.265	.196	.284	.213	.193	.181	.008
25.00	.234	.175	.209	.198	.173	.157	-.057
30.00	.189	.170	.195	.179	.161	.136	-.089
35.00	.175	.180	.192	.174	.158	.125	-.110
40.00	.157	.212	.197	.176	.169	.127	-.122
45.00	.140	.263	.218	.199	.189	.127	-.147
50.00	.155	.331	.260	.238	.230	.150	-.198
55.00	.183	.405	.387	.299	.290	.198	-.275
60.00	.330	.383	.360	.366	.328	.222	-.297
65.00	.534	.307	.389	.348	.323	.200	-.316
70.00	.784						-.326
75.00	.989	.780	.490	.437	.417	.362	-.327
80.00	-.440	-.907	-.498	-.439	-.424	-.350	-.338
85.00	-.367	-.830	-.496	-.451	-.435	-.350	-.345
90.00	-.286	-.708	-.498	-.463	-.445	-.352	-.342
95.00	-.218	-.467	-.483	-.460	-.447	-.363	-.348
GAP		.265	.367	.353	.332	.179	

TABLE IV

WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.00   α = 7.9°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.004	-.060	-.030	-.201	-.115	-.097	-.339
1.25	-.029	-.956	-1.048	-1.107	-1.122	-1.133	-1.141
2.50	-.162	-.983	-1.038	-1.095	-1.124	-1.060	-1.129
5.00	-.230	-.824	-.992	-1.034	-1.056	-1.084	-1.027
7.50	-.244	-.630	-.944	-.991	-1.083	-1.049	-1.062
10.00	-.280	-.518	-.897	-.953	-1.004	-1.030	-1.033
15.00	-.282	-.451	-.766	-.883	-.962	-.992	-.926
20.00	-.398	-.415	-.548	-.802	-.936	-.951	-.933
25.00	-.307	-.398	-.469	-.767	-.931	-.962	-.929
30.00	-.314	-.376	-.434	-.636	-.854	-.925	-.878
35.00	-.293	-.372	-.438	-.579	-.800	-.919	-.818
40.00	-.294	-.374	-.451	-.561	-.780	-.908	-.833
45.00	-.311	-.395	-.473	-.554	-.753	-.885	-.843
50.00	-.323	-.417	-.499	-.560	-.696	-.851	-.845
55.00	-.345	-.419	-.508	-.573	-.667	-.711	-.846
60.00	-.364	-.430	-.517	-.580	-.646	-.658	-.833
65.00	-.369	-.443	-.525	-.565	-.583	-.629	-.769
70.00	-.389	-.775	-.497	-.414	-.533	-.683	-.768
75.00	-.511	-.386	-.531	-.621	-.695	-.683	-.751
80.00	-.354	-.390	-.441	-.556	-.639	-.679	-.719
85.00	-.377	-.363	-.363	-.468	-.617	-.642	-.723
90.00	-.391	-.311	-.348	-.439	-.574	-.580	-.709
95.00	-.378	-.105	-.362	-.420	-.503	-.543	-.665

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.447	.572	.544	.532	.541	.544	.458
2.50	.525	.509	.488	.460	.466	.422	.430
5.00	.526	.430	.418	.389	.416	.399	.340
7.50	.487	.382	.384	.344	.356	.346	.283
10.00	.457	.349	.347	.336	.322	.312	.231
15.00	.393	.299	.309	.288	.272	.250	.158
20.00	.344	.267	.277	.261	.239	.225	.050
25.00	.299	.242	.257	.236	.214	.199	.017
30.00	.259	.232	.238	.220	.202	.175	-.059
35.00	.243	.235	.231	.211	.193	.159	-.088
40.00	.219	.254	.234	.211	.198	.149	-.107
45.00	.200	.297	.247	.226	.216	.150	-.139
50.00	.412	.355	.279	.261	.249	.166	-.192
55.00	.237	.424	.344	.316	.305	.208	-.269
60.00	.352	.417	.381	.385	.348	.239	-.292
65.00	.558	.347	.381	.370	.349	.218	-.318
70.00	.833						-.339
75.00	-.973	-.756	-.494	-.421	-.435	-.395	-.349
80.00	-.402	-.922	-.499	-.438	-.443	-.378	-.363
85.00	-.389	-.835	-.497	-.450	-.455	-.391	-.381
90.00	-.239	-.692	-.497	-.459	-.460	-.412	-.389
95.00	-.179	-.319	-.469	-.452	-.456	-.436	-.401
GAP		.293	.388	.375	.351	.193	

M = 1.03   α = 0.0°

UPPER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.055	-.572	-.518	-.789	-.536	-.532	-.441
1.25	-.205	-.025	-.046	-.063	-.184	-.273	-.352
2.50	-.164	-.004	-.028	-.059	-.125	-.183	-.259
5.00	-.095	-.005	-.037	-.028	-.123	-.170	-.203
7.50	-.069	-.024	-.052	-.059	-.141	-.180	-.229
10.00	-.056	-.034	-.068	-.079	-.155	-.194	-.232
15.00	-.025	-.063	-.094	-.123	-.167	-.196	-.249
20.00	-.024	-.077	-.120	-.146	-.186	-.229	-.283
25.00	-.038	-.095	-.138	-.171	-.220	-.251	-.315
30.00	-.048	-.111	-.157	-.182	-.234	-.268	-.321
35.00	-.072	-.137	-.174	-.211	-.255	-.295	-.328
40.00	-.077	-.155	-.198	-.235	-.279	-.322	-.345
45.00	-.099	-.183	-.224	-.264	-.316	-.357	-.366
50.00	-.129	-.208	-.250	-.295	-.342	-.389	-.379
55.00	-.154	-.216	-.262	-.318	-.379	-.436	-.406
60.00	-.168	-.232	-.283	-.340	-.395	-.471	-.417
65.00	-.184	-.262	-.321	-.357	-.381	-.452	-.409
70.00	-.208	-.231	-.559	-.433	-.482	-.337	-.334
75.00	-.339	-.134	-.166	-.203	-.210	-.321	-.262
80.00	-.188	-.169	-.183	-.186	-.233	-.286	-.250
85.00	-.206	-.181	-.155	-.189	-.235	-.284	-.250
90.00	-.207	-.162	-.172	-.211	-.258	-.268	-.242
95.00	-.194	-.110	-.189	-.236	-.268	-.269	-.240

LOWER SURFACE

% chord	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.242	.006	.059	.028	.170	.232	.175
2.50	.184	.001	.041	.014	.089	.067	.143
5.00	.119	.005	.030	.003	.086	.118	.091
7.50	.081	.020	.054	.021	.062	.084	.058
10.00	.065	.032	.074	.038	.043	.071	.033
15.00	.032	.047	.088	.037	.043	.039	.037
20.00	.011	.064	.057	.047	.040	.049	.102
25.00	-.022	.084	.079	.058	.049	.055	.117
30.00	-.043	.102	.091	.069	.066	.059	.078
35.00	-.047	.124	.123	.085	.086	.071	.036
40.00	-.062	.058	.163	.111	.115	.084	.031
45.00	-.087	.197	.222	.154	.154	.105	.047
50.00	-.108	.305	.226	.216	.220	.153	.095
55.00	-.008	.367	.331	.338	.303	.233	.181
60.00	-.244	.330	.331	.338	.368	.270	.223
65.00	-.408	.839	.347	.388	.361	.244	.249
70.00	-.593						.230
75.00	-.940	-.797	-.489	-.416	-.389	-.318	-.230
80.00	-.529	-.842	-.493	-.420	-.394	-.307	-.248
85.00	-.405	-.761	-.490	-.434	-.394	-.306	-.255
90.00	-.335	-.666	-.487	-.444	-.397	-.293	-.258
95.00	-.271	-.654	-.481	-.365	-.375	-.291	-.252
GAP		.240	.365			.243	

TABLE IV WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.03 α = 4.0°

UPPER SURFACE

.00	-.069	-.392	-.301	-.546	-.353	-.345	-.035
1.25	-.098	-.603	-.732	-.838	-.677	-.863	-.906
2.50	-.009	-.568	-.732	-.834	-.664	-.855	-.913
5.00	-.064	-.276	-.576	-.748	-.791	-.842	-.809
7.50	-.087	-.237	-.371	-.634	-.753	-.796	-.822
10.00	-.109	-.224	-.361	-.409	-.781	-.771	-.796
15.00	-.129	-.223	-.367	-.310	-.570	-.733	-.696
20.00	-.159	-.317	-.373	-.327	-.356	-.684	-.701
25.00	-.171	-.322	-.279	-.341	-.377	-.567	-.703
30.00	-.175	-.226	-.288	-.340	-.392	-.423	-.597
35.00	-.180	-.238	-.298	-.359	-.410	-.429	-.470
40.00	-.183	-.245	-.319	-.379	-.427	-.453	-.442
45.00	-.197	-.262	-.342	-.404	-.455	-.484	-.419
50.00	-.218	-.293	-.367	-.432	-.477	-.512	-.448
55.00	-.238	-.300	-.378	-.445	-.508	-.549	-.466
60.00	-.253	-.313	-.386	-.455	-.499	-.580	-.510
65.00	-.265	-.766	-.474	-.384	-.383	-.363	-.526
70.00	-.277	-.229	-.382	-.489	-.536	-.533	-.518
75.00	-.406	-.259	-.410	-.509	-.531	-.530	
80.00	-.253	-.259	-.321	-.314	-.461	-.504	-.543
85.00	-.271	-.269	-.267	-.317	-.453	-.451	-.555
90.00	-.283	-.242	-.243			-.403	-.518
95.00	-.279	-.091	-.259	-.325	-.388		

LOWER SURFACE

1.25	.344	.376	.402	.482	.466	.510	.428
2.50	.353	.310	.336	.358	.385	.351	.371
5.00	.317	.247	.275	.274	.322	.321	.285
7.50	.277	.208	.252	.241	.273	.271	.237
10.00	.256	.180	.223	.247	.243	.244	.180
15.00	.209	.147	.207	.213	.211	.191	.109
20.00	.174	.122	.193	.194	.184	.173	.012
25.00	.141	.110	.189	.180	.168	.157	.050
30.00	.113	.116	.182	.173	.163	.140	-.076
35.00	.103	.143	.187	.177	.165	.134	-.088
40.00	.095	.192	.198	.186	.181	.135	-.087
45.00	.088	.261	.235	.213	.207	.146	-.104
50.00	.115	.345	.274	.258	.253	.173	-.151
55.00	.161	.430	.343	.322	.314	.221	-.232
60.00	.320	.389	.371	.368	.347	.244	-.258
65.00	.512	.302	.369	.364	.342	.220	-.276
70.00	.747						-.278
75.00	-.927	-.745	-.449	-.389	-.373	-.322	-.280
80.00	-.442	-.828	-.457	-.398	-.381	-.310	-.286
85.00	-.364	-.756	-.456	-.408	-.389	-.308	-.891
90.00	-.301	-.646	-.455	-.417	-.395	-.307	-.287
95.00	-.237	-.464	-.450	-.421	-.402	-.315	-.284
GAP		.266	.380	.371	.350	.203	

M = 1.03 α = 5.9°

UPPER SURFACE

.00	-.084	-.855	-.147	-.388	-.094	-.103	-.126
1.25	-.052	-.814	-.884	-.946	-.975	-.984	-1.000
2.50	-.053	-.795	-.874	-.932	-.977	-.930	-.997
5.00	-.131	-.623	-.804	-.870	-.903	-.937	-.894
7.50	-.147	-.379	-.676	-.813	-.868	-.899	-.916
10.00	-.177	-.305	-.676	-.744	-.846	-.879	-.896
15.00	-.191	-.289	-.485	-.679	-.787	-.843	-.801
20.00	-.214	-.277	-.315	-.564	-.733	-.802	-.813
25.00	-.223	-.277	-.328	-.414	-.737	-.795	-.815
30.00	-.226	-.275	-.335	-.378	-.653	-.733	-.741
35.00	-.220	-.283	-.346	-.393	-.528	-.722	-.660
40.00	-.220	-.291	-.362	-.409	-.469	-.719	-.676
45.00	-.236	-.312	-.384	-.435	-.476	-.706	-.689
50.00	-.252	-.334	-.412	-.463	-.496	-.666	-.700
55.00	-.275	-.340	-.419	-.477	-.527	-.620	-.715
60.00	-.288	-.351	-.426	-.494	-.547	-.600	-.719
65.00	-.294	-.365	-.437	-.485	-.526	-.527	-.654
70.00	-.310	-.737	-.442	-.370	-.381	-.400	-.637
75.00	-.436	-.284	-.446	-.530	-.579	-.541	-.620
80.00	-.284	-.298	-.370	-.472	-.559	-.561	-.604
85.00	-.304	-.288	-.299	-.391	-.529	-.536	-.620
90.00	-.313	-.247	-.273	-.359	-.494	-.498	-.630
95.00	-.305	-.067	-.285	-.354	-.428	-.449	-.564

LOWER SURFACE

1.25	.386	.503	.505	.566	.532	.545	.465
2.50	.439	.435	.441	.440	.449	.410	.416
5.00	.431	.368	.373	.361	.385	.378	.330
7.50	.399	.316	.343	.315	.335	.327	.279
10.00	.372	.287	.309	.316	.300	.295	.223
15.00	.318	.245	.280	.273	.262	.236	.159
20.00	.276	.217	.257	.238	.231	.218	.048
25.00	.237	.199	.243	.219	.212	.196	.016
30.00	.204	.195	.230	.219	.200	.175	-.050
35.00	.191	.208	.230	.216	.197	.163	-.070
40.00	.177	.243	.235	.219	.207	.158	-.079
45.00	.168	.298	.254	.241	.228	.166	-.102
50.00	.183	.368	.295	.280	.266	.187	-.153
55.00	.211	.440	.361	.337	.327	.233	-.231
60.00	.352	.418	.394	.401	.364	.257	-.257
65.00	.549	.341	.393	.365	.359	.235	-.279
70.00	.816						-.289
75.00	-.981	-.722	-.441	-.376	-.367	-.325	-.293
80.00	-.403	-.835	-.447	-.388	-.377	-.313	-.303
85.00	-.322	-.759	-.447	-.399	-.385	-.313	-.312
90.00	-.256	-.639	-.446	-.408	-.390	-.320	-.311
95.00	-.194	-.407	-.433	-.408	-.399	-.333	-.312
GAP		.299	.401	.389	.364	.216	

TABLE IV   WING WITH LOWER SURFACE SPOILER (WITH GAP)

PERCENT CHORD	PRESSURE COEFFICIENT, P, AT:						
	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2

M = 1.03   α = 7.9°

UPPER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
.00	-.110	-.097	-.005	-.240	-.075	-.053	-.289
1.25	-.005	-.952	-.991	-1.045	-1.062	-1.074	-1.077
2.50	-.128	-.945	-.980	-1.032	-1.064	-1.000	-1.072
5.00	-.208	-.865	-.946	-.991	-.998	-1.028	-.966
7.50	-.228	-.677	-.900	-.939	-.969	-.994	-1.003
10.00	-.258	-.490	-.848	-.902	-.953	-.974	-.985
15.00	-.267	-.400	-.790	-.838	-.910	-.937	-.891
20.00	-.284	-.366	-.618	-.798	-.882	-.897	-.894
25.00	-.286	-.355	-.454	-.788	-.880	-.906	-.895
30.00	-.284	-.344	-.401	-.674	-.835	-.873	-.850
35.00	-.273	-.345	-.393	-.569	-.799	-.866	-.792
40.00	-.269	-.347	-.402	-.536	-.779	-.861	-.810
45.00	-.283	-.365	-.425	-.520	-.761	-.851	-.829
50.00	-.297	-.385	-.450	-.517	-.699	-.854	-.836
55.00	-.318	-.386	-.459	-.516	-.688	-.733	-.834
60.00	-.332	-.396	-.468	-.527	-.599	-.641	-.786
65.00	-.337	-.408	-.476	-.508	-.537	-.618	-.745
70.00	-.354	-.719	-.444	-.369	-.511	-.609	-.749
75.00	-.476	-.350	-.488	-.566	-.650	-.650	-.750
80.00	-.322	-.352	-.401	-.513	-.597	-.627	-.738
85.00	-.340	-.316	-.316	-.431	-.585	-.598	-.732
90.00	-.353	-.267	-.298	-.395	-.536	-.549	-.733
95.00	-.334	-.069	-.308	-.376	-.480	-.505	-.681

LOWER SURFACE

PERCENT CHORD	0.135b/2	0.25b/2	0.40b/2	0.55b/2	0.70b/2	0.85b/2	0.95b/2
1.25	.432	.594	.572	.564	.572	.577	.487
2.50	.523	.533	.519	.497	.500	.448	.459
5.00	.548	.459	.450	.421	.450	.426	.374
7.50	.517	.412	.419	.383	.392	.377	.313
10.00	.488	.376	.381	.378	.357	.345	.266
15.00	.423	.332	.345	.326	.308	.303	.197
20.00	.371	.296	.313	.299	.275	.259	.089
25.00	.325	.274	.294	.274	.252	.233	.025
30.00	.287	.262	.275	.256	.238	.210	.017
35.00	.269	.267	.269	.248	.229	.193	-.048
40.00	.251	.289	.270	.247	.232	.183	-.065
45.00	.231	.330	.285	.263	.246	.185	-.096
50.00	.245	.390	.317	.298	.262	.199	-.150
55.00	.255	.458	.379	.349	.337	.239	-.234
60.00	.366	.447	.415	.418	.376	.270	-.261
65.00	.585	.382	.415	.403	.380	.251	-.289
70.00	.859						-.304
75.00	-.913	-.698	-.440	-.373	-.398	-.375	-.317
80.00	-.400	-.848	-.446	-.391	-.405	-.355	-.330
85.00	-.297	-.763	-.442	-.403	-.418	-.368	-.348
90.00	-.194	-.627	-.443	-.418	-.432	-.391	-.355
95.00	-.072	-.301	-.415	-.405	-.432	-.414	-.365
GAP		.332	.424	.407	.383	.226	

Figure 1.- Geometry of test configurations.

	Spoiler-orifice locations, z/h						
	$\frac{y}{b/2}=0.25$	$\frac{y}{b/2}=0.40$	$\frac{y}{b/2}=0.55$	$\frac{y}{b/2}=0.70$	$\frac{y}{b/2}=0.85$		
Front	0.201	0.207	0.177	0.188	0.159
Front	.455	.448	.422	.435	.405
Front	.704	.720	.668	.687	.643
Front	.917	.898	.866	.880	.835
Back	.060	.035	.030	.091	.178
Back	.448	.445	.428	.413	.463
Back	.865	.841	.808	.810	.801

Typical section showing details in vicinity of spoiler

Chordwise locations of wing orifices at each station are given with the pressure coefficient data in Tables I - IV.

Steel

Plastic fairing over pressure tubes

Orifice is drilled to tubing (typ)

Trailing-edge support rib (1/4"thick at 20,30,39,48,57,66,75,8 83% b/2)

0.015 c

.02 c

0.007 c

$\frac{1}{16}$

Gap orifices at $\frac{y}{b/2}=0.25, 0.40, 0.55, 0.70, 8.0.85$

Gap filled with wood for upper-surface-spoiler configuration without wing gap.

.04 c h

0.002 c

Orifices are located in fuselage 0.1" from wing surface

Wing orifice stations

.0135 b/2

.25 b/2

.40 b/2

.55 b/2

.70 b/2

.85 b/2

.95 b/2

.070 c

Figure 2.- Pressure-orifice locations and details of spoiler and wing gap.
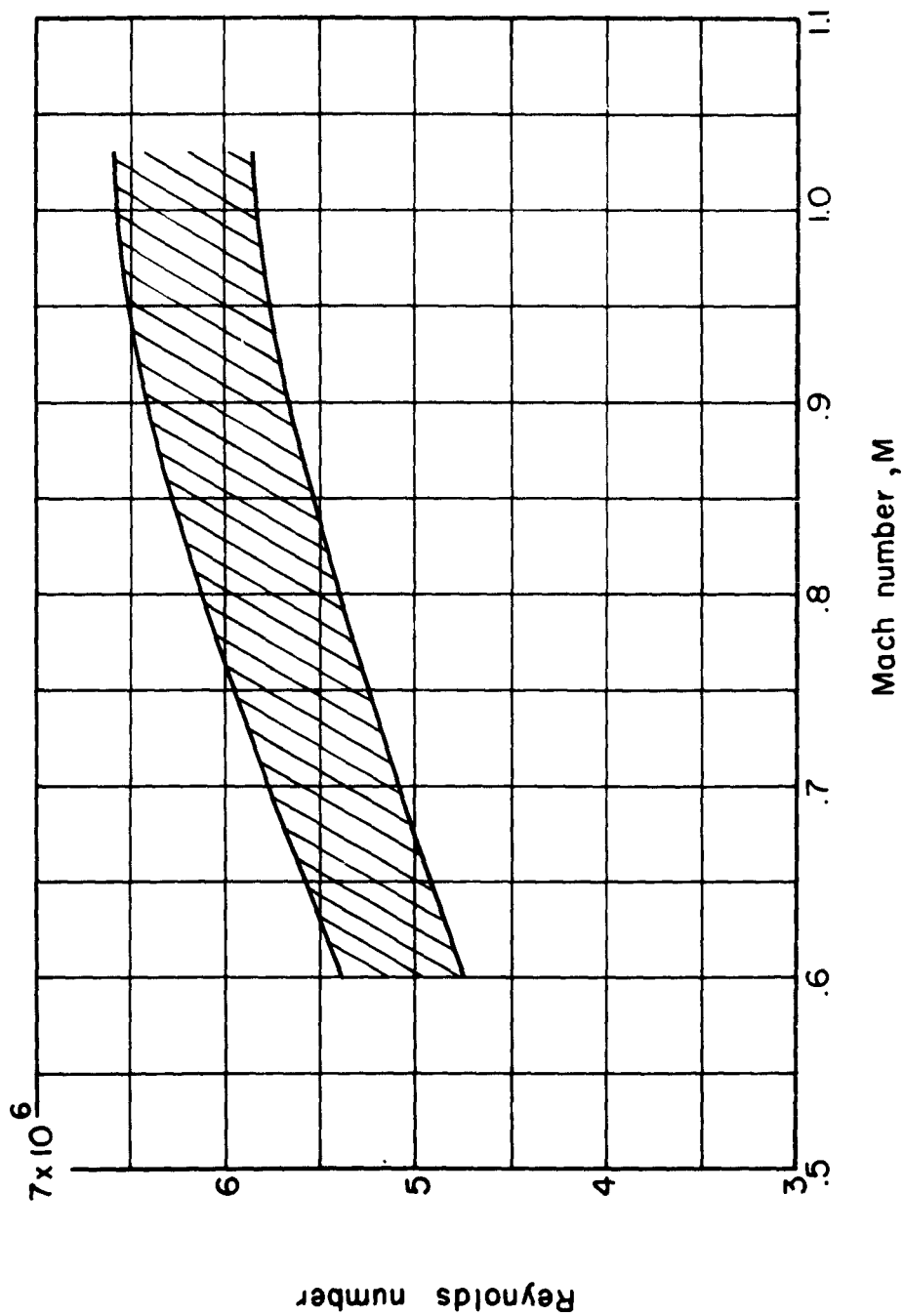
Figure 3.- Variation of Reynolds number based on mean aerodynamic chord with Mach number.

○   Pressure data
□   Force data (ref. 5)

M=0.60 (Spoiler with no gap)

M=0.60 (Spoiler with gap)

M=0.98 (Spoiler with no gap)

M=0.98 (Spoiler with gap)

Rolling - moment coefficient , C_l

Angle of attack , α , deg.
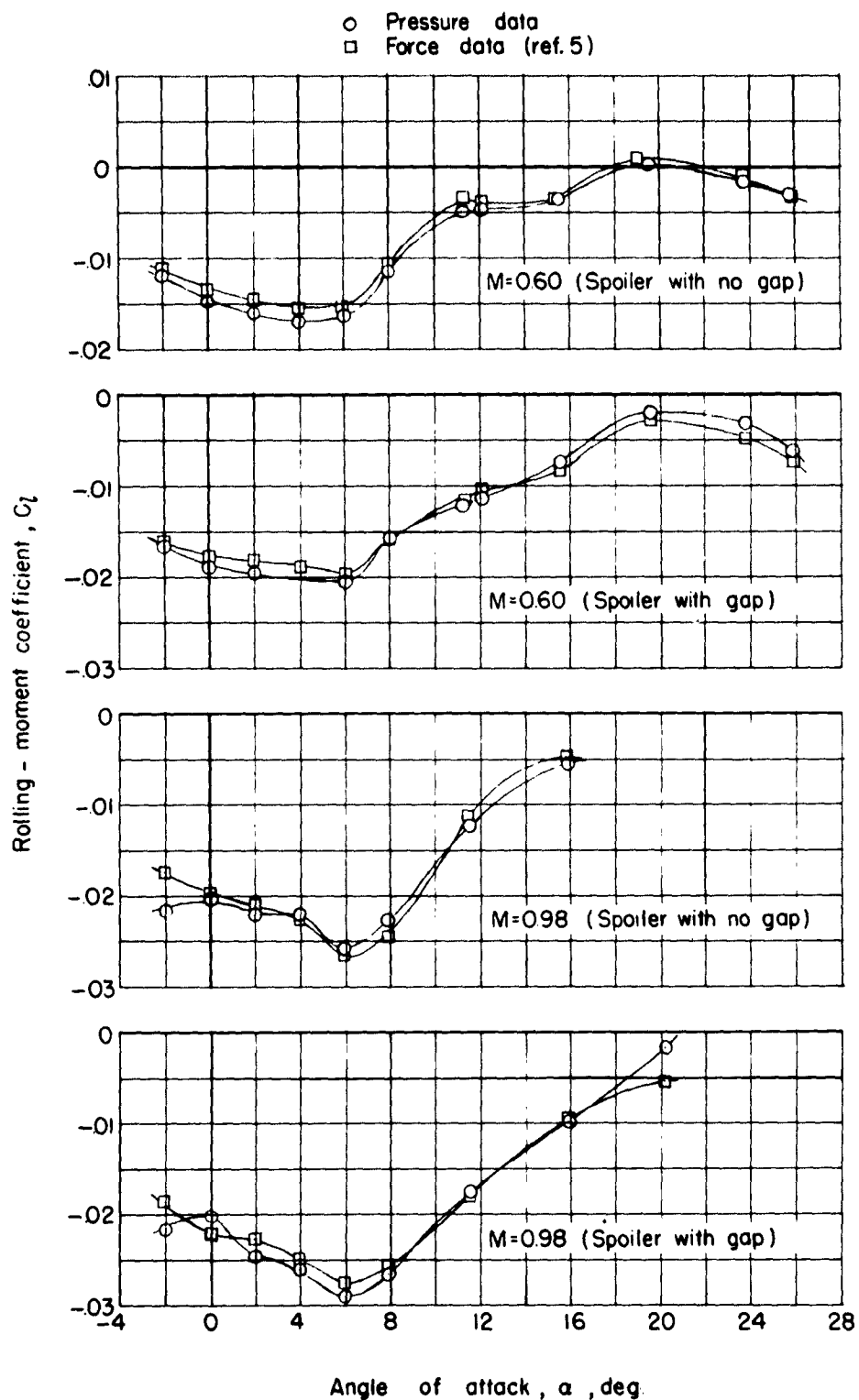
Figure 4.- Comparison of rolling-moment characteristics as obtained from
   pressure data and from force data for the model with upper-surface
   spoilers.
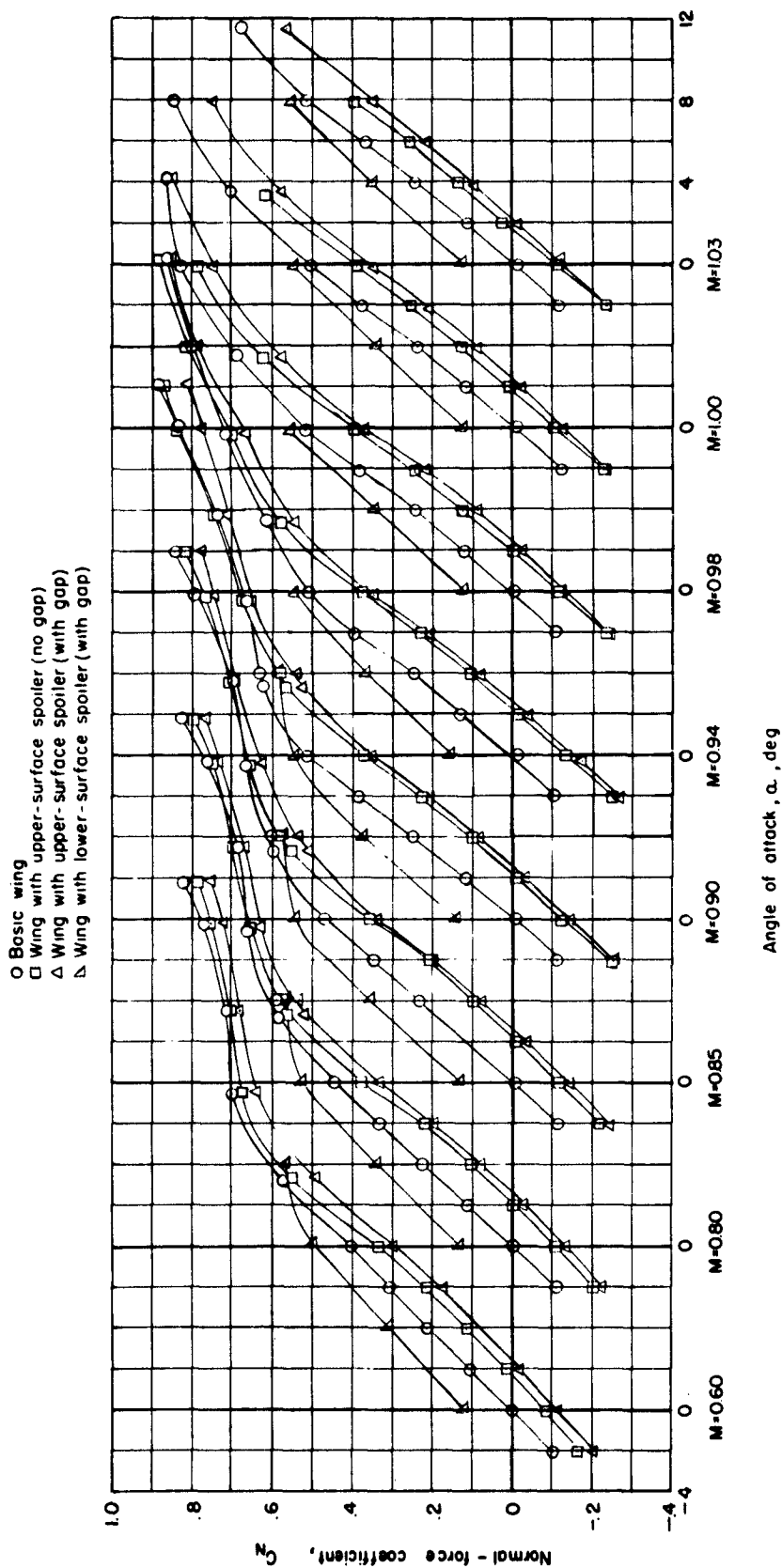
Figure 5.- Wing normal-force characteristics for the basic wing and various spoiler configurations. M = 0.60 to M = 1.03.

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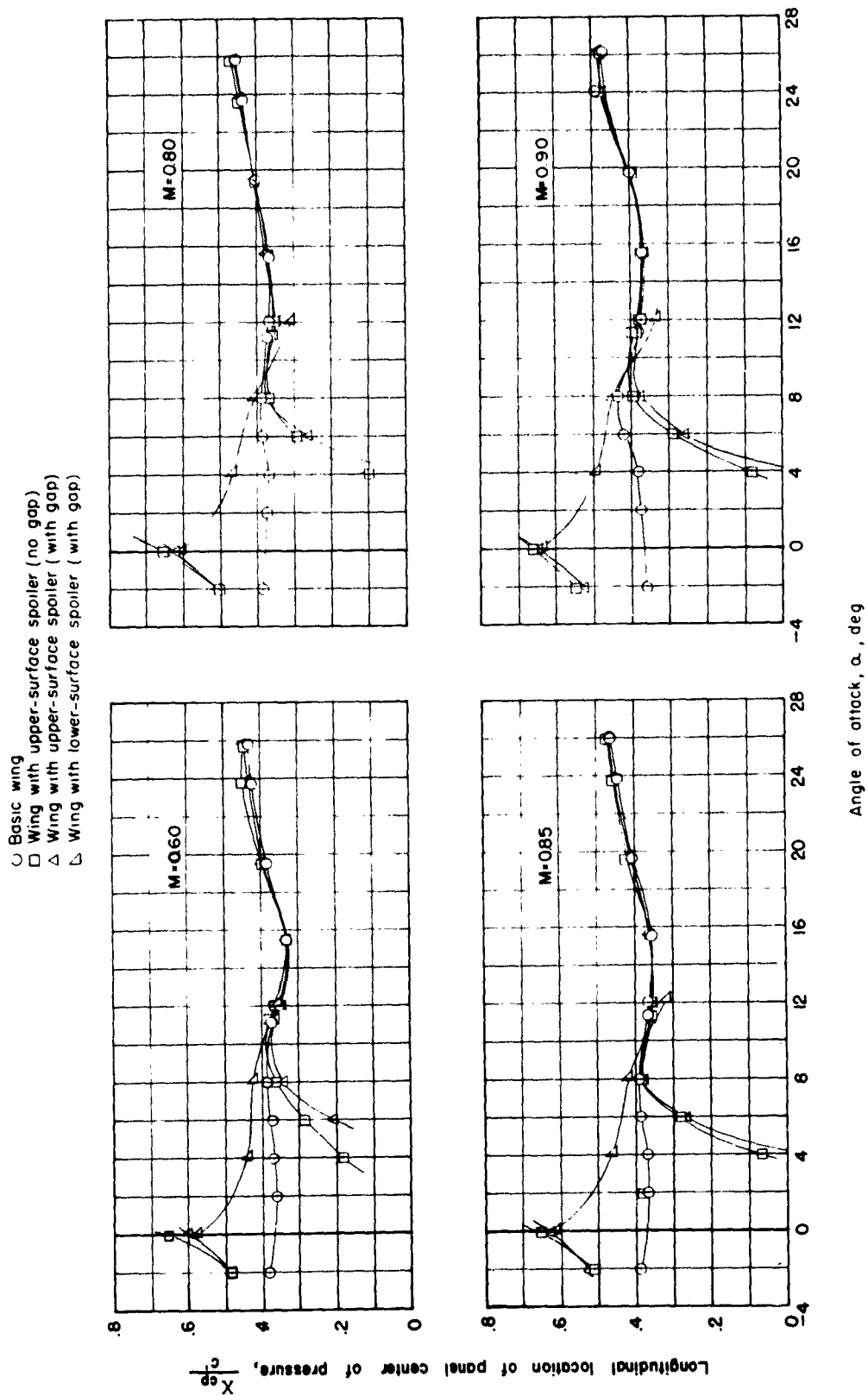
(a) M = 0.60, 0.80, 0.85, 0.90.

Figure 6.— Longitudinal position of wing center of pressure for the basic wing and various spoiler configurations.
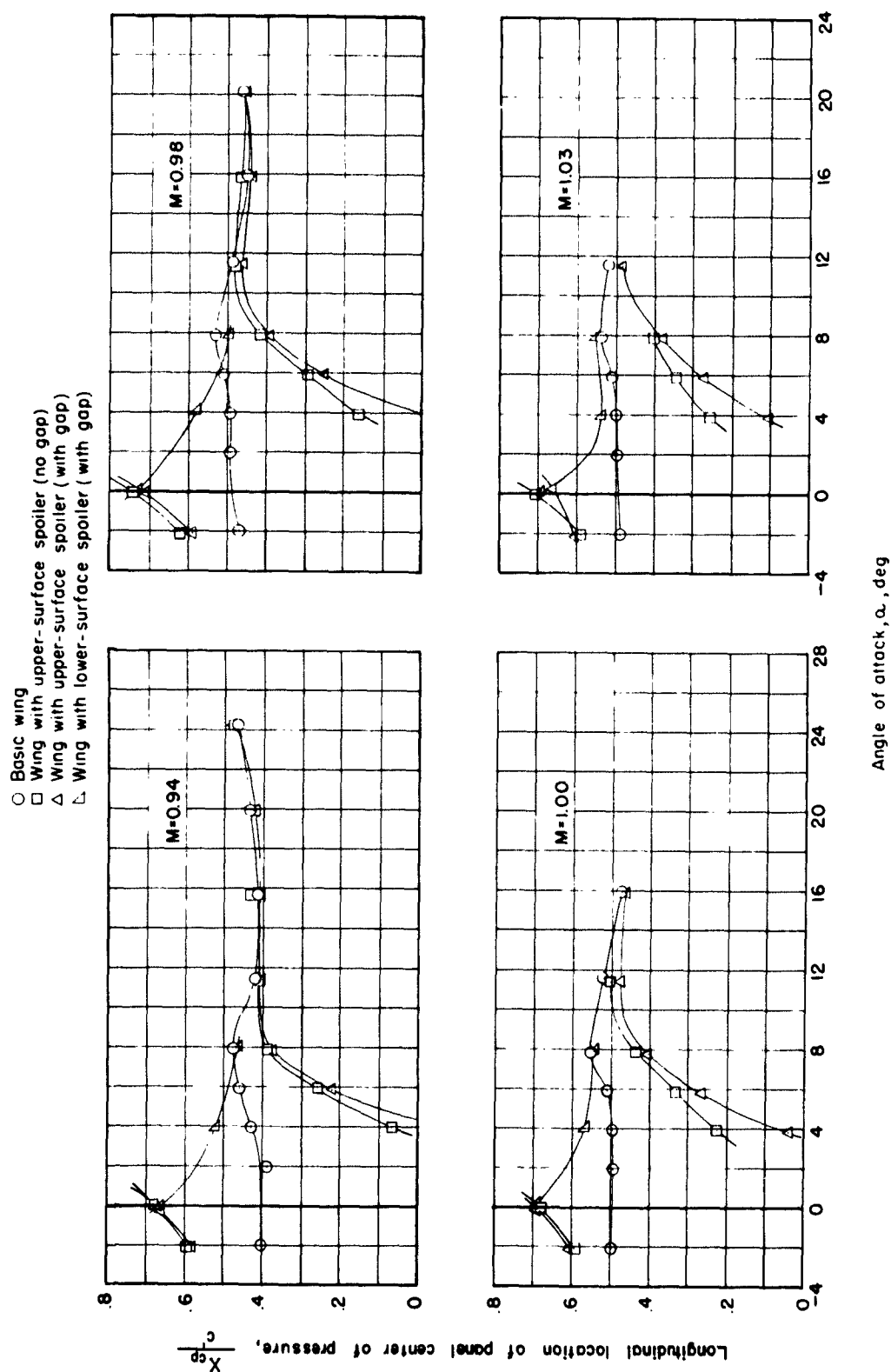
(b) M = 0.94, 0.98, 1.00, 1.03.

Figure 6.- Concluded.
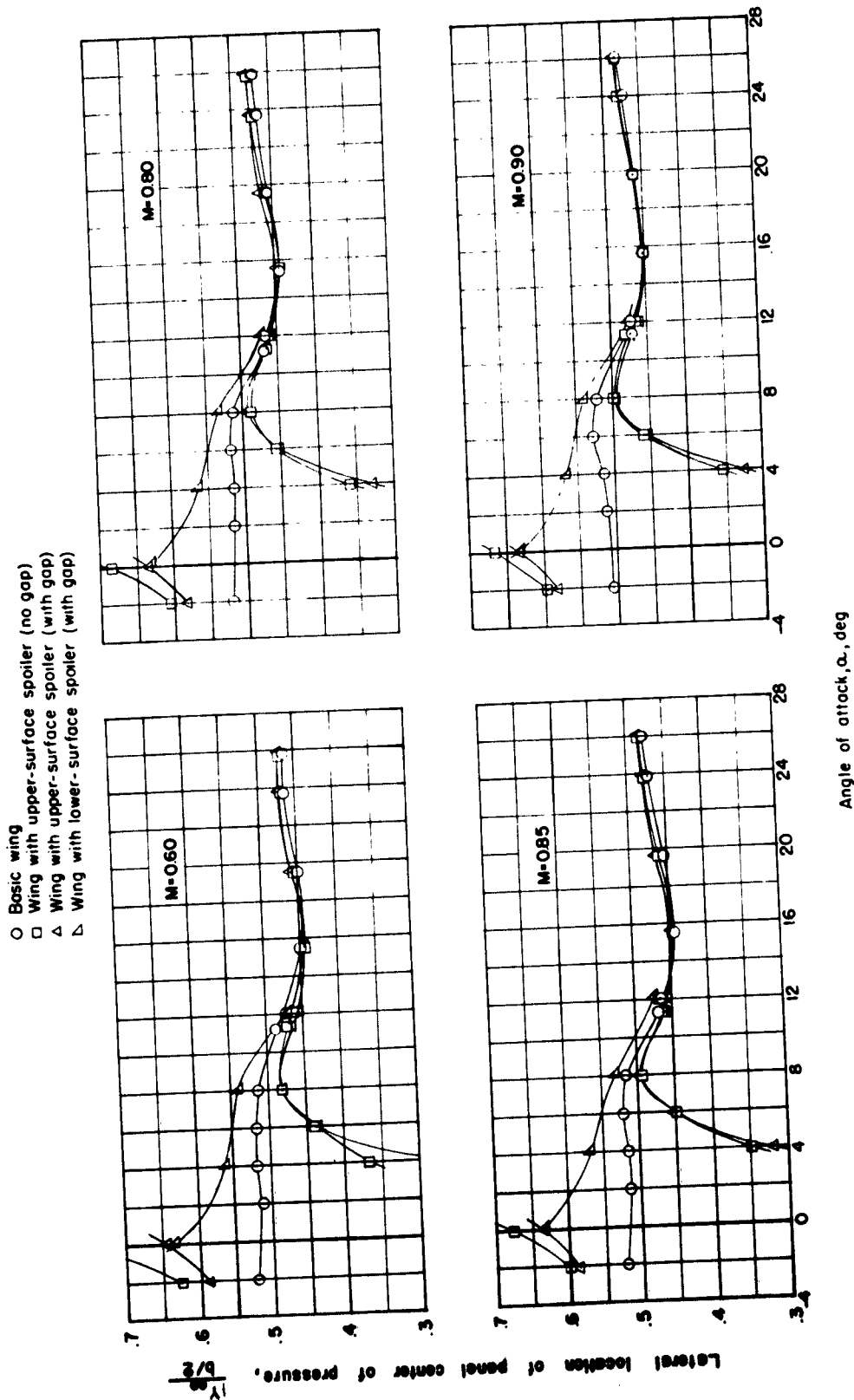
(a) M = 0.60, 0.80, 0.85, 0.90.

Figure 7.- Lateral position of wing center of pressure for the basic and
various spoiler configurations.
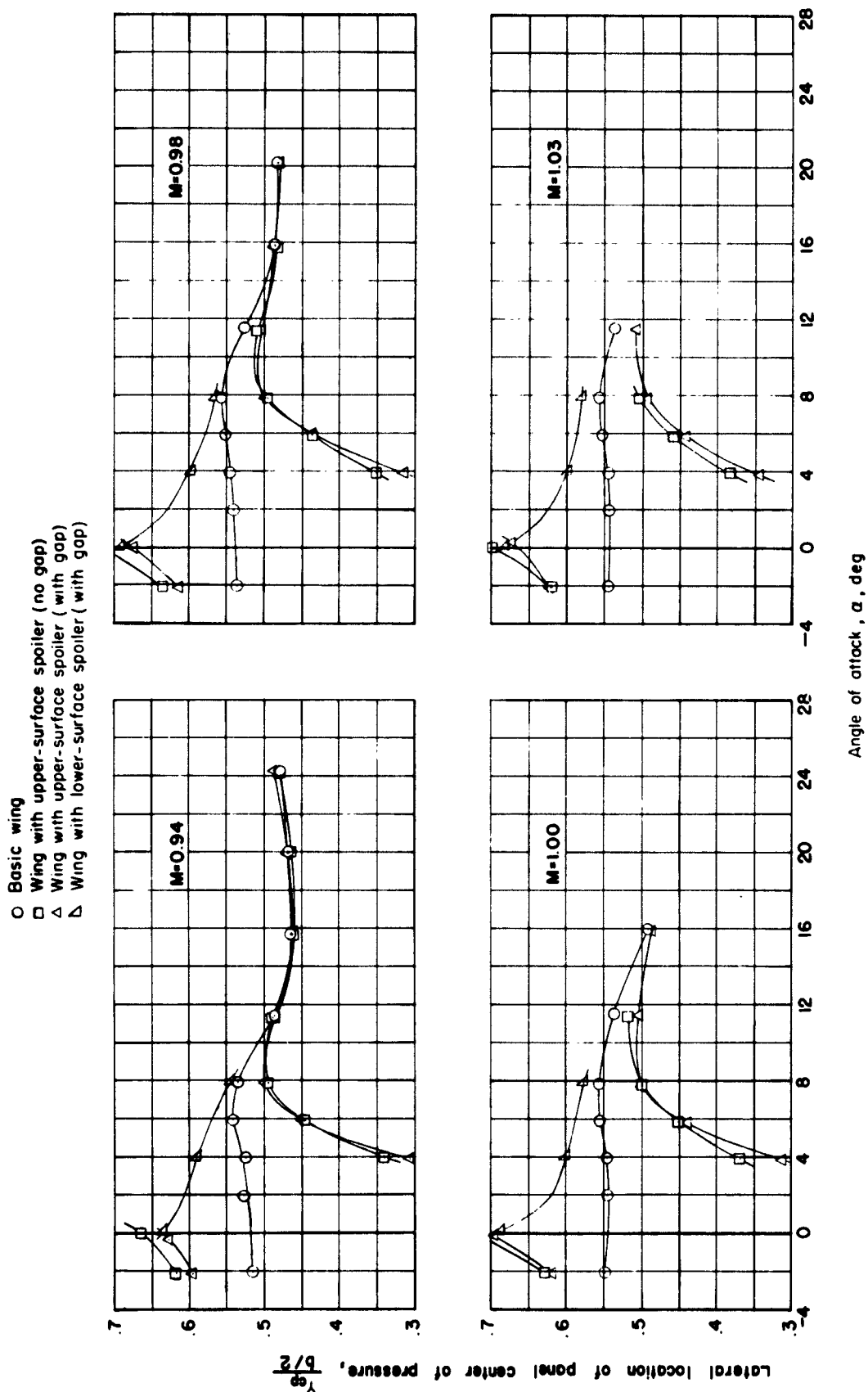
(b) M = 0.94, 0.98, 1.00, 1.03.

Figure 7.- Concluded.

Basic wing
------- Wing with upper-surface spoiler (no gap)
—·— Wing with upper-surface spoiler (with gap)
— — Wing with lower-surface spoiler (with gap)

Fraction of semispan, $\frac{y}{b/2}$
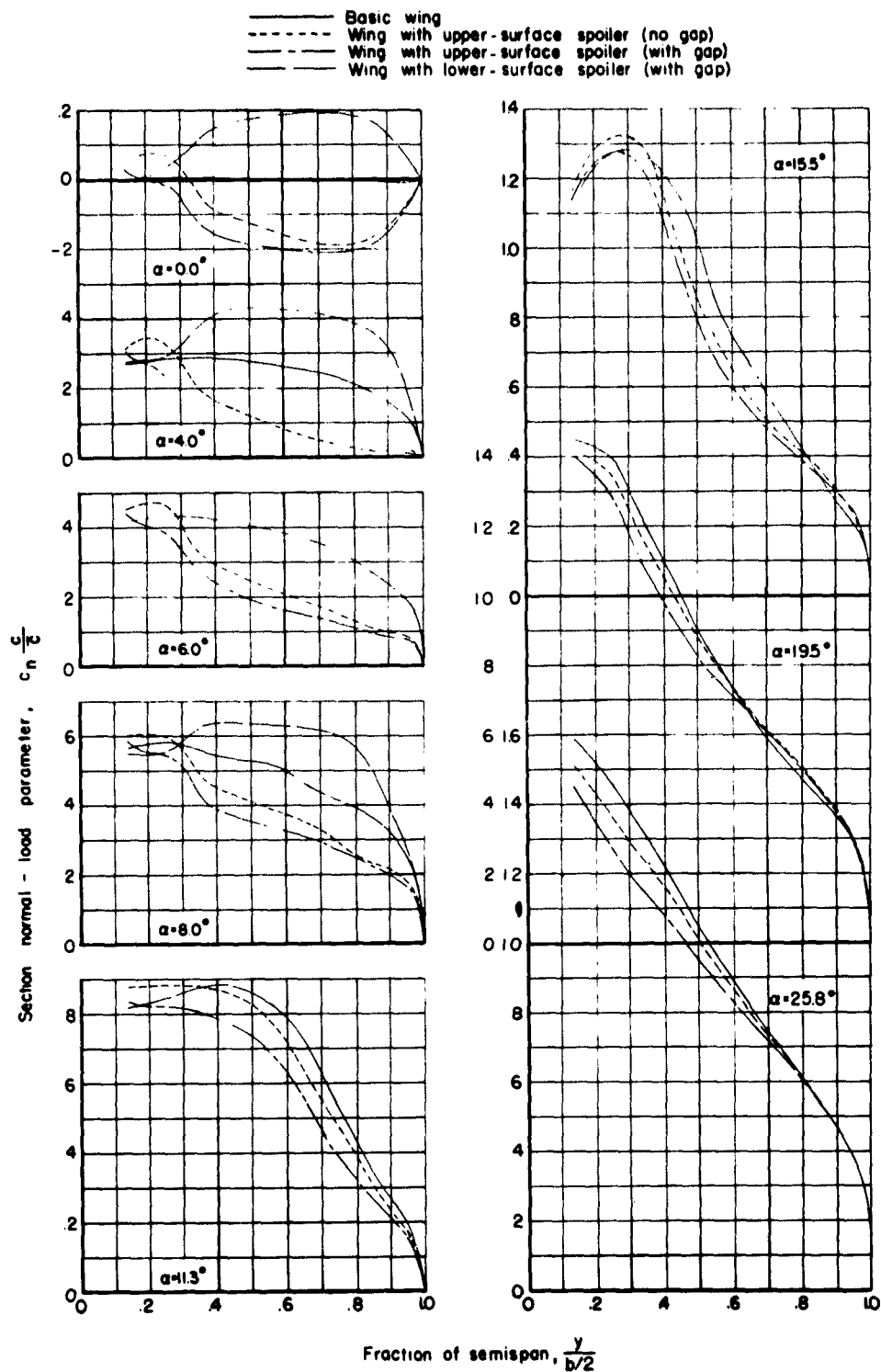
(a)   M = 0.60.

Figure 8.- Wing semispan load distributions for the basic wing and various
spoiler configurations.
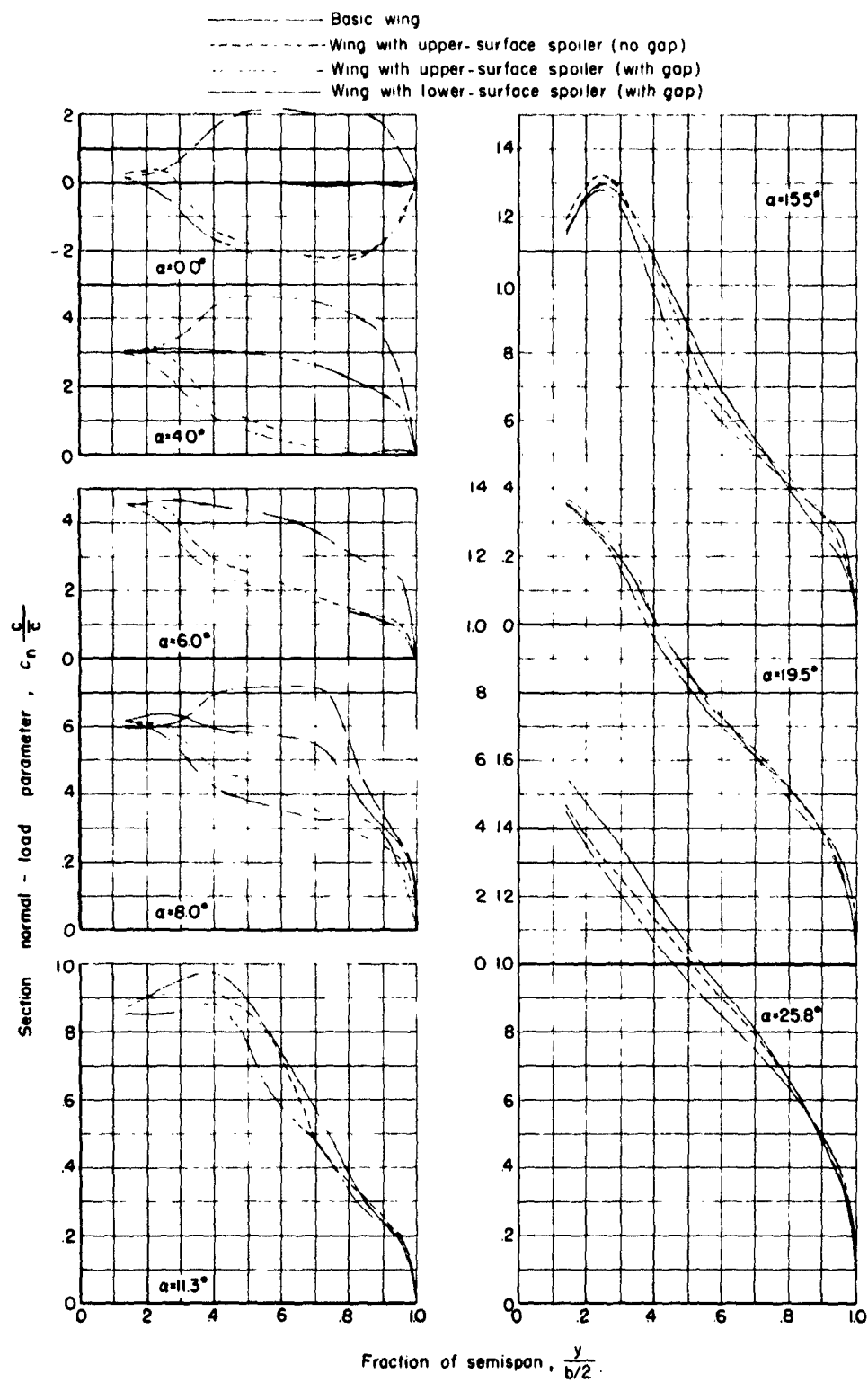
(b) M = 0.80.

Figure 8.- Continued.
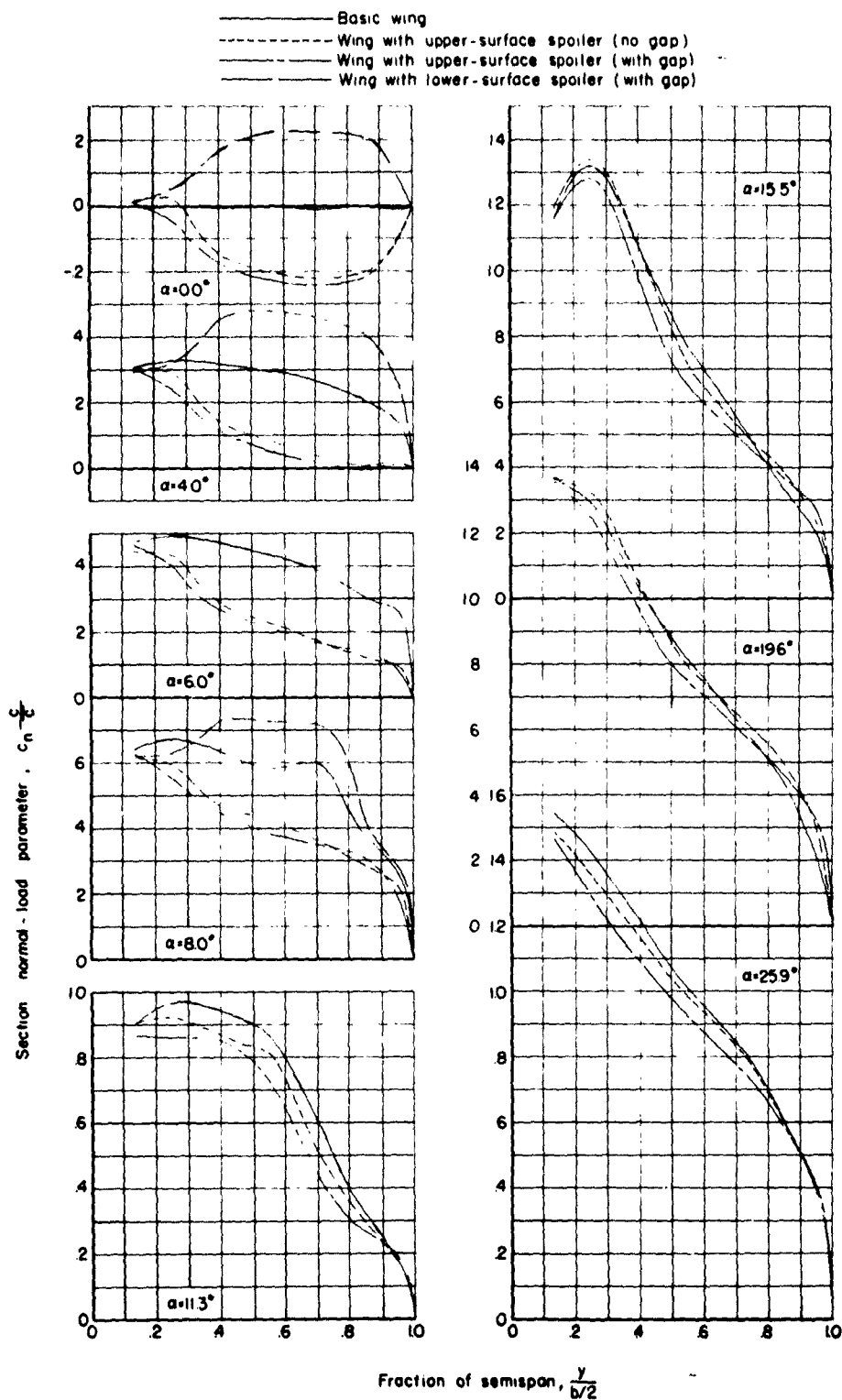
(c) M. = 0.85.

Figure 8.- Continued.
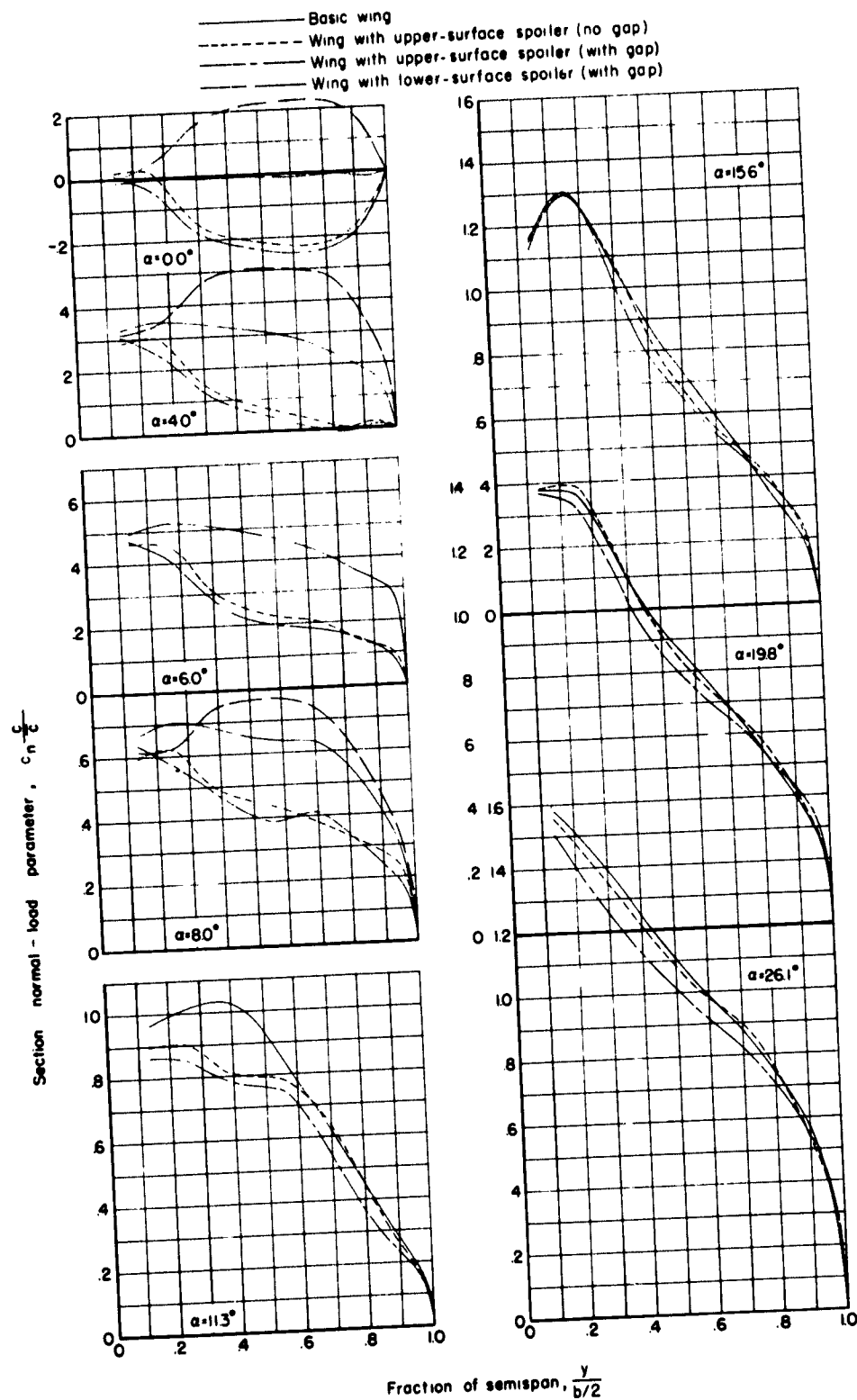
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(d)   M = 0.90.

Figure 8.- Continued.

(e)   M = 0.94.

Figure 8.- Continued.

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—————— Basic wing
— — — — Wing with upper-surface spoiler (no gap)
— · — · — Wing with upper-surface spoiler (with gap)
— — — — Wing with lower-surface spoiler (with gap)

$\alpha = 0.0°$

$\alpha = 3.9°$

$\alpha = 5.9°$

$\alpha = 7.9°$

$\alpha = 11.4°$

$\alpha = 15.8°$

$\alpha = 20.2°$

Section normal - load parameter, $c_n \frac{c}{\bar{c}}$

Fraction of semispan, $\frac{y}{b/2}$

(f)　M = 0.98.

Figure 8.- Continued.

Basic wing
Wing with upper-surface spoiler (no gap)
Wing with upper-surface spoiler (with gap)
Wing with lower-surface spoiler (with gap)

Fraction of semispan, $\frac{y}{b/2}$
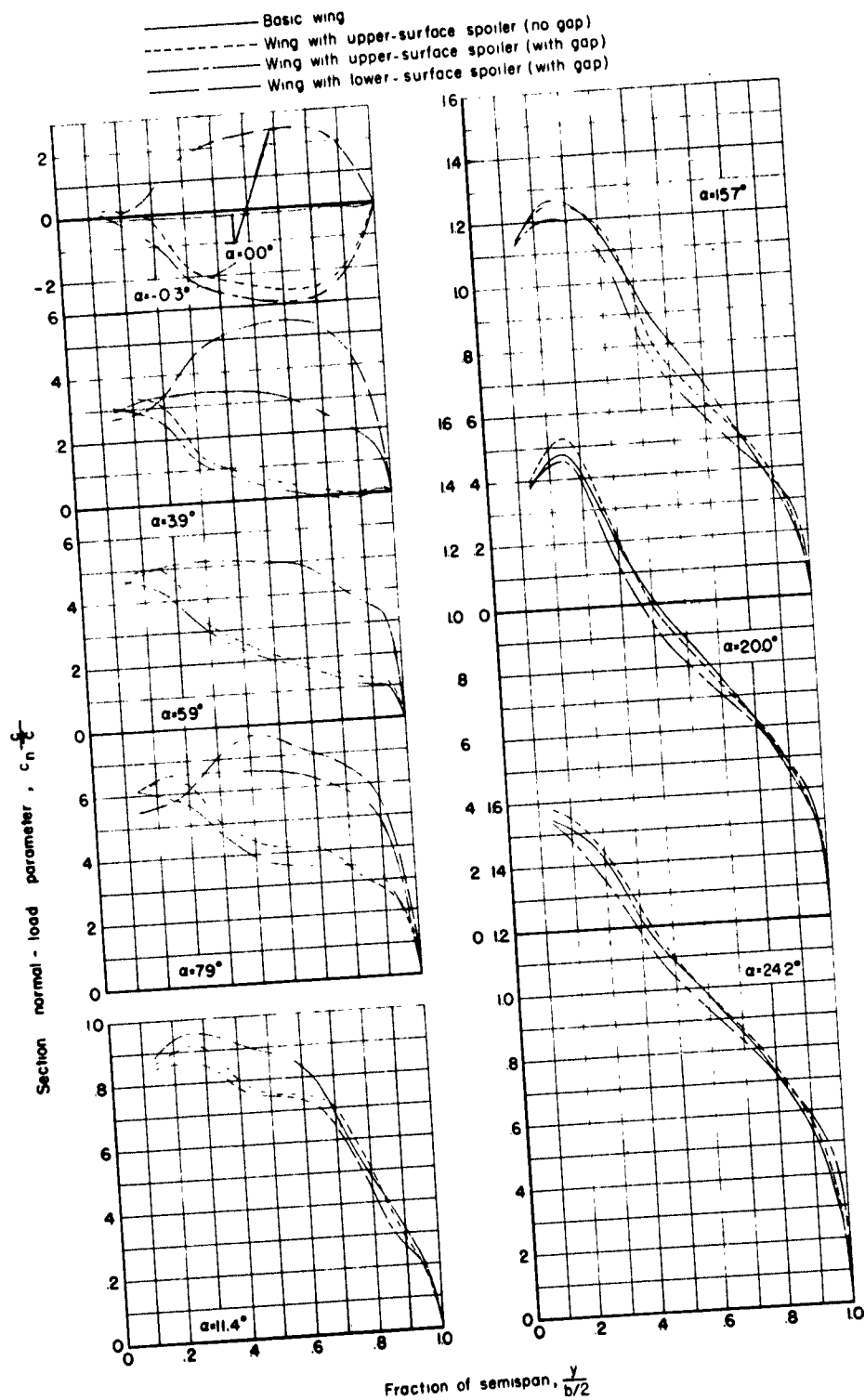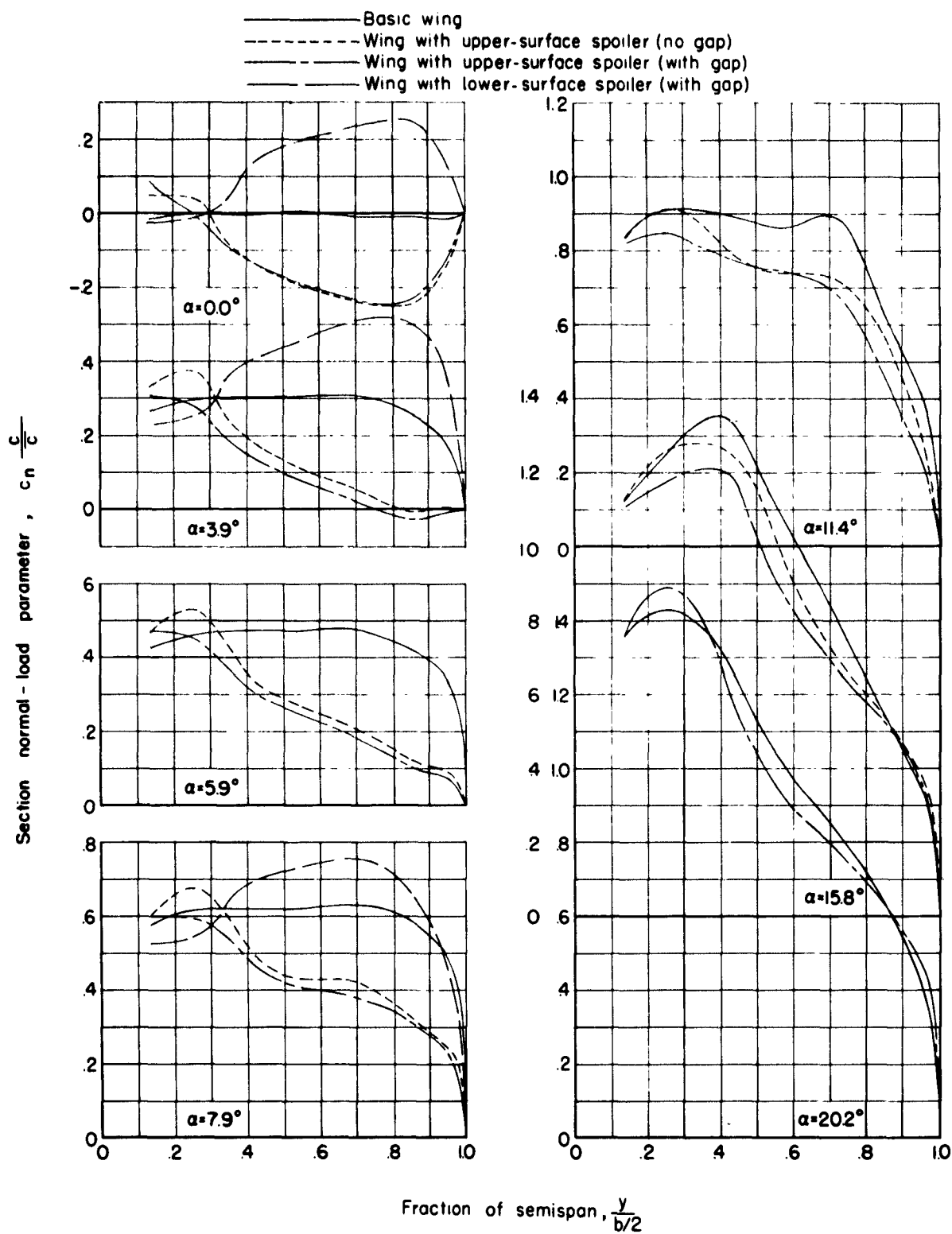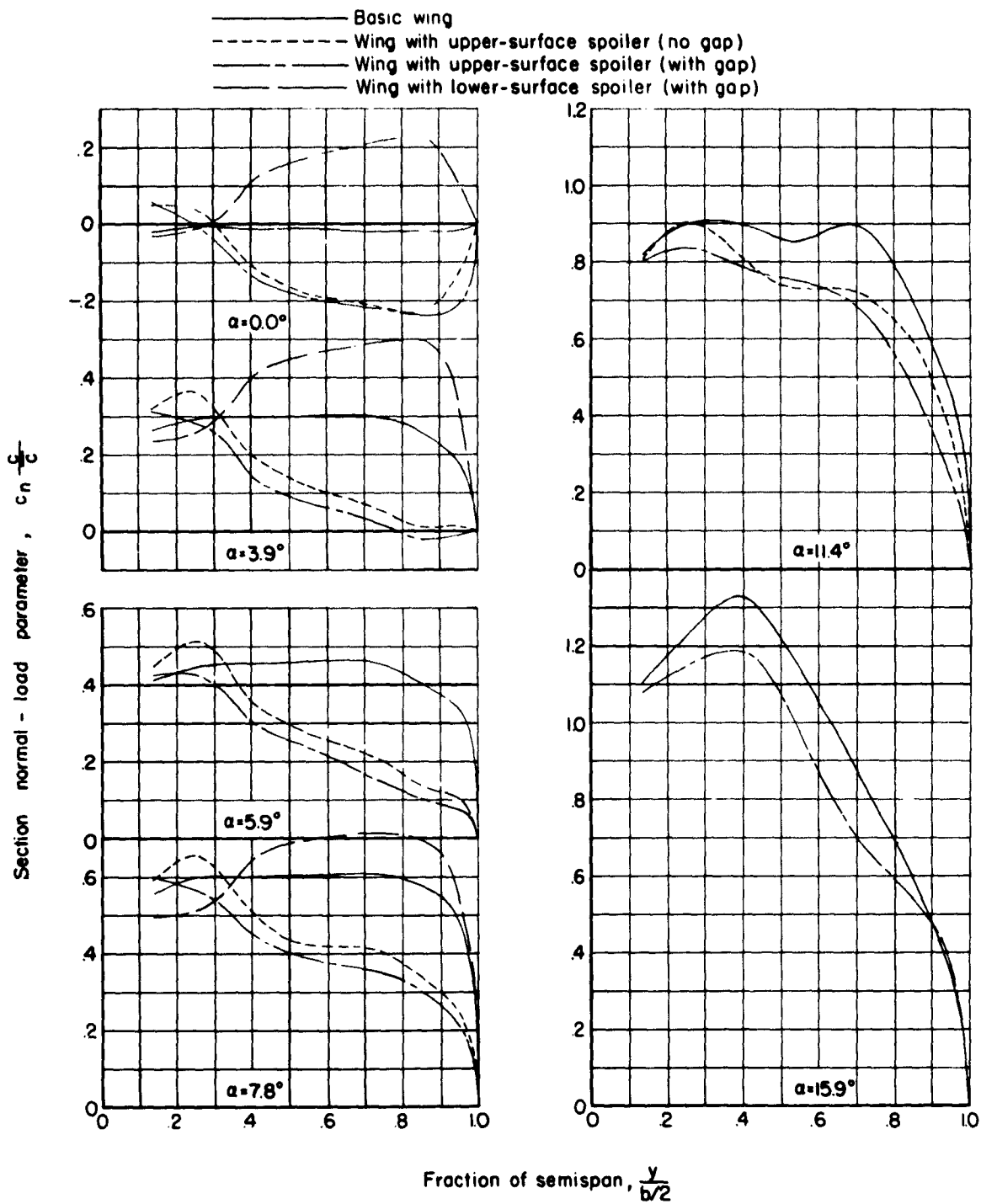
(g) M=1.00.

(g) M = 1.00.

Figure 8.- Continued.

Basic wing
Wing with upper-surface spoiler (no gap)
Wing with upper-surface spoiler (with gap)
Wing with lower-surface spoiler (with gap)

Fraction of semispan, $\frac{y}{b/2}$
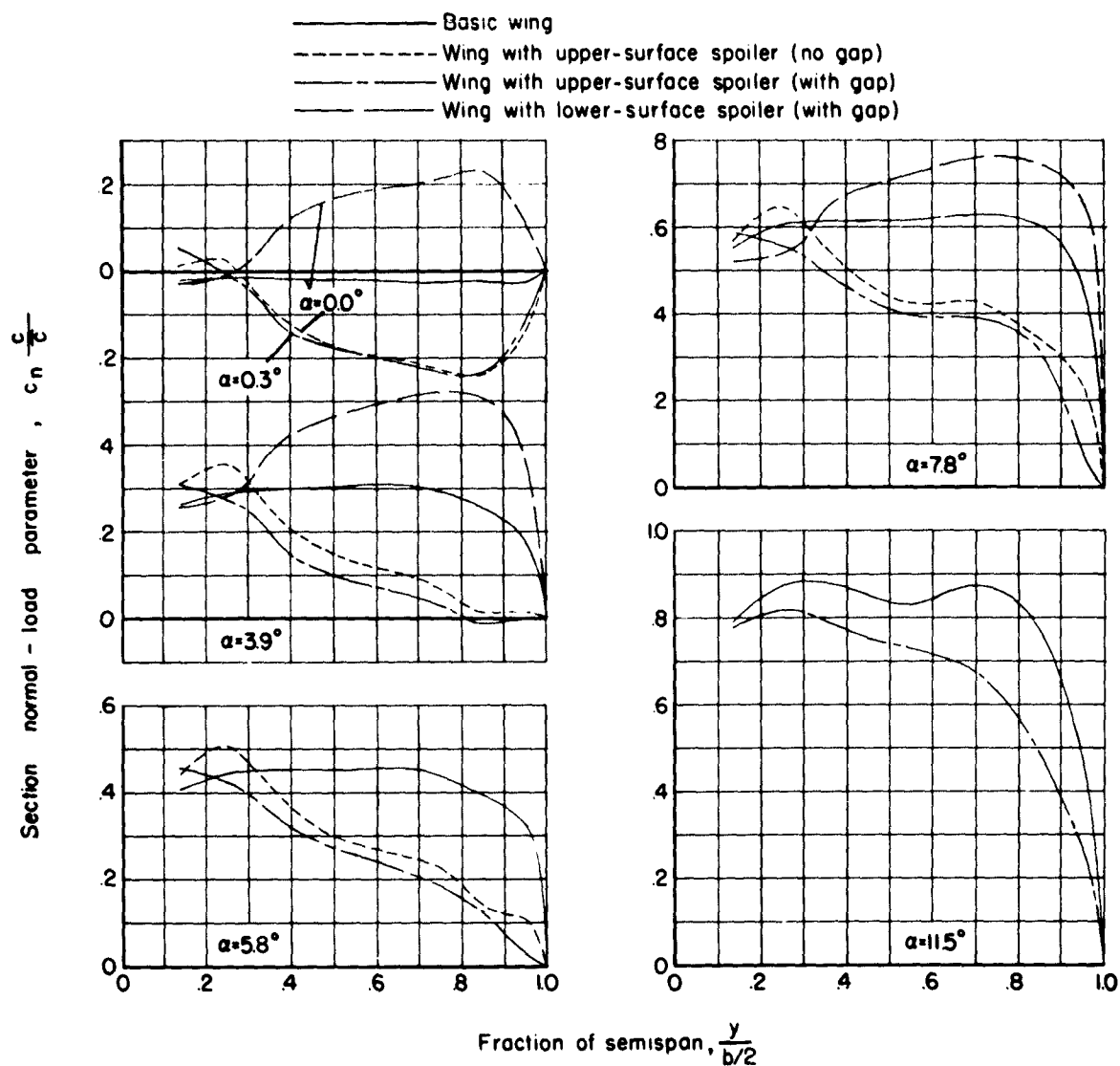
(h) M = 1.03.

Figure 8.- Concluded.

Basic wing
Wing with upper-surface spoiler (no gap)
Wing with upper-surface spoiler (with gap)
Wing with lower-surface spoiler (with gap)
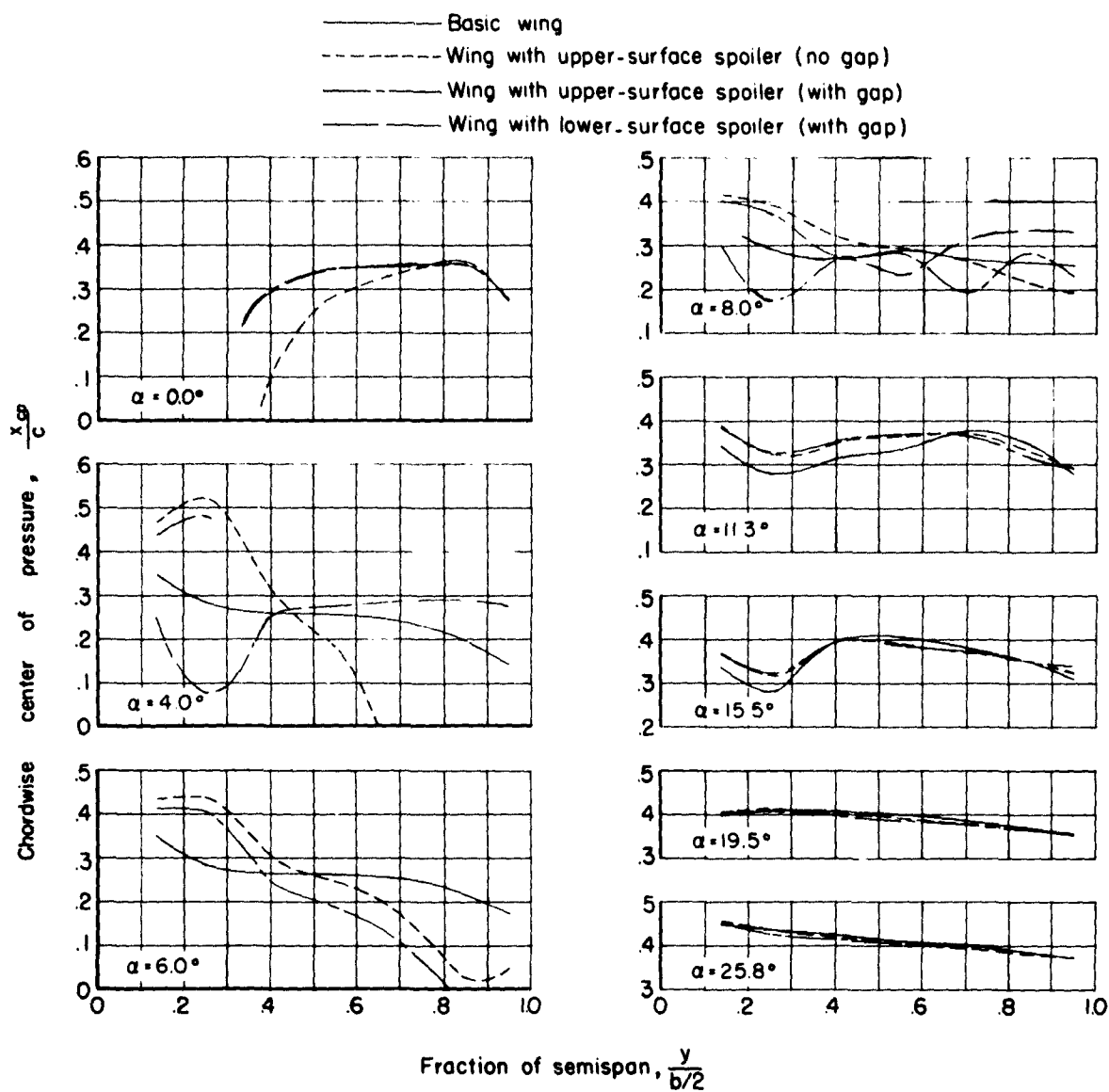
(a) M = 0.60.

Figure 9.- Wing-section center of pressure across the semispan for the basic wing and various spoiler configurations.

Basic wing
Wing with upper-surface spoiler (no gap)
Wing with upper-surface spoiler (with gap)
Wing with lower-surface spoiler (with gap)
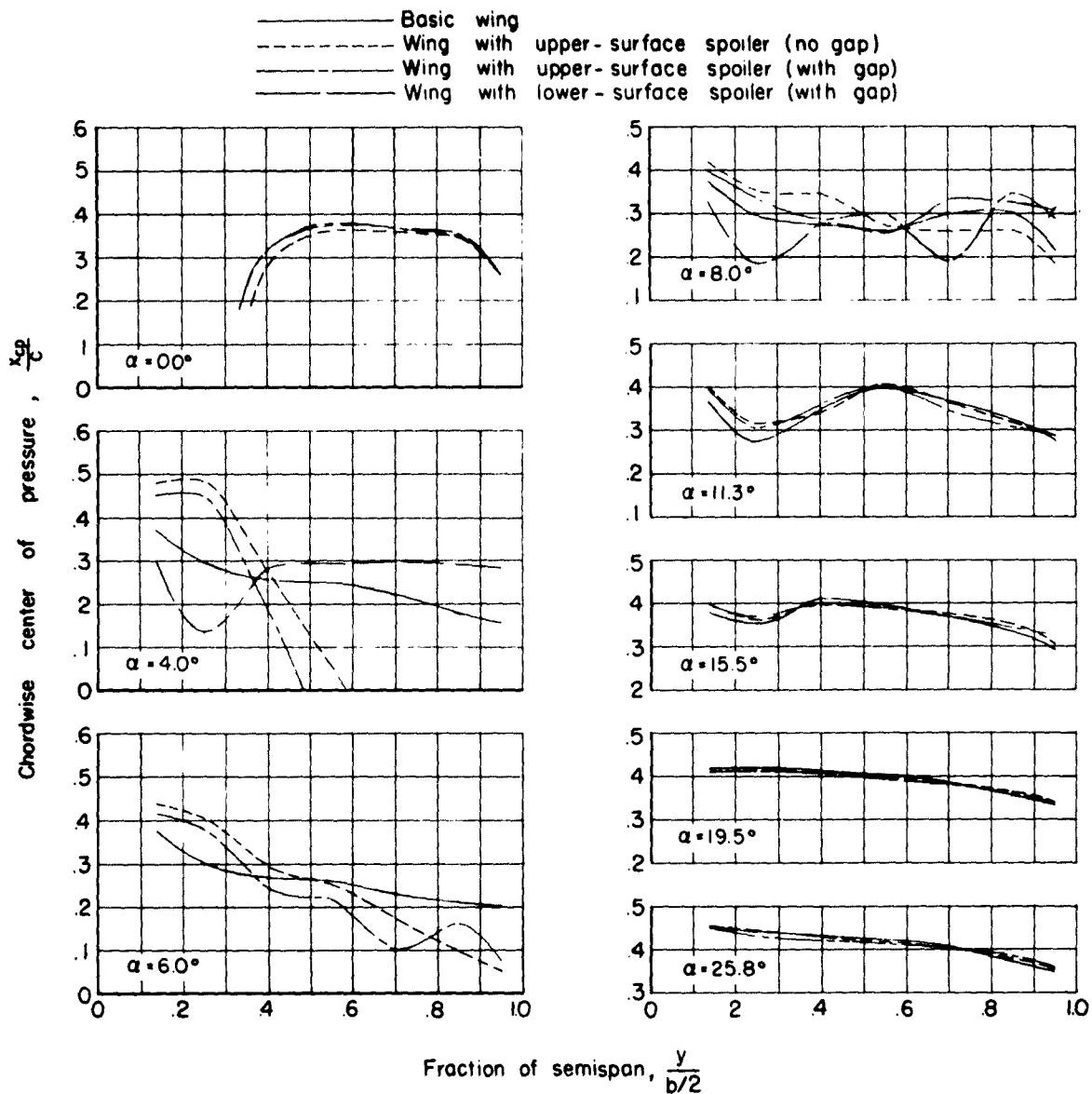
(b) M = 0.80.

Figure 9.- Continued.

(c) M = 0.85.

Figure 9.- Continued.
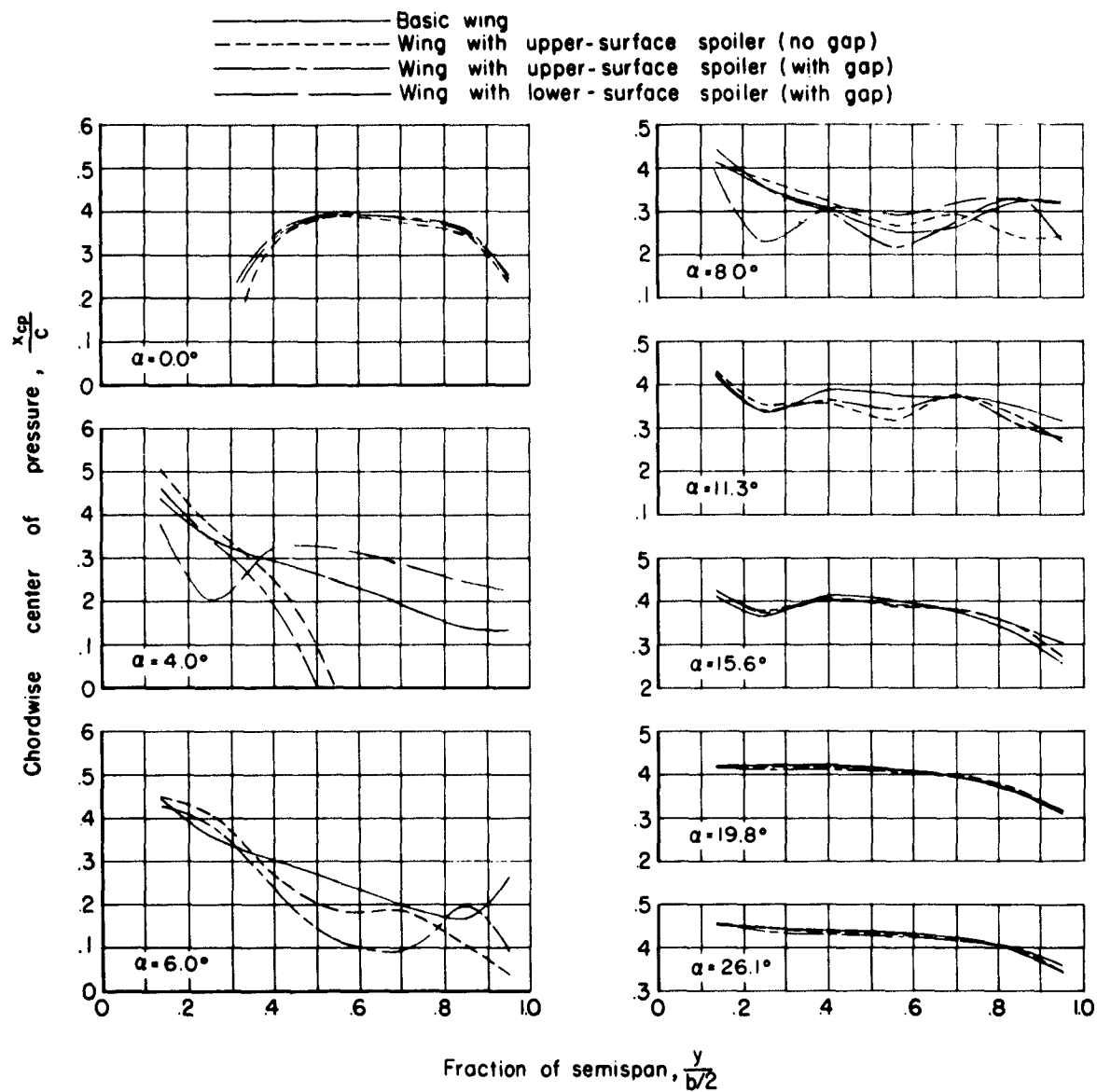
(d)   M = 0.90.

Figure 9.- Continued.

(e) M = 0.94.

Figure 9.- Continued.

Basic wing
------- Wing with upper - surface spoiler (no gap)
—·— Wing with upper - surface spoiler (with gap)
— — Wing with lower - surface spoiler (with gap)

Chordwise center of pressure, $\frac{x_{cp}}{c}$

$\alpha = 0.0°$

$\alpha = 3.9°$

$\alpha = 5.9°$

$\alpha = 7.9°$

$\alpha = 11.4°$

$\alpha = 15.8°$

$\alpha = 20.2°$

Fraction of semispan, $\frac{y}{b/2}$

(f)   M = 0.98.

Figure 9.- Continued.

Basic wing
Wing with upper - surface spoiler (no gap)
Wing with upper - surface spoiler (with gap)
Wing with lower - surface spoiler (with gap)

(g) M = 1.00.

Figure 9.- Continued.

Basic wing
Wing with upper - surface spoiler (no gap)
Wing with upper - surface spoiler (with gap)
Wing with lower - surface spoiler (with gap)

(h) M = 1.03.

Figure 9.- Concluded.
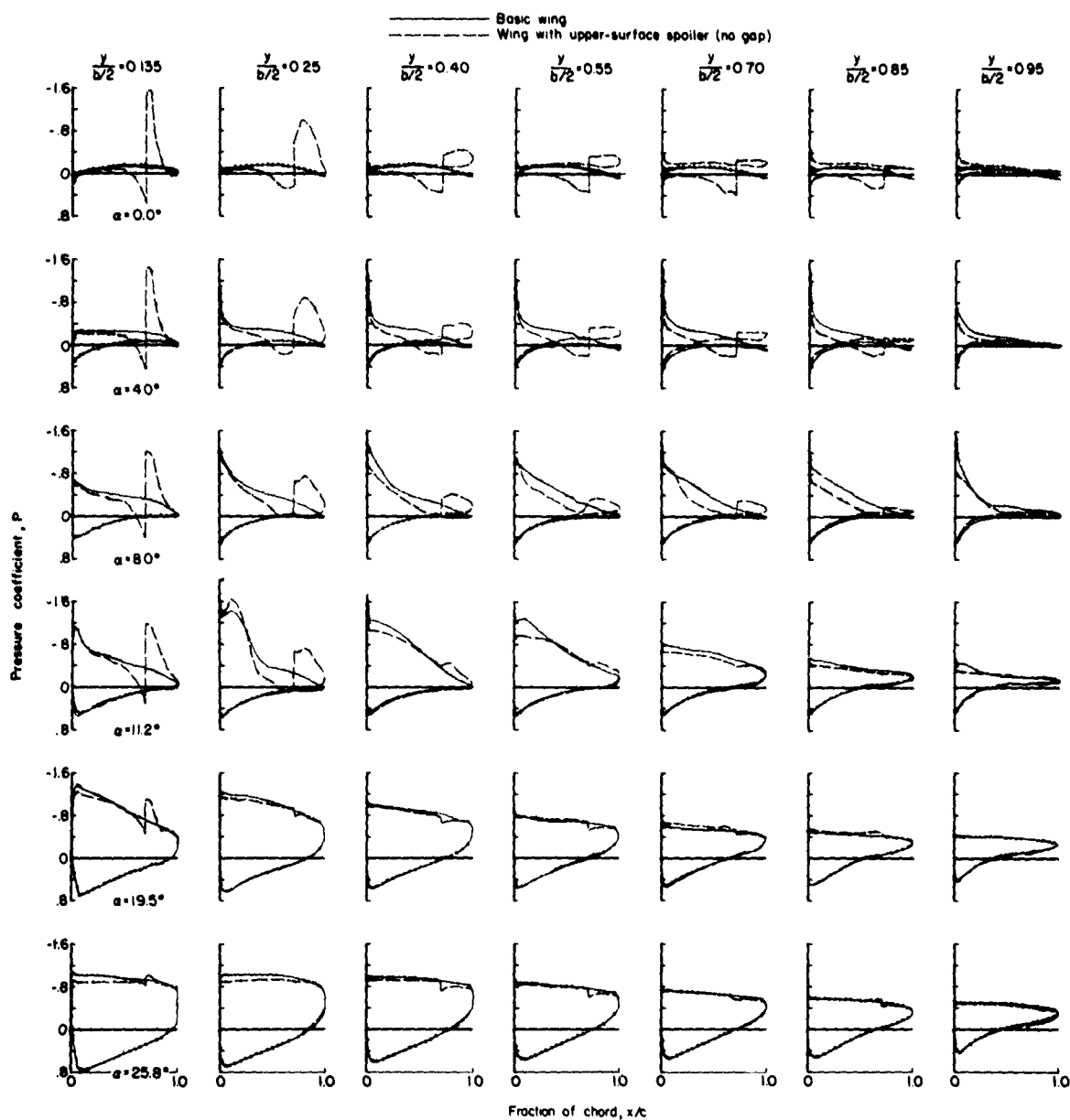
(a) M = 0.60.

Figure 10.- Chordwise pressure distributions on the wing; basic wing
compared with the upper-surface spoiler (no gap) configuration.
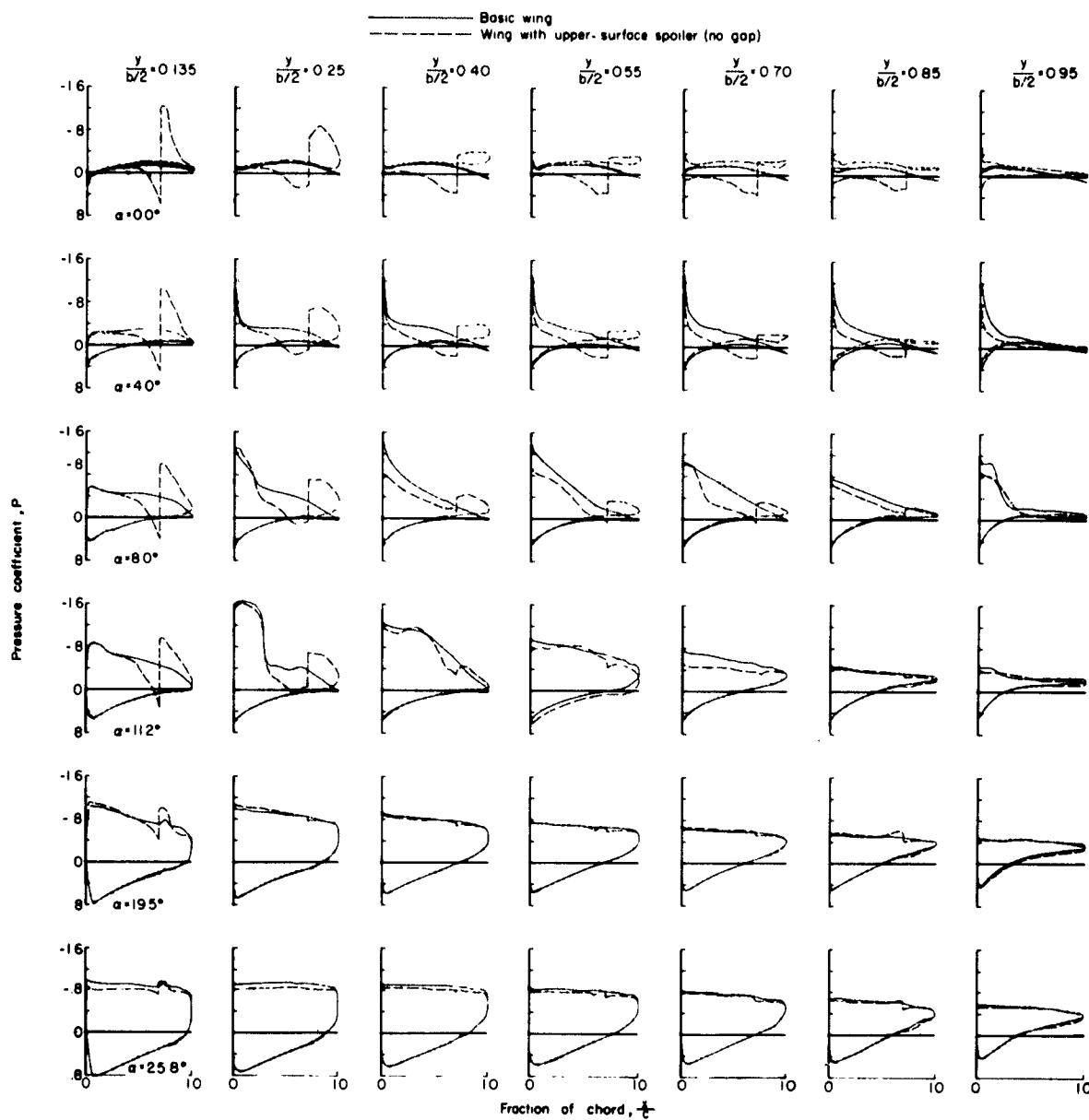
(b)   M = 0.80.

Figure 10.- Continued.
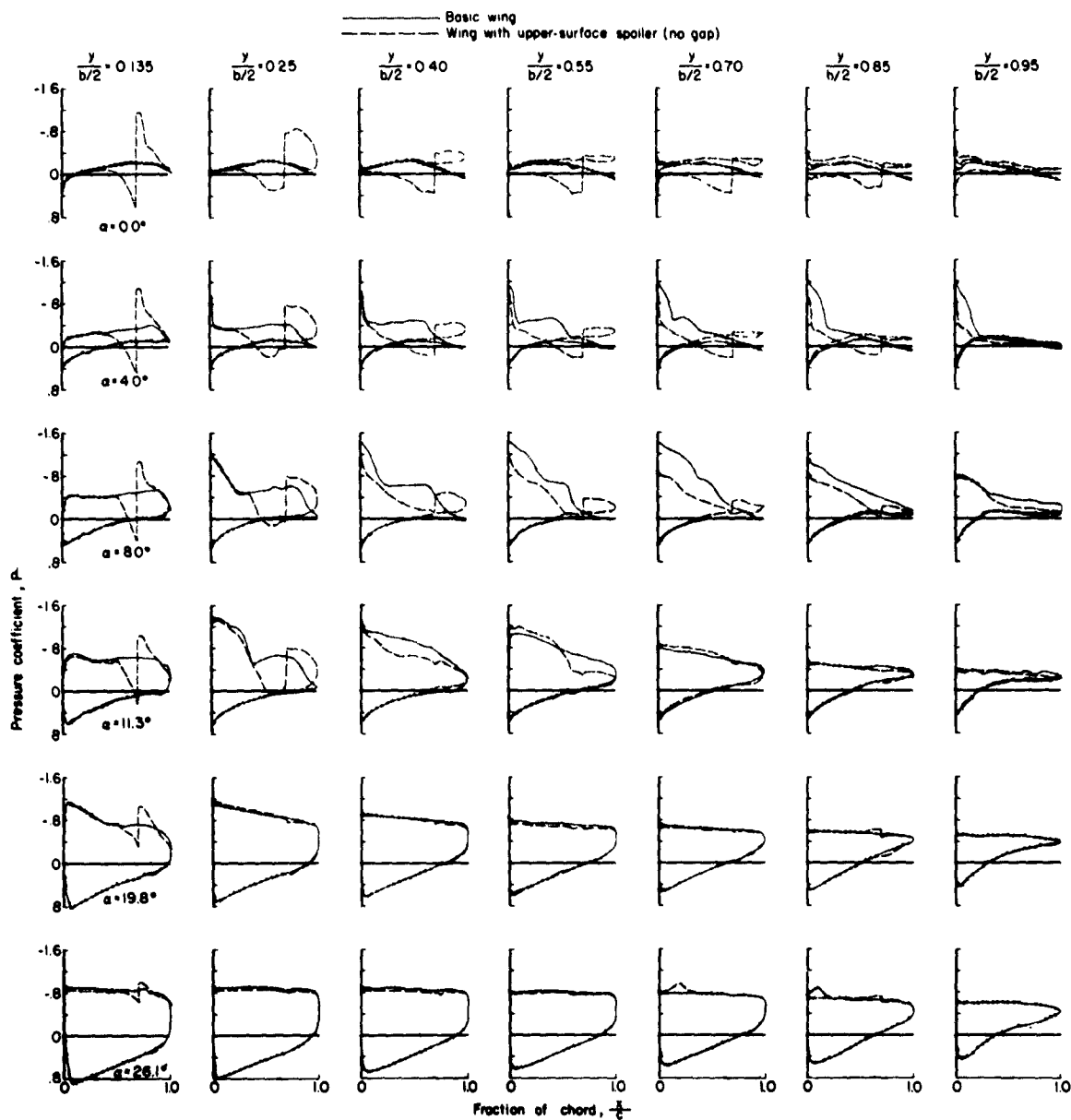
(c) M = 0.90.

Figure 10.- Continued.
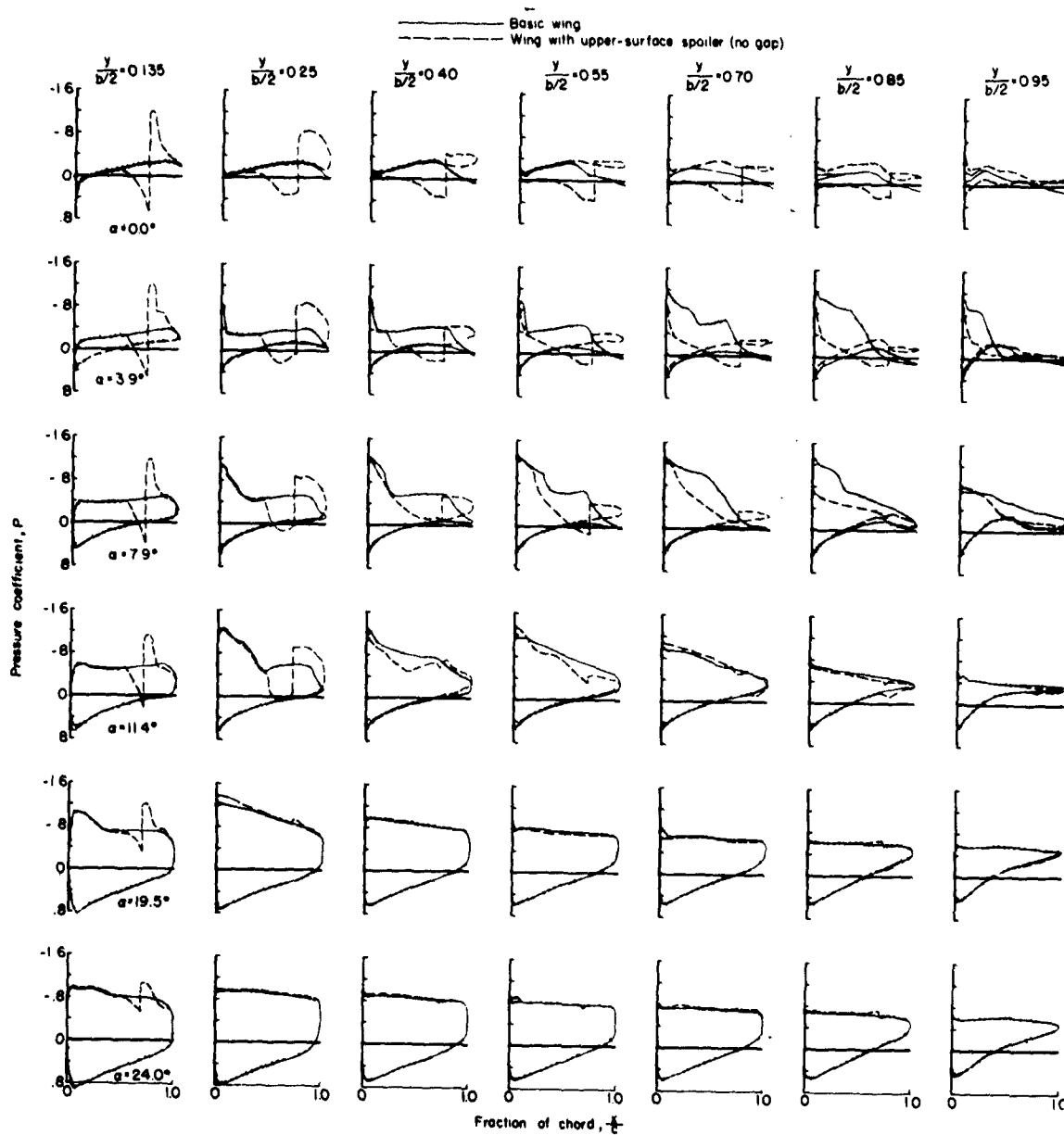
(d) M = 0.94.

Figure 10.- Continued.
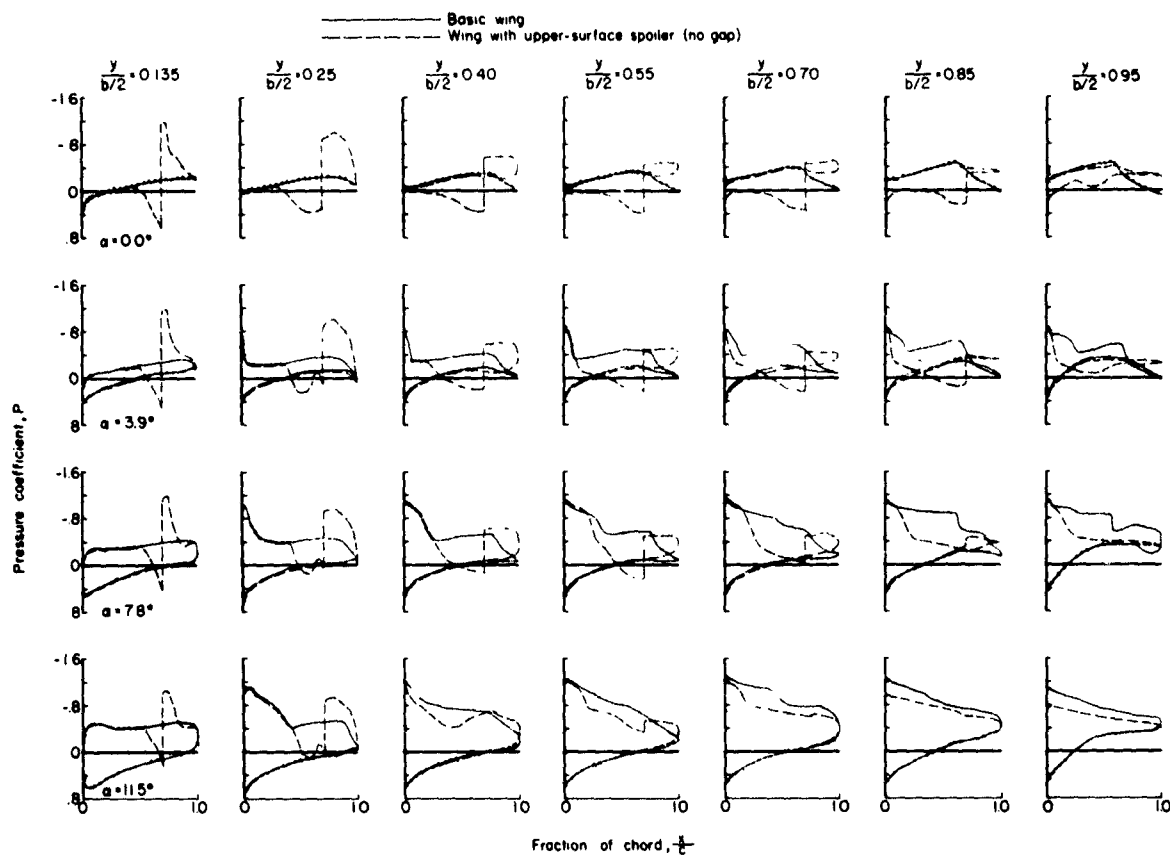
(e) M = 1.00.

Figure 10.- Concluded.
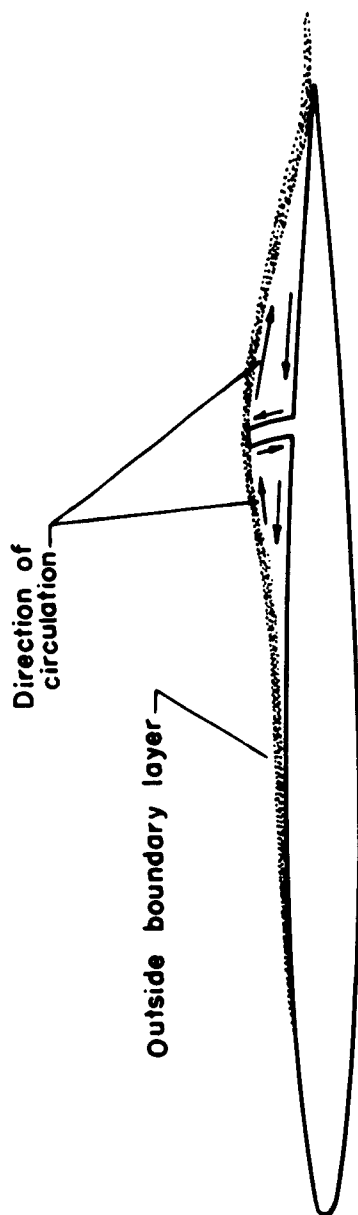
Figure 11.- Concept of flow in the boundary layer at a typical wing-spoiler section for a Mach number of 0.60.
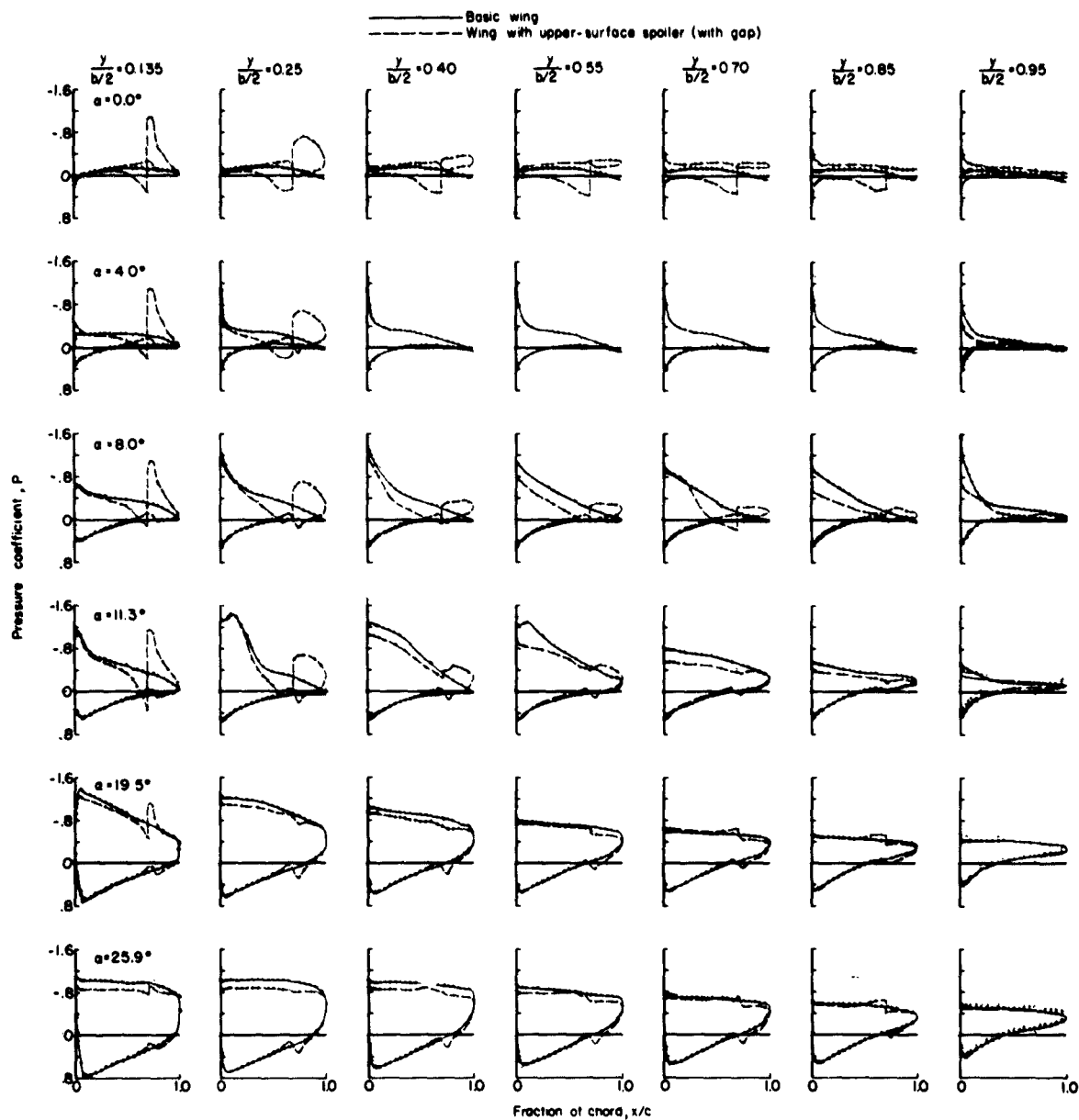
(a) M = 0.60.

Figure 12.- Chordwise pressure distributions on the wing; basic wing compared with the upper-surface spoiler (with gap) configuration.
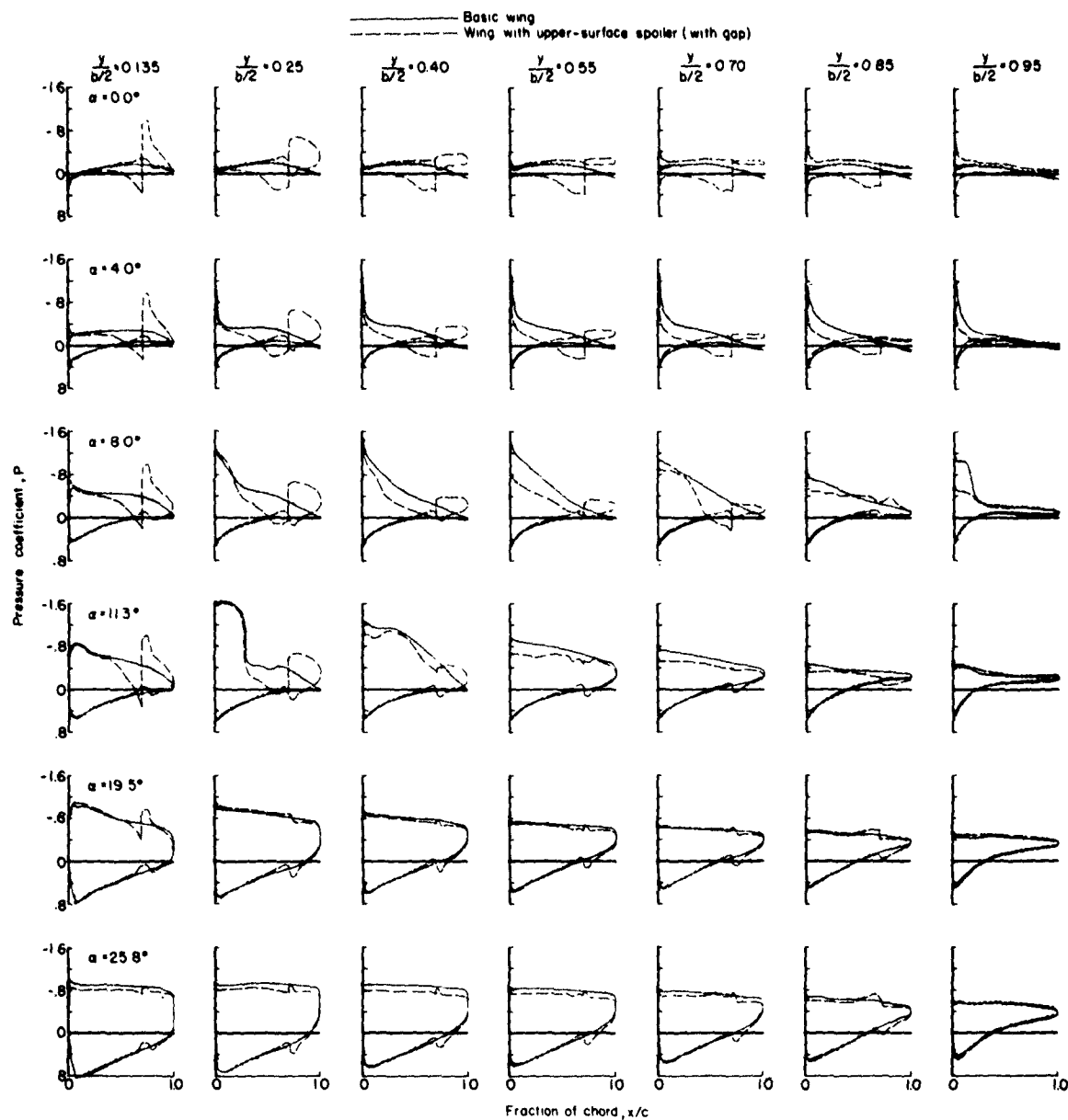
(b) M = 0.80.

Figure 12.- Continued.
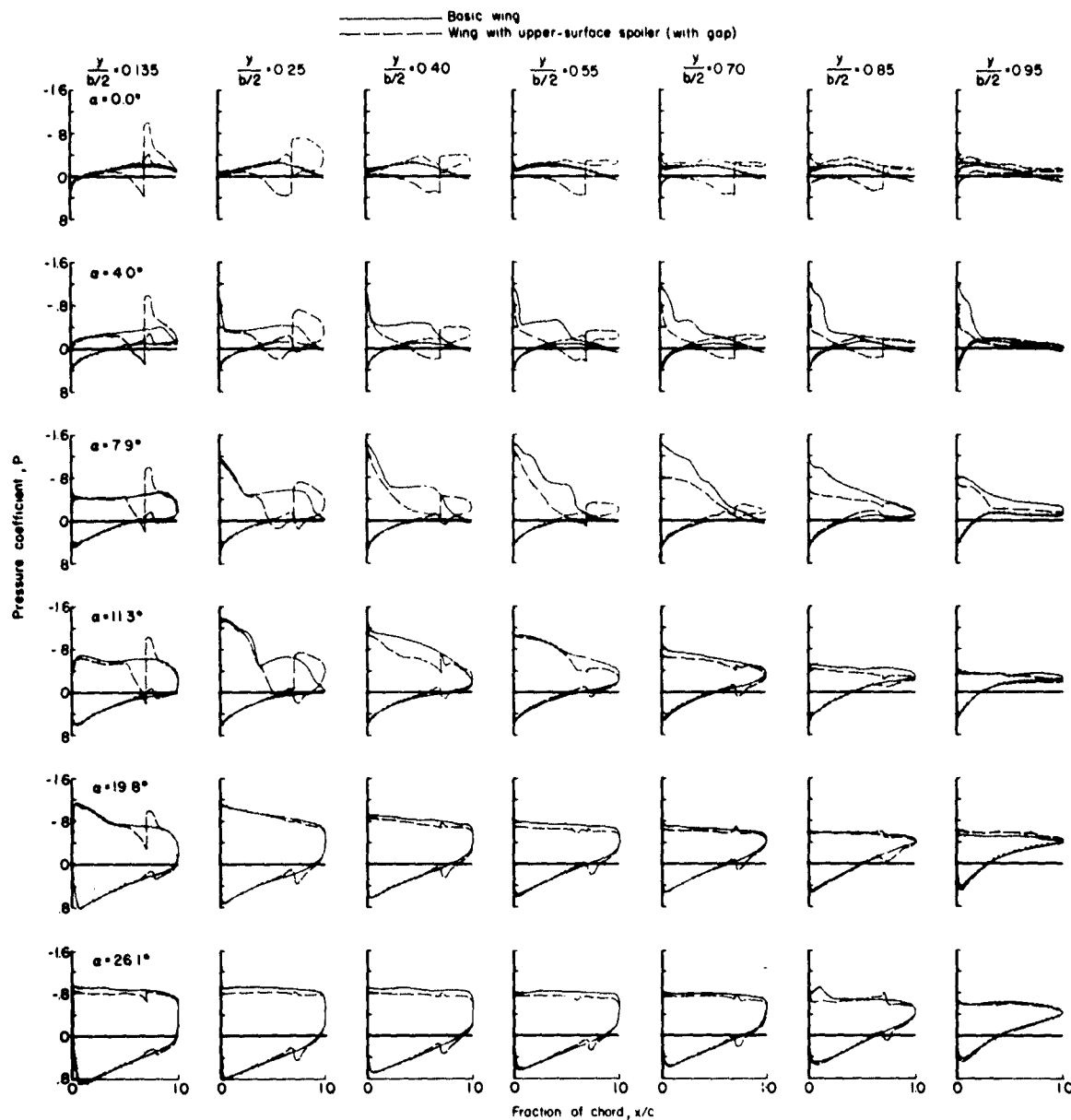
(c) M = 0.90.

Figure 12.- Continued.
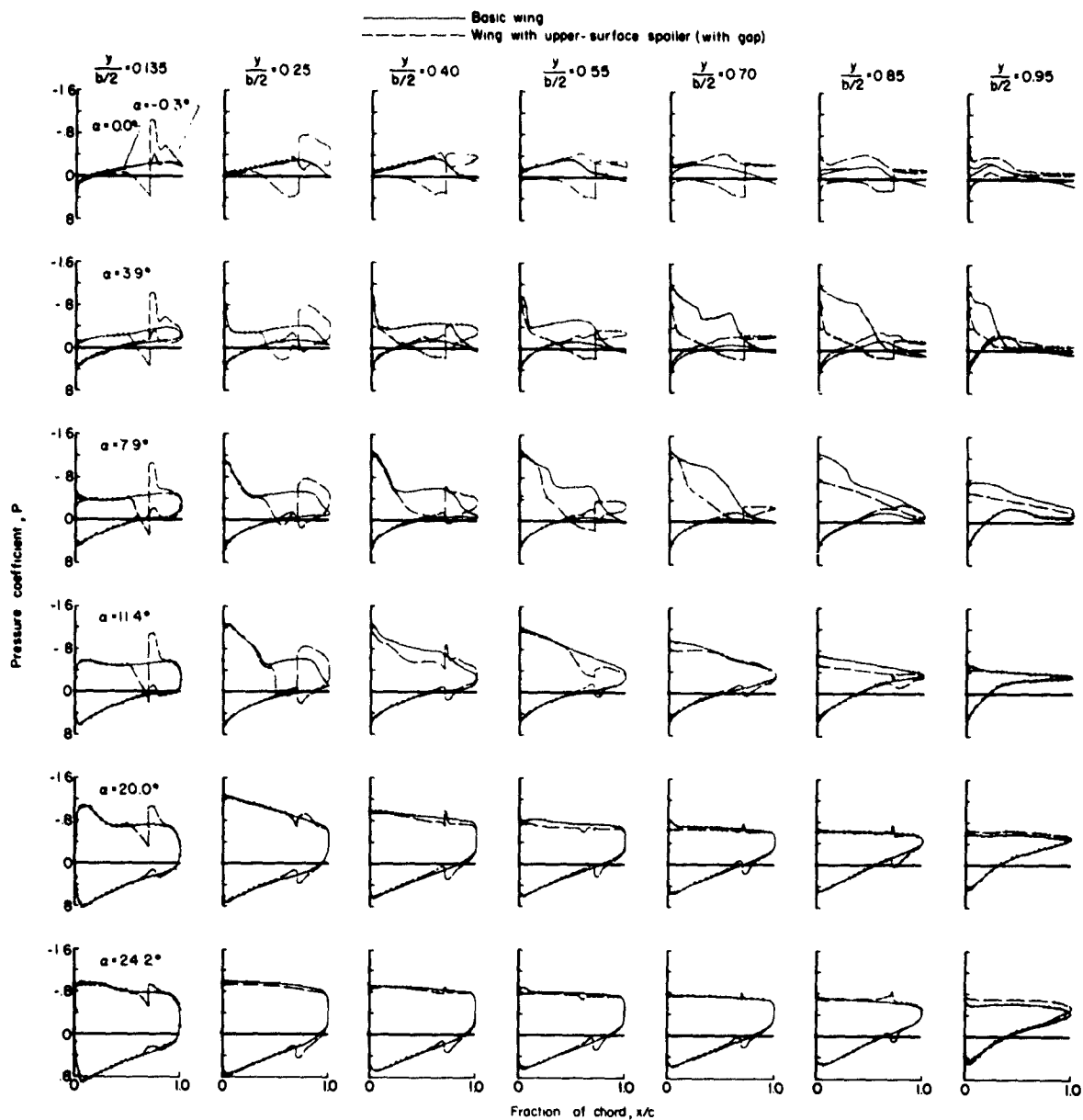
(d)   M = 0.94.

Figure 12.- Continued.
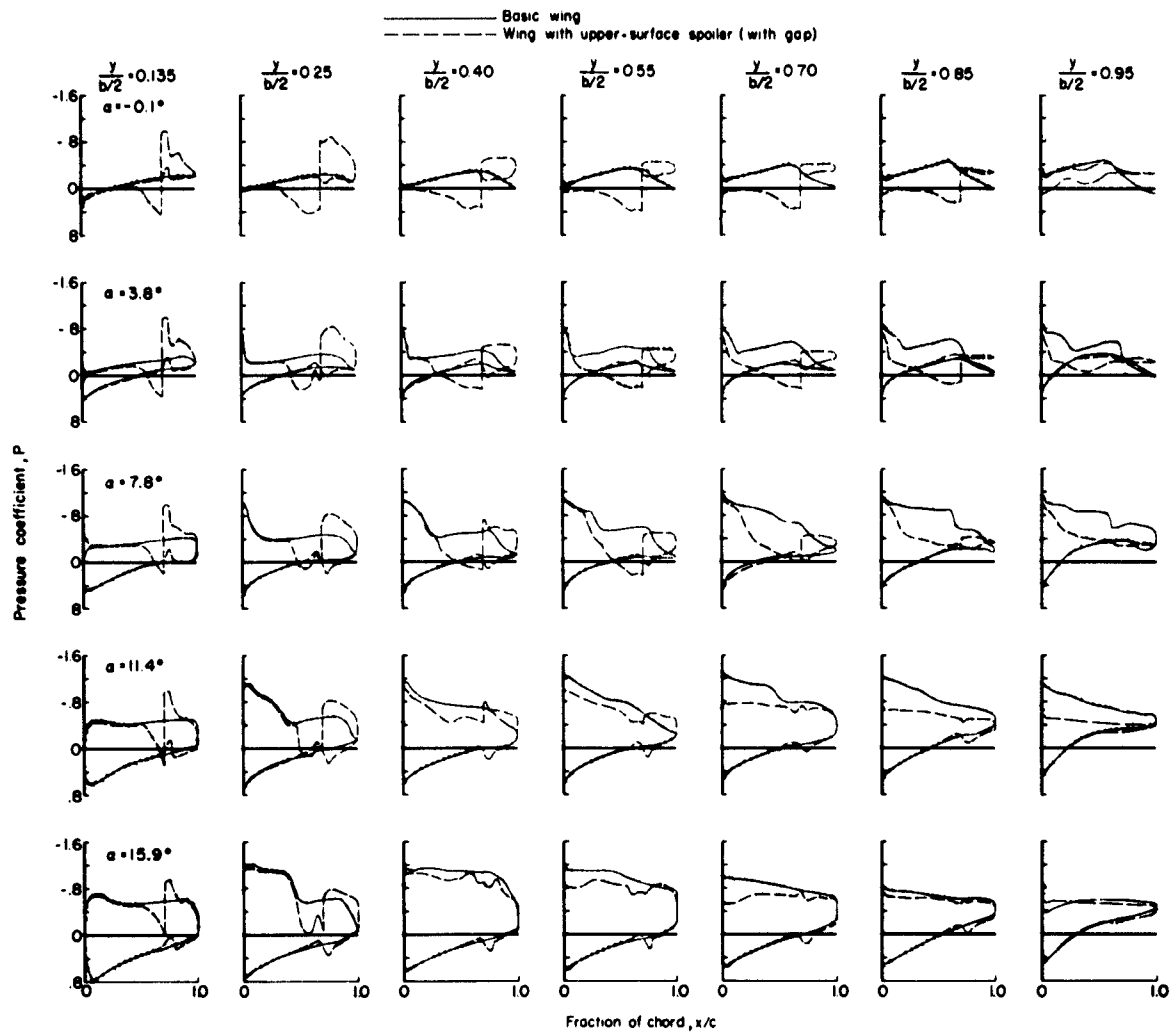
(e) M = 1.00.

Figure 12.- Concluded.
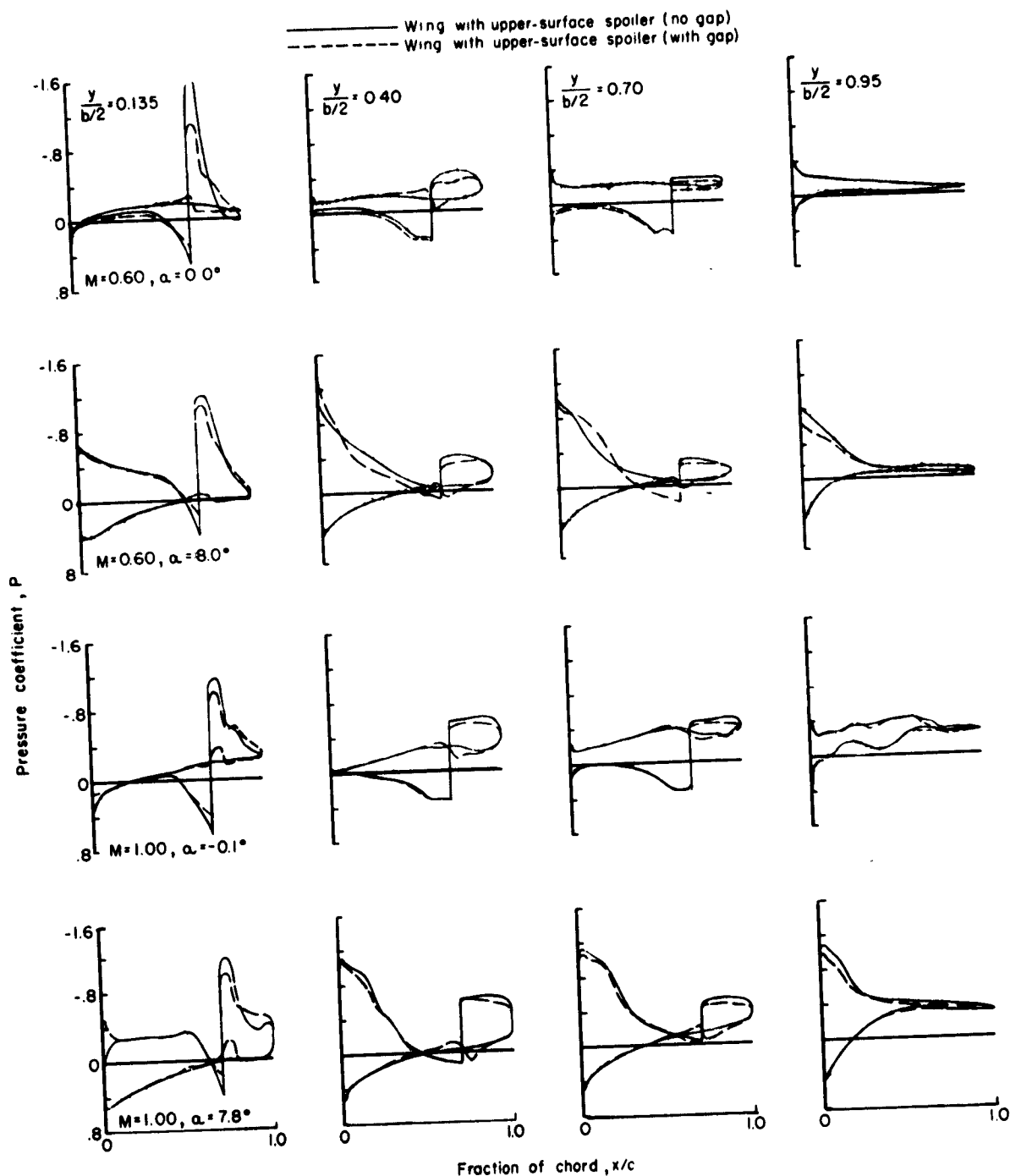
Figure 13.- Effect of wing gap behind an upper-surface spoiler on wing chordwise pressure distributions.
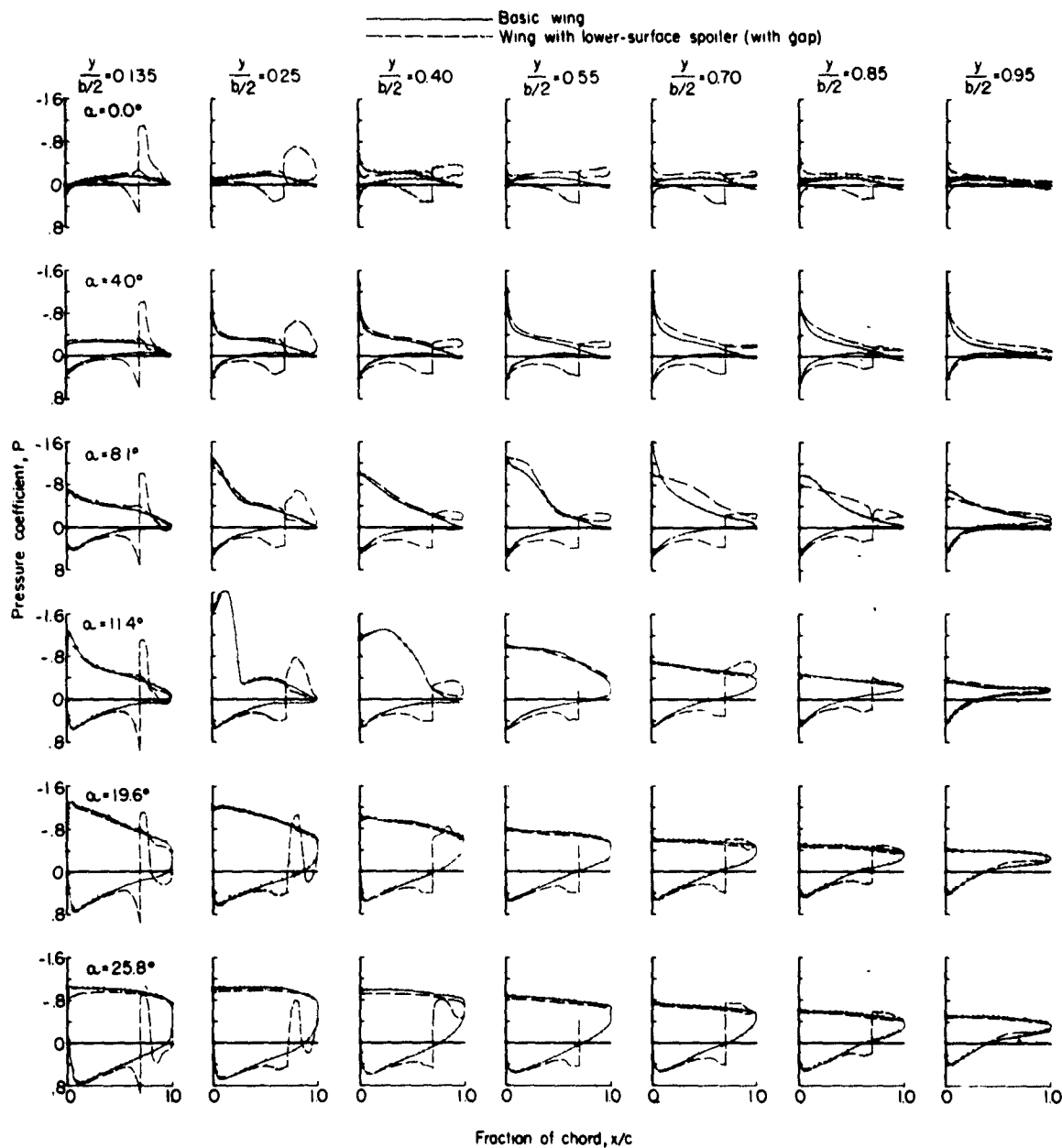
(a) M = 0.60.

Figure 14.- Chordwise pressure distributions on the wing; basic wing compared with the lower-surface spoiler (with gap) configuration.
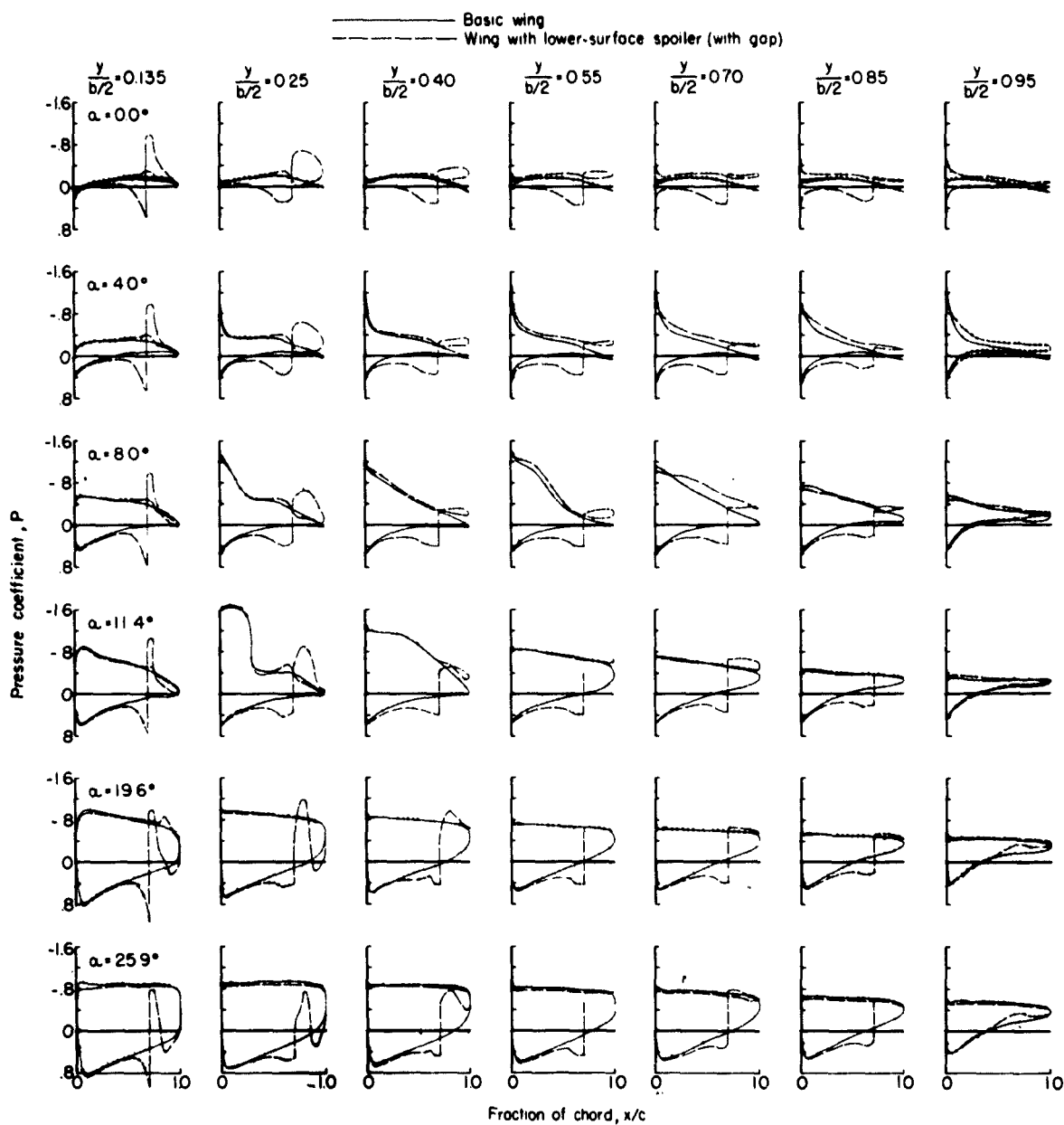
(b) M = 0.80.

Figure 14.- Continued.

(c) M = 0.90.

Figure 14.- Continued.

Basic wing
Wing with lower-surface spoiler (with gop)
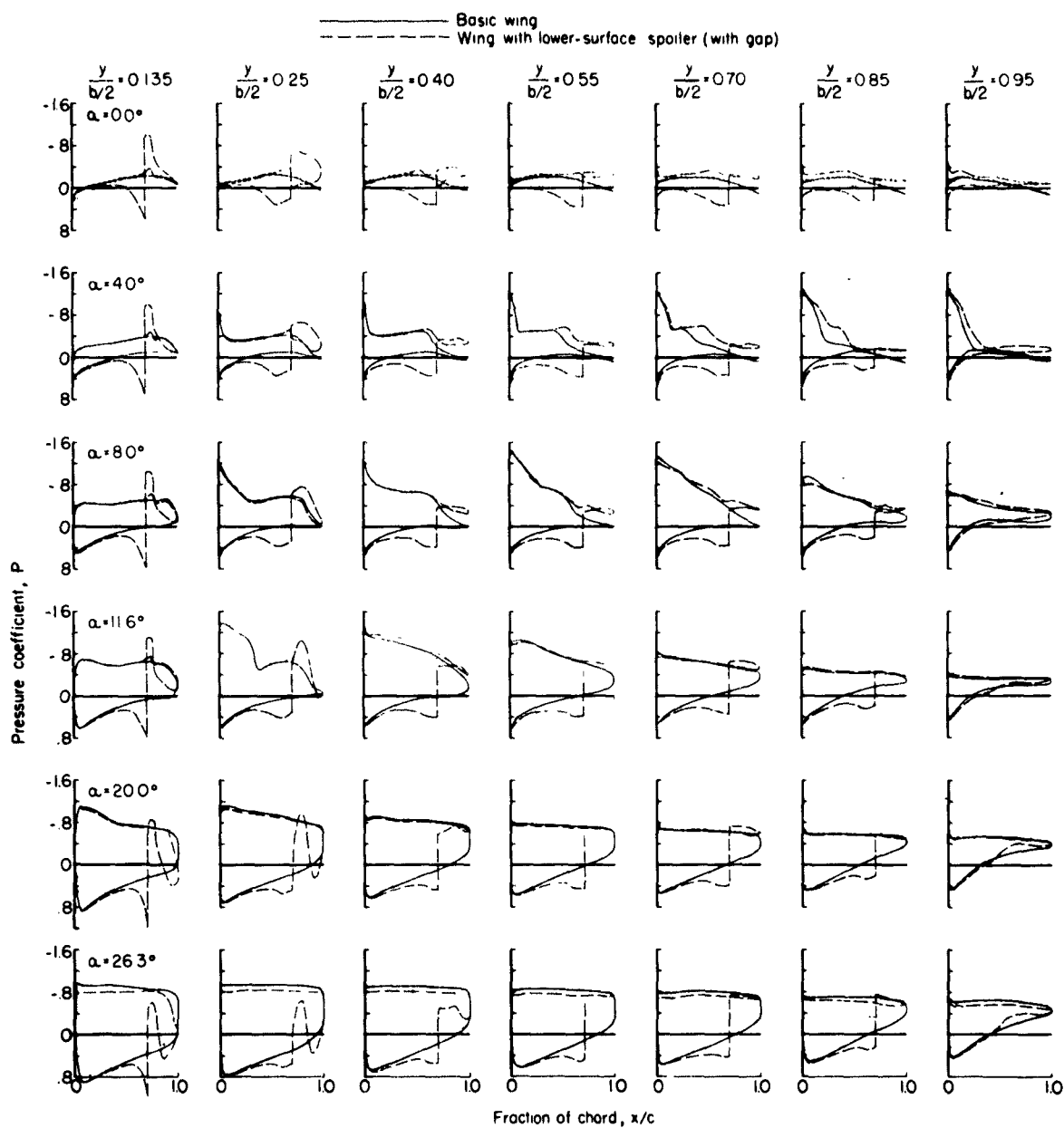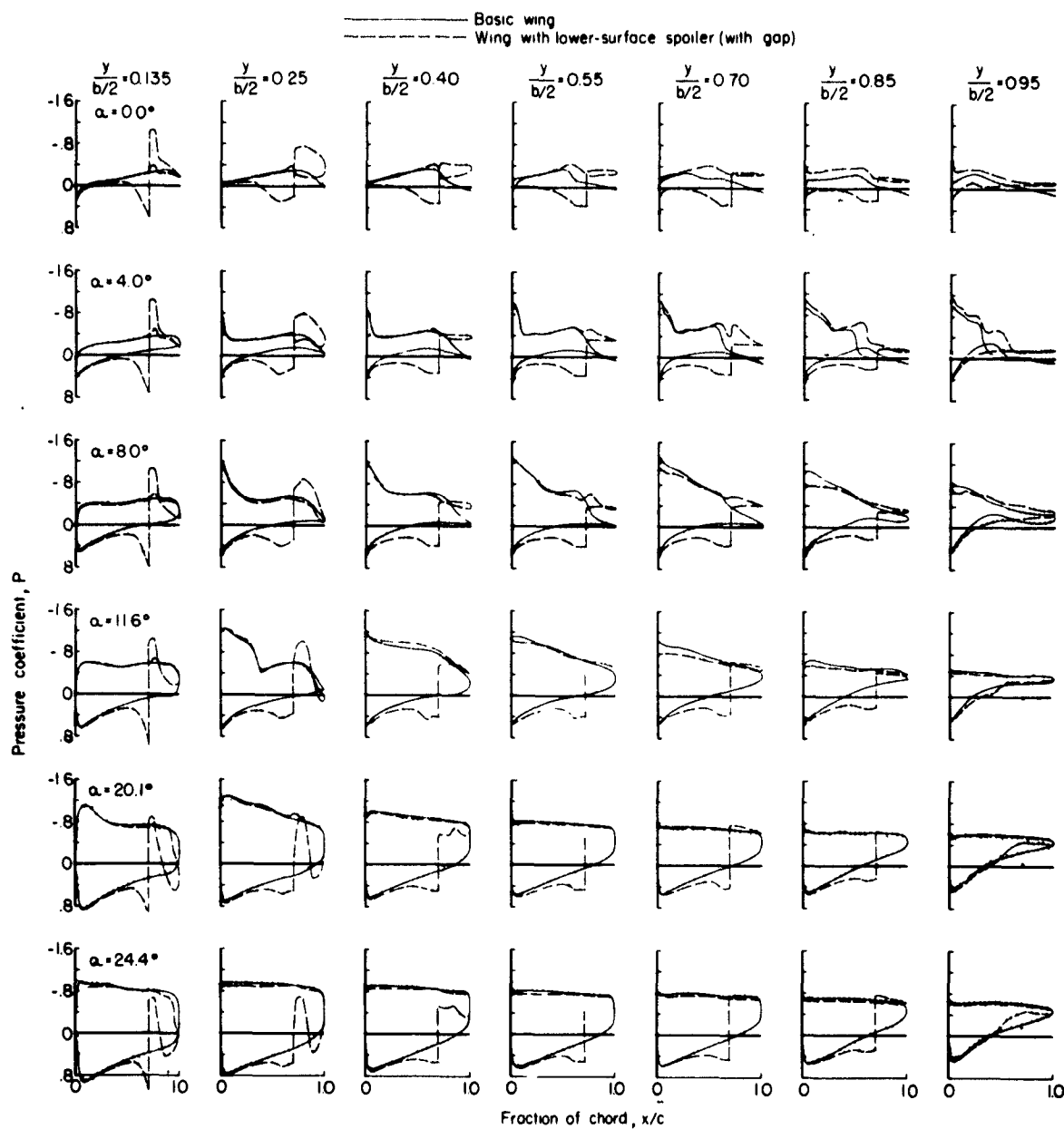
(d)   M = 0.94.

Figure 14.- Continued.
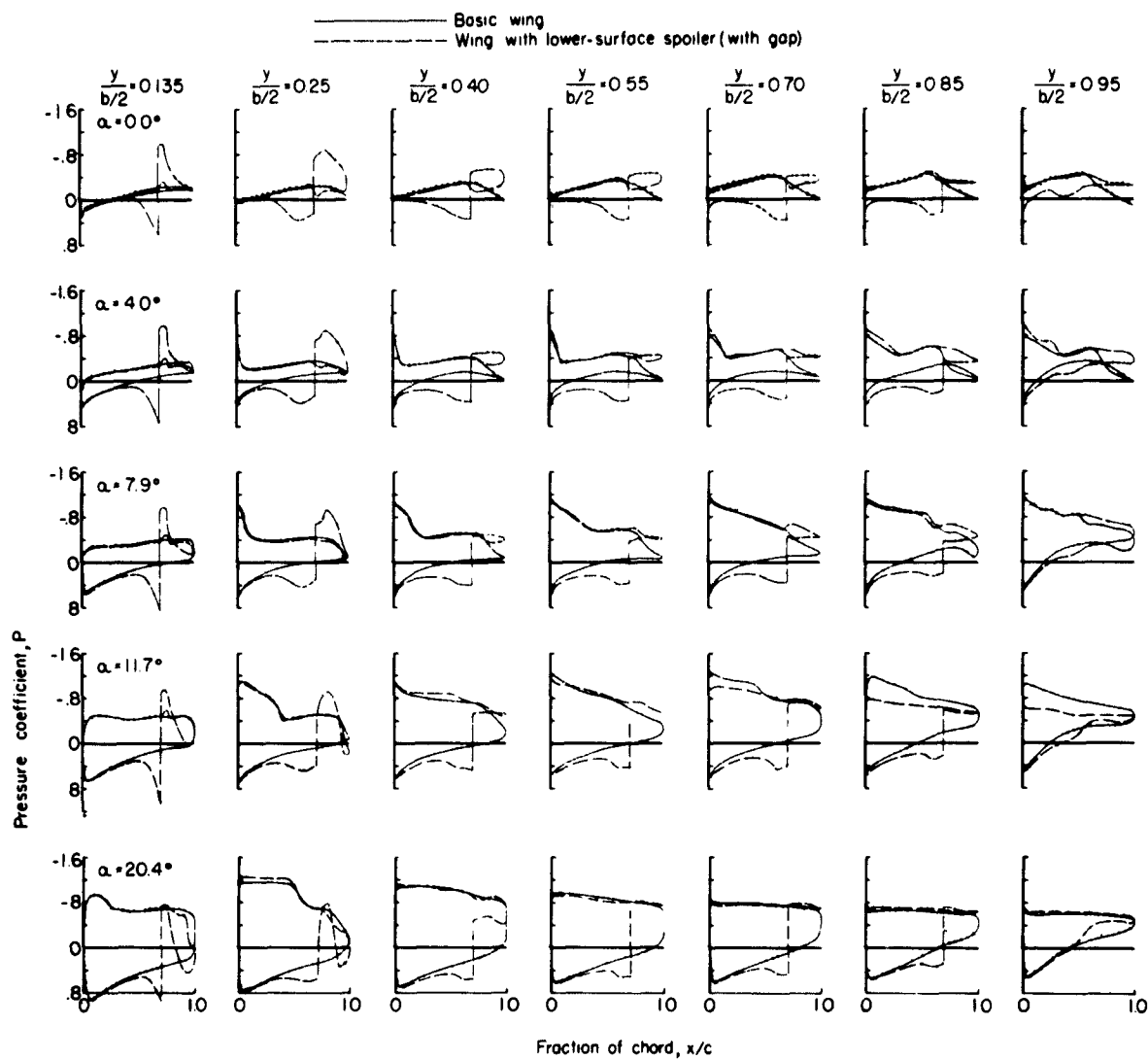
(e) M = 1.00.

Figure 14.- Concluded.

Wing with upper-surface spoiler (no gap)
Wing with oppositely deflected spoilers (no gap)

(a) M = 0.60.
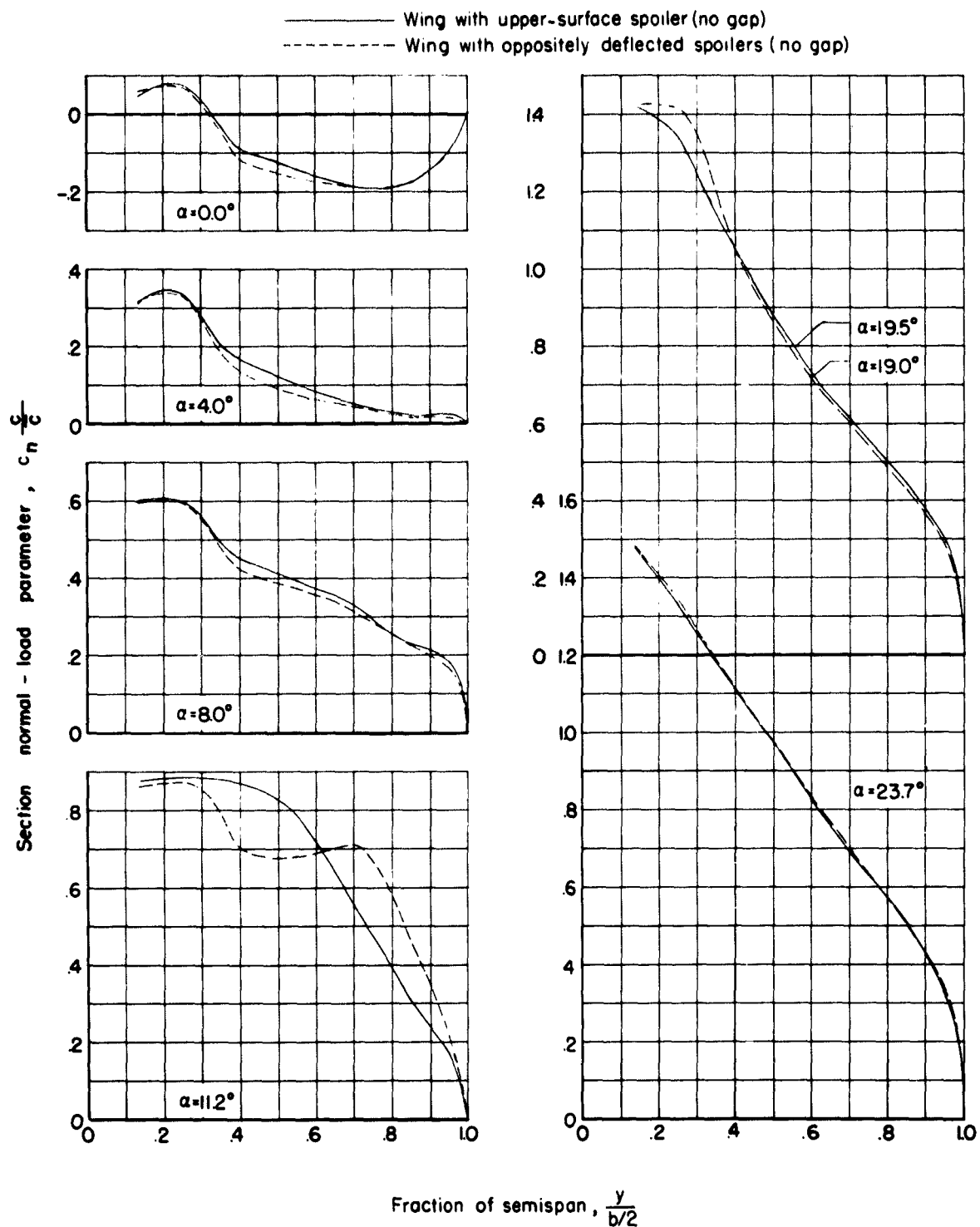
Figure 15.- Effect of a lower-surface spoiler on the opposite wing semi-span load distribution for the upper-surface spoiler (no gap) configuration.

Wing with upper-surface spoiler (no gap)
Wing with oppositely deflected spoilers (no gap)

$\alpha = -0.1°$

$\alpha = 3.9°$

$\alpha = 7.9°$

$\alpha = 11.3°$

$\alpha = 19.7°$

$\alpha = 23.9°$

Section normal - load parameter, $c_n \dfrac{c}{\bar{c}}$

Fraction of semispan, $\dfrac{y}{b/2}$
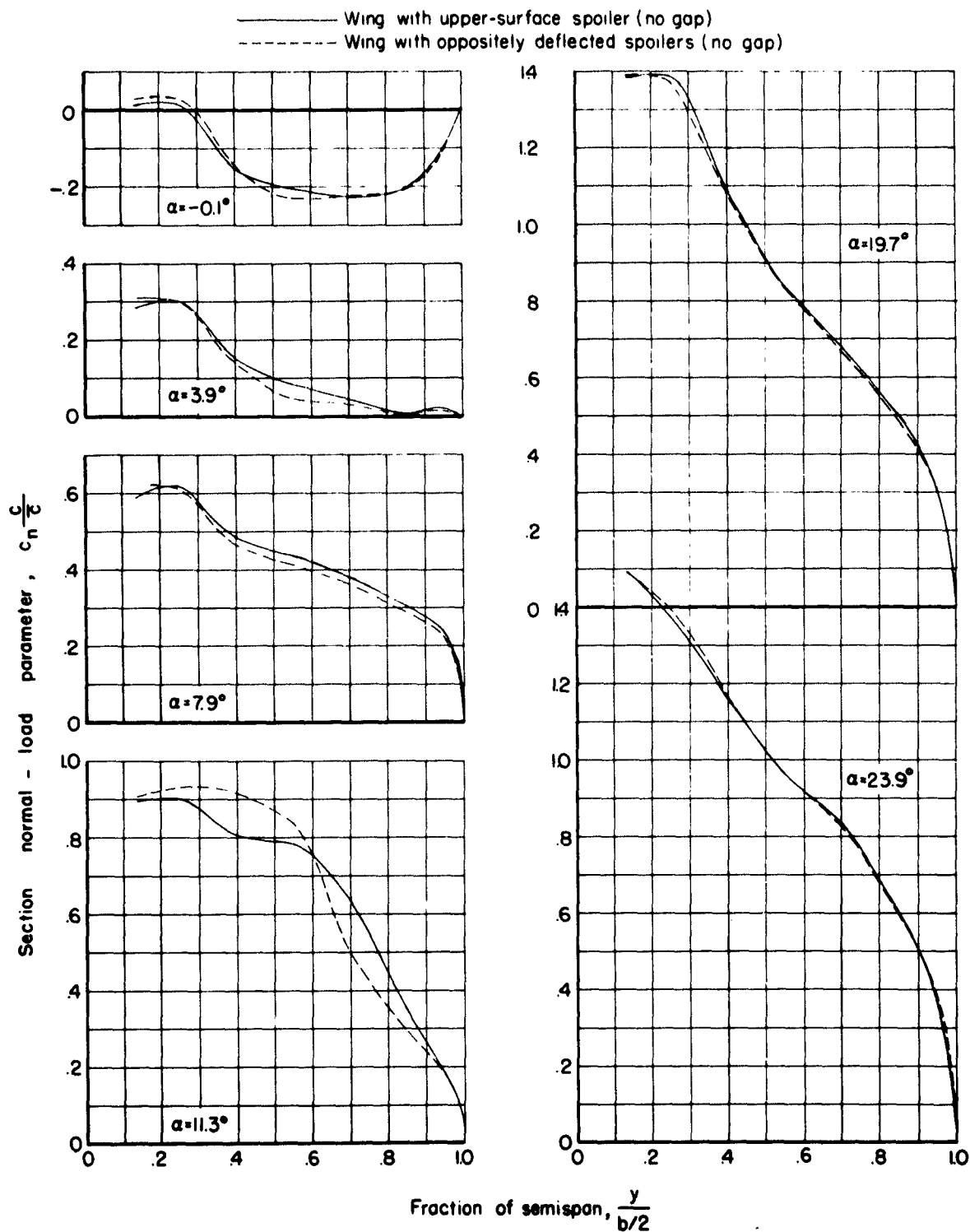
(b) M = 0.90.

Figure 15.- Continued.
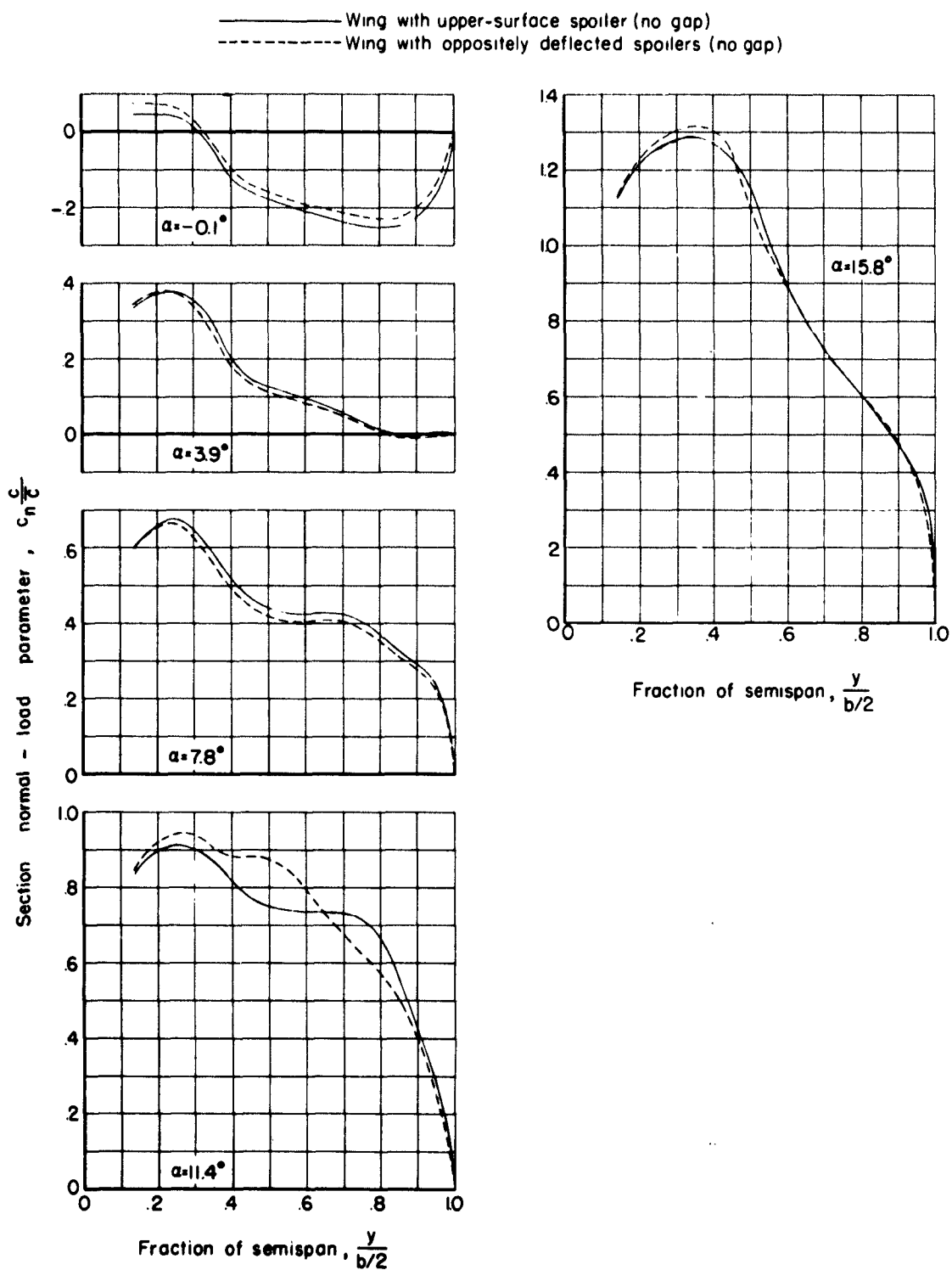
(c)   M = 0.98.

Figure 15.- Concluded.
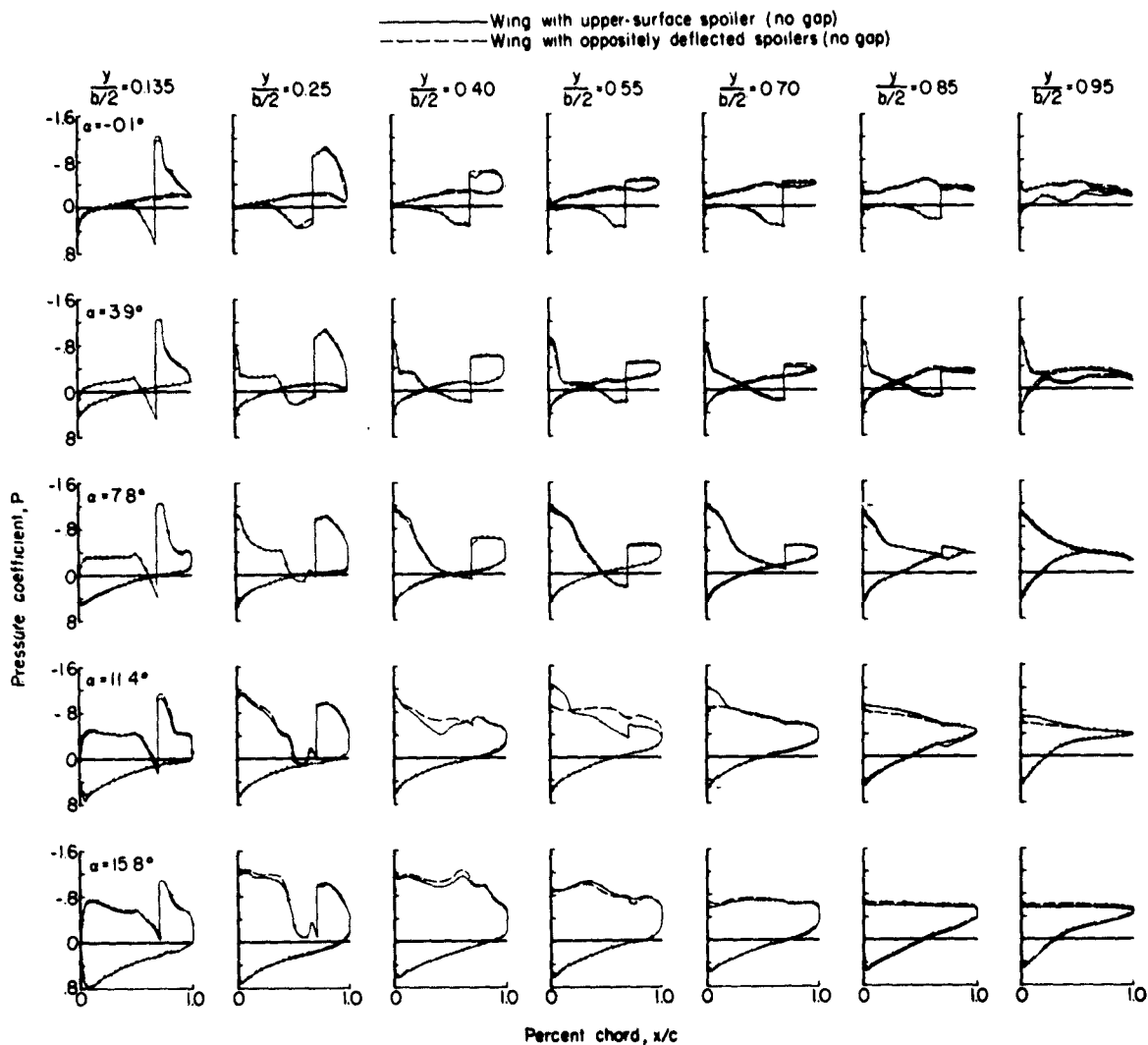
Figure 16.- Effect of a lower-surface spoiler on the opposite wing chord-
wise pressure distributions for the upper-surface spoiler (no gap)
configuration. M = 0.98.
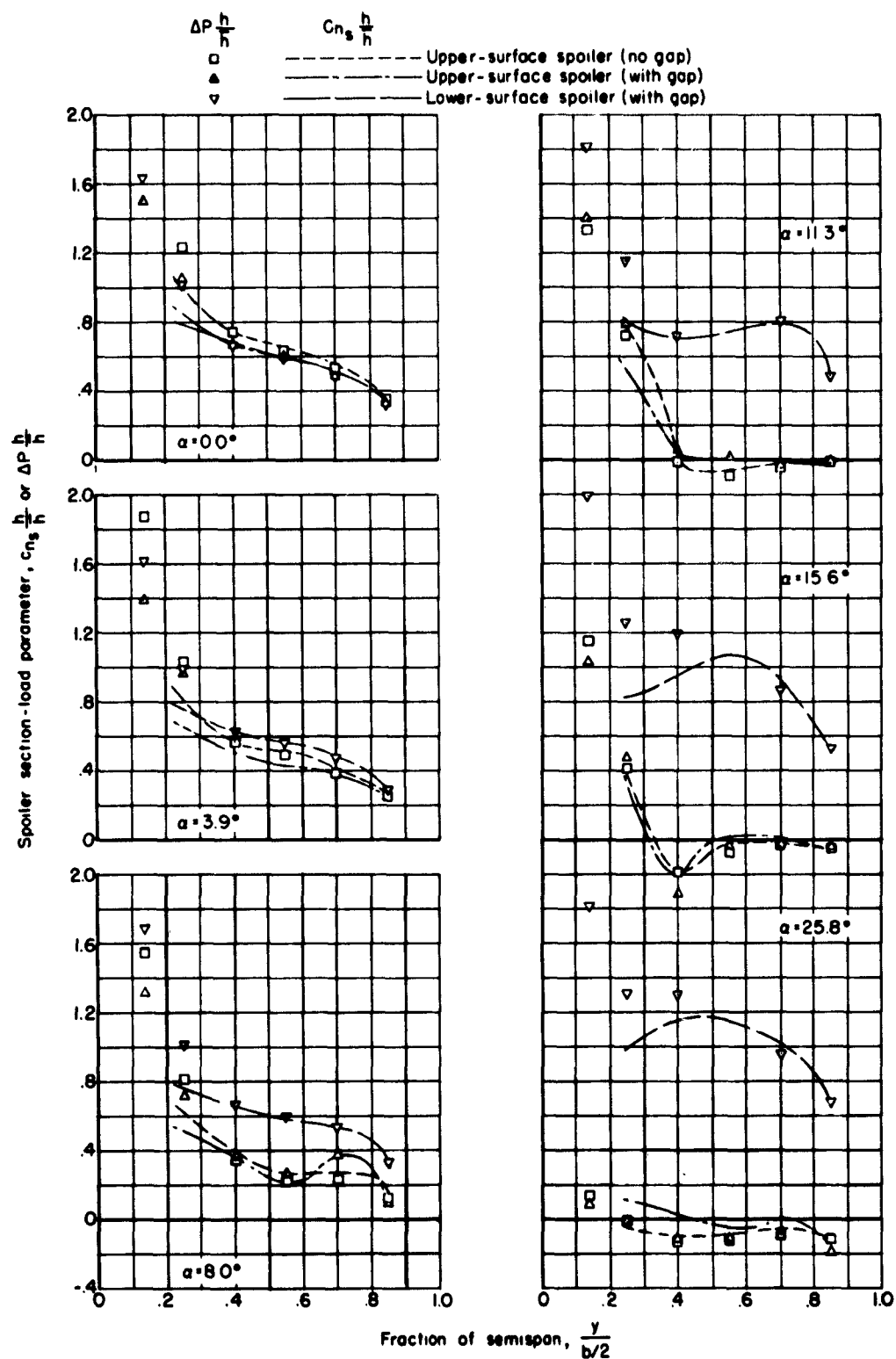
(a) M = 0.60.

Figure 17.- Spoiler load distributions.
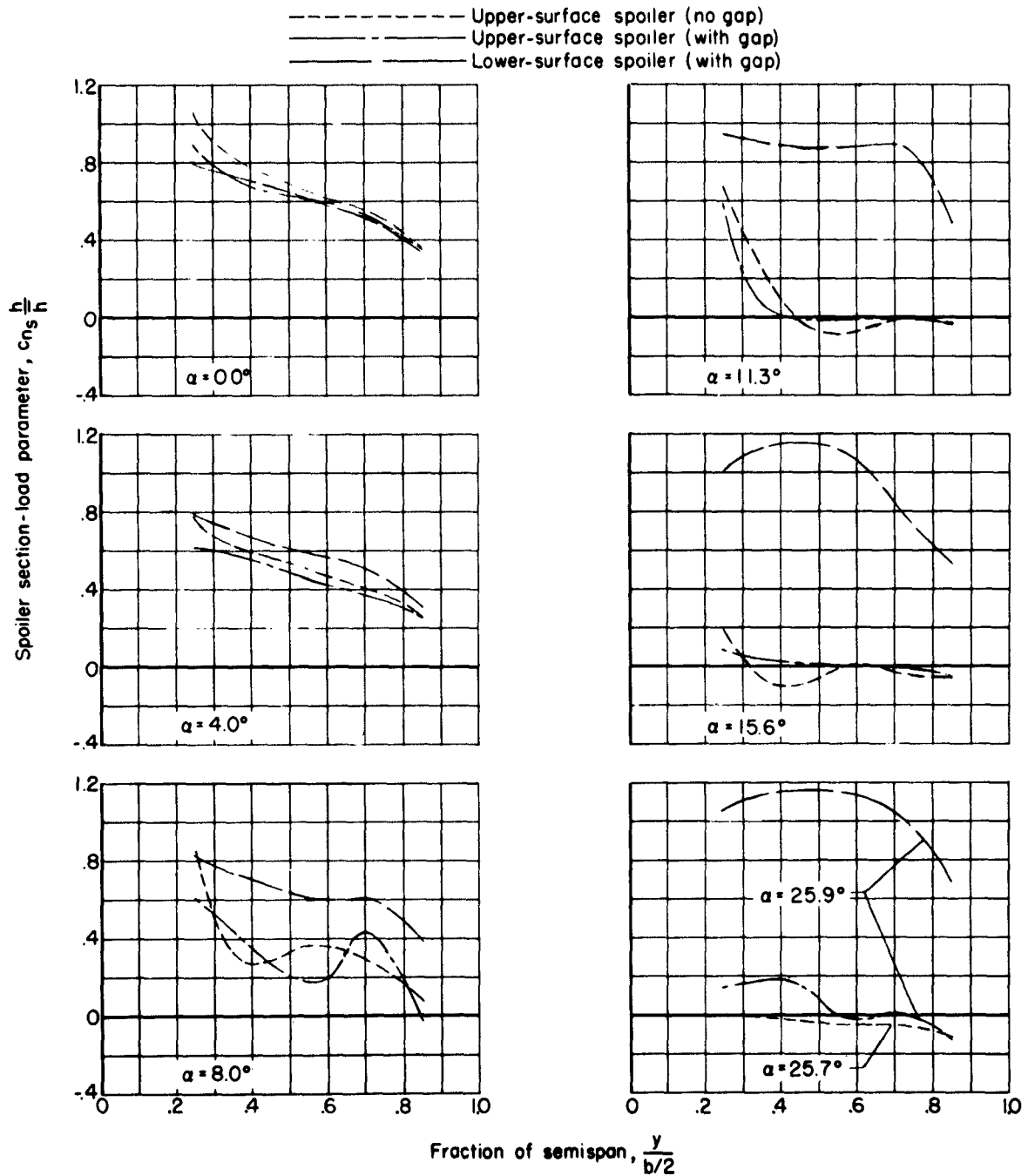
(b) M = 0.80.

Figure 17.- Continued.
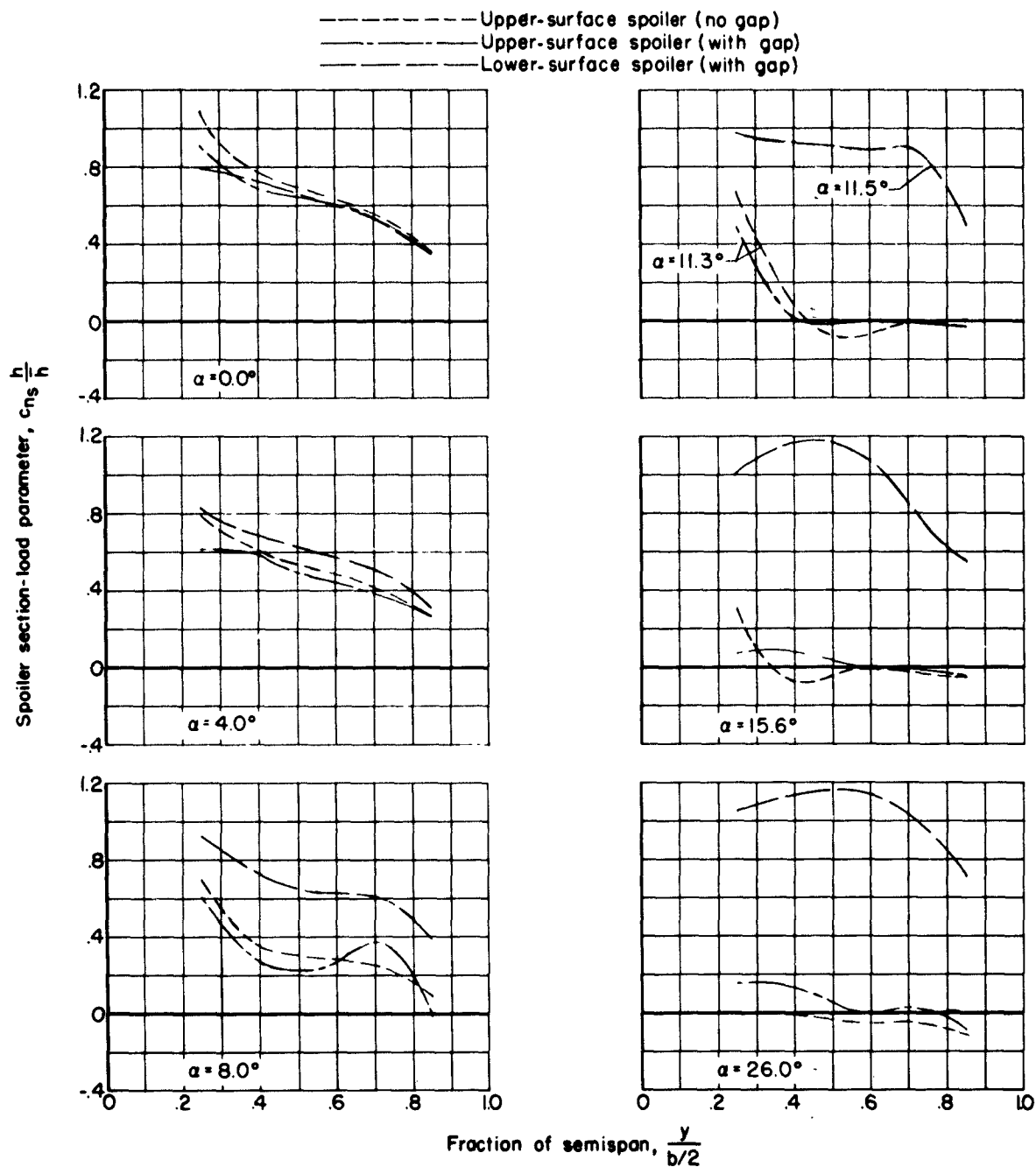
(c) M = 0.85.

Figure 17.- Continued.
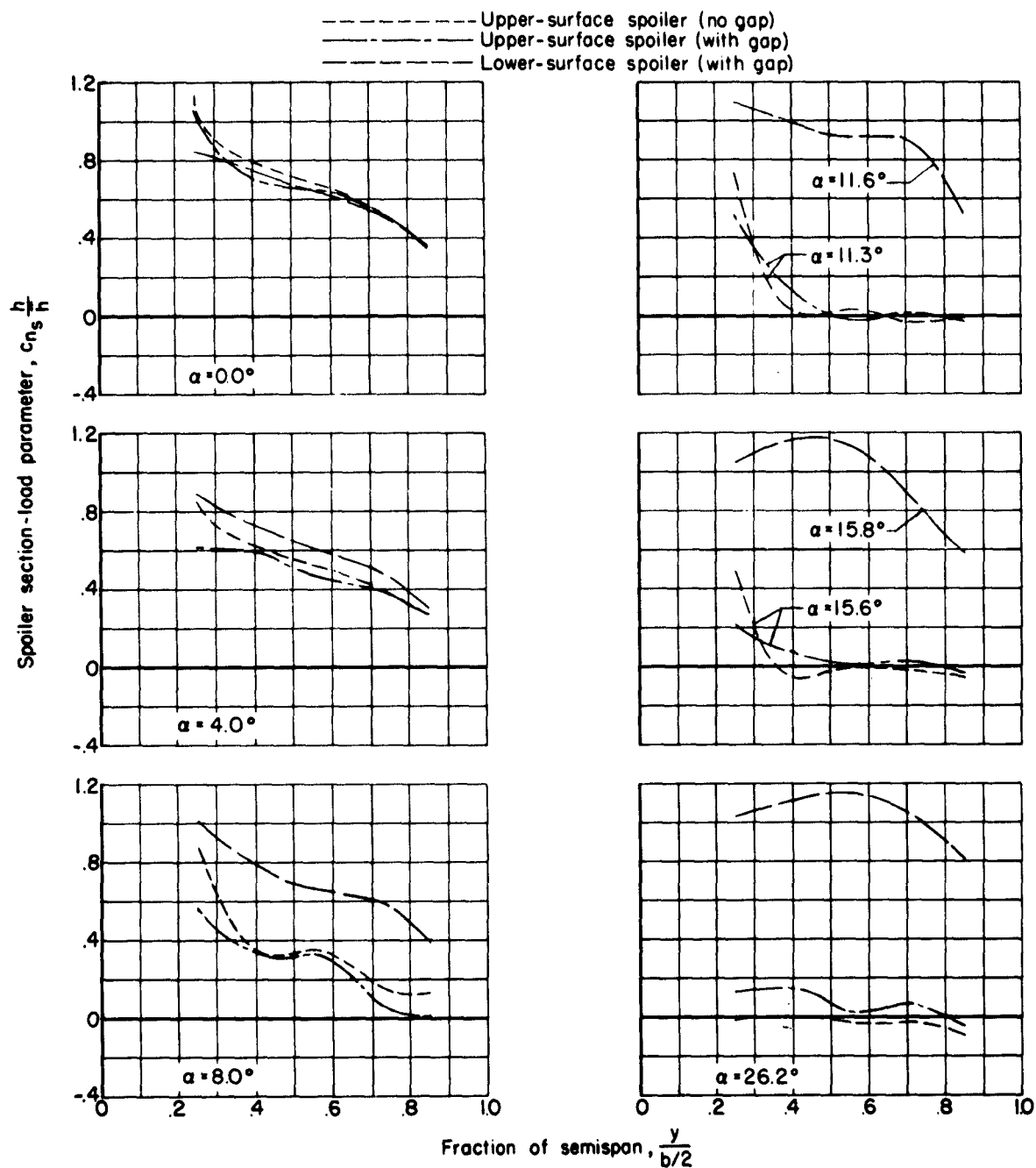
(d) M = 0.90.

Figure 17.- Continued.

(e) M = 0.94.
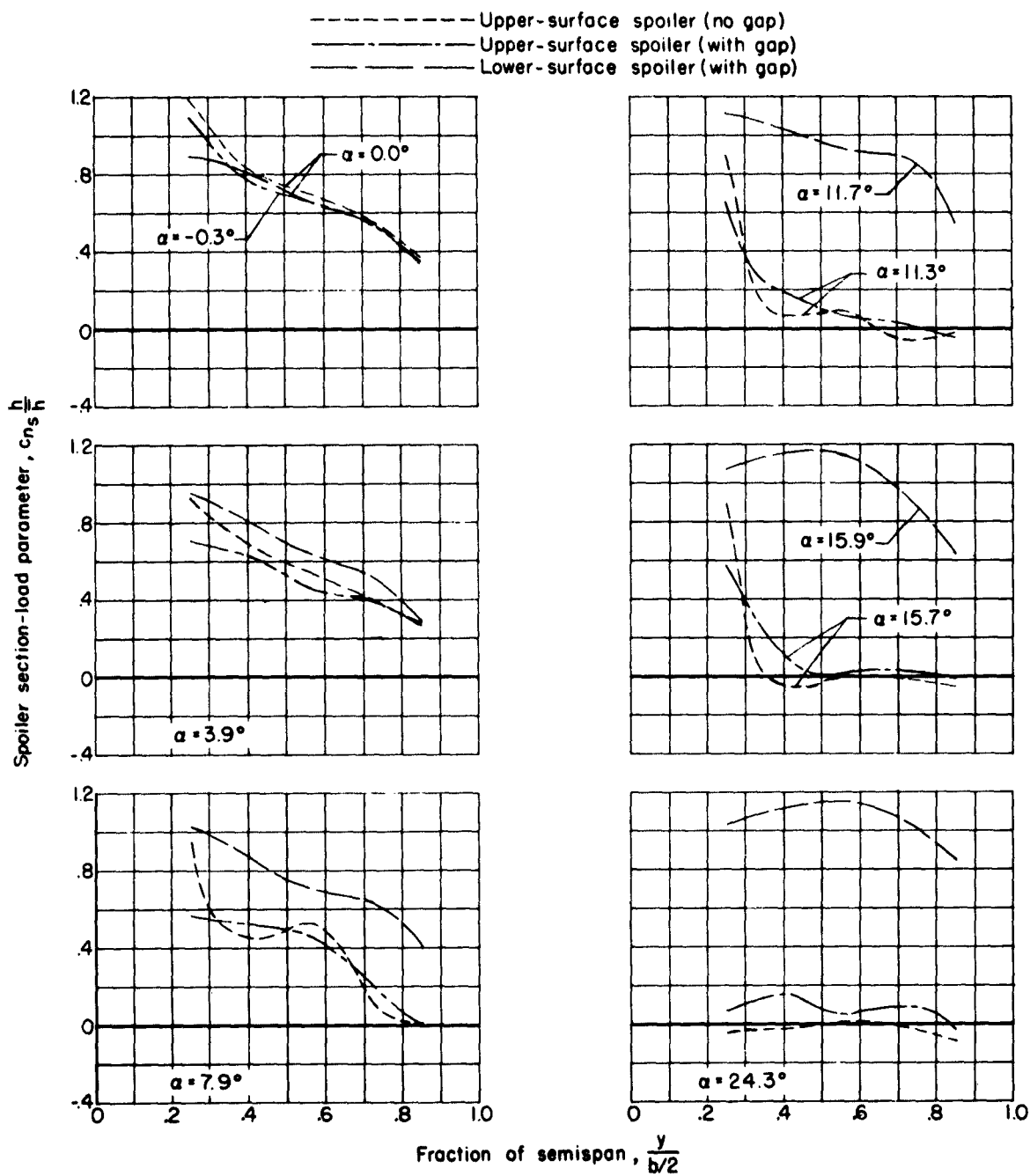
Figure 17.- Continued.
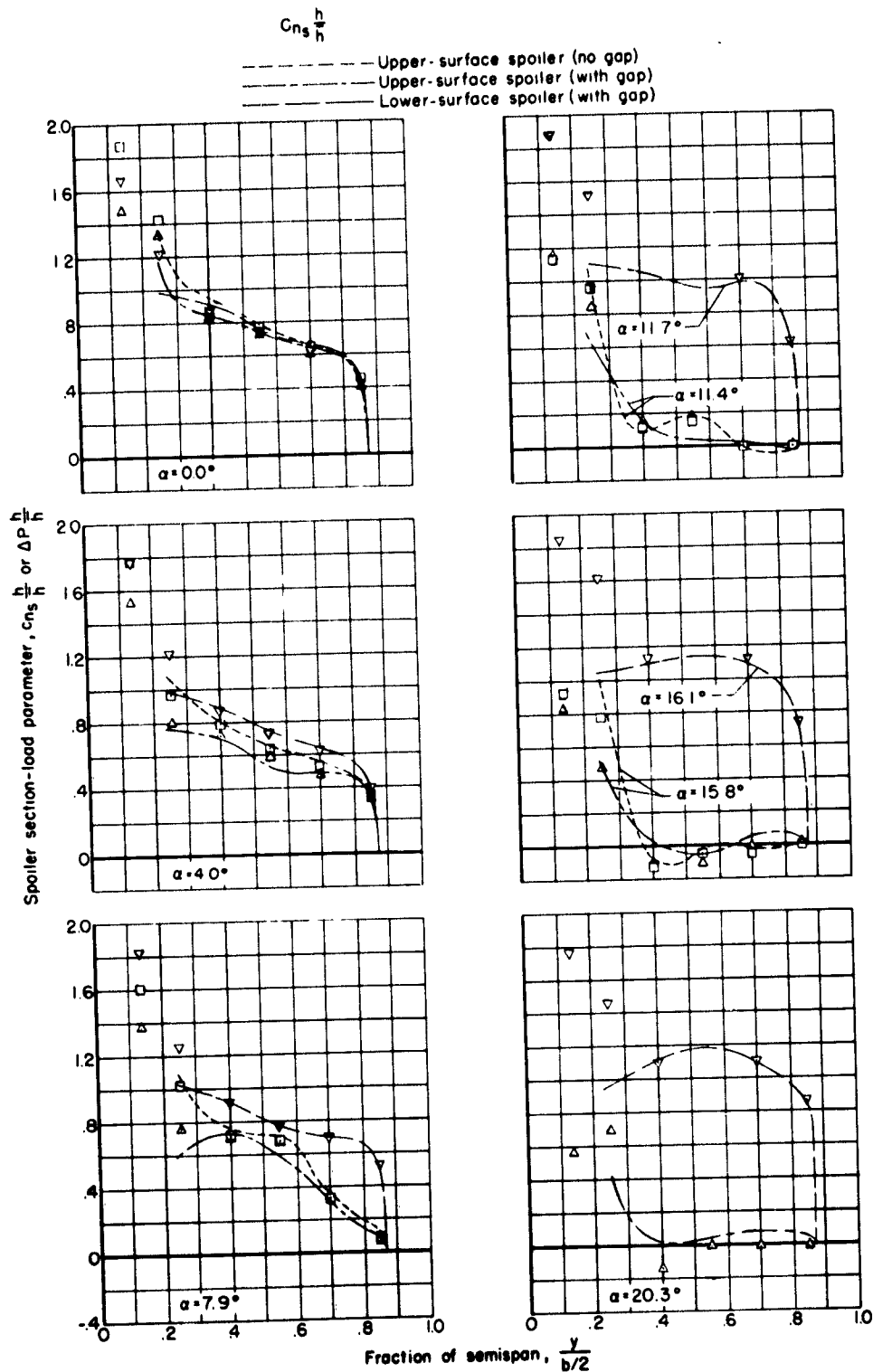
(f) M = 0.98.

Figure 17.- Continued.
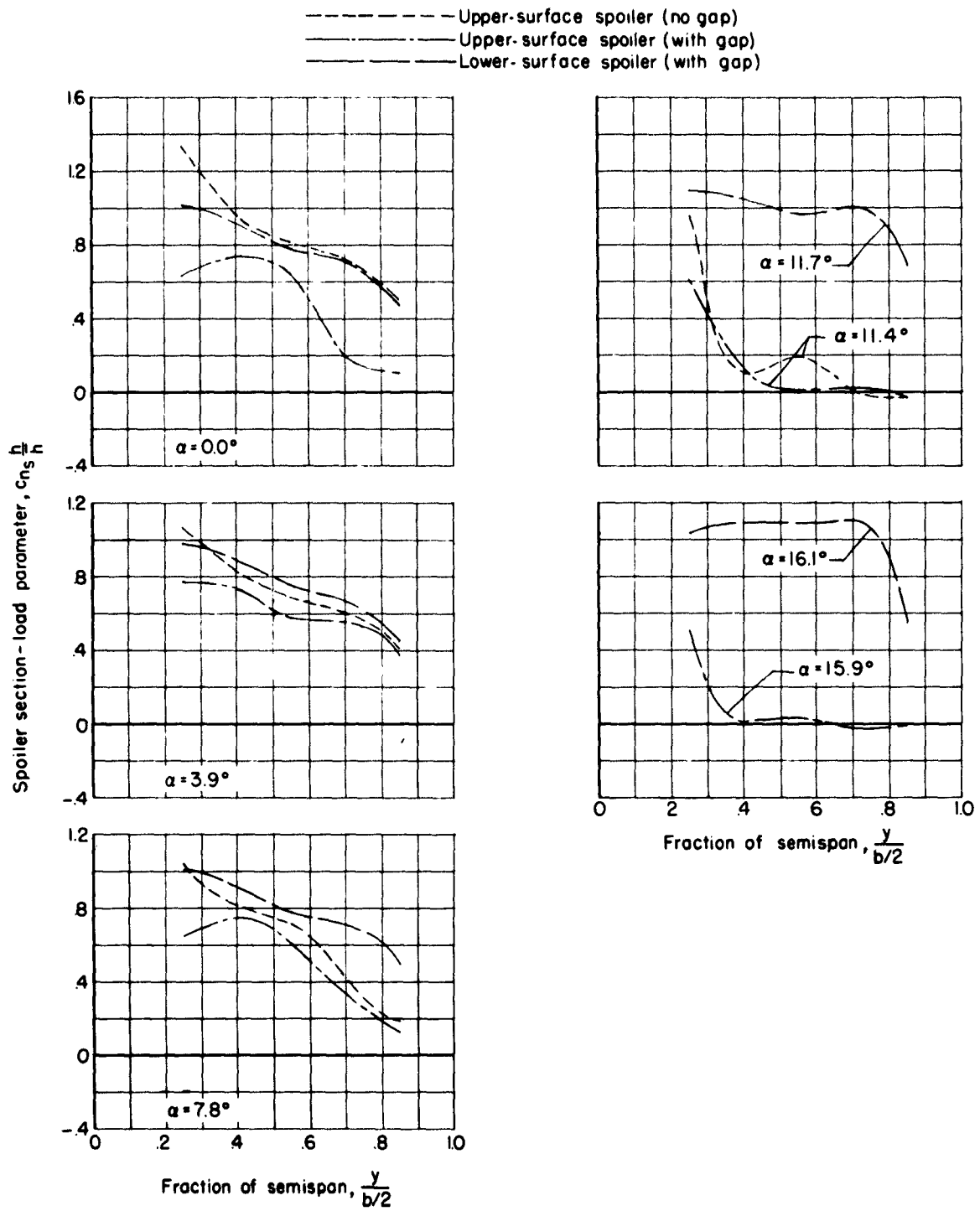
(g)　M = 1.00.

Figure 17.- Continued.
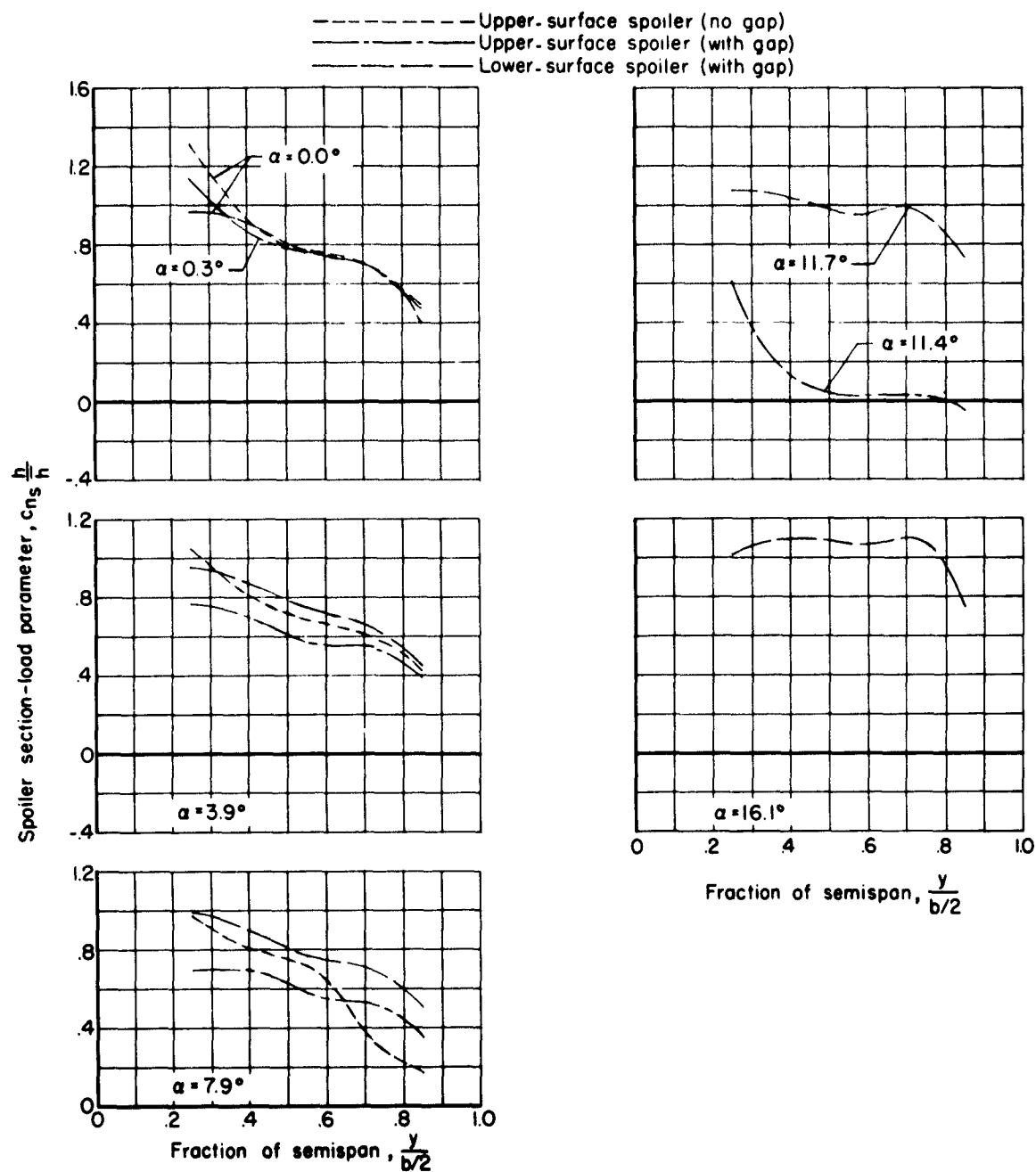
(h) M = 1.03.

Figure 17.- Concluded.
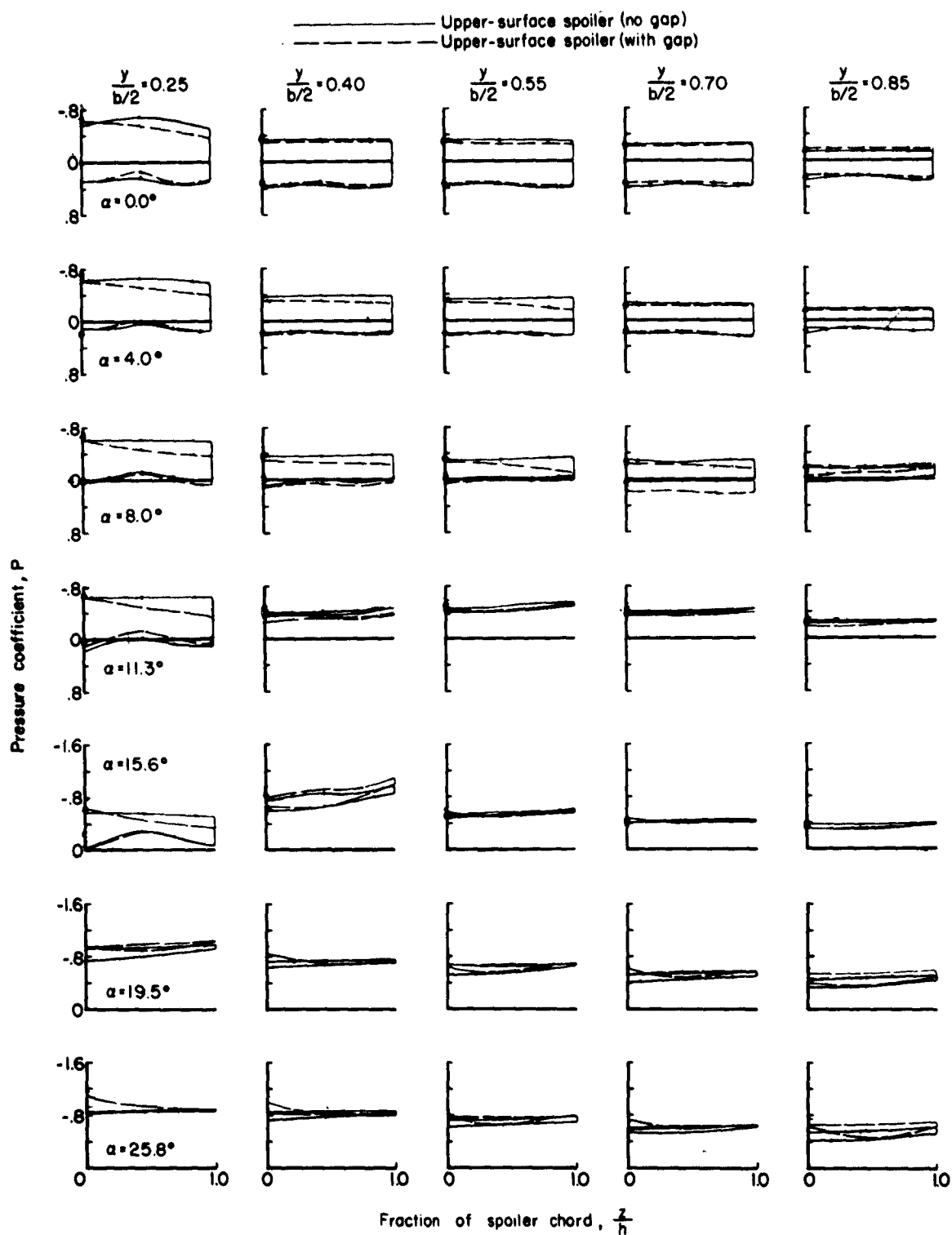
(a) M = 0.60.

Figure 18.- Section pressure distributions on the spoiler; upper-surface
spoiler (with gap) compared with the upper-surface (no gap) configuration.

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Upper-surface spoiler (no gap)
Upper-surface spoiler (with gap)
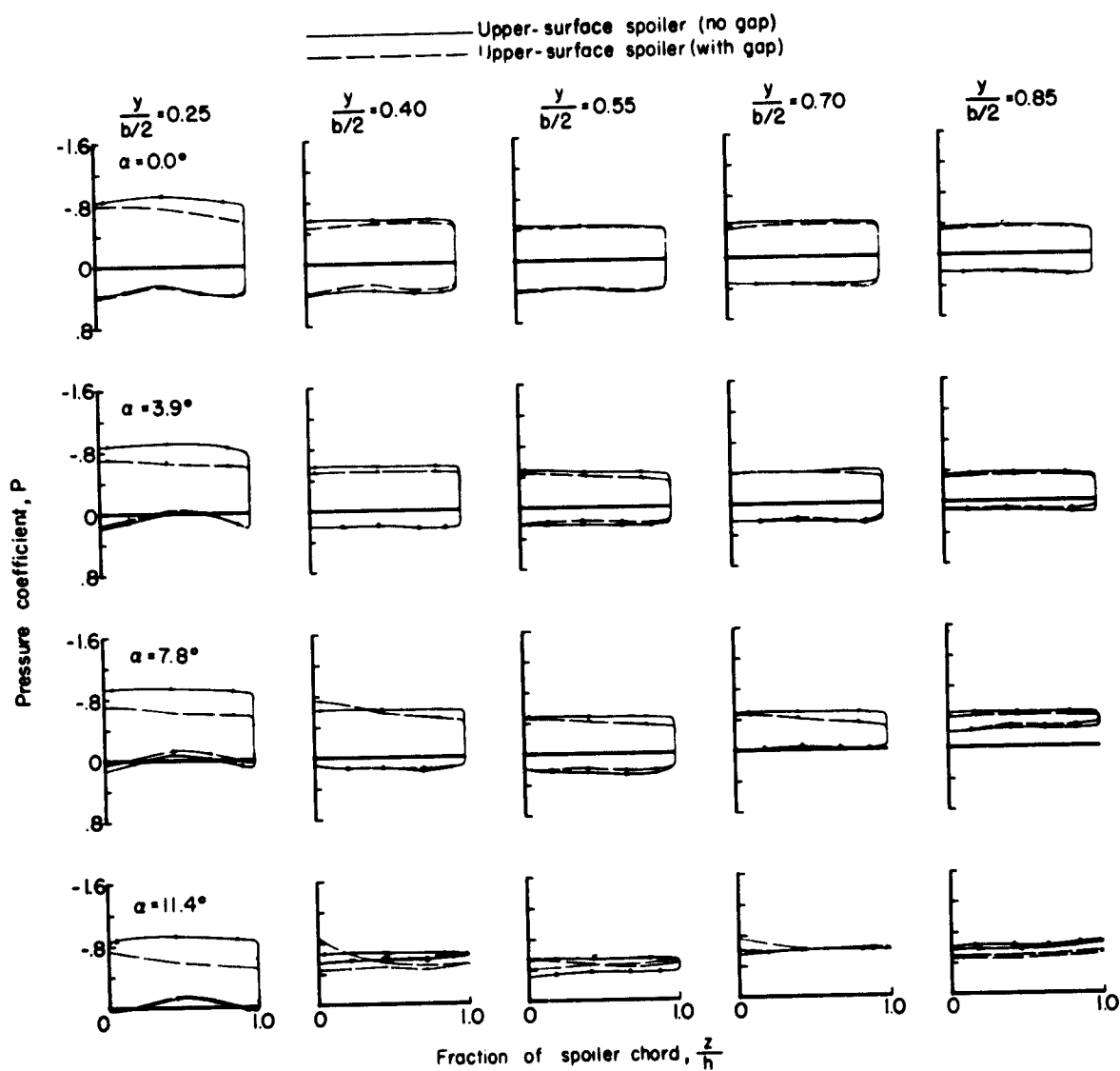
(b) M = 1.00.

Figure 18.- Concluded.

(a)   M = 0.60.
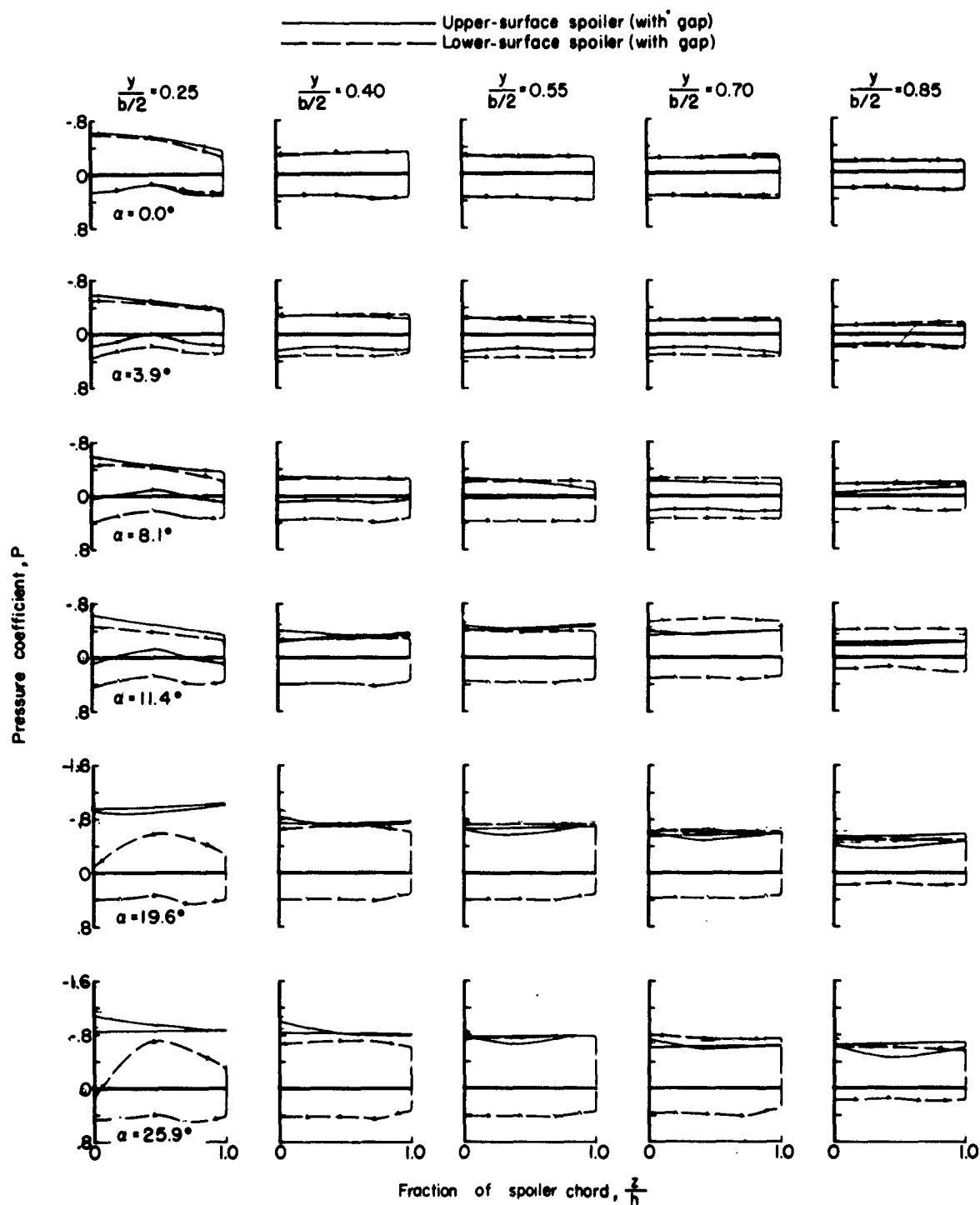
Figure 19.- Section pressure distributions on the spoiler; upper-surface
    spoiler (with gap) compared with the lower-surface spoiler (with gap)
    configuration.

—————— Upper-surface spoiler (with gap)
— — — — — Lower-surface spoiler (with gap)
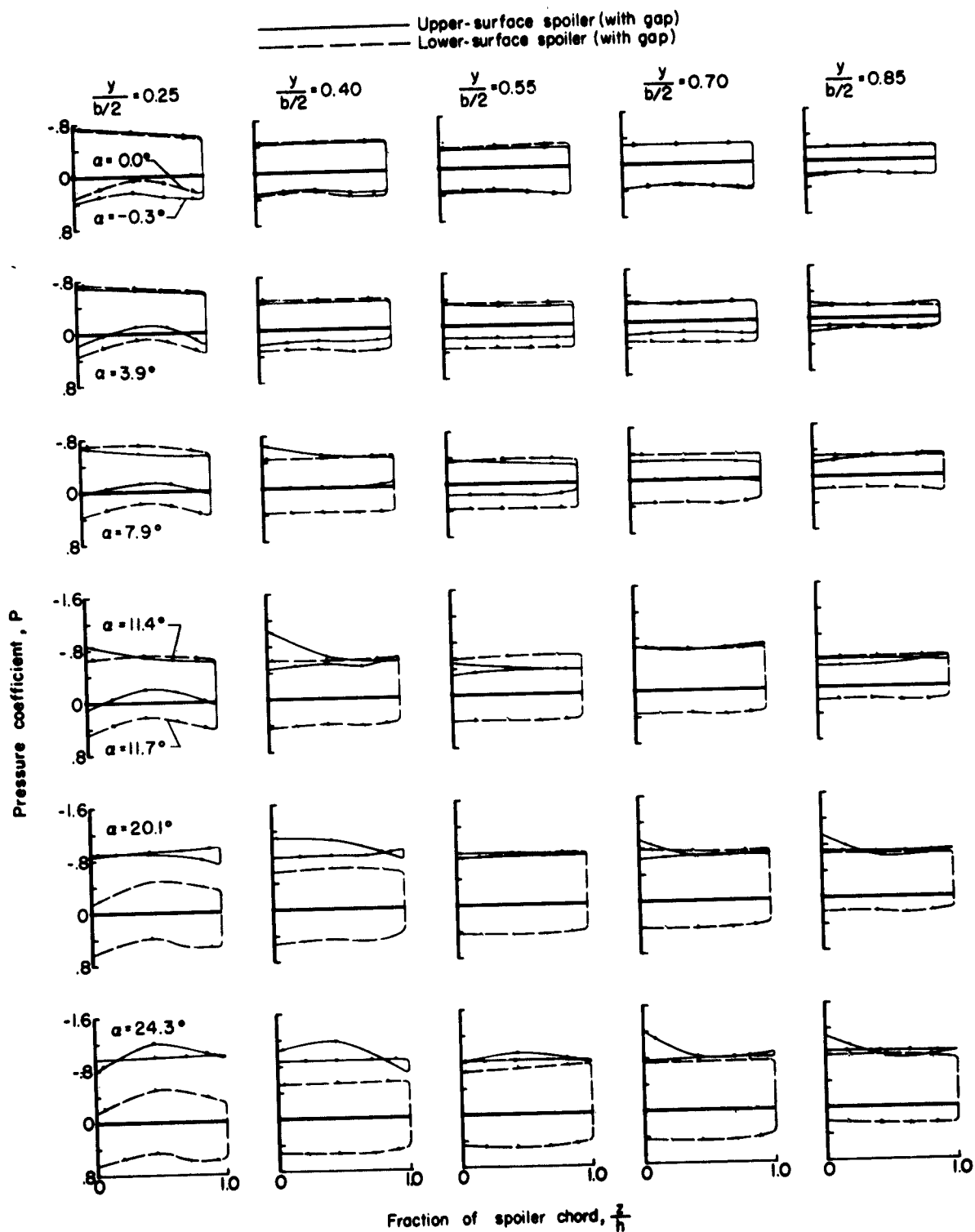
(b) M = 0.94.

Figure 19.- Concluded.

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National Advisory Committee for Aeronautics.
EFFECTS OF SPOILER AILERONS ON THE AERO-
DYNAMIC LOAD DISTRIBUTION OVER A 45°
SWEPTBACK WING AT MACH NUMBERS FROM
0.60 TO 1.03.   Joseph M. Hallissy, Jr., F. E. West,
Jr. and George Liner.   May 1954.   162p. diagrs.,
4 tabs.   (NACA RM L54C17a)   CONFIDENTIAL

An investigation was conducted with 73-percent-
semispan inboard-spoiler ailerons, having heights of
4 percent of the local wing chord and located along
the 70-percent wing-chord line of a 45° sweptback-
wing—fuselage combination.   The wing had an aspect
ratio of 3.98, a taper ratio of 0.61, and NACA 65A006
airfoil sections parallel to the plane of symmetry.
Test configurations included upper- and lower-
surface spoilers, with and without a gap through the
wing behind the spoiler.   Chordwise pressure-
distribution data were obtained at seven spanwise sta-
tions at Mach numbers from 0.60 (Reynolds number,

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5.1 x 10^6) to 1.03 (Reynolds number, 6.2 x 10^6) for an angle-of-attack range that usually extended to 20° or higher. The effects of upper- and lower-surface spoilers on chordwise pressure distributions, wing normal forces, wing span-load distributions, and positions of center of pressure are shown. Spoiler load distributions are also shown.

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1. Wings, Complete -
   Sweep   (1.2.2.2.3)
2. Controls, Spoiler - Complete Wings   (1.2.2.4.2)
3. Boundary-Layer Characteristics - Complete Wings   (1.2.2.8.1)
4. Wing-Fuselage Combinations - Airplanes   (1.7.1.1.1)
5. Control, Lateral   (1.8.2.2)
6. Loads, Aerodynamic - Wings   (4.1.1.1)
I. Hallissy, Joseph M., Jr.
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