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# RESEARCH MEMORANDUM

## PRESSURE DISTRIBUTIONS AND AERODYNAMIC CHARACTERISTICS OF SEVERAL SPOILER-TYPE CONTROLS ON A TRAPEZOIDAL WING AT MACH NUMBERS OF 1.61 AND 2.01

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# PRESSURE DISTRIBUTIONS AND AERODYNAMIC CHARACTERISTICS OF SEVERAL SPOILER-TYPE CONTROLS ON A TRAPEZOIDAL WING AT MACH NUMBERS OF 1.61 AND 2.01

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## SUMMARY

An investigation has been made at Mach numbers of 1.61 and 2.01 to examine the characteristics of a series of nine spoiler-type controls on a trapezoidal wing having the leading edge swept back 23°, an aspect ratio of 3.1, and a taper ratio of 0.4. Pressure-distribution measurements were made at angles of attack from -15° to 15° and the Reynolds number of the tests was $3.6 \times 10^6$ with boundary-layer transition fixed near the wing leading edge. The results of the tests indicated that the incremental pressure distributions due to the spoiler were in excellent agreement with previous flat-plate results as long as the spoiler was not located too close to a break in the wing surface or to the wing tip. The effect of angle of attack on the pressures measured ahead of the spoiler could be predicted fairly well by a pressure-rise correlation. Angle of attack had little effect on the pressures measured downstream of the spoiler. Deflecting a full-span trailing-edge flap-type control behind a full-span spoiler had no effect on the pressures measured ahead of the spoiler but had a large effect on the pressures behind the spoiler, particularly when the control deflection was toward the spoiler. The effectiveness of the spoiler in reducing the wing lift and bending moment was generally increased by rearward movement of the spoiler, increasing the spoiler span, increasing the gap behind the spoiler, or, at negative angles of attack, by decreasing the Mach number. The incremental pitching moment due to the spoiler became more negative with forward movement of the spoiler or by decreasing the gap behind the spoiler, and, at negative angles of attack, by increasing the spoiler span or decreasing the Mach number.

## INTRODUCTION

As part of a general program of research on controls, an investigation is under way in the Langley 4- by 4-foot supersonic pressure tunnel to determine the important parameters in the design of controls for use on a trapezoidal wing at supersonic speeds. Some results of the tests made thus far have been reported in references 1 to 3 showing the control effectiveness, hinge-moment, chordwise pressure-distribution, and spanwise-loading characteristics for a series of flap-type trailing-edge controls on a trapezoidal wing having the leading edge swept back 23°, an aspect ratio of 3.1, and a taper ratio of 0.4.

In order to investigate the effect of spoilers on the flow and force characteristics of the trapezoidal wing of references 1 to 3, a series of nine spoilers having variations in height, span, sweep, and chordwise location were tested. The wing angle-of-attack range for these tests was from -15° to 15° and for some of the tests, a full-span flap-type control was deflected up to ±20°. The tests were conducted at Mach numbers of 1.61 and 2.01 for a Reynolds number of $3.6 \times 10^6$, based on the wing mean aerodynamic chord of 11.72 inches, and turbulent boundary layer was assured by fixing transition near the wing leading edge. This report will present the chordwise pressure distributions, spanwise loadings, and the integrated spoiler-effectiveness variations for these spoiler configurations on the trapezoidal wing.

## SYMBOLS

$C_L$ lift coefficient, $\frac{L}{q_\infty S}$

$C_b$ root bending-moment coefficient, $\frac{B}{2q_\infty Sb}$

$C_m$ pitching-moment coefficient, $\frac{M'}{q_\infty S(MAC)}$

$c_m$ section pitching-moment coefficient (taken about midchord of mean aerodynamic chord)

$c_n$ section normal-force coefficient

$C_p$ pressure coefficient, $\frac{p_l - p_\infty}{q_\infty} = \frac{2}{\gamma M_\infty^2}\left(\frac{p_l - p_\infty}{p_\infty}\right)$

$C_{p,s}$ pressure coefficient at separation point s

$C_{p,x}$ pressure coefficient at point x

| | |
|---|---|
| $\Delta C_{p,corr.}$ | corrected incremental pressure coefficient due to spoiler, $\left(C_{p,x} - C_{p,s}\right)\left(\frac{p_2}{p_1}\right)_{M_1=M_s}\left(\frac{p_1}{p_2}\right)_{M_1=M}$ |
| B | semispan wing-root bending moment |
| b/2 | wing semispan |
| c | wing local chord |
| $\bar{c}$ | wing average chord |
| $c_R$ | wing-root chord |
| h | spoiler height |
| L | semispan-wing lift |
| M | Mach number |
| M' | semispan-wing pitching moment about midchord of mean aerodynamic chord |
| p | static pressure |
| q | dynamic pressure, $\frac{\gamma}{2} pM^2$ |
| R | Reynolds number based on mean aerodynamic chord |
| S | semispan-wing area |
| x | distance in chordwise direction from wing leading edge |
| x' | distance in chordwise direction from spoiler |
| y | distance in spanwise direction from wing-root chord |
| $\alpha$ | wing angle of attack, streamwise |
| $\gamma$ | ratio of specific heat at constant pressure to specific heat at constant volume |
| $\Delta$ | prefix indicating increment due to spoiler |

$\delta$ control deflection relative to wing, positive when control trailing edge is down

$\Lambda$ spoiler sweep angle

Subscripts:

1 local conditions before a disturbance

2 local conditions after a disturbance

s local conditions at separation point

$\infty$ free stream

$l$ local

## APPARATUS

### Wind Tunnel

This investigation was conducted in the Langley 4- by 4-foot supersonic pressure tunnel, which is a rectangular, closed-throat, single-return type of wind tunnel with provisions for the control of the pressure, temperature, and humidity of the enclosed air. Flexible nozzle walls were adjusted to give the desired test-section Mach numbers of 1.61 and 2.01. During the tests, the dewpoint was kept below $-20^{\circ}$ F at atmospheric pressure so that the effects of water condensation in the supersonic nozzle were negligible.

### Model

The wing model used in this investigation was the same as that used in the tests of references 1 to 3. The basic wing had a leading edge swept back $23^{\circ}$, a root chord of 15.88 inches, a tip chord of 6.17 inches, a semispan of 17.02 inches, and a mean aerodynamic chord of 11.72 inches. The wing section was a modified hexagon having a constant ratio of local thickness to local chord of 4.5 percent. The flat midsection extended from the 30-percent chord to the 70-percent chord and the corners joining the flat midsection to the leading- and trailing-edge wedges were rounded to a 22.5-inch radius. The full-span control configurations 4 and 6 of references 1 to 3 were used during this investigation. Configuration 4 had a sharp trailing edge and configuration 6 had a blunt trailing edge. Both of these controls had unswept hinge lines located at the 74.6-percent-chord line, and a hinge-line gap of 0.01 inch (0.08 percent mean aerodynamic chord). For one test with configuration 4, the hinge-line gap was increased to 0.20 inch (1.71-percent mean aerodynamic chord) by moving the control and hinge line rearward.

Sketches of the nine spoiler configurations are shown in figure 1. The spoilers were constructed of 1/16-inch stock brass, bent at a right angle to permit fastening to the wing surface. The support leg faced rearward except for configurations G, H, and I, which were reversed in order to provide maximum rearward location of the spoiler with respect to the hinge-line gap or trailing edge. All the configurations had a height equal to 5 percent of the mean aerodynamic chord except for configurations F and I, for which the heights were 5-percent local chord and 2-percent mean aerodynamic chord, respectively. Configurations C, D, and E were basically the same spoiler with successive portions of the spoiler tips being removed. Configurations G and H were identical except for the enlarged hinge-line gap on configuration H.

The wing was constructed of steel, and the pressure-tube installations were made in grooves in the surface which were faired over with a transparent plastic material. The 144 to 169 pressure orifices were located at five spanwise stations as shown in figure 1. The chordwise locations of the surface pressure orifices are listed in table 1. All screw holes and pits were filled with dental plaster and faired smooth. The semispan wing was mounted horizontally in the tunnel from a turntable in a steel boundary-layer bypass plate which was located vertically in the test section about 10 inches from the side wall.

## TESTS

### Techniques

The model angle of attack was changed by rotating the turntable in the bypass plate on which the wing was mounted. The angle of attack was measured by a vernier on the outside of the tunnel, inasmuch as the angular deflection of the wing under load was negligible. The control deflections on the full-span trailing-edge control were set with the aid of an electrical control-position indicator mounted inside the wing at the hinge line and were checked with a cathetometer mounted outside the tunnel. The pressure distributions were determined from photographs of the multiple-tube manometer boards to which the pressure leads from the model orifices were connected. Configuration I had pressure orifices on both upper and lower surfaces of the wing and control. The remaining configurations did not have orifices on the lower surface of the control.

### Range of Conditions

All the configurations were tested for an angle-of-attack range from $-15^{\circ}$ to $15^{\circ}$ for a control deflection of $0^{\circ}$. Configurations A, B, C, H, and I were also tested for a few control deflections up to $\pm 20^{\circ}$. The tests were made at tunnel stagnation pressures of 13.0 and 15.1 pounds per square inch absolute at Mach numbers of 1.61 and 2.01, respectively, corresponding to a Reynolds number of $3.6 \times 10^{6}$ based on the wing mean aerodynamic chord. In order to insure a turbulent boundary layer over the model during the tests, 3/16-inch-wide strips of No. 60 carborundum were attached to the wing upper and lower surfaces at a distance of 1/4 inch from the leading edge. These strips completely spanned the model except within 1/4 inch of the orifice stations.

## PRECISION OF DATA

The mean Mach numbers in the region occupied by the model are estimated from calibrations to be 1.61 and 2.01 with local variations being smaller than $\pm 0.02$. There is no evidence of any significant flow angularities. The estimated accuracies in setting the wing angle of attack and control deflection are $\pm 0.05^{\circ}$ and $\pm 0.1^{\circ}$, respectively. The basic measured quantity $C_p$ is believed to be accurate to $\pm 0.01$.

## RESULTS AND DISCUSSION

### Pressure Distributions

Basic distributions.- Selected upper-surface pressure distributions at the five spanwise stations for the basic configurations without spoilers are presented in figure 2 and for the configurations with spoilers in figure 3. The distributions are shown for angles of attack of $0^{\circ}$, $\pm 6^{\circ}$, and $\pm 12^{\circ}$, the full-span control being undeflected. Distributions were actually obtained for angles of attack from $-15^{\circ}$ to $15^{\circ}$ at $3^{\circ}$ increments. The complete tabulated data for these tests are presented in tables 2 to 11. In figure 3, the spoiler-off curves are repeated as dashed lines so that the effect of the spoiler becomes readily apparent. The spoiler location at each station is denoted by the vertical long-dashed line.

In general, the changes in pressure distribution due to the spoiler are the same as have been shown in previous pressure tests (that is, refs. 4 to 8). Some distance ahead of the spoiler, flow separation causes a rapid pressure increase followed by an area of relatively constant pressure up to the spoiler face. At the spoiler, a rapid acceleration of the flow results in a negative pressure peak which in turn is followed by a recompression of the flow in which the pressure approaches that for the spoiler-off configuration at some distance downstream. Due to the fact that the pressure orifices were generally located along lines of constant percent chord and the spoilers were not so located, it was impossible always to provide an orifice immediately ahead of the spoiler base. Such an orifice would be required to pick up the secondary pressure rise occurring because of the stagnation of the circulatory flow in the separated region. (See ref. 5.)

As the wing angle of attack is decreased and the local Mach number is decreased, the separation point moves slightly forward and the initial pressure rise increases. (See fig. 3.) The forward movement of the separation point with decreasing Mach number was shown in reference 9 and indications are that the movement is greater as the supersonic local Mach number approaches unity. This movement of the separation point would tend to make the separation angle less and thus would reduce the pressure rise. A decrease in local Mach number for a given separation angle, however, tends to increase the pressure rise. Apparently, the pressure rise due to the change in separation angle for these conditions is small as compared with the pressure rise due to the Mach number change.

Immediately downstream of the spoiler, there is little change of the pressures with changes in angle of attack. In all cases, the acceleration at the spoiler approaches the vacuum pressure, which is $C_p = -0.35$ at $M_\infty = 2.01$ and $C_p = -0.55$ at $M_\infty = 1.61$. Further downstream, the recompression is much greater at the negative angles of attack as might be expected due to the higher pressure from which the initial disturbance started and to which the flow tends to return.

In reference 9, it was shown that the pressure distributions over spoilers on a flat plate were almost identical when plotted so that the chordwise distances were based on spoiler height. Because of the three-dimensional nature of the flow over the spoilers on the wing in the present tests, such a correlation would not necessarily be expected. Examination of the pressure distributions for configuration F (fig. 3(f)), however, shows similar loadings due to the spoiler at all stations except for the $\alpha = -12^\circ$ condition where leading-edge shock detachment causes an additional effect at the outboard stations. Since this configuration has a spoiler height of 5 percent of the local chord and the pressure distributions are based on the local chord, comparison of the distributions at various stations is the same as if the plots were based on spoiler height. The spanwise effects that do show up in figure 3 that cannot be accounted for on a spoiler-height basis may be attributed to the wing-tip vortex at station 8 and to the boundary layer on the bypass plate at station 1.

Comparison with flat-plate results.- A comparison of the increments in surface-pressure coefficient $\Delta C_p$ generated by the presence of the spoiler on the wing with the pressure-coefficient increments induced by the same height spoiler on a flat plate (configuration 3 of ref. 5) is shown in figure 4. An angle of attack of $0^\circ$ was chosen for this illustration because, at this angle, the local Mach number on the flat midsection of the wing is near the free-stream value and the effect of the spoiler can be compared with available flat-plate data at equal local Mach numbers. To simplify the comparison further, the pressure-increment distribution has been plotted as a function of the distance ahead of or behind the spoiler in spoiler heights. The dashed vertical lines indicate the relative position of the wing spoiler to the wing leading and trailing edges and to the 0.3- and 0.7-chord points where the corners in the wing surface occur due to the intersection of the leading- or trailing-edge wedges with the flat midsection.

The results of figure 4(a) indicate that, for the full-span unswept spoiler configuration G, the agreement with the flat-plate results of reference 5 is excellent except for the tip station (station 8). At this station, the present tests indicate both a decrease in the pressure rise and a decrease in the chordwise extent of the pressure increase as compared with the two-dimensional flat-plate pressures. This effect is ascribed primarily to spillage around the spoiler and wing tips. The reason for the expansion just ahead of the spoiler at this station is not known but, on the basis of figure 5(a) in reference 5, appears to be a consequence of the flow phenomenon about the spoiler tip alone. The expansion and compression behind the spoiler were not affected to any extent by the proximity of station 8 to the wing and spoiler tips. Another observation of interest is that the flow behind the spoiler is apparently independent of the relative position of the wing trailing edge, the viscous wing wake and flow from the other side of the wing effectively providing the same sort of barrier to the upper surface flow as that provided by the wing itself.

The results presented in figure 4(b) indicate that, when the spoiler is located so as to cause boundary-layer separation ahead of a corner in the wing surface, the agreement between the present results and those of the flat-plate investigation is no longer good. In general, there is a tendency for the pressure distribution to become more triangular and for the pressure rise to become greater. The greater pressure rise may be due in part to the lower Mach number prevailing at the separation point. Behind the spoiler, however, the existence of a corner in the wing surface is of no apparent significance.

At angles of attack, of course, the local Mach numbers on the upper and lower wing surfaces change from the free-stream value and a direct comparison is no longer possible. An empirical method can, nevertheless, be used to correlate the pressures ahead of the spoiler with those of reference 5. Briefly, the correlation procedure consists of taking, at an angle of attack, the increment in pressure coefficient existing between any point in the separated flow region and the pressure coefficient at the point of separation and correcting this increment from the local Mach number at the separation point to the Mach number at which the correlation is desired. The local Mach number was computed from the local static pressure, negligible loss in entropy due to the wing leading-edge shock being assumed. The correction factor is obtained by assuming that all pressure-coefficient increments within the region are increased or decreased in the same proportion as the first-peak pressure-rise ratio and that the change in peak pressure-rise ratio with local Mach number follows the theoretical predictions of reference 10 for the separation of a turbulent boundary layer. This prediction is plotted in figure 5 and is compared with the first-peak pressure-rise ratios determined at station 4 on configurations C and G at various local Mach numbers (angles of attack). The agreement is shown to be good for both configurations and at both test Mach numbers. In equation form, the corrected pressure-coefficient increment is given by

$$\Delta C_{p,corr.} = \left(C_{p,x} - C_{p,s}\right)\left(\frac{p_2}{p_1}\right)_{M_1=M_s}\left(\frac{p_1}{p_2}\right)_{M_1=M}$$

For these tests, it was further assumed that the separation-point location was not affected by moderate changes in local Mach number, although for cases where the movement of the separation point may be of importance, it can be accounted for by "stretching" or "shrinking" the separated-flow region according to the indications of figure 3 in reference 9. Some correlation results obtained with the procedure described above are illustrated in figure 6 for values of $M_\infty$ of 1.61 and 2.01. Also plotted in figure 6 are the actual pressure coefficients for the flow behind the spoiler.

In general, the agreement between the corrected pressure-coefficient increments and the flat-plate data of reference 5 is very good. At high positive angles of attack, there is some tendency for the corrected increments to be somewhat low, possibly because of the increased thickness of the boundary layer on the upper wing surface resulting from the high local Mach numbers. At high negative angles, the agreement again tends to break down for the tests at $M_\infty = 1.61$ because the local Mach number is so low that shock-detachment effects are being superimposed over the usual separation effects.

Behind the spoiler, the mechanism controlling the expansion is not the same as that controlling the separation and, hence, the correlation procedure described for the flow ahead of the spoiler cannot be applied. Also, from figure 3, it can be seen that there is a considerable change in the incremental pressures due to the spoiler with changes in $\alpha$. As noted previously, however, and shown again in figure 6, the actual pressure coefficients are only slightly affected by $\alpha$, the most notable feature being the decreased rate of compression at high positive angles of attack and an increased rate at high negative angles as compared with the flat-plate results.

Effect of configuration changes.- Comparison of the pressure distributions for configurations B, C, and G (fig. 3) shows the effect of rearward movement of the full-span spoiler. The rearward shift in the spoiler causes essentially a rearward shift of the incremental pressures due to the spoiler, as might be expected, with some modifications due to the airfoil thickness distribution as discussed in the previous section.

In an attempt to show the effect of spoiler sweep on the pressure distributions, the distributions for configurations A and B at station 7 and configurations A and C at station 8 are compared in figure 7. These stations and configurations were chosen so that the spoiler chordwise location would be identical in either the swept or unswept case. Of course, using station 8 introduces additional complications due to the wing-tip vortex; however, a rough assessment of the sweep effect can be made. Over most of the range, the change in sweep from $0^{\circ}$ to $23^{\circ}$ caused an increase in the upstream influence of the spoiler and an accompanying increase in pressure ahead of the spoiler. This effect was noted previously in reference 5 for stations located some distance from the spoiler apex, as were stations 7 and 8. In the present tests no comparison was made between a swept and an unswept spoiler located inboard and at approximately the same chordwise positions. The change in pressure distributions along the span shown in reference 5 would indicate that at the inboard stations an unswept spoiler located at the same chordwise position would produce increased pressures over those produced by the swept spoiler tested herein. The distributions downstream of the spoilers (fig. 7) do not show any consistent trend due to sweeping the spoiler.

In order to evaluate the effect of removing the portions of the spoiler tips, the pressure distributions for configurations C, D, and E are plotted for comparison in figure 8. Configuration C is a full-span spoiler. Configuration D was obtained by removing the spoiler tips to within 1/2 inch of stations 3 and 7. Configuration E was obtained by further removing the spoiler tips to 1 inch beyond stations 3 and 7. At station 4, the spoiler cutoffs cause little change in the pressures except in the region ahead of the spoiler at $\alpha = -12^{\circ}$. In reference 8, it was shown that the spoiler tip effect extended inboard on the spoiler approximately four spoiler heights and outboard approximately two and one-half spoiler heights for a trailing-edge type of spoiler at $M_{\infty} = 1.86$. In the present tests, station 4 on configuration D is approximately 12 spoiler heights distant from the spoiler tips; it therefore appears that the extent of spanwise influence of the spoiler tips is greatly increased as the local Mach number ahead of the spoiler approaches unity. At stations 3 and 7, the first cutoff causes a reduction in pressures ahead of the spoiler but little change downstream. When the spoiler is cutoff beyond these stations, the pressures ahead of and behind the spoiler location decrease and the acceleration at the spoiler location becomes more gradual. Also, the positive and negative pressure peaks occur at a more rearward position along the chord relative to the spoiler. At still greater distances from the spoiler tip (stations 1 and 8), these regions of positive or negative pressure are back still farther so that the negative pressure region has been swept off the wing and only the effects of the positive pressure rise are discernible near the trailing edge.

In order to examine in more detail the pressure distributions caused by the 5-percent mean-aerodynamic-chord-height spoiler (configuration C) and the 5-percent local-chord-height spoiler (configuration F), figure 9 shows the incremental pressure distributions due to the spoiler for these two configurations. Inboard the 5-percent local-chord-height spoiler tends to give more positive pressures ahead of the spoilers and outboard the 5-percent mean-aerodynamic-chord-height spoiler tends to give more positive pressures. These changes are in the direction that would be anticipated from comparison of the local height differences for the two configurations. Downstream of the spoilers there are only small differences at the inboard stations; however, at stations 7 and 8, the 5-percent mean-aerodynamic-chord-height spoiler produces more negative pressures than does the 5-percent local-chord-height spoiler.

The effect of increasing the gap behind the spoiler (see fig. 1) from 0.01 inch to 0.20 inch is shown by figure 10 to be primarily an effect downstream of the spoiler. In every case, increasing the gap increased the pressure in this region and therefore increased the lift effectiveness of the spoiler. This change in pressure is in direct opposition to the change in pressure found to be due to increasing the gap on the wing without a spoiler in reference 2. The reason for this difference is not understood at present. Note also that, as the angle of attack is increased, this pressure change due to the gap is increased.

Effect of Mach number and control deflection.- The effect of increasing the Mach number from 1.61 to 2.01 on the incremental pressure distribution on configuration C is shown in figure 11. As the Mach number is increased, the magnitude of the pressure-coefficient increments due to the spoiler is decreased. This is in agreement with the Mach number effect found in the flat-plate tests of reference 5.

In order to examine the flow characteristics over a full-span spoiler-flap combination, the pressure distributions have been plotted in figure 12 for configuration C with and without the spoiler, with the trailing-edge control deflected to $-20^{\circ}$, $0^{\circ}$, and $20^{\circ}$, and for angles of attack of $-6^\circ$, $0^\circ$, and $6^\circ$. The results are similar to those previously presented in reference 4 on a delta wing; however, the distributions in these tests are more accurate because of the greater number of orifices. Deflection of the control to $\delta = \pm 20^\circ$ had no effect on the pressures measured ahead of the spoiler. Downstream of the spoiler, control deflection caused considerable change, especially when the control is deflected toward the spoiler. At positive control deflections, the effect is small because either the spoiler or control alone tend to make the pressures on the control approach vacuum pressure and the superposition of the two effects causes only secondary changes. At negative control deflections, however, the effects of the spoiler and of the control are in opposition so that the net effect of the control deflection appears much greater.

The incremental pressures due to the spoiler from figure 12 have been plotted in figure 13 to show the changes with control deflection or angle of attack. The pressures measured ahead of the spoiler are independent of control deflection (fig. 13(a)) except at a negative angle of attack with a negative control deflection, where the control alone caused flow separation at the inboard stations and the increment due to spoiler is therefore less. Downstream the changes in the pressures over the control due to the spoiler increased as the control deflection decreased from $20^\circ$ to $-20^\circ$. The change in incremental pressures ahead of the spoiler with angle of attack (fig. 13(b)) is essentially what would be expected due to the decrease in local Mach number as the angle of attack is decreased.

## Spanwise Loadings

Total loadings.- The spanwise normal-force and pitching-moment loadings for the various test configurations, determined by a step integration of the chordwise pressure distributions shown previously, are presented in figures 14 and 15. The contribution of the lower surface pressures to these loadings was determined from the distributions of the basic configurations without the spoilers (fig. 2). Because of the rapid changes in pressure along the chordwise rows due to spoiler-induced separation and reattachment, and the lack of sufficient orifices in certain critical areas, it is to be expected that some errors in the section coefficients will exist due to the step-integration procedure. These errors should tend to average out in the integrations of the spanwise loadings in determining the total force and moment coefficients.

In general, all the spoilers tested decreased the normal-force loading over the span of the spoiler as was desired (fig. 14). The effectiveness of the spoiler in producing a negative lift increment tended to increase as the angle of attack was decreased or as the spoiler moved rearward. Configurations A and B, having the most forward spoiler locations, caused a decrease in the pitching moment, the decrease being greatest at the negative angles of attack. As the spoiler was moved rearward, the pitching-moment increment became positive first at the positive angles and then at all angles as the spoiler reached the trailing edge (configuration I).

Incremental loadings.- In order to examine in more detail the loadings due to the spoilers, the incremental spanwise normal-force and pitching-moment loadings are shown in figures 16 and 17. The most obvious conclusion from these figures is that the spanwise-loading variations due to the spoilers are very erratic. From the discussion of the pressure distributions due to the spoiler, the importance of the relative location of the spoiler to corners of the airfoil section was shown. Also, although the independence of the pressure distribution downstream of the spoiler with the location of the wing trailing edge was shown, when the pressure distributions are integrated the relative location of the spoiler with the wing trailing edge becomes important because the integration ends at the trailing edge, whereas the reattachment of the flow may not be completed at this point. These relative locations of the spoiler to the corners or to the trailing edge vary across the span for most of the configurations tested in the present tests. It appears that a greater number of spanwise stations would be necessary to isolate the reasons for the local variations, particularly in view of the inherent scatter caused by the integration procedure used herein.

Despite the problems just mentioned, the variation of the incremental loadings due to the spoiler with angle of attack in figure 18 tend to show very consistent trends. The swept-spoiler configuration A shows greatest lifting effectiveness at an angle of attack of $0^{\circ}$ and decreasing effectiveness as $\alpha$ increases positively or negatively. The pitching moment decreases uniformly across the span as $\alpha$ increases. The full-span unswept configurations generally show a decided decrease in incremental normal force and pitching moment with increasing angle of attack and the greatest change occurs for the inboard stations. The partial-span configurations D and E show reversals in normal force and changes in sign in pitching moment at the stations beyond the spoiler tips due to the aforementioned sweepback of the spoiler high- and low-pressure regions and the consequent movement of the low-pressure region off the wing. Note that, at negative angles of attack, considerable normal-force loading remains at these stations beyond the spoiler tips.

## Integrated Coefficients

Total coefficients.- The variations of lift, bending-moment, and pitching-moment coefficients with angle of attack for the test configurations with and without the spoilers are presented in figure 19. These were determined from integrations of the spanwise loading plots of figures 14 and 15. The variations of all the coefficients with angle of attack are smooth and the coefficients increase with angle of attack throughout the test range. The change in lift and bending moments produced by the spoilers is approximately constant for all the full-span spoilers tested. The change in pitching moment is greatest for configurations A and I, which are the two configurations most distant from the selected moment center at the midchord of the mean aerodynamic chord.

Incremental coefficients.- In order to examine in more detail the effect of configuration changes on the spoiler effectiveness in producing lift, bending moment (rolling moment), or pitching moment, the incremental coefficients due to the spoilers are compared in figures 20 to 25. From the configurations tested, it is impossible to isolate the effect of spoiler sweep; however, figure 20 shows a comparison of configurations A and B for which the sweeps are different whereas the average chordwise locations are as near as possible. At negative angles of attack, the late reattachment of the flow downstream of the swept spoiler (see fig. 3) causes a large loss in lift and bending-moment effectiveness. The more negative pitching-moment increment due to the swept spoiler is primarily due to its more forward location. This effect is emphasized in figure 21 where rearward movement of the spoiler is the only variable. In this range of chordwise locations, only small variations in lift and bending moment occur, whereas sizable changes in pitching moment result.

Further rearward movement of the spoiler to the trailing edge would increase the incremental lift and bending moment and cause reversals in the pitching-moment increment. (Note the effectiveness of the 2-percent mean-aerodynamic-chord spoiler at the wing trailing edge, fig. 19(i).) The favorable effect of rearward spoiler location on the lift or rolling-moment effectiveness has been shown previously in references 6, 8, 11, and 12.

Reduction of the span from 100- to 58- to 48-percent semispan (fig. 22) caused continuous decreases in the incremental lift, bending moment, and pitching moment except for the pitching moment at positive control deflections. Comparison of the 5-percent mean-aerodynamic-chord-height spoiler to the 5-percent-local-chord-height spoiler (fig. 23) showed negligible change in the spoiler incremental force and moment coefficients. It should be remembered that, if this comparison had been made on partial-span inboard or outboard spoilers, one or the other would have been superior depending on the spanwise location, because of the local variations with height shown in the pressure-distribution section. Increasing the gap behind the spoiler (fig. 24) increased the incremental spoiler lift and bending moment at all angles of attack and made the pitching moments more positive at the positive angles of attack. These changes are a result of the reduction in positive lift downstream of the spoiler due to increasing the gap size. Finally, increasing the Mach number (fig. 25) caused a decrease in the incremental spoiler lift, bending moment, and pitching moment at the negative angles of attack.

## CONCLUSIONS

An investigation has been made at Mach numbers of 1.61 and 2.01 to examine the characteristics of several spoiler-type controls on a trapezoidal wing. From an analysis of the chordwise pressure distributions, spanwise loadings, and integrated coefficients, the following conclusions may be made.

1. The incremental pressure distributions due to the spoiler were in excellent agreement with previous flat-plate results as long as the spoiler was not located too close to a break in the wing surface or to the wing tip.

2. The effect of angle of attack on the pressures measured ahead of the spoiler could be predicted fairly well by a pressure-rise correlation. Angle of attack had little effect on the pressures measured downstream of the spoiler.

3. Deflecting a full-span trailing-edge flap-type control behind a full-span spoiler had no effect on the pressures measured ahead of the spoiler but had a large effect on the pressures behind the spoiler, particularly when the control deflection was toward the spoiler.

4. In general, the spanwise loading due to the full-span spoilers was dependent upon the relative location of the spoilers to the corners in the wing section and to the wing trailing edge. Beyond the tips of the partial-span spoilers, a carryover of normal force due to the spoilers was evident and the pitching moment due to the spoilers became more positive because of the rearward influence of the spoiler pressures and the consequent movement of the negative pressures from behind the spoiler off the wing.

5. The effectiveness of the spoiler in reducing wing lift and bending moment was generally increased by rearward movement of the spoiler, increasing the spoiler span, increasing the gap behind the spoiler, or, at negative angles of attack, by decreasing the Mach number.

6. The incremental pitching moments due to the spoiler generally became more negative with forward movement of the spoiler or by decreasing the gap behind the spoiler, and, at negative angles of attack, by increasing the spoiler span or decreasing the Mach number.

Langley Aeronautical Laboratory,
National Advisory Committee for Aeronautics,
Langley Field, Va., May 2, 1956.

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TABLE 1

CHORDWISE LOCATIONS OF ORIFICES

IN FRACTIONS OF $c_R$ FROM APEX

[Station spanwise locations shown in fig. 1]

| Orifice number | | Stations | | | | |
|---|---|---|---|---|---|---|
| Upper surface | Lower surface | 1 | 3 | 4 | 7 | 8 |
| 1 | 17 | 0.034 | 0.157 | 0.275 | 0.394 | 0.469 |
| 2 | 18 | .093 | .203 | .308 | .414 | .482 |
| 3 | 19 | .162 | .260 | .354 | .449 | .509 |
| 4 | 20 | .260 | .342 | .420 | .499 | .549 |
| 5 | 21 | .358 | .423 | .485 | .548 | .588 |
| 6 | 22 | .456 | .505 | .551 | .598 | .628 |
| 7 | 23 | .554 | .586 | .617 | .648 | .667 |
| 8 | 24 | .603 | .627 | .650 | .673 | .687 |
| 9 | 25 | .652 | .667 | .682 | .697 | .707 |
| 10 | 26 | .701 | .708 | .715 | .722 | .727 |
| 11 | 27 | .737 | .737 | .737 | .737 | .737 |
| 12 | 28 | .757 | .751 | .750 | .748 | .747 |
| 13 | 29 | .774 | .769 | .764 | .760 | .756 |
| 14 | 30 | .838 | .822 | .807 | .792 | .782 |
| 15 | 31 | .902 | .875 | .850 | .824 | .808 |
| 16 | 32 | .976 | .934 | .893 | .852 | .826 |

Table 2

Wing-surface Pressure Coefficients

Configuration A M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= 0° | $\delta$= 0° | | | | |
| 1 | .149 | | .156 | .163 | | | .162 | .156 | 1 |
| 2 | .113 | | .217 | .174 | | | .162 | .125 | 2 |
| 3 | .551 | | .723 | .692 | | | .453 | .166 | 3 |
| 4 | .954 | | .937 | .931 | | | .833 | .550 | 4 |
| 5 | -.271 | | -.421 | .853 | | | .951 | .498 | 5 |
| 6 | .045 | | -.312 | -.428 | | | .957 | .555 | 6 |
| 7 | .051 | | -.203 | -.253 | | | -.423 | .583 | 7 |
| 8 | .032 | | -.147 | -.170 | | | -.423 | .518 | 8 |
| 9 | .022 | | -.114 | -.166 | | | -.423 | .054 | 9 |
| 10 | -.020 | | -.094 | -.173 | | | -.400 | -.391 | 10 |
| 11 | .009 | | -.108 | -.183 | | | -.310 | -.391 | 11 |
| 12 | -.043 | | -.106 | -.177 | | | -.335 | -.408 | 12 |
| 13 | -.055 | | -.097 | -.199 | | | -.325 | -.395 | 13 |
| 14 | -.082 | | -.091 | -.189 | | | -.284 | -.364 | 14 |
| 15 | -.089 | | -.081 | -.180 | | | -.248 | -.299 | 15 |
| 16 | -.089 | | -.064 | -.169 | | | -.210 | -.246 | 16 |
| 17 | .149 | | .151 | .149 | | | .140 | .139 | 17 |
| 18 | .118 | | .143 | .147 | | | .153 | .139 | 18 |
| 19 | .127 | | .143 | .147 | | | .152 | .116 | 19 |
| 20 | .105 | | .109 | .117 | | | .102 | .089 | 20 |
| 21 | -.005 | | .011 | .039 | | | .046 | .172 | 21 |
| 22 | .009 | | -.001 | .017 | | | | .204 | 22 |
| 23 | .005 | | | .010 | | | .012 | .177 | 23 |
| 24 | -.003 | | -.020 | .005 | | | -.010 | .127 | 24 |
| 25 | -.002 | | -.028 | -.022 | | | -.016 | .065 | 25 |
| 26 | -.062 | | -.061 | -.050 | | | -.048 | .043 | 26 |
| | | | | $\alpha$= 3° | $\delta$= 0° | | | | |
| 1 | .042 | | .046 | .049 | | | .050 | .049 | 1 |
| 2 | .032 | | .127 | .088 | | | .051 | .070 | 2 |
| 3 | .317 | | .625 | .453 | | | .112 | .079 | 3 |
| 4 | .854 | | .591 | .587 | | | .710 | .257 | 4 |
| 5 | -.357 | | -.429 | .641 | | | .670 | .530 | 5 |
| 6 | -.033 | | -.294 | -.419 | | | .693 | .432 | 6 |
| 7 | -.003 | | -.209 | -.271 | | | -.403 | .661 | 7 |
| 8 | -.028 | | -.171 | -.201 | | | -.409 | .710 | 8 |
| 9 | -.039 | | -.155 | -.177 | | | -.394 | .143 | 9 |
| 10 | -.090 | | -.165 | -.177 | | | -.347 | -.373 | 10 |
| 11 | -.071 | | -.165 | -.190 | | | -.269 | -.358 | 11 |
| 12 | -.105 | | -.170 | -.189 | | | -.284 | -.357 | 12 |
| 13 | -.112 | | -.160 | -.205 | | | -.264 | -.351 | 13 |
| 14 | -.123 | | -.143 | -.215 | | | -.232 | -.335 | 14 |
| 15 | -.129 | | -.137 | -.207 | | | -.215 | -.320 | 15 |
| 16 | -.128 | | -.123 | -.205 | | | -.200 | -.301 | 16 |
| 17 | .236 | | .287 | .287 | | | .274 | .244 | 17 |
| 18 | .203 | | .287 | .288 | | | .282 | .225 | 18 |
| 19 | .203 | | .275 | .289 | | | .283 | .173 | 19 |
| 20 | .181 | | .209 | .251 | | | .234 | .125 | 20 |
| 21 | .076 | | .093 | .146 | | | .159 | .191 | 21 |
| 22 | .079 | | .080 | .103 | | | | .264 | 22 |
| 23 | .079 | | | .096 | | | .107 | .189 | 23 |
| 24 | .079 | | .057 | .083 | | | .082 | .141 | 24 |
| 25 | .069 | | .047 | .069 | | | .073 | .143 | 25 |
| 26 | .007 | | .026 | .030 | | | .030 | .046 | 26 |
| | | | | $\alpha$= 6° | $\delta$= 0° | | | | |
| 1 | -.051 | | -.048 | -.045 | | | -.037 | -.034 | 1 |
| 2 | -.041 | | .031 | -.015 | | | -.037 | .009 | 2 |
| 3 | .095 | | .506 | .303 | | | .023 | .047 | 3 |
| 4 | .736 | | .439 | .393 | | | .335 | .303 | 4 |
| 5 | -.428 | | -.448 | .425 | | | .517 | .303 | 5 |
| 6 | -.104 | | -.326 | -.407 | | | .367 | .325 | 6 |
| 7 | -.063 | | -.247 | -.241 | | | -.408 | .299 | 7 |
| 8 | -.106 | | -.209 | -.199 | | | -.400 | .268 | 8 |
| 9 | -.094 | | -.209 | -.199 | | | -.304 | -.054 | 9 |
| 10 | -.141 | | -.209 | -.215 | | | -.257 | -.359 | 10 |
| 11 | -.132 | | -.226 | -.231 | | | -.197 | -.341 | 11 |
| 12 | -.134 | | -.203 | -.214 | | | -.219 | -.331 | 12 |
| 13 | -.143 | | -.203 | -.240 | | | -.219 | -.315 | 13 |
| 14 | -.167 | | -.182 | -.240 | | | -.218 | -.296 | 14 |
| 15 | -.177 | | -.173 | -.239 | | | -.218 | -.266 | 15 |
| 16 | -.167 | | -.161 | -.220 | | | -.203 | -.240 | 16 |
| 17 | .332 | | .468 | .501 | | | .492 | .408 | 17 |
| 18 | .292 | | .430 | .479 | | | .492 | .346 | 18 |
| 19 | .293 | | .371 | .441 | | | .466 | .278 | 19 |
| 20 | .265 | | .300 | .357 | | | .381 | .182 | 20 |
| 21 | .143 | | .172 | .232 | | | .272 | .194 | 21 |
| 22 | .150 | | .152 | .199 | | | | .241 | 22 |
| 23 | .150 | | | .178 | | | .188 | .218 | 23 |
| 24 | .150 | | .135 | .175 | | | .149 | .194 | 24 |
| 25 | .146 | | .128 | .152 | | | .137 | .212 | 25 |
| 26 | .071 | | .090 | .108 | | | .098 | .127 | 26 |

Table 2 continued

Wing-surface Pressure Coefficients

Configuration A M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= 6° | $\delta$= 20° | | | | |
| 1 | -.043 | | -.043 | -.039 | | | -.033 | -.030 | 1 |
| 2 | -.038 | | .025 | -.020 | | | -.033 | .007 | 2 |
| 3 | .083 | | .512 | .300 | | | .031 | .034 | 3 |
| 4 | .756 | | .446 | .404 | | | .365 | .295 | 4 |
| 5 | -.424 | | -.446 | .444 | | | .537 | .305 | 5 |
| 6 | -.105 | | -.323 | -.410 | | | .368 | .332 | 6 |
| 7 | -.083 | | -.243 | -.239 | | | -.420 | .317 | 7 |
| 8 | -.106 | | -.206 | -.195 | | | -.411 | .284 | 8 |
| 9 | -.074 | | -.200 | -.195 | | | -.304 | -.059 | 9 |
| 10 | -.130 | | -.208 | -.209 | | | -.250 | -.390 | 10 |
| 11 | -.127 | | -.219 | -.224 | | | -.188 | -.397 | 11 |
| 12 | -.364 | | -.391 | -.392 | | | -.391 | -.426 | 12 |
| 13 | -.392 | | -.384 | -.411 | | | -.396 | -.410 | 13 |
| 14 | -.384 | | -.401 | -.419 | | | -.407 | -.401 | 14 |
| 15 | -.400 | | -.397 | -.419 | | | -.315 | -.385 | 15 |
| 16 | -.266 | | -.260 | -.300 | | | -.268 | -.349 | 16 |
| 17 | .330 | | .470 | .495 | | | .482 | .396 | 17 |
| 18 | .292 | | .422 | .477 | | | .482 | .333 | 18 |
| 19 | .293 | | .370 | .435 | | | .465 | .272 | 19 |
| 20 | .258 | | .294 | .348 | | | .380 | .186 | 20 |
| 21 | .149 | | .174 | .227 | | | .264 | .193 | 21 |
| 22 | .159 | | .154 | .194 | | | | .241 | 22 |
| 23 | .146 | | | .175 | | | .182 | .210 | 23 |
| 24 | .147 | | .142 | .174 | | | .150 | .191 | 24 |
| 25 | .179 | | .388 | .320 | | | .130 | .210 | 25 |
| 26 | .491 | | .523 | .548 | | | .499 | .263 | 26 |
| | | | | $\alpha$= 6° | $\delta$= -20° | | | | |
| 1 | -.050 | | -.047 | -.048 | | | -.044 | -.038 | 1 |
| 2 | -.046 | | .025 | -.018 | | | -.045 | .007 | 2 |
| 3 | .083 | | .502 | .302 | | | .016 | .041 | 3 |
| 4 | .732 | | .436 | .382 | | | .289 | .308 | 4 |
| 5 | -.429 | | -.437 | .413 | | | .459 | .293 | 5 |
| 6 | -.107 | | -.328 | -.384 | | | .356 | .312 | 6 |
| 7 | -.092 | | -.246 | -.243 | | | -.311 | .269 | 7 |
| 8 | -.114 | | -.213 | -.195 | | | -.311 | .234 | 8 |
| 9 | -.087 | | -.183 | -.167 | | | -.271 | .015 | 9 |
| 10 | -.131 | | -.015 | -.127 | | | -.216 | -.229 | 10 |
| 11 | .093 | | .055 | .000 | | | -.126 | -.229 | 11 |
| 12 | .200 | | .150 | .125 | | | -.062 | -.194 | 12 |
| 13 | .351 | | .169 | .151 | | | -.022 | -.189 | 13 |
| 14 | .386 | | .218 | .146 | | | .090 | -.128 | 14 |
| 15 | .339 | | .235 | .146 | | | .137 | -.076 | 15 |
| 16 | .304 | | .202 | .146 | | | .143 | -.053 | 16 |
| 17 | .336 | | .480 | .507 | | | .508 | .412 | 17 |
| 18 | .307 | | .437 | .482 | | | .508 | .349 | 18 |
| 19 | .296 | | .380 | .444 | | | .476 | .282 | 19 |
| 20 | .270 | | .305 | .360 | | | .377 | .185 | 20 |
| 21 | .148 | | .177 | .233 | | | .272 | .204 | 21 |
| 22 | .166 | | .153 | .191 | | | | .225 | 22 |
| 23 | .160 | | | .184 | | | .184 | .210 | 23 |
| 24 | .153 | | .138 | .175 | | | .149 | .191 | 24 |
| 25 | .146 | | .139 | .164 | | | .134 | .204 | 25 |
| 26 | .077 | | .101 | .120 | | | .096 | .128 | 26 |
| | | | | $\alpha$= 9° | $\delta$= 0° | | | | |
| 1 | -.109 | | -.114 | -.126 | | | -.134 | -.109 | 1 |
| 2 | -.091 | | -.057 | -.107 | | | -.119 | -.052 | 2 |
| 3 | .028 | | .316 | .186 | | | -.074 | -.064 | 3 |
| 4 | .666 | | .332 | .278 | | | .184 | .113 | 4 |
| 5 | -.426 | | -.455 | .218 | | | .231 | .224 | 5 |
| 6 | -.149 | | -.378 | -.419 | | | .170 | .177 | 6 |
| 7 | -.120 | | -.311 | -.237 | | | -.423 | .204 | 7 |
| 8 | -.141 | | -.272 | -.218 | | | -.403 | .186 | 8 |
| 9 | -.133 | | -.254 | -.239 | | | -.322 | -.098 | 9 |
| 10 | -.176 | | -.248 | -.268 | | | -.279 | -.374 | 10 |
| 11 | -.179 | | -.265 | -.286 | | | -.213 | -.349 | 11 |
| 12 | -.194 | | -.246 | -.264 | | | -.241 | -.344 | 12 |
| 13 | -.203 | | -.252 | -.288 | | | -.232 | -.338 | 13 |
| 14 | -.213 | | -.239 | -.288 | | | -.223 | -.328 | 14 |
| 15 | -.234 | | -.230 | -.288 | | | -.223 | -.319 | 15 |
| 16 | -.220 | | -.213 | -.282 | | | -.223 | -.290 | 16 |
| 17 | .467 | | .688 | .742 | | | .777 | .597 | 17 |
| 18 | .415 | | .561 | .630 | | | .692 | .456 | 18 |
| 19 | .422 | | .499 | .575 | | | .613 | .348 | 19 |
| 20 | .380 | | .427 | .447 | | | .473 | .244 | 20 |
| 21 | .251 | | .255 | .313 | | | .340 | .144 | 21 |
| 22 | .259 | | .245 | .269 | | | | .185 | 22 |
| 23 | .249 | | | .258 | | | .242 | .205 | 23 |
| 24 | .245 | | .231 | .246 | | | .218 | .186 | 24 |
| 25 | .241 | | .225 | .228 | | | .196 | .215 | 25 |
| 26 | .162 | | .178 | .183 | | | .165 | .132 | 26 |

Table 2 continued

Wing-surface Pressure Coefficients

Configuration A M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha=12°$ | $\delta=0°$ | | | | |
| 1 | -.192 | | -.210 | -.231 | | | -.247 | -.241 | 1 |
| 2 | -.154 | | -.183 | -.190 | | | -.213 | -.154 | 2 |
| 3 | -.041 | | .044 | .138 | | | -.201 | -.153 | 3 |
| 4 | .530 | | .221 | .122 | | | .132 | -.164 | 4 |
| 5 | -.408 | | -.477 | .047 | | | .138 | .028 | 5 |
| 6 | -.203 | | -.421 | -.449 | | | .096 | .062 | 6 |
| 7 | -.171 | | -.371 | -.308 | | | -.447 | .023 | 7 |
| 8 | -.196 | | -.350 | -.281 | | | -.433 | .015 | 8 |
| 9 | -.191 | | -.325 | -.284 | | | -.373 | -.200 | 9 |
| 10 | -.233 | | -.303 | -.298 | | | -.339 | -.395 | 10 |
| 11 | -.242 | | -.315 | -.307 | | | -.259 | -.397 | 11 |
| 12 | -.239 | | -.299 | -.290 | | | -.306 | -.389 | 12 |
| 13 | -.258 | | -.298 | -.312 | | | -.293 | -.379 | 13 |
| 14 | -.263 | | -.282 | -.312 | | | -.282 | -.380 | 14 |
| 15 | -.279 | | -.272 | -.308 | | | -.277 | -.353 | 15 |
| 16 | -.253 | | -.261 | -.308 | | | -.241 | -.325 | 16 |
| 17 | .600 | | .861 | .933 | | | .955 | .721 | 17 |
| 18 | .534 | | .701 | .792 | | | .848 | .546 | 18 |
| 19 | .540 | | .633 | .707 | | | .732 | .418 | 19 |
| 20 | .495 | | .511 | .539 | | | .567 | .309 | 20 |
| 21 | .340 | | .341 | .395 | | | .425 | .189 | 21 |
| 22 | .355 | | .341 | .364 | | | | .134 | 22 |
| 23 | .330 | | | .356 | | | .324 | .166 | 23 |
| 24 | .329 | | .329 | .343 | | | .291 | .144 | 24 |
| 25 | .324 | | .318 | .325 | | | .272 | .186 | 25 |
| 26 | .243 | | .267 | .279 | | | .238 | .129 | 26 |
| | | | | $\alpha=15°$ | $\delta=0°$ | | | | |
| 1 | -.242 | | -.313 | -.351 | | | -.367 | -.357 | 1 |
| 2 | -.196 | | -.198 | -.286 | | | -.309 | -.253 | 2 |
| 3 | -.178 | | .079 | -.149 | | | -.278 | -.253 | 3 |
| 4 | .621 | | .102 | .058 | | | .010 | -.309 | 4 |
| 5 | -.481 | | -.477 | .009 | | | .044 | -.128 | 5 |
| 6 | -.247 | | -.412 | -.464 | | | .016 | -.121 | 6 |
| 7 | -.199 | | -.376 | -.367 | | | -.458 | -.105 | 7 |
| 8 | -.236 | | -.354 | -.336 | | | -.453 | -.111 | 8 |
| 9 | -.220 | | -.342 | -.333 | | | -.412 | -.278 | 9 |
| 10 | -.246 | | -.328 | -.342 | | | -.385 | -.431 | 10 |
| 11 | -.259 | | -.346 | -.346 | | | -.303 | -.429 | 11 |
| 12 | -.256 | | -.338 | -.330 | | | -.352 | -.412 | 12 |
| 13 | -.264 | | -.338 | -.339 | | | -.338 | -.412 | 13 |
| 14 | -.284 | | -.326 | -.339 | | | -.311 | -.412 | 14 |
| 15 | -.308 | | -.327 | -.339 | | | -.256 | -.381 | 15 |
| 16 | -.308 | | -.202 | -.319 | | | -.186 | -.335 | 16 |
| 17 | .777 | | 1.033 | 1.069 | | | 1.074 | .813 | 17 |
| 18 | .701 | | .854 | .919 | | | .964 | .633 | 18 |
| 19 | .712 | | .758 | .808 | | | .833 | .501 | 19 |
| 20 | .594 | | .597 | .634 | | | .659 | .379 | 20 |
| 21 | .440 | | .428 | .489 | | | .519 | .244 | 21 |
| 22 | .486 | | .480 | .502 | | | | .204 | 22 |
| 23 | .477 | | | .519 | | | .449 | .172 | 23 |
| 24 | .493 | | .505 | .506 | | | .426 | .146 | 24 |
| 25 | .484 | | .477 | .479 | | | .411 | .207 | 25 |
| 26 | .384 | | .405 | .406 | | | .362 | .144 | 26 |
| | | | | $\alpha=-3°$ | $\delta=0°$ | | | | |
| 1 | .225 | | .294 | .477 | | | .805 | .624 | 1 |
| 2 | .182 | | .483 | .814 | | | .798 | .503 | 2 |
| 3 | .657 | | .893 | .882 | | | .797 | .459 | 3 |
| 4 | 1.029 | | 1.077 | 1.026 | | | .828 | .426 | 4 |
| 5 | -.243 | | -.431 | 1.077 | | | .965 | .462 | 5 |
| 6 | .099 | | -.342 | -.416 | | | .970 | .478 | 6 |
| 7 | .051 | | -.199 | -.380 | | | -.400 | .520 | 7 |
| 8 | .089 | | -.104 | -.314 | | | -.399 | .469 | 8 |
| 9 | .084 | | -.048 | -.237 | | | -.397 | .042 | 9 |
| 10 | .029 | | -.029 | -.185 | | | -.395 | -.365 | 10 |
| 11 | .050 | | -.042 | -.171 | | | -.324 | -.365 | 11 |
| 12 | .026 | | -.022 | -.151 | | | -.346 | -.378 | 12 |
| 13 | .015 | | -.022 | -.151 | | | -.342 | -.374 | 13 |
| 14 | -.021 | | -.005 | -.128 | | | -.301 | -.357 | 14 |
| 15 | -.022 | | .000 | -.107 | | | -.257 | -.323 | 15 |
| 16 | -.022 | | .005 | -.095 | | | -.203 | -.285 | 16 |
| 17 | .006 | | .018 | .025 | | | .016 | .071 | 17 |
| 18 | .008 | | .018 | .026 | | | .024 | .124 | 18 |
| 19 | .022 | | .018 | .040 | | | .024 | .109 | 19 |
| 20 | -.016 | | -.001 | .005 | | | -.011 | .063 | 20 |
| 21 | -.092 | | -.081 | -.063 | | | -.066 | .023 | 21 |
| 22 | -.087 | | -.090 | -.087 | | | | -.001 | 22 |
| 23 | -.092 | | | -.090 | | | -.088 | -.043 | 23 |
| 24 | -.094 | | -.104 | -.093 | | | -.091 | -.082 | 24 |
| 25 | -.096 | | -.113 | -.097 | | | -.083 | -.073 | 25 |
| 26 | -.145 | | -.136 | -.129 | | | -.095 | -.129 | 26 |

Table 2 continued

Wing-surface Pressure Coefficients

Configuration A M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -6^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .344 | | .693 | .966 | | | .974 | .763 | 1 |
| 2 | .283 | | .875 | .905 | | | .920 | .595 | 2 |
| 3 | .850 | | .966 | .924 | | | .872 | .508 | 3 |
| 4 | 1.173 | | 1.114 | 1.020 | | | .864 | .454 | 4 |
| 5 | -.218 | | -.379 | 1.104 | | | .982 | .469 | 5 |
| 6 | .186 | | -.333 | -.381 | | | 1.002 | .467 | 6 |
| 7 | .143 | | -.168 | -.364 | | | -.377 | .507 | 7 |
| 8 | .144 | | -.054 | -.308 | | | -.374 | .446 | 8 |
| 9 | .137 | | .022 | -.226 | | | -.371 | .032 | 9 |
| 10 | .082 | | .042 | -.158 | | | -.371 | -.341 | 10 |
| 11 | .109 | | .030 | -.144 | | | -.309 | -.341 | 11 |
| 12 | .060 | | .037 | -.117 | | | -.344 | -.342 | 12 |
| 13 | .055 | | .043 | -.111 | | | -.343 | -.342 | 13 |
| 14 | .028 | | .055 | -.086 | | | -.315 | -.341 | 14 |
| 15 | .027 | | .055 | -.054 | | | -.255 | -.321 | 15 |
| 16 | .027 | | .057 | -.033 | | | -.215 | -.312 | 16 |
| 17 | -.060 | | -.053 | -.116 | | | -.144 | -.098 | 17 |
| 18 | -.040 | | -.051 | -.068 | | | -.092 | .031 | 18 |
| 19 | -.019 | | -.052 | -.061 | | | -.067 | .015 | 19 |
| 20 | -.066 | | -.067 | -.083 | | | -.089 | -.034 | 20 |
| 21 | -.137 | | -.138 | -.129 | | | -.142 | -.077 | 21 |
| 22 | -.129 | | -.139 | -.149 | | | | -.132 | 22 |
| 23 | -.132 | | | -.153 | | | -.164 | -.170 | 23 |
| 24 | -.134 | | -.156 | -.155 | | | -.165 | -.210 | 24 |
| 25 | -.138 | | -.155 | -.162 | | | -.146 | -.188 | 25 |
| 26 | -.173 | | -.178 | -.182 | | | -.156 | -.226 | 26 |
| | | | | $\alpha = -6^\circ$ $\delta = 20^\circ$ | | | | | |
| 1 | .342 | | .764 | .976 | | | .985 | .766 | 1 |
| 2 | .285 | | .880 | .916 | | | .925 | .598 | 2 |
| 3 | .861 | | .968 | .927 | | | .875 | .517 | 3 |
| 4 | 1.188 | | 1.114 | 1.020 | | | .867 | .450 | 4 |
| 5 | -.228 | | -.377 | 1.102 | | | .979 | .471 | 5 |
| 6 | .183 | | -.335 | -.379 | | | 1.002 | .471 | 6 |
| 7 | .154 | | -.171 | -.370 | | | -.391 | .506 | 7 |
| 8 | .145 | | -.057 | -.313 | | | -.394 | .439 | 8 |
| 9 | .141 | | .022 | -.227 | | | -.394 | .002 | 9 |
| 10 | .084 | | .050 | -.157 | | | -.397 | -.355 | 10 |
| 11 | .104 | | .042 | -.132 | | | -.334 | -.355 | 11 |
| 12 | -.272 | | -.295 | -.351 | | | -.417 | -.355 | 12 |
| 13 | -.320 | | -.289 | -.355 | | | -.395 | -.355 | 13 |
| 14 | -.292 | | -.304 | -.355 | | | -.365 | -.370 | 14 |
| 15 | -.319 | | -.303 | -.357 | | | -.337 | -.363 | 15 |
| 16 | -.280 | | -.303 | -.332 | | | -.325 | -.363 | 16 |
| 17 | -.075 | | -.059 | -.138 | | | -.158 | -.109 | 17 |
| 18 | -.048 | | -.061 | -.085 | | | -.102 | .016 | 18 |
| 19 | -.031 | | -.061 | -.074 | | | -.078 | -.005 | 19 |
| 20 | -.074 | | -.078 | -.096 | | | -.101 | -.042 | 20 |
| 21 | -.146 | | -.149 | -.143 | | | -.147 | -.091 | 21 |
| 22 | -.137 | | -.147 | -.160 | | | | -.153 | 22 |
| 23 | -.141 | | | -.166 | | | -.166 | -.193 | 23 |
| 24 | -.145 | | -.149 | -.167 | | | -.167 | -.235 | 24 |
| 25 | -.145 | | -.164 | -.174 | | | -.149 | -.208 | 25 |
| 26 | -.184 | | -.184 | -.186 | | | .011 | -.240 | 26 |
| | | | | $\alpha = -6^\circ$ $\delta = -20^\circ$ | | | | | |
| 1 | .355 | | .745 | .968 | | | .973 | .761 | 1 |
| 2 | .299 | | .876 | .912 | | | .919 | .604 | 2 |
| 3 | .862 | | .971 | .924 | | | .872 | .522 | 3 |
| 4 | 1.189 | | 1.118 | 1.016 | | | .861 | .453 | 4 |
| 5 | -.183 | | -.199 | 1.101 | | | .977 | .476 | 5 |
| 6 | .154 | | -.186 | -.104 | | | .997 | .476 | 6 |
| 7 | .184 | | -.083 | -.141 | | | -.117 | .514 | 7 |
| 8 | .173 | | -.007 | -.133 | | | -.133 | .438 | 8 |
| 9 | .187 | | .097 | -.105 | | | -.144 | .009 | 9 |
| 10 | .305 | | .183 | -.057 | | | -.153 | -.323 | 10 |
| 11 | .552 | | .219 | -.029 | | | -.127 | -.252 | 11 |
| 12 | .708 | | .282 | .022 | | | -.125 | -.235 | 12 |
| 13 | .897 | | .326 | .041 | | | -.148 | -.232 | 13 |
| 14 | .753 | | .421 | .146 | | | -.133 | -.232 | 14 |
| 15 | .680 | | .481 | .230 | | | -.093 | -.220 | 15 |
| 16 | .617 | | .417 | .232 | | | -.049 | -.228 | 16 |
| 17 | -.066 | | -.059 | -.129 | | | -.162 | -.092 | 17 |
| 18 | -.044 | | -.061 | -.079 | | | -.105 | .031 | 18 |
| 19 | -.027 | | -.060 | -.073 | | | -.081 | .002 | 19 |
| 20 | -.070 | | -.075 | -.092 | | | -.107 | -.033 | 20 |
| 21 | -.140 | | -.146 | -.139 | | | -.152 | -.079 | 21 |
| 22 | -.135 | | -.148 | -.158 | | | | -.148 | 22 |
| 23 | -.138 | | | -.164 | | | -.173 | -.175 | 23 |
| 24 | -.139 | | -.149 | -.164 | | | -.178 | -.216 | 24 |
| 25 | -.140 | | -.164 | -.171 | | | -.154 | -.187 | 25 |
| 26 | -.182 | | -.185 | -.189 | | | -.163 | -.226 | 26 |

Table 2 concluded

Wing-surface Pressure Coefficients

Configuration A M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha=-9°$ | $\delta=0°$ | | | | |
| 1 | .459 | | 1.018 | 1.095 | | | 1.067 | .845 | 1 |
| 2 | .435 | | .972 | 1.003 | | | .996 | .674 | 2 |
| 3 | 1.017 | | 1.012 | .982 | | | .927 | .573 | 3 |
| 4 | 1.390 | | 1.147 | 1.038 | | | .896 | .480 | 4 |
| 5 | -.316 | | -.330 | 1.131 | | | .986 | .481 | 5 |
| 6 | .261 | | -.305 | -.326 | | | 1.022 | .465 | 6 |
| 7 | .215 | | -.117 | -.340 | | | -.359 | .509 | 7 |
| 8 | .204 | | .018 | -.305 | | | -.382 | .435 | 8 |
| 9 | .201 | | .097 | -.217 | | | -.386 | .023 | 9 |
| 10 | .150 | | .111 | -.143 | | | -.388 | -.355 | 10 |
| 11 | .185 | | .089 | -.122 | | | -.316 | -.342 | 11 |
| 12 | .118 | | .089 | -.074 | | | -.344 | -.347 | 12 |
| 13 | .111 | | .100 | -.062 | | | -.336 | -.342 | 13 |
| 14 | .093 | | .102 | -.026 | | | -.268 | -.343 | 14 |
| 15 | .087 | | .102 | .009 | | | -.198 | -.343 | 15 |
| 16 | .087 | | .102 | .032 | | | -.167 | -.331 | 16 |
| 17 | -.135 | | -.200 | -.286 | | | -.310 | -.246 | 17 |
| 18 | -.102 | | -.147 | -.199 | | | -.224 | -.117 | 18 |
| 19 | -.088 | | -.130 | -.163 | | | -.179 | -.108 | 19 |
| 20 | -.126 | | -.139 | -.174 | | | -.187 | -.130 | 20 |
| 21 | -.186 | | -.206 | -.215 | | | -.221 | -.194 | 21 |
| 22 | -.171 | | -.205 | -.232 | | | | -.251 | 22 |
| 23 | -.175 | | | -.234 | | | -.238 | -.285 | 23 |
| 24 | -.173 | | -.196 | -.235 | | | -.240 | -.315 | 24 |
| 25 | -.179 | | -.204 | -.240 | | | -.220 | -.282 | 25 |
| 26 | -.218 | | -.225 | -.255 | | | -.219 | -.311 | 26 |
| | | | | $\alpha=-12°$ | $\delta=0°$ | | | | |
| 1 | .690 | | 1.158 | 1.182 | | | 1.139 | .913 | 1 |
| 2 | .852 | | 1.057 | 1.077 | | | 1.069 | .739 | 2 |
| 3 | 1.072 | | 1.058 | 1.030 | | | .990 | .622 | 3 |
| 4 | 1.381 | | 1.191 | 1.060 | | | .934 | .533 | 4 |
| 5 | -.290 | | -.261 | 1.163 | | | 1.001 | .509 | 5 |
| 6 | .350 | | -.267 | -.286 | | | 1.045 | .474 | 6 |
| 7 | .315 | | -.092 | -.288 | | | -.343 | .515 | 7 |
| 8 | .296 | | .049 | -.266 | | | -.349 | .437 | 8 |
| 9 | .294 | | .169 | -.190 | | | -.353 | .002 | 9 |
| 10 | .226 | | .190 | -.105 | | | -.359 | -.417 | 10 |
| 11 | .247 | | .166 | -.079 | | | -.296 | -.395 | 11 |
| 12 | .187 | | .178 | -.016 | | | -.319 | -.391 | 12 |
| 13 | .160 | | .192 | -.002 | | | -.299 | -.385 | 13 |
| 14 | .160 | | .194 | .047 | | | -.242 | -.384 | 14 |
| 15 | .160 | | .192 | .086 | | | -.177 | -.365 | 15 |
| 16 | .160 | | .175 | .108 | | | -.137 | -.351 | 16 |
| 17 | -.214 | | -.364 | -.430 | | | -.437 | -.364 | 17 |
| 18 | -.157 | | -.257 | -.306 | | | -.332 | -.235 | 18 |
| 19 | -.145 | | -.234 | -.262 | | | -.289 | -.235 | 19 |
| 20 | -.167 | | -.236 | -.258 | | | -.272 | -.255 | 20 |
| 21 | -.223 | | -.283 | -.287 | | | -.297 | -.298 | 21 |
| 22 | -.215 | | -.281 | -.298 | | | | -.339 | 22 |
| 23 | -.220 | | | -.302 | | | -.304 | -.370 | 23 |
| 24 | -.224 | | -.259 | -.303 | | | -.312 | -.390 | 24 |
| 25 | -.226 | | -.258 | -.307 | | | -.299 | -.367 | 25 |
| 26 | -.265 | | -.276 | -.320 | | | -.286 | -.384 | 26 |
| | | | | $\alpha=-15°$ | $\delta=0°$ | | | | |
| 1 | .965 | | 1.233 | 1.238 | | | 1.192 | .962 | 1 |
| 2 | .969 | | 1.119 | 1.131 | | | 1.123 | .791 | 2 |
| 3 | 1.120 | | 1.096 | 1.075 | | | 1.038 | .683 | 3 |
| 4 | 1.382 | | 1.214 | 1.081 | | | .971 | .566 | 4 |
| 5 | -.225 | | -.170 | 1.179 | | | 1.019 | .536 | 5 |
| 6 | .468 | | -.195 | -.196 | | | 1.077 | .490 | 6 |
| 7 | .418 | | -.044 | -.207 | | | -.273 | .520 | 7 |
| 8 | .426 | | .114 | -.195 | | | -.278 | .449 | 8 |
| 9 | .439 | | .273 | -.142 | | | -.283 | -.037 | 9 |
| 10 | .336 | | .312 | -.061 | | | -.290 | -.434 | 10 |
| 11 | .384 | | .282 | -.019 | | | -.247 | -.374 | 11 |
| 12 | .274 | | .290 | .049 | | | -.282 | -.360 | 12 |
| 13 | .248 | | .303 | .076 | | | -.264 | -.346 | 13 |
| 14 | .256 | | .303 | .148 | | | -.209 | -.346 | 14 |
| 15 | .256 | | .300 | .194 | | | -.148 | -.346 | 15 |
| 16 | .256 | | .279 | .181 | | | -.117 | -.339 | 16 |
| 17 | -.276 | | -.464 | -.474 | | | -.469 | -.427 | 17 |
| 18 | -.183 | | -.340 | -.378 | | | -.397 | -.331 | 18 |
| 19 | -.180 | | -.305 | -.330 | | | -.351 | -.314 | 19 |
| 20 | -.202 | | -.290 | -.317 | | | -.336 | -.323 | 20 |
| 21 | -.257 | | -.340 | -.335 | | | -.350 | -.369 | 21 |
| 22 | -.254 | | -.336 | -.345 | | | | -.399 | 22 |
| 23 | -.264 | | | -.345 | | | -.350 | -.413 | 23 |
| 24 | -.263 | | -.303 | -.346 | | | -.355 | -.429 | 24 |
| 25 | -.267 | | -.294 | -.349 | | | -.347 | -.397 | 25 |
| 26 | -.297 | | -.307 | -.359 | | | -.330 | -.418 | 26 |

Table 3

Wing-surface Pressure Coefficients

Configuration B M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| $\alpha = 0°$ $\delta = 0°$ | | | | | | | | | |
| 1 | .130 | | .151 | .155 | | | .152 | .167 | 1 |
| 2 | .109 | | .149 | .158 | | | .152 | .126 | 2 |
| 3 | .113 | | .144 | .152 | | | .152 | .500 | 3 |
| 4 | .102 | | .114 | .122 | | | .457 | .515 | 4 |
| 5 | -.003 | | .037 | .422 | | | .579 | .382 | 5 |
| 6 | .381 | | .442 | .550 | | | .799 | .436 | 6 |
| 7 | .410 | | .423 | 1.152 | | | -.395 | -.328 | 7 |
| 8 | .404 | | .588 | -.386 | | | -.368 | -.223 | 8 |
| 9 | -.368 | | -.330 | -.340 | | | -.336 | -.150 | 9 |
| 10 | -.248 | | -.175 | -.248 | | | -.284 | -.095 | 10 |
| 11 | -.170 | | -.143 | -.193 | | | -.215 | -.081 | 11 |
| 12 | -.131 | | -.134 | -.163 | | | -.220 | -.101 | 12 |
| 13 | -.110 | | -.113 | -.145 | | | -.206 | -.090 | 13 |
| 14 | -.100 | | -.080 | -.121 | | | -.161 | -.071 | 14 |
| 15 | -.087 | | -.081 | -.115 | | | -.151 | -.075 | 15 |
| 16 | -.074 | | -.096 | -.107 | | | -.124 | -.074 | 16 |
| $\alpha = 3°$ $\delta = 0°$ | | | | | | | | | |
| 1 | .026 | | .032 | .042 | | | .039 | .075 | 1 |
| 2 | .021 | | .038 | .043 | | | .039 | .063 | 2 |
| 3 | .022 | | .029 | .040 | | | .057 | .186 | 3 |
| 4 | .013 | | .011 | .017 | | | .328 | .445 | 4 |
| 5 | -.081 | | -.068 | .242 | | | .503 | .356 | 5 |
| 6 | .260 | | .307 | .377 | | | .470 | .438 | 6 |
| 7 | .305 | | .286 | 1.148 | | | -.400 | -.330 | 7 |
| 8 | .299 | | .486 | -.410 | | | -.347 | -.244 | 8 |
| 9 | -.409 | | -.361 | -.361 | | | -.272 | -.156 | 9 |
| 10 | -.294 | | -.227 | -.273 | | | -.250 | -.126 | 10 |
| 11 | -.223 | | -.199 | -.224 | | | -.198 | -.126 | 11 |
| 12 | -.174 | | -.188 | -.195 | | | -.211 | -.164 | 12 |
| 13 | -.159 | | -.169 | -.192 | | | -.207 | -.149 | 13 |
| 14 | -.144 | | -.151 | -.174 | | | -.185 | -.149 | 14 |
| 15 | -.133 | | -.148 | -.166 | | | -.163 | -.165 | 15 |
| 16 | -.115 | | -.129 | -.155 | | | -.135 | -.193 | 16 |
| $\alpha = 6°$ $\delta = 0°$ | | | | | | | | | |
| 1 | -.057 | | -.051 | -.051 | | | -.047 | -.010 | 1 |
| 2 | -.045 | | -.050 | -.045 | | | -.048 | .009 | 2 |
| 3 | -.039 | | -.056 | -.050 | | | -.026 | .068 | 3 |
| 4 | -.054 | | -.072 | -.068 | | | .199 | .357 | 4 |
| 5 | -.138 | | -.135 | .154 | | | .365 | .246 | 5 |
| 6 | .153 | | .202 | .272 | | | .339 | .761 | 6 |
| 7 | .225 | | .185 | .524 | | | -.416 | -.410 | 7 |
| 8 | .241 | | .367 | -.426 | | | -.367 | -.376 | 8 |
| 9 | -.437 | | -.386 | -.362 | | | -.305 | -.325 | 9 |
| 10 | -.334 | | -.267 | -.283 | | | -.271 | -.284 | 10 |
| 11 | -.264 | | -.244 | -.249 | | | -.218 | -.304 | 11 |
| 12 | -.223 | | -.230 | -.239 | | | -.255 | -.325 | 12 |
| 13 | -.208 | | -.225 | -.239 | | | -.238 | -.323 | 13 |
| 14 | -.191 | | -.201 | -.223 | | | -.209 | -.331 | 14 |
| 15 | -.188 | | -.198 | -.213 | | | -.183 | -.331 | 15 |
| 16 | -.171 | | -.155 | -.192 | | | -.129 | -.331 | 16 |

Table 3 continued

Wing-surface Pressure Coefficients

Configuration B M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 6°$ $\delta = 20°$ | | | | | |
| 1 | -.054 | | -.047 | -.044 | | | -.051 | -.009 | 1 |
| 2 | -.033 | | -.044 | -.041 | | | -.047 | .010 | 2 |
| 3 | -.031 | | -.049 | -.045 | | | -.025 | .081 | 3 |
| 4 | -.051 | | -.068 | -.062 | | | .201 | .372 | 4 |
| 5 | -.134 | | -.127 | .161 | | | .365 | .244 | 5 |
| 6 | .164 | | .208 | .276 | | | .336 | .763 | 6 |
| 7 | .214 | | .189 | .511 | | | -.424 | -.406 | 7 |
| 8 | .244 | | .365 | -.427 | | | -.370 | -.379 | 8 |
| 9 | -.435 | | -.383 | -.361 | | | -.311 | -.307 | 9 |
| 10 | -.329 | | -.265 | -.285 | | | -.288 | -.254 | 10 |
| 11 | -.258 | | -.247 | -.259 | | | -.236 | -.254 | 11 |
| 12 | -.378 | | -.406 | -.403 | | | -.422 | -.416 | 12 |
| 13 | -.390 | | -.406 | -.414 | | | -.422 | -.416 | 13 |
| 14 | -.390 | | -.406 | -.414 | | | -.410 | -.447 | 14 |
| 15 | -.300 | | -.296 | -.323 | | | -.329 | -.447 | 15 |
| 16 | -.238 | | -.260 | -.278 | | | -.261 | -.447 | 16 |
| | | | | $\alpha = 6°$ $\delta = -20°$ | | | | | |
| 1 | -.050 | | -.048 | -.050 | | | -.060 | -.018 | 1 |
| 2 | -.044 | | -.048 | -.048 | | | -.057 | .010 | 2 |
| 3 | -.028 | | -.051 | -.049 | | | -.032 | .076 | 3 |
| 4 | -.055 | | -.067 | -.068 | | | .186 | .364 | 4 |
| 5 | -.135 | | -.132 | .157 | | | .351 | .238 | 5 |
| 6 | .157 | | .205 | .269 | | | .323 | .711 | 6 |
| 7 | .213 | | .189 | .496 | | | -.268 | -.267 | 7 |
| 8 | .246 | | .379 | -.212 | | | -.247 | -.250 | 8 |
| 9 | -.207 | | -.190 | -.222 | | | -.221 | -.214 | 9 |
| 10 | -.166 | | -.153 | -.180 | | | -.182 | -.171 | 10 |
| 11 | -.123 | | -.134 | -.152 | | | -.129 | -.171 | 11 |
| 12 | -.071 | | -.087 | -.105 | | | -.115 | -.068 | 12 |
| 13 | -.037 | | -.065 | -.089 | | | -.095 | -.057 | 13 |
| 14 | .078 | | .046 | -.011 | | | -.038 | .058 | 14 |
| 15 | .164 | | .106 | .049 | | | .009 | .086 | 15 |
| 16 | .153 | | .106 | .062 | | | .011 | .079 | 16 |
| | | | | $\alpha = 9°$ $\delta = 0°$ | | | | | |
| 1 | -.134 | | -.130 | -.133 | | | -.142 | -.094 | 1 |
| 2 | -.091 | | -.125 | -.124 | | | -.133 | -.043 | 2 |
| 3 | -.091 | | -.134 | -.127 | | | -.134 | -.043 | 3 |
| 4 | -.108 | | -.148 | -.146 | | | .188 | .241 | 4 |
| 5 | -.185 | | -.169 | .105 | | | .247 | .124 | 5 |
| 6 | .041 | | .111 | .171 | | | .194 | .765 | 6 |
| 7 | .161 | | .099 | .325 | | | -.423 | -.416 | 7 |
| 8 | .161 | | .215 | -.442 | | | -.402 | -.377 | 8 |
| 9 | -.454 | | -.416 | -.363 | | | -.360 | -.346 | 9 |
| 10 | -.368 | | -.314 | -.319 | | | -.329 | -.308 | 10 |
| 11 | -.294 | | -.296 | -.296 | | | -.266 | -.344 | 11 |
| 12 | -.262 | | -.286 | -.281 | | | -.289 | -.356 | 12 |
| 13 | -.246 | | -.262 | -.280 | | | -.273 | -.377 | 13 |
| 14 | -.232 | | -.251 | -.267 | | | -.256 | -.382 | 14 |
| 15 | -.232 | | -.238 | -.262 | | | -.228 | -.378 | 15 |
| 16 | -.222 | | -.131 | -.204 | | | -.161 | -.378 | 16 |

Table 3 continued

Wing-surface Pressure Coefficients

Configuration B M= 1.61 R=3.6 x 10⁶

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 12°$ $\delta = 0°$ | | | | | |
| 1 | -.210 | | -.227 | -.253 | | | -.276 | -.270 | 1 |
| 2 | -.179 | | -.205 | -.209 | | | -.234 | -.137 | 2 |
| 3 | -.159 | | -.207 | -.204 | | | -.214 | -.129 | 3 |
| 4 | -.171 | | -.217 | -.212 | | | .082 | .170 | 4 |
| 5 | -.237 | | -.188 | .030 | | | .116 | -.030 | 5 |
| 6 | -.147 | | .020 | .055 | | | .052 | .403 | 6 |
| 7 | .087 | | .026 | .176 | | | -.450 | -.462 | 7 |
| 8 | .075 | | .045 | -.452 | | | -.422 | -.409 | 8 |
| 9 | -.477 | | -.435 | -.401 | | | -.372 | -.377 | 9 |
| 10 | -.392 | | -.347 | -.360 | | | -.354 | -.360 | 10 |
| 11 | -.332 | | -.345 | -.346 | | | -.293 | -.379 | 11 |
| 12 | -.298 | | -.320 | -.337 | | | -.323 | -.392 | 12 |
| 13 | -.278 | | -.309 | -.321 | | | -.315 | -.401 | 13 |
| 14 | -.264 | | -.289 | -.318 | | | -.300 | -.422 | 14 |
| 15 | -.260 | | -.232 | -.309 | | | -.264 | -.426 | 15 |
| 16 | -.260 | | -.170 | -.203 | | | -.196 | -.417 | 16 |
| | | | | $\alpha = 15°$ $\delta = 0°$ | | | | | |
| 1 | -.260 | | -.316 | -.353 | | | -.373 | -.326 | 1 |
| 2 | -.211 | | -.267 | -.288 | | | -.310 | -.227 | 2 |
| 3 | -.194 | | -.264 | -.261 | | | -.276 | -.211 | 3 |
| 4 | -.206 | | -.269 | -.271 | | | -.033 | -.092 | 4 |
| 5 | -.263 | | -.145 | -.060 | | | .033 | -.081 | 5 |
| 6 | -.249 | | -.048 | -.031 | | | -.016 | .145 | 6 |
| 7 | .037 | | -.049 | .094 | | | -.465 | -.467 | 7 |
| 8 | .031 | | -.035 | -.469 | | | -.447 | -.404 | 8 |
| 9 | -.479 | | -.444 | -.427 | | | -.408 | -.357 | 9 |
| 10 | -.404 | | -.362 | -.397 | | | -.387 | -.357 | 10 |
| 11 | -.350 | | -.360 | -.382 | | | -.319 | -.378 | 11 |
| 12 | -.321 | | -.319 | -.363 | | | -.366 | -.397 | 12 |
| 13 | -.307 | | -.309 | -.357 | | | -.355 | -.410 | 13 |
| 14 | -.281 | | -.270 | -.350 | | | -.334 | -.435 | 14 |
| 15 | -.280 | | -.249 | -.314 | | | -.300 | -.435 | 15 |
| 16 | -.241 | | -.201 | -.191 | | | -.215 | -.416 | 16 |
| | | | | $\alpha = -3°$ $\delta = 0°$ | | | | | |
| 1 | .220 | | .284 | .288 | | | .292 | .284 | 1 |
| 2 | .184 | | .273 | .281 | | | .281 | .195 | 2 |
| 3 | .196 | | .262 | .287 | | | .296 | .640 | 3 |
| 4 | .184 | | .204 | .253 | | | .774 | .651 | 4 |
| 5 | .066 | | .322 | .675 | | | .777 | .512 | 5 |
| 6 | .493 | | .579 | .744 | | | .944 | .579 | 6 |
| 7 | .442 | | .557 | 1.050 | | | -.402 | -.345 | 7 |
| 8 | .508 | | .727 | -.372 | | | -.364 | -.280 | 8 |
| 9 | -.335 | | -.304 | -.328 | | | -.321 | -.185 | 9 |
| 10 | -.213 | | -.120 | -.223 | | | -.244 | -.147 | 10 |
| 11 | -.122 | | -.090 | -.159 | | | -.178 | -.128 | 11 |
| 12 | -.081 | | -.066 | -.119 | | | -.186 | -.139 | 12 |
| 13 | -.060 | | -.047 | -.107 | | | -.167 | -.113 | 13 |
| 14 | -.047 | | -.041 | -.079 | | | -.144 | -.084 | 14 |
| 15 | -.036 | | -.041 | -.075 | | | -.140 | -.070 | 15 |
| 16 | -.036 | | -.058 | -.048 | | | -.140 | -.065 | 16 |

Table 3 continued

Wing-surface Pressure Coefficients

Configuration B M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| $\alpha = -6°$ $\delta = 0°$ | | | | | | | | | |
| 1 | .339 | | .475 | .487 | | | .482 | .589 | 1 |
| 2 | .284 | | .428 | .479 | | | .524 | .538 | 2 |
| 3 | .292 | | .373 | .443 | | | .834 | .626 | 3 |
| 4 | .281 | | .307 | .426 | | | .995 | .834 | 4 |
| 5 | .345 | | .606 | .870 | | | 1.141 | .855 | 5 |
| 6 | .635 | | .762 | 1.072 | | | 1.090 | .629 | 6 |
| 7 | .634 | | .744 | 1.397 | | | -.402 | -.401 | 7 |
| 8 | .634 | | .984 | -.377 | | | -.364 | -.364 | 8 |
| 9 | -.301 | | -.315 | -.334 | | | -.337 | -.325 | 9 |
| 10 | -.163 | | -.125 | -.243 | | | -.283 | -.270 | 10 |
| 11 | -.061 | | -.061 | -.183 | | | -.215 | -.239 | 11 |
| 12 | -.014 | | -.026 | -.132 | | | -.228 | -.214 | 12 |
| 13 | .002 | | -.012 | -.107 | | | -.206 | -.193 | 13 |
| 14 | .020 | | .005 | -.058 | | | -.166 | -.139 | 14 |
| 15 | .016 | | .005 | -.036 | | | -.140 | -.108 | 15 |
| 16 | -.001 | | -.007 | -.032 | | | -.133 | -.091 | 16 |
| $\alpha = -6°$ $\delta = 20°$ | | | | | | | | | |
| 1 | .345 | | .481 | .497 | | | .504 | .613 | 1 |
| 2 | .287 | | .430 | .490 | | | .589 | .554 | 2 |
| 3 | .299 | | .378 | .445 | | | .838 | .628 | 3 |
| 4 | .289 | | .307 | .440 | | | .989 | .826 | 4 |
| 5 | .404 | | .621 | .882 | | | 1.146 | .841 | 5 |
| 6 | .645 | | .774 | 1.082 | | | 1.103 | .634 | 6 |
| 7 | .661 | | .762 | 1.431 | | | -.423 | -.413 | 7 |
| 8 | .637 | | 1.005 | -.388 | | | -.391 | -.378 | 8 |
| 9 | -.315 | | -.326 | -.350 | | | -.355 | -.332 | 9 |
| 10 | -.117 | | -.131 | -.254 | | | -.297 | -.286 | 10 |
| 11 | -.108 | | -.061 | -.188 | | | -.235 | -.261 | 11 |
| 12 | -.280 | | -.319 | -.348 | | | -.395 | -.321 | 12 |
| 13 | -.257 | | -.330 | -.342 | | | -.382 | -.303 | 13 |
| 14 | -.266 | | -.330 | -.342 | | | -.392 | -.328 | 14 |
| 15 | -.289 | | -.313 | -.351 | | | -.395 | -.332 | 15 |
| 16 | -.215 | | -.326 | -.351 | | | -.283 | -.318 | 16 |
| $\alpha = -6°$ $\delta = -20°$ | | | | | | | | | |
| 1 | .352 | | .487 | .496 | | | .493 | .602 | 1 |
| 2 | .296 | | .432 | .488 | | | .555 | .537 | 2 |
| 3 | .302 | | .381 | .446 | | | .840 | .629 | 3 |
| 4 | .291 | | .313 | .426 | | | .993 | .825 | 4 |
| 5 | .408 | | .623 | .883 | | | 1.146 | .848 | 5 |
| 6 | .651 | | .777 | 1.072 | | | 1.102 | .624 | 6 |
| 7 | .675 | | .767 | 1.437 | | | -.180 | -.180 | 7 |
| 8 | .649 | | 1.016 | -.099 | | | -.161 | -.193 | 8 |
| 9 | .103 | | .011 | -.104 | | | -.184 | -.193 | 9 |
| 10 | .098 | | .039 | -.051 | | | -.149 | -.182 | 10 |
| 11 | .172 | | .076 | -.009 | | | -.090 | -.191 | 11 |
| 12 | .222 | | .150 | .055 | | | -.074 | -.190 | 12 |
| 13 | .268 | | .186 | .086 | | | -.044 | -.180 | 13 |
| 14 | .400 | | .371 | .249 | | | .073 | -.139 | 14 |
| 15 | .454 | | .470 | .401 | | | .148 | -.080 | 15 |
| 16 | .371 | | .414 | .419 | | | .166 | -.034 | 16 |

Table 3 concluded

Wing-surface Pressure Coefficients

Configuration B M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -9°$ $\delta = 0°$ | | | | | |
| 1 | .482 | | .719 | .796 | | | 1.057 | .878 | 1 |
| 2 | .414 | | .585 | .715 | | | 1.009 | .747 | 2 |
| 3 | .440 | | .523 | .771 | | | .991 | .704 | 3 |
| 4 | .406 | | .441 | .877 | | | 1.040 | .770 | 4 |
| 5 | .727 | | .862 | 1.050 | | | 1.228 | .892 | 5 |
| 6 | .845 | | 1.049 | 1.213 | | | 1.234 | .672 | 6 |
| 7 | .873 | | 1.111 | 1.283 | | | -.391 | -.392 | 7 |
| 8 | .871 | | 1.336 | -.397 | | | -.395 | -.369 | 8 |
| 9 | -.314 | | -.356 | -.358 | | | -.373 | -.378 | 9 |
| 10 | -.140 | | -.236 | -.256 | | | -.332 | -.346 | 10 |
| 11 | -.012 | | -.154 | -.186 | | | -.247 | -.332 | 11 |
| 12 | .042 | | -.076 | -.129 | | | -.240 | -.281 | 12 |
| 13 | .053 | | -.034 | -.107 | | | -.213 | -.255 | 13 |
| 14 | .064 | | .017 | -.048 | | | -.131 | -.174 | 14 |
| 15 | .064 | | .027 | -.030 | | | -.095 | -.133 | 15 |
| 16 | .041 | | .032 | -.011 | | | -.069 | -.110 | 16 |
| | | | | $\alpha = -12°$ $\delta = 0°$ | | | | | |
| 1 | .598 | | .861 | 1.068 | | | 1.162 | .967 | 1 |
| 2 | .506 | | .718 | .981 | | | 1.106 | .813 | 2 |
| 3 | .544 | | .697 | .950 | | | 1.060 | .762 | 3 |
| 4 | .508 | | .785 | .960 | | | 1.073 | .792 | 4 |
| 5 | .810 | | .939 | 1.076 | | | 1.235 | .885 | 5 |
| 6 | 1.043 | | 1.142 | 1.252 | | | 1.265 | .646 | 6 |
| 7 | 1.100 | | 1.213 | 1.278 | | | -.415 | -.403 | 7 |
| 8 | 1.129 | | 1.278 | -.397 | | | -.408 | -.395 | 8 |
| 9 | -.384 | | -.383 | -.376 | | | -.378 | -.385 | 9 |
| 10 | -.206 | | -.256 | -.281 | | | -.336 | -.320 | 10 |
| 11 | -.065 | | -.168 | -.202 | | | -.246 | -.284 | 11 |
| 12 | -.020 | | -.087 | -.132 | | | -.219 | -.230 | 12 |
| 13 | .014 | | -.044 | -.096 | | | -.182 | -.190 | 13 |
| 14 | .046 | | .001 | -.031 | | | -.089 | -.148 | 14 |
| 15 | .060 | | .036 | .001 | | | -.052 | -.126 | 15 |
| 16 | .059 | | .053 | .030 | | | -.025 | -.117 | 16 |
| | | | | $\alpha = -15°$ $\delta = 0°$ | | | | | |
| 1 | .831 | | 1.175 | 1.255 | | | 1.253 | 1.032 | 1 |
| 2 | .798 | | 1.035 | 1.150 | | | 1.193 | .884 | 2 |
| 3 | .861 | | .978 | 1.092 | | | 1.137 | .808 | 3 |
| 4 | .841 | | .938 | 1.051 | | | 1.126 | .791 | 4 |
| 5 | .901 | | .998 | 1.115 | | | 1.245 | .873 | 5 |
| 6 | 1.081 | | 1.173 | 1.289 | | | 1.293 | .563 | 6 |
| 7 | 1.206 | | 1.266 | 1.317 | | | -.407 | -.437 | 7 |
| 8 | 1.159 | | 1.286 | -.383 | | | -.387 | -.426 | 8 |
| 9 | -.408 | | -.374 | -.368 | | | -.379 | -.397 | 9 |
| 10 | -.289 | | -.278 | -.310 | | | -.312 | -.273 | 10 |
| 11 | -.127 | | -.193 | -.831 | | | -.207 | -.227 | 11 |
| 12 | -.046 | | -.096 | -.126 | | | -.160 | -.154 | 12 |
| 13 | -.006 | | -.041 | -.074 | | | -.118 | -.119 | 13 |
| 14 | .071 | | .047 | .046 | | | -.021 | -.087 | 14 |
| 15 | .106 | | .096 | .086 | | | .032 | -.065 | 15 |
| 16 | .147 | | .138 | .107 | | | .068 | -.065 | 16 |

Table 4
Wing-surface Pressure Coefficients
Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0°$ $\delta = 0°$ | | | | | |
| 1 | .132 | | .165 | .159 | | | .144 | .119 | 1 |
| 2 | .103 | | .148 | .150 | | | .167 | .105 | 2 |
| 3 | .115 | | .143 | .164 | | | .155 | .093 | 3 |
| 4 | .100 | | .111 | .127 | | | .109 | .065 | 4 |
| 5 | .000 | | .004 | .040 | | | .121 | .357 | 5 |
| 6 | -.009 | | -.004 | .388 | | | .444 | .304 | 6 |
| 7 | .351 | | .379 | .437 | | | .542 | .175 | 7 |
| 8 | .378 | | .398 | .433 | | | .469 | .167 | 8 |
| 9 | .392 | | .376 | .426 | | | .976 | -.149 | 9 |
| 10 | .628 | | .141 | .597 | | | -.234 | -.391 | 10 |
| 11 | -.406 | | -.399 | -.409 | | | -.333 | -.396 | 11 |
| 12 | -.358 | | -.361 | -.374 | | | -.382 | -.353 | 12 |
| 13 | -.316 | | -.309 | -.343 | | | -.380 | -.317 | 13 |
| 14 | -.185 | | -.190 | -.230 | | | -.315 | -.215 | 14 |
| 15 | -.141 | | -.141 | -.174 | | | -.251 | -.149 | 15 |
| 16 | -.117 | | -.125 | -.140 | | | -.190 | -.115 | 16 |
| 17 | .133 | | .137 | .131 | | | .142 | .111 | 17 |
| 18 | .109 | | .135 | .149 | | | .163 | .132 | 18 |
| 19 | .106 | | .140 | .142 | | | .151 | .088 | 19 |
| 20 | .082 | | .099 | .112 | | | .105 | .047 | 20 |
| 21 | -.015 | | .000 | .033 | | | .040 | .022 | 21 |
| 22 | -.003 | | -.012 | .008 | | | | .225 | 22 |
| 23 | -.011 | | | -.003 | | | .008 | .052 | 23 |
| 24 | -.024 | | -.029 | -.005 | | | -.008 | -.027 | 24 |
| 25 | -.014 | | -.037 | -.028 | | | -.025 | -.062 | 25 |
| 26 | -.078 | | -.073 | -.057 | | | -.050 | -.103 | 26 |
| | | | | $\alpha = 0°$ $\delta = 10°$ | | | | | |
| 1 | .139 | | .164 | .161 | | | .139 | .120 | 1 |
| 2 | .109 | | .155 | .164 | | | .168 | .106 | 2 |
| 3 | .129 | | .152 | .174 | | | .155 | .099 | 3 |
| 4 | .106 | | .123 | .141 | | | .113 | .057 | 4 |
| 5 | .010 | | .010 | .052 | | | .131 | .364 | 5 |
| 6 | .008 | | .008 | .404 | | | .442 | .304 | 6 |
| 7 | .360 | | .391 | .432 | | | .545 | .173 | 7 |
| 8 | .387 | | .409 | .436 | | | .468 | .162 | 8 |
| 9 | .400 | | .388 | .428 | | | .969 | -.146 | 9 |
| 10 | .642 | | .186 | .606 | | | -.210 | -.425 | 10 |
| 11 | -.447 | | -.437 | -.448 | | | -.363 | -.427 | 11 |
| 12 | -.410 | | -.400 | -.416 | | | -.436 | -.353 | 12 |
| 13 | -.372 | | -.366 | -.388 | | | -.430 | -.321 | 13 |
| 14 | -.319 | | -.327 | -.330 | | | -.378 | -.290 | 14 |
| 15 | -.311 | | -.306 | -.315 | | | -.317 | -.294 | 15 |
| 16 | -.287 | | -.282 | -.301 | | | -.245 | -.308 | 16 |
| 17 | .143 | | .154 | .137 | | | .137 | .103 | 17 |
| 18 | .107 | | .141 | .149 | | | .158 | .128 | 18 |
| 19 | .105 | | .150 | .143 | | | .145 | .086 | 19 |
| 20 | .097 | | .105 | .116 | | | .106 | .044 | 20 |
| 21 | .000 | | .007 | .035 | | | .033 | .019 | 21 |
| 22 | -.003 | | -.003 | .011 | | | | .211 | 22 |
| 23 | .004 | | | -.001 | | | .004 | .046 | 23 |
| 24 | -.005 | | -.020 | -.004 | | | -.011 | -.036 | 24 |
| 25 | -.006 | | -.031 | -.025 | | | -.022 | -.070 | 25 |
| 26 | -.066 | | -.058 | -.053 | | | -.050 | -.105 | 26 |
| | | | | $\alpha = 0°$ $\delta = 20°$ | | | | | |
| 1 | .139 | | .169 | .171 | | | .164 | .127 | 1 |
| 2 | .109 | | .159 | .164 | | | .176 | .109 | 2 |
| 3 | .130 | | .162 | .174 | | | .162 | .104 | 3 |
| 4 | .106 | | .123 | .141 | | | .124 | .065 | 4 |
| 5 | -.002 | | .013 | .052 | | | .137 | .375 | 5 |
| 6 | .002 | | .017 | .402 | | | .451 | .311 | 6 |
| 7 | .356 | | .387 | .445 | | | .548 | .183 | 7 |
| 8 | .387 | | .401 | .440 | | | .479 | .170 | 8 |
| 9 | .408 | | .387 | .434 | | | .983 | -.141 | 9 |
| 10 | .643 | | .193 | .607 | | | -.179 | -.438 | 10 |
| 11 | -.464 | | -.455 | -.455 | | | .143 | -.429 | 11 |
| 12 | -.424 | | -.419 | -.442 | | | -.430 | -.363 | 12 |
| 13 | -.422 | | -.414 | -.431 | | | -.432 | -.363 | 13 |
| 14 | -.398 | | -.411 | -.417 | | | -.404 | -.406 | 14 |
| 15 | -.406 | | -.405 | -.411 | | | -.348 | -.429 | 15 |
| 16 | -.232 | | -.254 | -.253 | | | -.308 | -.398 | 16 |
| 17 | .136 | | .156 | .133 | | | .159 | .099 | 17 |
| 18 | .111 | | .145 | .150 | | | .152 | .130 | 18 |
| 19 | .119 | | .153 | .138 | | | .105 | .085 | 19 |
| 20 | .095 | | .110 | .116 | | | .108 | .048 | 20 |
| 21 | -.009 | | .008 | .032 | | | .040 | .026 | 21 |
| 22 | .004 | | -.004 | .012 | | | | .222 | 22 |
| 23 | -.006 | | | .003 | | | .007 | .053 | 23 |
| 24 | -.005 | | -.021 | -.003 | | | -.005 | -.025 | 24 |
| 25 | -.010 | | -.034 | -.023 | | | -.017 | -.058 | 25 |
| 26 | .115 | | .179 | .131 | | | .217 | -.090 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0°$ $\delta = -10°$ | | | | | |
| 1 | .133 | | .152 | .168 | | | .159 | .109 | 1 |
| 2 | .109 | | .153 | .158 | | | .168 | .094 | 2 |
| 3 | .123 | | .153 | .168 | | | .157 | .096 | 3 |
| 4 | .103 | | .115 | .131 | | | .117 | .051 | 4 |
| 5 | -.003 | | .012 | .045 | | | .141 | .364 | 5 |
| 6 | .006 | | .006 | .396 | | | .458 | .300 | 6 |
| 7 | .348 | | .383 | .440 | | | .544 | .183 | 7 |
| 8 | .381 | | .405 | .445 | | | .480 | .163 | 8 |
| 9 | .397 | | .387 | .435 | | | .973 | -.148 | 9 |
| 10 | .637 | | .143 | .605 | | | -.206 | -.322 | 10 |
| 11 | -.259 | | -.251 | -.270 | | | -.257 | -.338 | 11 |
| 12 | -.248 | | -.248 | -.272 | | | -.306 | -.306 | 12 |
| 13 | -.209 | | -.237 | -.267 | | | -.312 | -.279 | 13 |
| 14 | -.047 | | -.065 | -.124 | | | -.248 | -.165 | 14 |
| 15 | .053 | | .023 | -.027 | | | -.143 | -.103 | 15 |
| 16 | .056 | | .047 | .010 | | | -.069 | -.070 | 16 |
| 17 | .125 | | .158 | .136 | | | .154 | .109 | 17 |
| 18 | .109 | | .138 | .154 | | | .177 | .126 | 18 |
| 19 | .113 | | .151 | .147 | | | .151 | .086 | 19 |
| 20 | .091 | | .109 | .124 | | | .120 | .037 | 20 |
| 21 | -.011 | | .011 | .040 | | | .049 | .017 | 21 |
| 22 | .001 | | -.008 | .021 | | | | .214 | 22 |
| 23 | -.006 | | | .011 | | | .016 | .056 | 23 |
| 24 | -.009 | | -.026 | .000 | | | .004 | -.027 | 24 |
| 25 | -.007 | | -.035 | -.021 | | | -.004 | -.062 | 25 |
| 26 | -.065 | | -.061 | -.046 | | | -.037 | -.101 | 26 |
| | | | | $\alpha = 0°$ $\delta = -20°$ | | | | | |
| 1 | .144 | | .167 | .178 | | | .147 | .122 | 1 |
| 2 | .116 | | .162 | .160 | | | .168 | .112 | 2 |
| 3 | .133 | | .162 | .173 | | | .157 | .109 | 3 |
| 4 | .116 | | .126 | .138 | | | .115 | .067 | 4 |
| 5 | .010 | | .018 | .051 | | | .131 | .374 | 5 |
| 6 | .020 | | .012 | .400 | | | .449 | .319 | 6 |
| 7 | .366 | | .396 | .443 | | | .546 | .186 | 7 |
| 8 | .397 | | .411 | .443 | | | .462 | .180 | 8 |
| 9 | .422 | | .389 | .433 | | | .975 | -.091 | 9 |
| 10 | .659 | | .196 | .592 | | | -.145 | -.162 | 10 |
| 11 | -.009 | | -.006 | -.073 | | | -.161 | -.167 | 11 |
| 12 | -.017 | | -.021 | -.079 | | | -.183 | -.174 | 12 |
| 13 | -.014 | | -.038 | -.096 | | | -.179 | -.173 | 13 |
| 14 | .161 | | .119 | .059 | | | -.075 | -.144 | 14 |
| 15 | .314 | | .267 | .190 | | | .061 | -.077 | 15 |
| 16 | .305 | | .280 | .233 | | | .169 | -.033 | 16 |
| 17 | .144 | | .157 | .149 | | | .150 | .120 | 17 |
| 18 | .120 | | .148 | .160 | | | .171 | .137 | 18 |
| 19 | .116 | | .157 | .155 | | | .156 | .094 | 19 |
| 20 | .097 | | .112 | .125 | | | .113 | .052 | 20 |
| 21 | .001 | | .010 | .043 | | | .048 | .026 | 21 |
| 22 | .015 | | .000 | .020 | | | | .230 | 22 |
| 23 | .009 | | | .011 | | | .012 | .075 | 23 |
| 24 | .005 | | -.014 | .007 | | | -.003 | -.011 | 24 |
| 25 | .002 | | -.028 | -.020 | | | -.014 | -.036 | 25 |
| 26 | -.055 | | -.057 | -.046 | | | -.042 | -.080 | 26 |
| | | | | $\alpha = 3°$ $\delta = 0°$ | | | | | |
| 1 | .011 | | .032 | .047 | | | .049 | .011 | 1 |
| 2 | .023 | | .025 | .040 | | | .060 | .030 | 2 |
| 3 | .003 | | .029 | .048 | | | .049 | .043 | 3 |
| 4 | -.007 | | -.002 | .028 | | | .015 | .020 | 4 |
| 5 | -.089 | | -.083 | -.048 | | | .009 | .221 | 5 |
| 6 | -.099 | | -.088 | .274 | | | .342 | .277 | 6 |
| 7 | .242 | | .259 | .310 | | | .374 | .141 | 7 |
| 8 | .265 | | .275 | .314 | | | .302 | .163 | 8 |
| 9 | .276 | | .255 | .300 | | | .801 | -.144 | 9 |
| 10 | .562 | | .083 | .467 | | | -.271 | -.388 | 10 |
| 11 | -.437 | | -.407 | -.403 | | | -.320 | -.395 | 11 |
| 12 | -.366 | | -.390 | -.396 | | | -.396 | -.389 | 12 |
| 13 | -.342 | | -.343 | -.371 | | | -.393 | -.375 | 13 |
| 14 | -.236 | | -.242 | -.278 | | | -.322 | -.305 | 14 |
| 15 | -.186 | | -.212 | -.224 | | | -.257 | -.258 | 15 |
| 16 | -.169 | | -.164 | -.173 | | | -.199 | -.272 | 16 |
| 17 | .220 | | .307 | .310 | | | .305 | .243 | 17 |
| 18 | .193 | | .286 | .298 | | | .299 | .222 | 18 |
| 19 | .184 | | .264 | .304 | | | .311 | .149 | 19 |
| 20 | .168 | | .201 | .254 | | | .250 | .090 | 20 |
| 21 | .053 | | .087 | .146 | | | .170 | .037 | 21 |
| 22 | .063 | | .068 | .109 | | | | .193 | 22 |
| 23 | .068 | | | .098 | | | .123 | .137 | 23 |
| 24 | .052 | | .052 | .089 | | | .103 | .090 | 24 |
| 25 | .060 | | .047 | .042 | | | .084 | .057 | 25 |
| 26 | -.006 | | .017 | .040 | | | .045 | -.016 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 6°$ $\delta = 0°$ | | | | | |
| 1 | -.051 | | -.045 | -.038 | | | -.039 | -.054 | 1 |
| 2 | -.035 | | -.043 | -.044 | | | -.037 | -.019 | 2 |
| 3 | -.028 | | -.049 | -.047 | | | -.033 | -.005 | 3 |
| 4 | -.050 | | -.073 | -.064 | | | -.065 | -.037 | 4 |
| 5 | -.131 | | -.145 | -.131 | | | -.010 | .033 | 5 |
| 6 | -.116 | | -.142 | .162 | | | .259 | .188 | 6 |
| 7 | .182 | | .164 | .207 | | | .265 | .075 | 7 |
| 8 | .200 | | .193 | .204 | | | .216 | .053 | 8 |
| 9 | .222 | | .166 | .193 | | | .409 | -.163 | 9 |
| 10 | .567 | | .029 | .322 | | | -.333 | -.424 | 10 |
| 11 | -.434 | | -.428 | -.421 | | | -.322 | -.429 | 11 |
| 12 | -.403 | | -.419 | -.415 | | | -.396 | -.426 | 12 |
| 13 | -.371 | | -.387 | -.395 | | | -.377 | -.417 | 13 |
| 14 | -.252 | | -.301 | -.316 | | | -.304 | -.391 | 14 |
| 15 | -.230 | | -.247 | -.253 | | | -.245 | -.391 | 15 |
| 16 | -.226 | | -.164 | -.162 | | | -.193 | -.414 | 16 |
| 17 | .349 | | .499 | .478 | | | .538 | .385 | 17 |
| 18 | .309 | | .437 | .487 | | | .540 | .327 | 18 |
| 19 | .298 | | .384 | .453 | | | .500 | .245 | 19 |
| 20 | .279 | | .308 | .364 | | | .405 | .167 | 20 |
| 21 | .157 | | .179 | .240 | | | .295 | .069 | 21 |
| 22 | .168 | | .158 | .202 | | | | .086 | 22 |
| 23 | .159 | | | .195 | | | .196 | .119 | 23 |
| 24 | .154 | | .143 | .181 | | | .174 | .080 | 24 |
| 25 | .153 | | .135 | .164 | | | .150 | .093 | 25 |
| 26 | .084 | | .099 | .120 | | | .120 | .042 | 26 |
| | | | | $\alpha = 6°$ $\delta = 10°$ | | | | | |
| 1 | -.049 | | -.048 | -.043 | | | -.047 | -.053 | 1 |
| 2 | -.024 | | -.045 | -.043 | | | -.039 | -.012 | 2 |
| 3 | -.034 | | -.048 | -.046 | | | -.043 | .004 | 3 |
| 4 | -.044 | | -.070 | -.068 | | | -.075 | -.031 | 4 |
| 5 | -.126 | | -.147 | -.124 | | | -.027 | .057 | 5 |
| 6 | -.116 | | -.139 | .166 | | | .240 | .193 | 6 |
| 7 | .165 | | .169 | .203 | | | .249 | .078 | 7 |
| 8 | .203 | | .194 | .205 | | | .208 | .077 | 8 |
| 9 | .223 | | .159 | .194 | | | .404 | -.158 | 9 |
| 10 | .560 | | .041 | .335 | | | -.332 | -.442 | 10 |
| 11 | -.471 | | -.467 | -.464 | | | -.355 | -.459 | 11 |
| 12 | -.431 | | -.452 | -.452 | | | -.420 | -.459 | 12 |
| 13 | -.410 | | -.416 | -.435 | | | -.410 | -.453 | 13 |
| 14 | -.371 | | -.394 | -.395 | | | -.353 | -.487 | 14 |
| 15 | -.361 | | -.377 | -.364 | | | -.300 | -.482 | 15 |
| 16 | -.212 | | -.207 | -.221 | | | -.258 | -.494 | 16 |
| 17 | .353 | | .503 | .487 | | | .517 | .388 | 17 |
| 18 | .310 | | .435 | .495 | | | .522 | .330 | 18 |
| 19 | .300 | | .383 | .447 | | | .488 | .254 | 19 |
| 20 | .279 | | .306 | .354 | | | .393 | .175 | 20 |
| 21 | .162 | | .178 | .235 | | | .278 | .086 | 21 |
| 22 | .172 | | .158 | .199 | | | | .094 | 22 |
| 23 | .162 | | | .185 | | | .188 | .119 | 23 |
| 24 | .161 | | .142 | .174 | | | .165 | .083 | 24 |
| 25 | .158 | | .134 | .152 | | | .137 | .099 | 25 |
| 26 | .082 | | .100 | .113 | | | .100 | .037 | 26 |
| | | | | $\alpha = 6°$ $\delta = 20°$ | | | | | |
| 1 | -.046 | | -.042 | -.032 | | | -.043 | -.063 | 1 |
| 2 | -.031 | | -.040 | -.041 | | | -.037 | -.022 | 2 |
| 3 | -.023 | | -.043 | -.035 | | | -.045 | -.010 | 3 |
| 4 | -.049 | | -.065 | -.056 | | | -.074 | -.037 | 4 |
| 5 | -.129 | | -.135 | -.122 | | | -.032 | .052 | 5 |
| 6 | -.121 | | .170 | .172 | | | .243 | .189 | 6 |
| 7 | .159 | | .194 | .206 | | | .256 | .070 | 7 |
| 8 | .203 | | .194 | .213 | | | .210 | .069 | 8 |
| 9 | .231 | | .171 | .196 | | | .414 | -.167 | 9 |
| 10 | .563 | | .063 | .331 | | | -.317 | -.484 | 10 |
| 11 | -.477 | | -.476 | -.468 | | | -.355 | -.499 | 11 |
| 12 | -.467 | | -.483 | -.475 | | | -.452 | -.495 | 12 |
| 13 | -.467 | | -.474 | -.459 | | | -.432 | -.501 | 13 |
| 14 | -.448 | | -.461 | -.405 | | | -.385 | -.505 | 14 |
| 15 | -.348 | | -.336 | -.342 | | | -.348 | -.506 | 15 |
| 16 | -.268 | | -.285 | -.303 | | | -.312 | -.493 | 16 |
| 17 | .352 | | .503 | .482 | | | .507 | .362 | 17 |
| 18 | .313 | | .444 | .493 | | | .514 | .309 | 18 |
| 19 | .304 | | .385 | .437 | | | .482 | .241 | 19 |
| 20 | .279 | | .310 | .351 | | | .385 | .161 | 20 |
| 21 | .162 | | .179 | .228 | | | .277 | .065 | 21 |
| 22 | .170 | | .162 | .194 | | | | .082 | 22 |
| 23 | .162 | | | .180 | | | .188 | .112 | 23 |
| 24 | .160 | | .146 | .170 | | | .161 | .082 | 24 |
| 25 | .311 | | .466 | .173 | | | .165 | .093 | 25 |
| 26 | .527 | | .548 | .559 | | | .510 | .247 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 6°$ $\delta = -10°$ | | | | | |
| 1 | -.057 | | -.041 | -.039 | | | -.050 | -.062 | 1 |
| 2 | -.031 | | -.049 | -.044 | | | -.044 | -.025 | 2 |
| 3 | -.023 | | -.047 | -.035 | | | -.050 | -.007 | 3 |
| 4 | -.052 | | -.071 | -.066 | | | -.081 | -.040 | 4 |
| 5 | -.120 | | -.143 | -.121 | | | -.015 | .032 | 5 |
| 6 | -.128 | | -.146 | .162 | | | .239 | .182 | 6 |
| 7 | .145 | | .172 | .196 | | | .249 | .061 | 7 |
| 8 | .199 | | .194 | .200 | | | .198 | .058 | 8 |
| 9 | .221 | | .157 | .190 | | | .390 | -.158 | 9 |
| 10 | .567 | | .034 | .320 | | | -.303 | -.362 | 10 |
| 11 | -.342 | | -.315 | -.325 | | | -.281 | -.369 | 11 |
| 12 | -.337 | | -.305 | -.319 | | | -.342 | -.350 | 12 |
| 13 | -.295 | | -.306 | -.322 | | | -.333 | -.341 | 13 |
| 14 | -.162 | | -.196 | -.236 | | | -.249 | -.274 | 14 |
| 15 | -.063 | | -.114 | -.159 | | | -.177 | -.167 | 15 |
| 16 | -.040 | | -.064 | -.107 | | | -.125 | -.112 | 16 |
| 17 | .352 | | .498 | .483 | | | .521 | .382 | 17 |
| 18 | .312 | | .448 | .498 | | | .529 | .326 | 18 |
| 19 | .301 | | .387 | .454 | | | .484 | .248 | 19 |
| 20 | .275 | | .313 | .359 | | | .389 | .179 | 20 |
| 21 | .156 | | .180 | .235 | | | .276 | .077 | 21 |
| 22 | .168 | | .162 | .199 | | | | .082 | 22 |
| 23 | .158 | | | .186 | | | .194 | .106 | 23 |
| 24 | .152 | | .150 | .175 | | | .168 | .083 | 24 |
| 25 | .160 | | .143 | .157 | | | .143 | .090 | 25 |
| 26 | .086 | | .103 | .117 | | | .106 | .040 | 26 |
| | | | | $\alpha = 6°$ $\delta = -20°$ | | | | | |
| 1 | -.060 | | -.049 | -.046 | | | -.057 | -.058 | 1 |
| 2 | -.036 | | -.047 | -.046 | | | -.048 | -.016 | 2 |
| 3 | -.027 | | -.051 | -.046 | | | -.052 | -.005 | 3 |
| 4 | -.054 | | -.068 | -.066 | | | -.082 | -.037 | 4 |
| 5 | -.135 | | -.148 | -.125 | | | -.010 | .031 | 5 |
| 6 | -.124 | | -.143 | .168 | | | .239 | .183 | 6 |
| 7 | .143 | | .163 | .200 | | | .245 | .068 | 7 |
| 8 | .199 | | .191 | .201 | | | .197 | .054 | 8 |
| 9 | .222 | | .161 | .188 | | | .389 | -.127 | 9 |
| 10 | .564 | | .064 | .311 | | | -.188 | -.251 | 10 |
| 11 | -.165 | | -.143 | -.177 | | | -.179 | -.249 | 11 |
| 12 | -.162 | | -.148 | -.183 | | | -.217 | -.254 | 12 |
| 13 | -.147 | | -.159 | -.184 | | | -.230 | -.258 | 13 |
| 14 | .010 | | -.061 | -.114 | | | -.169 | -.198 | 14 |
| 15 | .149 | | .073 | -.015 | | | -.084 | -.120 | 15 |
| 16 | .163 | | .099 | .026 | | | -.040 | -.051 | 16 |
| 17 | .353 | | .504 | .489 | | | .531 | .391 | 17 |
| 18 | .308 | | .447 | .504 | | | .531 | .338 | 18 |
| 19 | .299 | | .391 | .456 | | | .498 | .247 | 19 |
| 20 | .279 | | .312 | .362 | | | .402 | .170 | 20 |
| 21 | .162 | | .179 | .238 | | | .278 | .082 | 21 |
| 22 | .174 | | .163 | .204 | | | | .083 | 22 |
| 23 | .167 | | | .190 | | | .191 | .110 | 23 |
| 24 | .162 | | .151 | .178 | | | .165 | .085 | 24 |
| 25 | .158 | | .143 | .158 | | | .144 | .104 | 25 |
| 26 | .088 | | .105 | .116 | | | .110 | .054 | 26 |
| | | | | $\alpha = 9°$ $\delta = 0°$ | | | | | |
| 1 | -.130 | | -.121 | -.120 | | | -.129 | -.147 | 1 |
| 2 | -.098 | | -.121 | -.119 | | | -.120 | -.072 | 2 |
| 3 | -.086 | | -.130 | -.117 | | | -.116 | -.085 | 3 |
| 4 | -.112 | | -.148 | -.141 | | | -.145 | -.128 | 4 |
| 5 | -.183 | | -.201 | -.200 | | | .011 | -.163 | 5 |
| 6 | -.174 | | -.205 | .089 | | | .157 | .048 | 6 |
| 7 | .075 | | .070 | .110 | | | .134 | -.007 | 7 |
| 8 | .121 | | .092 | .115 | | | .111 | -.098 | 8 |
| 9 | .144 | | .065 | .104 | | | .191 | -.177 | 9 |
| 10 | .501 | | -.013 | .184 | | | -.366 | -.437 | 10 |
| 11 | -.448 | | -.422 | -.412 | | | -.333 | -.441 | 11 |
| 12 | -.409 | | -.433 | -.430 | | | -.416 | -.454 | 12 |
| 13 | -.393 | | -.403 | -.403 | | | -.398 | -.452 | 13 |
| 14 | -.321 | | -.329 | -.343 | | | -.333 | -.451 | 14 |
| 15 | -.272 | | -.267 | -.280 | | | -.284 | -.437 | 15 |
| 16 | -.237 | | -.162 | -.212 | | | -.233 | -.430 | 16 |
| 17 | .467 | | .687 | .762 | | | .800 | .582 | 17 |
| 18 | .409 | | .565 | .644 | | | .722 | .445 | 18 |
| 19 | .413 | | .508 | .588 | | | .640 | .332 | 19 |
| 20 | .377 | | .429 | .463 | | | .497 | .230 | 20 |
| 21 | .238 | | .259 | .330 | | | .373 | .114 | 21 |
| 22 | .259 | | .250 | .281 | | | | .070 | 22 |
| 23 | .248 | | | .265 | | | .268 | .086 | 23 |
| 24 | .243 | | .236 | .261 | | | .243 | .065 | 24 |
| 25 | .238 | | .225 | .246 | | | .211 | .093 | 25 |
| 26 | .162 | | .181 | .200 | | | .176 | .037 | 26 |

5V



Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

$\alpha = 12°$ $\delta = 0°$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | -.205 | | -.234 | -.263 | | | -.266 | -.270 | 1 |
| 2 | -.166 | | -.209 | -.210 | | | -.223 | -.168 | 2 |
| 3 | -.153 | | -.204 | -.200 | | | -.207 | -.175 | 3 |
| 4 | -.167 | | -.219 | -.219 | | | -.225 | -.235 | 4 |
| 5 | -.231 | | -.282 | -.261 | | | -.023 | -.266 | 5 |
| 6 | -.222 | | -.275 | -.045 | | | .030 | -.088 | 6 |
| 7 | -.022 | | -.034 | .001 | | | .007 | -.114 | 7 |
| 8 | .042 | | -.019 | .002 | | | -.003 | -.199 | 8 |
| 9 | .071 | | -.051 | .002 | | | .045 | -.200 | 9 |
| 10 | .390 | | -.065 | .063 | | | -.387 | -.442 | 10 |
| 11 | -.447 | | -.414 | -.393 | | | -.343 | -.447 | 11 |
| 12 | -.417 | | -.405 | -.388 | | | -.405 | -.458 | 12 |
| 13 | -.391 | | -.388 | -.388 | | | -.403 | -.462 | 13 |
| 14 | -.340 | | -.317 | -.336 | | | -.351 | -.458 | 14 |
| 15 | -.285 | | -.259 | -.295 | | | -.312 | -.447 | 15 |
| 16 | -.124 | | -.210 | -.256 | | | -.267 | -.414 | 16 |
| 17 | .622 | | .891 | .964 | | | .988 | .726 | 17 |
| 18 | .548 | | .731 | .814 | | | .878 | .558 | 18 |
| 19 | .577 | | .660 | .728 | | | .759 | .437 | 19 |
| 20 | .511 | | .519 | .554 | | | .599 | .319 | 20 |
| 21 | .348 | | .352 | .414 | | | .446 | .185 | 21 |
| 22 | .370 | | .356 | .390 | | | | .127 | 22 |
| 23 | .341 | | | .381 | | | .352 | .104 | 23 |
| 24 | .347 | | .347 | .371 | | | .327 | .077 | 24 |
| 25 | .341 | | .337 | .349 | | | .303 | .115 | 25 |
| 26 | .253 | | .278 | .298 | | | .261 | .067 | 26 |

$\alpha = 12°$ $\delta = 10°$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | -.210 | | -.233 | -.250 | | | -.263 | -.272 | 1 |
| 2 | -.163 | | -.201 | -.209 | | | -.221 | -.179 | 2 |
| 3 | -.149 | | -.197 | -.197 | | | -.204 | -.180 | 3 |
| 4 | -.162 | | -.216 | -.215 | | | -.224 | -.241 | 4 |
| 5 | -.231 | | -.269 | -.256 | | | -.016 | -.288 | 5 |
| 6 | -.227 | | -.270 | -.029 | | | .035 | -.093 | 6 |
| 7 | -.052 | | -.032 | .006 | | | .016 | -.127 | 7 |
| 8 | .045 | | -.011 | .007 | | | .006 | -.200 | 8 |
| 9 | .082 | | -.048 | -.002 | | | .057 | -.200 | 9 |
| 10 | .396 | | -.043 | .073 | | | -.379 | -.459 | 10 |
| 11 | -.423 | | -.387 | -.366 | | | -.340 | -.458 | 11 |
| 12 | -.409 | | -.390 | -.385 | | | -.422 | -.471 | 12 |
| 13 | -.387 | | -.391 | -.393 | | | -.416 | -.471 | 13 |
| 14 | -.337 | | -.350 | -.367 | | | -.399 | -.467 | 14 |
| 15 | -.295 | | -.324 | -.341 | | | -.367 | -.468 | 15 |
| 16 | -.253 | | -.296 | -.333 | | | -.333 | -.448 | 16 |
| 17 | .627 | | .887 | .962 | | | .987 | .716 | 17 |
| 18 | .555 | | .739 | .834 | | | .881 | .547 | 18 |
| 19 | .581 | | .656 | .730 | | | .763 | .425 | 19 |
| 20 | .503 | | .525 | .557 | | | .603 | .316 | 20 |
| 21 | .350 | | .341 | .419 | | | .459 | .174 | 21 |
| 22 | .365 | | .358 | .389 | | | | .110 | 22 |
| 23 | .346 | | | .383 | | | .359 | .096 | 23 |
| 24 | .353 | | .351 | .372 | | | .328 | .065 | 24 |
| 25 | .340 | | .337 | .351 | | | .309 | .100 | 25 |
| 26 | .263 | | .286 | .304 | | | .267 | .061 | 26 |

$\alpha = 12°$ $\delta = 10°$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | -.204 | | -.228 | -.250 | | | -.260 | -.280 | 1 |
| 2 | -.182 | | -.200 | -.204 | | | -.219 | -.165 | 2 |
| 3 | -.150 | | -.204 | -.193 | | | -.201 | -.167 | 3 |
| 4 | -.164 | | -.211 | -.208 | | | -.222 | -.228 | 4 |
| 5 | -.228 | | -.273 | -.256 | | | .000 | -.267 | 5 |
| 6 | -.224 | | -.265 | -.024 | | | .037 | -.072 | 6 |
| 7 | -.075 | | -.031 | .004 | | | .019 | -.096 | 7 |
| 8 | .044 | | -.016 | .003 | | | .007 | -.183 | 8 |
| 9 | .078 | | -.043 | .003 | | | .054 | -.135 | 9 |
| 10 | .381 | | -.021 | .067 | | | -.379 | -.469 | 10 |
| 11 | -.439 | | -.406 | -.396 | | | -.345 | -.475 | 11 |
| 12 | -.426 | | -.404 | -.408 | | | -.435 | -.501 | 12 |
| 13 | -.398 | | -.388 | -.405 | | | -.442 | -.501 | 13 |
| 14 | -.371 | | -.372 | -.389 | | | -.422 | -.496 | 14 |
| 15 | -.361 | | -.369 | -.384 | | | -.410 | -.479 | 15 |
| 16 | -.343 | | -.353 | -.374 | | | -.379 | -.452 | 16 |
| 17 | .625 | | .887 | .958 | | | .978 | .714 | 17 |
| 18 | .550 | | .732 | .821 | | | .879 | .551 | 18 |
| 19 | .573 | | .656 | .721 | | | .759 | .420 | 19 |
| 20 | .505 | | .517 | .552 | | | .600 | .327 | 20 |
| 21 | .345 | | .352 | .415 | | | .448 | .174 | 21 |
| 22 | .366 | | .357 | .385 | | | | .116 | 22 |
| 23 | .650 | | | .774 | | | .675 | .278 | 23 |
| 24 | .793 | | .797 | .855 | | | .771 | .358 | 24 |
| 25 | .843 | | .873 | .922 | | | .855 | .467 | 25 |
| 26 | .884 | | .918 | .975 | | | .926 | .517 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 12^\circ$ | $\delta = -10^\circ$ | | | | |
| 1 | -.205 | | -.227 | -.255 | | | -.270 | -.282 | 1 |
| 2 | -.163 | | -.200 | -.213 | | | -.234 | -.188 | 2 |
| 3 | -.153 | | -.202 | -.201 | | | -.216 | -.178 | 3 |
| 4 | -.170 | | -.213 | -.216 | | | -.228 | -.249 | 4 |
| 5 | -.229 | | -.273 | -.263 | | | -.026 | -.282 | 5 |
| 6 | -.226 | | -.269 | -.043 | | | .020 | -.100 | 6 |
| 7 | -.084 | | -.037 | .002 | | | .006 | -.130 | 7 |
| 8 | .047 | | -.013 | .001 | | | -.010 | -.210 | 8 |
| 9 | .068 | | -.041 | -.004 | | | .046 | -.206 | 9 |
| 10 | .387 | | -.025 | .052 | | | -.361 | -.433 | 10 |
| 11 | -.384 | | -.347 | -.353 | | | -.321 | -.416 | 11 |
| 12 | -.378 | | -.345 | -.356 | | | -.375 | -.416 | 12 |
| 13 | -.346 | | -.347 | -.358 | | | -.382 | -.420 | 13 |
| 14 | -.246 | | -.268 | -.305 | | | -.326 | -.404 | 14 |
| 15 | -.168 | | -.193 | -.245 | | | -.258 | -.358 | 15 |
| 16 | -.112 | | -.135 | -.193 | | | -.227 | -.306 | 16 |
| 17 | .629 | | .893 | .966 | | | .986 | .714 | 17 |
| 18 | .549 | | .736 | .823 | | | .879 | .556 | 18 |
| 19 | .584 | | .665 | .728 | | | .758 | .422 | 19 |
| 20 | .511 | | .510 | .553 | | | .599 | .312 | 20 |
| 21 | .352 | | .357 | .416 | | | .449 | .173 | 21 |
| 22 | .372 | | .359 | .384 | | | | .120 | 22 |
| 23 | .349 | | | .379 | | | .354 | .100 | 23 |
| 24 | .344 | | .352 | .369 | | | .329 | .065 | 24 |
| 25 | .345 | | .341 | .351 | | | .308 | .106 | 25 |
| 26 | .258 | | .288 | .297 | | | .270 | .064 | 26 |
| | | | | $\alpha = 12^\circ$ | $\delta = -20^\circ$ | | | | |
| 1 | -.203 | | -.227 | -.258 | | | -.271 | -.283 | 1 |
| 2 | -.164 | | -.205 | -.214 | | | -.229 | -.200 | 2 |
| 3 | -.149 | | -.212 | -.202 | | | -.213 | -.190 | 3 |
| 4 | -.171 | | -.219 | -.227 | | | -.224 | -.258 | 4 |
| 5 | -.224 | | -.276 | -.263 | | | -.016 | -.291 | 5 |
| 6 | -.225 | | -.269 | -.042 | | | .025 | -.094 | 6 |
| 7 | -.086 | | -.029 | -.004 | | | .006 | -.136 | 7 |
| 8 | .050 | | -.011 | .004 | | | -.003 | -.212 | 8 |
| 9 | .068 | | -.039 | .001 | | | .045 | -.196 | 9 |
| 10 | .387 | | -.017 | .052 | | | -.276 | -.343 | 10 |
| 11 | -.270 | | -.239 | -.262 | | | -.257 | -.342 | 11 |
| 12 | -.279 | | -.253 | -.269 | | | -.308 | -.338 | 12 |
| 13 | -.248 | | -.249 | -.268 | | | -.314 | -.338 | 13 |
| 14 | -.125 | | -.185 | -.237 | | | -.259 | -.326 | 14 |
| 15 | .014 | | -.079 | -.165 | | | -.193 | -.243 | 15 |
| 16 | .035 | | -.046 | -.122 | | | -.152 | -.175 | 16 |
| 17 | .633 | | .891 | .968 | | | .991 | .710 | 17 |
| 18 | .559 | | .741 | .833 | | | .884 | .552 | 18 |
| 19 | .582 | | .656 | .732 | | | .763 | .416 | 19 |
| 20 | .512 | | .527 | .560 | | | .605 | .306 | 20 |
| 21 | .351 | | .358 | .414 | | | .458 | .174 | 21 |
| 22 | .372 | | .361 | .387 | | | | .110 | 22 |
| 23 | .351 | | | .384 | | | .358 | .091 | 23 |
| 24 | .354 | | .352 | .376 | | | .334 | .075 | 24 |
| 25 | .342 | | .340 | .352 | | | .311 | .106 | 25 |
| 26 | .259 | | .291 | .304 | | | .266 | .054 | 26 |
| | | | | $\alpha = 15^\circ$ | $\delta = 0^\circ$ | | | | |
| 1 | -.261 | | -.325 | -.368 | | | -.364 | -.379 | 1 |
| 2 | -.214 | | -.270 | -.288 | | | -.315 | -.263 | 2 |
| 3 | -.184 | | -.260 | -.263 | | | -.277 | -.259 | 3 |
| 4 | -.203 | | -.272 | -.272 | | | -.287 | -.324 | 4 |
| 5 | -.272 | | -.322 | -.314 | | | -.069 | -.351 | 5 |
| 6 | -.261 | | -.299 | -.107 | | | -.038 | -.161 | 6 |
| 7 | -.127 | | -.102 | -.086 | | | -.092 | -.210 | 7 |
| 8 | -.013 | | -.084 | -.077 | | | -.104 | -.248 | 8 |
| 9 | .010 | | -.123 | -.079 | | | -.036 | -.233 | 9 |
| 10 | .280 | | -.084 | -.025 | | | -.380 | -.431 | 10 |
| 11 | -.419 | | -.376 | -.362 | | | -.333 | -.430 | 11 |
| 12 | -.394 | | -.382 | -.362 | | | -.403 | -.450 | 12 |
| 13 | -.368 | | -.368 | -.371 | | | -.400 | -.451 | 13 |
| 14 | -.321 | | -.319 | -.341 | | | -.368 | -.451 | 14 |
| 15 | -.256 | | -.288 | -.314 | | | -.327 | -.442 | 15 |
| 16 | -.182 | | -.238 | -.287 | | | -.293 | -.398 | 16 |
| 17 | .781 | | 1.036 | 1.072 | | | 1.082 | .794 | 17 |
| 18 | .689 | | .857 | .926 | | | .966 | .629 | 18 |
| 19 | .707 | | .752 | .810 | | | .846 | .493 | 19 |
| 20 | .588 | | .598 | .632 | | | .675 | .372 | 20 |
| 21 | .438 | | .428 | .485 | | | .532 | .230 | 21 |
| 22 | .478 | | .481 | .514 | | | | .191 | 22 |
| 23 | .472 | | | .523 | | | .460 | .164 | 23 |
| 24 | .492 | | .512 | .510 | | | .436 | .126 | 24 |
| 25 | .476 | | .479 | .477 | | | .417 | .158 | 25 |
| 26 | .380 | | .404 | .412 | | | .368 | .112 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= −3° $\delta$=0° | | | | | |
| 1 | .233 | | .307 | .306 | | | .300 | .232 | 1 |
| 2 | .195 | | .278 | .290 | | | .276 | .174 | 2 |
| 3 | .203 | | .262 | .298 | | | .292 | .138 | 3 |
| 4 | .193 | | .207 | .251 | | | .232 | .089 | 4 |
| 5 | .072 | | .086 | .143 | | | .382 | .424 | 5 |
| 6 | .063 | | .178 | .527 | | | .606 | .343 | 6 |
| 7 | .266 | | .493 | .561 | | | .651 | .203 | 7 |
| 8 | .491 | | .517 | .561 | | | .577 | .198 | 8 |
| 9 | .507 | | .493 | .559 | | | .931 | -.103 | 9 |
| 10 | .632 | | .312 | .760 | | | -.160 | -.385 | 10 |
| 11 | -.370 | | -.368 | -.384 | | | -.318 | -.394 | 11 |
| 12 | -.346 | | -.345 | -.368 | | | -.377 | -.342 | 12 |
| 13 | -.291 | | -.284 | -.321 | | | -.364 | -.306 | 13 |
| 14 | -.148 | | -.143 | -.188 | | | -.254 | -.207 | 14 |
| 15 | -.090 | | -.096 | -.117 | | | -.191 | -.157 | 15 |
| 16 | -.075 | | -.073 | -.100 | | | -.154 | -.121 | 16 |
| 17 | .046 | | .038 | .029 | | | .048 | .019 | 17 |
| 18 | .044 | | .046 | .047 | | | .130 | .049 | 18 |
| 19 | .043 | | .046 | .039 | | | .044 | .040 | 19 |
| 20 | .015 | | .016 | .017 | | | .006 | .004 | 20 |
| 21 | -.076 | | -.063 | -.048 | | | -.045 | .027 | 21 |
| 22 | -.062 | | -.078 | -.074 | | | | .133 | 22 |
| 23 | -.065 | | | -.077 | | | -.072 | -.083 | 23 |
| 24 | -.071 | | -.090 | -.080 | | | -.082 | -.152 | 24 |
| 25 | -.067 | | -.096 | -.087 | | | -.086 | -.163 | 25 |
| 26 | -.122 | | -.122 | -.117 | | | -.105 | -.188 | 26 |
| | | | | $\alpha$= −6° $\delta$= 0° | | | | | |
| 1 | .357 | | .508 | .510 | | | .518 | .436 | 1 |
| 2 | .304 | | .444 | .499 | | | .530 | .326 | 2 |
| 3 | .314 | | .390 | .461 | | | .497 | .270 | 3 |
| 4 | .300 | | .319 | .365 | | | .393 | .161 | 4 |
| 5 | .159 | | .180 | .238 | | | .706 | .519 | 5 |
| 6 | .178 | | .563 | .684 | | | .811 | .495 | 6 |
| 7 | .547 | | .634 | .730 | | | .839 | .405 | 7 |
| 8 | .622 | | .656 | .731 | | | .843 | .468 | 8 |
| 9 | .641 | | .638 | .732 | | | .945 | .048 | 9 |
| 10 | .724 | | .333 | .891 | | | -.083 | -.396 | 10 |
| 11 | -.335 | | -.346 | -.365 | | | -.308 | -.411 | 11 |
| 12 | -.316 | | -.314 | -.346 | | | -.352 | -.391 | 12 |
| 13 | -.249 | | -.238 | -.291 | | | -.319 | -.369 | 13 |
| 14 | -.070 | | -.085 | -.131 | | | -.216 | -.288 | 14 |
| 15 | -.017 | | -.025 | -.065 | | | -.163 | -.221 | 15 |
| 16 | -.016 | | -.014 | -.048 | | | -.140 | -.177 | 16 |
| 17 | -.053 | | -.053 | -.064 | | | -.043 | -.047 | 17 |
| 18 | -.037 | | -.051 | -.049 | | | -.030 | .005 | 18 |
| 19 | -.029 | | -.053 | -.052 | | | -.042 | -.007 | 19 |
| 20 | -.067 | | -.071 | -.070 | | | -.074 | -.052 | 20 |
| 21 | -.134 | | -.143 | -.126 | | | -.126 | -.079 | 21 |
| 22 | -.126 | | -.149 | -.149 | | | | .026 | 22 |
| 23 | -.130 | | | -.153 | | | -.145 | -.228 | 23 |
| 24 | -.137 | | -.151 | -.159 | | | -.153 | -.280 | 24 |
| 25 | -.128 | | -.162 | -.163 | | | -.145 | -.275 | 25 |
| 26 | -.178 | | -.182 | -.180 | | | -.149 | -.310 | 26 |
| | | | | $\alpha$= −6° $\delta$= 10° | | | | | |
| 1 | .354 | | .511 | .510 | | | .509 | .431 | 1 |
| 2 | .305 | | .440 | .504 | | | .528 | .331 | 2 |
| 3 | .308 | | .392 | .462 | | | .493 | .275 | 3 |
| 4 | .299 | | .322 | .371 | | | .387 | .163 | 4 |
| 5 | .162 | | .179 | .239 | | | .705 | .510 | 5 |
| 6 | .173 | | .566 | .688 | | | .804 | .492 | 6 |
| 7 | .590 | | .633 | .732 | | | .837 | .399 | 7 |
| 8 | .628 | | .656 | .731 | | | .842 | .466 | 8 |
| 9 | .637 | | .640 | .731 | | | .934 | .053 | 9 |
| 10 | .732 | | .354 | .898 | | | -.081 | -.433 | 10 |
| 11 | -.430 | | -.407 | -.422 | | | -.341 | -.453 | 11 |
| 12 | -.359 | | -.353 | -.384 | | | -.400 | -.436 | 12 |
| 13 | -.322 | | -.311 | -.346 | | | -.375 | -.401 | 13 |
| 14 | -.237 | | -.248 | -.279 | | | -.331 | -.329 | 14 |
| 15 | -.232 | | -.237 | -.257 | | | -.311 | -.272 | 15 |
| 16 | -.216 | | -.232 | -.248 | | | -.299 | -.226 | 16 |
| 17 | -.060 | | -.056 | -.068 | | | -.051 | -.046 | 17 |
| 18 | -.039 | | -.061 | -.052 | | | -.048 | .000 | 18 |
| 19 | -.029 | | -.058 | -.057 | | | -.051 | -.009 | 19 |
| 20 | -.065 | | -.072 | -.079 | | | -.081 | -.049 | 20 |
| 21 | -.137 | | -.145 | -.132 | | | -.132 | -.088 | 21 |
| 22 | -.122 | | -.150 | -.154 | | | | .017 | 22 |
| 23 | -.131 | | | -.160 | | | -.150 | -.233 | 23 |
| 24 | -.135 | | -.152 | -.161 | | | -.159 | -.287 | 24 |
| 25 | -.140 | | -.162 | -.168 | | | -.152 | -.284 | 25 |
| 26 | -.183 | | -.183 | -.184 | | | -.157 | -.315 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -6°$ $\delta = 20°$ | | | | | |
| 1 | .353 | | .512 | .515 | | | .519 | .441 | 1 |
| 2 | .299 | | .445 | .504 | | | .533 | .330 | 2 |
| 3 | .313 | | .395 | .467 | | | .496 | .279 | 3 |
| 4 | .295 | | .326 | .376 | | | .390 | .165 | 4 |
| 5 | .161 | | .179 | .239 | | | .706 | .517 | 5 |
| 6 | .180 | | .566 | .690 | | | .816 | .499 | 6 |
| 7 | .606 | | .631 | .737 | | | .845 | .406 | 7 |
| 8 | .636 | | .658 | .737 | | | .850 | .467 | 8 |
| 9 | .639 | | .641 | .737 | | | .945 | .072 | 9 |
| 10 | .733 | | .395 | .903 | | | -.063 | -.464 | 10 |
| 11 | -.444 | | -.428 | -.443 | | | -.344 | -.464 | 11 |
| 12 | -.399 | | -.401 | -.427 | | | -.440 | -.441 | 12 |
| 13 | -.388 | | -.377 | -.410 | | | -.420 | -.426 | 13 |
| 14 | -.358 | | -.371 | -.383 | | | -.404 | -.362 | 14 |
| 15 | -.369 | | -.368 | -.379 | | | -.379 | -.329 | 15 |
| 16 | -.252 | | -.353 | -.382 | | | -.309 | -.296 | 16 |
| 17 | -.058 | | -.057 | -.074 | | | -.049 | -.037 | 17 |
| 18 | -.044 | | -.055 | -.050 | | | -.043 | .007 | 18 |
| 19 | -.028 | | -.055 | -.053 | | | -.048 | -.014 | 19 |
| 20 | -.064 | | -.073 | -.073 | | | -.084 | -.049 | 20 |
| 21 | -.135 | | -.148 | -.130 | | | -.132 | -.086 | 21 |
| 22 | -.126 | | -.144 | -.151 | | | | .012 | 22 |
| 23 | -.127 | | | -.157 | | | -.150 | -.230 | 23 |
| 24 | -.134 | | -.147 | -.159 | | | -.159 | -.291 | 24 |
| 25 | -.128 | | -.157 | -.167 | | | -.149 | -.280 | 25 |
| 26 | -.174 | | -.178 | -.182 | | | .069 | -.310 | 26 |
| | | | | $\alpha = -6°$ $\delta = -10°$ | | | | | |
| 1 | .348 | | .510 | .505 | | | .501 | .421 | 1 |
| 2 | .291 | | .442 | .493 | | | .516 | .320 | 2 |
| 3 | .307 | | .391 | .461 | | | .480 | .263 | 3 |
| 4 | .290 | | .319 | .364 | | | .377 | .163 | 4 |
| 5 | .152 | | .175 | .239 | | | .687 | .527 | 5 |
| 6 | .170 | | .556 | .675 | | | .800 | .485 | 6 |
| 7 | .601 | | .633 | .715 | | | .830 | .385 | 7 |
| 8 | .620 | | .651 | .715 | | | .827 | .445 | 8 |
| 9 | .628 | | .637 | .715 | | | .927 | .000 | 9 |
| 10 | .728 | | .263 | .878 | | | -.102 | -.324 | 10 |
| 11 | -.147 | | -.167 | -.241 | | | -.255 | -.330 | 11 |
| 12 | -.159 | | -.196 | -.251 | | | -.314 | -.333 | 12 |
| 13 | -.141 | | -.167 | -.215 | | | -.299 | -.329 | 13 |
| 14 | .073 | | .069 | -.015 | | | -.132 | -.279 | 14 |
| 15 | .194 | | .180 | .110 | | | -.038 | -.204 | 15 |
| 16 | .175 | | .177 | .135 | | | .000 | -.148 | 16 |
| 17 | -.064 | | -.061 | -.075 | | | -.052 | -.052 | 17 |
| 18 | -.042 | | -.054 | -.058 | | | -.054 | -.007 | 18 |
| 19 | -.029 | | -.060 | -.065 | | | -.058 | -.015 | 19 |
| 20 | -.062 | | -.071 | -.085 | | | -.086 | -.048 | 20 |
| 21 | -.136 | | -.144 | -.141 | | | -.137 | -.080 | 21 |
| 22 | -.124 | | -.146 | -.162 | | | | .007 | 22 |
| 23 | -.129 | | | -.168 | | | -.161 | -.231 | 23 |
| 24 | -.139 | | -.156 | -.170 | | | -.164 | -.294 | 24 |
| 25 | -.136 | | -.162 | -.179 | | | -.162 | -.277 | 25 |
| 26 | -.184 | | -.188 | -.199 | | | -.163 | -.295 | 26 |
| | | | | $\alpha = -6°$ $\delta = -20°$ | | | | | |
| 1 | .356 | | .512 | .501 | | | .510 | .435 | 1 |
| 2 | .299 | | .444 | .495 | | | .524 | .312 | 2 |
| 3 | .309 | | .394 | .455 | | | .494 | .278 | 3 |
| 4 | .297 | | .319 | .370 | | | .390 | .161 | 4 |
| 5 | .156 | | .182 | .236 | | | .701 | .521 | 5 |
| 6 | .182 | | .564 | .680 | | | .809 | .496 | 6 |
| 7 | .609 | | .635 | .731 | | | .841 | .399 | 7 |
| 8 | .627 | | .649 | .732 | | | .838 | .458 | 8 |
| 9 | .632 | | .642 | .732 | | | .935 | -.007 | 9 |
| 10 | .731 | | .334 | .887 | | | -.054 | -.219 | 10 |
| 11 | .152 | | .128 | .025 | | | -.072 | -.231 | 11 |
| 12 | .135 | | .109 | -.005 | | | -.117 | -.243 | 12 |
| 13 | .133 | | .083 | -.023 | | | -.144 | -.257 | 13 |
| 14 | .326 | | .295 | .191 | | | -.006 | -.220 | 14 |
| 15 | .492 | | .471 | .369 | | | .132 | -.094 | 15 |
| 16 | .453 | | .450 | .388 | | | .186 | -.005 | 16 |
| 17 | -.052 | | -.061 | -.067 | | | -.041 | -.035 | 17 |
| 18 | -.030 | | -.059 | -.048 | | | -.038 | .011 | 18 |
| 19 | -.021 | | -.059 | -.048 | | | -.044 | -.001 | 19 |
| 20 | -.057 | | -.079 | -.065 | | | -.072 | -.035 | 20 |
| 21 | -.134 | | -.147 | -.122 | | | -.124 | -.063 | 21 |
| 22 | -.125 | | -.148 | -.149 | | | | .033 | 22 |
| 23 | -.128 | | | -.151 | | | -.145 | -.211 | 23 |
| 24 | -.137 | | -.149 | -.148 | | | -.150 | -.261 | 24 |
| 25 | -.132 | | -.159 | -.162 | | | -.148 | -.231 | 25 |
| 26 | -.175 | | -.180 | -.177 | | | -.150 | -.230 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 $R=3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -9°$ $\delta = 0°$ | | | | | |
| 1 | .460 | | .681 | .761 | | | .786 | .611 | 1 |
| 2 | .394 | | .561 | .656 | | | .717 | .459 | 2 |
| 3 | .416 | | .503 | .595 | | | .629 | .348 | 3 |
| 4 | .391 | | .427 | .470 | | | .504 | .291 | 4 |
| 5 | .246 | | .257 | .451 | | | .830 | .521 | 5 |
| 6 | .599 | | .726 | .863 | | | 1.021 | .640 | 6 |
| 7 | .700 | | .788 | .934 | | | 1.064 | .577 | 7 |
| 8 | .762 | | .805 | .954 | | | 1.027 | .604 | 8 |
| 9 | .775 | | .822 | .934 | | | 1.110 | .040 | 9 |
| 10 | .797 | | .312 | 1.096 | | | -.009 | -.384 | 10 |
| 11 | -.322 | | -.338 | -.371 | | | -.332 | -.400 | 11 |
| 12 | -.290 | | -.324 | -.364 | | | -.387 | -.409 | 12 |
| 13 | -.220 | | -.258 | -.322 | | | -.384 | -.403 | 13 |
| 14 | -.037 | | -.061 | -.158 | | | -.289 | -.366 | 14 |
| 15 | .030 | | .012 | -.067 | | | -.212 | -.312 | 15 |
| 16 | .030 | | .021 | -.032 | | | -.148 | -.256 | 16 |
| 17 | -.128 | | -.133 | -.139 | | | -.127 | -.117 | 17 |
| 18 | -.088 | | -.123 | -.123 | | | -.105 | -.048 | 18 |
| 19 | -.079 | | -.133 | -.119 | | | -.121 | -.073 | 19 |
| 20 | -.116 | | -.135 | -.143 | | | -.146 | -.117 | 20 |
| 21 | -.177 | | -.209 | -.190 | | | -.190 | -.162 | 21 |
| 22 | -.168 | | -.203 | -.209 | | | | -.224 | 22 |
| 23 | -.178 | | | -.215 | | | -.208 | -.290 | 23 |
| 24 | -.178 | | -.206 | -.217 | | | -.213 | -.364 | 24 |
| 25 | -.180 | | -.206 | -.223 | | | -.206 | -.362 | 25 |
| 26 | -.219 | | -.229 | -.241 | | | -.209 | -.390 | 26 |
| | | | | $\alpha = -12°$ $\delta = 0°$ | | | | | |
| 1 | .608 | | .855 | .930 | | | 1.021 | .792 | 1 |
| 2 | .518 | | .710 | .808 | | | .946 | .629 | 2 |
| 3 | .546 | | .640 | .722 | | | .881 | .537 | 3 |
| 4 | .511 | | .519 | .697 | | | .836 | .499 | 4 |
| 5 | .347 | | .544 | .843 | | | .918 | .553 | 5 |
| 6 | .822 | | .911 | 1.026 | | | 1.083 | .635 | 6 |
| 7 | .897 | | 1.024 | 1.158 | | | 1.182 | .676 | 7 |
| 8 | .985 | | 1.089 | 1.184 | | | 1.180 | .601 | 8 |
| 9 | 1.010 | | 1.100 | 1.162 | | | 1.219 | .037 | 9 |
| 10 | 1.035 | | .345 | 1.235 | | | .049 | -.433 | 10 |
| 11 | -.346 | | -.374 | -.390 | | | -.346 | -.442 | 11 |
| 12 | -.331 | | -.372 | -.395 | | | -.406 | -.425 | 12 |
| 13 | -.267 | | -.337 | -.391 | | | -.411 | -.426 | 13 |
| 14 | -.036 | | -.137 | -.277 | | | -.364 | -.408 | 14 |
| 15 | .037 | | -.012 | -.138 | | | -.280 | -.351 | 15 |
| 16 | .065 | | .026 | -.061 | | | -.199 | -.288 | 16 |
| 17 | -.190 | | -.217 | -.245 | | | -.275 | -.306 | 17 |
| 18 | -.143 | | -.190 | -.207 | | | -.207 | -.174 | 18 |
| 19 | -.130 | | -.190 | -.191 | | | -.197 | -.194 | 19 |
| 20 | -.166 | | -.205 | -.209 | | | -.216 | -.231 | 20 |
| 21 | -.223 | | -.258 | -.251 | | | -.255 | -.300 | 21 |
| 22 | -.207 | | -.265 | -.259 | | | | -.368 | 22 |
| 23 | -.214 | | | -.266 | | | -.272 | -.382 | 23 |
| 24 | -.219 | | -.266 | -.270 | | | -.278 | -.404 | 24 |
| 25 | -.224 | | -.255 | -.276 | | | -.258 | -.387 | 25 |
| 26 | -.256 | | -.268 | -.292 | | | -.251 | -.429 | 26 |
| | | | | $\alpha = -12°$ $\delta = 10°$ | | | | | |
| 1 | .604 | | .850 | .939 | | | 1.017 | .821 | 1 |
| 2 | .514 | | .715 | .805 | | | .957 | .648 | 2 |
| 3 | .546 | | .635 | .726 | | | .891 | .556 | 3 |
| 4 | .508 | | .516 | .704 | | | .846 | .504 | 4 |
| 5 | .346 | | .560 | .840 | | | .914 | .564 | 5 |
| 6 | .820 | | .914 | 1.026 | | | 1.084 | .647 | 6 |
| 7 | .934 | | 1.025 | 1.169 | | | 1.183 | .685 | 7 |
| 8 | .988 | | 1.090 | 1.192 | | | 1.183 | .611 | 8 |
| 9 | 1.013 | | 1.104 | 1.169 | | | 1.226 | .061 | 9 |
| 10 | 1.038 | | .355 | 1.243 | | | .082 | -.464 | 10 |
| 11 | -.428 | | -.437 | -.455 | | | -.371 | -.468 | 11 |
| 12 | -.373 | | -.432 | -.452 | | | -.461 | -.483 | 12 |
| 13 | -.316 | | -.388 | -.436 | | | -.456 | -.478 | 13 |
| 14 | -.212 | | -.275 | -.346 | | | -.388 | -.433 | 14 |
| 15 | -.175 | | -.219 | -.283 | | | -.348 | -.391 | 15 |
| 16 | -.168 | | -.200 | -.254 | | | -.326 | -.343 | 16 |
| 17 | -.192 | | -.221 | -.244 | | | -.280 | -.294 | 17 |
| 18 | -.143 | | -.197 | -.203 | | | -.221 | -.172 | 18 |
| 19 | -.141 | | -.193 | -.190 | | | -.194 | -.191 | 19 |
| 20 | -.165 | | -.208 | -.208 | | | -.216 | -.226 | 20 |
| 21 | -.228 | | -.259 | -.254 | | | -.253 | -.298 | 21 |
| 22 | -.216 | | -.270 | -.265 | | | | -.364 | 22 |
| 23 | -.221 | | | -.271 | | | -.273 | -.379 | 23 |
| 24 | -.227 | | -.257 | -.271 | | | -.277 | -.389 | 24 |
| 25 | -.222 | | -.257 | -.281 | | | -.261 | -.378 | 25 |
| 26 | -.262 | | -.272 | -.294 | | | -.250 | -.417 | 26 |

Table 4 continued

Wing-surface Pressure Coefficients

Configuration C M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -12°$ $\delta = 20°$ | | | | | |
| 1 | .616 | | .867 | .950 | | | 1.042 | .827 | 1 |
| 2 | .515 | | .721 | .819 | | | .969 | .652 | 2 |
| 3 | .554 | | .649 | .742 | | | .903 | .564 | 3 |
| 4 | .521 | | .522 | .733 | | | .858 | .513 | 4 |
| 5 | .351 | | .645 | .855 | | | .927 | .569 | 5 |
| 6 | .830 | | .923 | 1.035 | | | 1.085 | .645 | 6 |
| 7 | .962 | | 1.041 | 1.172 | | | 1.192 | .697 | 7 |
| 8 | 1.009 | | 1.104 | 1.197 | | | 1.186 | .615 | 8 |
| 9 | 1.029 | | 1.124 | 1.181 | | | 1.224 | .080 | 9 |
| 10 | 1.061 | | .344 | 1.244 | | | .106 | -.489 | 10 |
| 11 | -.452 | | -.470 | -.493 | | | -.384 | -.494 | 11 |
| 12 | -.411 | | -.461 | -.499 | | | -.503 | -.503 | 12 |
| 13 | -.380 | | -.435 | -.474 | | | -.493 | -.500 | 13 |
| 14 | -.332 | | -.379 | -.420 | | | -.442 | -.475 | 14 |
| 15 | -.337 | | -.361 | -.398 | | | -.430 | -.429 | 15 |
| 16 | -.327 | | -.347 | -.377 | | | -.419 | -.388 | 16 |
| 17 | -.188 | | -.220 | -.243 | | | -.296 | -.322 | 17 |
| 18 | -.142 | | -.200 | -.208 | | | -.239 | -.179 | 18 |
| 19 | -.133 | | -.192 | -.189 | | | -.206 | -.198 | 19 |
| 20 | -.164 | | -.204 | -.208 | | | -.223 | -.231 | 20 |
| 21 | -.219 | | -.268 | -.249 | | | -.256 | -.308 | 21 |
| 22 | -.206 | | -.271 | -.263 | | | | -.367 | 22 |
| 23 | -.213 | | | -.273 | | | -.276 | -.383 | 23 |
| 24 | -.219 | | -.257 | -.270 | | | -.281 | -.395 | 24 |
| 25 | -.222 | | -.248 | -.283 | | | -.257 | -.383 | 25 |
| 26 | -.254 | | -.265 | -.297 | | | -.104 | -.421 | 26 |
| | | | | $\alpha = -12°$ $\delta = -10°$ | | | | | |
| 1 | .612 | | .865 | .951 | | | 1.035 | .814 | 1 |
| 2 | .523 | | .723 | .815 | | | .959 | .642 | 2 |
| 3 | .554 | | .652 | .736 | | | .890 | .550 | 3 |
| 4 | .516 | | .520 | .718 | | | .850 | .504 | 4 |
| 5 | .355 | | .598 | .846 | | | .917 | .556 | 5 |
| 6 | .830 | | .917 | 1.030 | | | 1.080 | .638 | 6 |
| 7 | .962 | | 1.038 | 1.165 | | | 1.187 | .688 | 7 |
| 8 | 1.004 | | 1.105 | 1.191 | | | 1.187 | .608 | 8 |
| 9 | 1.025 | | 1.118 | 1.167 | | | 1.223 | .046 | 9 |
| 10 | 1.058 | | .352 | 1.233 | | | .063 | -.412 | 10 |
| 11 | -.162 | | -.201 | -.258 | | | -.272 | -.406 | 11 |
| 12 | -.193 | | -.220 | -.264 | | | -.312 | -.394 | 12 |
| 13 | -.154 | | -.236 | -.277 | | | -.316 | -.403 | 13 |
| 14 | .143 | | -.015 | -.177 | | | -.298 | -.372 | 14 |
| 15 | .304 | | .198 | .026 | | | -.175 | -.282 | 15 |
| 16 | .280 | | .251 | .126 | | | -.064 | -.198 | 16 |
| 17 | -.187 | | -.219 | -.255 | | | -.286 | -.308 | 17 |
| 18 | -.140 | | -.192 | -.208 | | | -.230 | -.178 | 18 |
| 19 | -.131 | | -.192 | -.191 | | | -.195 | -.204 | 19 |
| 20 | -.162 | | -.202 | -.212 | | | -.219 | -.240 | 20 |
| 21 | -.220 | | -.259 | -.251 | | | -.256 | -.304 | 21 |
| 22 | -.207 | | -.268 | -.264 | | | | -.373 | 22 |
| 23 | -.216 | | | -.269 | | | -.273 | -.394 | 23 |
| 24 | -.220 | | -.253 | -.280 | | | -.276 | -.398 | 24 |
| 25 | -.224 | | -.245 | -.284 | | | -.256 | -.383 | 25 |
| 26 | -.257 | | -.267 | -.296 | | | -.249 | -.431 | 26 |
| | | | | $\alpha = -12°$ $\delta = -20°$ | | | | | |
| 1 | .608 | | .863 | .943 | | | 1.035 | .826 | 1 |
| 2 | .516 | | .710 | .810 | | | .963 | .647 | 2 |
| 3 | .556 | | .637 | .736 | | | .896 | .555 | 3 |
| 4 | .514 | | .519 | .718 | | | .847 | .509 | 4 |
| 5 | .351 | | .610 | .846 | | | .924 | .567 | 5 |
| 6 | .827 | | .916 | 1.024 | | | 1.089 | .643 | 6 |
| 7 | .959 | | 1.036 | 1.169 | | | 1.185 | .698 | 7 |
| 8 | 1.002 | | 1.096 | 1.194 | | | 1.188 | .614 | 8 |
| 9 | 1.025 | | 1.114 | 1.169 | | | 1.225 | .035 | 9 |
| 10 | 1.055 | | .421 | 1.234 | | | .029 | -.316 | 10 |
| 11 | .179 | | .085 | -.019 | | | -.102 | -.298 | 11 |
| 12 | .143 | | .067 | -.033 | | | -.147 | -.293 | 12 |
| 13 | .125 | | .042 | -.063 | | | -.152 | -.294 | 13 |
| 14 | .389 | | .217 | .025 | | | -.154 | -.295 | 14 |
| 15 | .653 | | .494 | .272 | | | .009 | -.177 | 15 |
| 16 | .567 | | .552 | .366 | | | .122 | -.077 | 16 |
| 17 | -.190 | | -.222 | -.253 | | | -.285 | -.301 | 17 |
| 18 | -.143 | | -.200 | -.200 | | | -.229 | -.168 | 18 |
| 19 | -.133 | | -.190 | -.190 | | | -.200 | -.190 | 19 |
| 20 | -.159 | | -.209 | -.212 | | | -.217 | -.221 | 20 |
| 21 | -.223 | | -.258 | -.254 | | | -.250 | -.298 | 21 |
| 22 | -.208 | | -.272 | -.265 | | | | -.358 | 22 |
| 23 | -.216 | | | -.269 | | | -.274 | -.379 | 23 |
| 24 | -.223 | | -.256 | -.271 | | | -.281 | -.388 | 24 |
| 25 | -.220 | | -.251 | -.277 | | | -.253 | -.380 | 25 |
| 26 | -.258 | | -.274 | -.291 | | | -.250 | -.416 | 26 |

Table 4 concluded

Wing-surface Pressure Coefficients

Configuration C  M= 1.61  R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -15°$ | $\delta = 0°$ | | | | |
| 1 | .813 | | 1.127 | 1.208 | | | 1.208 | .951 | 1 |
| 2 | .750 | | .982 | 1.100 | | | 1.137 | .782 | 2 |
| 3 | .800 | | .910 | 1.023 | | | 1.062 | .677 | 3 |
| 4 | .776 | | .854 | .955 | | | .986 | .599 | 4 |
| 5 | .813 | | .892 | .978 | | | .999 | .603 | 5 |
| 6 | .957 | | 1.005 | 1.078 | | | 1.101 | .638 | 6 |
| 7 | 1.069 | | 1.127 | 1.224 | | | 1.233 | .729 | 7 |
| 8 | 1.178 | | 1.207 | 1.264 | | | 1.234 | .635 | 8 |
| 9 | 1.209 | | 1.246 | 1.257 | | | 1.250 | .074 | 9 |
| 10 | 1.417 | | .400 | 1.293 | | | .098 | -.437 | 10 |
| 11 | -.375 | | -.352 | -.365 | | | -.338 | -.438 | 11 |
| 12 | -.346 | | -.369 | -.379 | | | -.394 | -.453 | 12 |
| 13 | -.338 | | -.361 | -.388 | | | -.400 | -.457 | 13 |
| 14 | -.121 | | -.205 | -.320 | | | -.377 | -.425 | 14 |
| 15 | .040 | | -.033 | -.156 | | | -.282 | -.347 | 15 |
| 16 | .084 | | .042 | -.033 | | | -.182 | -.272 | 16 |
| 17 | -.260 | | -.369 | -.421 | | | -.437 | -.440 | 17 |
| 18 | -.193 | | -.290 | -.348 | | | -.327 | -.357 | 18 |
| 19 | -.189 | | -.273 | -.309 | | | -.352 | -.342 | 19 |
| 20 | -.214 | | -.275 | -.295 | | | -.329 | -.366 | 20 |
| 21 | -.263 | | -.321 | -.320 | | | -.349 | -.409 | 21 |
| 22 | -.253 | | -.327 | -.333 | | | | -.452 | 22 |
| 23 | -.263 | | | -.340 | | | -.355 | -.450 | 23 |
| 24 | -.268 | | -.312 | -.339 | | | -.352 | -.462 | 24 |
| 25 | -.269 | | -.300 | -.349 | | | -.346 | -.436 | 25 |
| 26 | -.295 | | -.314 | -.352 | | | -.330 | -.461 | 26 |

Table 5

Wing-surface Pressure Coefficients

Configuration D M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .148 | | .156 | .167 | | | .152 | .118 | 1 |
| 2 | .108 | | .161 | .159 | | | .159 | .098 | 2 |
| 3 | .129 | | .156 | .169 | | | .144 | .098 | 3 |
| 4 | .115 | | .123 | .135 | | | .111 | .053 | 4 |
| 5 | .002 | | .017 | .058 | | | .048 | .006 | 5 |
| 6 | .016 | | .009 | .367 | | | .415 | -.005 | 6 |
| 7 | .010 | | .331 | .425 | | | .422 | .097 | 7 |
| 8 | .003 | | .348 | .419 | | | .353 | .132 | 8 |
| 9 | -.003 | | .263 | .400 | | | .615 | .174 | 9 |
| 10 | -.027 | | .242 | .624 | | | -.391 | .066 | 10 |
| 11 | .010 | | -.399 | -.414 | | | -.334 | .023 | 11 |
| 12 | -.010 | | -.369 | -.382 | | | -.366 | .016 | 12 |
| 13 | .002 | | -.311 | -.355 | | | -.323 | -.010 | 13 |
| 14 | .018 | | -.182 | -.236 | | | -.228 | -.031 | 14 |
| 15 | .001 | | -.132 | -.185 | | | -.169 | -.043 | 15 |
| 16 | -.041 | | -.107 | -.169 | | | -.133 | -.060 | 16 |
| 17 | .146 | | .151 | .133 | | | .138 | .113 | 17 |
| 18 | .118 | | .144 | .147 | | | .159 | .134 | 18 |
| 19 | .121 | | .152 | .139 | | | .135 | .089 | 19 |
| 20 | .102 | | .109 | .116 | | | .104 | .046 | 20 |
| 21 | .000 | | .018 | .029 | | | .033 | .014 | 21 |
| 22 | .010 | | .003 | .010 | | | | -.004 | 22 |
| 23 | .008 | | | .000 | | | -.004 | -.001 | 23 |
| 24 | -.003 | | -.018 | -.005 | | | -.014 | .001 | 24 |
| 25 | -.002 | | -.025 | -.033 | | | -.021 | .027 | 25 |
| 26 | -.060 | | -.056 | -.056 | | | -.062 | .001 | 26 |
| | | | | $\alpha = 3^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .052 | | .061 | .053 | | | .046 | .020 | 1 |
| 2 | .045 | | .051 | .046 | | | .053 | .034 | 2 |
| 3 | .048 | | .052 | .057 | | | .045 | .050 | 3 |
| 4 | .037 | | .026 | .029 | | | .013 | .023 | 4 |
| 5 | -.049 | | -.060 | -.043 | | | -.044 | -.028 | 5 |
| 6 | -.050 | | -.067 | .245 | | | .254 | -.030 | 6 |
| 7 | -.015 | | .240 | .313 | | | .291 | -.047 | 7 |
| 8 | -.061 | | .257 | .309 | | | .242 | .002 | 8 |
| 9 | -.063 | | .170 | .293 | | | .599 | .187 | 9 |
| 10 | -.088 | | .175 | .490 | | | -.402 | .062 | 10 |
| 11 | -.061 | | -.412 | -.423 | | | -.341 | .012 | 11 |
| 12 | -.096 | | -.409 | -.412 | | | -.398 | -.012 | 12 |
| 13 | -.092 | | -.342 | -.383 | | | -.375 | -.041 | 13 |
| 14 | -.074 | | -.229 | -.292 | | | -.272 | -.018 | 14 |
| 15 | -.075 | | -.183 | -.234 | | | -.217 | -.033 | 15 |
| 16 | -.100 | | -.165 | -.217 | | | -.171 | -.033 | 16 |
| 17 | .243 | | .313 | .301 | | | .301 | .238 | 17 |
| 18 | .215 | | .299 | .292 | | | .292 | .223 | 18 |
| 19 | .212 | | .278 | .297 | | | .298 | .151 | 19 |
| 20 | .196 | | .216 | .248 | | | .243 | .103 | 20 |
| 21 | .080 | | .099 | .145 | | | .167 | .043 | 21 |
| 22 | .096 | | .084 | .109 | | | | .022 | 22 |
| 23 | .090 | | | .098 | | | .115 | .000 | 23 |
| 24 | .085 | | .067 | .081 | | | .096 | -.020 | 24 |
| 25 | .075 | | .054 | .068 | | | .075 | -.005 | 25 |
| 26 | .020 | | .023 | .037 | | | .035 | -.017 | 26 |
| | | | | $\alpha = 6^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | -.058 | | -.042 | -.040 | | | -.052 | -.052 | 1 |
| 2 | -.041 | | -.045 | -.050 | | | -.047 | -.026 | 2 |
| 3 | -.026 | | -.047 | -.043 | | | -.052 | -.009 | 3 |
| 4 | -.054 | | -.066 | -.067 | | | -.088 | -.037 | 4 |
| 5 | -.126 | | -.139 | -.125 | | | -.128 | -.085 | 5 |
| 6 | -.117 | | -.142 | .111 | | | .091 | -.143 | 6 |
| 7 | -.067 | | .135 | .190 | | | .165 | -.181 | 7 |
| 8 | -.131 | | .154 | .186 | | | .141 | -.211 | 8 |
| 9 | -.124 | | .082 | .170 | | | .590 | -.026 | 9 |
| 10 | -.162 | | .091 | .334 | | | -.426 | -.167 | 10 |
| 11 | -.131 | | -.438 | -.4[illegible] | | | -.361 | -.174 | 11 |
| 12 | -.162 | | -.417 | -.428 | | | -.428 | -.206 | 12 |
| 13 | -.158 | | -.366 | -.405 | | | -.405 | -.155 | 13 |
| 14 | -.129 | | -.275 | -.324 | | | -.310 | -.142 | 14 |
| 15 | -.129 | | -.225 | -.287 | | | -.246 | -.098 | 15 |
| 16 | -.142 | | -.194 | -.236 | | | -.183 | -.108 | 16 |
| 17 | .357 | | .516 | .494 | | | .524 | .391 | 17 |
| 18 | .310 | | .448 | .502 | | | .522 | .332 | 18 |
| 19 | .311 | | .394 | .452 | | | .483 | .252 | 19 |
| 20 | .285 | | .321 | .360 | | | .391 | .174 | 20 |
| 21 | .152 | | .181 | .232 | | | .279 | .078 | 21 |
| 22 | .172 | | .166 | .195 | | | | .034 | 22 |
| 23 | .170 | | | .182 | | | .188 | .007 | 23 |
| 24 | .169 | | .153 | .170 | | | .167 | -.022 | 24 |
| 25 | .162 | | .140 | .152 | | | .145 | .005 | 25 |
| 26 | .085 | | .099 | .114 | | | .104 | -.033 | 26 |

Table 5 continued
Wing-surface Pressure Coefficients

Configuration D M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 9^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | -.124 | | -.114 | -.107 | | | -.121 | -.128 | 1 |
| 2 | -.097 | | -.114 | -.108 | | | -.116 | -.069 | 2 |
| 3 | -.083 | | -.113 | -.109 | | | -.116 | -.082 | 3 |
| 4 | -.100 | | -.130 | -.130 | | | -.142 | -.123 | 4 |
| 5 | -.175 | | -.198 | -.183 | | | -.185 | -.174 | 5 |
| 6 | -.161 | | -.199 | .021 | | | .015 | -.262 | 6 |
| 7 | -.110 | | .056 | .104 | | | .135 | -.295 | 7 |
| 8 | -.180 | | .070 | .110 | | | .116 | -.305 | 8 |
| 9 | -.172 | | .010 | .094 | | | .559 | -.190 | 9 |
| 10 | -.203 | | .019 | .218 | | | -.437 | -.283 | 10 |
| 11 | -.190 | | -.446 | -.443 | | | -.365 | -.278 | 11 |
| 12 | -.209 | | -.443 | -.446 | | | -.446 | -.272 | 12 |
| 13 | -.208 | | -.387 | -.420 | | | -.441 | -.289 | 13 |
| 14 | -.192 | | -.305 | -.355 | | | -.346 | -.245 | 14 |
| 15 | -.177 | | -.273 | -.316 | | | -.265 | -.219 | 15 |
| 16 | -.149 | | -.208 | -.228 | | | -.223 | -.182 | 16 |
| 17 | .472 | | .688 | .755 | | | .794 | .582 | 17 |
| 18 | .406 | | .563 | .643 | | | .709 | .444 | 18 |
| 19 | .415 | | .512 | .585 | | | .634 | .330 | 19 |
| 20 | .375 | | .425 | .460 | | | .489 | .225 | 20 |
| 21 | .250 | | .265 | .325 | | | .357 | .110 | 21 |
| 22 | .260 | | .254 | .281 | | | | .060 | 22 |
| 23 | .249 | | | .270 | | | .257 | .037 | 23 |
| 24 | .246 | | .235 | .259 | | | .230 | .006 | 24 |
| 25 | .241 | | .228 | .235 | | | .207 | .027 | 25 |
| 26 | .164 | | .177 | .195 | | | .165 | -.004 | 26 |
| | | | | $\alpha = 12^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | -.197 | | -.209 | -.237 | | | -.244 | -.266 | 1 |
| 2 | -.160 | | -.194 | -.208 | | | -.212 | -.170 | 2 |
| 3 | -.135 | | -.189 | -.190 | | | -.190 | -.166 | 3 |
| 4 | -.161 | | -.206 | -.204 | | | -.210 | -.239 | 4 |
| 5 | -.220 | | -.259 | -.252 | | | -.243 | -.286 | 5 |
| 6 | -.211 | | -.264 | -.129 | | | .005 | -.361 | 6 |
| 7 | -.180 | | -.038 | .008 | | | -.027 | -.391 | 7 |
| 8 | -.231 | | -.020 | .004 | | | -.083 | -.384 | 8 |
| 9 | -.214 | | -.073 | -.012 | | | .294 | -.319 | 9 |
| 10 | -.244 | | -.057 | .099 | | | -.440 | -.389 | 10 |
| 11 | -.236 | | -.454 | -.456 | | | -.354 | -.363 | 11 |
| 12 | -.266 | | -.454 | -.462 | | | -.452 | -.347 | 12 |
| 13 | -.256 | | -.410 | -.442 | | | -.431 | -.366 | 13 |
| 14 | -.245 | | -.337 | -.388 | | | -.364 | -.356 | 14 |
| 15 | -.243 | | -.293 | -.330 | | | -.305 | -.325 | 15 |
| 16 | -.135 | | -.187 | -.250 | | | -.262 | -.293 | 16 |
| 17 | .615 | | .877 | .956 | | | .977 | .696 | 17 |
| 18 | .540 | | .725 | .820 | | | .875 | .542 | 18 |
| 19 | .563 | | .650 | .719 | | | .754 | .407 | 19 |
| 20 | .505 | | .518 | .558 | | | .599 | [illegible] | 20 |
| 21 | .349 | | .348 | .413 | | | .448 | .174 | 21 |
| 22 | .356 | | .348 | .383 | | | | .108 | 22 |
| 23 | .349 | | | .375 | | | .349 | .081 | 23 |
| 24 | .348 | | .344 | .364 | | | .322 | .044 | 24 |
| 25 | .334 | | .331 | .345 | | | .302 | .079 | 25 |
| 26 | .253 | | .277 | .293 | | | .266 | .027 | 26 |
| | | | | $\alpha = 15^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | -.263 | | -.343 | -.379 | | | -.388 | -.406 | 1 |
| 2 | -.220 | | -.276 | -.304 | | | -.331 | -.282 | 2 |
| 3 | -.195 | | -.264 | -.274 | | | -.297 | -.271 | 3 |
| 4 | -.206 | | -.282 | -.285 | | | -.296 | -.343 | 4 |
| 5 | -.266 | | -.331 | -.320 | | | -.316 | -.371 | 5 |
| 6 | -.260 | | -.325 | -.247 | | | -.103 | -.427 | 6 |
| 7 | -.212 | | -.130 | -.102 | | | -.121 | -.452 | 7 |
| 8 | -.275 | | -.114 | -.102 | | | -.181 | -.431 | 8 |
| 9 | -.256 | | -.154 | -.108 | | | .143 | -.407 | 9 |
| 10 | -.283 | | -.139 | -.024 | | | -.423 | -.423 | 10 |
| 11 | -.285 | | -.385 | - [illegible] | | | -.345 | -.406 | 11 |
| 12 | -.305 | | -.387 | -.375 | | | -.419 | -.420 | 12 |
| 13 | -.307 | | -.385 | -.391 | | | -.412 | -.435 | 13 |
| 14 | -.292 | | -.350 | -.363 | | | -.383 | -.433 | 14 |
| 15 | -.287 | | -.318 | -.343 | | | -.343 | -.412 | 15 |
| 16 | -.121 | | -.277 | -.314 | | | -.284 | -.393 | 16 |
| 17 | .829 | | 1.068 | 1.102 | | | 1.098 | .803 | 17 |
| 18 | .736 | | .890 | .955 | | | .989 | .641 | 18 |
| 19 | .745 | | .791 | .836 | | | .859 | .501 | 19 |
| 20 | .621 | | .624 | .660 | | | .701 | .385 | 20 |
| 21 | .474 | | .459 | .521 | | | .581 | .249 | 21 |
| 22 | .534 | | .526 | .574 | | | | .209 | 22 |
| 23 | .518 | | | .561 | | | .491 | .182 | 23 |
| 24 | .539 | | .561 | .543 | | | .469 | .145 | 24 |
| 25 | .522 | | .511 | .510 | | | .442 | .172 | 25 |
| 26 | .418 | | .429 | .429 | | | .386 | .126 | 26 |

Table 5 continued

Wing-surface Pressure Coefficients

Configuration D M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -3°$ $\delta = 0°$ | | | | | |
| 1 | .241 | | .306 | .308 | | | .316 | .231 | 1 |
| 2 | .198 | | .284 | .292 | | | .275 | .166 | 2 |
| 3 | .215 | | .273 | .307 | | | .291 | .142 | 3 |
| 4 | .195 | | .217 | .255 | | | .236 | .101 | 4 |
| 5 | .081 | | .093 | .152 | | | .171 | .034 | 5 |
| 6 | .082 | | .075 | .496 | | | .561 | -.001 | 6 |
| 7 | -.006 | | .440 | .556 | | | .551 | .146 | 7 |
| 8 | .066 | | .452 | .548 | | | .462 | .107 | 8 |
| 9 | .072 | | .356 | .533 | | | .722 | .170 | 9 |
| 10 | .072 | | .319 | .769 | | | -.358 | .023 | 10 |
| 11 | .110 | | -.386 | -.398 | | | -.324 | -.021 | 11 |
| 12 | .086 | | -.359 | -.387 | | | -.378 | -.047 | 12 |
| 13 | .092 | | -.292 | -.335 | | | -.336 | -.028 | 13 |
| 14 | .095 | | -.139 | -.212 | | | -.218 | -.076 | 14 |
| 15 | .062 | | -.079 | -.153 | | | -.158 | -.103 | 15 |
| 16 | .004 | | -.055 | -.134 | | | -.113 | -.134 | 16 |
| 17 | .045 | | .040 | .027 | | | .043 | .020 | 17 |
| 18 | .042 | | .041 | .045 | | | .060 | .044 | 18 |
| 19 | .044 | | .043 | .040 | | | .044 | .036 | 19 |
| 20 | .017 | | .009 | .015 | | | .003 | .002 | 20 |
| 21 | -.067 | | -.063 | -.052 | | | -.049 | -.036 | 21 |
| 22 | -.059 | | -.073 | -.075 | | | | -.042 | 22 |
| 23 | -.062 | | | -.080 | | | -.074 | -.038 | 23 |
| 24 | -.065 | | -.084 | -.080 | | | -.083 | -.041 | 24 |
| 25 | -.067 | | -.093 | -.092 | | | -.092 | -.023 | 25 |
| 26 | -.120 | | -.122 | -.118 | | | -.112 | -.086 | 26 |
| | | | | $\alpha = -6°$ $\delta = 0°$ | | | | | |
| 1 | .356 | | .493 | .497 | | | .495 | .410 | 1 |
| 2 | .295 | | .438 | .491 | | | .506 | .302 | 2 |
| 3 | .305 | | .383 | .454 | | | .481 | .259 | 3 |
| 4 | .294 | | .315 | .364 | | | .384 | .154 | 4 |
| 5 | .169 | | .178 | .239 | | | .329 | .075 | 5 |
| 6 | .166 | | .156 | .633 | | | .733 | .146 | 6 |
| 7 | .098 | | .553 | .686 | | | .719 | .178 | 7 |
| 8 | .160 | | .559 | .683 | | | .581 | .121 | 8 |
| 9 | .164 | | .468 | .663 | | | .904 | .227 | 9 |
| 10 | .215 | | .393 | .860 | | | -.333 | .039 | 10 |
| 11 | .230 | | -.369 | -.374 | | | -.318 | .001 | 11 |
| 12 | .212 | | -.330 | -.356 | | | -.369 | -.043 | 12 |
| 13 | .211 | | -.250 | -.313 | | | -.342 | -.042 | 13 |
| 14 | .186 | | -.070 | -.172 | | | -.229 | -.101 | 14 |
| 15 | .140 | | -.001 | -.118 | | | -.146 | -.153 | 15 |
| 16 | .062 | | .004 | -.102 | | | -.102 | -.182 | 16 |
| 17 | -.045 | | -.043 | -.060 | | | -.038 | -.049 | 17 |
| 18 | -.026 | | -.045 | -.049 | | | -.028 | -.001 | 18 |
| 19 | -.024 | | -.047 | -.045 | | | -.039 | -.009 | 19 |
| 20 | -.048 | | -.059 | -.068 | | | -.079 | -.055 | 20 |
| 21 | -.124 | | -.135 | -.122 | | | -.132 | -.084 | 21 |
| 22 | -.115 | | -.140 | -.142 | | | | -.122 | 22 |
| 23 | -.120 | | | -.152 | | | -.149 | -.144 | 23 |
| 24 | -.126 | | -.140 | -.151 | | | -.151 | -.201 | 24 |
| 25 | -.124 | | -.150 | -.158 | | | -.144 | -.182 | 25 |
| 26 | -.173 | | -.177 | -.175 | | | -.162 | -.247 | 26 |
| | | | | $\alpha = -9°$ $\delta = 0°$ | | | | | |
| 1 | .451 | | .661 | .741 | | | .773 | .588 | 1 |
| 2 | .376 | | .548 | .640 | | | .708 | .442 | 2 |
| 3 | .403 | | .490 | .580 | | | .629 | .337 | 3 |
| 4 | .382 | | .408 | .454 | | | .480 | .202 | 4 |
| 5 | .238 | | .251 | .310 | | | .629 | .122 | 5 |
| 6 | .244 | | .250 | .774 | | | .877 | .278 | 6 |
| 7 | .185 | | .662 | .840 | | | .884 | .234 | 7 |
| 8 | .239 | | .664 | .849 | | | .773 | .170 | 8 |
| 9 | .330 | | .590 | .824 | | | 1.019 | .309 | 9 |
| 10 | .400 | | .448 | 1.015 | | | -.321 | .069 | 10 |
| 11 | .346 | | -.364 | -.381 | | | -.323 | .018 | 11 |
| 12 | .335 | | -.319 | -.369 | | | -.387 | -.054 | 12 |
| 13 | .320 | | -.228 | -.329 | | | -.367 | -.058 | 13 |
| 14 | .273 | | -.007 | -.193 | | | -.262 | -.122 | 14 |
| 15 | .199 | | .060 | -.106 | | | -.171 | -.175 | 15 |
| 16 | .086 | | .098 | -.081 | | | -.117 | -.213 | 16 |
| 17 | -.127 | | -.134 | -.134 | | | -.125 | -.113 | 17 |
| 18 | -.095 | | -.132 | -.120 | | | -.104 | -.049 | 18 |
| 19 | -.082 | | -.130 | -.119 | | | -.116 | -.078 | 19 |
| 20 | -.116 | | -.142 | -.141 | | | -.144 | -.119 | 20 |
| 21 | -.188 | | -.206 | -.191 | | | -.189 | -.178 | 21 |
| 22 | -.173 | | -.212 | -.208 | | | | -.245 | 22 |
| 23 | -.181 | | | -.214 | | | -.205 | -.278 | 23 |
| 24 | -.185 | | -.204 | -.216 | | | -.209 | -.319 | 24 |
| 25 | -.185 | | -.211 | -.225 | | | -.205 | -.311 | 25 |
| 26 | -.224 | | -.230 | -.235 | | | -.210 | -.351 | 26 |

Table 5 concluded
Wing-surface Pressure Coefficients
Configuration D M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -12°$ $\delta = 0°$ | | | | | |
| 1 | .605 | | .858 | .941 | | | .952 | .737 | 1 |
| 2 | .506 | | .709 | .806 | | | .864 | .574 | 2 |
| 3 | .543 | | .634 | .716 | | | .765 | .457 | 3 |
| 4 | .509 | | .514 | .553 | | | .710 | .368 | 4 |
| 5 | .345 | | .345 | .466 | | | .801 | .363 | 5 |
| 6 | .348 | | .618 | .935 | | | .970 | .330 | 6 |
| 7 | .313 | | .834 | 1.070 | | | 1.060 | .276 | 7 |
| 8 | .627 | | .851 | 1.091 | | | 1.023 | .201 | 8 |
| 9 | .632 | | .779 | 1.042 | | | 1.117 | .372 | 9 |
| 10 | .560 | | .566 | 1.204 | | | -.291 | .079 | 10 |
| 11 | .455 | | -.361 | -.366 | | | -.311 | .036 | 11 |
| 12 | .435 | | -.319 | -.367 | | | -.379 | -.057 | 12 |
| 13 | .409 | | -.207 | -.359 | | | -.375 | -.071 | 13 |
| 14 | .336 | | .106 | -.251 | | | -.321 | -.140 | 14 |
| 15 | .218 | | .190 | -.143 | | | -.234 | -.186 | 15 |
| 16 | .105 | | .181 | -.080 | | | -.167 | -.217 | 16 |
| 17 | -.187 | | -.217 | -.241 | | | -.246 | -.263 | 17 |
| 18 | -.138 | | -.191 | -.193 | | | -.192 | -.151 | 18 |
| 19 | -.136 | | -.193 | -.186 | | | -.188 | -.167 | 19 |
| 20 | -.161 | | -.203 | -.208 | | | -.207 | -.208 | 20 |
| 21 | -.222 | | -.261 | -.249 | | | -.248 | -.272 | 21 |
| 22 | -.215 | | -.270 | -.263 | | | | -.351 | 22 |
| 23 | -.214 | | | -.273 | | | -.268 | -.366 | 23 |
| 24 | -.223 | | -.252 | -.274 | | | -.270 | -.390 | 24 |
| 25 | -.223 | | -.246 | -.280 | | | -.262 | -.382 | 25 |
| 26 | -.257 | | -.267 | -.292 | | | -.257 | -.406 | 26 |
| | | | | $\alpha = -15°$ $\delta = 0°$ | | | | | |
| 1 | .769 | | 1.031 | 1.116 | | | 1.156 | .889 | 1 |
| 2 | .673 | | .857 | .985 | | | 1.075 | .718 | 2 |
| 3 | .714 | | .775 | .911 | | | .990 | .607 | 3 |
| 4 | .623 | | .632 | .846 | | | .905 | .497 | 4 |
| 5 | .454 | | .725 | .889 | | | .912 | .446 | 5 |
| 6 | .749 | | .872 | 1.036 | | | 1.008 | .359 | 6 |
| 7 | .639 | | 1.013 | 1.206 | | | 1.129 | .288 | 7 |
| 8 | .778 | | 1.125 | 1.230 | | | 1.122 | .212 | 8 |
| 9 | .722 | | 1.135 | 1.222 | | | 1.157 | .390 | 9 |
| 10 | .632 | | .724 | 1.260 | | | -.262 | .079 | 10 |
| 11 | .541 | | -.380 | -.321 | | | -.276 | .037 | 11 |
| 12 | .485 | | -.385 | -.342 | | | -.351 | -.062 | 12 |
| 13 | .465 | | -.308 | -.348 | | | -.357 | -.081 | 13 |
| 14 | .377 | | .121 | -.293 | | | -.336 | -.143 | 14 |
| 15 | .267 | | .233 | -.176 | | | -.294 | -.190 | 15 |
| 16 | .140 | | .244 | -.100 | | | -.231 | -.217 | 16 |
| 17 | -.262 | | -.329 | -.374 | | | -.421 | -.426 | 17 |
| 18 | -.194 | | -.269 | -.294 | | | -.297 | -.313 | 18 |
| 19 | -.191 | | -.261 | -.270 | | | -.301 | -.324 | 19 |
| 20 | -.214 | | -.267 | -.274 | | | -.295 | -.350 | 20 |
| 21 | -.264 | | -.314 | -.302 | | | -.321 | -.398 | 21 |
| 22 | -.257 | | -.325 | -.323 | | | | -.442 | 22 |
| 23 | -.265 | | | -.325 | | | -.329 | -.451 | 23 |
| 24 | -.272 | | -.303 | -.321 | | | -.334 | -.470 | 24 |
| 25 | -.271 | | -.297 | -.332 | | | -.317 | -.442 | 25 |
| 26 | -.295 | | -.310 | -.339 | | | -.303 | -.469 | 26 |

Table 6

Wing-surface Pressure Coefficients

Configuration E $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0°$ $\delta = 0°$ | | | | | |
| 1 | .139 | | .170 | .165 | | | .160 | .120 | 1 |
| 2 | .102 | | .153 | .157 | | | .160 | .099 | 2 |
| 3 | .120 | | .152 | .171 | | | .158 | .096 | 3 |
| 4 | .108 | | .115 | .134 | | | .115 | .060 | 4 |
| 5 | .008 | | .009 | .048 | | | .052 | .015 | 5 |
| 6 | .001 | | .001 | .335 | | | .261 | -.006 | 6 |
| 7 | .003 | | .098 | .431 | | | .285 | -.016 | 7 |
| 8 | -.010 | | .262 | .419 | | | .182 | -.002 | 8 |
| 9 | -.006 | | .139 | .392 | | | .061 | -.014 | 9 |
| 10 | -.038 | | -.039 | .526 | | | -.066 | .017 | 10 |
| 11 | -.032 | | -.129 | -.411 | | | -.079 | .011 | 11 |
| 12 | -.085 | | -.170 | -.393 | | | -.159 | .010 | 12 |
| 13 | -.090 | | -.179 | -.355 | | | -.166 | .016 | 13 |
| 14 | -.076 | | -.178 | -.249 | | | -.191 | .018 | 14 |
| 15 | -.026 | | -.144 | -.199 | | | -.190 | .005 | 15 |
| 16 | -.006 | | -.132 | -.175 | | | -.170 | -.017 | 16 |
| 17 | .140 | | .150 | .142 | | | .156 | .112 | 17 |
| 18 | .112 | | .148 | .150 | | | .172 | .132 | 18 |
| 19 | .113 | | .145 | .151 | | | .160 | .090 | 19 |
| 20 | .095 | | .107 | .121 | | | .118 | .043 | 20 |
| 21 | -.004 | | .008 | .043 | | | .050 | .014 | 21 |
| 22 | .002 | | -.007 | .014 | | | | .001 | 22 |
| 23 | .002 | | | .011 | | | .010 | -.004 | 23 |
| 24 | -.007 | | -.024 | .004 | | | .000 | -.015 | 24 |
| 25 | -.012 | | -.032 | -.016 | | | -.010 | .001 | 25 |
| 26 | -.067 | | -.060 | -.044 | | | -.042 | -.039 | 26 |
| | | | | $\alpha = 3°$ $\delta = 0°$ | | | | | |
| 1 | .040 | | .051 | .055 | | | .043 | .005 | 1 |
| 2 | .027 | | .043 | .048 | | | .046 | .023 | 2 |
| 3 | .032 | | .039 | .053 | | | .044 | .037 | 3 |
| 4 | .016 | | .022 | .033 | | | .011 | .012 | 4 |
| 5 | -.076 | | -.064 | -.055 | | | -.043 | -.036 | 5 |
| 6 | -.069 | | -.081 | .174 | | | .078 | -.039 | 6 |
| 7 | -.023 | | -.029 | .301 | | | .172 | -.070 | 7 |
| 8 | -.077 | | .172 | .290 | | | .089 | -.076 | 8 |
| 9 | -.074 | | .058 | .279 | | | -.014 | -.081 | 9 |
| 10 | -.102 | | -.103 | .407 | | | -.126 | -.099 | 10 |
| 11 | -.100 | | -.177 | -.419 | | | -.120 | -.113 | 11 |
| 12 | -.150 | | -.236 | -.423 | | | -.221 | -.137 | 12 |
| 13 | -.159 | | -.236 | -.387 | | | -.218 | -.155 | 13 |
| 14 | -.152 | | -.237 | -.302 | | | -.231 | -.117 | 14 |
| 15 | -.112 | | -.212 | -.256 | | | -.229 | -.100 | 15 |
| 16 | -.079 | | -.201 | -.231 | | | -.212 | -.086 | 16 |
| 17 | .241 | | .311 | .308 | | | .306 | .240 | 17 |
| 18 | .213 | | .300 | .290 | | | .300 | .206 | 18 |
| 19 | .204 | | .278 | .303 | | | .305 | .148 | 19 |
| 20 | .188 | | .212 | .251 | | | .251 | .095 | 20 |
| 21 | .081 | | .102 | .145 | | | .171 | .031 | 21 |
| 22 | .085 | | .084 | .107 | | | | .011 | 22 |
| 23 | .079 | | | .097 | | | .113 | -.012 | 23 |
| 24 | .076 | | .067 | .084 | | | .094 | -.033 | 24 |
| 25 | .074 | | .058 | .074 | | | .073 | -.010 | 25 |
| 26 | .011 | | .021 | .037 | | | .039 | -.048 | 26 |
| | | | | $\alpha = 6°$ $\delta = 0°$ | | | | | |
| 1 | -.058 | | -.050 | -.037 | | | -.053 | -.065 | 1 |
| 2 | -.048 | | -.048 | -.047 | | | -.044 | -.018 | 2 |
| 3 | -.031 | | -.052 | -.043 | | | -.048 | -.011 | 3 |
| 4 | -.055 | | -.072 | -.068 | | | -.082 | -.038 | 4 |
| 5 | -.133 | | -.146 | -.130 | | | -.124 | -.084 | 5 |
| 6 | -.125 | | -.144 | -.019 | | | -.086 | -.141 | 6 |
| 7 | -.067 | | -.114 | .185 | | | .061 | -.192 | 7 |
| 8 | -.140 | | .075 | .180 | | | .012 | -.216 | 8 |
| 9 | -.131 | | -.027 | .167 | | | -.069 | -.203 | 9 |
| 10 | -.163 | | -.155 | .302 | | | -.164 | -.222 | 10 |
| 11 | -.152 | | -.222 | -.446 | | | -.150 | -.239 | 11 |
| 12 | -.185 | | -.268 | -.434 | | | -.242 | -.234 | 12 |
| 13 | -.191 | | -.270 | -.409 | | | -.244 | -.252 | 13 |
| 14 | -.197 | | -.270 | -.329 | | | -.254 | -.259 | 14 |
| 15 | -.175 | | -.243 | -.284 | | | -.266 | -.184 | 15 |
| 16 | -.112 | | -.231 | -.258 | | | -.240 | -.206 | 16 |
| 17 | .361 | | .508 | .493 | | | .531 | .386 | 17 |
| 18 | .308 | | .442 | .495 | | | .512 | .335 | 18 |
| 19 | .302 | | .390 | .455 | | | .494 | .245 | 19 |
| 20 | .280 | | .315 | .359 | | | .391 | .169 | 20 |
| 21 | .159 | | .185 | .235 | | | .275 | .081 | 21 |
| 22 | .172 | | .168 | .195 | | | | .032 | 22 |
| 23 | .165 | | | .191 | | | .185 | .007 | 23 |
| 24 | .158 | | .150 | .178 | | | .157 | -.020 | 24 |
| 25 | .160 | | .140 | .157 | | | .140 | .012 | 25 |
| 26 | .082 | | .101 | .118 | | | .098 | -.030 | 26 |

Table 6 continued

Wing-surface Pressure Coefficients

Configuration E M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 9°$ $\delta = 0°$ | | | | | |
| 1 | -.142 | | -.137 | -.140 | | | -.144 | -.171 | 1 |
| 2 | -.119 | | -.131 | -.134 | | | -.127 | -.081 | 2 |
| 3 | -.103 | | -.139 | -.133 | | | -.129 | -.105 | 3 |
| 4 | -.119 | | -.153 | -.152 | | | -.160 | -.145 | 4 |
| 5 | -.191 | | -.220 | -.208 | | | -.194 | -.202 | 5 |
| 6 | -.184 | | -.221 | -.171 | | | -.196 | -.289 | 6 |
| 7 | -.125 | | -.176 | .082 | | | -.052 | -.319 | 7 |
| 8 | -.193 | | -.012 | .071 | | | -.072 | -.332 | 8 |
| 9 | -.184 | | -.095 | .053 | | | -.119 | -.335 | 9 |
| 10 | -.218 | | -.212 | .186 | | | -.202 | -.334 | 10 |
| 11 | -.210 | | -.277 | -.458 | | | -.183 | -.330 | 11 |
| 12 | -.223 | | -.317 | -.466 | | | -.290 | -.311 | 12 |
| 13 | -.244 | | -.327 | -.444 | | | -.285 | -.333 | 13 |
| 14 | -.253 | | -.326 | -.380 | | | -.296 | -.326 | 14 |
| 15 | -.238 | | -.305 | -.332 | | | -.308 | -.314 | 15 |
| 16 | -.136 | | -.219 | -.286 | | | -.286 | -.282 | 16 |
| 17 | .485 | | .721 | .796 | | | .837 | .603 | 17 |
| 18 | .430 | | .594 | .676 | | | .750 | .462 | 18 |
| 19 | .432 | | .526 | .612 | | | .660 | .339 | 19 |
| 20 | .392 | | .438 | .476 | | | .515 | .242 | 20 |
| 21 | .254 | | .269 | .337 | | | .374 | .116 | 21 |
| 22 | .272 | | .259 | .301 | | | | .069 | 22 |
| 23 | .257 | | | .287 | | | .276 | .037 | 23 |
| 24 | .256 | | .252 | .275 | | | .249 | .011 | 24 |
| 25 | .252 | | .241 | .257 | | | .216 | .042 | 25 |
| 26 | .176 | | .194 | .214 | | | .185 | -.001 | 26 |
| | | | | $\alpha = 12°$ $\delta = 0°$ | | | | | |
| 1 | -.205 | | -.226 | -.257 | | | -.262 | -.295 | 1 |
| 2 | -.168 | | -.204 | -.213 | | | -.221 | -.190 | 2 |
| 3 | -.150 | | -.207 | -.207 | | | -.203 | -.182 | 3 |
| 4 | -.173 | | -.219 | -.220 | | | -.224 | -.242 | 4 |
| 5 | -.235 | | -.277 | -.265 | | | -.253 | -.300 | 5 |
| 6 | -.224 | | -.280 | -.234 | | | -.270 | -.371 | 6 |
| 7 | -.168 | | -.246 | -.005 | | | -.116 | -.402 | 7 |
| 8 | -.231 | | -.095 | -.010 | | | -.155 | -.390 | 8 |
| 9 | -.230 | | -.162 | -.027 | | | -.196 | -.397 | 9 |
| 10 | -.253 | | -.252 | .071 | | | -.259 | -.396 | 10 |
| 11 | -.257 | | -.314 | -.476 | | | -.214 | -.377 | 11 |
| 12 | -.258 | | -.340 | -.481 | | | -.311 | -.356 | 12 |
| 13 | -.275 | | -.349 | -.453 | | | -.306 | -.366 | 13 |
| 14 | -.284 | | -.344 | -.403 | | | -.316 | -.377 | 14 |
| 15 | -.271 | | -.327 | -.365 | | | -.326 | -.375 | 15 |
| 16 | -.127 | | -.199 | -.266 | | | -.264 | -.342 | 16 |
| 17 | .629 | | .890 | .965 | | | .994 | .715 | 17 |
| 18 | .549 | | .738 | .830 | | | .884 | .550 | 18 |
| 19 | .573 | | .654 | .735 | | | .766 | .420 | 19 |
| 20 | .509 | | .519 | .556 | | | .603 | .309 | 20 |
| 21 | .354 | | .354 | .417 | | | .460 | .171 | 21 |
| 22 | .364 | | .354 | .398 | | | | .111 | 22 |
| 23 | .346 | | | .385 | | | .355 | .089 | 23 |
| 24 | .344 | | .349 | .373 | | | .329 | .053 | 24 |
| 25 | .336 | | .338 | .356 | | | .305 | .085 | 25 |
| 26 | .258 | | .279 | .304 | | | .267 | .033 | 26 |
| | | | | $\alpha = 15°$ $\delta = 0°$ | | | | | |
| 1 | -.258 | | -.326 | -.355 | | | -.361 | -.388 | 1 |
| 2 | -.216 | | -.268 | -.283 | | | -.306 | -.280 | 2 |
| 3 | -.190 | | -.262 | -.258 | | | -.274 | -.269 | 3 |
| 4 | -.210 | | -.270 | -.272 | | | -.276 | -.312 | 4 |
| 5 | -.270 | | -.319 | -.310 | | | -.302 | -.360 | 5 |
| 6 | -.256 | | -.320 | -.294 | | | -.316 | -.428 | 6 |
| 7 | -.206 | | -.313 | -.087 | | | -.178 | -.444 | 7 |
| 8 | -.273 | | -.155 | -.089 | | | -.210 | -.425 | 8 |
| 9 | -.258 | | -.208 | -.096 | | | -.248 | -.443 | 9 |
| 10 | -.284 | | -.282 | .009 | | | -.290 | -.424 | 10 |
| 11 | -.284 | | -.321 | -.420 | | | -.238 | -.407 | 11 |
| 12 | -.296 | | -.358 | -.419 | | | -.335 | -.420 | 12 |
| 13 | -.308 | | -.351 | -.420 | | | -.334 | -.425 | 13 |
| 14 | -.312 | | -.339 | -.386 | | | -.339 | -.436 | 14 |
| 15 | -.309 | | -.312 | -.350 | | | -.321 | -.427 | 15 |
| 16 | -.126 | | -.190 | -.317 | | | -.234 | -.407 | 16 |
| 17 | .792 | | 1.044 | 1.085 | | | 1.091 | .792 | 17 |
| 18 | .702 | | .866 | .939 | | | .976 | .626 | 18 |
| 19 | .720 | | .766 | .822 | | | .848 | .483 | 19 |
| 20 | .595 | | .606 | .646 | | | .683 | .372 | 20 |
| 21 | .447 | | .439 | .503 | | | .538 | .229 | 21 |
| 22 | .489 | | .489 | .522 | | | | .189 | 22 |
| 23 | .484 | | | .540 | | | .468 | .166 | 23 |
| 24 | .505 | | .520 | .528 | | | .449 | .125 | 24 |
| 25 | .488 | | .483 | .496 | | | .426 | .170 | 25 |
| 26 | .390 | | .411 | .417 | | | .374 | .112 | 26 |

Table 6 continued

Wing-surface Pressure Coefficients

Configuration E $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| $\alpha = -3°$ $\delta = 0°$ | | | | | | | | | |
| 1 | .233 | | .310 | .313 | | | .312 | .249 | 1 |
| 2 | .197 | | .284 | .296 | | | .291 | .192 | 2 |
| 3 | .210 | | .269 | .304 | | | .303 | .158 | 3 |
| 4 | .198 | | .210 | .262 | | | .249 | .104 | 4 |
| 5 | .085 | | .085 | .147 | | | .175 | .046 | 5 |
| 6 | .064 | | .073 | .474 | | | .428 | .006 | 6 |
| 7 | -.067 | | .263 | .547 | | | .402 | -.021 | 7 |
| 8 | .070 | | .364 | .540 | | | .298 | -.007 | 8 |
| 9 | .067 | | .232 | .505 | | | .155 | .052 | 9 |
| 10 | .029 | | .038 | .607 | | | .018 | .078 | 10 |
| 11 | .041 | | -.062 | -.393 | | | -.030 | .051 | 11 |
| 12 | -.021 | | -.105 | -.371 | | | -.080 | .022 | 12 |
| 13 | -.020 | | -.122 | -.330 | | | -.105 | .010 | 13 |
| 14 | .030 | | -.121 | -.212 | | | -.147 | -.025 | 14 |
| 15 | .088 | | -.092 | -.157 | | | -.155 | -.043 | 15 |
| 16 | .075 | | -.076 | -.133 | | | -.141 | -.062 | 16 |
| 17 | .040 | | .039 | .027 | | | .050 | .028 | 17 |
| 18 | .044 | | .040 | .039 | | | .171 | .058 | 18 |
| 19 | .038 | | .041 | .039 | | | .046 | .044 | 19 |
| 20 | .013 | | .015 | .015 | | | .011 | .012 | 20 |
| 21 | -.069 | | -.067 | -.046 | | | -.049 | -.021 | 21 |
| 22 | -.062 | | -.079 | -.071 | | | | -.031 | 22 |
| 23 | -.064 | | | -.072 | | | -.065 | -.044 | 23 |
| 24 | -.070 | | -.087 | -.078 | | | -.077 | -.063 | 24 |
| 25 | -.072 | | -.100 | -.087 | | | -.087 | -.060 | 25 |
| 26 | -.125 | | -.128 | -.114 | | | -.107 | -.091 | 26 |
| $\alpha = -6°$ $\delta = 0°$ | | | | | | | | | |
| 1 | .368 | | .508 | .520 | | | .533 | .448 | 1 |
| 2 | .308 | | .447 | .506 | | | .528 | .346 | 2 |
| 3 | .312 | | .402 | .466 | | | .501 | .281 | 3 |
| 4 | .303 | | .329 | .380 | | | .391 | .170 | 4 |
| 5 | .167 | | .191 | .245 | | | .285 | .095 | 5 |
| 6 | .170 | | .168 | .623 | | | .548 | .025 | 6 |
| 7 | .054 | | .444 | .686 | | | .527 | .038 | 7 |
| 8 | .165 | | .481 | .678 | | | .412 | .088 | 8 |
| 9 | .155 | | .330 | .645 | | | .261 | .129 | 9 |
| 10 | .116 | | .122 | .760 | | | .086 | .102 | 10 |
| 11 | .130 | | .017 | -.374 | | | .014 | .058 | 11 |
| 12 | .078 | | -.037 | -.350 | | | -.048 | -.001 | 12 |
| 13 | .091 | | -.059 | -.311 | | | -.084 | -.009 | 13 |
| 14 | .184 | | -.058 | -.181 | | | -.138 | -.036 | 14 |
| 15 | .206 | | -.030 | -.125 | | | -.137 | -.051 | 15 |
| 16 | .163 | | -.010 | -.083 | | | -.104 | -.074 | 16 |
| 17 | -.050 | | -.053 | -.070 | | | -.053 | -.037 | 17 |
| 18 | -.029 | | -.052 | -.056 | | | -.021 | .005 | 18 |
| 19 | -.024 | | -.053 | -.056 | | | -.046 | -.004 | 19 |
| 20 | -.058 | | -.071 | -.076 | | | -.079 | -.038 | 20 |
| 21 | -.128 | | -.143 | -.133 | | | -.130 | -.079 | 21 |
| 22 | -.123 | | -.151 | -.155 | | | | -.121 | 22 |
| 23 | -.128 | | | -.160 | | | -.152 | -.158 | 23 |
| 24 | -.130 | | -.146 | -.161 | | | -.156 | -.190 | 24 |
| 25 | -.134 | | -.156 | -.170 | | | -.158 | -.169 | 25 |
| 26 | -.176 | | -.179 | -.187 | | | -.169 | -.218 | 26 |
| $\alpha = -9°$ $\delta = 0°$ | | | | | | | | | |
| 1 | .462 | | .679 | .749 | | | .777 | .614 | 1 |
| 2 | .395 | | .566 | .648 | | | .707 | .436 | 2 |
| 3 | .416 | | .504 | .588 | | | .629 | .338 | 3 |
| 4 | .395 | | .424 | .464 | | | .482 | .201 | 4 |
| 5 | .251 | | .261 | .321 | | | .365 | .113 | 5 |
| 6 | .253 | | .241 | .737 | | | .659 | .044 | 6 |
| 7 | .191 | | .568 | .809 | | | .641 | .154 | 7 |
| 8 | .240 | | .572 | .812 | | | .523 | .123 | 8 |
| 9 | .227 | | .428 | .777 | | | .364 | .148 | 9 |
| 10 | .191 | | .198 | .914 | | | .143 | .111 | 10 |
| 11 | .221 | | .084 | -.360 | | | .046 | .070 | 11 |
| 12 | .189 | | -.007 | -.349 | | | -.064 | .007 | 12 |
| 13 | .221 | | -.030 | -.317 | | | -.096 | -.002 | 13 |
| 14 | .303 | | -.046 | -.187 | | | -.150 | -.025 | 14 |
| 15 | .279 | | .005 | -.112 | | | -.148 | -.059 | 15 |
| 16 | .208 | | .017 | -.073 | | | -.116 | -.095 | 16 |
| 17 | -.117 | | -.118 | -.125 | | | -.119 | -.115 | 17 |
| 18 | -.082 | | -.113 | -.115 | | | -.104 | -.046 | 18 |
| 19 | -.077 | | -.117 | -.115 | | | -.110 | -.070 | 19 |
| 20 | -.106 | | -.133 | -.136 | | | -.138 | -.116 | 20 |
| 21 | -.170 | | -.200 | -.182 | | | -.186 | -.171 | 21 |
| 22 | -.161 | | -.199 | -.201 | | | | -.244 | 22 |
| 23 | -.165 | | | -.206 | | | -.196 | -.272 | 23 |
| 24 | -.172 | | -.193 | -.211 | | | -.207 | -.281 | 24 |
| 25 | -.172 | | -.198 | -.215 | | | -.192 | -.268 | 25 |
| 26 | -.213 | | -.218 | -.231 | | | -.204 | -.313 | 26 |

Table 6 concluded

Wing-surface Pressure Coefficients

Configuration E  M= 1.61  R=3.6 x $10^6$

$\alpha = -12°$  $\delta = 0°$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .603 | | .855 | .938 | | | .944 | .735 | 1 |
| 2 | .509 | | .711 | .806 | | | .857 | .557 | 2 |
| 3 | .540 | | .646 | .716 | | | .740 | .438 | 3 |
| 4 | .508 | | .516 | .554 | | | .583 | .312 | 4 |
| 5 | .339 | | .340 | .399 | | | .668 | .252 | 5 |
| 6 | .340 | | .335 | .873 | | | .757 | .240 | 6 |
| 7 | .290 | | .721 | 1.010 | | | .755 | .221 | 7 |
| 8 | .326 | | .720 | 1.029 | | | .650 | .170 | 8 |
| 9 | .341 | | .557 | .963 | | | .464 | .185 | 9 |
| 10 | .425 | | .299 | 1.084 | | | .187 | .143 | 10 |
| 11 | .412 | | .158 | - .353 | | | .047 | .099 | 11 |
| 12 | .434 | | .049 | - .353 | | | - .073 | .020 | 12 |
| 13 | .436 | | .009 | - .339 | | | - .126 | .011 | 13 |
| 14 | .422 | | - .016 | - .234 | | | - .175 | - .009 | 14 |
| 15 | .339 | | .049 | - .136 | | | - .164 | - .047 | 15 |
| 16 | .232 | | .137 | - .074 | | | - .115 | - .094 | 16 |
| 17 | - .191 | | - .218 | - .244 | | | - .245 | - .249 | 17 |
| 18 | - .146 | | - .195 | - .194 | | | - .194 | - .145 | 18 |
| 19 | - .143 | | - .196 | - .190 | | | - .190 | - .165 | 19 |
| 20 | - .172 | | - .209 | - .208 | | | - .210 | - .196 | 20 |
| 21 | - .216 | | - .266 | - .247 | | | - .246 | - .265 | 21 |
| 22 | - .209 | | - .275 | - .267 | | | | - .333 | 22 |
| 23 | - .224 | | | - .269 | | | - .264 | - .353 | 23 |
| 24 | - .225 | | - .253 | - .273 | | | - .273 | - .387 | 24 |
| 25 | - .228 | | - .251 | - .279 | | | - .263 | - .366 | 25 |
| 26 | - .255 | | - .269 | - .292 | | | - .263 | - .395 | 26 |

$\alpha = -15°$  $\delta = 0°$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .758 | | 1.024 | 1.079 | | | 1.110 | .878 | 1 |
| 2 | .664 | | .857 | .942 | | | 1.028 | .695 | 2 |
| 3 | .702 | | .762 | .847 | | | .930 | .562 | 3 |
| 4 | .619 | | .611 | .750 | | | .834 | .444 | 4 |
| 5 | .429 | | .443 | .810 | | | .813 | .370 | 5 |
| 6 | .504 | | .780 | .995 | | | .847 | .296 | 6 |
| 7 | .546 | | .878 | 1.174 | | | .821 | .255 | 7 |
| 8 | .716 | | .921 | 1.201 | | | .724 | .200 | 8 |
| 9 | .658 | | .824 | 1.172 | | | .516 | .208 | 9 |
| 10 | .586 | | .505 | 1.195 | | | .199 | .149 | 10 |
| 11 | .515 | | .271 | - .303 | | | .049 | .100 | 11 |
| 12 | .473 | | .095 | - .317 | | | - .088 | .023 | 12 |
| 13 | .472 | | .023 | - .321 | | | - .129 | .021 | 13 |
| 14 | .449 | | .012 | - .282 | | | - .158 | - .005 | 14 |
| 15 | .375 | | .118 | - .176 | | | - .139 | - .046 | 15 |
| 16 | .281 | | .182 | - .094 | | | - .081 | - .080 | 16 |
| 17 | - .249 | | - .310 | - .350 | | | - .387 | - .387 | 17 |
| 18 | - .189 | | - .261 | - .293 | | | - .278 | - .275 | 18 |
| 19 | - .190 | | - .256 | - .261 | | | - .281 | - .291 | 19 |
| 20 | - .212 | | - .262 | - .274 | | | - .280 | - .318 | 20 |
| 21 | - .261 | | - .317 | - .303 | | | - .308 | - .369 | 21 |
| 22 | - .251 | | - .320 | - .311 | | | | - .419 | 22 |
| 23 | - .258 | | | - .323 | | | - .322 | - .435 | 23 |
| 24 | - .264 | | - .301 | - .319 | | | - .322 | - .448 | 24 |
| 25 | - .264 | | - .290 | - .325 | | | - .312 | - .427 | 25 |
| 26 | - .292 | | - .303 | - .332 | | | - .304 | - .445 | 26 |

Table 7

Wing-surface Pressure Coefficients

Configuration F M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= 0° $\delta$= 0° | | | | | |
| 1 | .136 | | .155 | .159 | | | .156 | .165 | 1 |
| 2 | .109 | | .152 | .160 | | | .152 | .122 | 2 |
| 3 | .119 | | .152 | .156 | | | .152 | .123 | 3 |
| 4 | .110 | | .114 | .125 | | | .111 | .091 | 4 |
| 5 | .006 | | .015 | .041 | | | .049 | .047 | 5 |
| 6 | .014 | | .331 | .341 | | | .409 | .332 | 6 |
| 7 | .388 | | .396 | .396 | | | .440 | .260 | 7 |
| 8 | .403 | | .410 | .443 | | | .420 | .191 | 8 |
| 9 | .384 | | .367 | .423 | | | .555 | .411 | 9 |
| 10 | .599 | | 1.939 | .241 | | | -.396 | -.325 | 10 |
| 11 | -.419 | | -.400 | -.408 | | | -.312 | -.273 | 11 |
| 12 | -.373 | | -.357 | -.356 | | | -.289 | -.194 | 12 |
| 13 | -.353 | | -.321 | -.307 | | | -.256 | -.140 | 13 |
| 14 | -.215 | | -.212 | -.175 | | | -.164 | -.058 | 14 |
| 15 | -.134 | | -.153 | -.122 | | | -.134 | -.025 | 15 |
| 16 | -.107 | | -.100 | -.111 | | | -.128 | -.020 | 16 |
| 17 | .141 | | .149 | .143 | | | .137 | .139 | 17 |
| 18 | .113 | | .149 | .144 | | | .150 | .140 | 18 |
| 19 | .114 | | .152 | .152 | | | .147 | .117 | 19 |
| 20 | .099 | | .110 | .116 | | | .107 | .068 | 20 |
| 21 | .001 | | .004 | .038 | | | .036 | .046 | 21 |
| 22 | .007 | | -.001 | .014 | | | | .094 | 22 |
| 23 | -.001 | | | .006 | | | .005 | .164 | 23 |
| 24 | -.003 | | -.020 | .002 | | | -.009 | .058 | 24 |
| 25 | -.004 | | -.027 | -.019 | | | -.019 | .007 | 25 |
| 26 | -.062 | | -.058 | -.050 | | | -.053 | -.046 | 26 |
| | | | | $\alpha$= 3° $\delta$= 0° | | | | | |
| 1 | .042 | | .049 | .050 | | | .046 | .070 | 1 |
| 2 | .033 | | .045 | .052 | | | .047 | .065 | 2 |
| 3 | .038 | | .040 | .047 | | | .045 | .066 | 3 |
| 4 | .020 | | .025 | .028 | | | .008 | .050 | 4 |
| 5 | -.065 | | -.061 | -.048 | | | -.044 | .009 | 5 |
| 6 | -.069 | | .201 | .229 | | | .260 | .279 | 6 |
| 7 | .314 | | .288 | .298 | | | .326 | .260 | 7 |
| 8 | .296 | | .299 | .287 | | | .269 | .150 | 8 |
| 9 | .286 | | .269 | .300 | | | .695 | .491 | 9 |
| 10 | .544 | | .983 | .219 | | | -.406 | -.353 | 10 |
| 11 | -.441 | | -.420 | -.421 | | | -.331 | -.287 | 11 |
| 12 | -.390 | | -.379 | -.371 | | | -.340 | -.170 | 12 |
| 13 | -.378 | | -.358 | -.339 | | | -.314 | -.132 | 13 |
| 14 | -.272 | | -.241 | -.236 | | | -.220 | -.100 | 14 |
| 15 | -.187 | | -.188 | -.186 | | | -.176 | -.114 | 15 |
| 16 | -.142 | | -.130 | -.158 | | | -.156 | -.128 | 16 |
| 17 | .232 | | .287 | .275 | | | .274 | .262 | 17 |
| 18 | .201 | | .293 | .284 | | | .288 | .215 | 18 |
| 19 | .195 | | .265 | .284 | | | .281 | .180 | 19 |
| 20 | .182 | | .207 | .242 | | | .236 | .129 | 20 |
| 21 | .071 | | .089 | .144 | | | .151 | .062 | 21 |
| 22 | .075 | | .077 | .102 | | | | .043 | 22 |
| 23 | .075 | | | .089 | | | .110 | .207 | 23 |
| 24 | .070 | | .058 | .075 | | | .090 | .144 | 24 |
| 25 | .067 | | .047 | .061 | | | .071 | .108 | 25 |
| 26 | .002 | | .018 | .027 | | | .035 | .015 | 26 |
| | | | | $\alpha$= 6° $\delta$= 0° | | | | | |
| 1 | -.047 | | -.044 | -.042 | | | -.048 | -.015 | 1 |
| 2 | -.040 | | -.043 | -.043 | | | -.045 | .011 | 2 |
| 3 | -.027 | | -.048 | -.043 | | | -.046 | .012 | 3 |
| 4 | -.051 | | -.062 | -.065 | | | -.075 | .012 | 4 |
| 5 | -.128 | | -.137 | -.121 | | | -.124 | -.047 | 5 |
| 6 | -.122 | | .105 | .051 | | | .167 | .134 | 6 |
| 7 | .240 | | .188 | .155 | | | .245 | .118 | 7 |
| 8 | .213 | | .199 | .211 | | | .193 | .052 | 8 |
| 9 | .219 | | .164 | .159 | | | .502 | .954 | 9 |
| 10 | .528 | | .474 | .180 | | | -.420 | -.391 | 10 |
| 11 | -.457 | | -.435 | -.438 | | | -.335 | -.377 | 11 |
| 12 | -.409 | | -.400 | -.403 | | | -.346 | -.310 | 12 |
| 13 | -.399 | | -.368 | -.382 | | | -.318 | -.273 | 13 |
| 14 | -.304 | | -.287 | -.300 | | | -.254 | -.137 | 14 |
| 15 | -.219 | | -.231 | -.243 | | | -.215 | -.171 | 15 |
| 16 | -.159 | | -.135 | -.208 | | | -.160 | -.215 | 16 |
| 17 | .344 | | .481 | .499 | | | .504 | .419 | 17 |
| 18 | .312 | | .437 | .477 | | | .500 | .357 | 18 |
| 19 | .300 | | .382 | .446 | | | .477 | .286 | 19 |
| 20 | .277 | | .307 | .351 | | | .383 | .203 | 20 |
| 21 | .159 | | .178 | .227 | | | .269 | .110 | 21 |
| 22 | .168 | | .159 | .193 | | | | .064 | 22 |
| 23 | .159 | | | .177 | | | .183 | .145 | 23 |
| 24 | .152 | | .147 | .169 | | | .152 | .105 | 24 |
| 25 | .148 | | .134 | .144 | | | .134 | .105 | 25 |
| 26 | .081 | | .093 | .105 | | | .094 | .055 | 26 |

7V



Table 7 continued

Wing-surface Pressure Coefficients

Configuration F M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= 9° $\delta$= 0° | | | | | |
| 1 | -.132 | | -.126 | -.135 | | | -.133 | -.096 | 1 |
| 2 | -.111 | | -.127 | -.125 | | | -.124 | -.028 | 2 |
| 3 | -.098 | | -.132 | -.121 | | | -.125 | -.062 | 3 |
| 4 | -.118 | | -.146 | -.151 | | | -.154 | -.097 | 4 |
| 5 | -.186 | | -.208 | -.193 | | | -.193 | -.151 | 5 |
| 6 | -.184 | | .014 | .017 | | | .093 | -.143 | 6 |
| 7 | .148 | | .087 | .088 | | | .130 | -.010 | 7 |
| 8 | .122 | | .098 | .094 | | | .110 | -.103 | 8 |
| 9 | .138 | | .075 | .078 | | | .204 | .596 | 9 |
| 10 | .452 | | .147 | .124 | | | -.452 | -.415 | 10 |
| 11 | -.481 | | -.451 | -.448 | | | -.359 | -.391 | 11 |
| 12 | -.431 | | -.420 | -.415 | | | -.367 | -.353 | 12 |
| 13 | -.422 | | -.384 | -.389 | | | -.343 | -.334 | 13 |
| 14 | -.340 | | -.303 | -.327 | | | -.267 | -.271 | 14 |
| 15 | -.252 | | -.254 | -.275 | | | -.235 | -.271 | 15 |
| 16 | -.169 | | -.133 | -.156 | | | -.192 | -.286 | 16 |
| 17 | .465 | | .691 | .754 | | | .794 | .608 | 17 |
| 18 | .410 | | .558 | .647 | | | .708 | .464 | 18 |
| 19 | .413 | | .498 | .584 | | | .630 | .372 | 19 |
| 20 | .376 | | .428 | .457 | | | .485 | .259 | 20 |
| 21 | .241 | | .251 | .318 | | | .356 | .150 | 21 |
| 22 | .251 | | .247 | .276 | | | | .098 | 22 |
| 23 | .242 | | | .266 | | | .255 | .100 | 23 |
| 24 | .238 | | .234 | .254 | | | .227 | .079 | 24 |
| 25 | .234 | | .224 | .232 | | | .203 | .112 | 25 |
| 26 | .159 | | .178 | .191 | | | .161 | .052 | 26 |
| | | | | $\alpha$= 12° $\delta$= 0° | | | | | |
| 1 | -.205 | | -.221 | -.242 | | | -.259 | -.241 | 1 |
| 2 | -.169 | | -.200 | -.203 | | | -.221 | -.128 | 2 |
| 3 | -.152 | | -.201 | -.196 | | | -.203 | -.138 | 3 |
| 4 | -.166 | | -.211 | -.206 | | | -.221 | -.204 | 4 |
| 5 | -.230 | | -.264 | -.256 | | | -.259 | -.251 | 5 |
| 6 | -.223 | | -.059 | -.062 | | | -.009 | -.180 | 6 |
| 7 | .067 | | .001 | -.009 | | | .015 | -.132 | 7 |
| 8 | .056 | | .006 | -.002 | | | .011 | -.235 | 8 |
| 9 | .061 | | -.019 | -.008 | | | .061 | .185 | 9 |
| 10 | .361 | | .017 | .068 | | | -.442 | -.433 | 10 |
| 11 | -.464 | | -.426 | -.420 | | | -.355 | -.416 | 11 |
| 12 | -.415 | | -.394 | -.383 | | | -.378 | -.407 | 12 |
| 13 | -.398 | | -.372 | -.373 | | | -.355 | -.379 | 13 |
| 14 | -.342 | | -.309 | -.319 | | | -.316 | -.324 | 14 |
| 15 | -.261 | | -.243 | -.259 | | | -.257 | -.323 | 15 |
| 16 | -.122 | | -.187 | -.209 | | | -.209 | -.319 | 16 |
| 17 | .603 | | .873 | .945 | | | .967 | .740 | 17 |
| 18 | .533 | | .714 | .807 | | | .856 | .575 | 18 |
| 19 | .552 | | .644 | .715 | | | .739 | .453 | 19 |
| 20 | .498 | | .513 | .545 | | | .582 | .329 | 20 |
| 21 | .343 | | .348 | .403 | | | .434 | .209 | 21 |
| 22 | .356 | | .348 | .375 | | | | .143 | 22 |
| 23 | .335 | | | .367 | | | .333 | .130 | 23 |
| 24 | .337 | | .341 | .353 | | | .307 | .089 | 24 |
| 25 | .329 | | .327 | .335 | | | .283 | .126 | 25 |
| 26 | .248 | | .271 | .283 | | | .248 | .082 | 26 |
| | | | | $\alpha$= 15° $\delta$= 0° | | | | | |
| 1 | -.267 | | -.338 | -.373 | | | -.392 | -.366 | 1 |
| 2 | -.224 | | -.279 | -.303 | | | -.329 | -.254 | 2 |
| 3 | -.195 | | -.277 | -.275 | | | -.290 | -.243 | 3 |
| 4 | -.212 | | -.280 | -.283 | | | -.295 | -.307 | 4 |
| 5 | -.275 | | -.327 | -.317 | | | -.319 | -.350 | 5 |
| 6 | -.267 | | -.124 | -.115 | | | -.107 | -.335 | 6 |
| 7 | -.001 | | -.097 | -.091 | | | -.088 | -.247 | 7 |
| 8 | -.010 | | -.092 | -.089 | | | -.098 | -.315 | 8 |
| 9 | -.006 | | -.124 | -.090 | | | -.039 | -.032 | 9 |
| 10 | .301 | | -.011 | .018 | | | -.395 | -.444 | 10 |
| 11 | -.402 | | -.368 | -.358 | | | -.344 | -.444 | 11 |
| 12 | -.373 | | -.339 | -.330 | | | -.366 | -.448 | 12 |
| 13 | -.341 | | -.339 | -.337 | | | -.357 | -.423 | 13 |
| 14 | -.309 | | -.304 | -.307 | | | -.331 | -.395 | 14 |
| 15 | -.255 | | -.273 | -.287 | | | -.302 | -.380 | 15 |
| 16 | -.191 | | -.234 | -.262 | | | -.267 | -.357 | 16 |
| 17 | .803 | | 1.057 | 1.087 | | | 1.084 | .833 | 17 |
| 18 | .724 | | .876 | .938 | | | .974 | .671 | 18 |
| 19 | .725 | | .775 | .828 | | | .847 | .527 | 19 |
| 20 | .604 | | .614 | .649 | | | .675 | .409 | 20 |
| 21 | .457 | | .452 | .505 | | | .549 | .281 | 21 |
| 22 | .516 | | .518 | .545 | | | | .230 | 22 |
| 23 | .502 | | | .554 | | | .470 | .208 | 23 |
| 24 | .524 | | .543 | .527 | | | .446 | .162 | 24 |
| 25 | .507 | | .497 | .498 | | | .428 | .207 | 25 |
| 26 | .397 | | .420 | .419 | | | .374 | .161 | 26 |

Table 7 continued

Wing-surface Pressure Coefficients

Configuration F M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -3°$ $\delta = 0°$ | | | | | |
| 1 | .186 | | .283 | .290 | | | .287 | .304 | 1 |
| 2 | .203 | | .272 | .281 | | | .277 | .198 | 2 |
| 3 | .185 | | .258 | .285 | | | .279 | .183 | 3 |
| 4 | .068 | | .202 | .251 | | | .230 | .138 | 4 |
| 5 | .233 | | .079 | .139 | | | .153 | .076 | 5 |
| 6 | .475 | | .444 | .502 | | | .554 | .353 | 6 |
| 7 | .507 | | .496 | .556 | | | .584 | .304 | 7 |
| 8 | .491 | | .514 | .559 | | | .565 | .241 | 8 |
| 9 | .729 | | .459 | .549 | | | .680 | .467 | 9 |
| 10 | -.392 | | .016 | .150 | | | -.392 | -.305 | 10 |
| 11 | .042 | | -.383 | -.381 | | | -.304 | -.266 | 11 |
| 12 | -.339 | | -.339 | -.320 | | | -.282 | -.203 | 12 |
| 13 | -.323 | | -.292 | -.265 | | | -.225 | -.167 | 13 |
| 14 | -.190 | | -.171 | -.132 | | | -.119 | -.098 | 14 |
| 15 | -.094 | | -.094 | -.076 | | | -.090 | -.064 | 15 |
| 16 | -.059 | | -.058 | -.048 | | | -.090 | -.064 | 16 |
| 17 | .042 | | .045 | .043 | | | .040 | .075 | 17 |
| 18 | .041 | | .042 | .042 | | | .046 | .084 | 18 |
| 19 | .015 | | .040 | .045 | | | .045 | .084 | 19 |
| 20 | -.065 | | .013 | .021 | | | .007 | .043 | 20 |
| 21 | -.059 | | -.064 | -.048 | | | -.053 | .010 | 21 |
| 22 | -.067 | | -.077 | -.070 | | | | .138 | 22 |
| 23 | -.068 | | | -.074 | | | -.079 | .062 | 23 |
| 24 | -.071 | | -.085 | -.078 | | | -.089 | -.068 | 24 |
| 25 | -.071 | | -.093 | -.087 | | | -.089 | -.081 | 25 |
| 26 | -.121 | | -.123 | -.117 | | | -.115 | -.116 | 26 |
| | | | | $\alpha = -6°$ $\delta = 0°$ | | | | | |
| 1 | .346 | | .481 | .498 | | | .491 | .374 | 1 |
| 2 | .290 | | .429 | .486 | | | .506 | .345 | 2 |
| 3 | .298 | | .381 | .448 | | | .488 | .304 | 3 |
| 4 | .287 | | .312 | .365 | | | .380 | .203 | 4 |
| 5 | .159 | | .180 | .231 | | | .369 | .134 | 5 |
| 6 | .527 | | .580 | .651 | | | .732 | .414 | 6 |
| 7 | .608 | | .635 | .692 | | | .766 | .435 | 7 |
| 8 | .631 | | .659 | .730 | | | .759 | .353 | 8 |
| 9 | .614 | | .607 | .742 | | | .835 | .551 | 9 |
| 10 | .846 | | .045 | .280 | | | -.384 | -.343 | 10 |
| 11 | -.373 | | -.360 | -.371 | | | -.313 | -.292 | 11 |
| 12 | -.314 | | -.319 | -.300 | | | -.293 | -.215 | 12 |
| 13 | -.292 | | -.286 | -.240 | | | -.245 | -.183 | 13 |
| 14 | -.146 | | -.138 | -.078 | | | -.111 | -.129 | 14 |
| 15 | -.041 | | -.053 | -.025 | | | -.068 | -.113 | 15 |
| 16 | -.007 | | -.011 | -.012 | | | -.058 | -.098 | 16 |
| 17 | -.052 | | -.051 | -.052 | | | -.049 | -.006 | 17 |
| 18 | -.031 | | -.051 | -.057 | | | -.047 | .044 | 18 |
| 19 | -.031 | | -.051 | -.053 | | | -.051 | .028 | 19 |
| 20 | -.061 | | -.067 | -.080 | | | -.080 | -.012 | 20 |
| 21 | -.131 | | -.136 | -.127 | | | -.134 | -.055 | 21 |
| 22 | -.126 | | -.140 | -.152 | | | | .031 | 22 |
| 23 | -.128 | | | -.157 | | | -.154 | -.094 | 23 |
| 24 | -.130 | | -.143 | -.159 | | | -.160 | -.217 | 24 |
| 25 | -.134 | | -.153 | -.169 | | | -.159 | -.217 | 25 |
| 26 | -.176 | | -.176 | -.182 | | | -.168 | -.268 | 26 |
| | | | | $\alpha = -9°$ $\delta = 0°$ | | | | | |
| 1 | .458 | | .678 | .741 | | | .767 | .611 | 1 |
| 2 | .389 | | .553 | .639 | | | .701 | .486 | 2 |
| 3 | .408 | | .496 | .578 | | | .622 | .383 | 3 |
| 4 | .382 | | .419 | .458 | | | .478 | .250 | 4 |
| 5 | .238 | | .265 | .443 | | | .729 | .409 | 5 |
| 6 | .685 | | .724 | .845 | | | .930 | .561 | 6 |
| 7 | .744 | | .803 | .906 | | | .986 | .673 | 7 |
| 8 | .775 | | .832 | .944 | | | .984 | .566 | 8 |
| 9 | .752 | | .778 | .926 | | | 1.015 | .776 | 9 |
| 10 | .934 | | .072 | .434 | | | -.404 | -.387 | 10 |
| 11 | -.359 | | -.360 | -.387 | | | -.335 | -.387 | 11 |
| 12 | -.297 | | -.316 | -.311 | | | -.331 | -.355 | 12 |
| 13 | -.276 | | -.281 | -.270 | | | -.287 | -.309 | 13 |
| 14 | -.123 | | -.114 | -.100 | | | -.143 | -.209 | 14 |
| 15 | -.010 | | -.016 | -.022 | | | -.074 | -.165 | 15 |
| 16 | .020 | | .021 | .010 | | | -.044 | -.143 | 16 |
| 17 | -.125 | | -.124 | -.126 | | | -.131 | -.074 | 17 |
| 18 | -.090 | | -.123 | -.125 | | | -.119 | -.007 | 18 |
| 19 | -.085 | | -.124 | -.122 | | | -.119 | -.031 | 19 |
| 20 | -.112 | | -.136 | -.143 | | | -.153 | -.080 | 20 |
| 21 | -.176 | | -.199 | -.190 | | | -.200 | -.127 | 21 |
| 22 | -.171 | | -.202 | -.206 | | | | -.175 | 22 |
| 23 | -.173 | | | -.215 | | | -.212 | -.203 | 23 |
| 24 | -.177 | | -.198 | -.213 | | | -.217 | -.284 | 24 |
| 25 | -.179 | | -.204 | -.223 | | | -.205 | -.304 | 25 |
| 26 | -.216 | | -.226 | -.241 | | | -.211 | -.342 | 26 |

Table 7 concluded

Wing-surface Pressure Coefficients

Configuration F M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -12^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .606 | | .862 | .948 | | | 1.029 | .837 | 1 |
| 2 | .513 | | .707 | .820 | | | .955 | .673 | 2 |
| 3 | .545 | | .635 | .759 | | | .881 | .567 | 3 |
| 4 | .510 | | .520 | .756 | | | .813 | .481 | 4 |
| 5 | .365 | | .782 | .846 | | | .856 | .510 | 5 |
| 6 | .885 | | .961 | 1.013 | | | .992 | .567 | 6 |
| 7 | .969 | | 1.064 | 1.154 | | | 1.130 | .691 | 7 |
| 8 | 1.044 | | 1.096 | 1.174 | | | 1.140 | .650 | 8 |
| 9 | 1.055 | | 1.091 | 1.171 | | | 1.153 | .712 | 9 |
| 10 | 1.150 | | .088 | .577 | | | -.413 | -.414 | 10 |
| 11 | -.391 | | -.383 | -.393 | | | -.348 | -.415 | 11 |
| 12 | -.335 | | -.356 | -.368 | | | -.378 | -.393 | 12 |
| 13 | -.314 | | -.327 | -.359 | | | -.353 | -.348 | 13 |
| 14 | -.161 | | -.171 | -.213 | | | -.204 | -.222 | 14 |
| 15 | .006 | | -.030 | -.073 | | | -.091 | -.174 | 15 |
| 16 | .047 | | .012 | -.020 | | | -.058 | -.164 | 16 |
| 17 | -.199 | | -.221 | -.246 | | | -.295 | -.261 | 17 |
| 18 | -.152 | | -.199 | -.205 | | | -.220 | -.148 | 18 |
| 19 | -.147 | | -.194 | -.198 | | | -.208 | -.161 | 19 |
| 20 | -.169 | | -.211 | -.213 | | | -.223 | -.199 | 20 |
| 21 | -.221 | | -.266 | -.255 | | | -.261 | -.263 | 21 |
| 22 | -.218 | | -.272 | -.270 | | | | -.331 | 22 |
| 23 | -.222 | | | -.274 | | | -.277 | -.341 | 23 |
| 24 | -.226 | | -.251 | -.276 | | | -.281 | -.373 | 24 |
| 25 | -.227 | | -.250 | -.280 | | | -.264 | -.339 | 25 |
| 26 | -.259 | | -.271 | -.295 | | | -.261 | -.372 | 26 |
| | | | | $\alpha = -15^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .753 | | 1.078 | 1.179 | | | 1.183 | .948 | 1 |
| 2 | .684 | | .935 | 1.065 | | | 1.106 | .798 | 2 |
| 3 | .750 | | .882 | .996 | | | 1.018 | .672 | 3 |
| 4 | .736 | | .831 | .931 | | | .935 | .588 | 4 |
| 5 | .798 | | .893 | .946 | | | .935 | .558 | 5 |
| 6 | .975 | | 1.019 | 1.048 | | | 1.019 | .567 | 6 |
| 7 | 1.122 | | 1.157 | 1.196 | | | 1.166 | .702 | 7 |
| 8 | 1.188 | | 1.214 | 1.227 | | | 1.184 | .666 | 8 |
| 9 | 1.209 | | 1.230 | 1.234 | | | 1.190 | .654 | 9 |
| 10 | 1.425 | | .096 | .687 | | | -.401 | -.431 | 10 |
| 11 | -.396 | | -.384 | -.384 | | | -.338 | -.431 | 11 |
| 12 | -.339 | | -.353 | -.357 | | | -.387 | -.388 | 12 |
| 13 | -.342 | | -.353 | -.358 | | | -.371 | -.329 | 13 |
| 14 | -.241 | | -.255 | -.249 | | | -.222 | -.208 | 14 |
| 15 | -.052 | | -.081 | -.076 | | | -.090 | -.150 | 15 |
| 16 | .053 | | .011 | .016 | | | -.030 | -.114 | 16 |
| 17 | -.262 | | -.341 | -.417 | | | -.445 | -.406 | 17 |
| 18 | -.200 | | -.277 | -.333 | | | -.329 | -.308 | 18 |
| 19 | -.193 | | -.262 | -.282 | | | -.321 | -.295 | 19 |
| 20 | -.212 | | -.262 | -.285 | | | -.317 | -.314 | 20 |
| 21 | -.266 | | -.317 | -.311 | | | -.337 | -.361 | 21 |
| 22 | -.257 | | -.320 | -.321 | | | | -.401 | 22 |
| 23 | -.262 | | | -.325 | | | -.342 | -.406 | 23 |
| 24 | -.268 | | -.305 | -.322 | | | -.347 | -.422 | 24 |
| 25 | -.266 | | -.297 | -.332 | | | -.330 | -.405 | 25 |
| 26 | -.293 | | -.309 | -.342 | | | -.315 | -.417 | 26 |

Table 8

Wing-surface Pressure Coefficients

Configuration G  M= 1.61  R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= 0° $\delta$= 0° | | | | | |
| 1 | .137 | | .158 | .162 | | | .154 | .125 | 1 |
| 2 | .096 | | .153 | .160 | | | .162 | .108 | 2 |
| 3 | .118 | | .152 | .165 | | | .157 | .101 | 3 |
| 4 | .104 | | .120 | .130 | | | .118 | .068 | 4 |
| 5 | .004 | | .011 | .045 | | | .052 | .235 | 5 |
| 6 | .002 | | .005 | .298 | | | .399 | .315 | 6 |
| 7 | .318 | | .375 | .426 | | | .437 | .230 | 7 |
| 8 | .370 | | .386 | .431 | | | .483 | .177 | 8 |
| 9 | .395 | | .393 | .424 | | | .529 | .097 | 9 |
| 10 | .405 | | .359 | .360 | | | .229 | -.384 | 10 |
| 11 | -.398 | | -.382 | -.383 | | | -.311 | -.394 | 11 |
| 12 | -.394 | | -.379 | -.375 | | | -.365 | -.403 | 12 |
| 13 | -.360 | | -.367 | -.377 | | | -.365 | -.404 | 13 |
| 14 | -.234 | | -.253 | -.302 | | | -.350 | -.326 | 14 |
| 15 | -.138 | | -.165 | -.205 | | | -.304 | -.229 | 15 |
| 16 | -.106 | | -.101 | -.136 | | | -.240 | -.167 | 16 |
| 17 | .141 | | .149 | .144 | | | .156 | .127 | 17 |
| 18 | .122 | | .144 | .153 | | | .169 | .145 | 18 |
| 19 | .113 | | .147 | .151 | | | .159 | .106 | 19 |
| 20 | .095 | | .111 | .124 | | | .118 | .057 | 20 |
| 21 | .002 | | .011 | .043 | | | .048 | .023 | 21 |
| 22 | .007 | | .002 | .018 | | | | .223 | 22 |
| 23 | .006 | | | .011 | | | .017 | .120 | 23 |
| 24 | -.004 | | -.015 | .004 | | | -.001 | .050 | 24 |
| 25 | -.002 | | -.027 | -.016 | | | -.009 | .008 | 25 |
| 26 | -.059 | | -.053 | -.043 | | | -.043 | -.055 | 26 |
| | | | | $\alpha$= 3° $\delta$= 0° | | | | | |
| 1 | .042 | | .045 | .049 | | | .049 | -.052 | 1 |
| 2 | .028 | | .043 | .049 | | | .057 | -.011 | 2 |
| 3 | .037 | | .039 | .052 | | | .053 | -.003 | 3 |
| 4 | .022 | | .015 | .027 | | | .020 | -.028 | 4 |
| 5 | -.067 | | -.064 | -.046 | | | -.038 | -.079 | 5 |
| 6 | -.066 | | -.071 | .111 | | | .310 | .106 | 6 |
| 7 | .218 | | .265 | .306 | | | .337 | .120 | 7 |
| 8 | .278 | | .288 | .317 | | | .346 | .084 | 8 |
| 9 | .297 | | .278 | .310 | | | .380 | .117 | 9 |
| 10 | .308 | | .242 | .257 | | | .092 | -.409 | 10 |
| 11 | -.419 | | -.398 | -.386 | | | -.316 | -.421 | 11 |
| 12 | -.410 | | -.391 | -.385 | | | -.387 | -.447 | 12 |
| 13 | -.401 | | -.390 | -.386 | | | -.376 | -.440 | 13 |
| 14 | -.325 | | -.327 | -.338 | | | -.350 | -.382 | 14 |
| 15 | -.243 | | -.245 | -.262 | | | -.279 | -.392 | 15 |
| 16 | -.127 | | -.156 | -.195 | | | -.223 | -.418 | 16 |
| 17 | .240 | | .299 | .296 | | | .296 | .400 | 17 |
| 18 | .205 | | .287 | .286 | | | .299 | .348 | 18 |
| 19 | .201 | | .268 | .297 | | | .294 | .264 | 19 |
| 20 | .181 | | .205 | .246 | | | .240 | .176 | 20 |
| 21 | .076 | | .086 | .146 | | | .161 | .092 | 21 |
| 22 | .078 | | .076 | .108 | | | | .044 | 22 |
| 23 | .079 | | | .095 | | | .116 | .121 | 23 |
| 24 | .071 | | .060 | .080 | | | .094 | .102 | 24 |
| 25 | .069 | | .048 | .070 | | | .076 | .116 | 25 |
| 26 | .009 | | .018 | .039 | | | .039 | .058 | 26 |
| | | | | $\alpha$= 6° $\delta$= 0° | | | | | |
| 1 | -.054 | | -.049 | -.048 | | | -.052 | -.048 | 1 |
| 2 | -.044 | | -.048 | -.048 | | | -.045 | -.011 | 2 |
| 3 | -.031 | | -.052 | -.046 | | | -.050 | -.003 | 3 |
| 4 | -.051 | | -.076 | -.066 | | | -.080 | -.030 | 4 |
| 5 | -.132 | | -.142 | -.123 | | | -.093 | -.074 | 5 |
| 6 | -.130 | | -.146 | -.003 | | | .222 | .108 | 6 |
| 7 | .045 | | .155 | .190 | | | .221 | .121 | 7 |
| 8 | .173 | | .184 | .199 | | | .210 | .089 | 8 |
| 9 | .199 | | .178 | .199 | | | .201 | .114 | 9 |
| 10 | .227 | | .134 | .154 | | | .019 | -.406 | 10 |
| 11 | -.425 | | -.397 | -.381 | | | -.322 | -.423 | 11 |
| 12 | -.413 | | -.400 | -.375 | | | -.389 | -.453 | 12 |
| 13 | -.399 | | -.394 | -.391 | | | -.381 | -.429 | 13 |
| 14 | -.323 | | -.330 | -.338 | | | -.348 | -.375 | 14 |
| 15 | -.249 | | -.247 | -.265 | | | -.286 | -.390 | 15 |
| 16 | -.126 | | -.159 | -.198 | | | -.229 | -.413 | 16 |
| 17 | .358 | | .511 | .496 | | | .527 | .404 | 17 |
| 18 | .305 | | .442 | .496 | | | .521 | .343 | 18 |
| 19 | .311 | | .387 | .453 | | | .486 | .260 | 19 |
| 20 | .283 | | .311 | .360 | | | .395 | .180 | 20 |
| 21 | .163 | | .180 | .231 | | | .281 | .089 | 21 |
| 22 | .168 | | .162 | .196 | | | | .045 | 22 |
| 23 | .165 | | | .186 | | | .189 | .123 | 23 |
| 24 | .162 | | .154 | .177 | | | .162 | .103 | 24 |
| 25 | .152 | | .142 | .151 | | | .136 | .125 | 25 |
| 26 | .090 | | .106 | .118 | | | .102 | .063 | 26 |

Table 8 continued

Wing-surface Pressure Coefficients

Configuration G M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| $\alpha = 9°$ $\delta = 0°$ | | | | | | | | | |
| 1 | -.126 | | -.129 | -.126 | | | -.132 | -.118 | 1 |
| 2 | -.108 | | -.130 | -.125 | | | -.119 | -.053 | 2 |
| 3 | -.095 | | -.130 | -.123 | | | -.121 | -.069 | 3 |
| 4 | -.118 | | -.148 | -.142 | | | -.147 | -.106 | 4 |
| 5 | -.186 | | -.217 | -.192 | | | -.110 | -.162 | 5 |
| 6 | -.175 | | -.216 | -.126 | | | .132 | -.064 | 6 |
| 7 | -.080 | | .060 | .097 | | | .129 | -.001 | 7 |
| 8 | .098 | | .089 | .105 | | | .126 | -.020 | 8 |
| 9 | .125 | | .080 | .108 | | | .121 | .140 | 9 |
| 10 | .144 | | .043 | .084 | | | -.049 | -.410 | 10 |
| 11 | -.417 | | -.387 | -.363 | | | -.321 | -.409 | 11 |
| 12 | -.400 | | -.371 | -.348 | | | -.394 | -.462 | 12 |
| 13 | -.385 | | -.369 | -.364 | | | -.379 | -.435 | 13 |
| 14 | -.318 | | -.330 | -.331 | | | -.345 | -.392 | 14 |
| 15 | -.255 | | -.257 | -.276 | | | -.298 | -.374 | 15 |
| 16 | -.126 | | -.185 | -.225 | | | -.249 | -.369 | 16 |
| 17 | .472 | | .691 | .763 | | | .808 | .605 | 17 |
| 18 | .409 | | .561 | .647 | | | .721 | .474 | 18 |
| 19 | .421 | | .506 | .592 | | | .643 | .352 | 19 |
| 20 | .379 | | .430 | .460 | | | .494 | .253 | 20 |
| 21 | .247 | | .261 | .325 | | | .362 | .138 | 21 |
| 22 | .258 | | .250 | .286 | | | | .088 | 22 |
| 23 | .240 | | | .275 | | | .266 | .093 | 23 |
| 24 | .241 | | .240 | .261 | | | .237 | .086 | 24 |
| 25 | .235 | | .227 | .242 | | | .215 | .111 | 25 |
| 26 | .161 | | .184 | .197 | | | .174 | .060 | 26 |
| $\alpha = 12°$ $\delta = 0°$ | | | | | | | | | |
| 1 | -.192 | | -.211 | -.229 | | | -.245 | -.242 | 1 |
| 2 | -.160 | | -.189 | -.198 | | | -.206 | -.143 | 2 |
| 3 | -.144 | | -.192 | -.188 | | | -.190 | -.148 | 3 |
| 4 | -.163 | | -.210 | -.206 | | | -.212 | -.206 | 4 |
| 5 | -.227 | | -.262 | -.248 | | | -.204 | -.260 | 5 |
| 6 | -.223 | | -.262 | -.216 | | | .042 | -.146 | 6 |
| 7 | -.166 | | -.025 | .013 | | | .024 | -.122 | 7 |
| 8 | .037 | | -.005 | .017 | | | .010 | -.157 | 8 |
| 9 | .074 | | .000 | .018 | | | .005 | -.049 | 9 |
| 10 | .071 | | -.033 | .022 | | | -.149 | -.405 | 10 |
| 11 | -.389 | | -.358 | -.347 | | | -.331 | -.419 | 11 |
| 12 | -.381 | | -.341 | -.333 | | | -.384 | -.443 | 12 |
| 13 | -.357 | | -.351 | -.340 | | | -.384 | -.428 | 13 |
| 14 | -.318 | | -.326 | -.338 | | | -.348 | -.425 | 14 |
| 15 | -.252 | | -.273 | -.296 | | | -.304 | -.415 | 15 |
| 16 | -.169 | | -.223 | -.264 | | | -.274 | -.399 | 16 |
| 17 | .603 | | .866 | .941 | | | .968 | .721 | 17 |
| 18 | .532 | | .711 | .804 | | | .860 | .557 | 18 |
| 19 | .551 | | .640 | .716 | | | .741 | .428 | 19 |
| 20 | .499 | | .511 | .539 | | | .587 | .312 | 20 |
| 21 | .339 | | .345 | .408 | | | .441 | .182 | 21 |
| 22 | .353 | | .345 | .377 | | | | .127 | 22 |
| 23 | .333 | | | .370 | | | .340 | .101 | 23 |
| 24 | .338 | | .339 | .355 | | | .311 | .075 | 24 |
| 25 | .328 | | .319 | .330 | | | .285 | .112 | 25 |
| 26 | .246 | | .267 | .283 | | | .247 | .059 | 26 |
| $\alpha = 15°$ $\delta = 0°$ | | | | | | | | | |
| 1 | -.252 | | -.322 | -.357 | | | -.360 | -.380 | 1 |
| 2 | -.222 | | -.264 | -.274 | | | -.294 | -.263 | 2 |
| 3 | -.190 | | -.263 | -.257 | | | -.266 | -.253 | 3 |
| 4 | -.205 | | -.265 | -.272 | | | -.278 | -.312 | 4 |
| 5 | -.263 | | -.317 | -.308 | | | -.246 | -.355 | 5 |
| 6 | -.257 | | -.318 | -.252 | | | -.051 | -.260 | 6 |
| 7 | -.211 | | -.108 | -.070 | | | -.083 | -.228 | 7 |
| 8 | -.027 | | -.095 | -.064 | | | -.108 | -.231 | 8 |
| 9 | .010 | | -.096 | -.061 | | | -.095 | -.214 | 9 |
| 10 | -.006 | | -.117 | -.031 | | | -.239 | -.404 | 10 |
| 11 | -.377 | | -.341 | -.329 | | | -.325 | -.404 | 11 |
| 12 | -.367 | | -.331 | -.326 | | | -.382 | -.398 | 12 |
| 13 | -.351 | | -.337 | -.333 | | | -.394 | -.391 | 13 |
| 14 | -.315 | | -.323 | -.333 | | | -.375 | -.419 | 14 |
| 15 | -.269 | | -.286 | -.315 | | | -.321 | -.408 | 15 |
| 16 | -.208 | | -.247 | -.288 | | | -.287 | -.391 | 16 |
| 17 | .774 | | 1.030 | 1.074 | | | 1.081 | .795 | 17 |
| 18 | .683 | | .850 | .924 | | | .969 | .629 | 18 |
| 19 | .702 | | .751 | .810 | | | .839 | .489 | 19 |
| 20 | .585 | | .595 | .636 | | | .669 | .380 | 20 |
| 21 | .439 | | .432 | .493 | | | .526 | .235 | 21 |
| 22 | .477 | | .477 | .509 | | | | .192 | 22 |
| 23 | .468 | | | .523 | | | .455 | .169 | 23 |
| 24 | .491 | | .503 | .510 | | | .432 | .128 | 24 |
| 25 | .471 | | .473 | .482 | | | .414 | .175 | 25 |
| 26 | .374 | | .397 | .408 | | | .364 | .109 | 26 |

Table 8 continued

Wing-surface Pressure Coefficients

Configuration G $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -3^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .228 | | .300 | .295 | | | .295 | .253 | 1 |
| 2 | .194 | | .272 | .293 | | | .279 | .189 | 2 |
| 3 | .212 | | .265 | .297 | | | .297 | .167 | 3 |
| 4 | .193 | | .212 | .254 | | | .238 | .120 | 4 |
| 5 | .074 | | .084 | .142 | | | .165 | .347 | 5 |
| 6 | .069 | | .075 | .453 | | | .563 | .361 | 6 |
| 7 | .237 | | .483 | .546 | | | .604 | .278 | 7 |
| 8 | .484 | | .495 | .552 | | | .596 | .224 | 8 |
| 9 | .500 | | .504 | .546 | | | .628 | .123 | 9 |
| 10 | .505 | | .473 | .482 | | | .372 | -.400 | 10 |
| 11 | -.378 | | -.369 | -.374 | | | -.314 | -.391 | 11 |
| 12 | -.379 | | -.353 | -.367 | | | -.377 | -.400 | 12 |
| 13 | -.336 | | -.352 | -.367 | | | -.375 | -.385 | 13 |
| 14 | -.192 | | -.208 | -.277 | | | -.338 | -.288 | 14 |
| 15 | -.091 | | -.109 | -.164 | | | -.244 | -.204 | 15 |
| 16 | -.060 | | -.060 | -.099 | | | -.177 | -.147 | 16 |
| 17 | .043 | | .053 | .040 | | | .055 | .044 | 17 |
| 18 | .044 | | .051 | .051 | | | .108 | .072 | 18 |
| 19 | .040 | | .050 | .050 | | | .052 | .060 | 19 |
| 20 | .016 | | .023 | .025 | | | .019 | .025 | 20 |
| 21 | -.066 | | -.057 | -.042 | | | -.048 | -.003 | 21 |
| 22 | -.060 | | -.067 | -.064 | | | | .194 | 22 |
| 23 | -.065 | | | -.069 | | | -.066 | .005 | 23 |
| 24 | -.064 | | -.079 | -.070 | | | -.076 | -.072 | 24 |
| 25 | -.069 | | -.091 | -.076 | | | -.081 | -.098 | 25 |
| 26 | -.118 | | -.118 | -.106 | | | -.104 | -.148 | 26 |
| | | | | $\alpha = -6^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .349 | | .492 | .494 | | | .494 | .424 | 1 |
| 2 | .298 | | .436 | .491 | | | .504 | .320 | 2 |
| 3 | .306 | | .398 | .455 | | | .483 | .283 | 3 |
| 4 | .295 | | .316 | .363 | | | .383 | .180 | 4 |
| 5 | .152 | | .174 | .234 | | | .347 | .218 | 5 |
| 6 | .169 | | .384 | .630 | | | .741 | .442 | 6 |
| 7 | .534 | | .609 | .679 | | | .755 | .447 | 7 |
| 8 | .613 | | .625 | .688 | | | .760 | .459 | 8 |
| 9 | .635 | | .634 | .693 | | | .783 | .313 | 9 |
| 10 | .636 | | .613 | .628 | | | .592 | -.395 | 10 |
| 11 | -.357 | | -.347 | -.373 | | | -.328 | -.395 | 11 |
| 12 | -.352 | | -.337 | -.371 | | | -.382 | -.399 | 12 |
| 13 | -.317 | | -.342 | -.369 | | | -.392 | -.399 | 13 |
| 14 | -.153 | | -.172 | -.264 | | | -.317 | -.376 | 14 |
| 15 | -.044 | | -.047 | -.116 | | | -.237 | -.317 | 15 |
| 16 | -.014 | | -.019 | -.063 | | | -.175 | -.255 | 16 |
| 17 | -.050 | | -.052 | -.061 | | | -.045 | -.028 | 17 |
| 18 | -.026 | | -.046 | -.051 | | | -.038 | .015 | 18 |
| 19 | -.027 | | -.048 | -.052 | | | -.045 | .009 | 19 |
| 20 | -.060 | | -.066 | -.075 | | | -.076 | -.023 | 20 |
| 21 | -.129 | | -.136 | -.127 | | | -.133 | -.063 | 21 |
| 22 | -.123 | | -.141 | -.150 | | | | .140 | 22 |
| 23 | -.122 | | | -.157 | | | -.149 | -.135 | 23 |
| 24 | -.126 | | -.144 | -.160 | | | -.160 | -.229 | 24 |
| 25 | -.127 | | -.156 | -.167 | | | -.150 | -.226 | 25 |
| 26 | -.175 | | -.177 | -.181 | | | -.163 | -.269 | 26 |
| | | | | $\alpha = -9^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .478 | | .701 | .778 | | | .803 | .645 | 1 |
| 2 | .405 | | .576 | .669 | | | .733 | .482 | 2 |
| 3 | .418 | | .519 | .607 | | | .649 | .372 | 3 |
| 4 | .409 | | .438 | .474 | | | .499 | .234 | 4 |
| 5 | .254 | | .269 | .330 | | | .720 | .425 | 5 |
| 6 | .485 | | .696 | .814 | | | .953 | .575 | 6 |
| 7 | .716 | | .774 | .900 | | | 1.031 | .634 | 7 |
| 8 | .771 | | .802 | .928 | | | 1.033 | .566 | 8 |
| 9 | .790 | | .825 | .945 | | | 1.034 | .467 | 9 |
| 10 | .801 | | .819 | .861 | | | .852 | -.396 | 10 |
| 11 | -.353 | | -.351 | -.383 | | | -.336 | -.400 | 11 |
| 12 | -.346 | | -.335 | -.379 | | | -.400 | -.409 | 12 |
| 13 | -.308 | | -.341 | -.386 | | | -.404 | -.416 | 13 |
| 14 | -.112 | | -.169 | -.292 | | | -.384 | -.409 | 14 |
| 15 | .010 | | -.015 | -.138 | | | -.301 | -.379 | 15 |
| 16 | .033 | | .016 | -.053 | | | -.213 | -.340 | 16 |
| 17 | -.136 | | -.140 | -.146 | | | -.136 | -.109 | 17 |
| 18 | -.097 | | -.137 | -.131 | | | -.118 | -.029 | 18 |
| 19 | -.095 | | -.136 | -.126 | | | -.119 | -.064 | 19 |
| 20 | -.125 | | -.146 | -.148 | | | -.145 | -.106 | 20 |
| 21 | -.189 | | -.214 | -.198 | | | -.195 | -.170 | 21 |
| 22 | -.181 | | -.216 | -.213 | | | | -.189 | 22 |
| 23 | -.187 | | | -.224 | | | -.214 | -.240 | 23 |
| 24 | -.186 | | -.205 | -.221 | | | -.216 | -.299 | 24 |
| 25 | -.186 | | -.211 | -.230 | | | -.206 | -.304 | 25 |
| 26 | -.228 | | -.233 | -.242 | | | -.215 | -.369 | 26 |

Table 8 concluded

Wing-surface Pressure Coefficients

Configuration G  M= 1.61  R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -12°$ $\delta = 0°$ | | | | | |
| 1 | .600 | | .853 | .940 | | | .991 | .801 | 1 |
| 2 | .505 | | .710 | .800 | | | .916 | .625 | 2 |
| 3 | .537 | | .637 | .716 | | | .845 | .536 | 3 |
| 4 | .509 | | .508 | .565 | | | .792 | .470 | 4 |
| 5 | .337 | | .342 | .786 | | | .853 | .511 | 5 |
| 6 | .766 | | .868 | .967 | | | 1.005 | .589 | 6 |
| 7 | .908 | | .982 | 1.118 | | | 1.153 | .682 | 7 |
| 8 | .959 | | 1.042 | 1.155 | | | 1.177 | .650 | 8 |
| 9 | 1.000 | | 1.082 | 1.175 | | | 1.182 | .614 | 9 |
| 10 | 1.022 | | 1.089 | 1.119 | | | 1.010 | -.414 | 10 |
| 11 | -.379 | | -.380 | -.396 | | | -.348 | -.418 | 11 |
| 12 | -.362 | | -.364 | -.399 | | | -.410 | -.428 | 12 |
| 13 | -.336 | | -.371 | -.392 | | | -.420 | -.424 | 13 |
| 14 | -.127 | | -.258 | -.348 | | | -.421 | -.426 | 14 |
| 15 | .026 | | -.069 | -.213 | | | -.355 | -.421 | 15 |
| 16 | .064 | | .014 | -.092 | | | -.268 | -.386 | 16 |
| 17 | -.199 | | -.221 | -.245 | | | -.261 | -.265 | 17 |
| 18 | -.146 | | -.201 | -.203 | | | -.212 | -.143 | 18 |
| 19 | -.144 | | -.201 | -.192 | | | -.190 | -.164 | 19 |
| 20 | -.172 | | -.210 | -.211 | | | -.212 | -.199 | 20 |
| 21 | -.227 | | -.266 | -.252 | | | -.249 | -.278 | 21 |
| 22 | -.219 | | -.267 | -.266 | | | | -.345 | 22 |
| 23 | -.229 | | | -.269 | | | -.270 | -.357 | 23 |
| 24 | -.234 | | -.250 | -.273 | | | -.271 | -.380 | 24 |
| 25 | -.230 | | -.250 | -.281 | | | -.254 | -.351 | 25 |
| 26 | -.266 | | -.272 | -.292 | | | -.253 | -.385 | 26 |
| | | | | $\alpha = -15°$ $\delta = 0°$ | | | | | |
| 1 | .746 | | 1.043 | 1.159 | | | 1.178 | .933 | 1 |
| 2 | .664 | | .891 | 1.046 | | | 1.101 | .754 | 2 |
| 3 | .719 | | .839 | .970 | | | 1.020 | .664 | 3 |
| 4 | .671 | | .786 | .903 | | | .939 | .575 | 4 |
| 5 | .736 | | .843 | .925 | | | .950 | .565 | 5 |
| 6 | .914 | | .965 | 1.027 | | | 1.037 | .590 | 6 |
| 7 | 1.045 | | 1.085 | 1.162 | | | 1.184 | .707 | 7 |
| 8 | 1.134 | | 1.163 | 1.226 | | | 1.225 | .679 | 8 |
| 9 | 1.167 | | 1.216 | 1.250 | | | 1.230 | .637 | 9 |
| 10 | 1.192 | | 1.233 | 1.215 | | | 1.082 | -.439 | 10 |
| 11 | -.399 | | -.384 | -.394 | | | -.347 | -.438 | 11 |
| 12 | -.391 | | -.371 | -.382 | | | -.425 | -.437 | 12 |
| 13 | -.371 | | -.377 | -.394 | | | -.425 | -.440 | 13 |
| 14 | -.228 | | -.307 | -.395 | | | -.425 | -.443 | 14 |
| 15 | -.005 | | -.125 | -.270 | | | -.379 | -.431 | 15 |
| 16 | .063 | | .008 | -.114 | | | -.278 | -.381 | 16 |
| 17 | -.255 | | -.329 | -.402 | | | -.450 | -.434 | 17 |
| 18 | -.192 | | -.268 | -.318 | | | -.335 | -.316 | 18 |
| 19 | -.190 | | -.253 | -.274 | | | -.315 | -.311 | 19 |
| 20 | -.211 | | -.255 | -.278 | | | -.301 | -.326 | 20 |
| 21 | -.262 | | -.317 | -.306 | | | -.329 | -.390 | 21 |
| 22 | -.254 | | -.317 | -.319 | | | | -.434 | 22 |
| 23 | -.260 | | | -.321 | | | -.329 | -.434 | 23 |
| 24 | -.261 | | -.301 | -.321 | | | -.336 | -.454 | 24 |
| 25 | -.263 | | -.299 | -.326 | | | -.320 | -.431 | 25 |
| 26 | -.294 | | -.306 | -.339 | | | -.307 | -.442 | 26 |

Table 9

Wing-surface Pressure Coefficients

Configuration H $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0$ $\delta = 0$ | | | | | |
| 1 | .134 | | .156 | .172 | | | .167 | .124 | 1 |
| 2 | .099 | | .163 | .162 | | | .175 | .113 | 2 |
| 3 | .115 | | .152 | .162 | | | .163 | .101 | 3 |
| 4 | .103 | | .118 | .128 | | | .118 | .063 | 4 |
| 5 | -.003 | | .008 | .048 | | | .056 | .154 | 5 |
| 6 | -.002 | | .007 | .295 | | | .423 | .386 | 6 |
| 7 | .315 | | .371 | .440 | | | .465 | .258 | 7 |
| 8 | .371 | | .392 | .447 | | | .477 | .192 | 8 |
| 9 | .393 | | .393 | .446 | | | .513 | .099 | 9 |
| 10 | .403 | | .352 | .408 | | | .260 | -.347 | 10 |
| 11 | -.374 | | -.348 | -.340 | | | -.285 | -.347 | 11 |
| 12 | -.334 | | -.337 | -.334 | | | -.328 | -.359 | 12 |
| 13 | -.314 | | -.332 | -.336 | | | -.334 | -.351 | 13 |
| 14 | -.217 | | -.253 | -.260 | | | -.308 | -.297 | 14 |
| 15 | -.145 | | -.168 | -.188 | | | -.257 | -.220 | 15 |
| 16 | -.086 | | -.099 | -.123 | | | -.207 | -.162 | 16 |
| 17 | .138 | | .153 | .149 | | | .159 | .131 | 17 |
| 18 | .113 | | .154 | .151 | | | .166 | .153 | 18 |
| 19 | .116 | | .151 | .154 | | | .156 | .108 | 19 |
| 20 | .096 | | .111 | .127 | | | .113 | .060 | 20 |
| 21 | .004 | | .009 | .045 | | | .047 | .028 | 21 |
| 22 | .011 | | .005 | .021 | | | | .173 | 22 |
| 23 | .000 | | | .013 | | | .015 | .155 | 23 |
| 24 | -.001 | | -.016 | .011 | | | .002 | .074 | 24 |
| 25 | -.013 | | -.027 | -.013 | | | -.013 | .033 | 25 |
| 26 | -.064 | | -.055 | -.040 | | | -.039 | -.050 | 26 |
| | | | | $\alpha = 3°$ $\delta = 0°$ | | | | | |
| 1 | .025 | | .040 | .058 | | | .060 | .033 | 1 |
| 2 | .009 | | .045 | .056 | | | .067 | .056 | 2 |
| 3 | .021 | | .042 | .051 | | | .059 | .063 | 3 |
| 4 | -.049 | | .017 | .026 | | | .018 | .046 | 4 |
| 5 | -.085 | | -.065 | -.040 | | | -.033 | .010 | 5 |
| 6 | -.077 | | -.075 | .100 | | | .325 | .270 | 6 |
| 7 | .183 | | .255 | .321 | | | .361 | .245 | 7 |
| 8 | .259 | | .274 | .329 | | | .349 | .198 | 8 |
| 9 | .286 | | .279 | .316 | | | .394 | .141 | 9 |
| 10 | .296 | | .232 | .282 | | | .154 | -.349 | 10 |
| 11 | -.401 | | -.360 | -.339 | | | -.273 | -.342 | 11 |
| 12 | -.347 | | -.339 | -.326 | | | -.333 | -.394 | 12 |
| 13 | -.333 | | -.336 | -.331 | | | -.333 | -.381 | 13 |
| 14 | -.255 | | -.284 | -.284 | | | -.297 | -.331 | 14 |
| 15 | -.190 | | -.213 | -.223 | | | -.250 | -.290 | 15 |
| 16 | -.089 | | -.116 | -.154 | | | -.209 | -.285 | 16 |
| 17 | .228 | | .298 | .294 | | | .319 | .257 | 17 |
| 18 | .194 | | .281 | .285 | | | .299 | .249 | 18 |
| 19 | .195 | | .265 | .295 | | | .295 | .165 | 19 |
| 20 | .169 | | .208 | .247 | | | .258 | .118 | 20 |
| 21 | .065 | | .090 | .151 | | | .165 | .054 | 21 |
| 22 | .071 | | .074 | .109 | | | | .038 | 22 |
| 23 | .069 | | | .103 | | | .123 | .199 | 23 |
| 24 | .065 | | .057 | .087 | | | .095 | .163 | 24 |
| 25 | .064 | | .051 | .075 | | | .078 | .146 | 25 |
| 26 | -.003 | | .016 | .045 | | | .047 | .056 | 26 |
| | | | | $\alpha = 6°$ $\delta = 0°$ | | | | | |
| 1 | -.054 | | -.049 | -.038 | | | -.036 | -.040 | 1 |
| 2 | -.050 | | -.044 | -.032 | | | -.031 | .001 | 2 |
| 3 | -.033 | | -.051 | -.039 | | | -.033 | .011 | 3 |
| 4 | -.058 | | -.073 | -.063 | | | -.068 | -.015 | 4 |
| 5 | -.137 | | -.146 | -.122 | | | -.094 | -.065 | 5 |
| 6 | -.131 | | -.138 | .077 | | | .222 | .113 | 6 |
| 7 | -.007 | | .153 | .204 | | | .235 | .131 | 7 |
| 8 | .175 | | .173 | .211 | | | .227 | .111 | 8 |
| 9 | .200 | | .193 | .209 | | | .214 | .227 | 9 |
| 10 | .221 | | .134 | .187 | | | .071 | -.346 | 10 |
| 11 | -.390 | | -.354 | -.327 | | | -.278 | -.344 | 11 |
| 12 | -.351 | | -.329 | -.317 | | | -.334 | -.397 | 12 |
| 13 | -.336 | | -.329 | -.323 | | | -.338 | -.381 | 13 |
| 14 | -.278 | | -.294 | -.289 | | | -.318 | -.344 | 14 |
| 15 | -.210 | | -.225 | -.240 | | | -.264 | -.347 | 15 |
| 16 | -.104 | | -.153 | -.194 | | | -.215 | -.368 | 16 |
| 17 | .336 | | .487 | .505 | | | .513 | .406 | 17 |
| 18 | .304 | | .437 | .488 | | | .513 | .353 | 18 |
| 19 | .303 | | .384 | .444 | | | .487 | .265 | 19 |
| 20 | .267 | | .312 | .363 | | | .389 | .182 | 20 |
| 21 | .152 | | .181 | .241 | | | .281 | .099 | 21 |
| 22 | .162 | | .164 | .205 | | | | .049 | 22 |
| 23 | .157 | | | .192 | | | .194 | .125 | 23 |
| 24 | .155 | | .148 | .178 | | | .167 | .113 | 24 |
| 25 | .149 | | .142 | .152 | | | .144 | .138 | 25 |
| 26 | .082 | | .100 | .112 | | | .111 | .071 | 26 |

Table 9 continued

Wing-surface Pressure Coefficients

Configuration H M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 9°$ $\delta = 0°$ | | | | | |
| 1 | -.121 | | -.122 | -.117 | | | -.123 | -.124 | 1 |
| 2 | -.097 | | -.115 | -.108 | | | -.112 | -.050 | 2 |
| 3 | -.090 | | -.120 | -.113 | | | -.112 | -.065 | 3 |
| 4 | -.114 | | -.135 | -.138 | | | -.144 | -.105 | 4 |
| 5 | -.184 | | -.196 | -.191 | | | -.083 | -.155 | 5 |
| 6 | -.168 | | -.201 | -.046 | | | .123 | -.088 | 6 |
| 7 | -.121 | | .069 | .108 | | | .145 | -.028 | 7 |
| 8 | .107 | | .089 | .113 | | | .140 | -.003 | 8 |
| 9 | .132 | | .105 | .117 | | | .129 | .213 | 9 |
| 10 | .149 | | .053 | .097 | | | .003 | -.339 | 10 |
| 11 | -.369 | | -.325 | -.320 | | | -.276 | -.334 | 11 |
| 12 | -.326 | | -.307 | -.300 | | | -.321 | -.376 | 12 |
| 13 | -.322 | | -.303 | -.303 | | | -.329 | -.363 | 13 |
| 14 | -.274 | | -.285 | -.288 | | | -.314 | -.359 | 14 |
| 15 | -.210 | | -.240 | -.245 | | | -.268 | -.344 | 15 |
| 16 | -.130 | | -.183 | -.213 | | | -.232 | -.324 | 16 |
| 17 | .463 | | .698 | .763 | | | .814 | .610 | 17 |
| 18 | .418 | | .566 | .663 | | | .723 | .481 | 18 |
| 19 | .429 | | .511 | .586 | | | .635 | .357 | 19 |
| 20 | .387 | | .434 | .467 | | | .496 | .249 | 20 |
| 21 | .249 | | .264 | .332 | | | .368 | .143 | 21 |
| 22 | .264 | | .254 | .283 | | | | .090 | 22 |
| 23 | .248 | | | .279 | | | .268 | .089 | 23 |
| 24 | .251 | | .239 | .266 | | | .244 | .086 | 24 |
| 25 | .247 | | .232 | .237 | | | .218 | .120 | 25 |
| 26 | .164 | | .183 | .202 | | | .179 | .069 | 26 |
| | | | | $\alpha = 12°$ $\delta = 0°$ | | | | | |
| 1 | -.204 | | -.209 | -.227 | | | -.238 | -.230 | 1 |
| 2 | -.166 | | -.189 | -.189 | | | -.200 | -.131 | 2 |
| 3 | -.153 | | -.199 | -.183 | | | -.184 | -.131 | 3 |
| 4 | -.177 | | -.208 | -.198 | | | -.208 | -.193 | 4 |
| 5 | -.234 | | -.262 | -.247 | | | -.212 | -.245 | 5 |
| 6 | -.228 | | -.266 | -.208 | | | .039 | -.121 | 6 |
| 7 | -.206 | | -.032 | .013 | | | .032 | -.113 | 7 |
| 8 | .017 | | -.006 | .019 | | | .013 | -.135 | 8 |
| 9 | .059 | | -.003 | .025 | | | .010 | -.044 | 9 |
| 10 | .049 | | -.030 | .003 | | | -.100 | -.334 | 10 |
| 11 | -.374 | | -.324 | -.315 | | | -.284 | -.333 | 11 |
| 12 | -.313 | | -.282 | -.289 | | | -.331 | -.366 | 12 |
| 13 | -.310 | | -.278 | -.284 | | | -.338 | -.366 | 13 |
| 14 | -.270 | | -.250 | -.269 | | | -.328 | -.378 | 14 |
| 15 | -.222 | | -.215 | -.244 | | | -.293 | -.373 | 15 |
| 16 | -.163 | | .394 | .383 | | | -.260 | -.362 | 16 |
| 17 | .608 | | .868 | .948 | | | .977 | .737 | 17 |
| 18 | .524 | | .709 | .809 | | | .866 | .580 | 18 |
| 19 | .552 | | .638 | .715 | | | .747 | .441 | 19 |
| 20 | .492 | | .513 | .548 | | | .584 | .333 | 20 |
| 21 | .337 | | .346 | .410 | | | .445 | .202 | 21 |
| 22 | .351 | | .346 | .384 | | | | .143 | 22 |
| 23 | .329 | | | .370 | | | .348 | .116 | 23 |
| 24 | .331 | | .338 | .355 | | | .323 | .088 | 24 |
| 25 | .325 | | .324 | .338 | | | .289 | .133 | 25 |
| 26 | .237 | | .278 | .295 | | | .269 | .081 | 26 |
| | | | | $\alpha = 12°$ $\delta = 15°$ | | | | | |
| 1 | -.197 | | -.209 | -.229 | | | -.243 | -.225 | 1 |
| 2 | -.156 | | -.187 | -.190 | | | -.208 | -.131 | 2 |
| 3 | -.143 | | -.195 | -.186 | | | -.186 | -.125 | 3 |
| 4 | -.163 | | -.200 | -.201 | | | -.212 | -.188 | 4 |
| 5 | -.228 | | -.262 | -.254 | | | -.222 | -.245 | 5 |
| 6 | -.222 | | -.264 | -.215 | | | .031 | -.120 | 6 |
| 7 | -.220 | | -.028 | .010 | | | .026 | -.108 | 7 |
| 8 | .031 | | -.007 | .018 | | | .015 | -.133 | 8 |
| 9 | .068 | | .001 | .017 | | | .006 | -.021 | 9 |
| 10 | .052 | | -.036 | .003 | | | -.092 | -.304 | 10 |
| 11 | -.352 | | -.317 | -.280 | | | -.296 | -.304 | 11 |
| 12 | -.342 | | -.327 | -.319 | | | -.357 | -.401 | 12 |
| 13 | -.348 | | -.327 | -.319 | | | -.363 | -.423 | 13 |
| 14 | -.322 | | -.327 | -.319 | | | -.357 | -.437 | 14 |
| 15 | -.299 | | -.305 | -.324 | | | -.344 | -.429 | 15 |
| 16 | -.277 | | .438 | -.322 | | | -.332 | -.399 | 16 |
| 17 | .604 | | .867 | .939 | | | .964 | .732 | 17 |
| 18 | .533 | | .712 | .800 | | | .853 | .577 | 18 |
| 19 | .551 | | .638 | .702 | | | .737 | .437 | 19 |
| 20 | .499 | | .508 | .538 | | | .567 | .329 | 20 |
| 21 | .343 | | .344 | .403 | | | .433 | .199 | 21 |
| 22 | .351 | | .344 | .367 | | | | .138 | 22 |
| 23 | .336 | | | .367 | | | .326 | .115 | 23 |
| 24 | .338 | | .334 | .351 | | | .299 | .084 | 24 |
| 25 | .336 | | .336 | .328 | | | .280 | .128 | 25 |
| 26 | .593 | | .609 | .299 | | | .292 | .076 | 26 |

Table 9 continued

Wing-surface Pressure Coefficients

Configuration H M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 12°$ $\delta = -15°$ | | | | | |
| 1 | -.196 | | -.209 | -.233 | | | -.245 | -.242 | 1 |
| 2 | -.158 | | -.186 | -.195 | | | -.197 | -.145 | 2 |
| 3 | -.144 | | -.193 | -.191 | | | -.191 | -.145 | 3 |
| 4 | -.163 | | -.208 | -.203 | | | -.209 | -.210 | 4 |
| 5 | -.232 | | -.261 | -.256 | | | -.212 | -.265 | 5 |
| 6 | -.223 | | -.260 | -.213 | | | .033 | -.138 | 6 |
| 7 | -.217 | | -.032 | .012 | | | .026 | -.126 | 7 |
| 8 | .034 | | -.004 | .018 | | | .011 | -.154 | 8 |
| 9 | .063 | | -.001 | .019 | | | .005 | -.061 | 9 |
| 10 | .057 | | -.032 | .000 | | | -.104 | -.302 | 10 |
| 11 | -.280 | | -.243 | -.251 | | | -.247 | -.302 | 11 |
| 12 | -.258 | | -.232 | -.239 | | | -.278 | -.312 | 12 |
| 13 | -.228 | | -.222 | -.244 | | | -.283 | -.308 | 13 |
| 14 | -.170 | | -.202 | -.223 | | | -.264 | -.304 | 14 |
| 15 | -.074 | | -.129 | -.172 | | | -.193 | -.280 | 15 |
| 16 | -.024 | | -.074 | -.128 | | | -.154 | -.249 | 16 |
| 17 | .614 | | .869 | .942 | | | .974 | .724 | 17 |
| 18 | .534 | | .716 | .811 | | | .867 | .582 | 18 |
| 19 | .561 | | .635 | .713 | | | .742 | .438 | 19 |
| 20 | .500 | | .517 | .555 | | | .582 | .327 | 20 |
| 21 | .343 | | .351 | .413 | | | .450 | .193 | 21 |
| 22 | .356 | | .348 | .384 | | | | .135 | 22 |
| 23 | .342 | | | .373 | | | .341 | .109 | 23 |
| 24 | .341 | | .337 | .349 | | | .325 | .076 | 24 |
| 25 | .329 | | .327 | .337 | | | .300 | .121 | 25 |
| 26 | .247 | | .275 | .293 | | | .270 | .076 | 26 |
| | | | | $\alpha = 15°$ $\delta = 0°$ | | | | | |
| 1 | -.258 | | -.311 | -.362 | | | -.358 | -.371 | 1 |
| 2 | -.205 | | -.258 | -.277 | | | -.299 | -.257 | 2 |
| 3 | -.187 | | -.253 | -.256 | | | -.260 | -.257 | 3 |
| 4 | -.207 | | -.263 | -.271 | | | -.270 | -.310 | 4 |
| 5 | -.265 | | -.310 | -.303 | | | -.226 | -.357 | 5 |
| 6 | -.250 | | -.310 | -.247 | | | -.048 | -.273 | 6 |
| 7 | -.246 | | -.110 | -.073 | | | -.080 | -.227 | 7 |
| 8 | -.028 | | -.094 | -.067 | | | -.104 | -.230 | 8 |
| 9 | .010 | | -.088 | -.063 | | | -.102 | -.187 | 9 |
| 10 | -.007 | | -.117 | -.083 | | | -.196 | -.347 | 10 |
| 11 | -.351 | | -.312 | -.307 | | | -.277 | -.347 | 11 |
| 12 | -.316 | | -.290 | -.287 | | | -.338 | -.352 | 12 |
| 13 | -.316 | | -.282 | -.287 | | | -.338 | -.351 | 13 |
| 14 | -.278 | | -.282 | -.287 | | | -.334 | -.359 | 14 |
| 15 | -.242 | | -.267 | -.287 | | | -.316 | -.368 | 15 |
| 16 | -.199 | | -.244 | -.273 | | | -.284 | -.362 | 16 |
| 17 | .788 | | 1.030 | 1.088 | | | 1.088 | .804 | 17 |
| 18 | .702 | | .852 | .938 | | | .972 | .646 | 18 |
| 19 | .716 | | .753 | .818 | | | .838 | .498 | 19 |
| 20 | .598 | | .595 | .642 | | | .680 | .389 | 20 |
| 21 | .445 | | .430 | .503 | | | .538 | .240 | 21 |
| 22 | .483 | | .483 | .525 | | | | .208 | 22 |
| 23 | .482 | | | .538 | | | .468 | .179 | 23 |
| 24 | .508 | | .521 | .522 | | | .445 | .140 | 24 |
| 25 | .488 | | .488 | .498 | | | .430 | .194 | 25 |
| 26 | .388 | | .403 | .420 | | | .386 | .128 | 26 |
| | | | | $\alpha = -3°$ $\delta = 0°$ | | | | | |
| 1 | .235 | | .317 | .331 | | | .328 | .273 | 1 |
| 2 | .205 | | .289 | .299 | | | .292 | .215 | 2 |
| 3 | .208 | | .273 | .299 | | | .290 | .169 | 3 |
| 4 | .204 | | .214 | .254 | | | .239 | .115 | 4 |
| 5 | .080 | | .091 | .143 | | | .163 | .299 | 5 |
| 6 | .079 | | .082 | .469 | | | .584 | .373 | 6 |
| 7 | .419 | | .492 | .560 | | | .612 | .298 | 7 |
| 8 | .490 | | .505 | .570 | | | .609 | .245 | 8 |
| 9 | .508 | | .507 | .563 | | | .624 | .140 | 9 |
| 10 | .508 | | .468 | .535 | | | .425 | -.352 | 10 |
| 11 | -.352 | | -.342 | -.351 | | | -.297 | -.352 | 11 |
| 12 | -.324 | | -.326 | -.334 | | | -.343 | -.357 | 12 |
| 13 | -.287 | | -.326 | -.334 | | | -.343 | -.338 | 13 |
| 14 | -.172 | | -.209 | -.229 | | | -.303 | -.263 | 14 |
| 15 | -.101 | | -.115 | -.141 | | | -.224 | -.193 | 15 |
| 16 | -.053 | | -.066 | -.095 | | | -.163 | -.148 | 16 |
| 17 | .044 | | .044 | .037 | | | .046 | .046 | 17 |
| 18 | .046 | | .045 | .042 | | | .142 | .084 | 18 |
| 19 | .039 | | .039 | .042 | | | .050 | .065 | 19 |
| 20 | .017 | | .020 | .016 | | | .017 | .025 | 20 |
| 21 | -.066 | | -.064 | -.051 | | | -.045 | -.003 | 21 |
| 22 | -.059 | | -.076 | -.072 | | | | .210 | 22 |
| 23 | -.065 | | | -.074 | | | -.071 | .025 | 23 |
| 24 | -.066 | | -.086 | -.077 | | | -.077 | -.068 | 24 |
| 25 | -.067 | | -.094 | -.085 | | | | -.094 | 25 |
| 26 | -.116 | | -.120 | -.114 | | | -.106 | -.145 | 26 |

Table 9 continued

Wing-surface Pressure Coefficients

Configuration H M= 1.61 R=3.6 x $10^6$

$\alpha$= −6° $\delta$= 0°

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .358 | | .507 | .527 | | | .516 | .457 | 1 |
| 2 | .300 | | .449 | .512 | | | .524 | .344 | 2 |
| 3 | .311 | | .396 | .457 | | | .497 | .294 | 3 |
| 4 | .306 | | .321 | .371 | | | .389 | .192 | 4 |
| 5 | .166 | | .186 | .238 | | | .383 | .192 | 5 |
| 6 | .178 | | .383 | .651 | | | .773 | .466 | 6 |
| 7 | .588 | | .624 | .707 | | | .785 | .502 | 7 |
| 8 | .625 | | .638 | .736 | | | .791 | .512 | 8 |
| 9 | .643 | | .654 | .740 | | | .812 | .352 | 9 |
| 10 | .649 | | .638 | .716 | | | .660 | - .362 | 10 |
| 11 | - .339 | | - .329 | - .347 | | | - .301 | - .357 | 11 |
| 12 | - .316 | | - .322 | - .333 | | | - .353 | - .368 | 12 |
| 13 | - .268 | | - .314 | - .334 | | | - .351 | - .364 | 13 |
| 14 | - .119 | | - .175 | - .255 | | | - .283 | - .346 | 14 |
| 15 | - .028 | | - .048 | - .155 | | | - .207 | - .294 | 15 |
| 16 | - .010 | | - .013 | - .076 | | | - .159 | - .244 | 16 |
| 17 | - .053 | | - .054 | | | | - .048 | - .016 | 17 |
| 18 | - .027 | | - .056 | - .052 | | | - .013 | .040 | 18 |
| 19 | - .028 | | - .055 | - .053 | | | - .046 | .018 | 19 |
| 20 | - .061 | | - .072 | - .077 | | | - .081 | - .021 | 20 |
| 21 | - .130 | | - .144 | - .131 | | | - .134 | - .063 | 21 |
| 22 | - .123 | | - .145 | - .152 | | | | .140 | 22 |
| 23 | - .128 | | | - .155 | | | - .150 | - .133 | 23 |
| 24 | - .132 | | - .148 | - .157 | | | - .157 | - .227 | 24 |
| 25 | - .133 | | - .158 | - .167 | | | - .149 | - .227 | 25 |
| 26 | - .177 | | - .179 | - .178 | | | - .160 | - .277 | 26 |

$\alpha$= −9° $\delta$= 0°

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .485 | | .710 | .788 | | | .809 | .665 | 1 |
| 2 | .412 | | .581 | .671 | | | .737 | .503 | 2 |
| 3 | .430 | | .521 | .598 | | | .640 | .391 | 3 |
| 4 | .418 | | .436 | .479 | | | .496 | .250 | 4 |
| 5 | .262 | | .276 | .328 | | | .751 | .436 | 5 |
| 6 | .534 | | .710 | .823 | | | .962 | .570 | 6 |
| 7 | .744 | | .790 | .904 | | | 1.030 | .656 | 7 |
| 8 | .782 | | .815 | .959 | | | 1.036 | .610 | 8 |
| 9 | .803 | | .860 | .993 | | | 1.043 | .542 | 9 |
| 10 | .810 | | .872 | .950 | | | .902 | - .371 | 10 |
| 11 | - .339 | | - .331 | - .368 | | | - .317 | - .373 | 11 |
| 12 | - .302 | | - .322 | - .357 | | | - .372 | - .383 | 12 |
| 13 | - .265 | | - .314 | - .358 | | | - .374 | - .381 | 13 |
| 14 | - .078 | | - .187 | - .255 | | | - .346 | - .378 | 14 |
| 15 | .015 | | - .041 | - .128 | | | - .280 | - .356 | 15 |
| 16 | .025 | | .015 | - .056 | | | - .210 | - .321 | 16 |
| 17 | - .131 | | - .137 | - .148 | | | - .140 | - .104 | 17 |
| 18 | - .089 | | - .131 | - .133 | | | - .097 | - .011 | 18 |
| 19 | - .089 | | - .131 | - .129 | | | - .124 | - .065 | 19 |
| 20 | - .117 | | - .145 | - .148 | | | - .150 | - .098 | 20 |
| 21 | - .179 | | - .209 | - .196 | | | - .196 | - .159 | 21 |
| 22 | - .175 | | - .212 | - .216 | | | | - .194 | 22 |
| 23 | - .180 | | | - .221 | | | - .214 | - .240 | 23 |
| 24 | - .184 | | - .204 | - .222 | | | - .216 | - .277 | 24 |
| 25 | - .182 | | - .210 | - .229 | | | - .203 | - .289 | 25 |
| 26 | - .221 | | - .231 | - .244 | | | - .214 | - .347 | 26 |

$\alpha$= −12° $\delta$= 0°

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | .594 | | .852 | .929 | | | .977 | .806 | 1 |
| 2 | .508 | | .696 | .798 | | | .900 | .631 | 2 |
| 3 | .537 | | .628 | .704 | | | .827 | .530 | 3 |
| 4 | .508 | | .514 | .555 | | | .781 | .481 | 4 |
| 5 | .337 | | .339 | .779 | | | .854 | .527 | 5 |
| 6 | .770 | | .858 | .962 | | | 1.006 | .595 | 6 |
| 7 | .898 | | .971 | 1.110 | | | 1.147 | .700 | 7 |
| 8 | .944 | | 1.032 | 1.144 | | | 1.165 | .665 | 8 |
| 9 | .978 | | 1.085 | 1.157 | | | 1.174 | .656 | 9 |
| 10 | .993 | | 1.062 | 1.160 | | | 1.069 | - .388 | 10 |
| 11 | - .351 | | - .348 | - .371 | | | - .323 | - .388 | 11 |
| 12 | - .316 | | - .332 | - .362 | | | - .377 | - .401 | 12 |
| 13 | - .274 | | - .333 | - .366 | | | - .382 | - .398 | 13 |
| 14 | - .063 | | - .203 | - .288 | | | - .373 | - .402 | 14 |
| 15 | .064 | | - .026 | - .150 | | | - .309 | - .384 | 15 |
| 16 | .081 | | .048 | - .054 | | | - .224 | - .347 | 16 |
| 17 | - .184 | | - .212 | - .235 | | | - .247 | - .239 | 17 |
| 18 | - .140 | | - .191 | - .198 | | | - .185 | - .114 | 18 |
| 19 | - .137 | | - .187 | - .184 | | | - .186 | - .149 | 19 |
| 20 | - .157 | | - .200 | - .201 | | | - .205 | - .183 | 20 |
| 21 | - .218 | | - .260 | - .246 | | | - .246 | - .254 | 21 |
| 22 | - .210 | | - .263 | - .261 | | | | - .317 | 22 |
| 23 | - .215 | | | - .266 | | | - .263 | - .339 | 23 |
| 24 | - .218 | | - .247 | - .270 | | | - .269 | - .364 | 24 |
| 25 | - .222 | | - .248 | - .274 | | | - .249 | - .332 | 25 |
| 26 | - .253 | | - .265 | - .288 | | | - .248 | - .369 | 26 |

Table 9 concluded

Wing-surface Pressure Coefficients

Configuration H $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| $\alpha = -12^\circ$ $\delta = 15^\circ$ | | | | | | | | | |
| 1 | .600 | | .860 | .934 | | | .990 | .803 | 1 |
| 2 | .509 | | .701 | .804 | | | .914 | .632 | 2 |
| 3 | .542 | | .632 | .710 | | | .841 | .526 | 3 |
| 4 | .514 | | .516 | .564 | | | .790 | .468 | 4 |
| 5 | .341 | | .343 | .788 | | | .858 | .513 | 5 |
| 6 | .778 | | .868 | .969 | | | 1.006 | .582 | 6 |
| 7 | .908 | | .981 | 1.115 | | | 1.151 | .687 | 7 |
| 8 | .956 | | 1.044 | 1.152 | | | 1.170 | .654 | 8 |
| 9 | .993 | | 1.097 | 1.165 | | | 1.180 | .639 | 9 |
| 10 | 1.008 | | 1.083 | 1.168 | | | 1.090 | -.418 | 10 |
| 11 | -.447 | | -.425 | -.427 | | | -.346 | -.418 | 11 |
| 12 | -.401 | | -.432 | -.426 | | | -.418 | -.419 | 12 |
| 13 | -.372 | | -.417 | -.426 | | | -.423 | -.416 | 13 |
| 14 | -.304 | | -.373 | -.393 | | | -.417 | -.417 | 14 |
| 15 | -.269 | | -.319 | -.349 | | | -.401 | -.412 | 15 |
| 16 | -.203 | | -.223 | -.280 | | | -.376 | -.412 | 16 |
| 17 | -.187 | | -.215 | -.239 | | | -.258 | -.264 | 17 |
| 18 | -.140 | | -.195 | -.201 | | | -.205 | -.135 | 18 |
| 19 | -.139 | | -.190 | -.187 | | | -.190 | -.165 | 19 |
| 20 | -.160 | | -.204 | -.206 | | | -.209 | -.200 | 20 |
| 21 | -.217 | | -.261 | -.248 | | | -.249 | -.273 | 21 |
| 22 | -.212 | | -.266 | -.263 | | | | -.334 | 22 |
| 23 | -.216 | | | -.271 | | | -.269 | -.361 | 23 |
| 24 | -.221 | | -.248 | -.272 | | | -.275 | -.388 | 24 |
| 25 | -.221 | | -.248 | -.276 | | | -.253 | -.347 | 25 |
| 26 | -.254 | | -.268 | -.290 | | | -.252 | -.382 | 26 |
| $\alpha = -12^\circ$ $\delta = -15^\circ$ | | | | | | | | | |
| 1 | .597 | | .858 | .931 | | | .983 | .801 | 1 |
| 2 | .508 | | .698 | .801 | | | .907 | .626 | 2 |
| 3 | .539 | | .632 | .705 | | | .834 | .522 | 3 |
| 4 | .509 | | .518 | .559 | | | .785 | .472 | 4 |
| 5 | .342 | | .343 | .785 | | | .857 | .516 | 5 |
| 6 | .772 | | .865 | .968 | | | 1.007 | .588 | 6 |
| 7 | .905 | | .978 | 1.112 | | | 1.150 | .691 | 7 |
| 8 | .950 | | 1.041 | 1.149 | | | 1.168 | .657 | 8 |
| 9 | .984 | | 1.094 | 1.159 | | | 1.179 | .641 | 9 |
| 10 | 1.001 | | 1.071 | 1.165 | | | 1.045 | -.333 | 10 |
| 11 | .001 | | -.035 | -.131 | | | -.201 | -.322 | 11 |
| 12 | -.043 | | -.048 | -.144 | | | -.228 | -.339 | 12 |
| 13 | .029 | | -.066 | -.158 | | | -.235 | -.342 | 13 |
| 14 | .282 | | .095 | -.076 | | | -.243 | -.347 | 14 |
| 15 | .531 | | .403 | .183 | | | -.083 | -.243 | 15 |
| 16 | .480 | | .482 | .318 | | | .060 | -.149 | 16 |
| 17 | -.187 | | -.214 | -.237 | | | -.251 | -.253 | 17 |
| 18 | -.138 | | -.193 | -.199 | | | -.206 | -.126 | 18 |
| 19 | -.135 | | -.189 | -.184 | | | -.187 | -.155 | 19 |
| 20 | -.157 | | -.200 | -.204 | | | -.205 | -.189 | 20 |
| 21 | -.218 | | -.259 | -.247 | | | -.241 | -.260 | 21 |
| 22 | -.211 | | -.264 | -.261 | | | | -.327 | 22 |
| 23 | -.215 | | | -.269 | | | -.262 | -.346 | 23 |
| 24 | -.218 | | -.249 | -.269 | | | -.268 | -.382 | 24 |
| 25 | -.218 | | -.248 | -.276 | | | -.249 | -.346 | 25 |
| 26 | -.254 | | -.265 | -.290 | | | -.247 | -.374 | 26 |
| $\alpha = -15^\circ$ $\delta = 0^\circ$ | | | | | | | | | |
| 1 | .757 | | 1.053 | 1.161 | | | 1.180 | .952 | 1 |
| 2 | .668 | | .902 | 1.041 | | | 1.106 | .781 | 2 |
| 3 | .728 | | .847 | .966 | | | 1.023 | .680 | 3 |
| 4 | .687 | | .795 | .910 | | | .943 | .593 | 4 |
| 5 | .750 | | .848 | .926 | | | .952 | .596 | 5 |
| 6 | .915 | | .970 | 1.030 | | | 1.039 | .607 | 6 |
| 7 | 1.055 | | 1.088 | 1.160 | | | 1.186 | .727 | 7 |
| 8 | 1.133 | | 1.166 | 1.223 | | | 1.221 | .709 | 8 |
| 9 | 1.172 | | 1.226 | 1.255 | | | 1.233 | .650 | 9 |
| 10 | 1.195 | | 1.239 | 1.253 | | | 1.137 | -.403 | 10 |
| 11 | -.374 | | -.350 | -.364 | | | -.328 | -.406 | 11 |
| 12 | -.338 | | -.349 | -.359 | | | -.384 | -.433 | 12 |
| 13 | -.343 | | -.347 | -.367 | | | -.387 | -.432 | 13 |
| 14 | -.155 | | -.249 | -.338 | | | -.382 | -.437 | 14 |
| 15 | .029 | | -.063 | -.202 | | | -.334 | -.399 | 15 |
| 16 | .095 | | .038 | -.063 | | | -.247 | -.339 | 16 |
| 17 | -.249 | | -.323 | -.394 | | | -.437 | -.414 | 17 |
| 18 | -.188 | | -.265 | -.299 | | | -.312 | -.294 | 18 |
| 19 | -.184 | | -.252 | -.270 | | | -.311 | -.304 | 19 |
| 20 | -.205 | | -.255 | -.270 | | | -.302 | -.319 | 20 |
| 21 | -.254 | | -.310 | -.302 | | | -.322 | -.362 | 21 |
| 22 | -.248 | | -.313 | -.315 | | | | -.409 | 22 |
| 23 | -.253 | | | -.318 | | | -.329 | -.417 | 23 |
| 24 | -.255 | | -.298 | -.316 | | | -.336 | -.433 | 24 |
| 25 | -.254 | | -.290 | -.324 | | | -.317 | -.413 | 25 |
| 26 | -.287 | | -.300 | -.333 | | | -.303 | -.423 | 26 |

Table 10
Wing-surface Pressure Coefficients
Configuration I  M= 1.61  R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0°$ $\delta = 0°$ | | | | | |
| 1 | .138 | | .153 | .163 | | | .154 | .126 | 1 |
| 2 | .116 | | .156 | .158 | | | .158 | .107 | 2 |
| 3 | .115 | | .152 | .158 | | | .151 | .107 | 3 |
| 4 | .112 | | .115 | .130 | | | .112 | .070 | 4 |
| 5 | .003 | | .013 | .044 | | | .046 | .030 | 5 |
| 6 | .004 | | .000 | .012 | | | .016 | .016 | 6 |
| 7 | .005 | | -.009 | .009 | | | .013 | -.006 | 7 |
| 8 | -.011 | | -.010 | .002 | | | -.006 | .020 | 8 |
| 9 | -.008 | | -.027 | -.026 | | | -.021 | -.007 | 9 |
| 10 | -.035 | | -.052 | -.047 | | | -.049 | -.004 | 10 |
| 11 | -.023 | | -.051 | -.062 | | | -.055 | -.025 | 11 |
| 12 | | | -.030 | .001 | | | .016 | .049 | 12 |
| 13 | .025 | | .001 | .001 | | | .004 | .044 | 13 |
| 14 | -.001 | | .011 | .042 | | | .304 | .215 | 14 |
| 15 | .254 | | .312 | .348 | | | .375 | .275 | 15 |
| 16 | .378 | | .386 | .393 | | | .396 | .351 | 16 |
| 17 | .140 | | .151 | .145 | | | .154 | .130 | 17 |
| 18 | .117 | | .156 | .152 | | | .160 | .165 | 18 |
| 19 | .118 | | .155 | .154 | | | .154 | .107 | 19 |
| 20 | .097 | | .112 | .117 | | | .115 | .060 | 20 |
| 21 | .006 | | .008 | .046 | | | .042 | .031 | 21 |
| 22 | .010 | | -.001 | .018 | | | | .019 | 22 |
| 23 | .006 | | | .012 | | | .012 | .014 | 23 |
| 24 | .001 | | -.017 | .004 | | | -.001 | -.002 | 24 |
| 25 | -.002 | | -.028 | -.017 | | | -.018 | .017 | 25 |
| 26 | -.053 | | -.058 | -.048 | | | -.044 | -.010 | 26 |
| 28 | .015 | | .001 | -.004 | | | .002 | .025 | 28 |
| 29 | | | .001 | .005 | | | .014 | .026 | 29 |
| 30 | -.002 | | .001 | .005 | | | .001 | .026 | 30 |
| 31 | | | .001 | .005 | | | .002 | .126 | 31 |
| 32 | .004 | | .001 | -.009 | | | .002 | .077 | 32 |
| | | | | $\alpha = 0°$ $\delta = 15°$ | | | | | |
| 1 | .142 | | .163 | .165 | | | .161 | .121 | 1 |
| 2 | .108 | | .165 | .166 | | | .167 | .102 | 2 |
| 3 | .128 | | .160 | .168 | | | .164 | .095 | 3 |
| 4 | .113 | | .125 | .136 | | | .121 | .066 | 4 |
| 5 | .012 | | .018 | .055 | | | .056 | .012 | 5 |
| 6 | .005 | | .010 | .017 | | | .030 | .004 | 6 |
| 7 | .013 | | -.001 | .013 | | | .022 | -.012 | 7 |
| 8 | -.005 | | .002 | .009 | | | .004 | .000 | 8 |
| 9 | .004 | | -.021 | -.019 | | | -.015 | -.012 | 9 |
| 10 | -.030 | | -.040 | -.045 | | | -.043 | -.011 | 10 |
| 11 | -.020 | | -.040 | -.055 | | | -.045 | -.011 | 11 |
| 12 | | | -.264 | -.265 | | | -.256 | -.204 | 12 |
| 13 | -.265 | | -.287 | -.285 | | | -.285 | -.166 | 13 |
| 14 | -.261 | | -.287 | -.285 | | | -.116 | -.099 | 14 |
| 15 | -.182 | | -.127 | -.074 | | | -.060 | -.074 | 15 |
| 16 | -.050 | | -.047 | -.041 | | | -.037 | .021 | 16 |
| 17 | .146 | | .159 | .141 | | | .151 | .114 | 17 |
| 18 | .122 | | .156 | .147 | | | .160 | .152 | 18 |
| 19 | .123 | | .157 | .152 | | | .156 | .101 | 19 |
| 20 | .104 | | .118 | .121 | | | .114 | .042 | 20 |
| 21 | .010 | | .017 | .042 | | | .041 | .019 | 21 |
| 22 | .012 | | .009 | .019 | | | | .009 | 22 |
| 23 | .008 | | | .013 | | | .012 | .001 | 23 |
| 24 | .007 | | -.010 | .007 | | | -.002 | -.012 | 24 |
| 25 | .005 | | -.018 | -.016 | | | -.011 | .004 | 25 |
| 26 | .065 | | .162 | .032 | | | .114 | -.014 | 26 |
| 28 | .311 | | .306 | .321 | | | .325 | .318 | 28 |
| 29 | | | .382 | .398 | | | .403 | .326 | 29 |
| 30 | .465 | | .483 | .498 | | | .486 | .312 | 30 |
| 31 | | | .532 | .523 | | | .520 | .256 | 31 |
| 32 | .466 | | .493 | .501 | | | .498 | .240 | 32 |
| | | | | $\alpha = 0°$ $\delta = -15°$ | | | | | |
| 1 | .139 | | .158 | .167 | | | .153 | .119 | 1 |
| 2 | .100 | | .156 | .161 | | | .154 | .104 | 2 |
| 3 | .118 | | .151 | .160 | | | .150 | .104 | 3 |
| 4 | .104 | | .115 | .130 | | | .105 | .067 | 4 |
| 5 | .006 | | .010 | .043 | | | .045 | .024 | 5 |
| 6 | -.001 | | .000 | .012 | | | .014 | .016 | 6 |
| 7 | .000 | | -.009 | .006 | | | .033 | .010 | 7 |
| 8 | .025 | | .154 | .265 | | | .348 | .224 | 8 |
| 9 | .329 | | .360 | .336 | | | .372 | .299 | 9 |
| 10 | .359 | | .375 | .386 | | | .377 | .277 | 10 |
| 11 | .367 | | .372 | .384 | | | .393 | .251 | 11 |
| 12 | | | .387 | .403 | | | .393 | .242 | 12 |
| 13 | .423 | | .410 | .425 | | | .400 | .251 | 13 |
| 14 | .528 | | .500 | .552 | | | .495 | .289 | 14 |
| 15 | .659 | | .607 | .673 | | | .615 | .352 | 15 |
| 16 | .892 | | .774 | .839 | | | .762 | .581 | 16 |
| 17 | .147 | | .156 | .142 | | | .160 | .130 | 17 |
| 18 | .118 | | .157 | .149 | | | .163 | .169 | 18 |
| 19 | .120 | | .157 | .156 | | | .160 | .109 | 19 |
| 20 | .105 | | .120 | .120 | | | .125 | .066 | 20 |
| 21 | .006 | | .014 | .044 | | | .048 | .026 | 21 |
| 22 | .012 | | .006 | .022 | | | | .015 | 22 |
| 23 | .006 | | | .013 | | | .017 | .015 | 23 |
| 24 | .002 | | -.012 | .007 | | | .000 | .001 | 24 |
| 25 | -.001 | | -.021 | -.013 | | | -.008 | .114 | 25 |
| 26 | -.046 | | -.053 | -.045 | | | -.037 | .144 | 26 |
| 28 | -.267 | | -.279 | -.277 | | | -.265 | -.044 | 28 |
| 29 | | | -.290 | -.277 | | | -.279 | -.060 | 29 |
| 30 | -.232 | | -.290 | -.294 | | | -.290 | -.152 | 30 |
| 31 | | | -.290 | -.294 | | | -.301 | -.242 | 31 |
| 32 | -.285 | | -.290 | -.294 | | | -.301 | -.277 | 32 |

Table 10 continued

Wing-surface Pressure Coefficients

Configuration I $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 3°$ | $\delta = 0°$ | | | | |
| 1 | .042 | | .052 | .056 | | | .046 | .037 | 1 |
| 2 | .029 | | .050 | .055 | | | .058 | .057 | 2 |
| 3 | .040 | | .043 | .050 | | | .052 | .065 | 3 |
| 4 | .021 | | .022 | .035 | | | .011 | .044 | 4 |
| 5 | -.065 | | -.064 | -.040 | | | -.045 | -.006 | 5 |
| 6 | -.070 | | -.072 | -.064 | | | -.071 | -.007 | 6 |
| 7 | -.061 | | -.072 | -.070 | | | -.065 | -.027 | 7 |
| 8 | -.073 | | -.072 | -.078 | | | -.084 | -.032 | 8 |
| 9 | -.067 | | -.094 | -.021 | | | -.092 | -.045 | 9 |
| 10 | -.098 | | -.111 | -.111 | | | -.111 | -.057 | 10 |
| 11 | -.086 | | -.108 | -.127 | | | -.108 | -.087 | 11 |
| 12 | | | -.081 | -.075 | | | -.057 | -.035 | 12 |
| 13 | -.030 | | -.055 | -.064 | | | -.041 | -.035 | 13 |
| 14 | -.030 | | -.045 | -.037 | | | .237 | -.075 | 14 |
| 15 | .180 | | .222 | .246 | | | .271 | .211 | 15 |
| 16 | .306 | | .312 | .302 | | | .292 | .375 | 16 |
| 17 | .241 | | .299 | .283 | | | .292 | .256 | 17 |
| 18 | .195 | | .287 | .283 | | | .291 | .247 | 18 |
| 19 | .201 | | .273 | .287 | | | .296 | .179 | 19 |
| 20 | .181 | | .210 | .244 | | | .244 | .117 | 20 |
| 21 | .079 | | .091 | .149 | | | .154 | .070 | 21 |
| 22 | .088 | | .080 | .107 | | | | .037 | 22 |
| 23 | .078 | | | .087 | | | .109 | .015 | 23 |
| 24 | .078 | | .062 | .076 | | | .086 | -.001 | 24 |
| 25 | .070 | | .052 | .065 | | | .071 | .020 | 25 |
| 26 | .012 | | .022 | .037 | | | .028 | -.006 | 26 |
| 28 | .082 | | .075 | .077 | | | .075 | .035 | 28 |
| 29 | | | .075 | .079 | | | .075 | .022 | 29 |
| 30 | .065 | | .075 | .079 | | | .056 | -.001 | 30 |
| 31 | | | .075 | .074 | | | .051 | .016 | 31 |
| 32 | .094 | | .075 | .070 | | | .052 | .107 | 32 |
| | | | | $\alpha = 6°$ | $\delta = 0°$ | | | | |
| 1 | -.039 | | -.041 | -.030 | | | -.041 | -.040 | 1 |
| 2 | -.032 | | -.038 | -.037 | | | -.032 | -.006 | 2 |
| 3 | -.017 | | -.046 | -.038 | | | -.038 | .010 | 3 |
| 4 | -.034 | | -.062 | -.057 | | | -.071 | -.017 | 4 |
| 5 | -.115 | | -.132 | -.115 | | | -.118 | -.071 | 5 |
| 6 | -.116 | | -.132 | -.141 | | | -.138 | -.111 | 6 |
| 7 | -.111 | | -.132 | -.143 | | | -.142 | -.154 | 7 |
| 8 | -.122 | | -.131 | -.149 | | | -.148 | -.185 | 8 |
| 9 | -.123 | | -.145 | -.153 | | | -.146 | -.177 | 9 |
| 10 | -.146 | | -.161 | -.182 | | | -.160 | -.194 | 10 |
| 11 | -.140 | | -.161 | -.190 | | | -.147 | -.214 | 11 |
| 12 | | | -.135 | -.139 | | | -.107 | -.165 | 12 |
| 13 | -.086 | | -.110 | -.127 | | | -.097 | -.137 | 13 |
| 14 | -.086 | | -.110 | -.111 | | | .164 | -.220 | 14 |
| 15 | .107 | | .137 | .162 | | | .197 | .115 | 15 |
| 16 | .232 | | .232 | .212 | | | .212 | .277 | 16 |
| 17 | .346 | | .487 | .491 | | | .497 | .388 | 17 |
| 18 | .303 | | .437 | .478 | | | .502 | .356 | 18 |
| 19 | .306 | | .387 | .442 | | | .484 | .272 | 19 |
| 20 | .282 | | .309 | .353 | | | .385 | .179 | 20 |
| 21 | .161 | | .177 | .235 | | | .270 | .091 | 21 |
| 22 | .173 | | .162 | .199 | | | | .049 | 22 |
| 23 | .166 | | | .182 | | | .187 | .021 | 23 |
| 24 | .163 | | .151 | .176 | | | .163 | -.012 | 24 |
| 25 | .157 | | .137 | .152 | | | .138 | .021 | 25 |
| 26 | .086 | | .097 | .119 | | | .096 | -.017 | 26 |
| 28 | .139 | | .142 | .147 | | | .129 | .016 | 28 |
| 29 | | | .142 | .160 | | | .126 | .016 | 29 |
| 30 | .132 | | .144 | .152 | | | .114 | -.006 | 30 |
| 31 | | | .144 | .142 | | | .100 | -.015 | 31 |
| 32 | .135 | | .139 | .139 | | | .100 | .030 | 32 |
| | | | | $\alpha = 6°$ | $\delta = 15°$ | | | | |
| 1 | -.045 | | -.041 | -.036 | | | -.042 | -.032 | 1 |
| 2 | -.042 | | -.037 | -.035 | | | -.035 | -.004 | 2 |
| 3 | -.026 | | -.046 | -.037 | | | -.040 | .014 | 3 |
| 4 | -.042 | | -.068 | -.054 | | | -.072 | -.007 | 4 |
| 5 | -.135 | | -.137 | -.119 | | | -.119 | -.067 | 5 |
| 6 | -.132 | | -.137 | -.139 | | | -.140 | -.104 | 6 |
| 7 | -.124 | | -.137 | -.142 | | | -.142 | -.150 | 7 |
| 8 | -.133 | | -.134 | -.149 | | | -.155 | -.184 | 8 |
| 9 | -.132 | | -.149 | -.163 | | | -.144 | -.166 | 9 |
| 10 | -.150 | | -.166 | -.181 | | | -.160 | -.189 | 10 |
| 11 | -.148 | | -.166 | -.193 | | | -.146 | -.160 | 11 |
| 12 | | | -.325 | -.336 | | | -.309 | -.285 | 12 |
| 13 | -.317 | | -.341 | -.352 | | | -.343 | -.239 | 13 |
| 14 | -.317 | | -.352 | -.352 | | | -.254 | -.360 | 14 |
| 15 | -.317 | | -.231 | -.189 | | | -.136 | -.197 | 15 |
| 16 | -.074 | | -.150 | -.160 | | | -.124 | -.119 | 16 |
| 17 | .339 | | .484 | .483 | | | .483 | .383 | 17 |
| 18 | .302 | | .429 | .477 | | | .487 | .345 | 18 |
| 19 | .292 | | .380 | .439 | | | .476 | .265 | 19 |
| 20 | .259 | | .300 | .346 | | | .375 | .179 | 20 |
| 21 | .159 | | .177 | .226 | | | .259 | .104 | 21 |
| 22 | .166 | | .157 | .188 | | | | .059 | 22 |
| 23 | .160 | | | .172 | | | .178 | .025 | 23 |
| 24 | .153 | | .145 | .172 | | | .148 | -.019 | 24 |
| 25 | .189 | | .400 | .309 | | | .134 | .021 | 25 |
| 26 | .509 | | .533 | .538 | | | .484 | .200 | 26 |
| 28 | .558 | | .571 | .578 | | | .541 | .306 | 28 |
| 29 | | | .603 | .625 | | | .611 | .366 | 29 |
| 30 | .738 | | .721 | .754 | | | .718 | .446 | 30 |
| 31 | | | .769 | .788 | | | .719 | .417 | 31 |
| 32 | .625 | | .653 | .671 | | | .659 | .387 | 32 |

Table 10 continued

Wing-surface Pressure Coefficients

Configuration I M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 6°$ $\delta = -15°$ | | | | | |
| 1 | -.052 | | -.041 | -.038 | | | -.050 | -.040 | 1 |
| 2 | -.045 | | -.042 | -.039 | | | -.040 | -.007 | 2 |
| 3 | -.036 | | -.047 | -.042 | | | -.044 | .004 | 3 |
| 4 | -.048 | | -.066 | -.057 | | | -.081 | -.031 | 4 |
| 5 | -.131 | | -.136 | -.120 | | | -.124 | -.076 | 5 |
| 6 | -.136 | | -.136 | -.144 | | | -.144 | -.125 | 6 |
| 7 | -.122 | | -.141 | -.148 | | | -.139 | -.170 | 7 |
| 8 | -.139 | | -.130 | .106 | | | .154 | -.201 | 8 |
| 9 | -.085 | | .136 | .108 | | | .184 | -.194 | 9 |
| 10 | .155 | | .159 | .179 | | | .178 | -.147 | 10 |
| 11 | .160 | | .159 | .181 | | | .192 | -.025 | 11 |
| 12 | | | .180 | .195 | | | .192 | .072 | 12 |
| 13 | .226 | | .202 | .195 | | | .192 | .145 | 13 |
| 14 | .342 | | .286 | .246 | | | .284 | .134 | 14 |
| 15 | .478 | | .398 | .318 | | | .382 | .430 | 15 |
| 16 | .684 | | .601 | .403 | | | .448 | .826 | 16 |
| 17 | .346 | | .489 | .507 | | | .517 | .420 | 17 |
| 18 | .317 | | .438 | .491 | | | .524 | .381 | 18 |
| 19 | .302 | | .390 | .450 | | | .500 | .277 | 19 |
| 20 | .292 | | .314 | .362 | | | .403 | .189 | 20 |
| 21 | .160 | | .182 | .244 | | | .284 | .097 | 21 |
| 22 | .171 | | .165 | .201 | | | | .057 | 22 |
| 23 | .162 | | | .191 | | | .193 | .035 | 23 |
| 24 | .152 | | .151 | .174 | | | .167 | -.004 | 24 |
| 25 | .153 | | .139 | .163 | | | .149 | .022 | 25 |
| 26 | .094 | | .107 | .123 | | | .107 | -.010 | 26 |
| 28 | -.186 | | -.185 | -.189 | | | -.192 | -.240 | 28 |
| 29 | | | -.201 | -.189 | | | -.210 | -.205 | 29 |
| 30 | -.161 | | -.201 | -.184 | | | -.217 | -.129 | 30 |
| 31 | | | -.201 | -.195 | | | -.222 | -.056 | 31 |
| 32 | -.202 | | -.201 | -.200 | | | -.222 | -.079 | 32 |
| | | | | $\alpha = 9°$ $\delta = 0°$ | | | | | |
| 1 | -.126 | | -.122 | -.118 | | | -.133 | -.130 | 1 |
| 2 | -.098 | | -.120 | -.111 | | | -.121 | -.049 | 2 |
| 3 | -.091 | | -.121 | -.111 | | | -.120 | -.076 | 3 |
| 4 | -.107 | | -.138 | -.138 | | | -.148 | -.115 | 4 |
| 5 | -.185 | | -.205 | -.188 | | | -.191 | -.157 | 5 |
| 6 | -.179 | | -.198 | -.205 | | | -.209 | -.257 | 6 |
| 7 | -.172 | | -.192 | -.212 | | | -.207 | -.285 | 7 |
| 8 | -.185 | | -.187 | -.212 | | | -.216 | -.296 | 8 |
| 9 | -.184 | | -.199 | -.172 | | | -.212 | -.305 | 9 |
| 10 | -.202 | | -.207 | -.243 | | | -.212 | -.297 | 10 |
| 11 | -.190 | | -.207 | -.252 | | | -.192 | -.297 | 11 |
| 12 | | | -.176 | -.195 | | | -.155 | -.249 | 12 |
| 13 | -.151 | | -.154 | -.190 | | | -.141 | -.231 | 13 |
| 14 | -.141 | | -.155 | -.171 | | | .080 | -.262 | 14 |
| 15 | .032 | | .070 | .072 | | | .120 | -.006 | 15 |
| 16 | .174 | | .159 | .112 | | | .134 | .195 | 16 |
| 17 | .457 | | .692 | .755 | | | .799 | .613 | 17 |
| 18 | .410 | | .565 | .644 | | | .718 | .485 | 18 |
| 19 | .419 | | .505 | .582 | | | .637 | .355 | 19 |
| 20 | .383 | | .427 | .456 | | | .490 | .245 | 20 |
| 21 | .248 | | .262 | .322 | | | .357 | .135 | 21 |
| 22 | .262 | | .255 | .282 | | | | .089 | 22 |
| 23 | .252 | | | .271 | | | .258 | .055 | 23 |
| 24 | .247 | | .240 | .252 | | | .228 | .021 | 24 |
| 25 | .244 | | .234 | .239 | | | .201 | .050 | 25 |
| 26 | .164 | | .183 | .191 | | | .156 | .006 | 26 |
| 28 | .225 | | .236 | .242 | | | .202 | .026 | 28 |
| 29 | | | .236 | .242 | | | .189 | .012 | 29 |
| 30 | .210 | | .234 | .236 | | | .167 | .000 | 30 |
| 31 | | | .234 | .226 | | | .164 | -.001 | 31 |
| 32 | .212 | | .215 | .211 | | | .152 | -.001 | 32 |
| | | | | $\alpha = 12°$ $\delta = 0°$ | | | | | |
| 1 | -.184 | | -.196 | -.220 | | | -.234 | -.237 | 1 |
| 2 | -.137 | | -.182 | -.189 | | | -.206 | -.146 | 2 |
| 3 | -.134 | | -.185 | -.183 | | | -.185 | -.146 | 3 |
| 4 | -.143 | | -.196 | -.199 | | | -.209 | -.210 | 4 |
| 5 | -.218 | | -.248 | -.244 | | | -.240 | -.261 | 5 |
| 6 | -.198 | | -.251 | -.254 | | | -.265 | -.333 | 6 |
| 7 | -.206 | | -.243 | -.258 | | | -.258 | -.372 | 7 |
| 8 | -.209 | | -.233 | -.262 | | | -.266 | -.352 | 8 |
| 9 | -.211 | | -.234 | -.246 | | | -.249 | -.362 | 9 |
| 10 | -.230 | | -.241 | -.283 | | | -.256 | -.360 | 10 |
| 11 | -.227 | | -.240 | -.293 | | | -.219 | -.360 | 11 |
| 12 | | | -.226 | -.254 | | | -.216 | -.317 | 12 |
| 13 | -.187 | | -.206 | -.250 | | | -.200 | -.299 | 13 |
| 14 | -.177 | | -.202 | -.234 | | | -.011 | -.330 | 14 |
| 15 | -.042 | | -.010 | -.011 | | | .050 | -.107 | 15 |
| 16 | .110 | | .082 | .022 | | | .057 | .077 | 16 |
| 17 | .579 | | .868 | .941 | | | .967 | .719 | 17 |
| 18 | .531 | | .710 | .797 | | | .860 | .570 | 18 |
| 19 | .554 | | .641 | .709 | | | .735 | .423 | 19 |
| 20 | .501 | | .514 | .549 | | | .580 | .317 | 20 |
| 21 | .346 | | .349 | .406 | | | .438 | .184 | 21 |
| 22 | .360 | | .345 | .372 | | | | .125 | 22 |
| 23 | .348 | | | .366 | | | .340 | .101 | 23 |
| 24 | .343 | | .339 | .348 | | | .313 | .055 | 24 |
| 25 | .335 | | .328 | .323 | | | .292 | .094 | 25 |
| 26 | .250 | | .272 | .288 | | | .241 | .044 | 26 |
| 28 | .301 | | .312 | .320 | | | .275 | .046 | 28 |
| 29 | | | .312 | .318 | | | .261 | .046 | 29 |
| 30 | .284 | | .305 | .307 | | | .249 | .034 | 30 |
| 31 | | | .305 | .295 | | | .231 | .024 | 31 |
| 32 | .291 | | .297 | .279 | | | .225 | .030 | 32 |

Table 10 continued

Wing-surface Pressure Coefficients

Configuration I  M= 1.61  R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 12°$ $\delta = 15°$ | | | | | |
| 1 | -.187 | | -.204 | -.218 | | | -.236 | -.229 | 1 |
| 2 | -.150 | | -.187 | -.185 | | | -.204 | -.131 | 2 |
| 3 | -.136 | | -.193 | -.181 | | | -.183 | -.131 | 3 |
| 4 | -.154 | | -.200 | -.198 | | | -.209 | -.190 | 4 |
| 5 | -.223 | | -.255 | -.242 | | | -.244 | -.247 | 5 |
| 6 | -.219 | | -.260 | -.258 | | | -.260 | -.332 | 6 |
| 7 | -.220 | | -.253 | -.264 | | | -.269 | -.356 | 7 |
| 8 | -.222 | | -.241 | -.265 | | | -.269 | -.356 | 8 |
| 9 | -.215 | | -.250 | -.266 | | | -.249 | -.343 | 9 |
| 10 | -.239 | | -.254 | -.286 | | | -.254 | -.318 | 10 |
| 11 | -.238 | | -.254 | -.294 | | | -.229 | -.301 | 11 |
| 12 | | | -.373 | -.390 | | | -.357 | -.392 | 12 |
| 13 | -.348 | | -.391 | -.408 | | | -.388 | -.392 | 13 |
| 14 | -.361 | | -.391 | -.408 | | | -.371 | -.415 | 14 |
| 15 | -.386 | | -.323 | -.297 | | | -.224 | -.315 | 15 |
| 16 | -.134 | | -.232 | -.262 | | | -.210 | -.212 | 16 |
| 17 | .567 | | .854 | .929 | | | .954 | .714 | 17 |
| 18 | .527 | | .703 | .796 | | | .849 | .576 | 18 |
| 19 | .536 | | .629 | .700 | | | .729 | .432 | 19 |
| 20 | .486 | | .505 | .542 | | | .575 | .310 | 20 |
| 21 | .340 | | .343 | .402 | | | .428 | .184 | 21 |
| 22 | .355 | | .340 | .363 | | | | .131 | 22 |
| 23 | .375 | | | .638 | | | .468 | .107 | 23 |
| 24 | .703 | | .732 | .786 | | | .694 | .279 | 24 |
| 25 | .785 | | .822 | .858 | | | .803 | .421 | 25 |
| 26 | .829 | | .856 | .905 | | | .862 | .475 | 26 |
| 28 | .903 | | .907 | .959 | | | .909 | .512 | 28 |
| 29 | | | .944 | .987 | | | .960 | .567 | 29 |
| 30 | 1.009 | | 1.015 | 1.013 | | | .960 | .622 | 30 |
| 31 | | | .938 | .924 | | | .872 | .538 | 31 |
| 32 | .719 | | .743 | .752 | | | .757 | .471 | 32 |
| | | | | $\alpha = 12°$ $\delta = -15°$ | | | | | |
| 1 | -.181 | | -.202 | -.225 | | | -.253 | -.232 | 1 |
| 2 | -.146 | | -.183 | -.195 | | | -.211 | -.131 | 2 |
| 3 | -.134 | | -.193 | -.185 | | | -.194 | -.144 | 3 |
| 4 | -.157 | | -.199 | -.206 | | | -.218 | -.209 | 4 |
| 5 | -.222 | | -.256 | -.254 | | | -.249 | -.252 | 5 |
| 6 | -.212 | | -.259 | -.267 | | | -.274 | -.331 | 6 |
| 7 | -.214 | | -.253 | -.268 | | | -.260 | -.368 | 7 |
| 8 | -.221 | | -.060 | -.051 | | | -.144 | -.350 | 8 |
| 9 | -.214 | | -.019 | -.042 | | | -.030 | -.361 | 9 |
| 10 | -.015 | | -.001 | -.003 | | | -.027 | -.361 | 10 |
| 11 | .021 | | -.002 | -.002 | | | -.005 | -.306 | 11 |
| 12 | | | .015 | .026 | | | -.006 | -.172 | 12 |
| 13 | .087 | | .012 | .026 | | | .009 | -.131 | 13 |
| 14 | .207 | | .060 | .052 | | | .135 | -.165 | 14 |
| 15 | .343 | | .130 | .105 | | | .260 | .031 | 15 |
| 16 | .623 | | .237 | .155 | | | .378 | .445 | 16 |
| 17 | .591 | | .876 | .949 | | | .973 | .739 | 17 |
| 18 | .546 | | .721 | .810 | | | .868 | .597 | 18 |
| 19 | .565 | | .641 | .708 | | | .743 | .447 | 19 |
| 20 | .514 | | .519 | .547 | | | .590 | .341 | 20 |
| 21 | .351 | | .354 | .404 | | | .442 | .212 | 21 |
| 22 | .367 | | .355 | .375 | | | | .144 | 22 |
| 23 | .352 | | | .375 | | | .348 | .121 | 23 |
| 24 | .348 | | .347 | .360 | | | .316 | .086 | 24 |
| 25 | .338 | | .338 | .342 | | | .294 | .126 | 25 |
| 26 | .253 | | .281 | .291 | | | .243 | .066 | 26 |
| 28 | -.092 | | -.094 | -.101 | | | -.112 | -.230 | 28 |
| 29 | | | -.101 | -.101 | | | -.136 | -.247 | 29 |
| 30 | -.072 | | -.101 | -.100 | | | -.136 | -.247 | 30 |
| 31 | | | -.112 | -.109 | | | -.145 | -.207 | 31 |
| 32 | -.089 | | -.112 | -.119 | | | -.151 | -.199 | 32 |
| | | | | $\alpha = 15°$ $\delta = 0°$ | | | | | |
| 1 | -.256 | | -.306 | -.341 | | | -.368 | -.343 | 1 |
| 2 | -.205 | | -.258 | -.276 | | | -.293 | -.239 | 2 |
| 3 | -.187 | | -.250 | -.253 | | | -.264 | -.239 | 3 |
| 4 | -.207 | | -.259 | -.263 | | | -.281 | -.287 | 4 |
| 5 | -.262 | | -.308 | -.304 | | | -.297 | -.332 | 5 |
| 6 | -.253 | | -.307 | -.309 | | | -.316 | -.391 | 6 |
| 7 | -.255 | | -.306 | -.310 | | | -.308 | -.416 | 7 |
| 8 | -.265 | | -.295 | -.312 | | | -.315 | -.386 | 8 |
| 9 | -.259 | | -.287 | -.221 | | | -.303 | -.408 | 9 |
| 10 | -.276 | | -.280 | -.331 | | | -.300 | -.401 | 10 |
| 11 | -.280 | | -.280 | -.336 | | | -.252 | -.378 | 11 |
| 12 | | | -.256 | -.300 | | | -.252 | -.367 | 12 |
| 13 | -.219 | | -.245 | -.297 | | | -.242 | -.357 | 13 |
| 14 | -.219 | | -.241 | -.291 | | | -.101 | -.383 | 14 |
| 15 | -.126 | | -.057 | -.095 | | | -.026 | -.217 | 15 |
| 16 | .066 | | .017 | -.057 | | | -.010 | -.044 | 16 |
| 17 | .739 | | 1.028 | 1.067 | | | 1.077 | .809 | 17 |
| 18 | .679 | | .850 | .922 | | | .956 | .653 | 18 |
| 19 | .704 | | .755 | .804 | | | .838 | .502 | 19 |
| 20 | .587 | | .595 | .633 | | | .666 | .387 | 20 |
| 21 | .431 | | .431 | .492 | | | .520 | .245 | 21 |
| 22 | .478 | | .479 | .506 | | | | .206 | 22 |
| 23 | .475 | | | .521 | | | .451 | .175 | 23 |
| 24 | .490 | | .503 | .509 | | | .427 | .136 | 24 |
| 25 | .478 | | .475 | .476 | | | .405 | .167 | 25 |
| 26 | .378 | | .403 | .407 | | | .349 | .117 | 26 |
| 28 | .435 | | .455 | .450 | | | .380 | .119 | 28 |
| 29 | | | .455 | .450 | | | .376 | .109 | 29 |
| 30 | .435 | | .455 | .436 | | | .352 | .101 | 30 |
| 31 | | | .455 | .418 | | | .342 | .094 | 31 |
| 32 | .418 | | .415 | .403 | | | .342 | .094 | 32 |

Table 10 continued

Wing-surface Pressure Coefficients

Configuration I $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -3°$ $\delta = 0°$ | | | | | |
| 1 | .234 | | .294 | .307 | | | .311 | .256 | 1 |
| 2 | .197 | | .284 | .295 | | | .286 | .206 | 2 |
| 3 | .208 | | .263 | .297 | | | .282 | .164 | 3 |
| 4 | .204 | | .209 | .252 | | | .234 | .132 | 4 |
| 5 | .080 | | .089 | .148 | | | .159 | .062 | 5 |
| 6 | .067 | | .083 | .106 | | | .124 | .027 | 6 |
| 7 | .081 | | .066 | .093 | | | .106 | .006 | 7 |
| 8 | .071 | | .075 | .079 | | | .078 | .006 | 8 |
| 9 | .071 | | .057 | .042 | | | .055 | -.001 | 9 |
| 10 | .032 | | .023 | .029 | | | .024 | -.001 | 10 |
| 11 | .055 | | .025 | .015 | | | .007 | -.022 | 11 |
| 12 | | | .040 | .081 | | | .096 | .050 | 12 |
| 13 | .086 | | .081 | .092 | | | .069 | .050 | 13 |
| 14 | .066 | | .086 | .156 | | | .367 | .249 | 14 |
| 15 | .361 | | .415 | .451 | | | .457 | .306 | 15 |
| 16 | .477 | | .485 | .503 | | | .496 | .412 | 16 |
| 17 | .062 | | .058 | .045 | | | .050 | .042 | 17 |
| 18 | .133 | | .057 | .053 | | | .064 | .094 | 18 |
| 19 | .053 | | .052 | .052 | | | .055 | .067 | 19 |
| 20 | .031 | | .032 | .026 | | | .014 | .030 | 20 |
| 21 | -.055 | | -.051 | -.043 | | | -.041 | -.002 | 21 |
| 22 | -.058 | | -.061 | -.065 | | | | -.001 | 22 |
| 23 | -.054 | | | -.064 | | | -.069 | -.019 | 23 |
| 24 | -.057 | | -.077 | -.070 | | | -.081 | -.037 | 24 |
| 25 | -.058 | | -.086 | -.078 | | | -.080 | -.020 | 25 |
| 26 | -.100 | | -.110 | -.108 | | | -.108 | -.042 | 26 |
| 28 | -.035 | | -.049 | -.062 | | | -.042 | -.034 | 28 |
| 29 | | | -.049 | -.041 | | | -.036 | -.044 | 29 |
| 30 | -.041 | | -.049 | -.049 | | | -.036 | -.030 | 30 |
| 31 | | | -.049 | -.049 | | | -.036 | .054 | 31 |
| 32 | -.040 | | -.049 | -.056 | | | -.036 | -.057 | 32 |
| | | | | $\alpha = -6°$ $\delta = 0°$ | | | | | |
| 1 | .347 | | .490 | .499 | | | .471 | .403 | 1 |
| 2 | .289 | | .431 | .483 | | | .475 | .302 | 2 |
| 3 | .302 | | .380 | .441 | | | .461 | .269 | 3 |
| 4 | .298 | | .312 | .359 | | | .378 | .176 | 4 |
| 5 | .165 | | .173 | .234 | | | .271 | .095 | 5 |
| 6 | .164 | | .159 | .180 | | | .219 | .024 | 6 |
| 7 | .161 | | .149 | .175 | | | .173 | .002 | 7 |
| 8 | .153 | | .160 | .172 | | | .142 | -.007 | 8 |
| 9 | .152 | | .134 | .135 | | | .106 | -.007 | 9 |
| 10 | .102 | | .095 | .105 | | | .067 | -.007 | 10 |
| 11 | .129 | | .095 | .078 | | | .051 | -.035 | 11 |
| 12 | | | .107 | .145 | | | .149 | .011 | 12 |
| 13 | .154 | | .145 | .155 | | | .114 | .040 | 13 |
| 14 | .134 | | .185 | .328 | | | .438 | .256 | 14 |
| 15 | .476 | | .492 | .550 | | | .515 | .285 | 15 |
| 16 | .585 | | .567 | .597 | | | .557 | .453 | 16 |
| 17 | -.032 | | -.035 | -.043 | | | -.039 | -.011 | 17 |
| 18 | -.004 | | -.030 | -.037 | | | -.030 | .027 | 18 |
| 19 | -.015 | | -.033 | -.036 | | | -.035 | .017 | 19 |
| 20 | -.037 | | -.050 | -.060 | | | -.072 | -.019 | 20 |
| 21 | -.108 | | -.121 | -.116 | | | -.119 | -.056 | 21 |
| 22 | -.113 | | -.129 | -.140 | | | | -.075 | 22 |
| 23 | -.110 | | | -.138 | | | -.140 | -.120 | 23 |
| 24 | -.115 | | -.129 | -.141 | | | -.148 | -.166 | 24 |
| 25 | -.113 | | -.142 | -.152 | | | -.145 | -.140 | 25 |
| 26 | -.159 | | -.171 | -.164 | | | -.160 | -.180 | 26 |
| 28 | -.100 | | -.129 | -.144 | | | -.109 | -.160 | 28 |
| 29 | | | -.114 | -.124 | | | -.092 | -.160 | 29 |
| 30 | -.100 | | -.114 | -.124 | | | -.094 | -.222 | 30 |
| 31 | | | -.114 | -.124 | | | -.094 | -.115 | 31 |
| 32 | -.100 | | -.114 | -.124 | | | -.087 | -.192 | 32 |
| | | | | $\alpha = -6°$ $\delta = 15°$ | | | | | |
| 1 | .349 | | .489 | .502 | | | .500 | .423 | 1 |
| 2 | .290 | | .433 | .492 | | | .507 | .336 | 2 |
| 3 | .303 | | .381 | .449 | | | .483 | .291 | 3 |
| 4 | .292 | | .322 | .367 | | | .374 | .191 | 4 |
| 5 | .163 | | .180 | .238 | | | .281 | .115 | 5 |
| 6 | .160 | | .157 | .188 | | | .234 | .046 | 6 |
| 7 | .160 | | .149 | .192 | | | .193 | .010 | 7 |
| 8 | .151 | | .153 | .181 | | | .160 | -.002 | 8 |
| 9 | .151 | | .136 | .151 | | | .124 | -.002 | 9 |
| 10 | .104 | | .098 | .110 | | | .083 | -.002 | 10 |
| 11 | .119 | | .096 | .109 | | | .065 | -.027 | 11 |
| 12 | | | -.182 | -.182 | | | -.186 | -.251 | 12 |
| 13 | -.185 | | -.209 | -.209 | | | -.220 | -.251 | 13 |
| 14 | -.167 | | -.206 | -.195 | | | -.220 | -.014 | 14 |
| 15 | -.066 | | .009 | .052 | | | .069 | .036 | 15 |
| 16 | .092 | | .082 | .105 | | | .084 | .054 | 16 |
| 17 | -.039 | | -.047 | -.043 | | | -.044 | -.012 | 17 |
| 18 | -.021 | | -.044 | -.038 | | | -.034 | .036 | 18 |
| 19 | -.026 | | -.043 | -.035 | | | -.042 | .017 | 19 |
| 20 | -.045 | | -.064 | -.070 | | | -.074 | -.014 | 20 |
| 21 | -.119 | | -.134 | -.123 | | | -.119 | -.049 | 21 |
| 22 | -.124 | | -.138 | -.138 | | | | -.090 | 22 |
| 23 | -.123 | | | -.144 | | | -.146 | -.132 | 23 |
| 24 | -.126 | | -.139 | -.141 | | | -.155 | -.170 | 24 |
| 25 | -.124 | | -.150 | -.155 | | | -.145 | -.150 | 25 |
| 26 | -.135 | | -.145 | -.170 | | | -.015 | -.185 | 26 |
| 28 | .150 | | .135 | .149 | | | .150 | .170 | 28 |
| 29 | | | .212 | .216 | | | .225 | .221 | 29 |
| 30 | .262 | | .301 | .291 | | | .313 | -.062 | 30 |
| 31 | | | .331 | .306 | | | .351 | .030 | 31 |
| 32 | .316 | | .312 | .306 | | | .343 | .117 | 32 |

Table 10 continued

Wing-surface Pressure Coefficients

Configuration I $M = 1.61$ $R = 3.6 \times 10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -6^\circ$ $\delta = -15^\circ$ | | | | | |
| 1 | .350 | | .497 | .502 | | | .479 | .421 | 1 |
| 2 | .294 | | .432 | .488 | | | .481 | .323 | 2 |
| 3 | .305 | | .386 | .443 | | | .464 | .285 | 3 |
| 4 | .297 | | .318 | .362 | | | .373 | .189 | 4 |
| 5 | .163 | | .181 | .234 | | | .270 | .105 | 5 |
| 6 | .165 | | .160 | .187 | | | .221 | .041 | 6 |
| 7 | .323 | | .449 | .537 | | | .542 | .232 | 7 |
| 8 | .555 | | .562 | .588 | | | .618 | .289 | 8 |
| 9 | .592 | | .587 | .602 | | | .635 | .336 | 9 |
| 10 | .606 | | .608 | .628 | | | .640 | .336 | 10 |
| 11 | .613 | | .598 | .634 | | | .651 | .310 | 11 |
| 12 | | | .642 | .656 | | | .664 | .331 | 12 |
| 13 | .656 | | .672 | .676 | | | .664 | .346 | 13 |
| 14 | .749 | | .773 | .779 | | | .747 | .445 | 14 |
| 15 | .862 | | .886 | .906 | | | .839 | .550 | 15 |
| 16 | 1.020 | | 1.058 | 1.028 | | | .934 | .883 | 16 |
| 17 | -.037 | | -.040 | -.047 | | | -.036 | -.007 | 17 |
| 18 | -.017 | | -.039 | -.041 | | | -.030 | .042 | 18 |
| 19 | -.017 | | -.038 | -.038 | | | -.030 | .022 | 19 |
| 20 | -.039 | | -.055 | -.069 | | | -.072 | -.010 | 20 |
| 21 | -.112 | | -.127 | -.121 | | | -.116 | -.036 | 21 |
| 22 | -.115 | | -.133 | -.136 | | | | -.072 | 22 |
| 23 | -.117 | | | -.143 | | | -.137 | -.117 | 23 |
| 24 | -.118 | | -.134 | -.137 | | | -.148 | -.117 | 24 |
| 25 | -.123 | | -.144 | -.156 | | | -.146 | .004 | 25 |
| 26 | -.154 | | -.169 | -.173 | | | -.157 | -.080 | 26 |
| 28 | -.321 | | -.332 | -.352 | | | -.322 | -.373 | 28 |
| 29 | | | -.345 | -.342 | | | -.331 | -.357 | 29 |
| 30 | -.280 | | -.352 | -.362 | | | -.340 | -.340 | 30 |
| 31 | | | -.352 | -.361 | | | -.340 | -.357 | 31 |
| 32 | -.341 | | -.352 | -.361 | | | -.325 | -.358 | 32 |
| | | | | $\alpha = -9^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .467 | | .698 | .769 | | | .796 | .639 | 1 |
| 2 | .395 | | .575 | .660 | | | .727 | .482 | 2 |
| 3 | .405 | | .508 | .591 | | | .639 | .373 | 3 |
| 4 | .254 | | .433 | .471 | | | .497 | .235 | 4 |
| 5 | .253 | | .268 | .329 | | | .377 | .140 | 5 |
| 6 | .259 | | .249 | .284 | | | .307 | .062 | 6 |
| 7 | .246 | | .251 | .283 | | | .273 | .032 | 7 |
| 8 | .237 | | .257 | .274 | | | .235 | .006 | 8 |
| 9 | .184 | | .230 | .278 | | | .202 | .020 | 9 |
| 10 | .180 | | .181 | .202 | | | .156 | .020 | 10 |
| 11 | .210 | | .180 | .184 | | | .129 | -.007 | 11 |
| 12 | | | .186 | .235 | | | .210 | .011 | 12 |
| 13 | .230 | | .235 | .250 | | | .210 | .029 | 13 |
| 14 | .274 | | .411 | .523 | | | .535 | .302 | 14 |
| 15 | .606 | | .620 | .646 | | | .605 | .313 | 15 |
| 16 | .696 | | .674 | .716 | | | .639 | .500 | 16 |
| 17 | -.125 | | -.119 | -.126 | | | -.126 | -.076 | 17 |
| 18 | -.077 | | -.126 | -.114 | | | -.109 | -.005 | 18 |
| 19 | -.088 | | -.124 | -.112 | | | -.112 | -.056 | 19 |
| 20 | -.107 | | -.138 | -.134 | | | -.141 | -.092 | 20 |
| 21 | -.174 | | -.200 | -.185 | | | -.189 | -.156 | 21 |
| 22 | -.172 | | -.205 | -.200 | | | | -.217 | 22 |
| 23 | -.174 | | | -.207 | | | -.204 | -.267 | 23 |
| 24 | -.180 | | -.194 | -.205 | | | -.205 | -.287 | 24 |
| 25 | -.181 | | -.199 | -.215 | | | -.197 | -.261 | 25 |
| 26 | -.209 | | -.221 | -.227 | | | -.203 | -.292 | 26 |
| 28 | -.149 | | -.171 | -.202 | | | -.161 | -.251 | 28 |
| 29 | | | -.164 | -.184 | | | -.139 | -.251 | 29 |
| 30 | -.149 | | -.164 | -.197 | | | -.134 | -.251 | 30 |
| 31 | | | -.164 | -.196 | | | -.134 | -.205 | 31 |
| 32 | -.149 | | -.164 | -.196 | | | -.134 | -.286 | 32 |
| | | | | $\alpha = -12^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .634 | | .891 | .967 | | | .965 | .771 | 1 |
| 2 | .541 | | .744 | .831 | | | .867 | .600 | 2 |
| 3 | .565 | | .666 | .729 | | | .753 | .460 | 3 |
| 4 | .540 | | .537 | .576 | | | .587 | .305 | 4 |
| 5 | .368 | | .362 | .420 | | | .458 | .201 | 5 |
| 6 | .367 | | .361 | .393 | | | .380 | .121 | 6 |
| 7 | .366 | | .361 | .383 | | | .355 | .081 | 7 |
| 8 | .348 | | .363 | .378 | | | .333 | .052 | 8 |
| 9 | .337 | | .340 | .329 | | | .293 | .069 | 9 |
| 10 | .283 | | .283 | .295 | | | .231 | .069 | 10 |
| 11 | .309 | | .283 | .270 | | | .196 | .037 | 11 |
| 12 | | | .285 | .356 | | | .357 | .060 | 12 |
| 13 | .328 | | .372 | .427 | | | .503 | .181 | 13 |
| 14 | .649 | | .674 | .704 | | | .689 | .341 | 14 |
| 15 | .761 | | .774 | .786 | | | .737 | .383 | 15 |
| 16 | .842 | | .831 | .854 | | | .789 | .572 | 16 |
| 17 | -.195 | | -.222 | -.254 | | | -.273 | -.239 | 17 |
| 18 | -.127 | | -.200 | -.212 | | | -.215 | -.122 | 18 |
| 19 | -.135 | | -.192 | -.196 | | | -.198 | -.160 | 19 |
| 20 | -.155 | | -.202 | -.218 | | | -.217 | -.191 | 20 |
| 21 | -.215 | | -.259 | -.253 | | | -.258 | -.265 | 21 |
| 22 | -.216 | | -.263 | -.270 | | | | -.323 | 22 |
| 23 | -.215 | | | -.272 | | | -.272 | -.350 | 23 |
| 24 | -.219 | | -.244 | -.273 | | | -.279 | -.371 | 24 |
| 25 | -.217 | | -.245 | -.283 | | | -.262 | -.341 | 25 |
| 26 | -.241 | | -.262 | -.289 | | | -.258 | -.377 | 26 |
| 28 | -.184 | | -.221 | -.267 | | | -.226 | -.323 | 28 |
| 29 | | | -.211 | -.239 | | | -.202 | -.323 | 29 |
| 30 | -.184 | | -.211 | -.255 | | | -.199 | -.313 | 30 |
| 31 | | | -.211 | -.255 | | | -.199 | -.333 | 31 |
| 32 | -.196 | | -.211 | -.255 | | | -.199 | -.342 | 32 |

Table 10 concluded

Wing-surface Pressure Coefficients

Configuration I M= 1.61 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$= -12° $\delta$= 15° | | | | | |
| 1 | .635 | | .902 | .968 | | | .973 | .769 | 1 |
| 2 | .546 | | .743 | .833 | | | .876 | .572 | 2 |
| 3 | .571 | | .667 | .735 | | | .765 | .437 | 3 |
| 4 | .544 | | .546 | .580 | | | .592 | .290 | 4 |
| 5 | .370 | | .366 | .427 | | | .462 | .186 | 5 |
| 6 | .375 | | .365 | .397 | | | .393 | .101 | 6 |
| 7 | .369 | | .366 | .396 | | | .363 | .069 | 7 |
| 8 | .355 | | .366 | .387 | | | .335 | .035 | 8 |
| 9 | .339 | | .345 | .337 | | | .300 | .051 | 9 |
| 10 | .282 | | .287 | .301 | | | .237 | .047 | 10 |
| 11 | .307 | | .286 | .274 | | | .207 | .012 | 11 |
| 12 | | | -.120 | -.124 | | | -.129 | -.269 | 12 |
| 13 | -.129 | | -.131 | -.129 | | | -.171 | -.272 | 13 |
| 14 | -.115 | | -.131 | -.135 | | | -.171 | -.236 | 14 |
| 15 | .055 | | .112 | .172 | | | .166 | .006 | 15 |
| 16 | .186 | | .196 | .217 | | | .192 | .094 | 16 |
| 17 | -.190 | | -.220 | -.259 | | | -.271 | -.260 | 17 |
| 18 | -.134 | | -.202 | -.210 | | | -.221 | -.154 | 18 |
| 19 | -.137 | | -.190 | -.197 | | | -.202 | -.186 | 19 |
| 20 | -.159 | | -.206 | -.217 | | | -.218 | -.216 | 20 |
| 21 | -.214 | | -.256 | -.254 | | | -.257 | -.286 | 21 |
| 22 | -.213 | | -.262 | -.265 | | | | -.351 | 22 |
| 23 | -.211 | | | -.278 | | | -.274 | -.366 | 23 |
| 24 | -.219 | | -.244 | -.279 | | | -.275 | -.395 | 24 |
| 25 | -.217 | | -.243 | -.283 | | | -.263 | -.381 | 25 |
| 26 | -.243 | | -.211 | -.296 | | | -.162 | -.390 | 26 |
| 28 | .001 | | -.041 | -.072 | | | -.045 | -.197 | 28 |
| 29 | | | .007 | -.025 | | | .012 | -.177 | 29 |
| 30 | .096 | | .096 | .037 | | | .096 | -.239 | 30 |
| 31 | | | .127 | .057 | | | .134 | -.265 | 31 |
| 32 | .136 | | .127 | .072 | | | .141 | -.307 | 32 |
| | | | | $\alpha$= -15° $\delta$= 0° | | | | | |
| 1 | .763 | | 1.037 | 1.077 | | | 1.059 | .829 | 1 |
| 2 | .680 | | .858 | .930 | | | .965 | .638 | 2 |
| 3 | .722 | | .769 | .817 | | | .835 | .500 | 3 |
| 4 | .628 | | .612 | .655 | | | .667 | .355 | 4 |
| 5 | .440 | | .441 | .496 | | | .536 | .231 | 5 |
| 6 | .490 | | .488 | .516 | | | .486 | .146 | 6 |
| 7 | .495 | | .493 | .533 | | | .474 | .125 | 7 |
| 8 | .491 | | .523 | .526 | | | .452 | .105 | 8 |
| 9 | .475 | | .477 | .470 | | | .395 | .121 | 9 |
| 10 | .517 | | .580 | .639 | | | .577 | .130 | 10 |
| 11 | .723 | | .580 | .745 | | | .721 | .246 | 11 |
| 12 | | | .803 | .836 | | | .774 | .391 | 12 |
| 13 | .796 | | .828 | .854 | | | .812 | .431 | 13 |
| 14 | .871 | | .902 | .928 | | | .901 | .495 | 14 |
| 15 | .952 | | .980 | 1.005 | | | .963 | .566 | 15 |
| 16 | 1.035 | | 1.063 | 1.064 | | | 1.019 | .881 | 16 |
| 17 | -.255 | | -.322 | -.351 | | | -.380 | -.358 | 17 |
| 18 | -.185 | | -.264 | -.289 | | | -.301 | -.236 | 18 |
| 19 | -.185 | | -.253 | -.255 | | | -.271 | -.250 | 19 |
| 20 | -.200 | | -.257 | -.267 | | | -.277 | -.290 | 20 |
| 21 | -.254 | | -.305 | -.302 | | | -.304 | -.351 | 21 |
| 22 | -.256 | | -.316 | -.315 | | | | -.403 | 22 |
| 23 | -.257 | | | -.315 | | | -.316 | -.423 | 23 |
| 24 | -.259 | | -.296 | -.317 | | | -.320 | -.432 | 24 |
| 25 | -.263 | | -.291 | -.322 | | | -.310 | -.421 | 25 |
| 26 | -.278 | | -.303 | -.336 | | | -.303 | -.415 | 26 |
| 28 | -.245 | | -.280 | -.318 | | | -.267 | -.380 | 28 |
| 29 | | | -.277 | -.310 | | | -.255 | -.377 | 29 |
| 30 | -.236 | | -.272 | -.321 | | | -.259 | -.415 | 30 |
| 31 | | | -.270 | -.318 | | | -.261 | -.421 | 31 |
| 32 | -.265 | | -.272 | -.317 | | | -.259 | -.421 | 32 |

Table II

Wing-surface Pressure Coefficients

Configuration C M= 2.01 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = 0°$ $\delta = 0°$ | | | | | |
| 1 | .093 | | .089 | .102 | | | .099 | .091 | 1 |
| 2 | .077 | | .096 | .102 | | | .097 | .074 | 2 |
| 3 | .077 | | .096 | .100 | | | .099 | .069 | 3 |
| 4 | .070 | | .083 | .080 | | | .071 | .056 | 4 |
| 5 | -.004 | | .010 | .025 | | | .100 | .222 | 5 |
| 6 | -.005 | | -.008 | .337 | | | .364 | .247 | 6 |
| 7 | .283 | | .322 | .361 | | | .392 | .177 | 7 |
| 8 | .310 | | .333 | .348 | | | .342 | | 8 |
| 9 | .323 | | .313 | .356 | | | .801 | .474 | 9 |
| 10 | .558 | | .599 | -.266 | | | -.251 | -.263 | 10 |
| 11 | -.292 | | ~~.601~~ | -.273 | | | -.177 | -.255 | 11 |
| 12 | -.247 | | -.245 | -.235 | | | -.249 | -.249 | 12 |
| 13 | -.219 | | -.221 | -.207 | | | -.241 | -.222 | 13 |
| 14 | -.153 | | -.149 | -.152 | | | -.204 | -.173 | 14 |
| 15 | -.121 | | -.124 | -.136 | | | -.171 | -.138 | 15 |
| 16 | -.108 | | -.111 | -.112 | | | -.147 | -.113 | 16 |
| 17 | .093 | | .096 | .086 | | | .093 | .085 | 17 |
| 18 | .073 | | .094 | .091 | | | .094 | .083 | 18 |
| 19 | .070 | | .094 | .093 | | | .090 | .060 | 19 |
| 20 | .056 | | .076 | .072 | | | .067 | .032 | 20 |
| 21 | -.016 | | .004 | .017 | | | .022 | .019 | 21 |
| 22 | -.012 | | -.008 | -.002 | | | | .172 | 22 |
| 23 | -.012 | | | -.004 | | | -.001 | .038 | 23 |
| 24 | -.018 | | -.014 | -.006 | | | -.013 | -.029 | 24 |
| 25 | -.017 | | -.026 | -.015 | | | -.018 | -.032 | 25 |
| 26 | -.052 | | -.051 | -.034 | | | -.035 | -.059 | 26 |
| | | | | $\alpha = 3°$ $\delta = 0°$ | | | | | |
| 1 | .024 | | .020 | .031 | | | .031 | .022 | 1 |
| 2 | .017 | | .028 | .032 | | | .029 | .008 | 2 |
| 3 | .019 | | .029 | .026 | | | .029 | .017 | 3 |
| 4 | .020 | | .020 | .009 | | | .006 | .026 | 4 |
| 5 | -.059 | | -.049 | -.036 | | | .101 | .218 | 5 |
| 6 | -.047 | | -.058 | .243 | | | .255 | .230 | 6 |
| 7 | .204 | | .237 | .269 | | | .301 | .080 | 7 |
| 8 | .232 | | .244 | .252 | | | .270 | | 8 |
| 9 | .240 | | .229 | .259 | | | .510 | .446 | 9 |
| 10 | .511 | | .584 | -.272 | | | -.260 | -.269 | 10 |
| 11 | -.295 | | ~~.584~~ | -.279 | | | -.175 | -.266 | 11 |
| 12 | -.264 | | -.263 | -.256 | | | -.263 | -.260 | 12 |
| 13 | -.236 | | -.250 | -.231 | | | -.256 | -.247 | 13 |
| 14 | -.185 | | -.191 | -.185 | | | -.215 | -.196 | 14 |
| 15 | -.154 | | -.154 | -.167 | | | -.190 | -.171 | 15 |
| 16 | -.147 | | -.140 | -.136 | | | -.154 | -.162 | 16 |
| 17 | .175 | | .183 | .174 | | | .180 | .158 | 17 |
| 18 | .132 | | .184 | .178 | | | .175 | .139 | 18 |
| 19 | .143 | | .179 | .181 | | | .181 | .098 | 19 |
| 20 | .130 | | .157 | .158 | | | .152 | .061 | 20 |
| 21 | .046 | | .072 | .090 | | | .099 | .040 | 21 |
| 22 | .050 | | .051 | .071 | | | | .172 | 22 |
| 23 | .048 | | | .067 | | | .070 | .096 | 23 |
| 24 | .046 | | .047 | .064 | | | .064 | .032 | 24 |
| 25 | .043 | | .030 | .052 | | | .055 | .019 | 25 |
| 26 | -.004 | | .007 | .029 | | | .030 | -.024 | 26 |
| | | | | $\alpha = 6°$ $\delta = 0°$ | | | | | |
| 1 | -.041 | | -.051 | -.035 | | | -.035 | -.050 | 1 |
| 2 | -.042 | | -.042 | -.033 | | | -.036 | -.031 | 2 |
| 3 | -.041 | | -.039 | -.042 | | | -.037 | -.022 | 3 |
| 4 | -.041 | | -.044 | -.055 | | | -.055 | -.009 | 4 |
| 5 | -.102 | | -.104 | -.093 | | | .067 | .147 | 5 |
| 6 | -.086 | | -.111 | .140 | | | .155 | .172 | 6 |
| 7 | .124 | | .151 | .178 | | | .205 | .083 | 7 |
| 8 | .156 | | .158 | .163 | | | .210 | | 8 |
| 9 | .162 | | .143 | .170 | | | .336 | .428 | 9 |
| 10 | .470 | | .563 | -.282 | | | -.266 | -.296 | 10 |
| 11 | -.305 | | | -.289 | | | -.176 | -.275 | 11 |
| 12 | -.274 | | -.266 | -.272 | | | -.265 | -.273 | 12 |
| 13 | -.251 | | -.252 | -.252 | | | -.256 | -.259 | 13 |
| 14 | -.204 | | -.204 | -.209 | | | -.212 | -.245 | 14 |
| 15 | -.180 | | -.181 | -.187 | | | -.186 | -.236 | 15 |
| 16 | -.171 | | -.148 | -.136 | | | -.152 | -.247 | 16 |
| 17 | .270 | | .281 | .275 | | | .279 | .252 | 17 |
| 18 | .209 | | .292 | .278 | | | .277 | .215 | 18 |
| 19 | .216 | | .282 | .286 | | | .286 | .167 | 19 |
| 20 | .202 | | .251 | .252 | | | .247 | .121 | 20 |
| 21 | .114 | | .142 | .182 | | | .186 | .064 | 21 |
| 22 | .115 | | .122 | .157 | | | | .119 | 22 |
| 23 | .114 | | | .154 | | | .155 | .126 | 23 |
| 24 | .112 | | .120 | .148 | | | .146 | .079 | 24 |
| 25 | .108 | | .095 | .129 | | | .133 | .087 | 25 |
| 26 | .057 | | .069 | .103 | | | .106 | .031 | 26 |

Table II continued

Wing-surface Pressure Coefficients

Configuration C M= 2.01 R=3.6 x $10^6$

| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha$ = 9° | $\delta$ = 0° | | | | |
| 1 | -.095 | | -.105 | -.095 | | | -.094 | -.097 | 1 |
| 2 | -.087 | | -.100 | -.094 | | | -.094 | -.078 | 2 |
| 3 | -.085 | | -.098 | -.102 | | | -.096 | -.061 | 3 |
| 4 | -.084 | | -.098 | -.113 | | | -.107 | -.052 | 4 |
| 5 | -.145 | | -.156 | -.146 | | | -.001 | .070 | 5 |
| 6 | -.125 | | -.158 | .039 | | | .048 | .066 | 6 |
| 7 | .043 | | .074 | .092 | | | .122 | .045 | 7 |
| 8 | .094 | | .080 | .095 | | | .122 | | 8 |
| 9 | .097 | | .072 | .090 | | | .284 | .402 | 9 |
| 10 | .378 | | .538 | -.293 | | | -.281 | -.286 | 10 |
| 11 | -.311 | | ~~.538~~ | -.298 | | | -.181 | -.287 | 11 |
| 12 | -.291 | | -.287 | -.287 | | | -.275 | -.291 | 12 |
| 13 | -.263 | | -.273 | -.275 | | | -.272 | -.277 | 13 |
| 14 | -.235 | | -.236 | -.237 | | | -.235 | -.281 | 14 |
| 15 | -.212 | | -.215 | -.207 | | | -.208 | -.284 | 18 |
| 16 | -.203 | | -.136 | -.164 | | | -.179 | -.295 | 16 |
| 17 | .382 | | .414 | .394 | | | .402 | .366 | 17 |
| 18 | .310 | | .419 | .401 | | | .403 | .329 | 18 |
| 19 | .303 | | .406 | .406 | | | .412 | .251 | 19 |
| 20 | .288 | | .345 | .370 | | | .363 | .194 | 20 |
| 21 | .189 | | .222 | .284 | | | .291 | .133 | 21 |
| 22 | .195 | | .202 | .250 | | | | .098 | 22 |
| 23 | .190 | | | .234 | | | .256 | .122 | 23 |
| 24 | .188 | | .194 | .224 | | | .243 | .089 | 24 |
| 25 | .185 | | .169 | .205 | | | .227 | .121 | 25 |
| 26 | .126 | | .137 | .176 | | | .191 | .079 | 26 |
| | | | | $\alpha$ = 12° | $\delta$ = 0° | | | | |
| 1 | -.143 | | -.150 | -.134 | | | -.137 | -.144 | 1 |
| 2 | -.128 | | -.141 | -.132 | | | -.131 | -.116 | 2 |
| 3 | -.127 | | -.140 | -.139 | | | -.135 | -.102 | 3 |
| 4 | -.122 | | -.140 | -.155 | | | -.140 | -.119 | 4 |
| 5 | -.179 | | -.187 | -.181 | | | -.057 | -.054 | 5 |
| 6 | -.160 | | -.191 | -.030 | | | -.013 | .001 | 6 |
| 7 | -.033 | | .020 | .032 | | | .055 | -.020 | 7 |
| 8 | .039 | | .021 | .039 | | | .065 | | 8 |
| 9 | .050 | | .017 | .041 | | | .232 | .374 | 9 |
| 10 | .313 | | .516 | -.295 | | | -.286 | -.306 | 10 |
| 11 | -.325 | | | -.300 | | | -.184 | -.305 | 11 |
| 12 | -.307 | | -.296 | -.295 | | | -.287 | -.296 | 12 |
| 13 | -.289 | | -.288 | -.281 | | | -.277 | -.288 | 13 |
| 14 | -.260 | | -.250 | -.249 | | | -.246 | -.295 | 14 |
| 15 | -.227 | | -.204 | -.219 | | | -.221 | -.286 | 15 |
| 16 | -.186 | | -.149 | -.180 | | | -.195 | -.283 | 16 |
| 17 | .458 | | .568 | .524 | | | .532 | .470 | 17 |
| 18 | .379 | | .532 | .531 | | | .529 | .403 | 18 |
| 19 | .375 | | .498 | .537 | | | .530 | .316 | 19 |
| 20 | .364 | | .416 | .481 | | | .484 | .259 | 20 |
| 21 | .257 | | .291 | .364 | | | .397 | .180 | 21 |
| 22 | .258 | | .277 | .320 | | | | .140 | 22 |
| 23 | .256 | | | .305 | | | .349 | .126 | 23 |
| 24 | .250 | | .257 | .290 | | | .327 | .096 | 24 |
| 25 | .247 | | .228 | .269 | | | .301 | .133 | 25 |
| 26 | .179 | | .205 | .239 | | | .257 | .096 | 26 |
| | | | | $\alpha$ = 15° | $\delta$ = 0° | | | | |
| 1 | -.180 | | -.186 | -.172 | | | -.173 | -.161 | 1 |
| 2 | -.168 | | -.179 | -.167 | | | -.169 | -.135 | 2 |
| 3 | -.161 | | -.177 | -.176 | | | -.175 | -.135 | 3 |
| 4 | -.166 | | -.180 | -.186 | | | -.166 | -.177 | 4 |
| 5 | -.210 | | -.217 | -.203 | | | -.099 | -.166 | 5 |
| 6 | -.184 | | -.212 | -.093 | | | -.064 | -.059 | 6 |
| 7 | -.120 | | -.049 | -.041 | | | -.021 | -.093 | 7 |
| 8 | -.014 | | -.042 | -.034 | | | -.007 | | 8 |
| 9 | -.012 | | -.051 | -.029 | | | .109 | .358 | 9 |
| 10 | .211 | | .501 | -.278 | | | -.287 | -.307 | 10 |
| 11 | -.308 | | | -.288 | | | -.182 | -.302 | 11 |
| 12 | -.292 | | -.270 | -.272 | | | -.282 | -.310 | 12 |
| 13 | -.274 | | -.264 | -.273 | | | -.277 | -.297 | 13 |
| 14 | -.245 | | -.233 | -.247 | | | -.247 | -.297 | 14 |
| 15 | -.205 | | -.212 | -.228 | | | -.233 | -.292 | 15 |
| 16 | -.152 | | -.187 | -.209 | | | -.208 | -.274 | 16 |
| 17 | .566 | | .763 | .793 | | | .819 | .694 | 17 |
| 18 | .473 | | .679 | .741 | | | .776 | .578 | 18 |
| 19 | .491 | | .609 | .691 | | | .732 | .465 | 19 |
| 20 | .471 | | .524 | .581 | | | .622 | .371 | 20 |
| 21 | .353 | | .387 | .450 | | | .504 | .264 | 21 |
| 22 | .356 | | .364 | .407 | | | | .200 | 22 |
| 23 | .351 | | | .396 | | | .421 | .171 | 23 |
| 24 | .349 | | .343 | .383 | | | .395 | .138 | 24 |
| 25 | .343 | | .328 | .363 | | | .363 | .164 | 25 |
| 26 | .265 | | .289 | .322 | | | .321 | .129 | 26 |

Table II continued

Wing-surface Pressure Coefficients

Configuration C $M = 2.01$ $R = 3.6 \times 10^6$

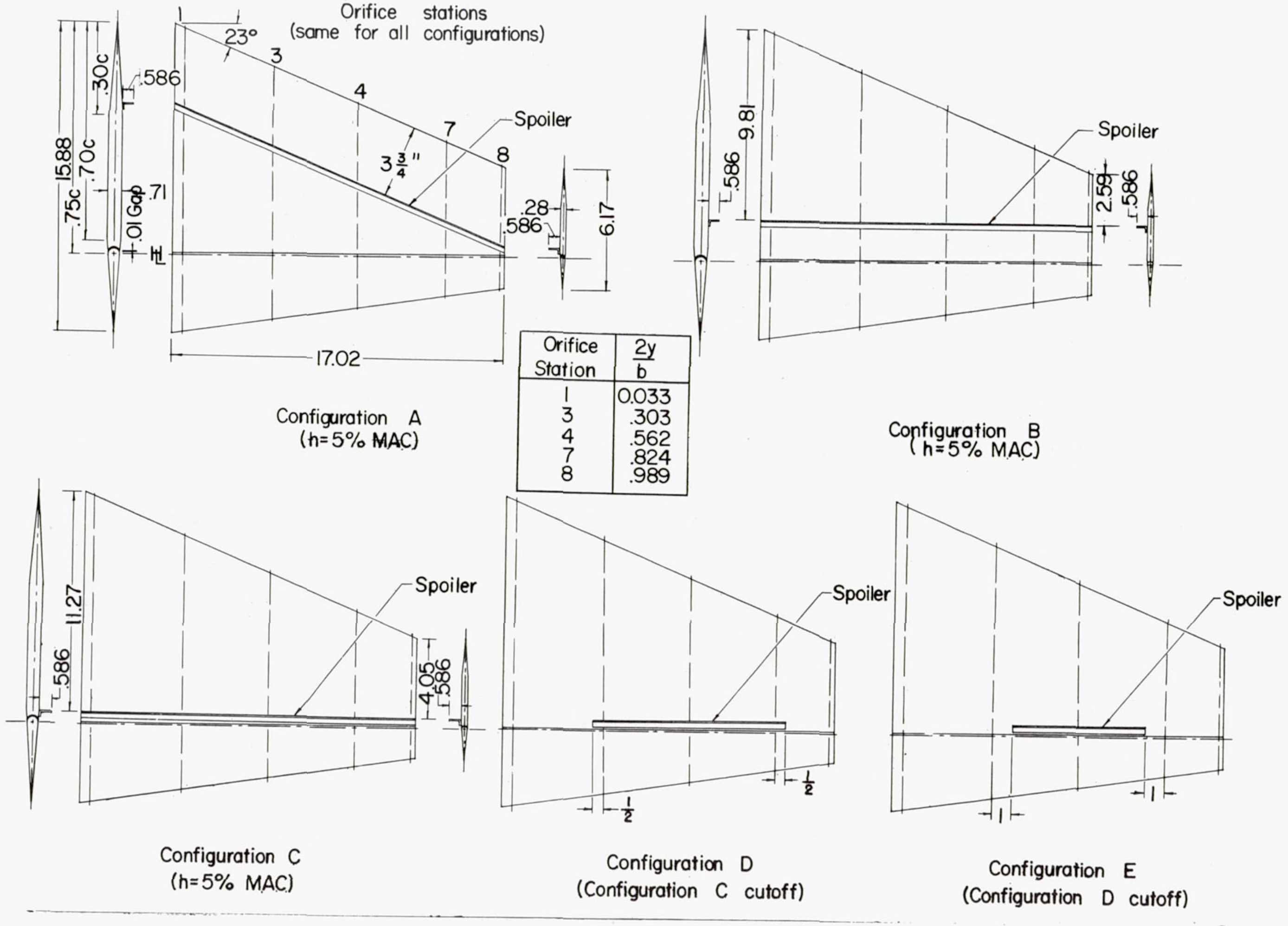
| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -3^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .173 | | .172 | .181 | | | .178 | .164 | 1 |
| 2 | .132 | | .180 | .171 | | | .178 | .113 | 2 |
| 3 | .138 | | .181 | .181 | | | .183 | .108 | 3 |
| 4 | .138 | | .156 | .158 | | | .151 | .066 | 4 |
| 5 | .053 | | .074 | .097 | | | .213 | .332 | 5 |
| 6 | .018 | | .055 | .437 | | | .481 | .347 | 6 |
| 7 | .375 | | .415 | .467 | | | .502 | .212 | 7 |
| 8 | .401 | | .421 | .444 | | | .458 | | 8 |
| 9 | .420 | | .413 | .462 | | | .784 | .349 | 9 |
| 10 | .659 | | .503 | -.258 | | | -.246 | -.275 | 10 |
| 11 | -.283 | | | -.269 | | | -.166 | -.263 | 11 |
| 12 | -.241 | | -.240 | -.236 | | | -.259 | -.235 | 12 |
| 13 | -.207 | | -.200 | -.212 | | | -.250 | -.210 | 13 |
| 14 | -.124 | | -.120 | -.145 | | | -.199 | -.152 | 14 |
| 15 | -.096 | | -.089 | -.113 | | | -.156 | -.111 | 15 |
| 16 | -.082 | | -.078 | -.085 | | | -.131 | -.089 | 16 |
| 17 | .032 | | .030 | .026 | | | .033 | .015 | 17 |
| 18 | .064 | | .026 | .025 | | | .096 | .047 | 18 |
| 19 | .024 | | .031 | .033 | | | .032 | .032 | 19 |
| 20 | .011 | | .016 | .014 | | | .013 | .005 | 20 |
| 21 | -.052 | | -.049 | -.037 | | | -.033 | -.010 | 21 |
| 22 | -.049 | | -.058 | -.053 | | | | .139 | 22 |
| 23 | -.054 | | | -.056 | | | -.050 | -.013 | 23 |
| 24 | -.050 | | -.058 | -.058 | | | -.050 | -.073 | 24 |
| 25 | -.053 | | -.068 | -.064 | | | -.055 | -.075 | 25 |
| 26 | -.081 | | -.087 | -.071 | | | -.075 | -.110 | 26 |
| | | | | $\alpha = -6^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .257 | | .268 | .275 | | | .270 | .268 | 1 |
| 2 | .209 | | .283 | .272 | | | .272 | .195 | 2 |
| 3 | .213 | | .276 | .278 | | | .281 | .173 | 3 |
| 4 | .212 | | .252 | .251 | | | .241 | .117 | 4 |
| 5 | .116 | | .136 | .178 | | | .453 | .296 | 5 |
| 6 | .107 | | .121 | .548 | | | .602 | .453 | 6 |
| 7 | .476 | | .511 | .581 | | | .612 | .221 | 7 |
| 8 | .499 | | .524 | .550 | | | .568 | | 8 |
| 9 | .504 | | .506 | .568 | | | .811 | .360 | 9 |
| 10 | .706 | | .504 | -.244 | | | -.230 | -.255 | 10 |
| 11 | -.258 | | | -.263 | | | -.159 | -.250 | 11 |
| 12 | -.212 | | -.218 | -.232 | | | -.213 | -.232 | 12 |
| 13 | -.179 | | -.176 | -.210 | | | -.193 | -.208 | 13 |
| 14 | -.075 | | -.075 | -.120 | | | -.121 | -.157 | 14 |
| 15 | -.033 | | -.033 | -.066 | | | -.077 | -.119 | 15 |
| 16 | -.019 | | -.020 | -.020 | | | -.060 | -.101 | 16 |
| 17 | -.039 | | -.042 | -.044 | | | -.038 | -.038 | 17 |
| 18 | -.019 | | -.045 | -.047 | | | -.027 | -.008 | 18 |
| 19 | -.036 | | -.038 | -.041 | | | -.040 | -.011 | 19 |
| 20 | -.049 | | -.053 | -.057 | | | -.057 | -.042 | 20 |
| 21 | -.104 | | -.109 | -.099 | | | -.097 | -.043 | 21 |
| 22 | -.101 | | -.114 | -.114 | | | | .097 | 22 |
| 23 | -.105 | | | -.117 | | | -.112 | -.083 | 23 |
| 24 | -.106 | | -.113 | -.118 | | | -.115 | -.149 | 24 |
| 25 | -.105 | | -.122 | -.124 | | | -.119 | -.138 | 25 |
| 26 | -.127 | | -.139 | -.133 | | | -.131 | -.162 | 26 |
| | | | | $\alpha = -9^\circ$ $\delta = 0^\circ$ | | | | | |
| 1 | .343 | | .416 | .392 | | | .383 | .379 | 1 |
| 2 | .289 | | .383 | .387 | | | .384 | .282 | 2 |
| 3 | .287 | | .395 | .391 | | | .395 | .245 | 3 |
| 4 | .288 | | .387 | .362 | | | .348 | .182 | 4 |
| 5 | .183 | | .338 | .276 | | | .687 | .520 | 5 |
| 6 | .182 | | .213 | .673 | | | .742 | .445 | 6 |
| 7 | .582 | | .201 | .709 | | | .743 | .314 | 7 |
| 8 | .603 | | .619 | .671 | | | .712 | | 8 |
| 9 | .603 | | .630 | .694 | | | .896 | .360 | 9 |
| 10 | .747 | | .521 | -.215 | | | -.197 | -.252 | 10 |
| 11 | -.237 | | | -.238 | | | -.149 | -.242 | 11 |
| 12 | -.194 | | -.198 | -.210 | | | -.199 | -.228 | 12 |
| 13 | -.147 | | -.150 | -.186 | | | -.163 | -.203 | 13 |
| 14 | -.040 | | -.028 | -.082 | | | -.083 | -.147 | 14 |
| 15 | .005 | | .011 | -.020 | | | -.047 | -.107 | 15 |
| 16 | .019 | | .027 | .023 | | | -.032 | -.087 | 16 |
| 17 | -.094 | | -.099 | -.095 | | | -.087 | -.083 | 17 |
| 18 | -.072 | | -.097 | -.095 | | | -.081 | -.046 | 18 |
| 19 | -.082 | | -.094 | -.092 | | | -.090 | -.054 | 19 |
| 20 | -.090 | | -.105 | -.111 | | | -.107 | -.075 | 20 |
| 21 | -.140 | | -.153 | -.141 | | | -.141 | -.087 | 21 |
| 22 | -.134 | | -.159 | -.152 | | | | -.027 | 22 |
| 23 | -.141 | | | -.158 | | | -.153 | -.182 | 23 |
| 24 | -.141 | | -.156 | -.157 | | | -.155 | -.218 | 24 |
| 25 | -.141 | | -.162 | -.163 | | | -.159 | -.198 | 25 |
| 26 | -.161 | | -.175 | -.172 | | | -.168 | -.221 | 26 |

Table II concluded

Wing-surface Pressure Coefficients

Configuration C $M = 2.01$ $R = 3.6 \times 10^6$

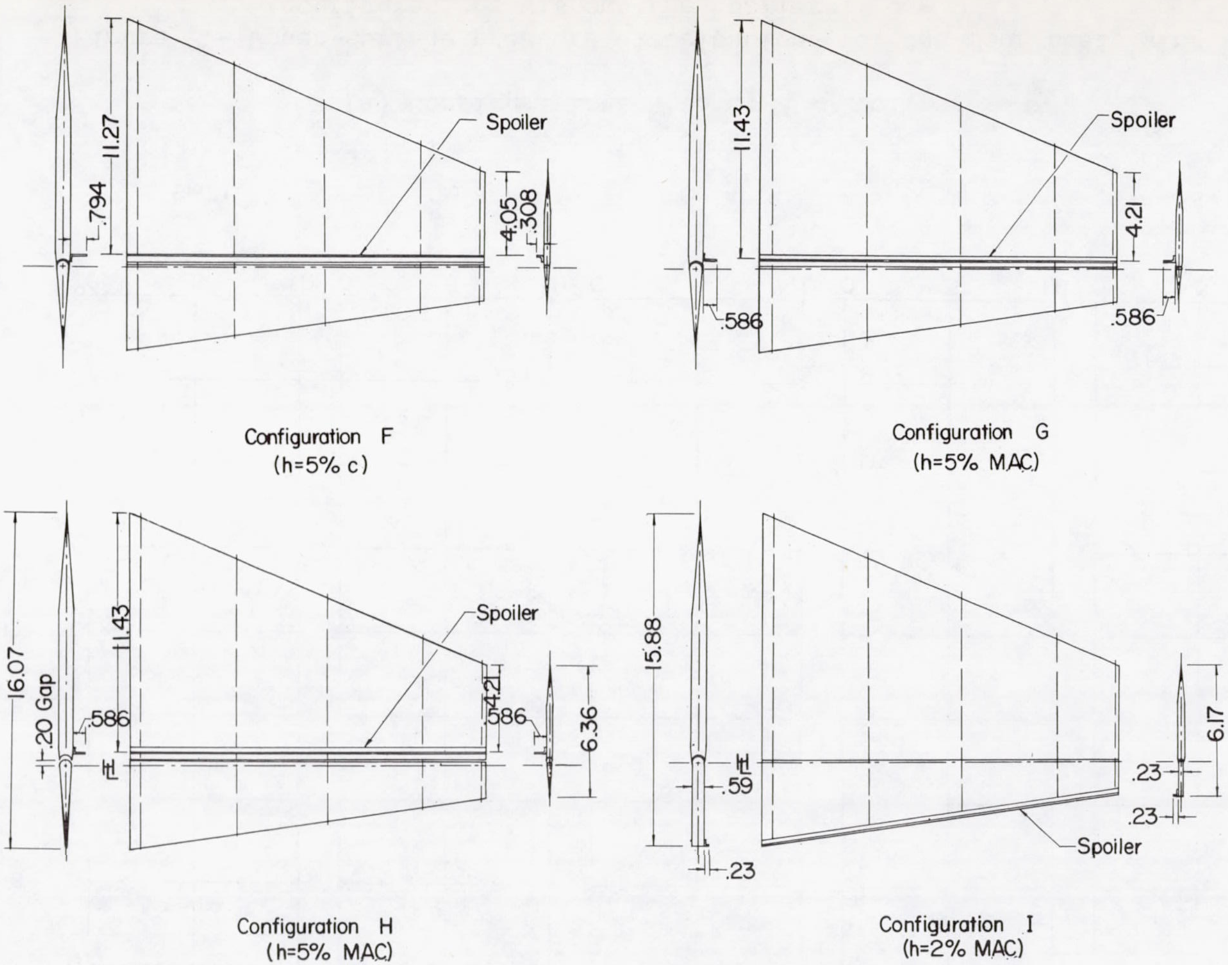
| Orif. | Sta. 1 | Sta. 2 | Sta. 3 | Sta. 4 | Sta. 5 | Sta. 6 | Sta. 7 | Sta. 8 | Orif. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | $\alpha = -12^\circ$ | $\delta = 0^\circ$ | | | | |
| 1 | .464 | | .596 | .580 | | | .565 | .533 | 1 |
| 2 | .398 | | .550 | .563 | | | .553 | .416 | 2 |
| 3 | .394 | | .515 | .565 | | | .566 | .360 | 3 |
| 4 | .394 | | .441 | .504 | | | .507 | .283 | 4 |
| 5 | .276 | | .310 | .385 | | | .902 | .638 | 5 |
| 6 | .276 | | .543 | .809 | | | .943 | .594 | 6 |
| 7 | .706 | | .748 | .852 | | | .928 | .451 | 7 |
| 8 | .720 | | .754 | .823 | | | .890 | | 8 |
| 9 | .722 | | .736 | .839 | | | 1.092 | .389 | 9 |
| 10 | .868 | | .545 | -.185 | | | -.170 | -.249 | 10 |
| 11 | -.201 | | ~~.545~~ | -.221 | | | -.149 | -.249 | 11 |
| 12 | -.139 | | -.181 | -.181 | | | -.198 | -.242 | 12 |
| 13 | -.079 | | -.134 | -.145 | | | -.164 | -.230 | 13 |
| 14 | .038 | | .001 | -.028 | | | -.073 | -.172 | 14 |
| 15 | .071 | | .073 | .047 | | | -.019 | -.122 | 15 |
| 16 | .083 | | .085 | .079 | | | .009 | -.097 | 16 |
| 17 | -.149 | | -.151 | -.153 | | | -.140 | -.126 | 17 |
| 18 | -.117 | | -.152 | -.150 | | | -.130 | -.084 | 18 |
| 19 | -.128 | | -.151 | -.145 | | | -.146 | -.102 | 19 |
| 20 | -.133 | | -.156 | -.162 | | | -.156 | -.129 | 20 |
| 21 | -.182 | | -.198 | -.189 | | | -.189 | -.171 | 21 |
| 22 | -.175 | | -.203 | -.199 | | | | -.161 | 22 |
| 23 | -.183 | | | -.200 | | | -.195 | -.232 | 23 |
| 24 | -.185 | | -.202 | -.204 | | | -.197 | -.260 | 24 |
| 25 | -.183 | | -.205 | -.205 | | | -.199 | -.233 | 25 |
| 26 | -.195 | | -.216 | -.213 | | | -.207 | -.252 | 26 |
| | | | | $\alpha = -15^\circ$ | $\delta = 0^\circ$ | | | | |
| 1 | .561 | | .780 | .837 | | | .851 | .770 | 1 |
| 2 | .497 | | .689 | .761 | | | .807 | .604 | 2 |
| 3 | .502 | | .625 | .711 | | | .755 | .495 | 3 |
| 4 | .498 | | .543 | .604 | | | .634 | .368 | 4 |
| 5 | .367 | | .406 | .484 | | | 1.039 | .646 | 5 |
| 6 | .394 | | .804 | .935 | | | 1.120 | .710 | 6 |
| 7 | .805 | | .867 | .990 | | | 1.111 | .681 | 7 |
| 8 | .809 | | .877 | .964 | | | 1.044 | | 8 |
| 9 | .827 | | .855 | .983 | | | 1.268 | .418 | 9 |
| 10 | 1.183 | | .578 | -.166 | | | -.148 | -.266 | 10 |
| 11 | -.171 | | ~~.578~~ | -.208 | | | -.149 | -.268 | 11 |
| 12 | -.105 | | -.164 | -.180 | | | -.217 | -.273 | 12 |
| 13 | -.070 | | -.110 | -.134 | | | -.194 | -.254 | 13 |
| 14 | .070 | | .043 | .014 | | | -.102 | -.210 | 14 |
| 15 | .120 | | .106 | .092 | | | -.026 | -.142 | 15 |
| 16 | .134 | | .138 | .128 | | | .010 | -.093 | 16 |
| 17 | -.185 | | -.188 | -.179 | | | -.168 | -.156 | 17 |
| 18 | -.149 | | -.186 | -.181 | | | -.163 | -.120 | 18 |
| 19 | -.160 | | -.188 | -.180 | | | -.176 | -.149 | 19 |
| 20 | -.166 | | -.191 | -.196 | | | -.187 | -.185 | 20 |
| 21 | -.205 | | -.225 | -.215 | | | -.217 | -.219 | 21 |
| 22 | -.200 | | -.232 | -.227 | | | | -.233 | 22 |
| 23 | -.206 | | | -.228 | | | -.220 | -.250 | 23 |
| 24 | -.209 | | -.229 | -.229 | | | -.223 | -.281 | 24 |
| 25 | -.208 | | -.232 | -.231 | | | -.226 | -.258 | 25 |
| 26 | -.218 | | -.241 | -.232 | | | -.229 | -.270 | 26 |




| Orifice Station | $\frac{2y}{b}$ |
|---|---|
| 1 | 0.033 |
| 3 | .303 |
| 4 | .562 |
| 7 | .824 |
| 8 | .989 |

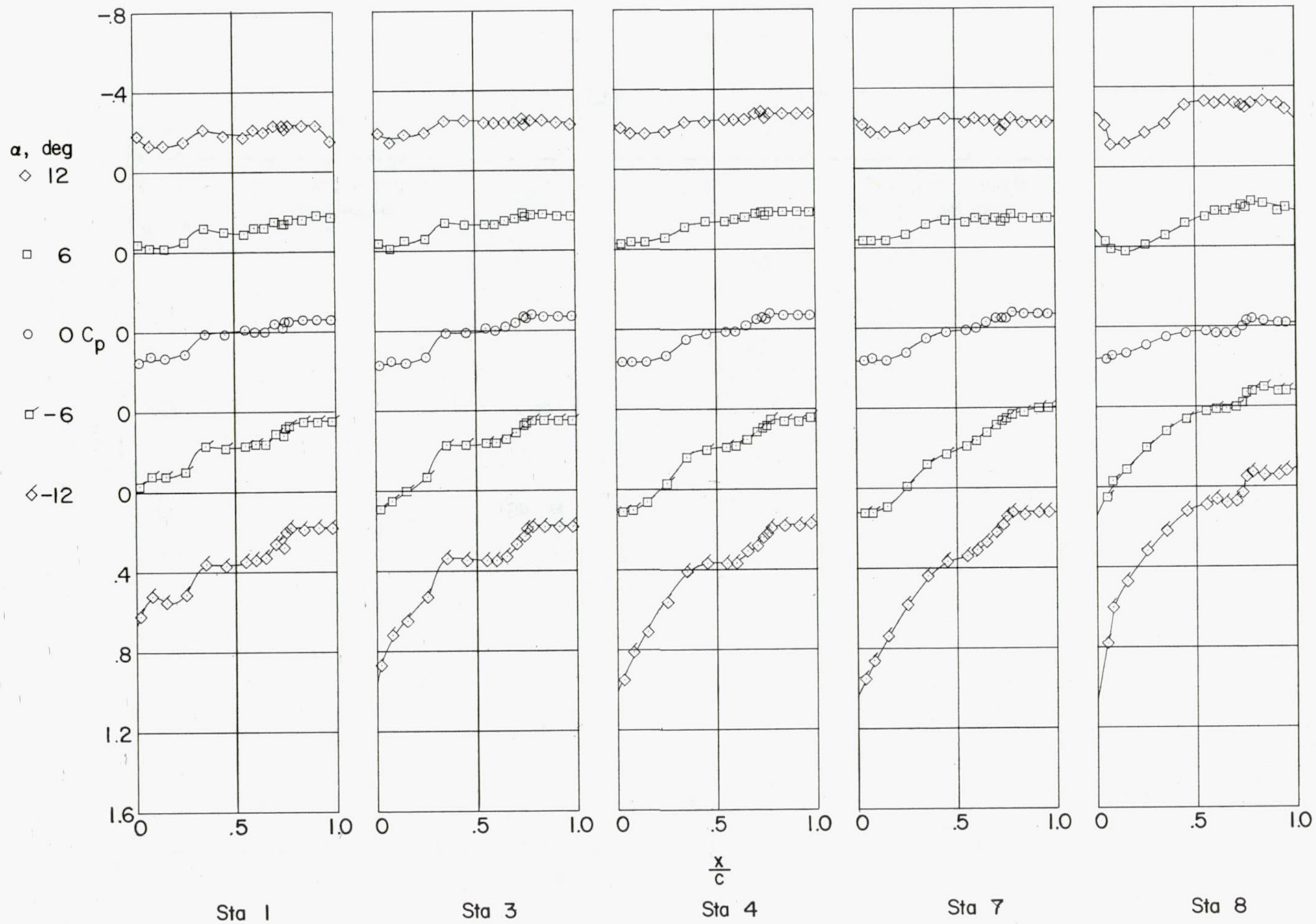
(a) Configurations A to E.

Figure 1.- Sketches of the nine spoiler configurations. All dimensions are in inches.



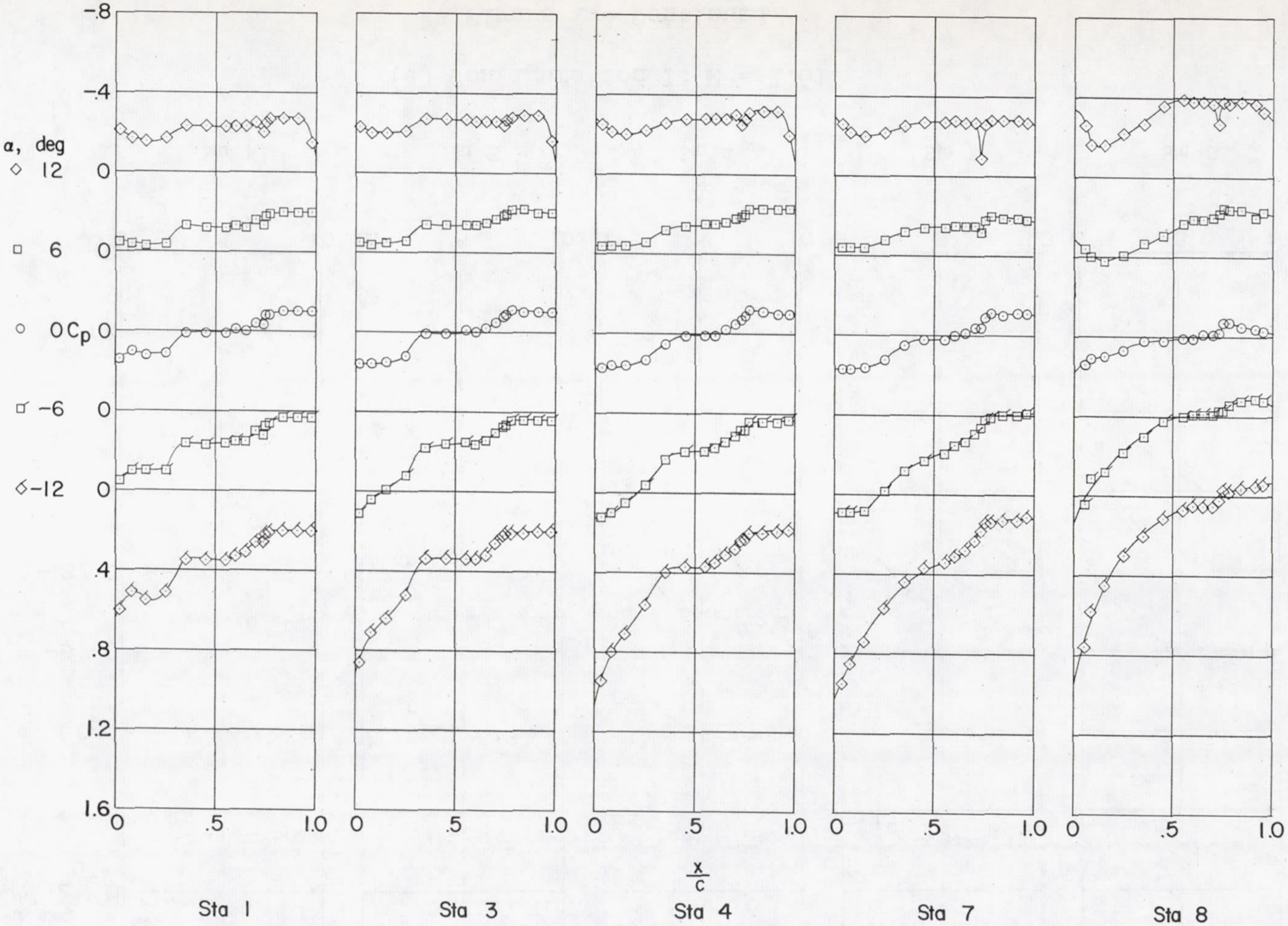

(b) Configurations F to I.

Figure 1.- Concluded.



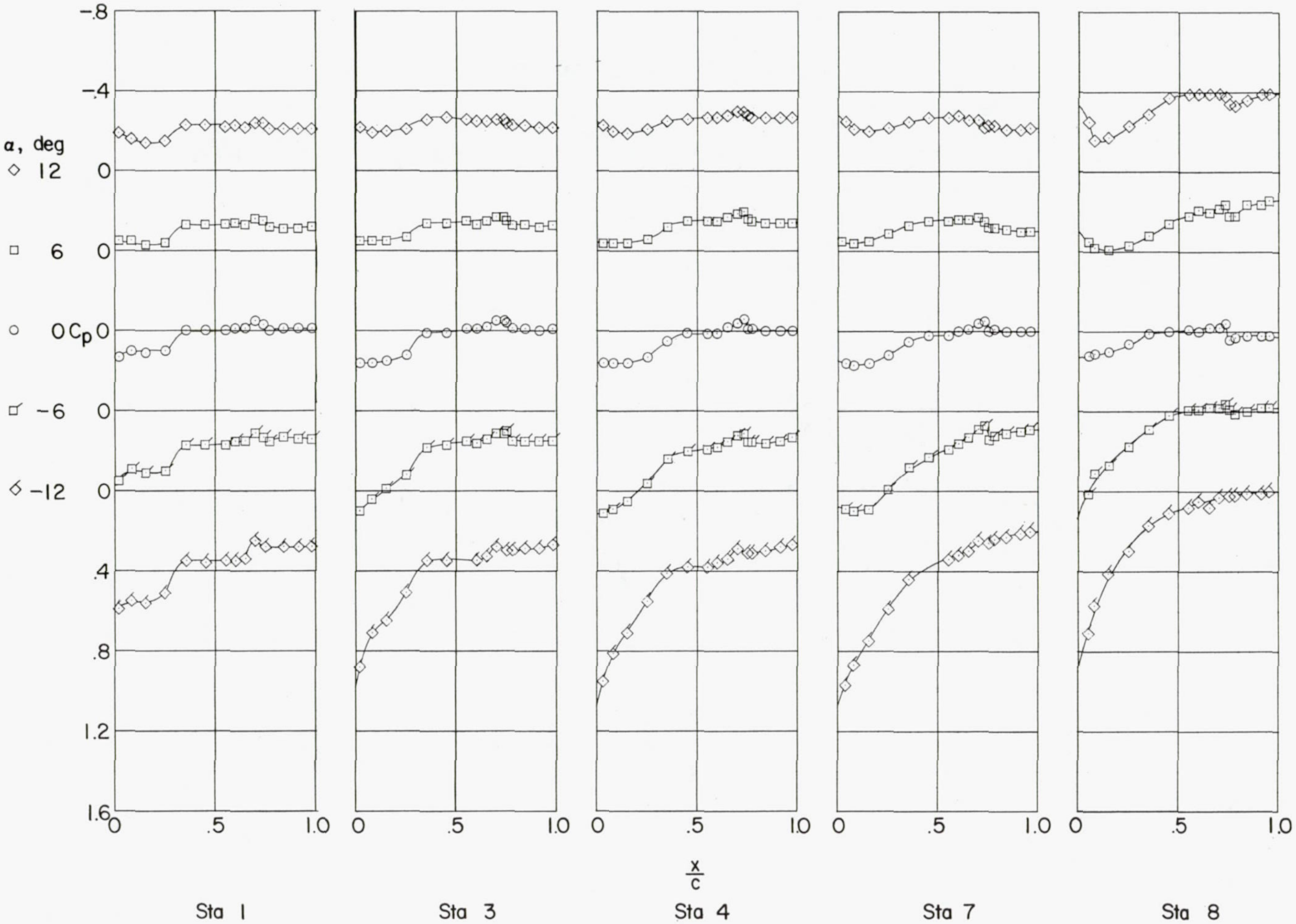

(a) Configurations A to G; M = 1.61.

Figure 2.- Upper-surface pressure distributions for the four basic wing configurations without the spoilers. $\delta = 0^{\circ}$.



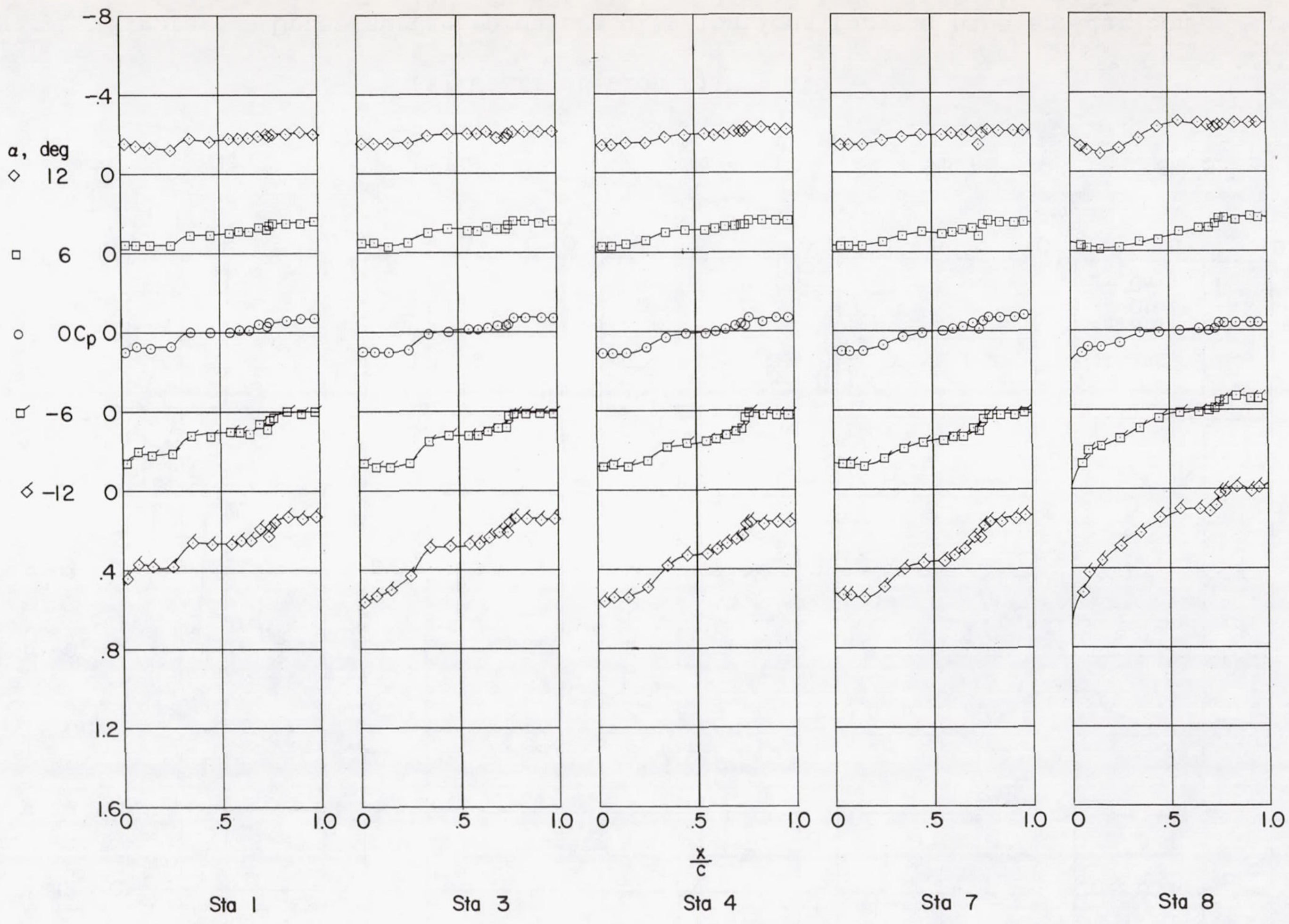

(b) Configuration H; M = 1.61.

Figure 2.- Continued.



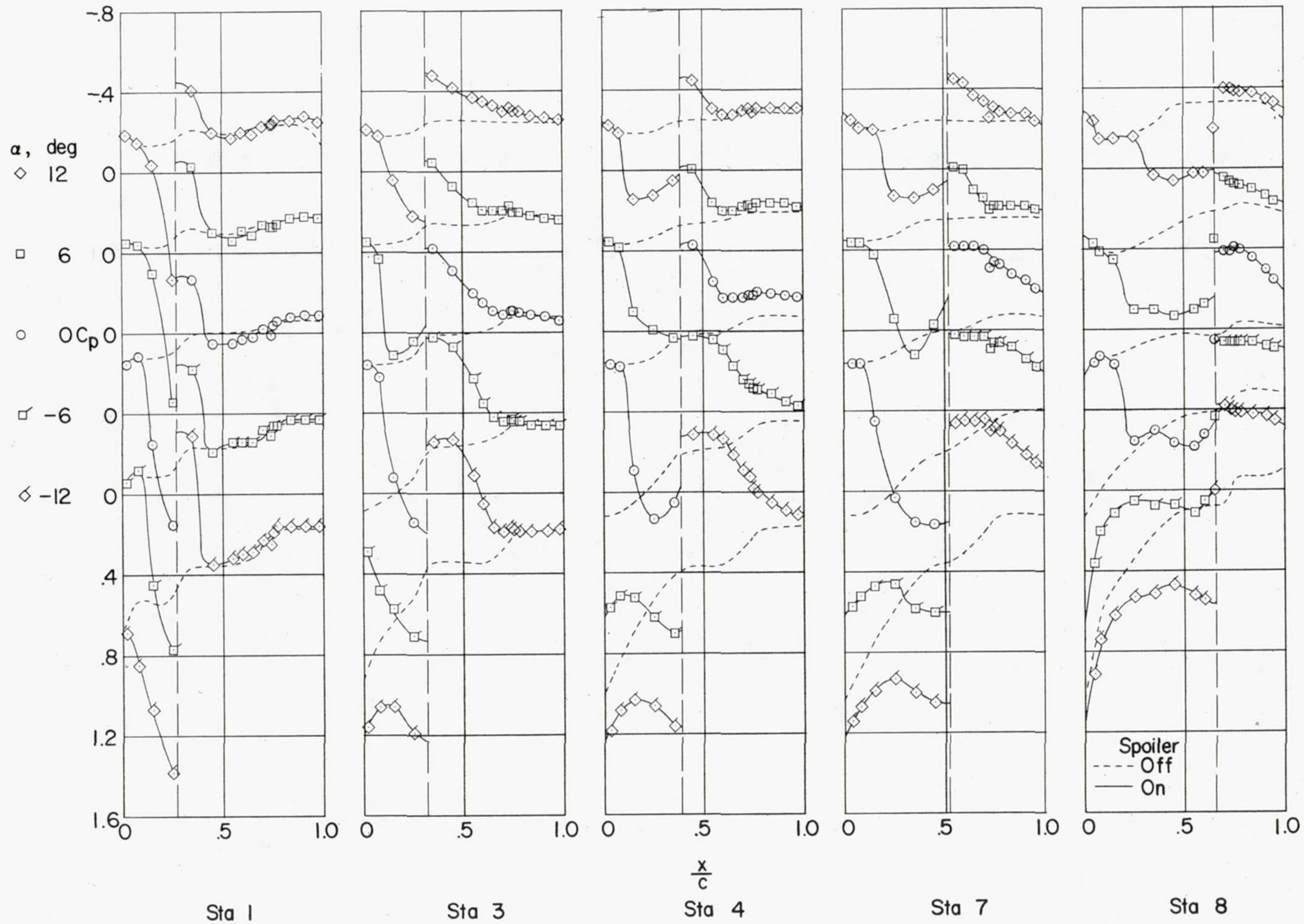

(c) Configuration I; M = 1.61.

Figure 2.- Continued.



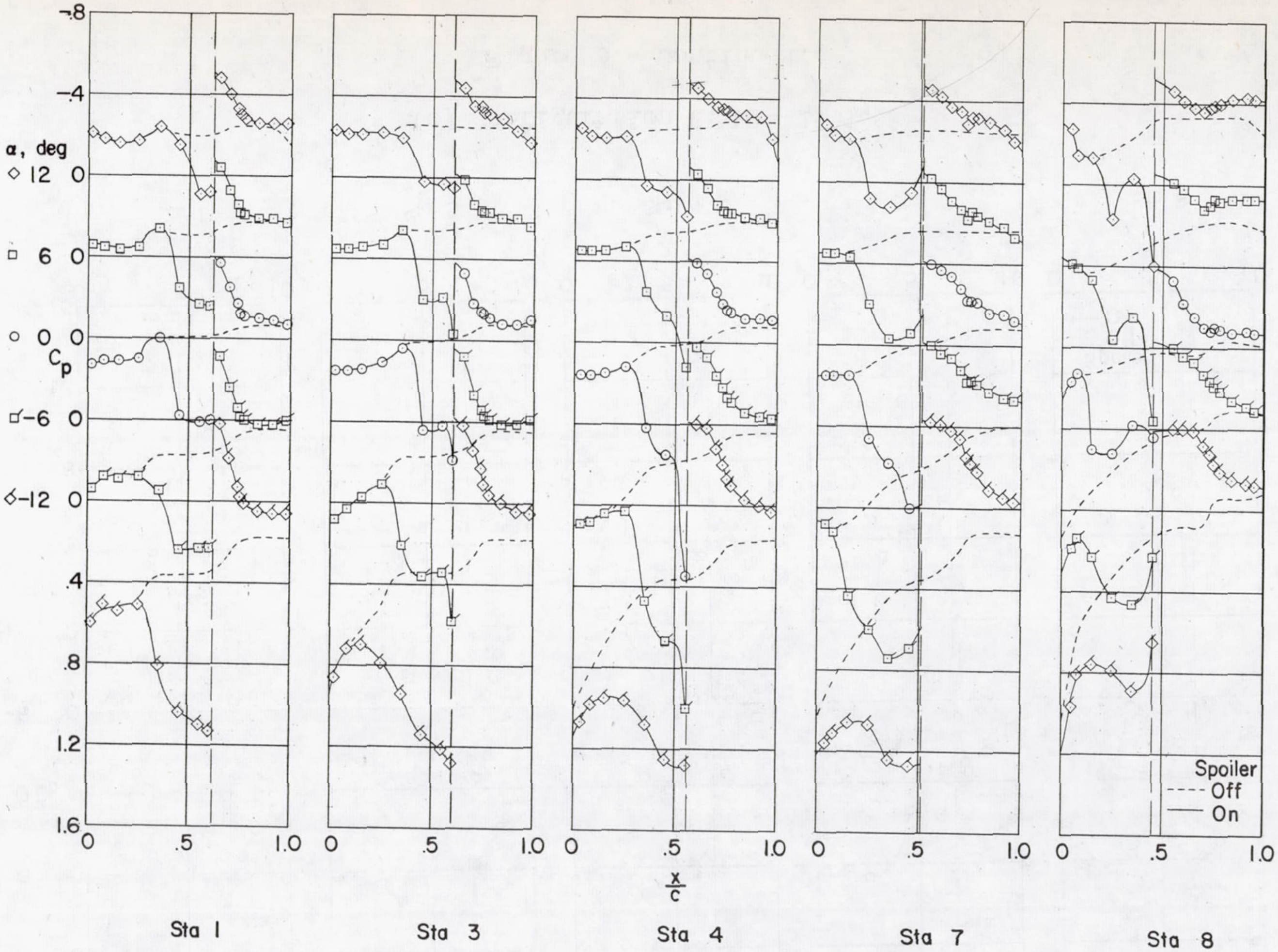

(d) Configuration C; M = 2.01.

Figure 2.- Concluded.



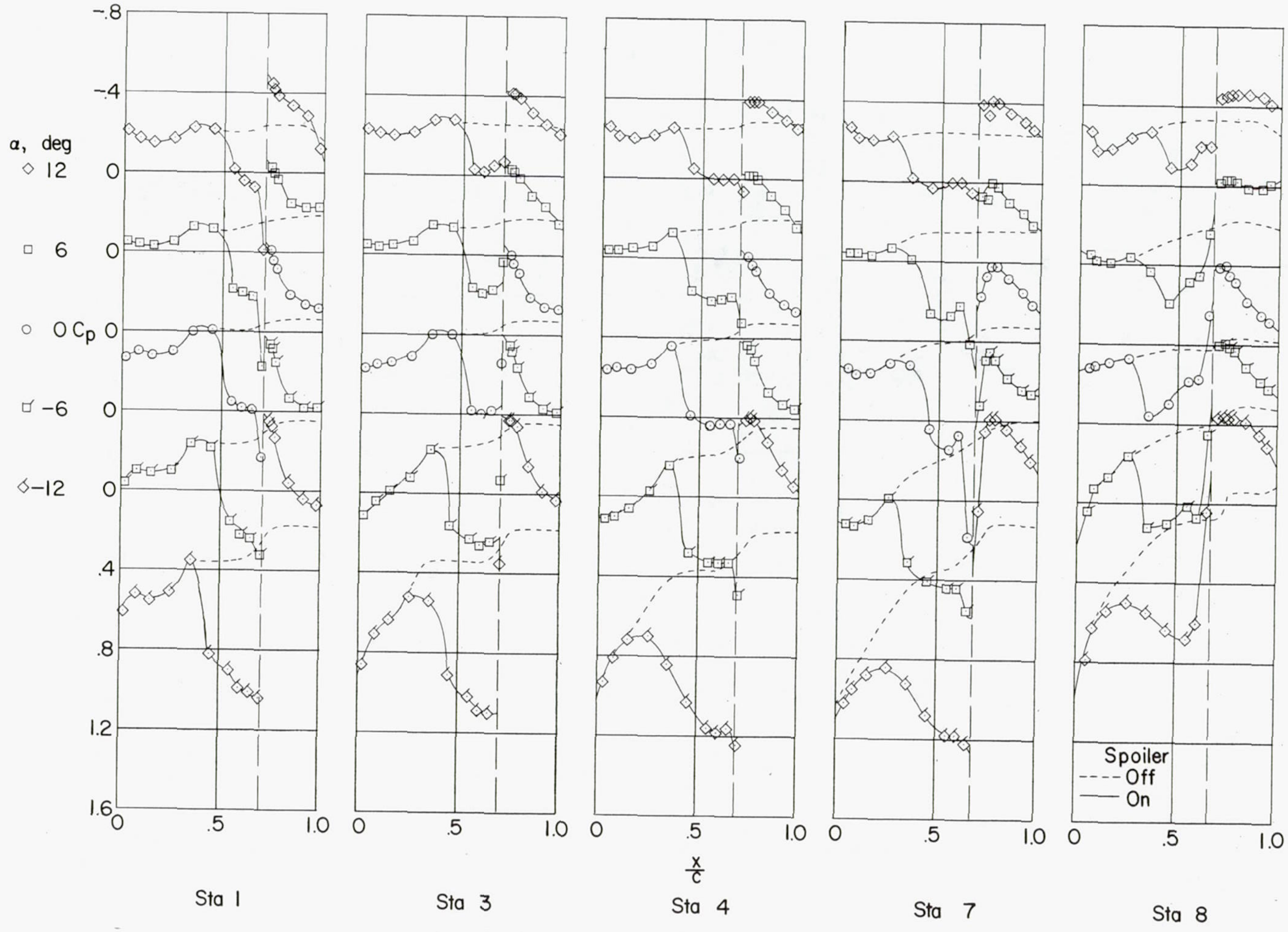

(a) Configuration A; M = 1.61.

Figure 3.- Upper-surface pressure distributions for the nine spoiler configurations. $\delta = 0^{\circ}$. Vertical long-dashed lines indicate spoiler location.



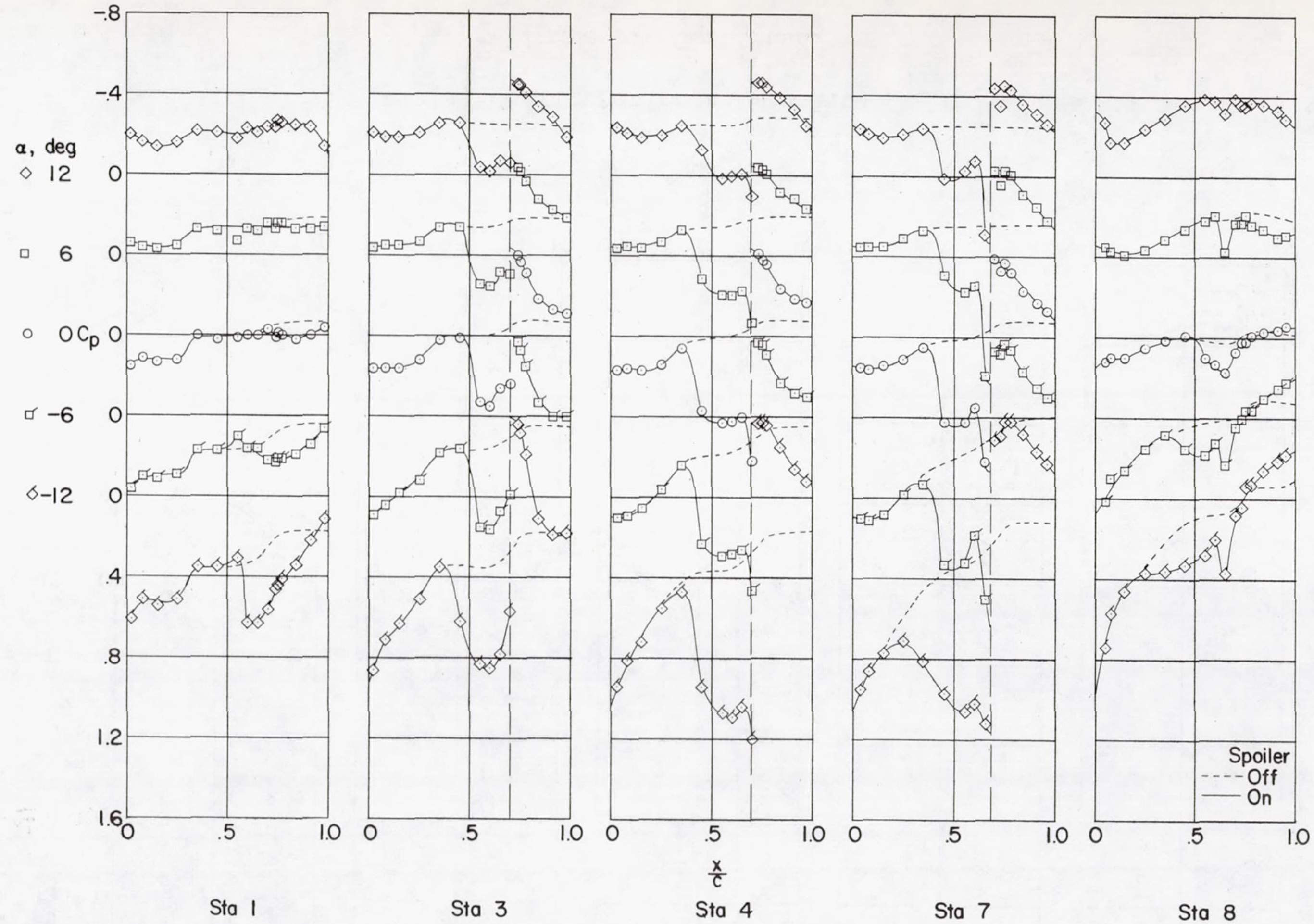

(b) Configuration B; M = 1.61.

Figure 3.- Continued.



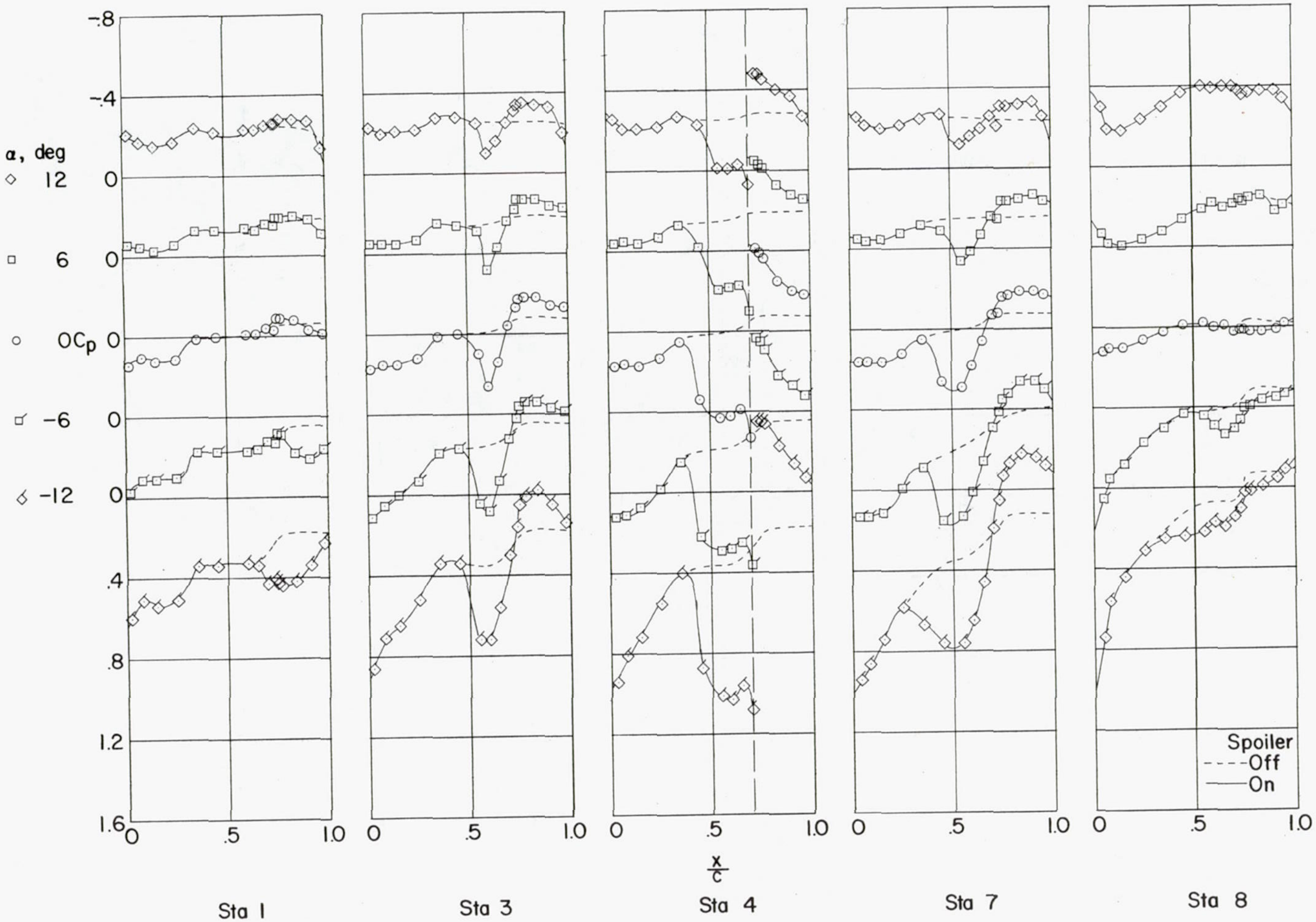

(c) Configuration C; M = 1.61.

Figure 3.- Continued.



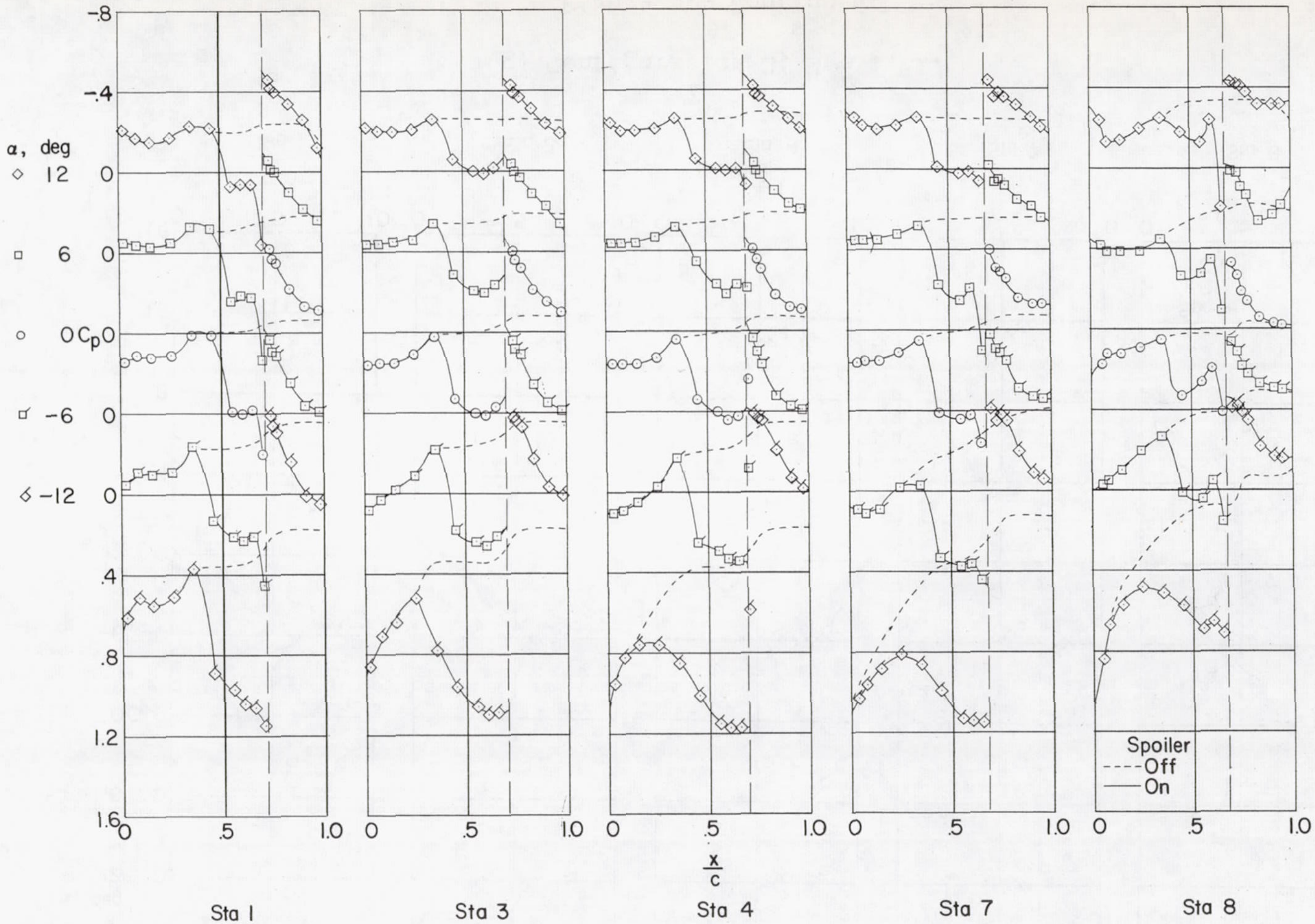

(d) Configuration D; M = 1.61.

Figure 3.- Continued.



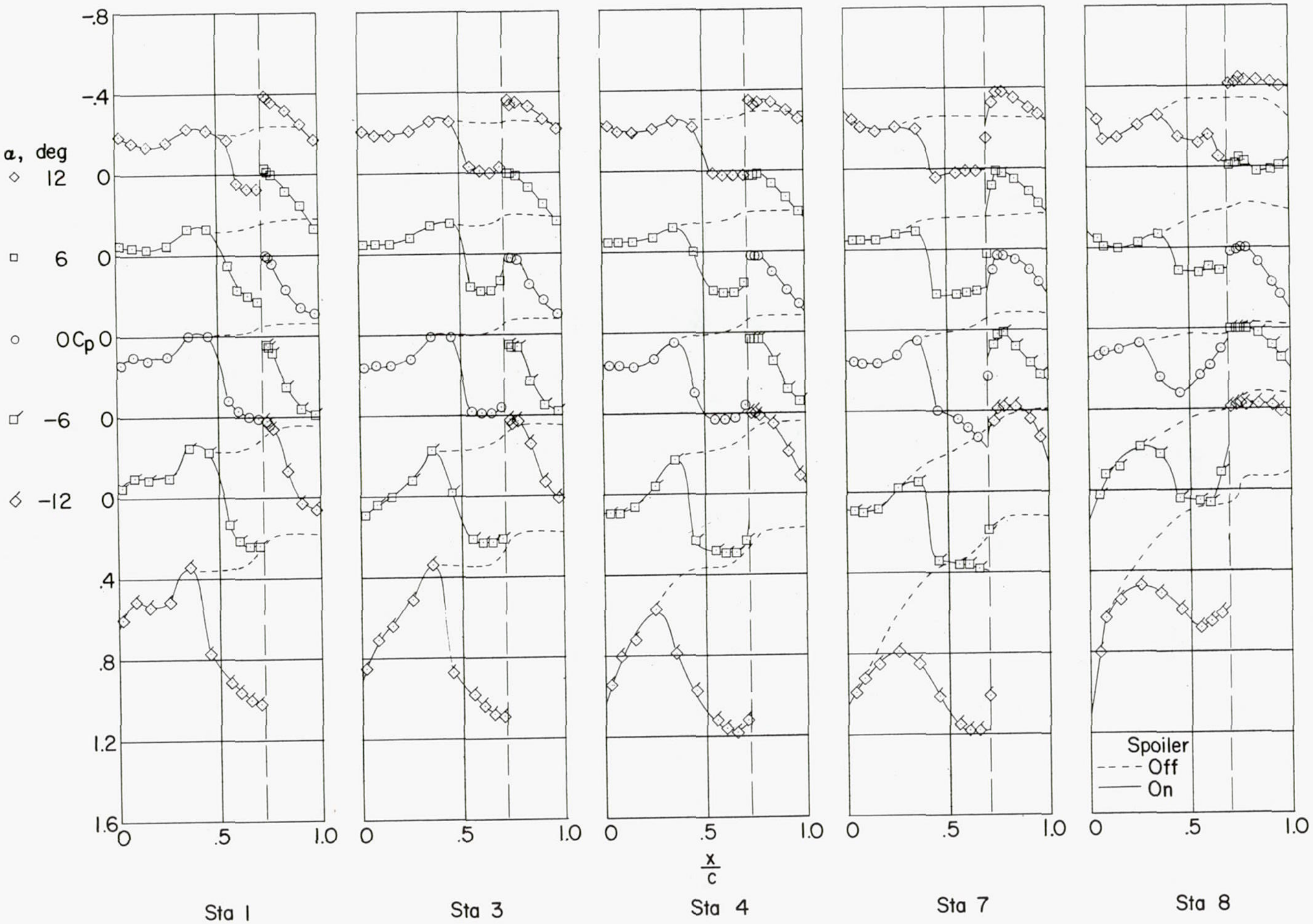

(e) Configuration E; M = 1.61.

Figure 3.- Continued.



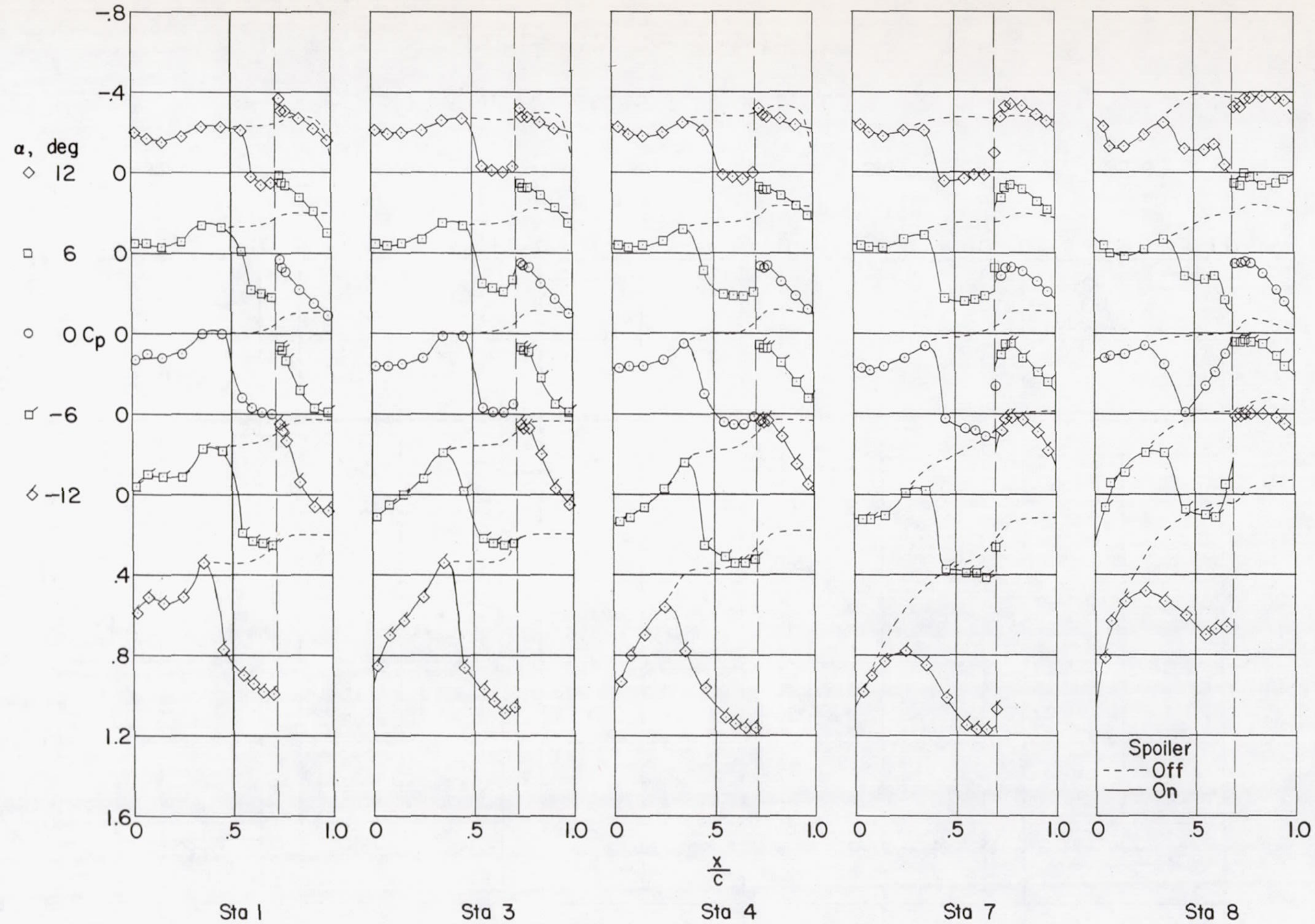

(f) Configuration F; M = 1.61.

Figure 3.- Continued.



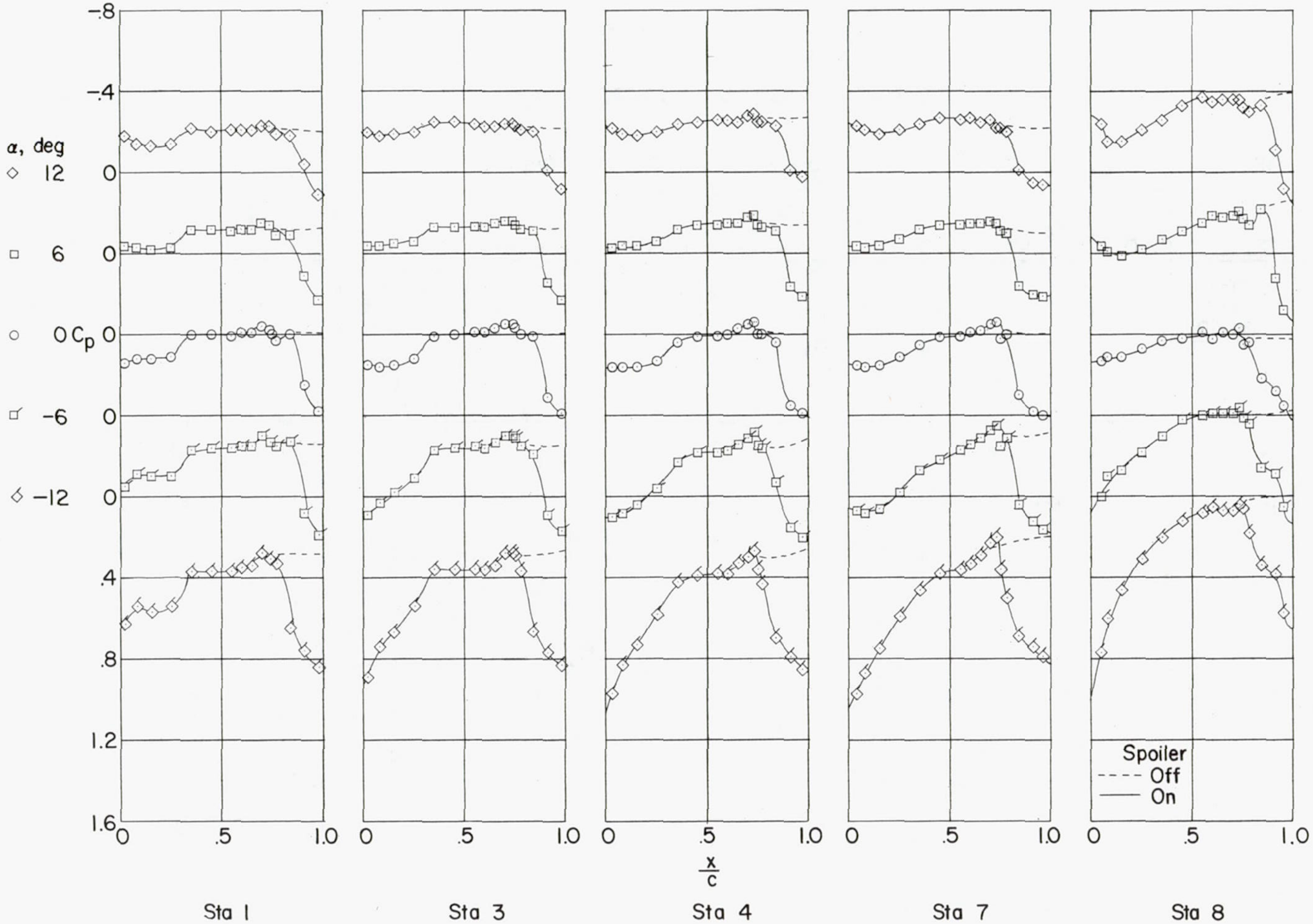

(g) Configuration G; M = 1.61.

Figure 3.- Continued.



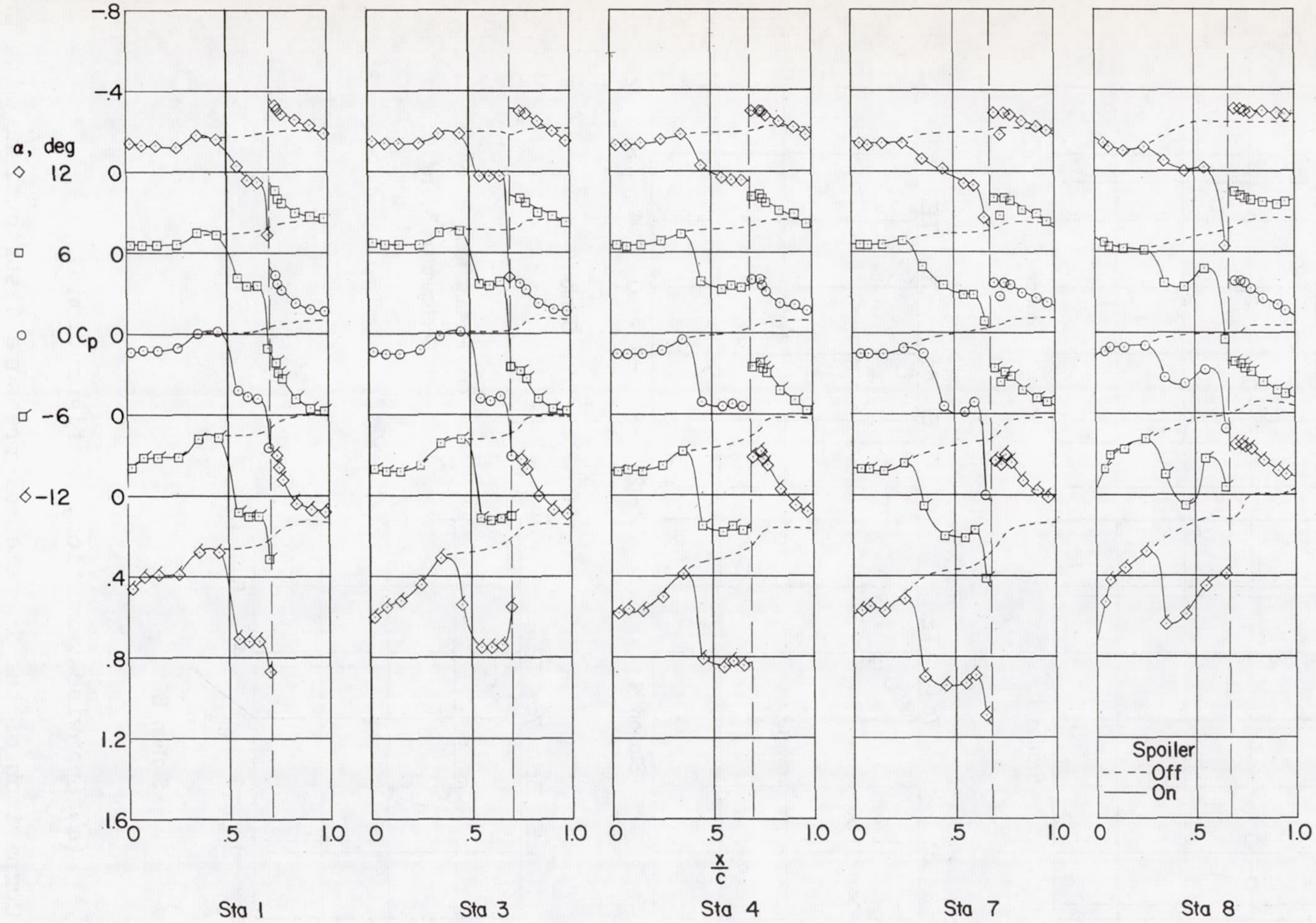

(h) Configuration H; M = 1.61.

Figure 3.- Continued.



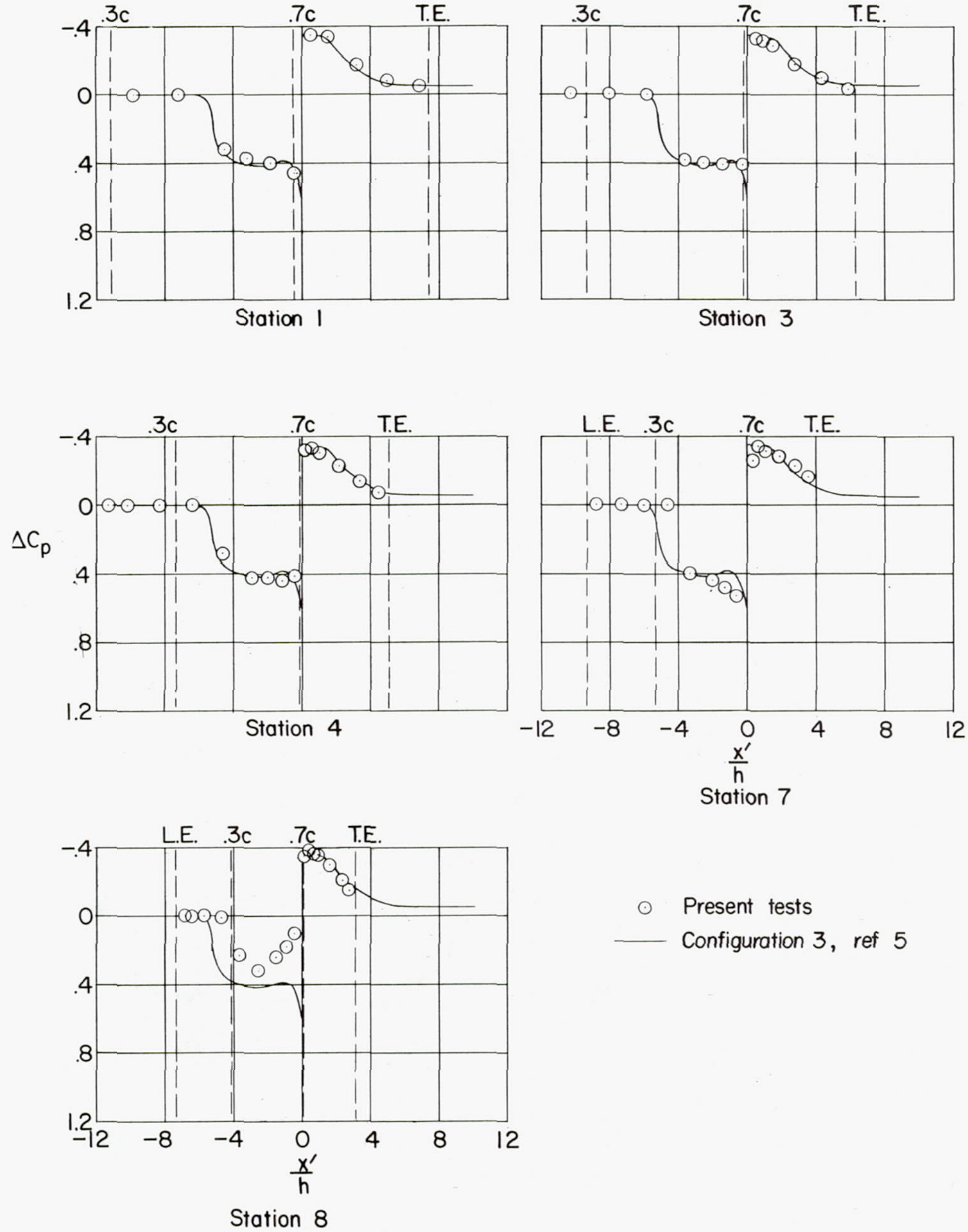

(i) Configuration I; M = 1.61.

Figure 3.- Continued.



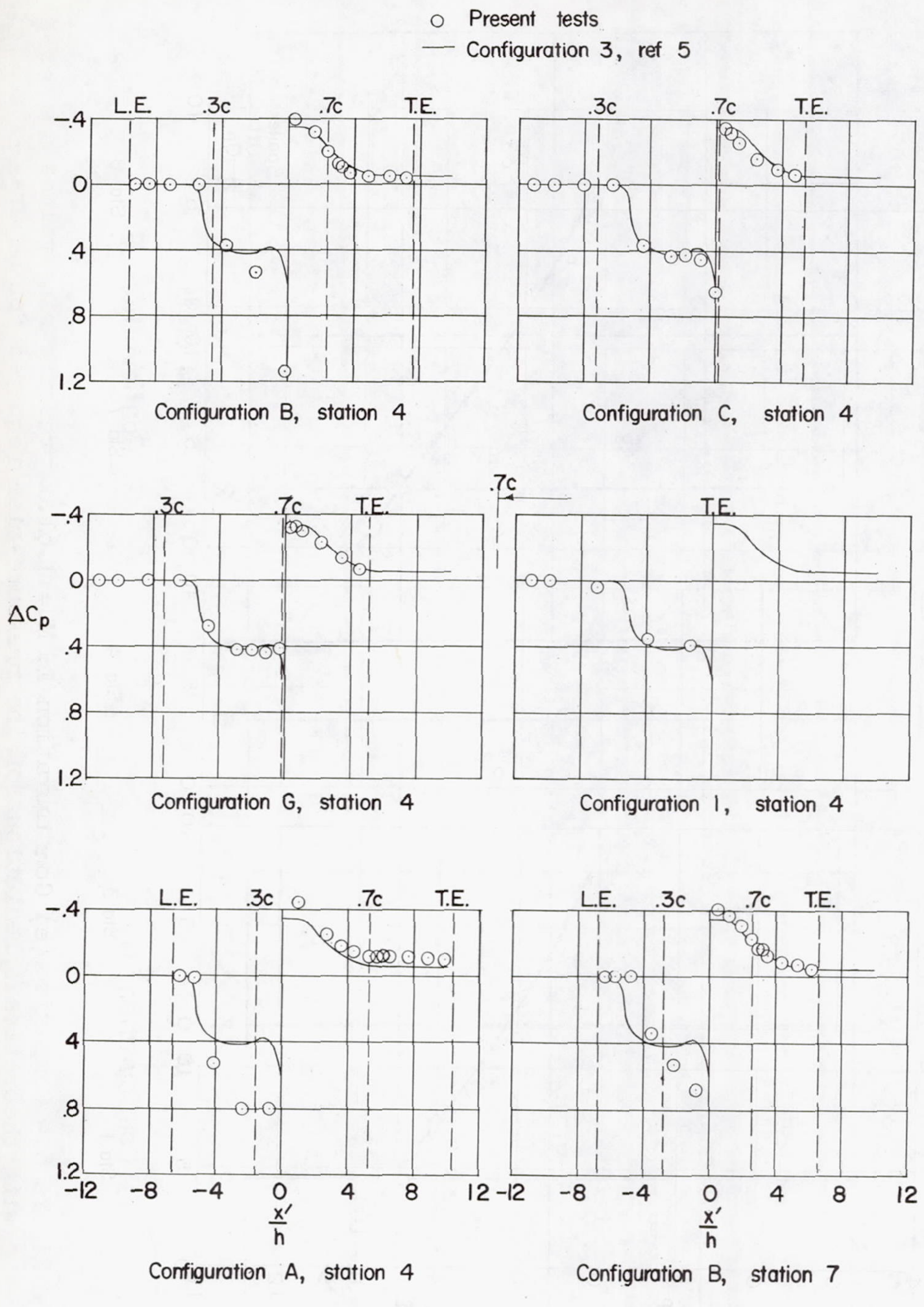

(j) Configuration C; M = 2.01.

Figure 3.- Concluded.




(a) Spanwise variation, configuration G.

Figure 4.- Comparison of the incremental pressure distributions with previous flat-plate results. $\alpha = 0^{\circ}$; $M = 1.61$.




(b) Effect of surface corners.

Figure 4.- Concluded.

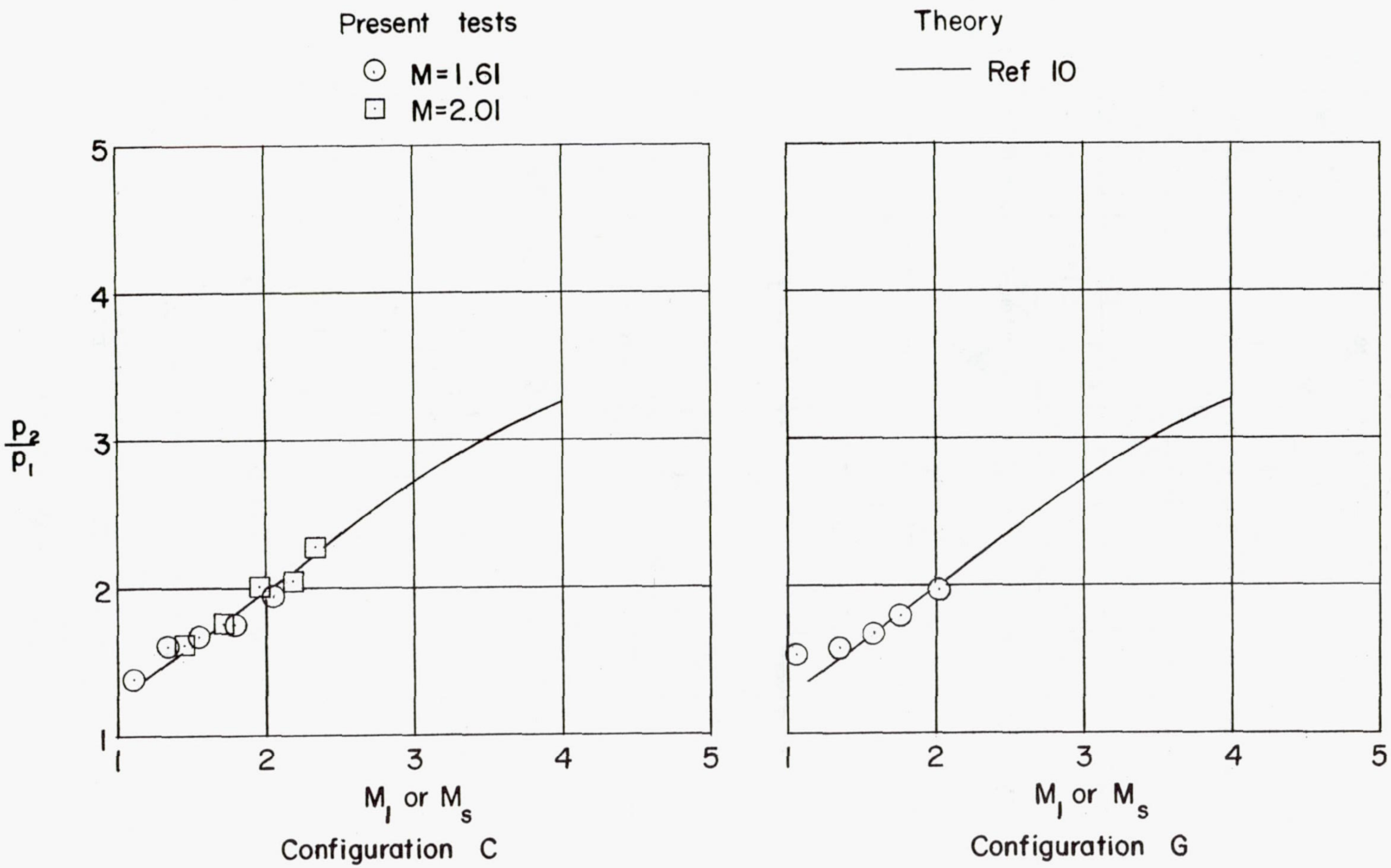
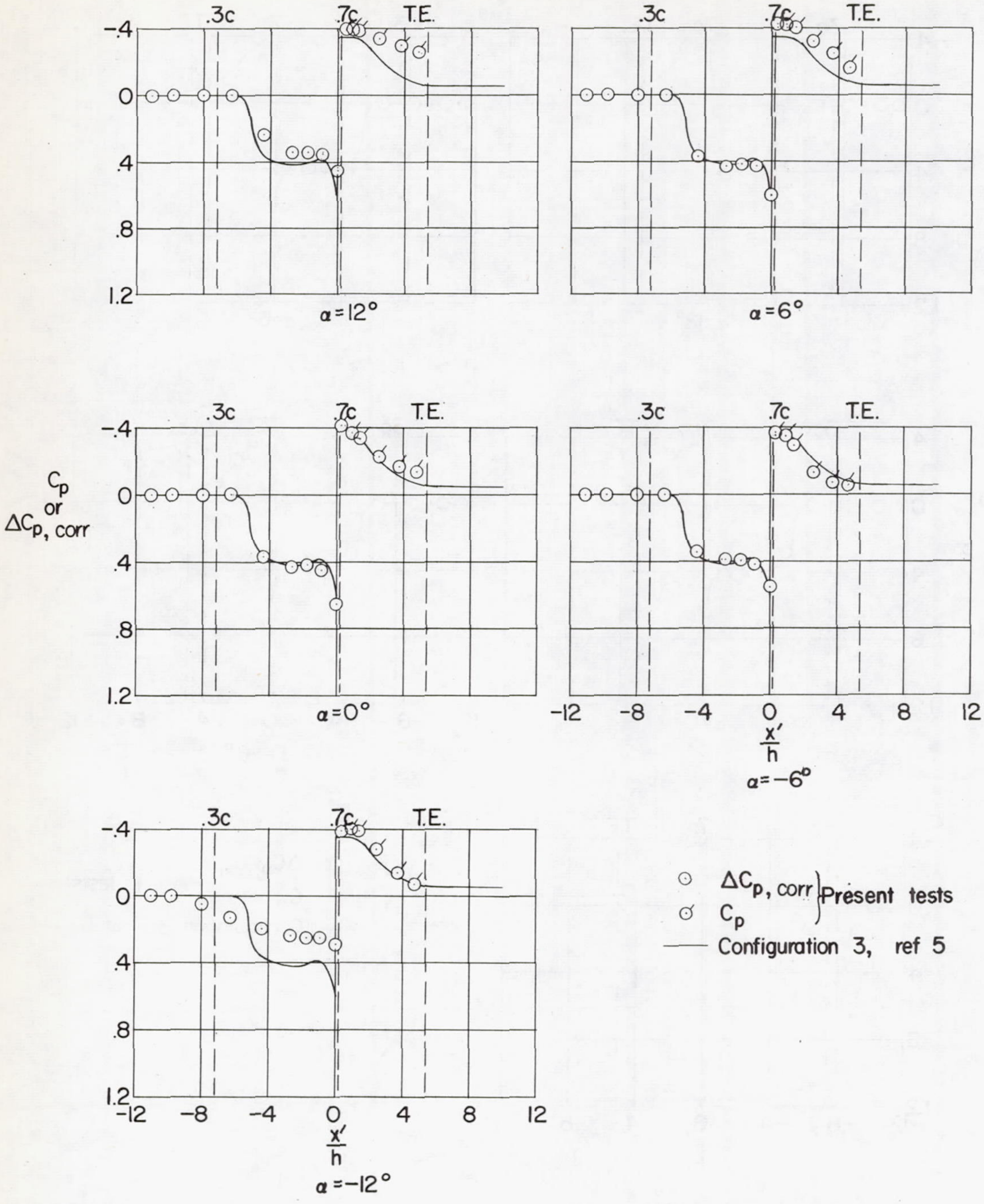
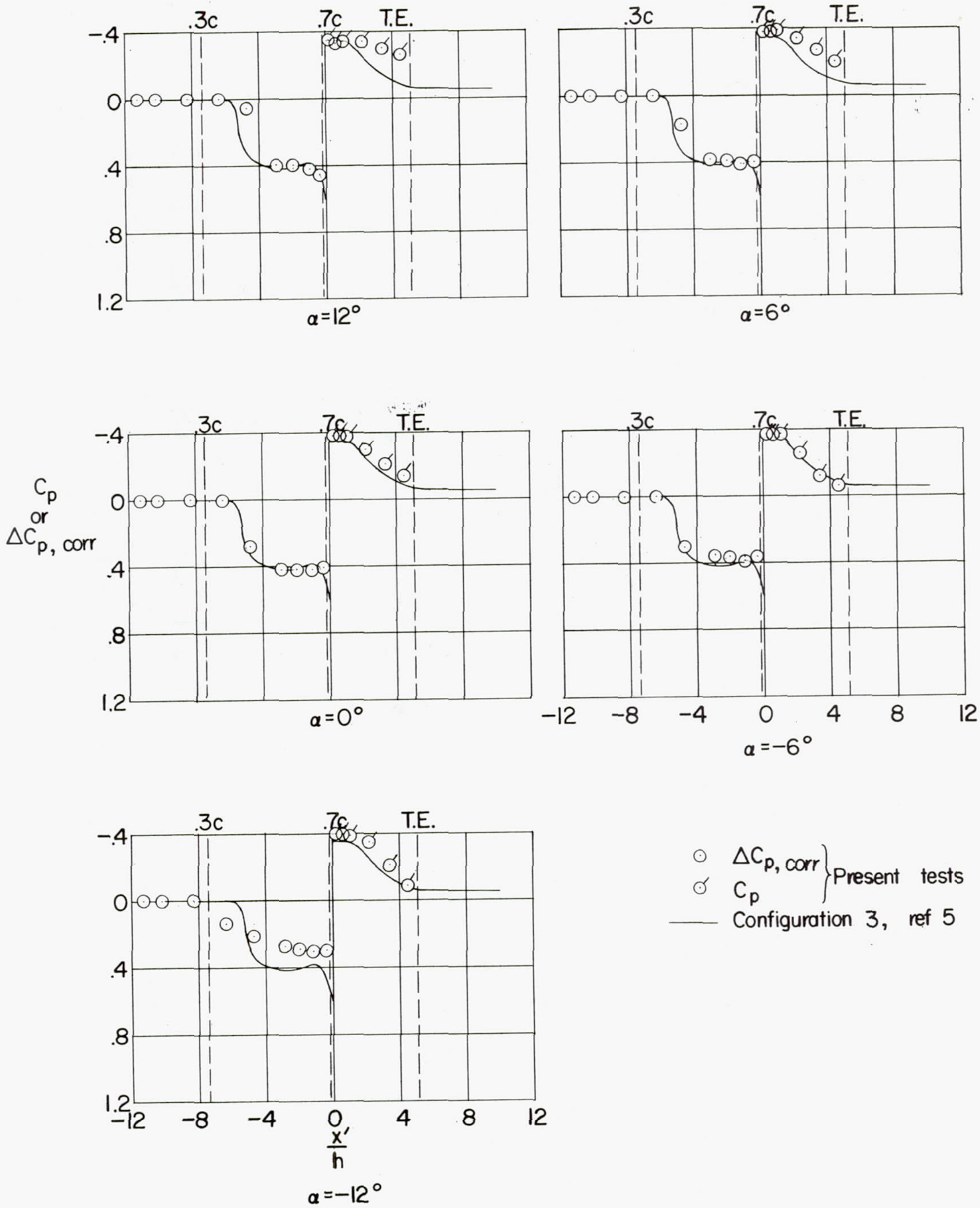



Figure 5.- Comparison of the experimental first-peak pressure-rise values with theoretical predictions of the pressure-rise required for separation of a turbulent boundary layer. Station 4.



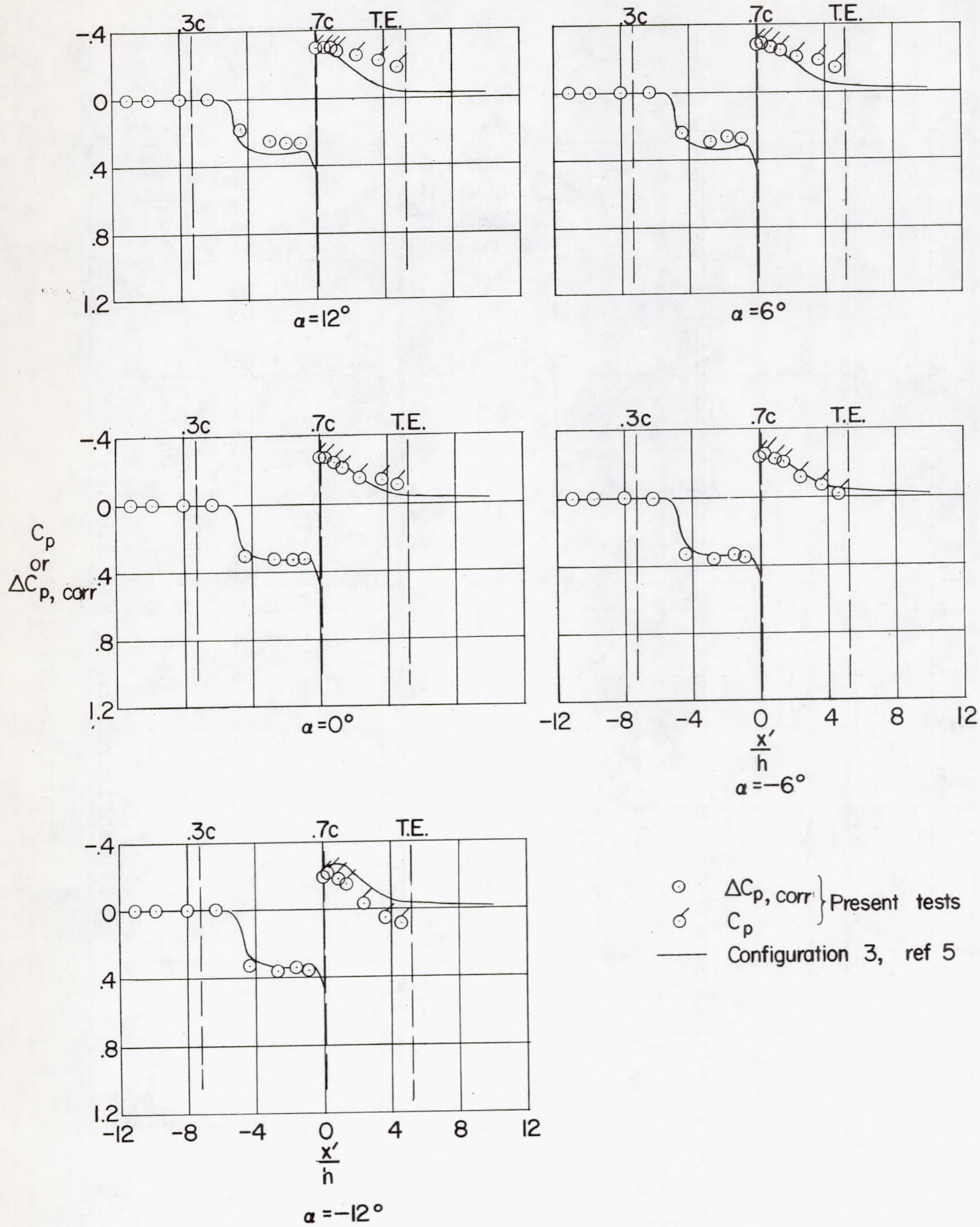

(a) Configuration C; M = 1.61.

Figure 6.- Correlation of spoiler pressure distributions at angles of attack with flat-plate results. Station 4.




(b) Configuration G; M = 1.61.

Figure 6.- Continued.




(c) Configuration C; M = 2.01.

Figure 6.- Concluded.

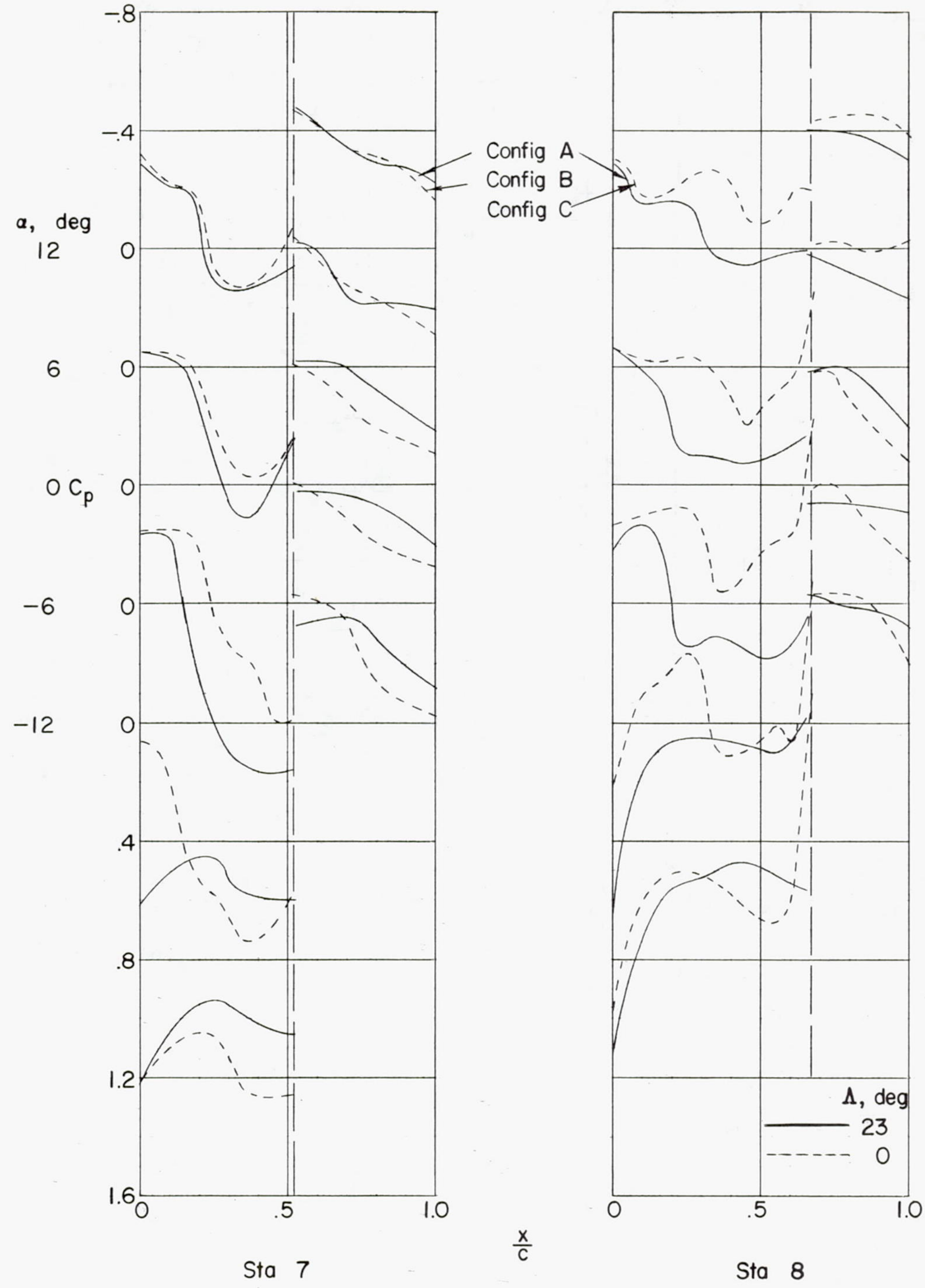



Figure 7.- Effect of spoiler sweep on the upper-surface pressure distributions at stations 7 and 8. M = 1.61.

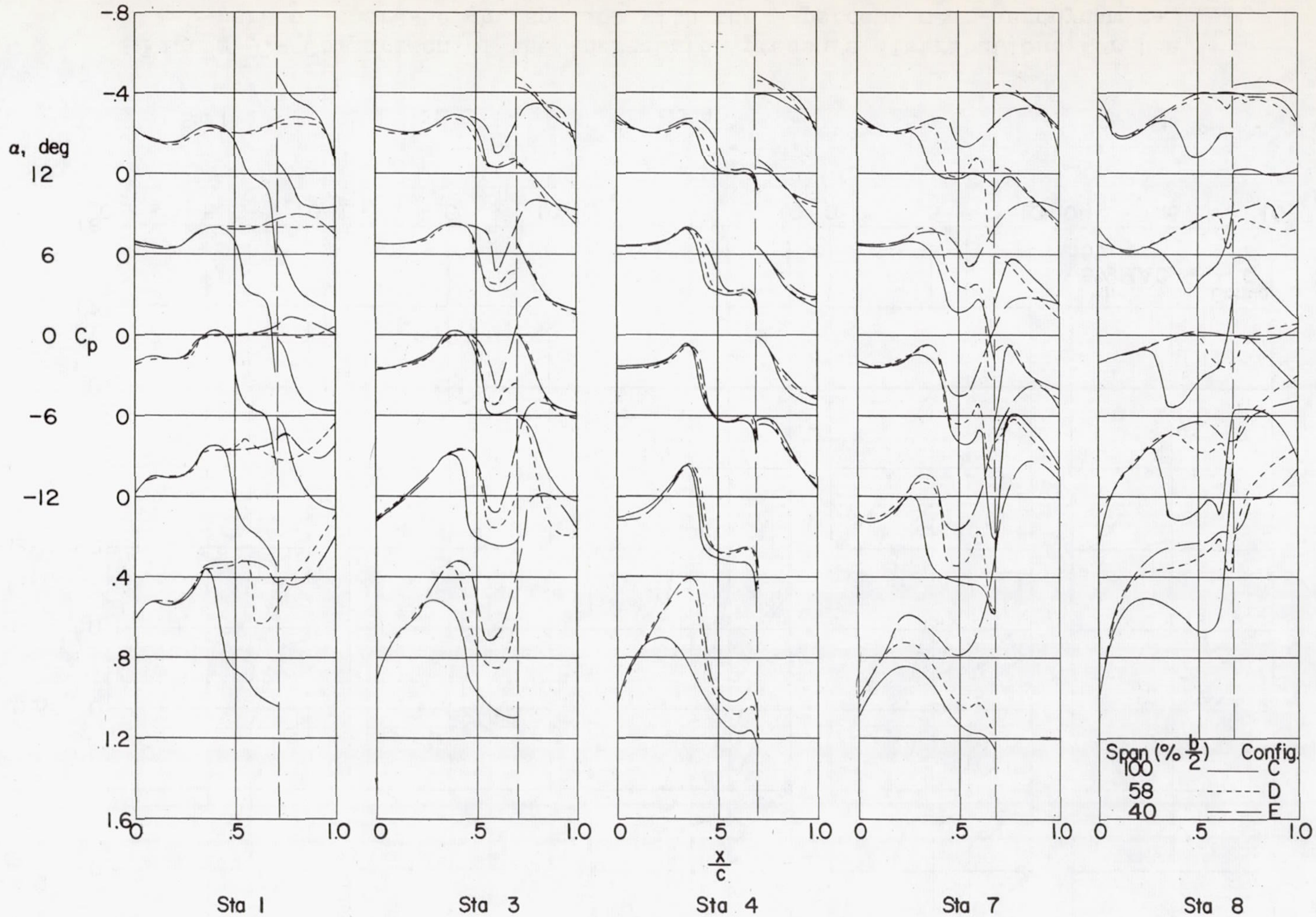



Figure 8.- Upper-surface pressure distributions showing the effect of reducing the spoiler span. M = 1.61.

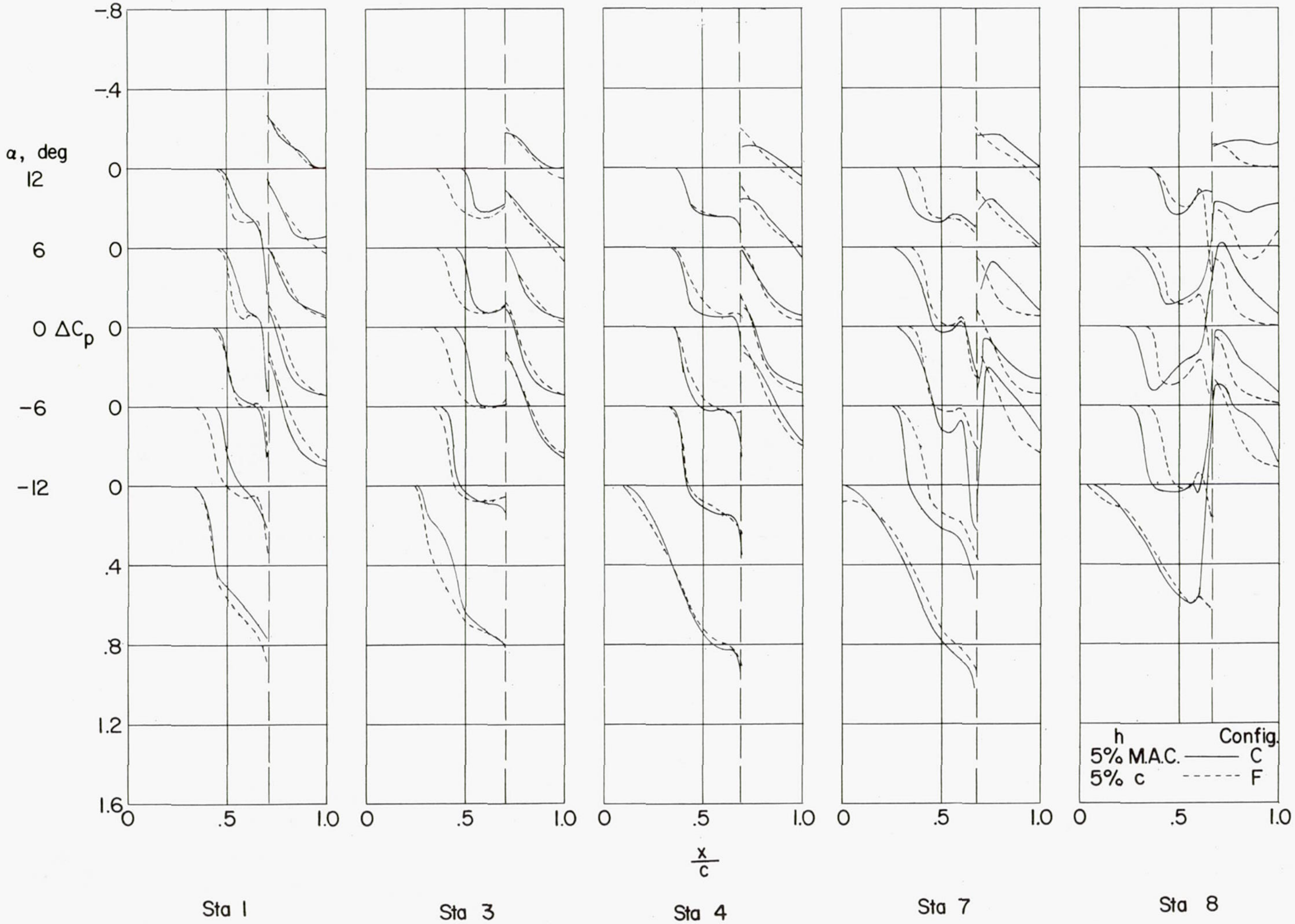



Figure 9.- Comparison of the incremental pressure distributions for the 5-percent-chord-height spoiler with the 5-percent mean-aerodynamic-chord-height spoiler. M = 1.61.

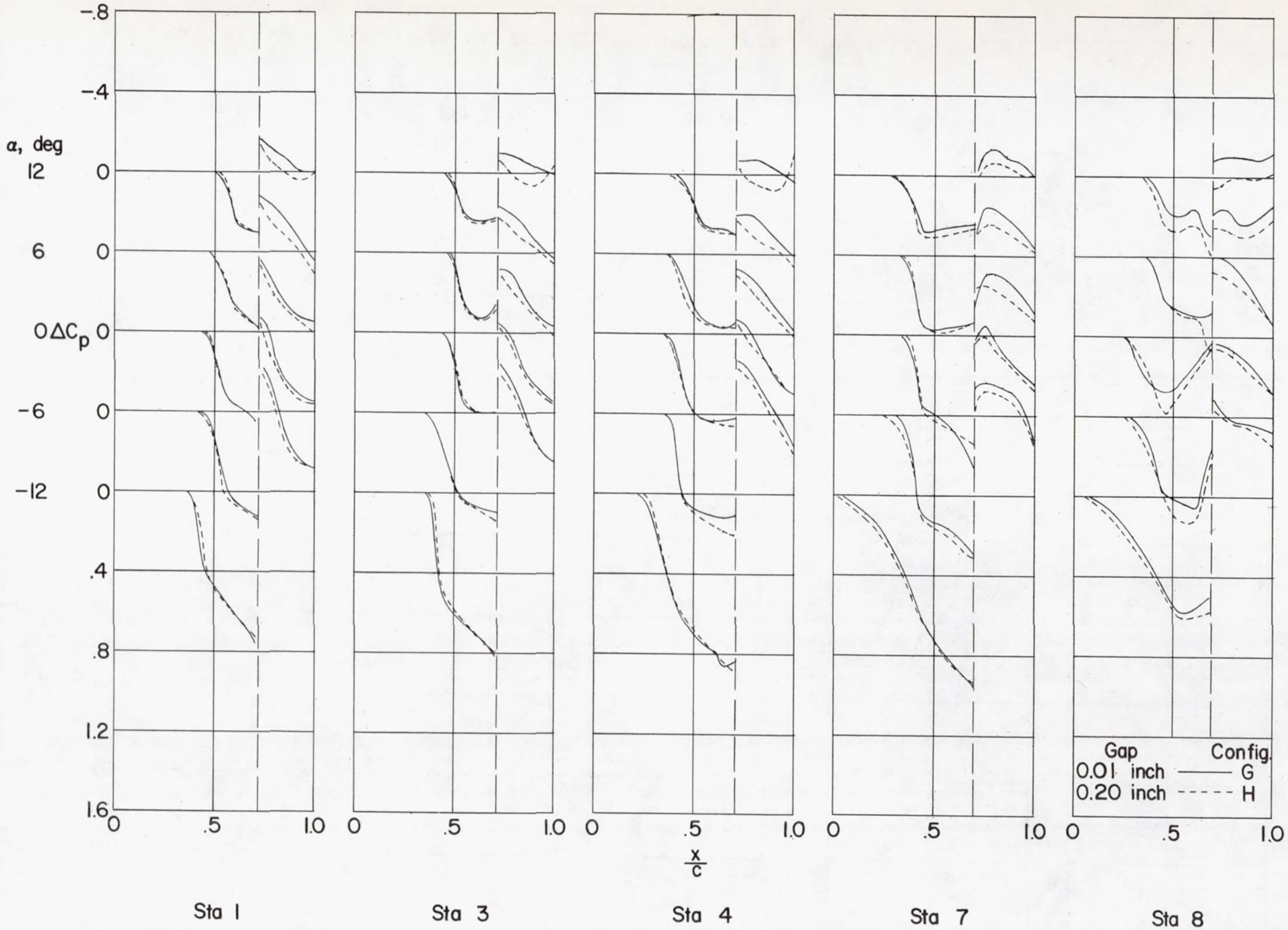



Figure 10.- Comparison of the incremental pressure distributions to show the effect of increasing the gap behind a spoiler. M = 1.61.

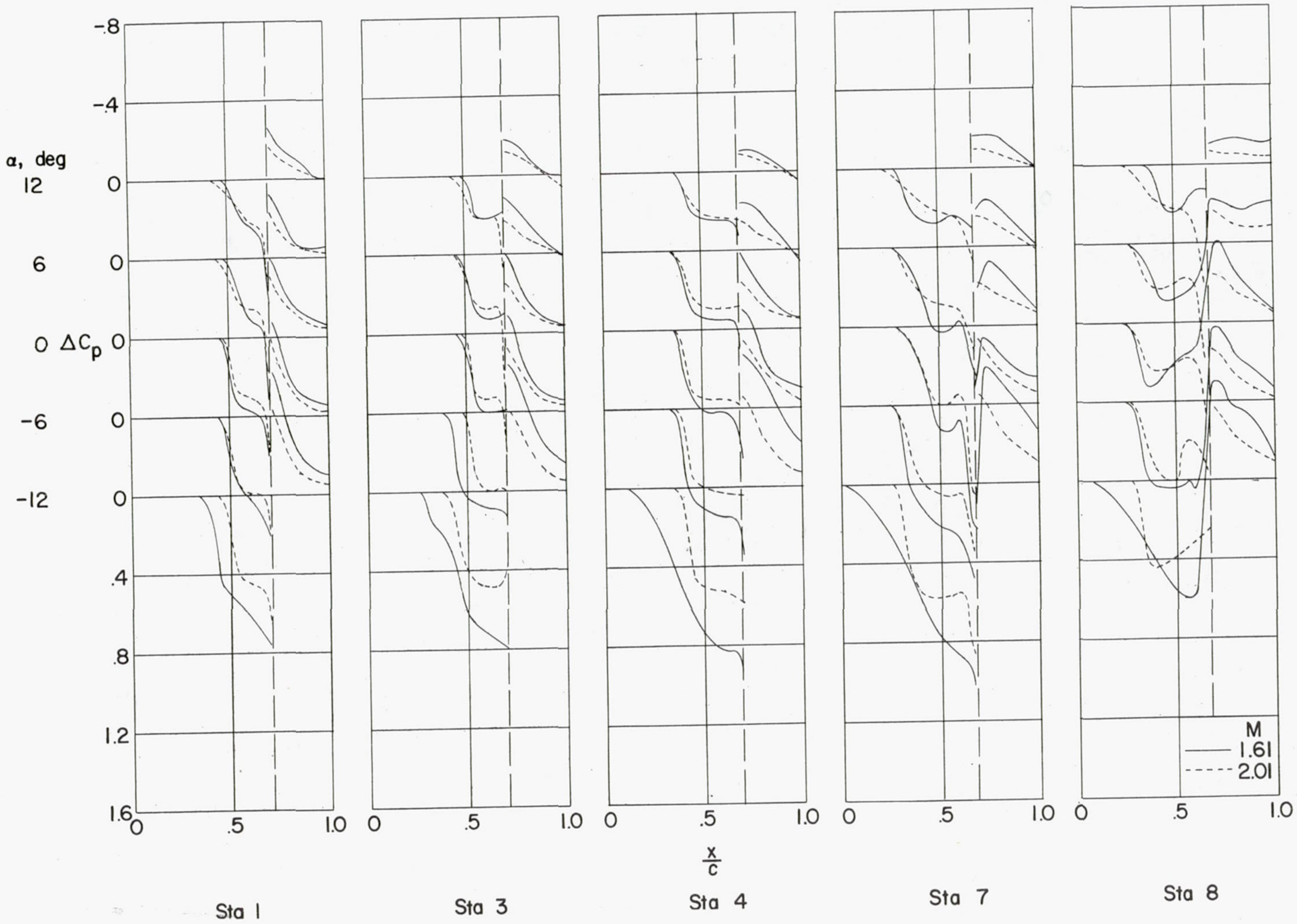
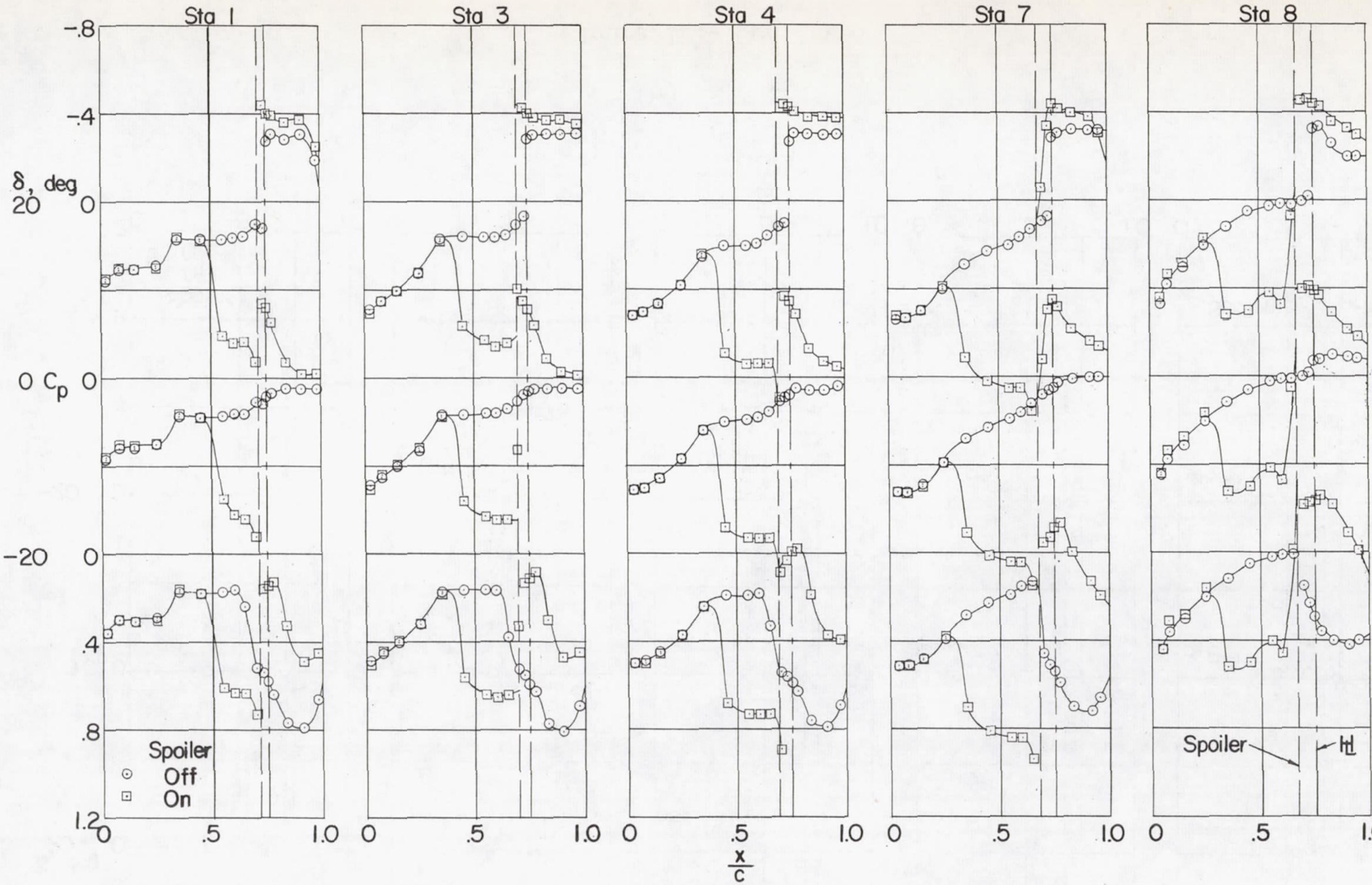
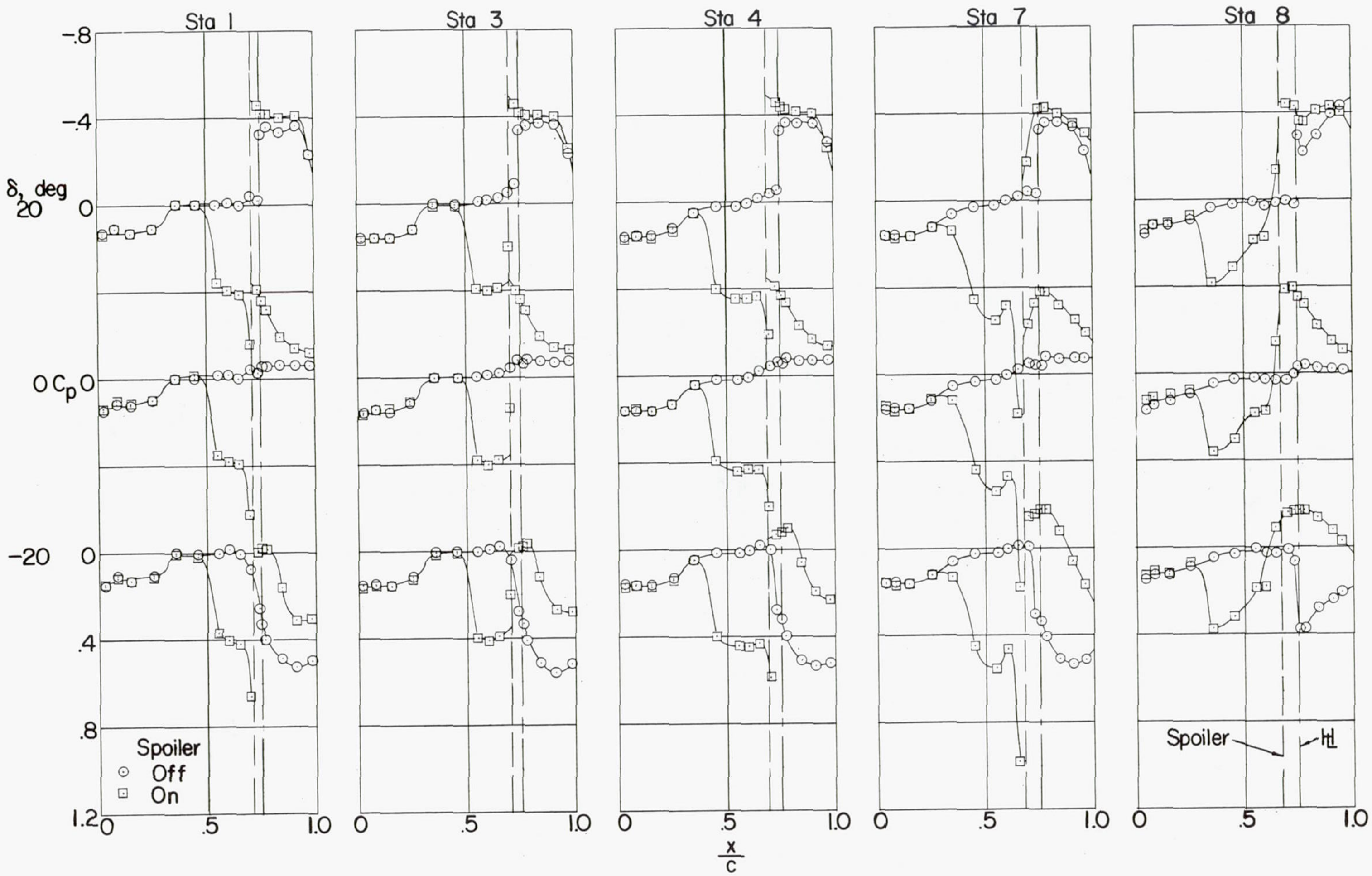



Figure 11.- Comparison of the incremental pressure distributions for configuration C at the two test Mach numbers.



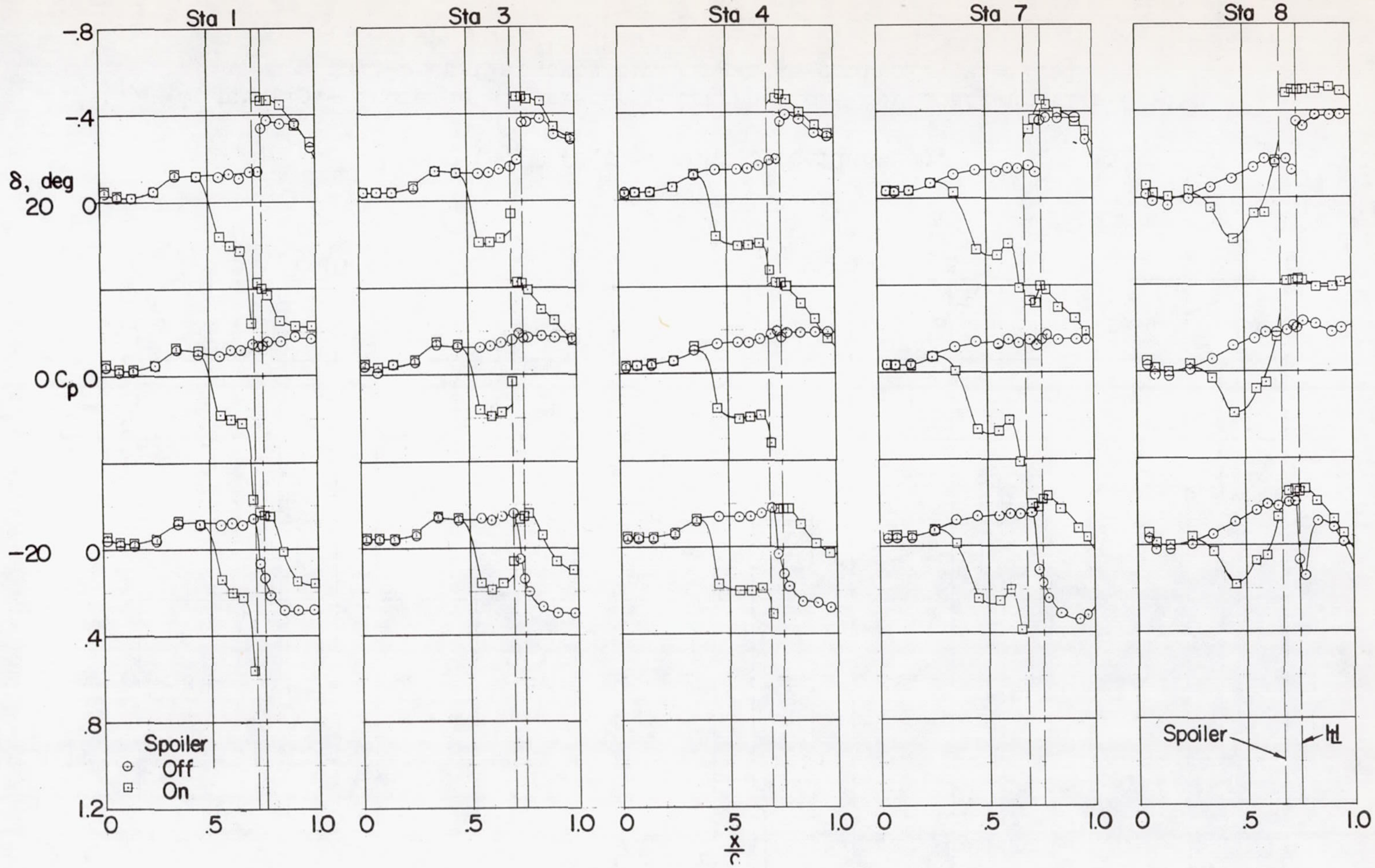

(a.) $\alpha = -6^{\circ}$.

Figure 12.- Upper-surface pressure distributions for configuration C with a full-span flap-type trailing-edge control. M = 1.61.



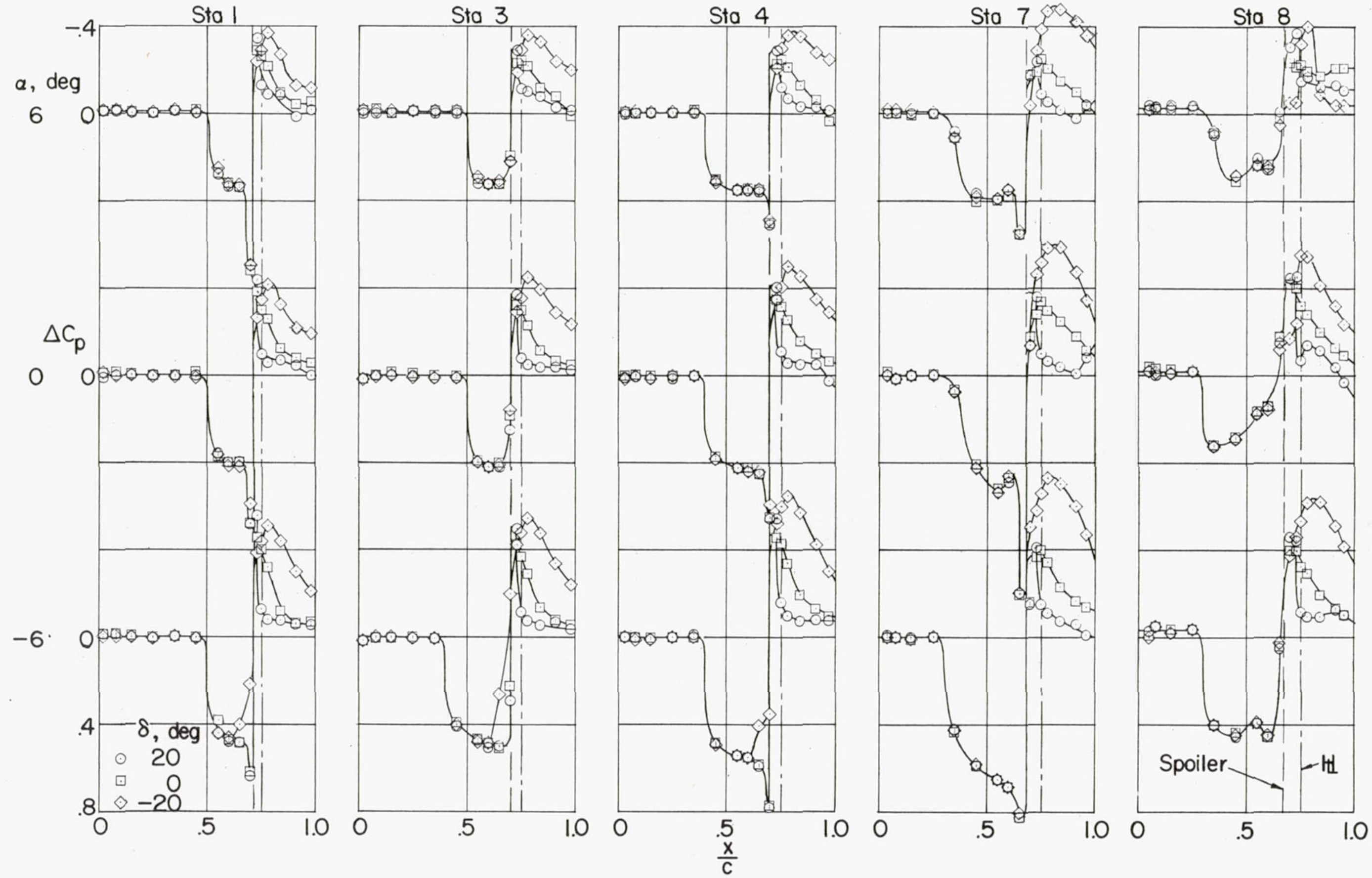

(b) $\alpha = 0^{\circ}$.

Figure 12.- Continued.



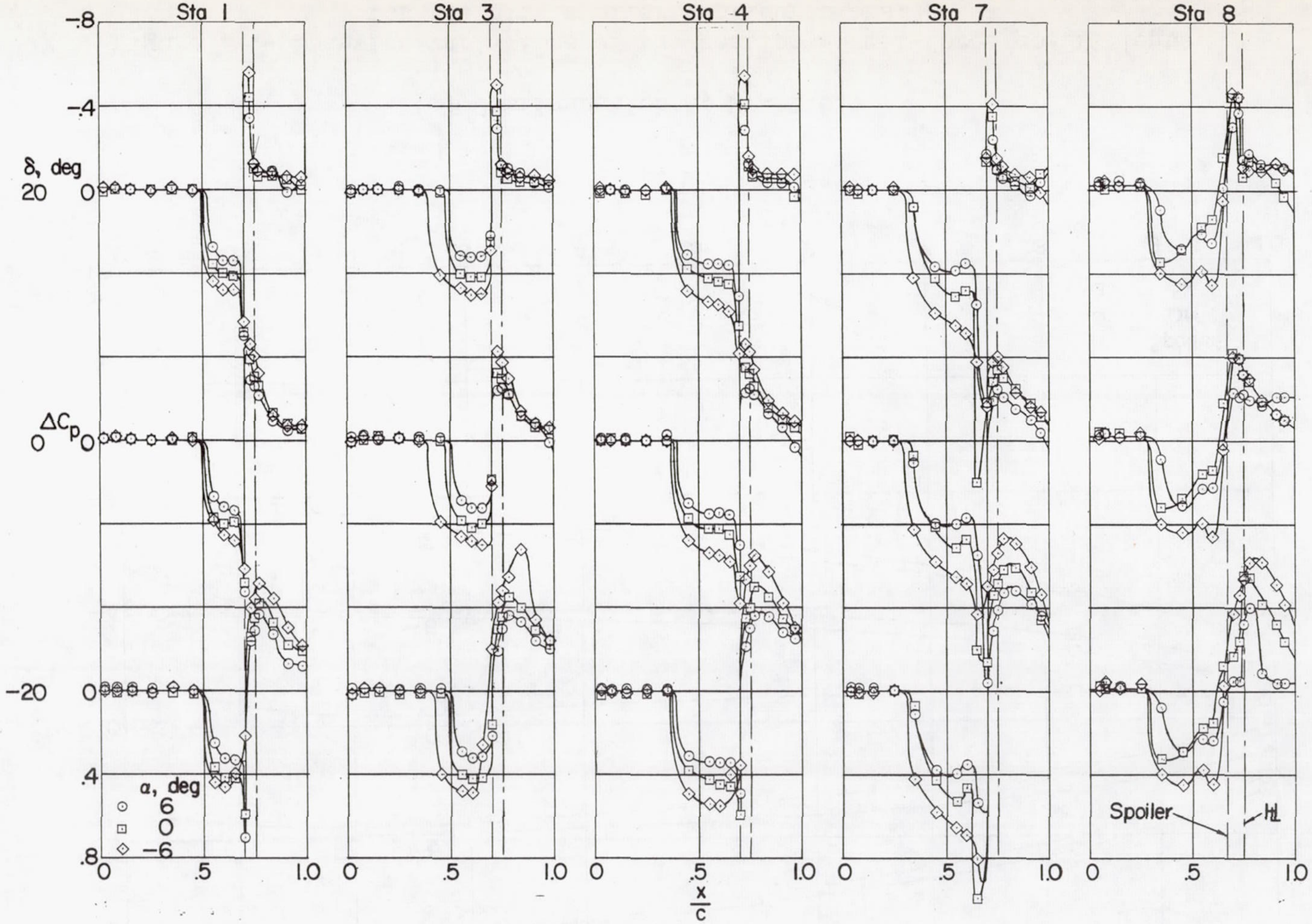

(c) $\alpha = 6^{\circ}$.

Figure 12.- Concluded.



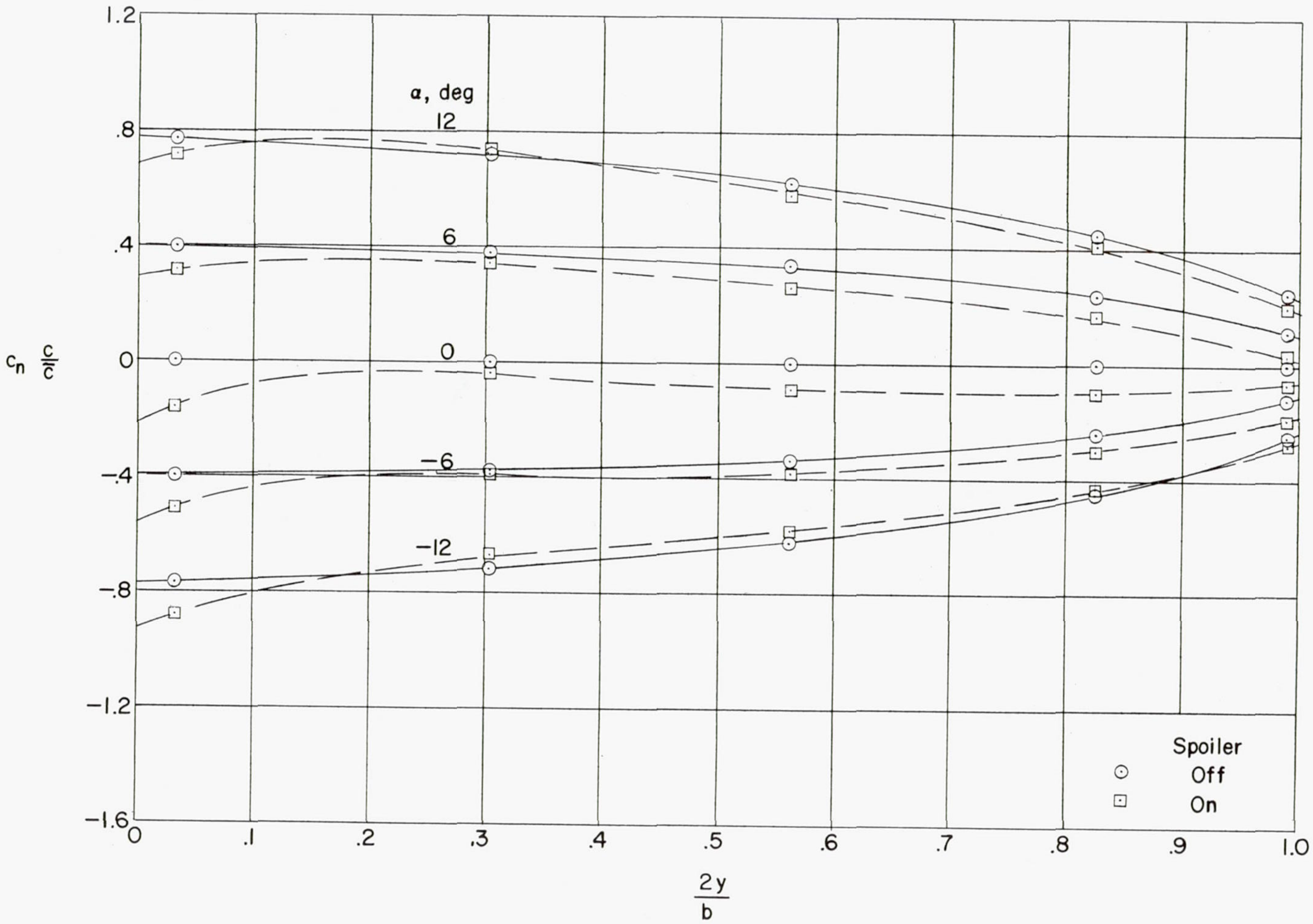

(a) Effect of control deflection.

Figure 13.- Incremental pressure distributions for configuration C with a full-span flap-type trailing-edge control. M = 1.61.



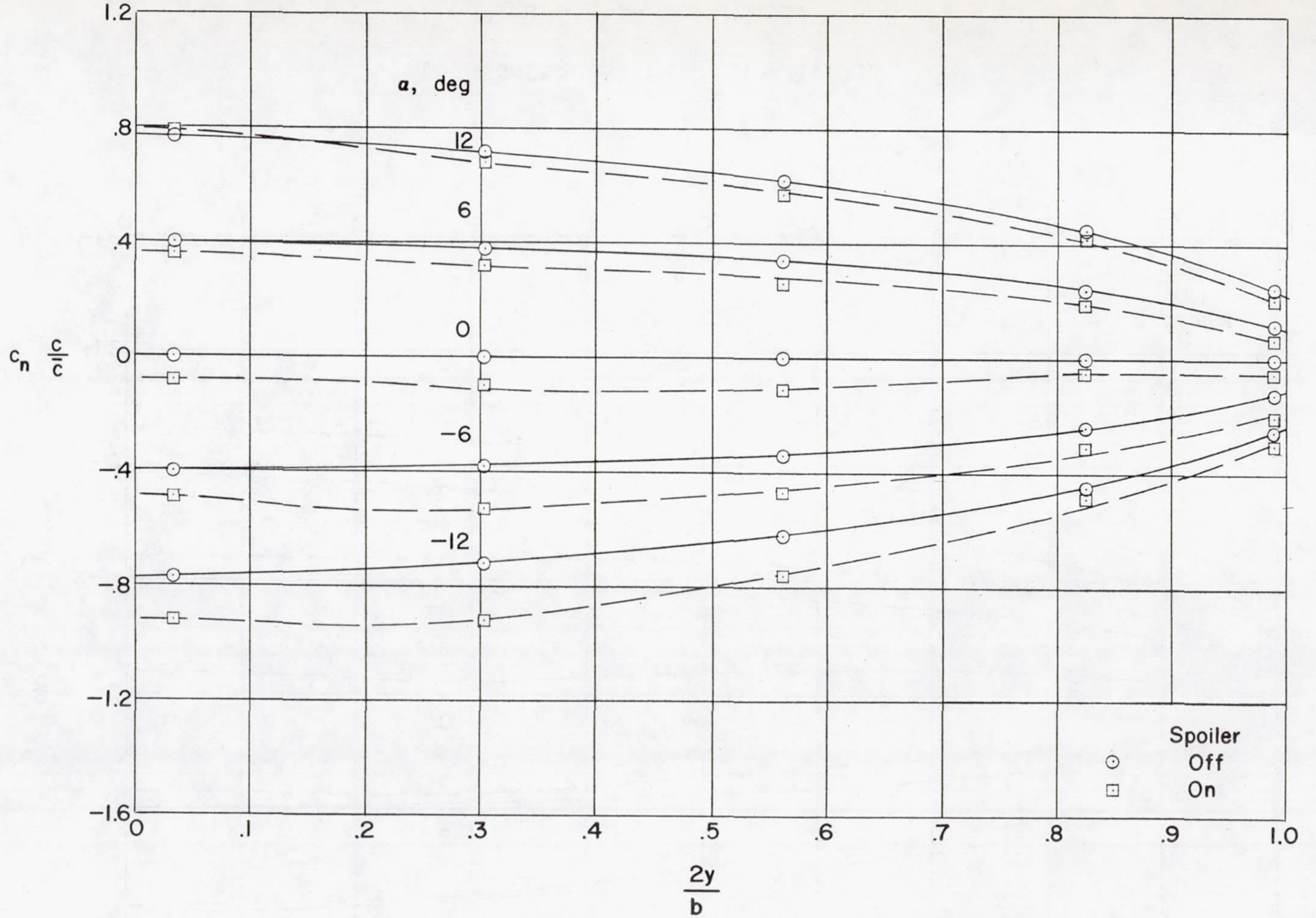

(b) Effect of angle of attack.

Figure 13.- Concluded.



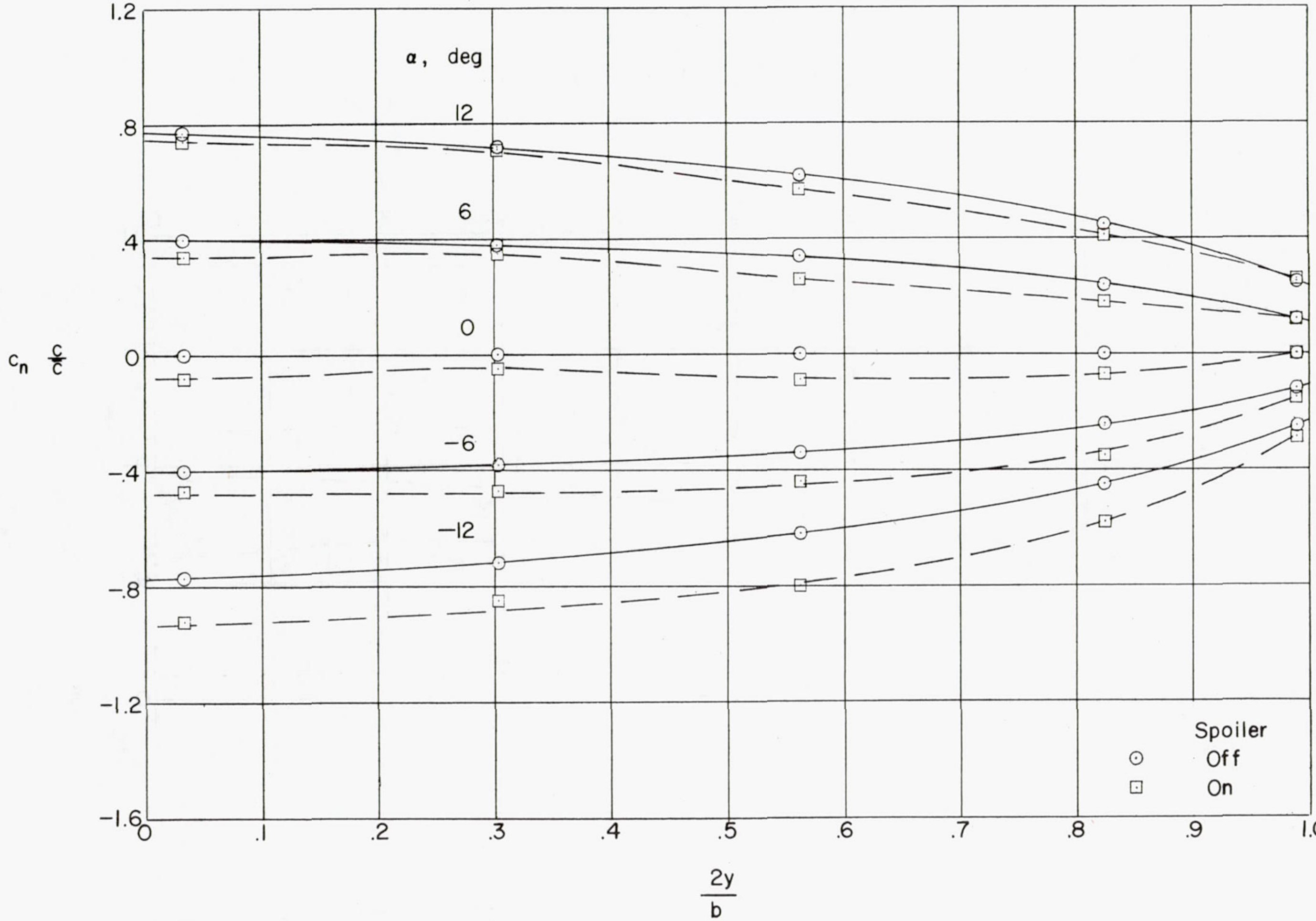

(a) Configuration A; M = 1.61.

Figure 14.- Spanwise variations of the section normal-force coefficients for the nine spoiler configurations.



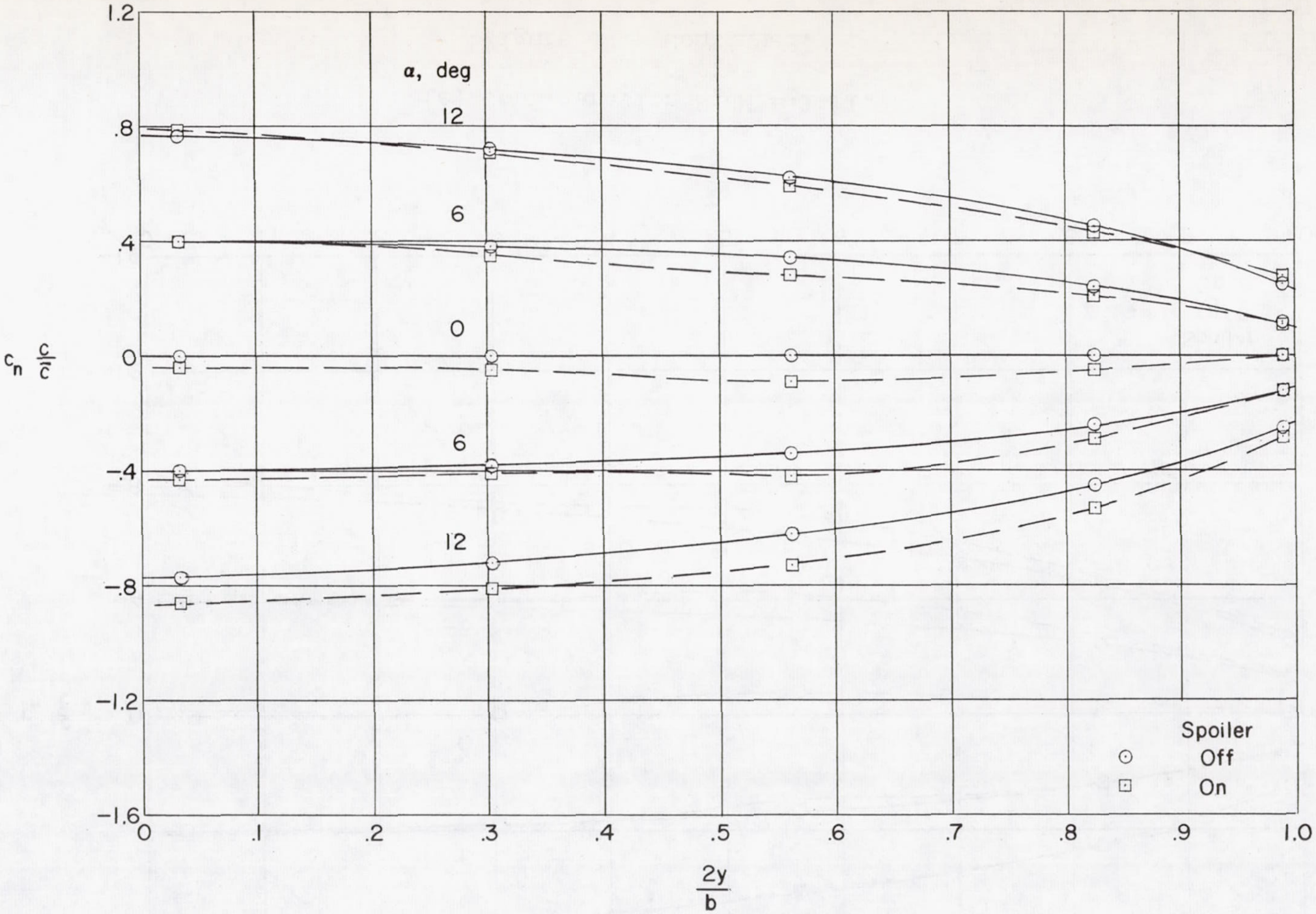

(b) Configuration B; M = 1.61.

Figure 14.- Continued.



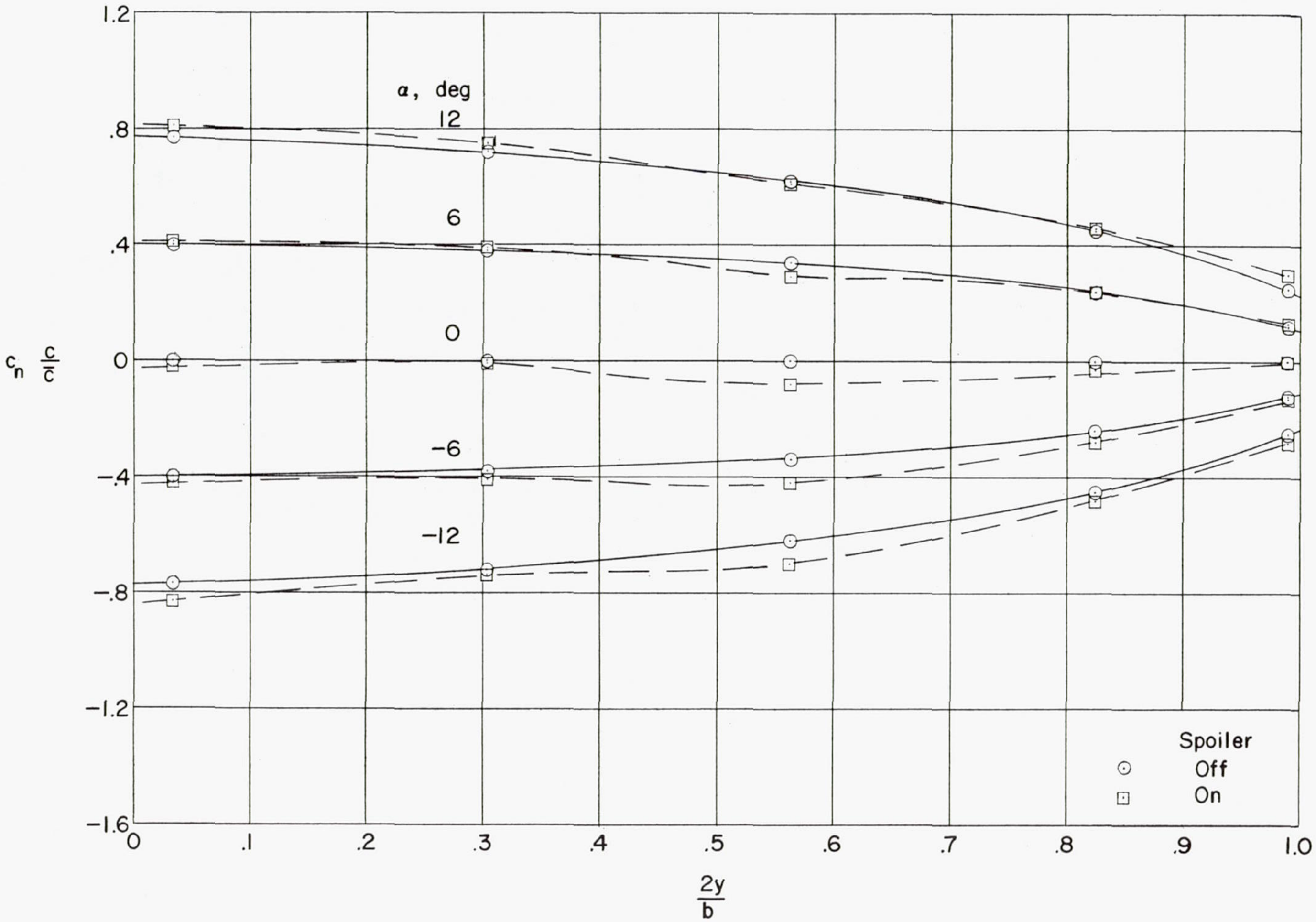

(c) Configuration C; M = 1.61.

Figure 14.- Continued.



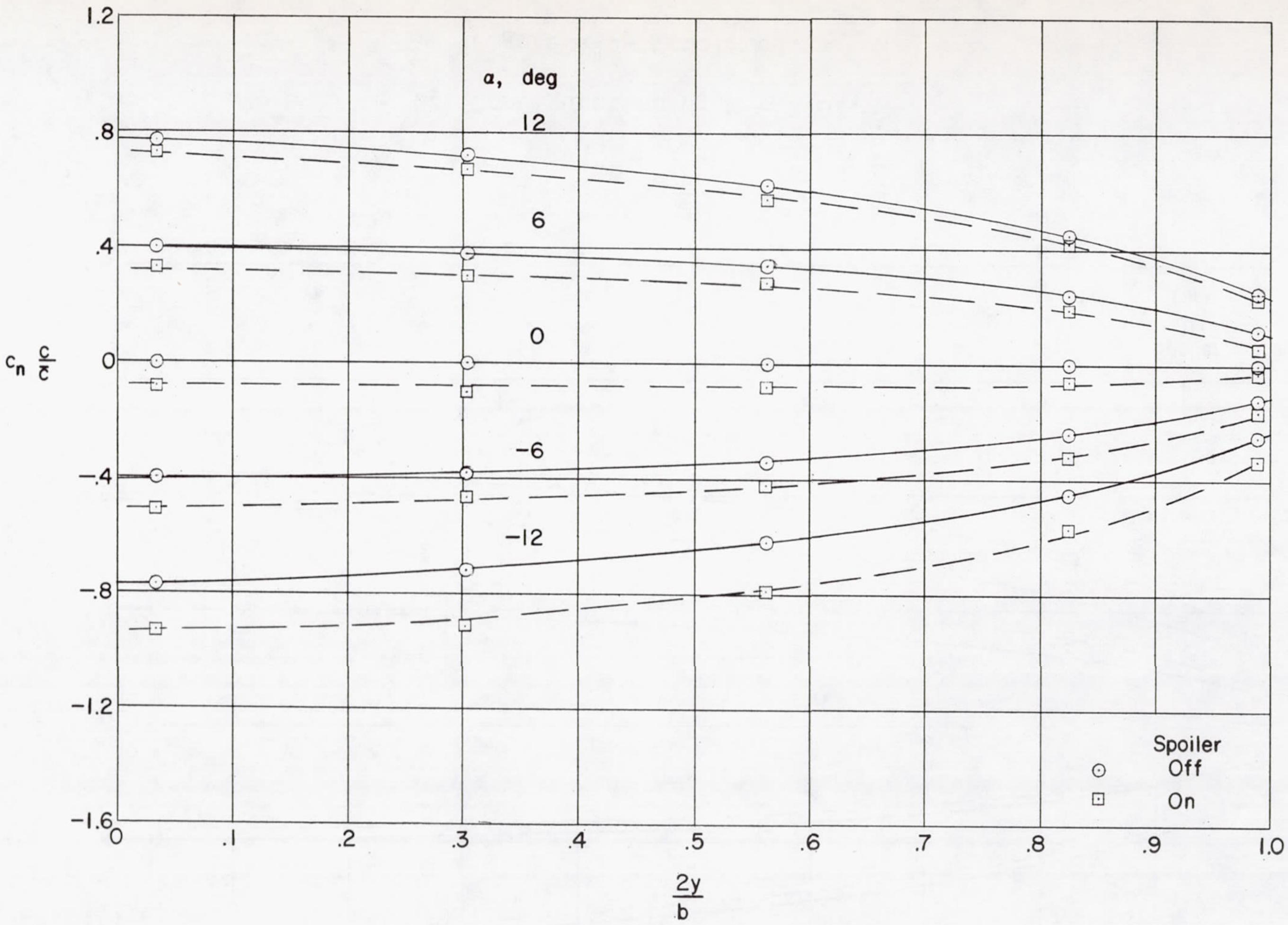

(d) Configuration D; M = 1.61.

Figure 14.- Continued.



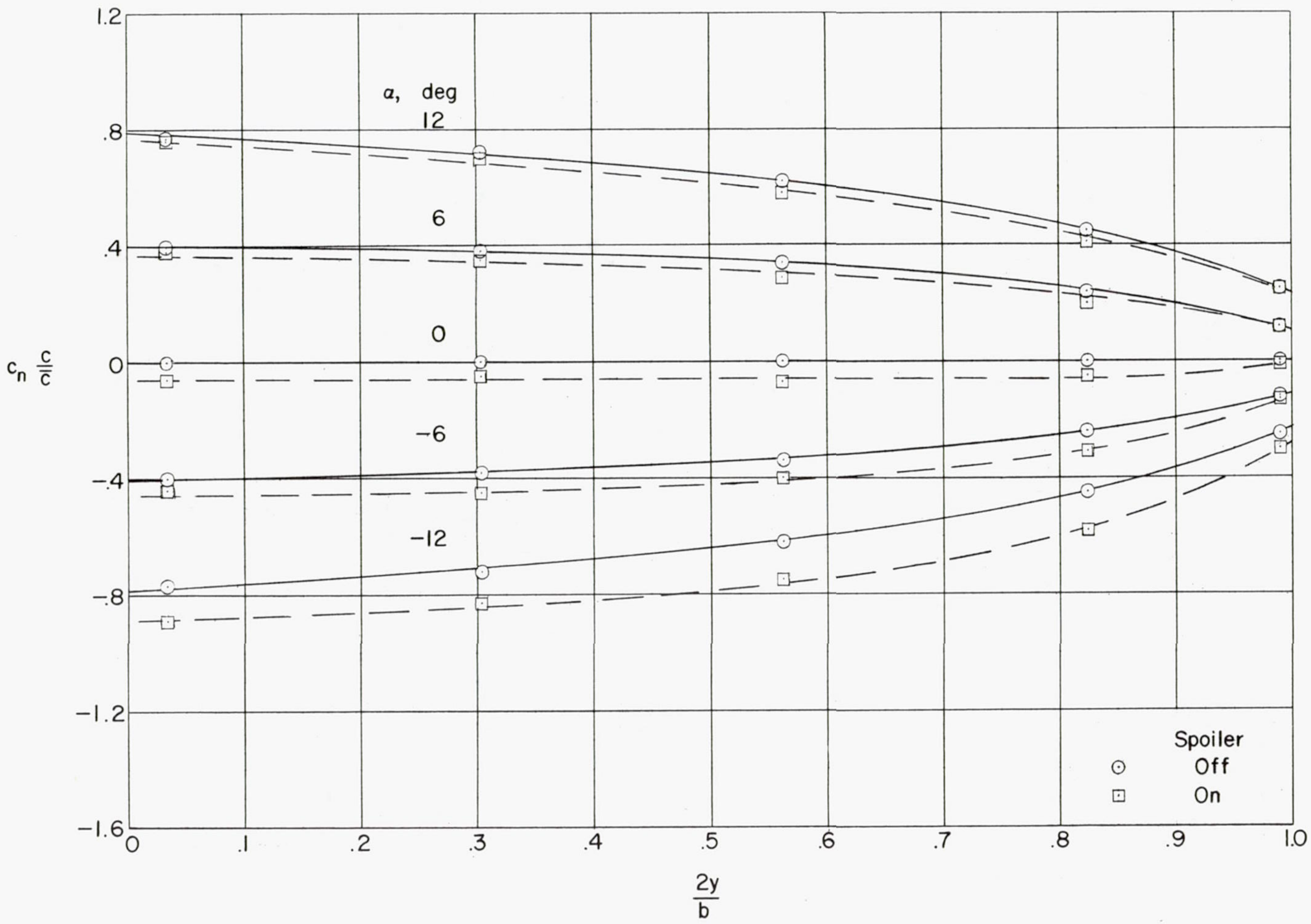

(e) Configuration E; M = 1.61.

Figure 14.- Continued.



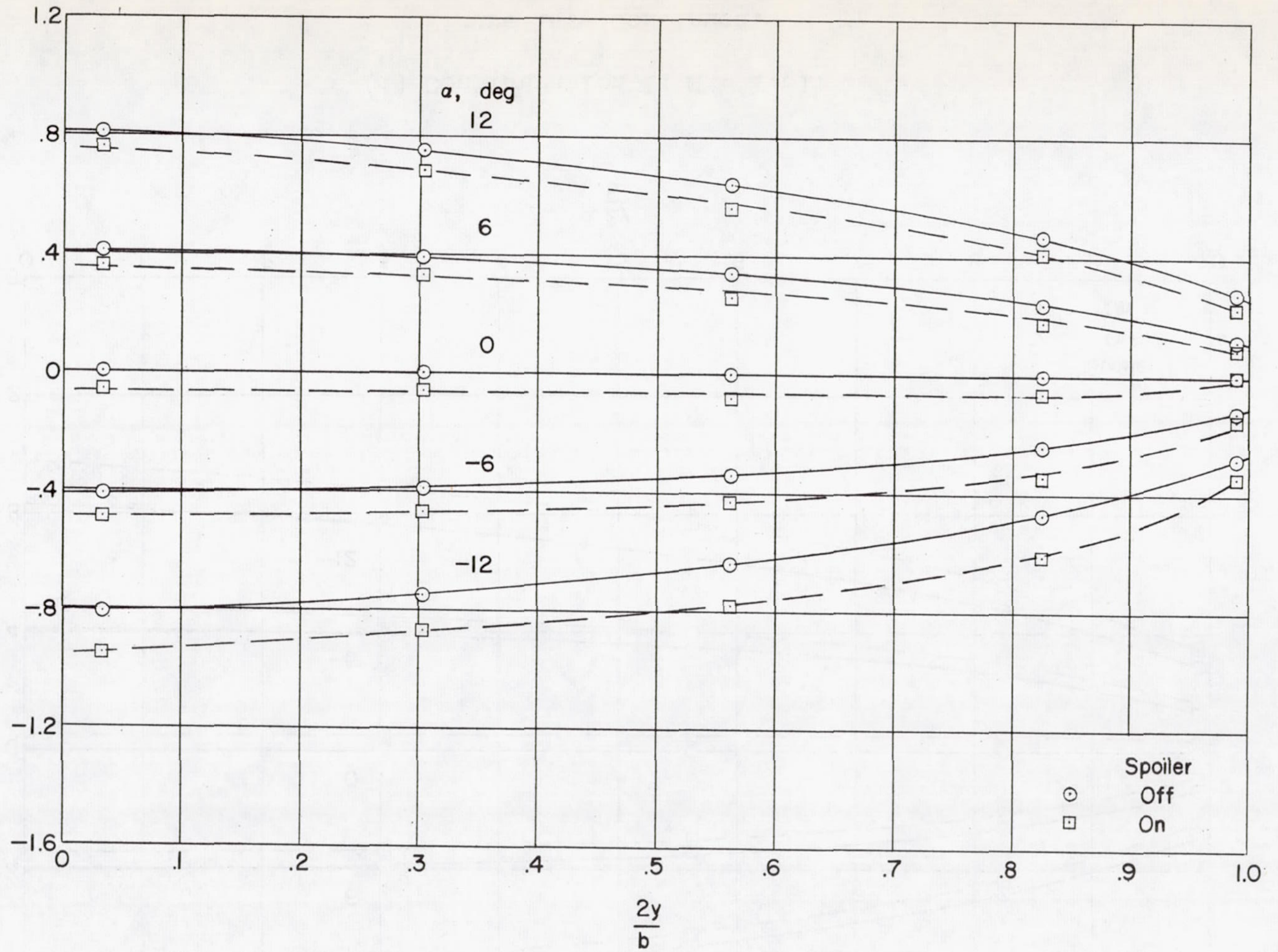

(f) Configuration F; M = 1.61.

Figure 14.- Continued.



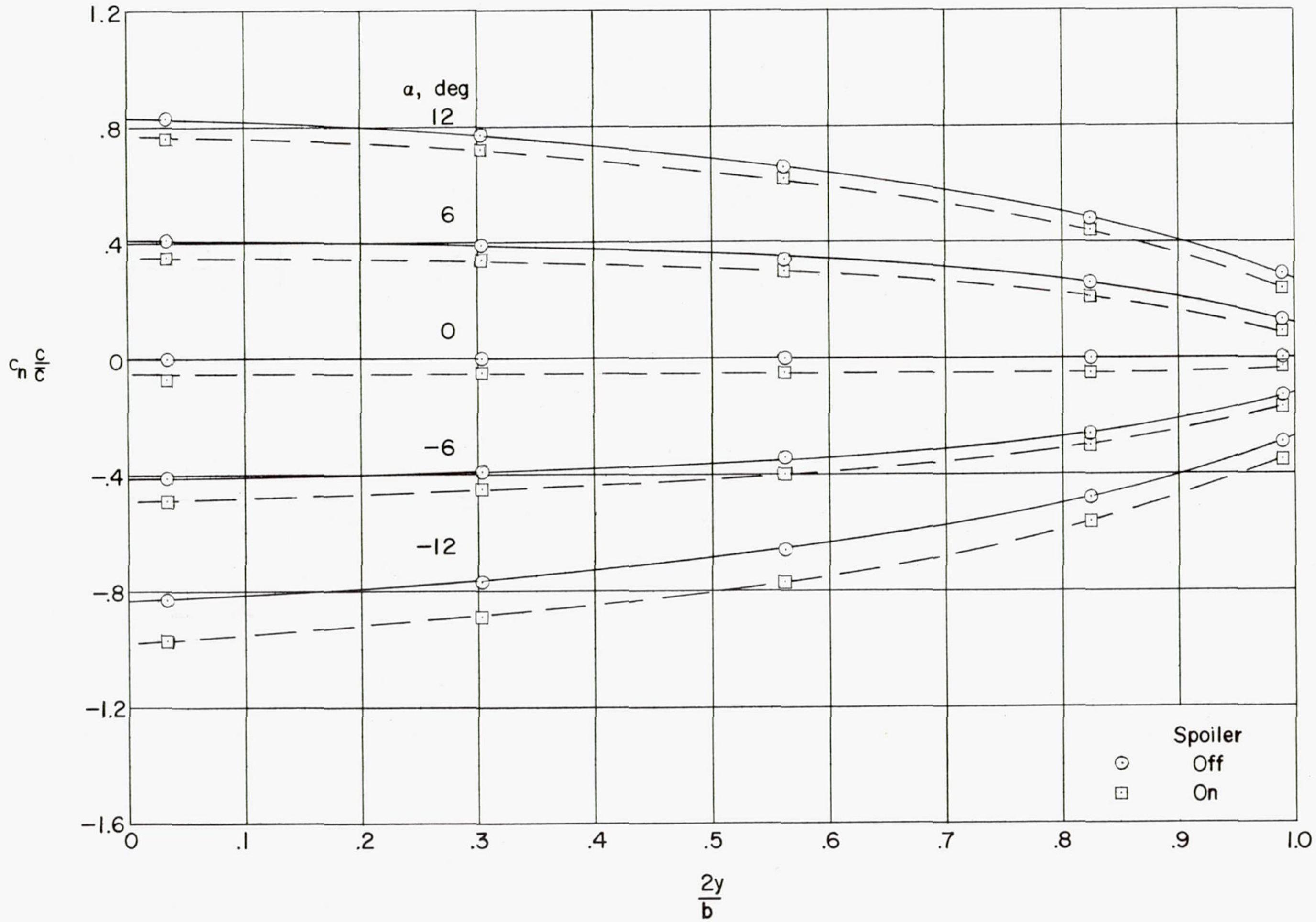

(g) Configuration G; M = 1.61.

Figure 14.- Continued.



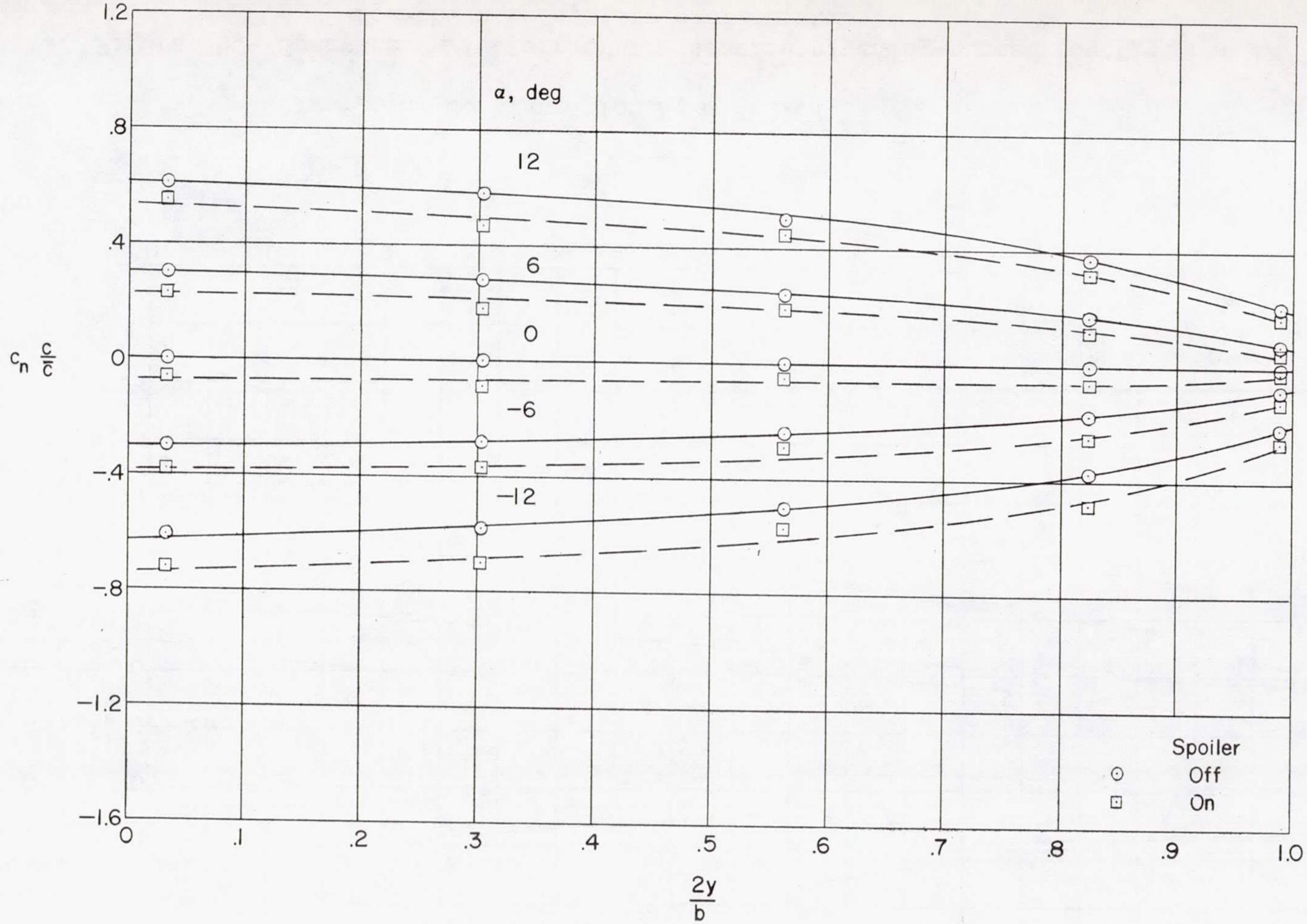

(h) Configuration H; M = 1.61.

Figure 14.- Continued.



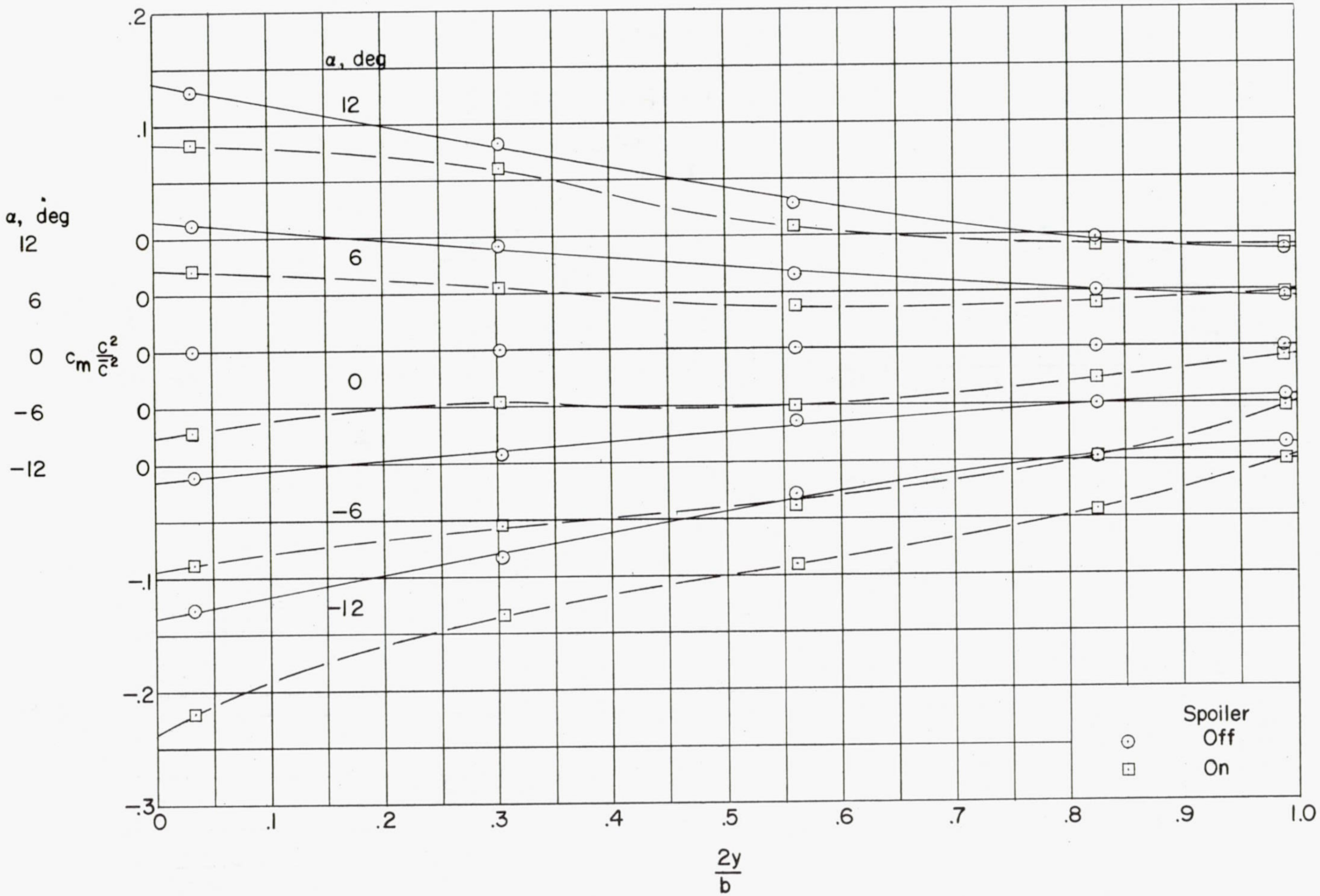

(i) Configuration I; M = 1.61.

Figure 14.- Continued.



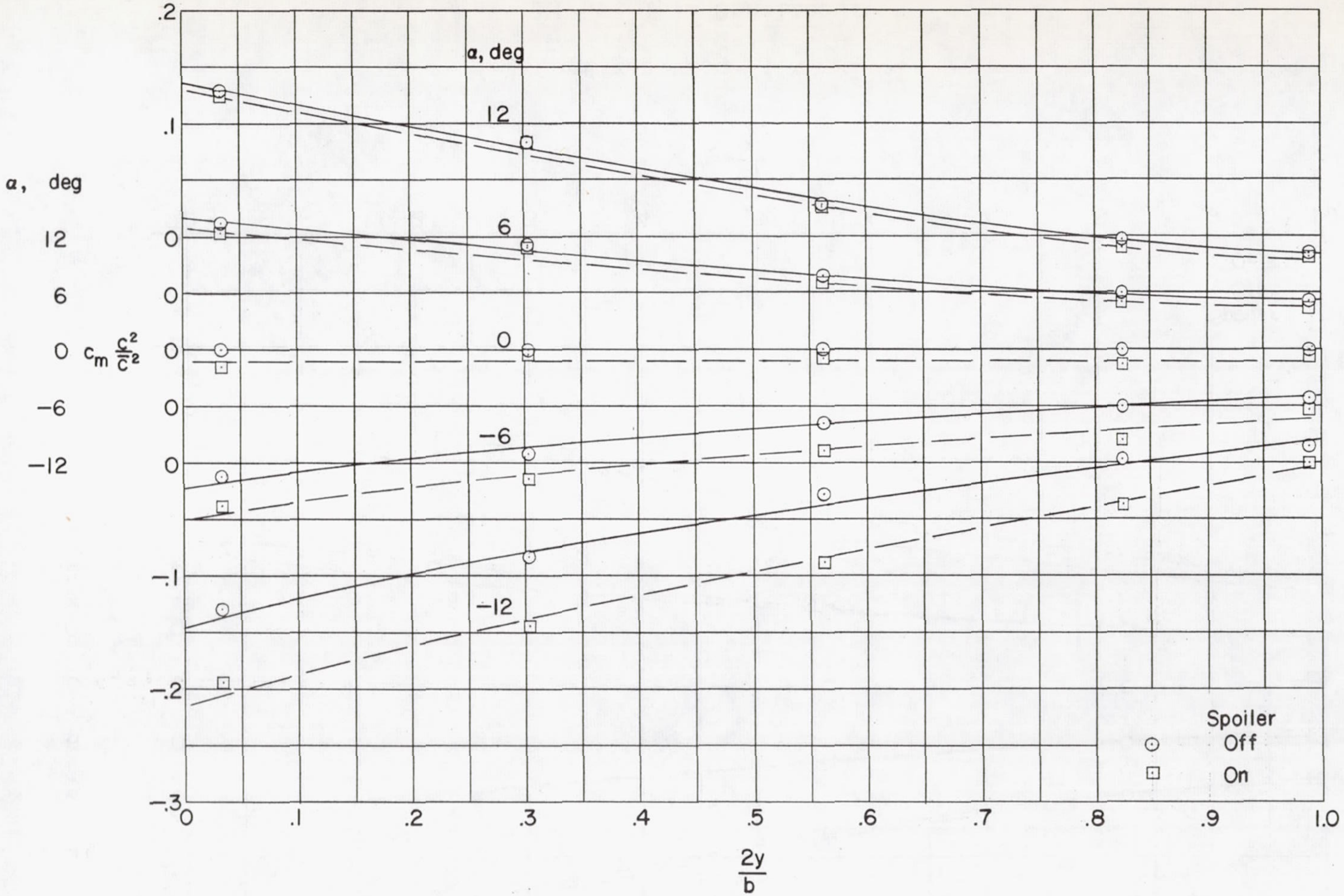

(j) Configuration C; M = 2.01.

Figure 14.- Concluded.



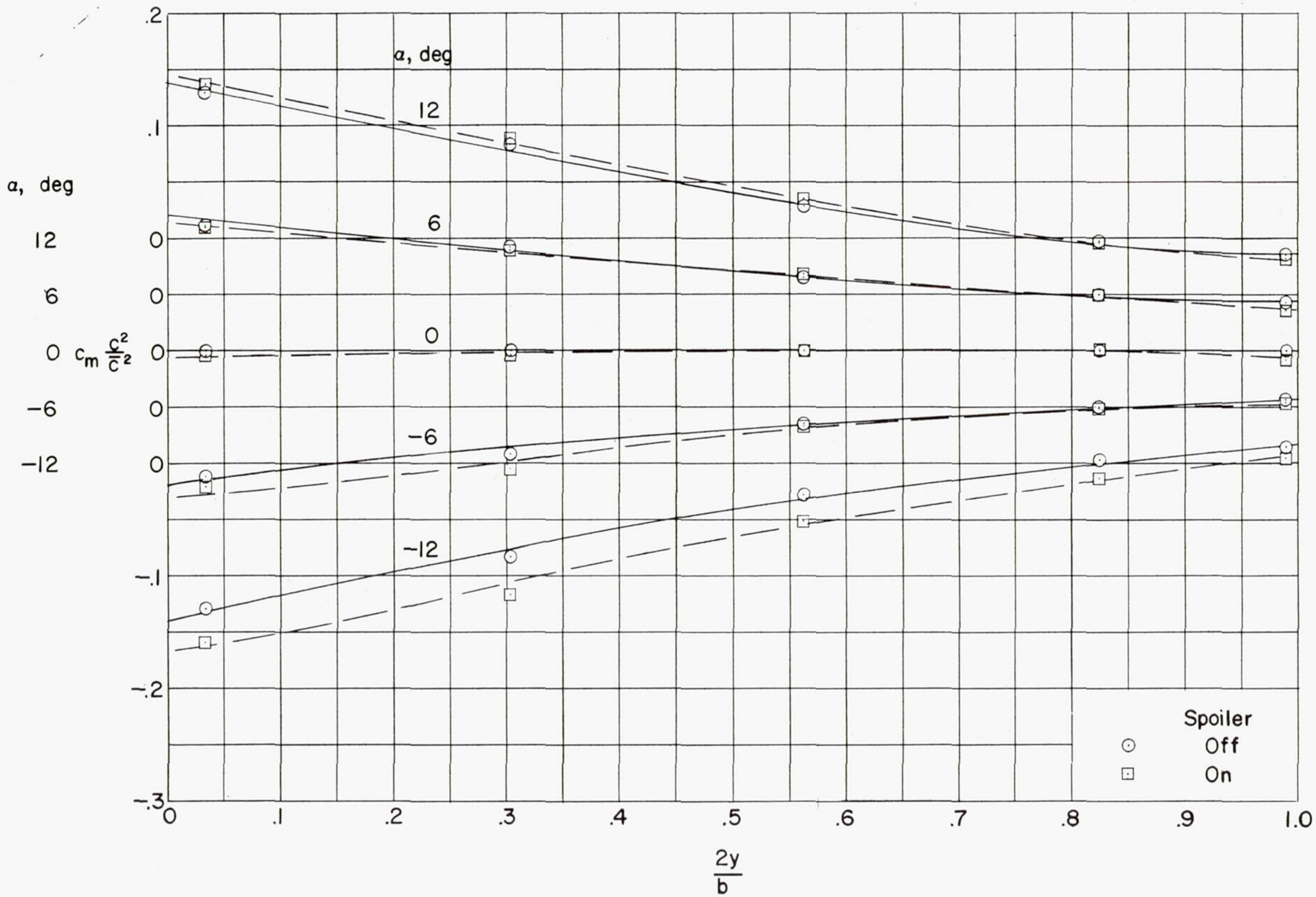

(a) Configuration A; M = 1.61.

Figure 15.- Spanwise variations of the section pitching-moment coefficients for the nine spoiler configurations.



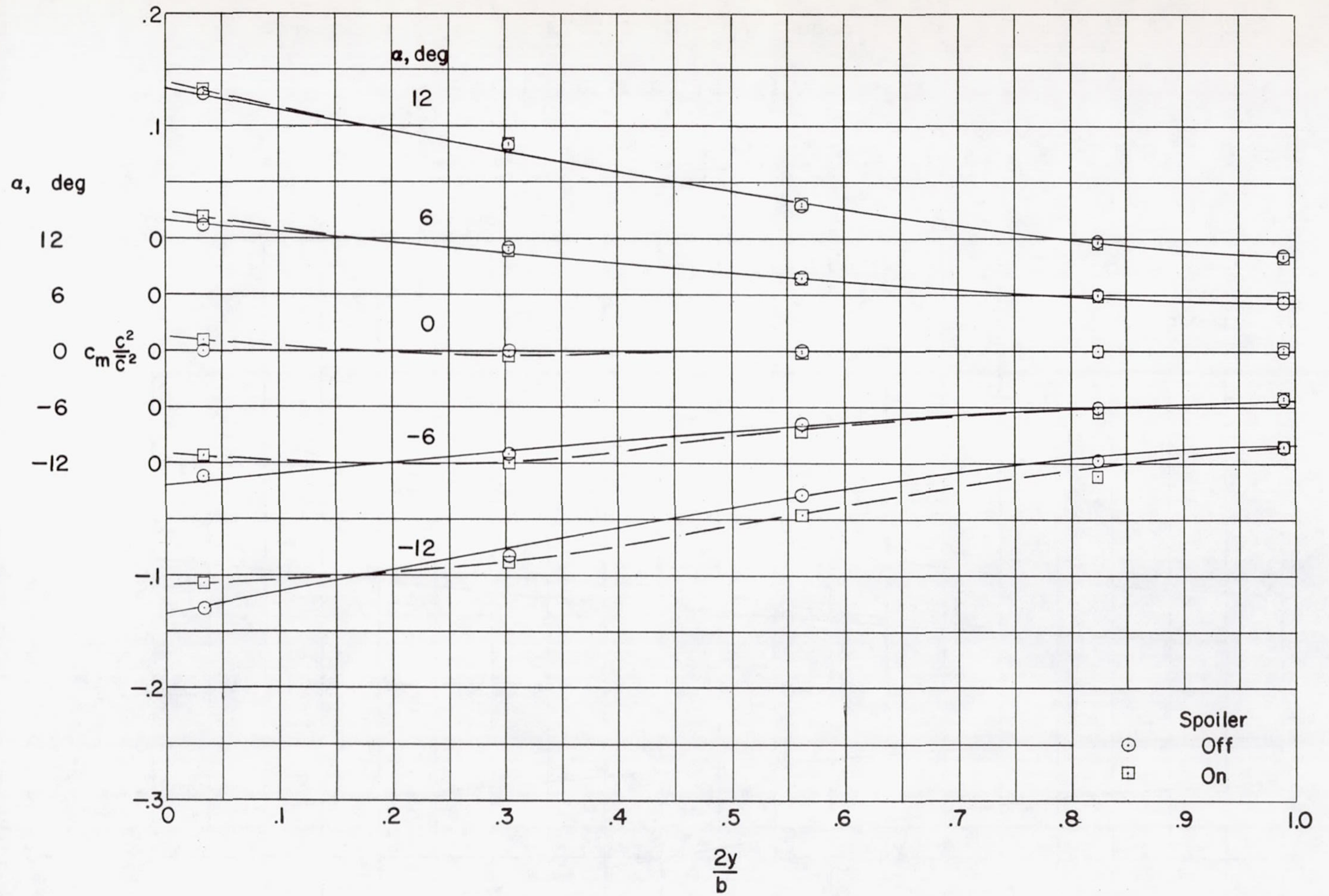

(b) Configuration B; M = 1.61.

Figure 15.- Continued.



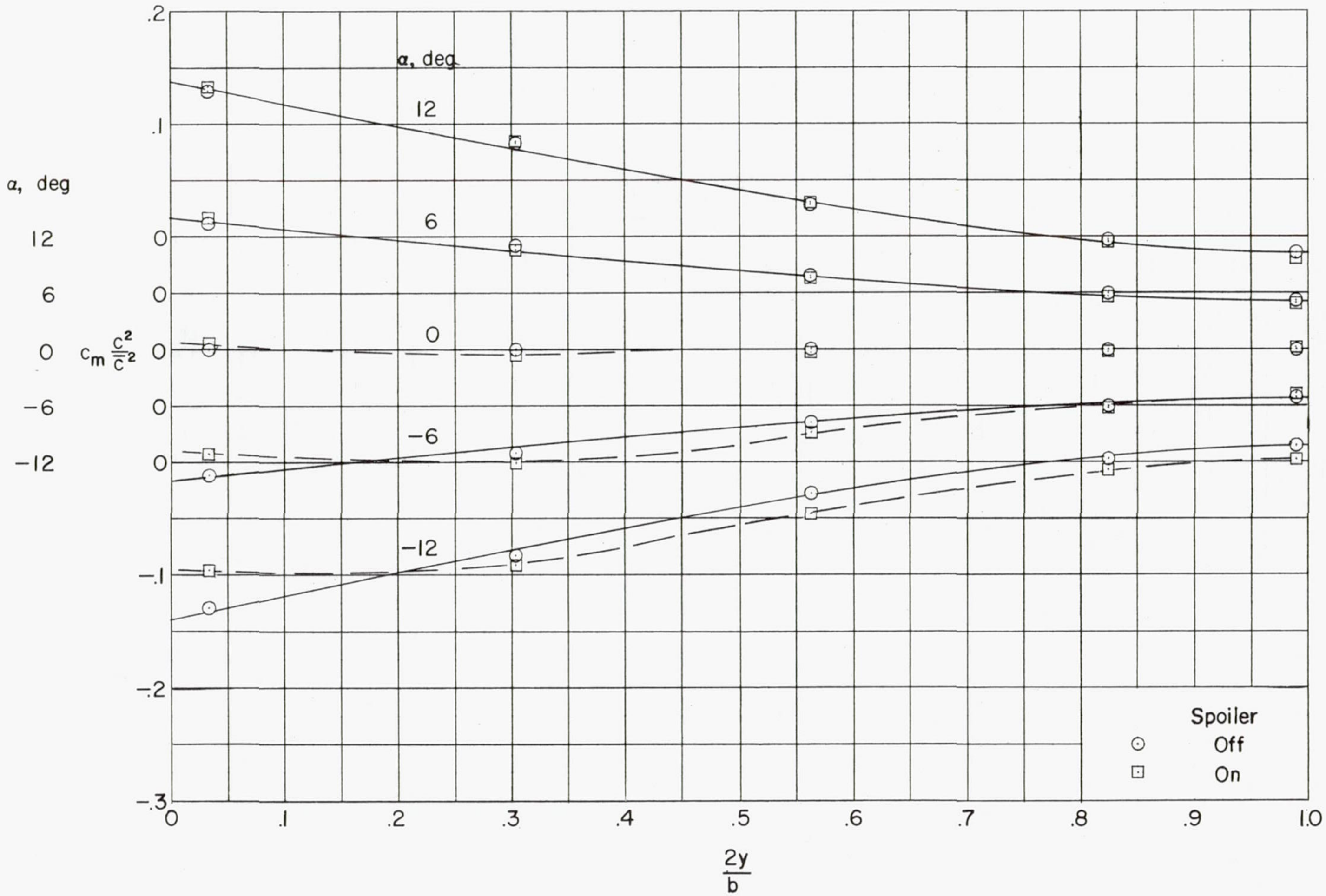

(c) Configuration C; M = 1.61.

Figure 15.- Continued.



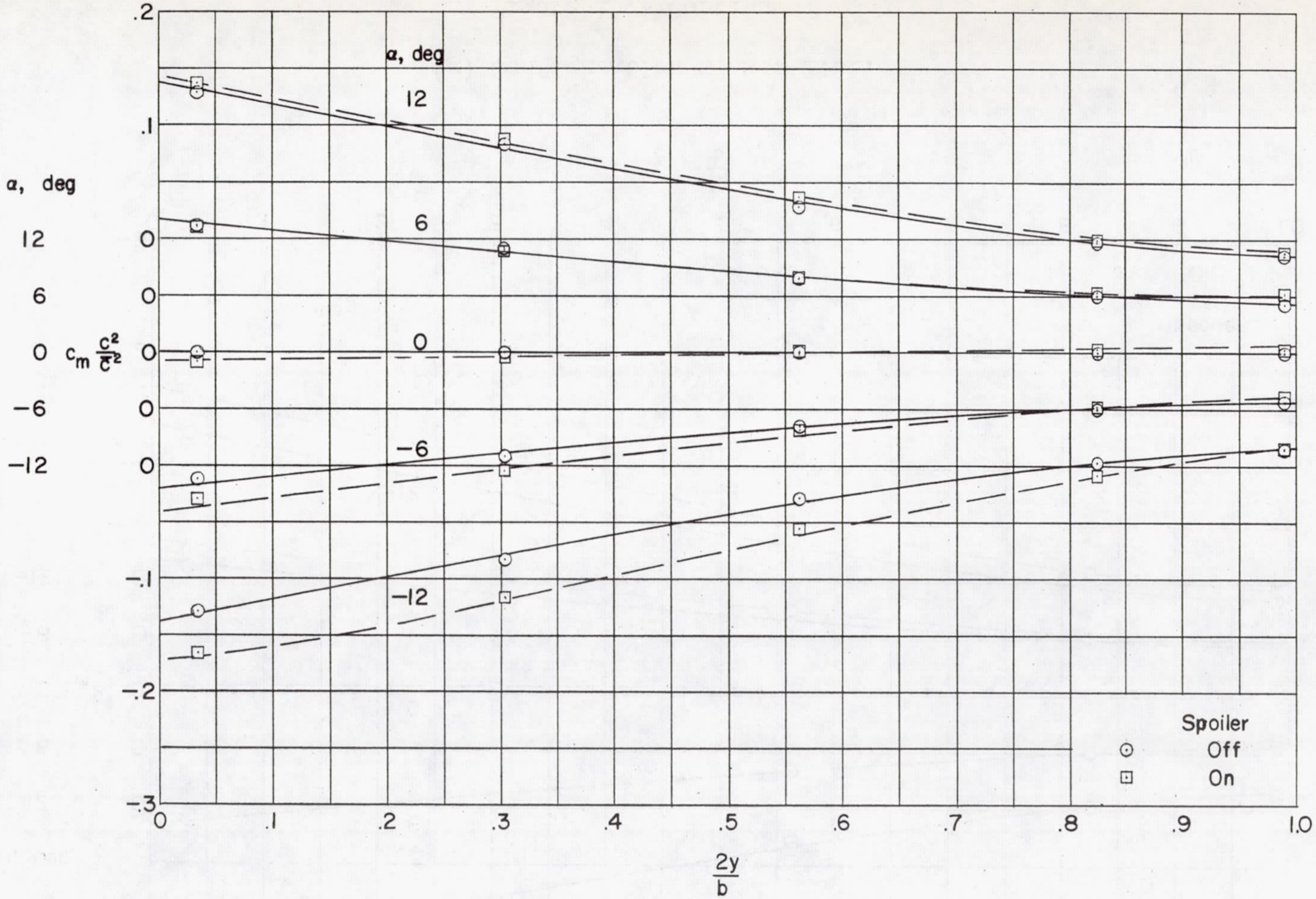

(d) Configuration D; M = 1.61.

Figure 15.- Continued.



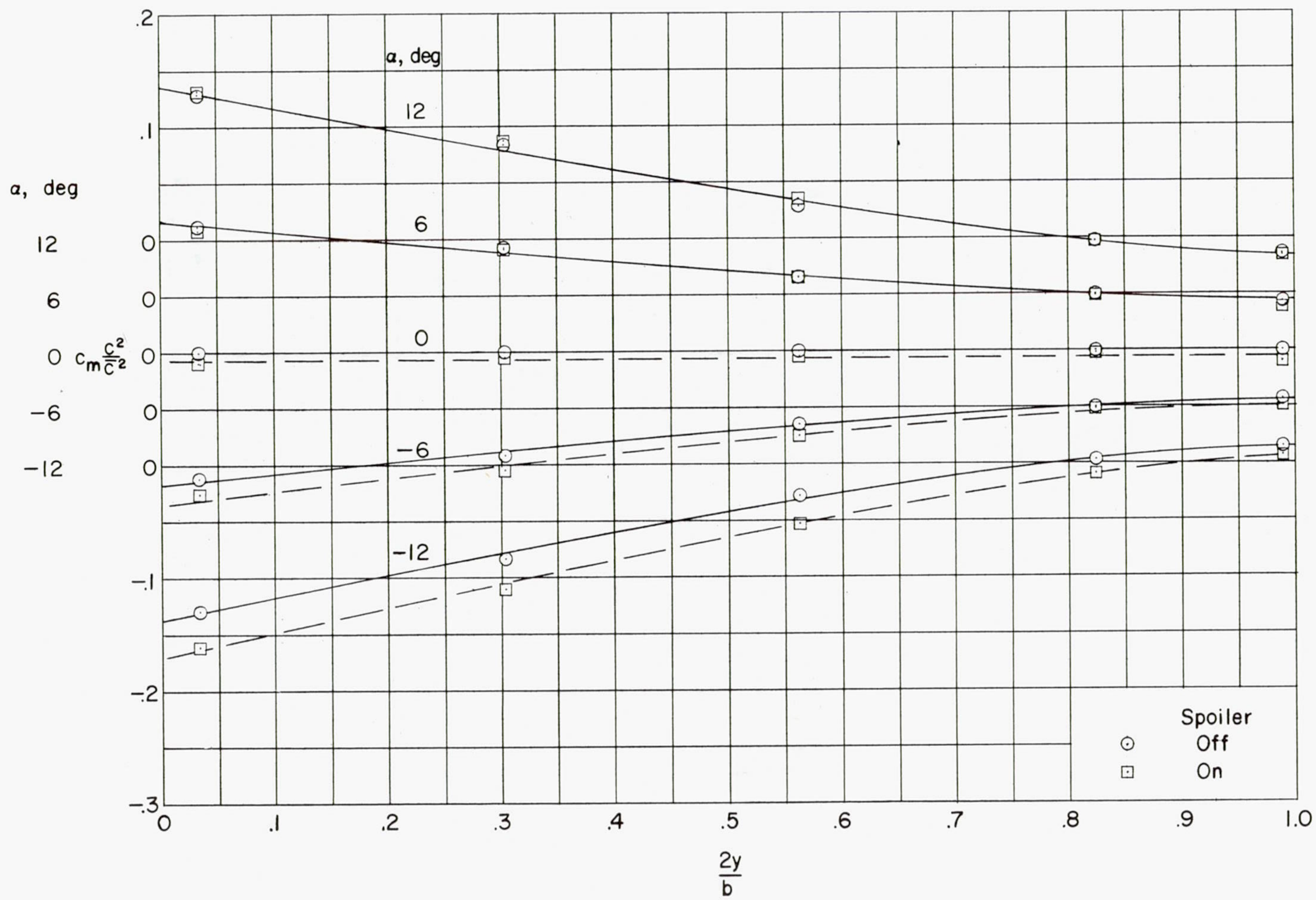

(e) Configuration E; M = 1.61.

Figure 15.- Continued.



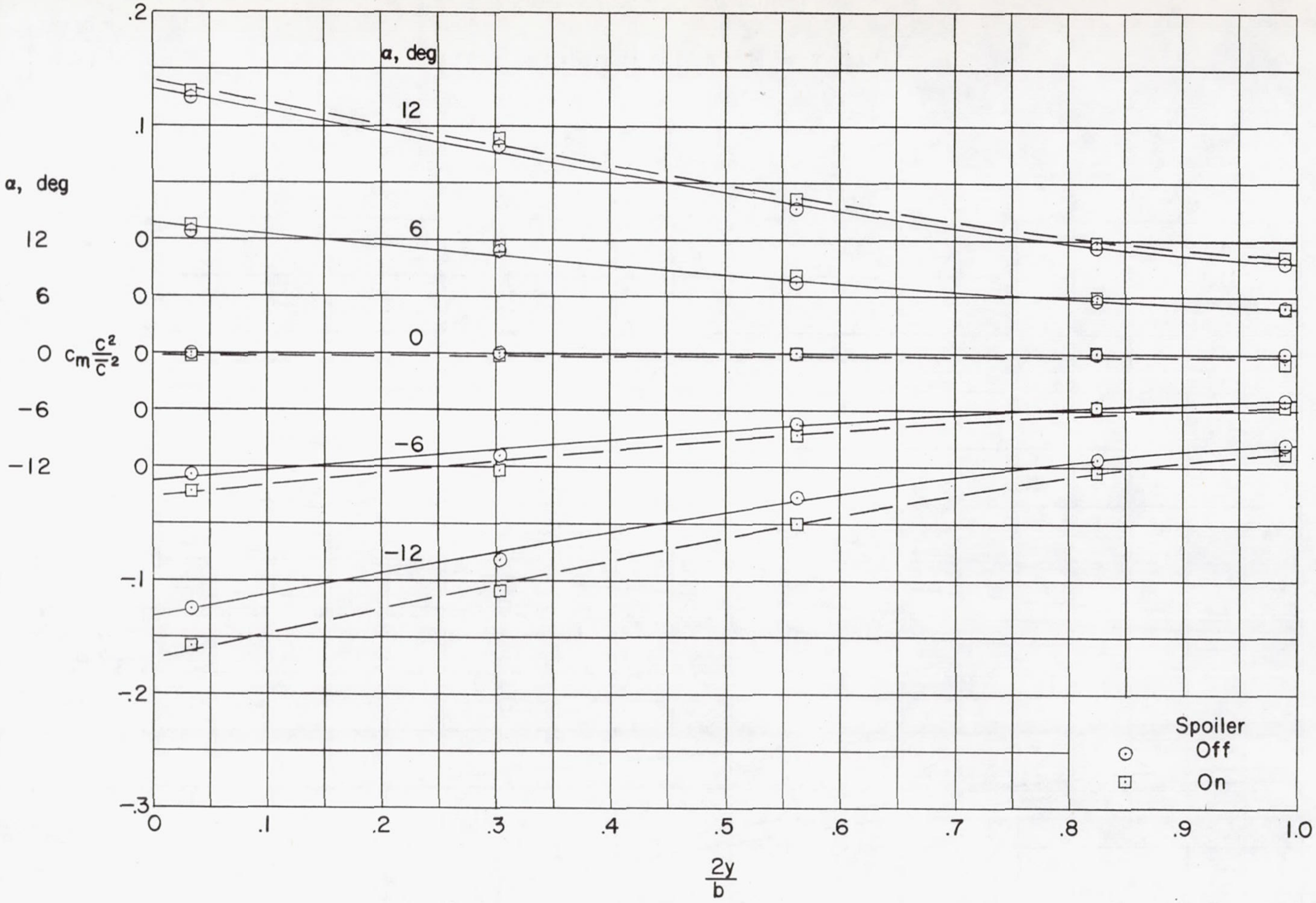

(f) Configuration F; M = 1.61.

Figure 15.- Continued.



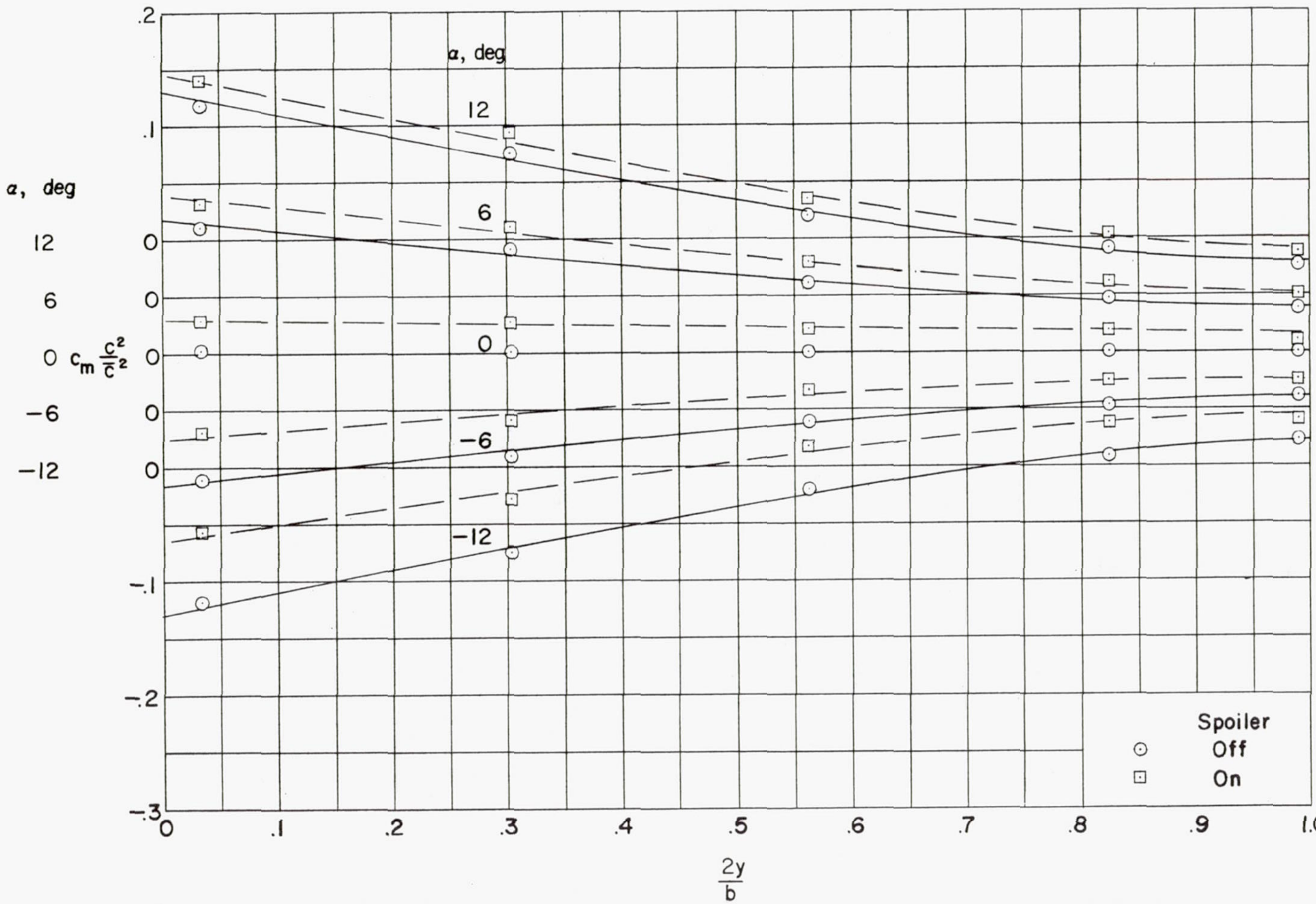

(g) Configuration G; M = 1.61.

Figure 15.- Continued.



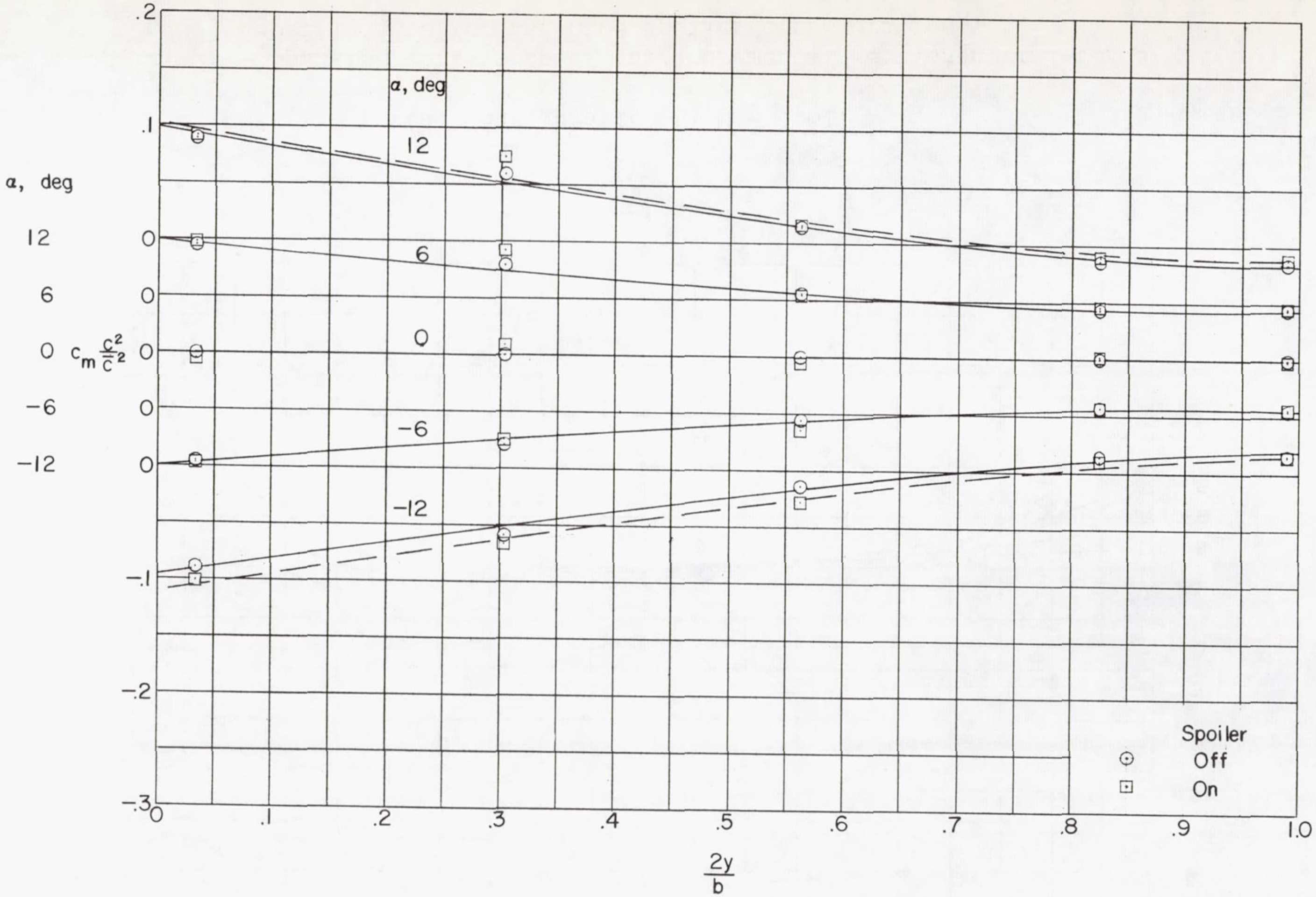

(h) Configuration H; M = 1.61.

Figure 15.- Continued.



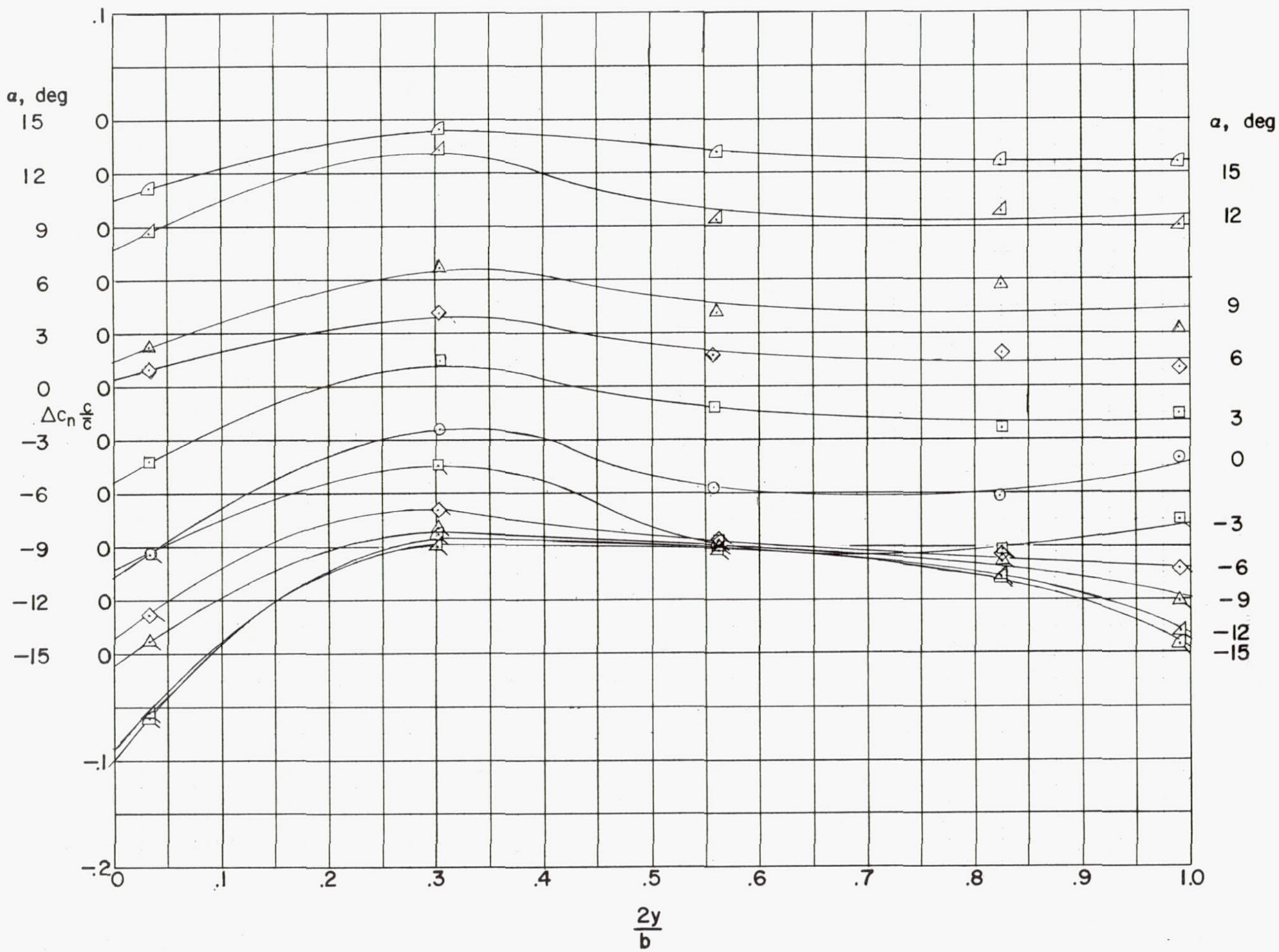

(i) Configuration I; M = 1.61.

Figure 15.- Continued.



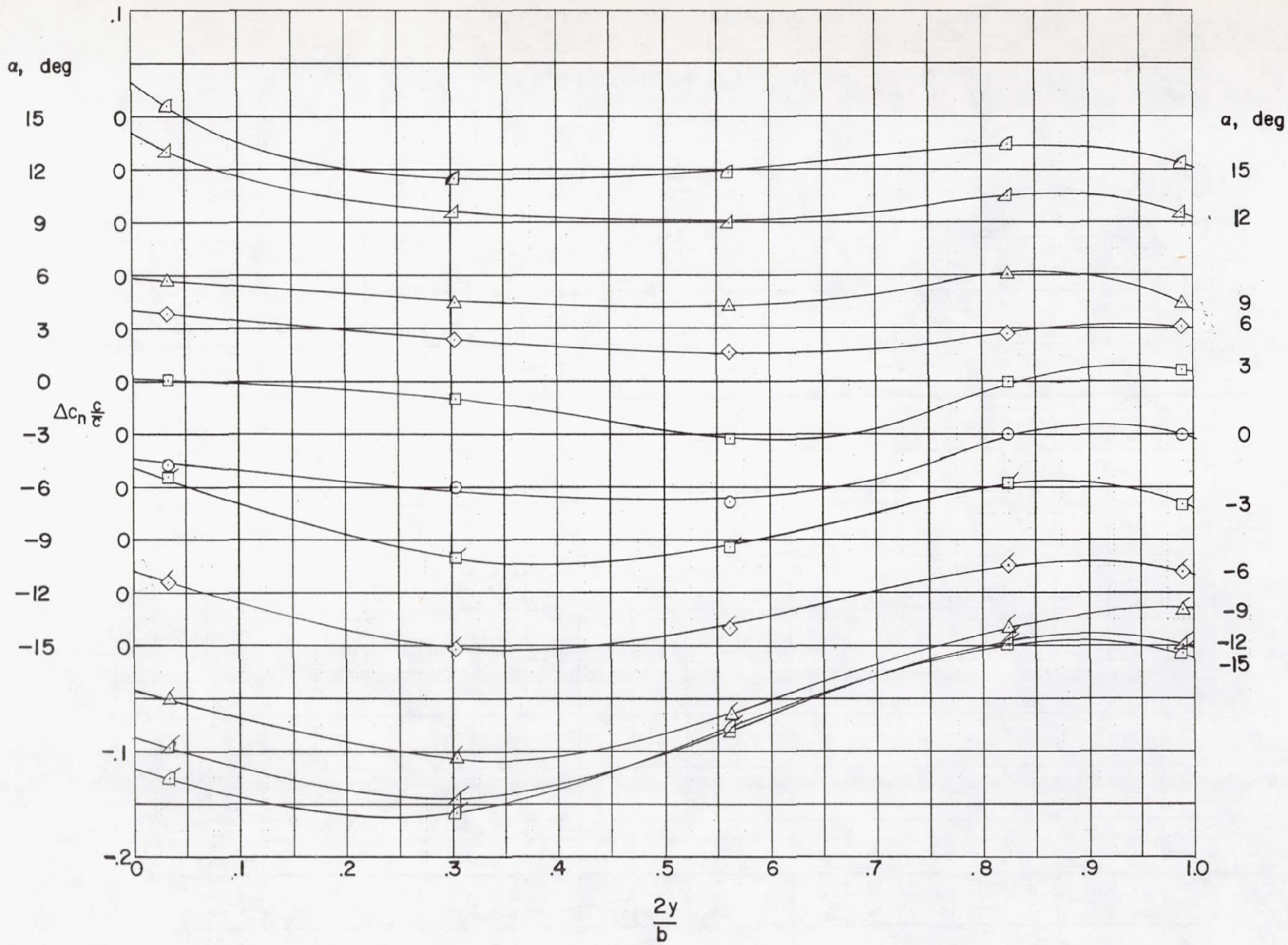

(j) Configuration C; M = 2.01.

Figure 15.- Concluded.



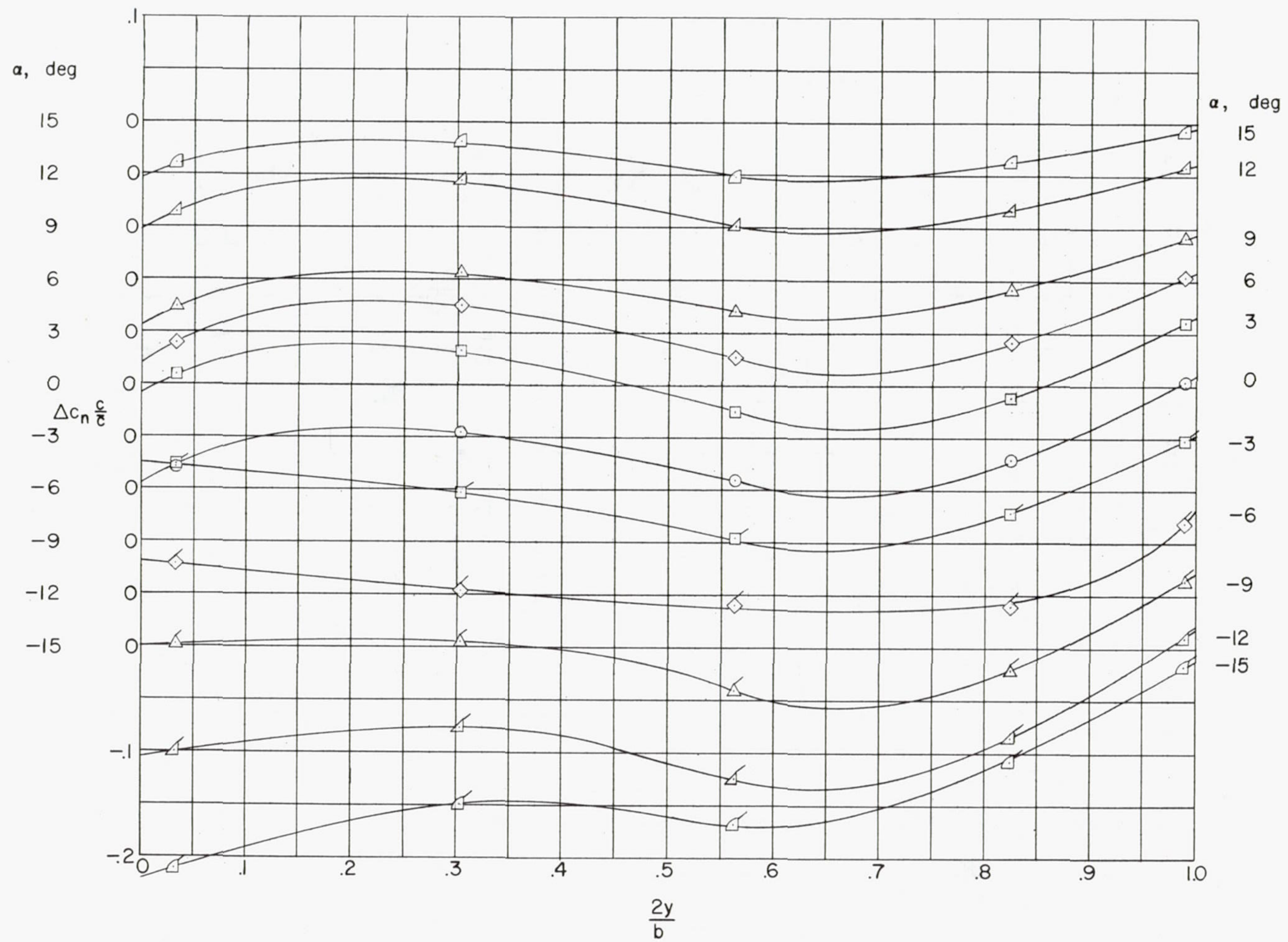

(a) Configuration A; M = 1.61.

Figure 16.- Spanwise variations of the incremental section normal-force coefficients for the nine spoiler configurations.



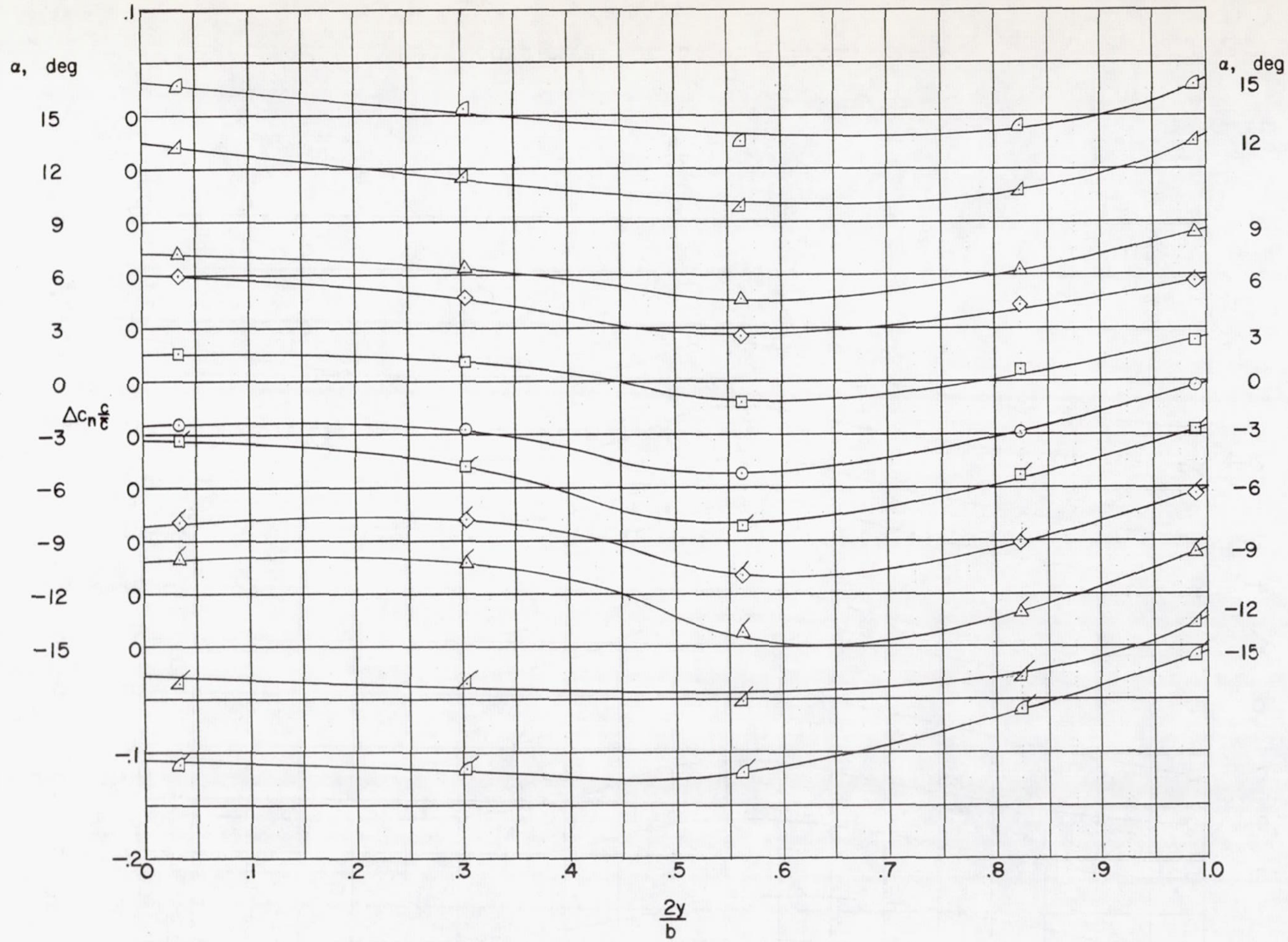

(b) Configuration B; M = 1.61.

Figure 16.- Continued.



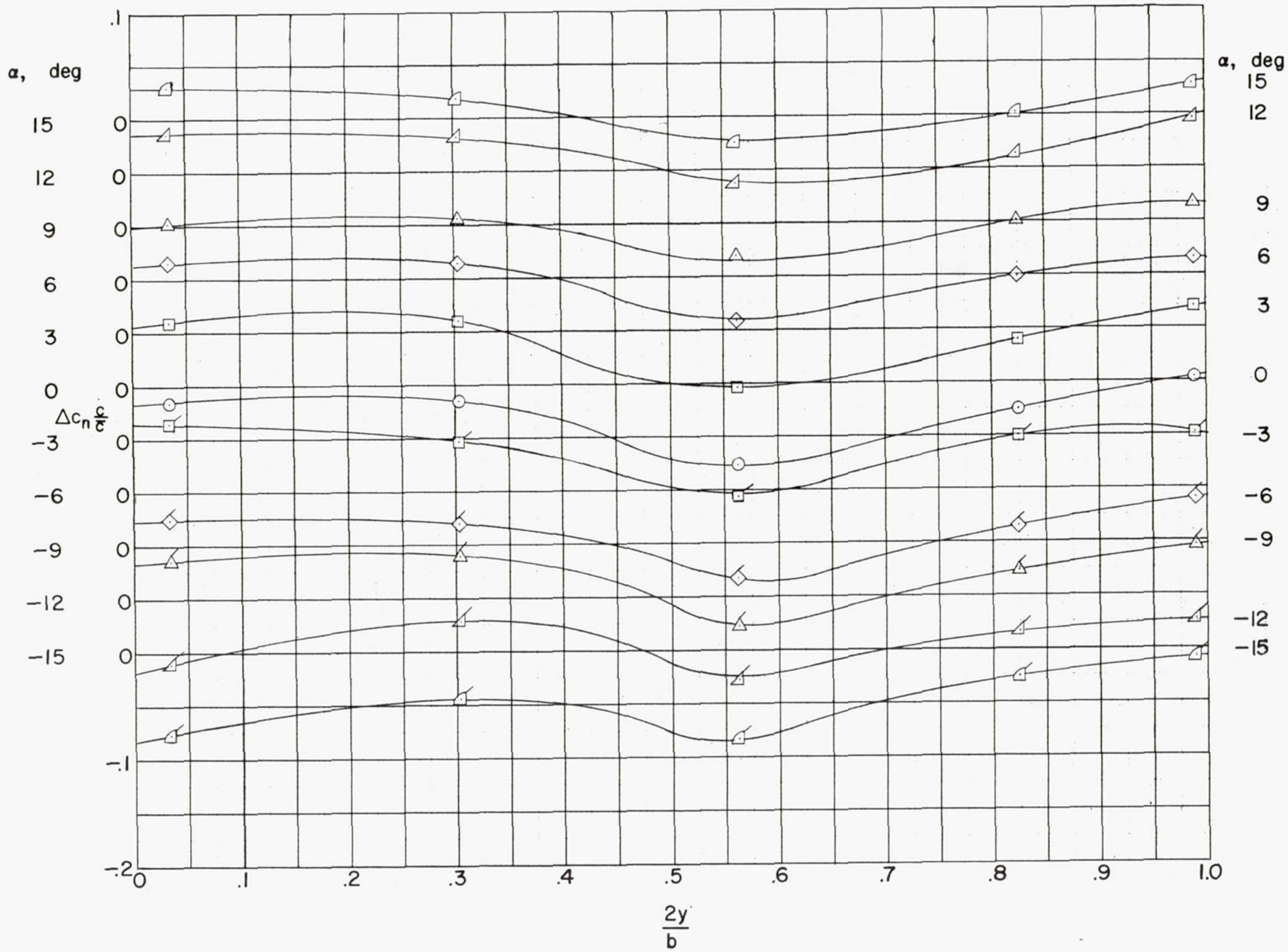

(c) Configuration C; M = 1.61.

Figure 16.- Continued.



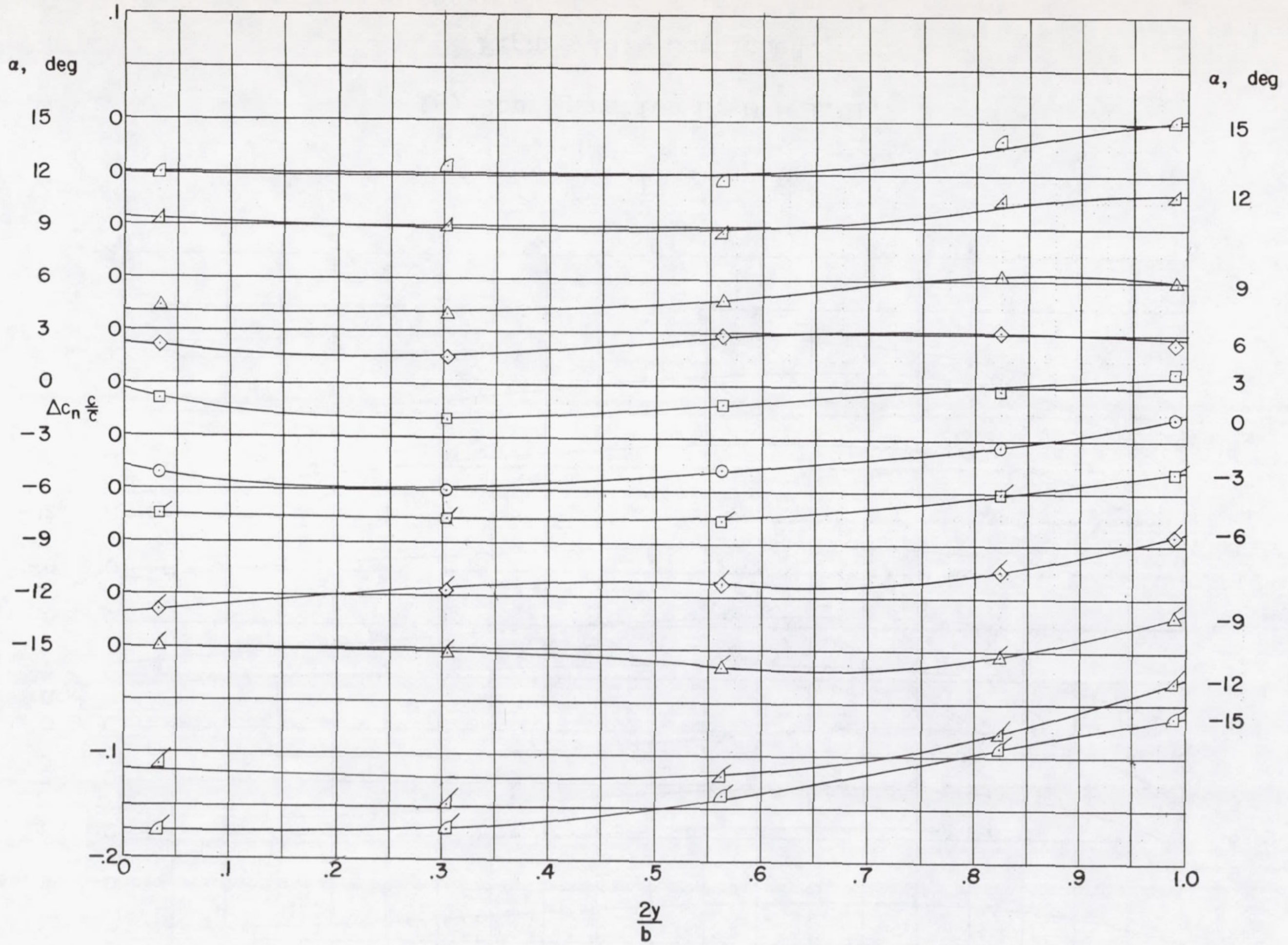

(d) Configuration D; M = 1.61.

Figure 16.- Continued.



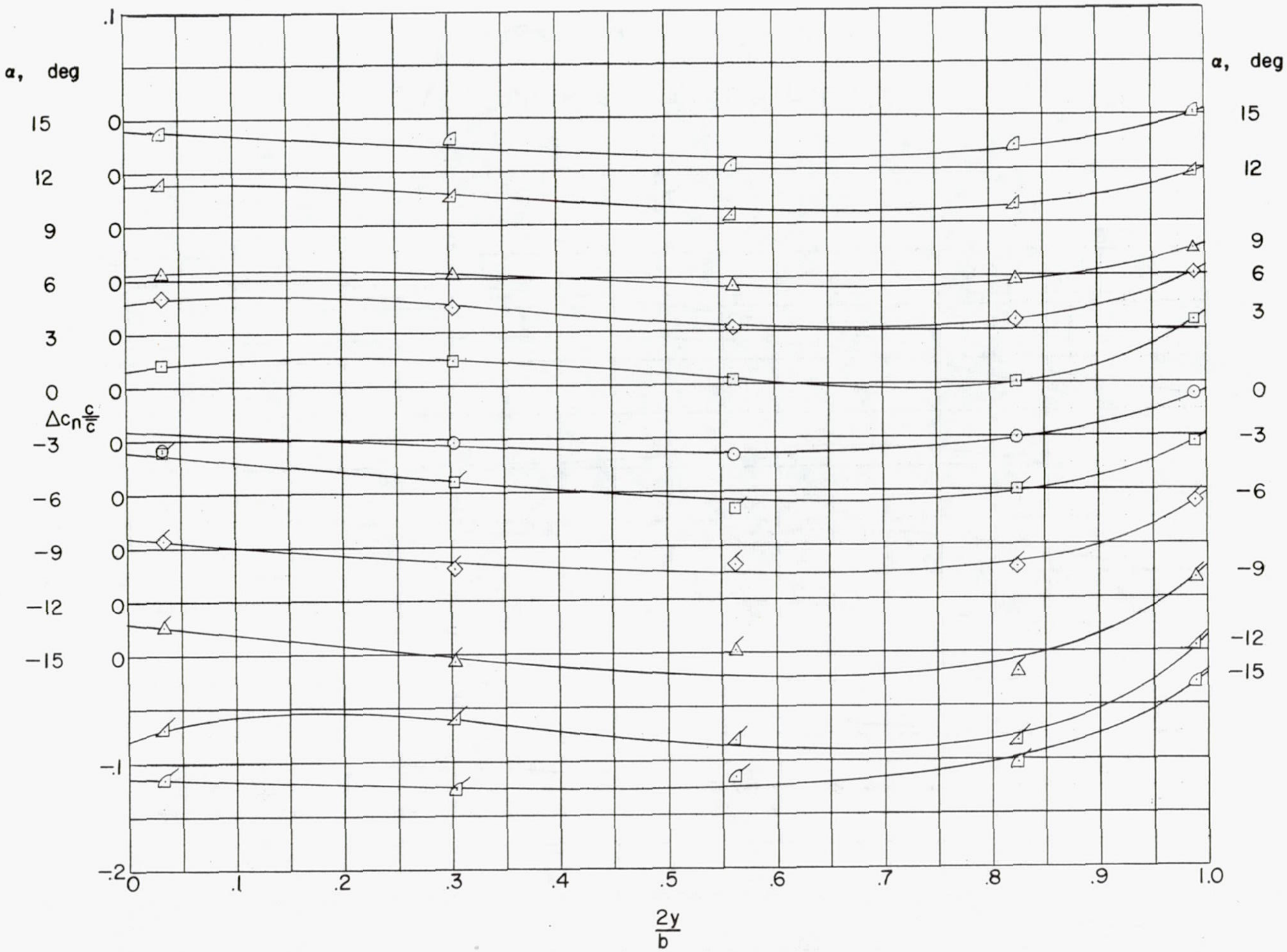

(e) Configuration E; M = 1.61.

Figure 16.- Continued.



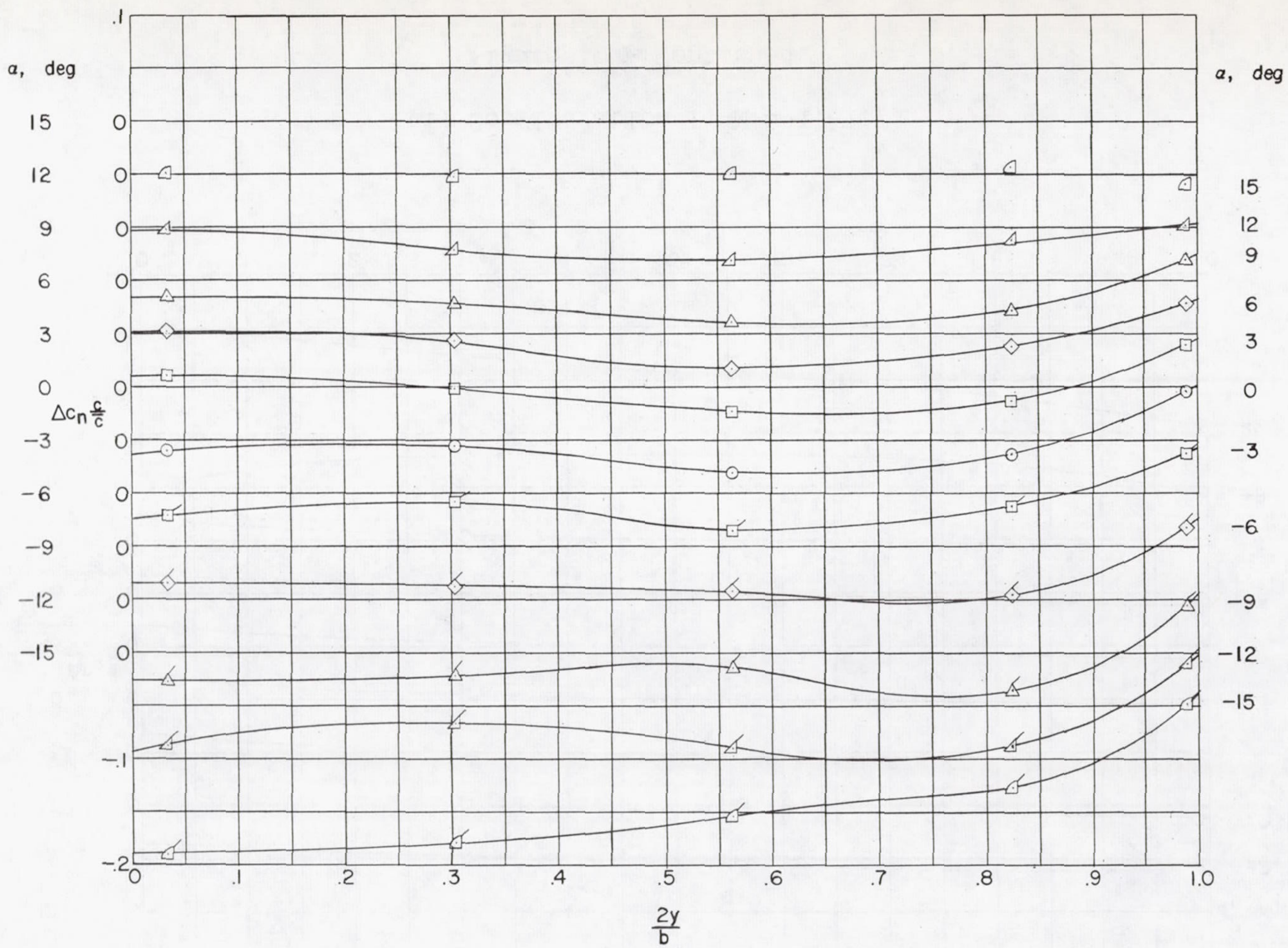

(f) Configuration F; M = 1.61.

Figure 16.- Continued.



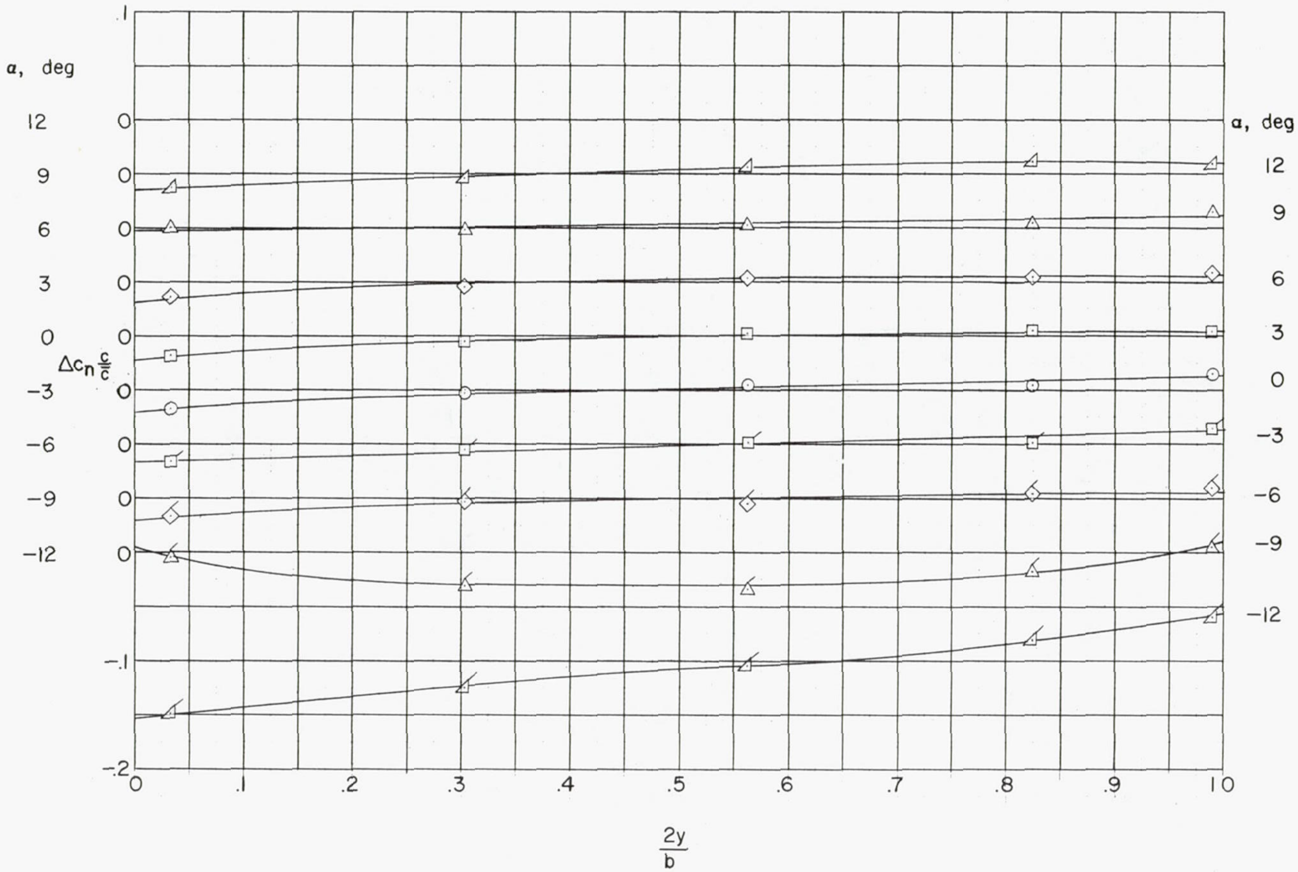

(g) Configuration G; M = 1.61.

Figure 16.- Continued.



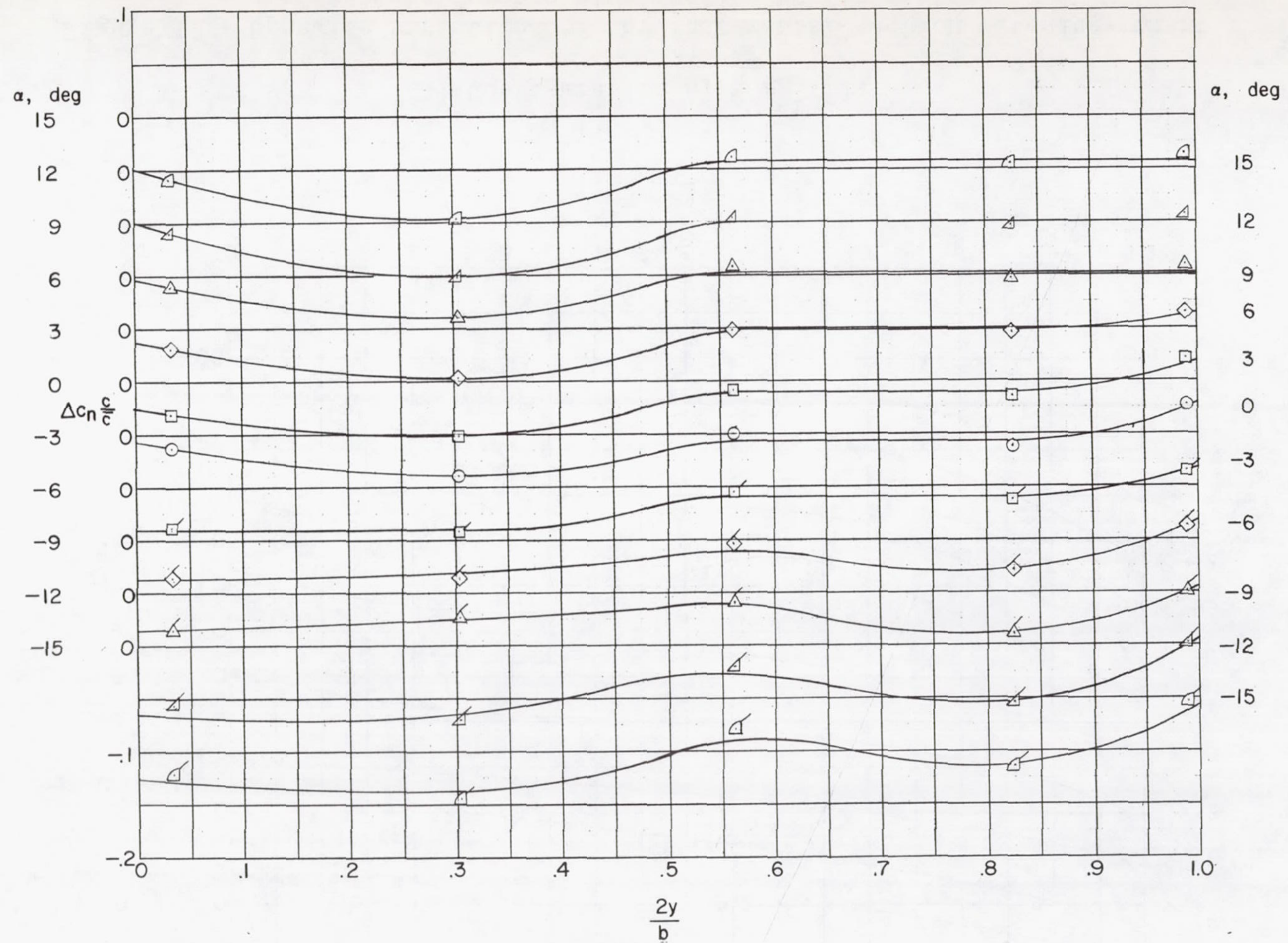

(h) Configuration H; M = 1.61.

Figure 16.- Continued.



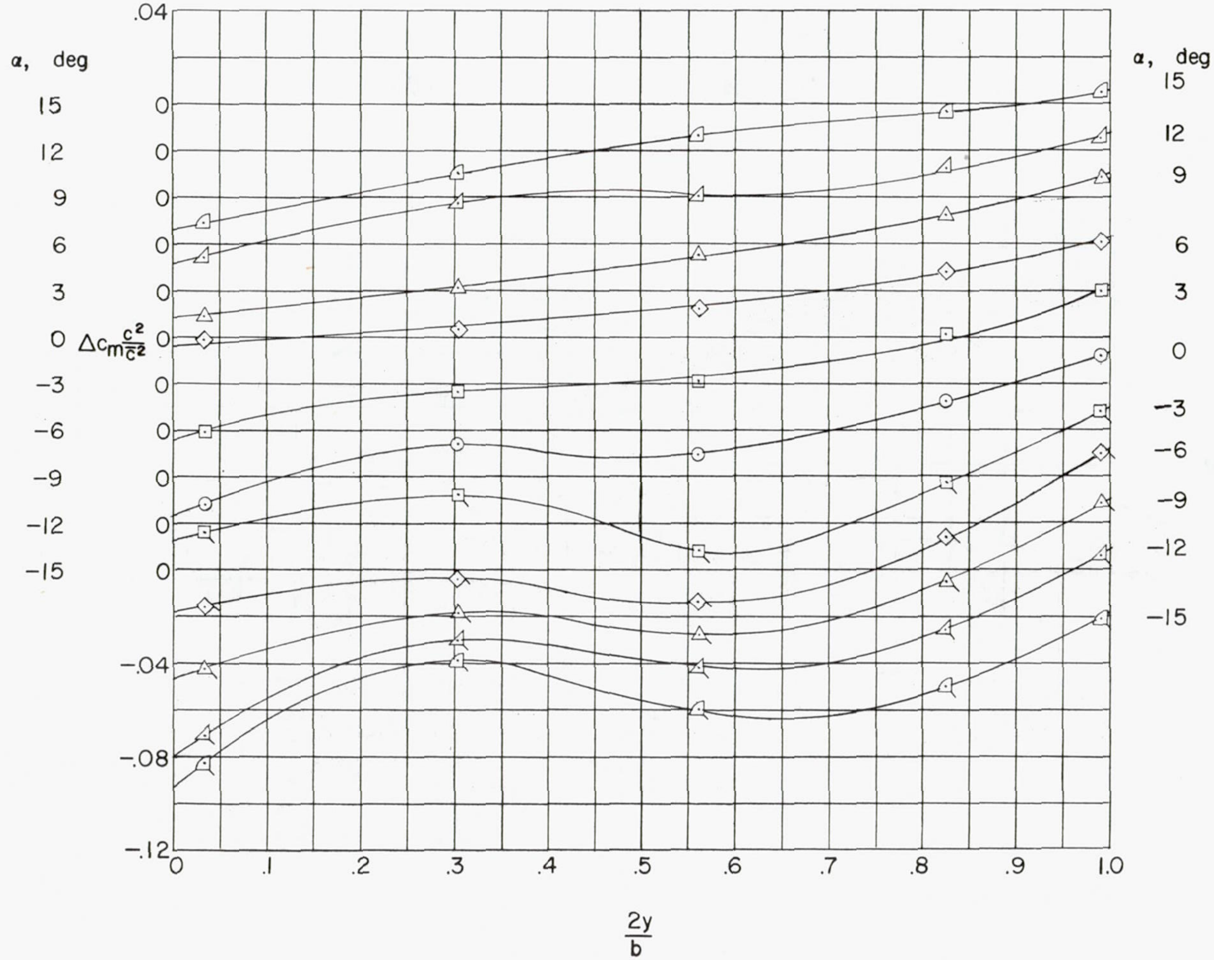

(i) Configuration I; M = 1.61.

Figure 16.- Continued.



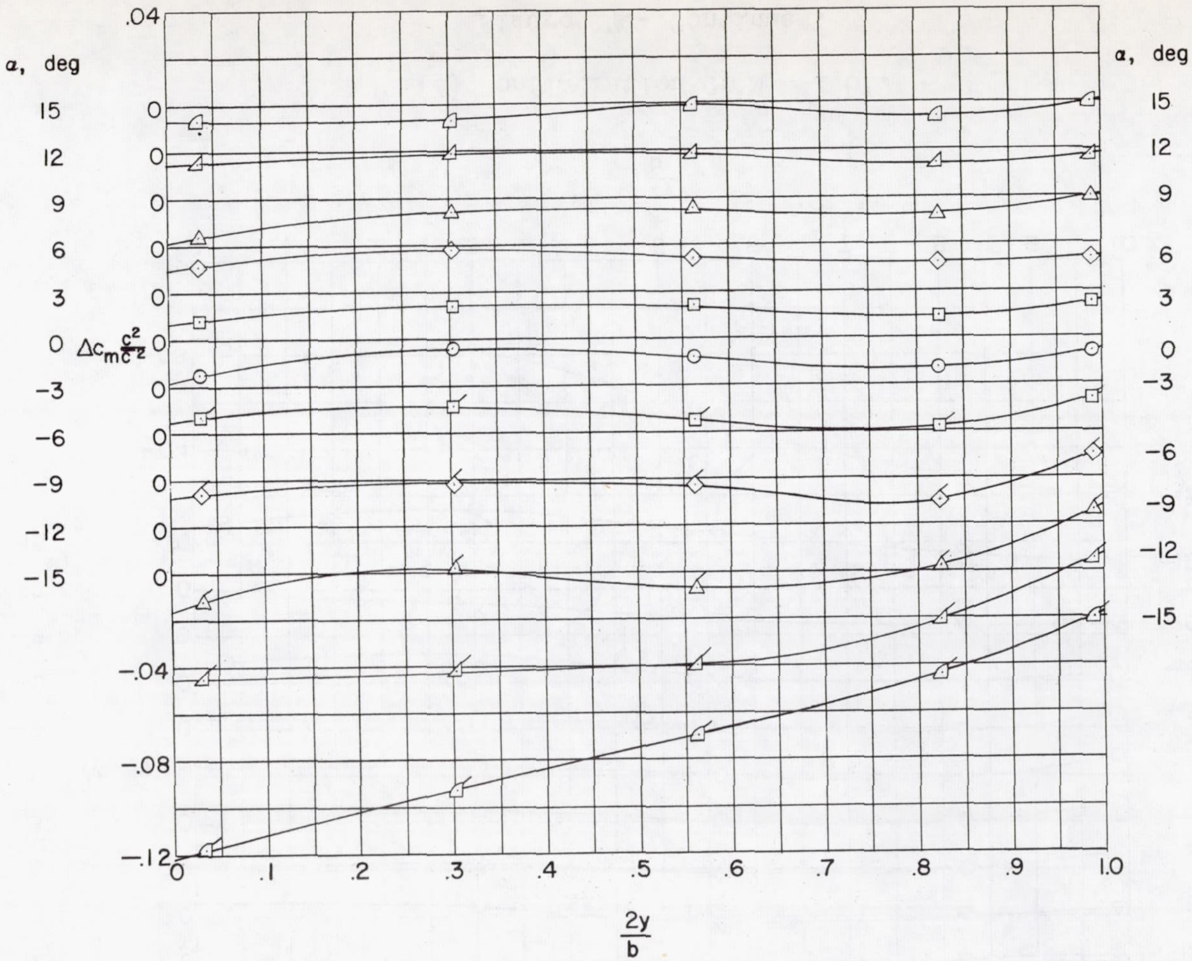

(j) Configuration C; M = 2.01.

Figure 16.- Concluded.



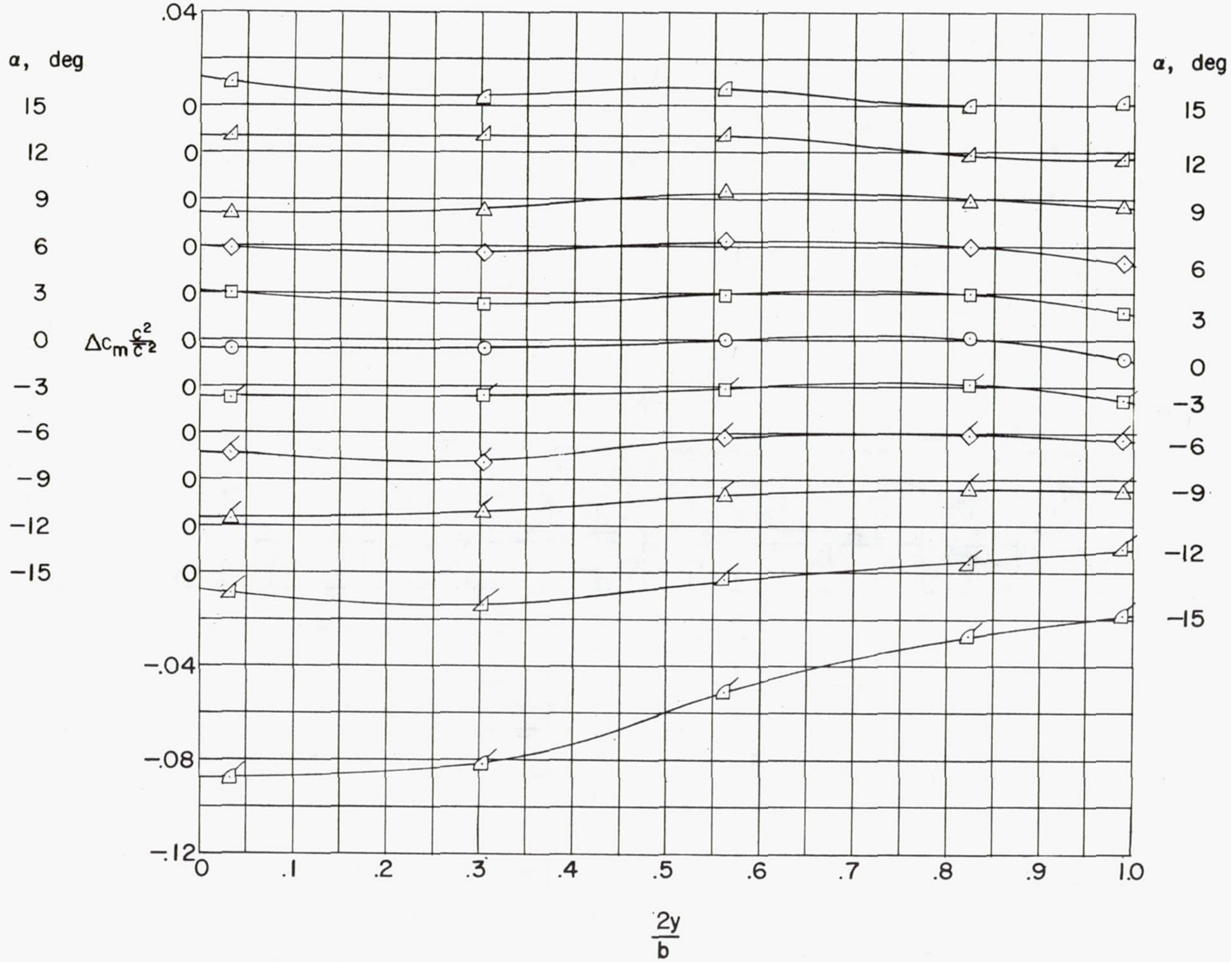

(a) Configuration A; M = 1.61.

Figure 17.- Spanwise variations of the incremental section pitching-moment coefficients for the nine spoiler configurations.



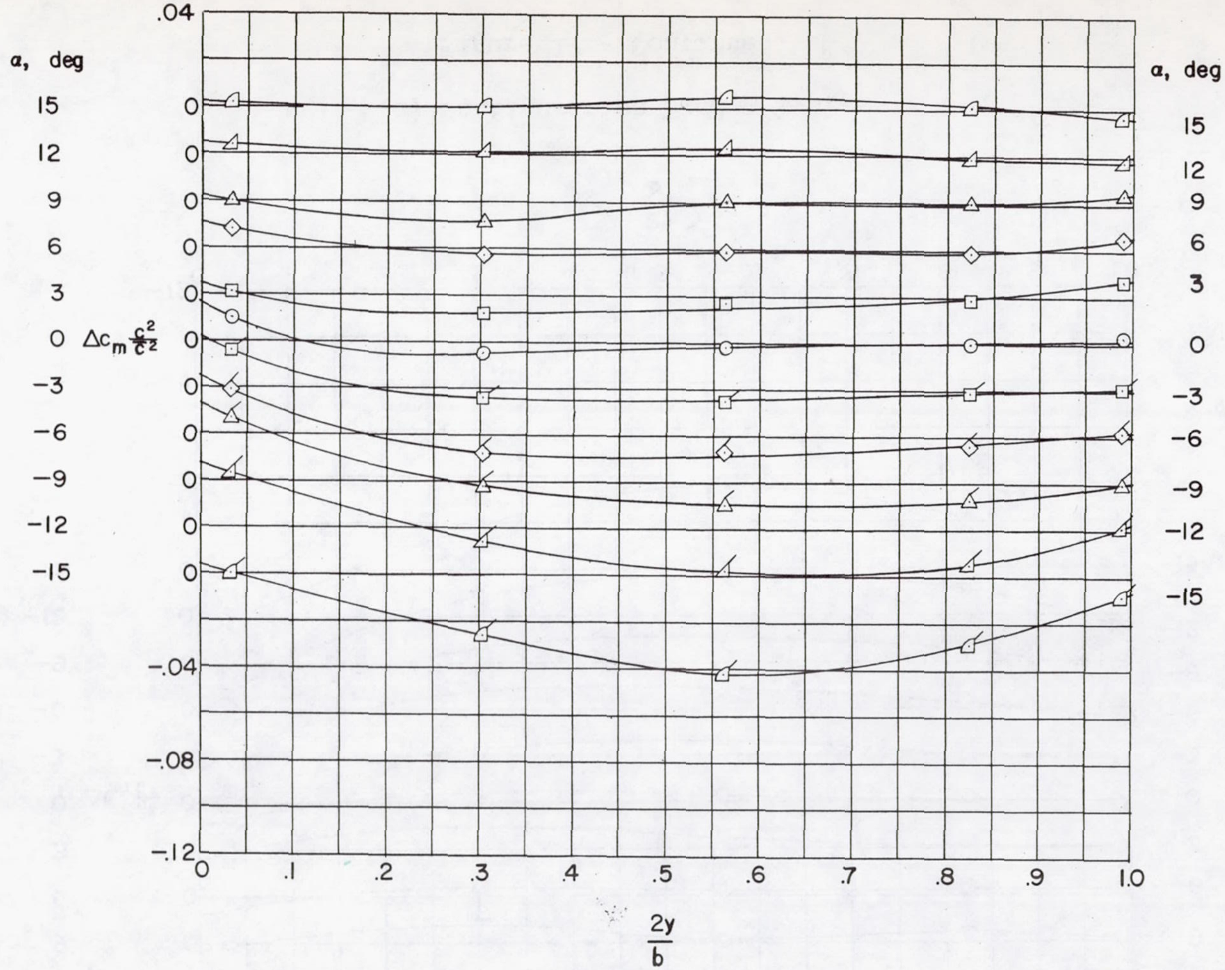

(b) Configuration B; M = 1.61.

Figure 17.- Continued.



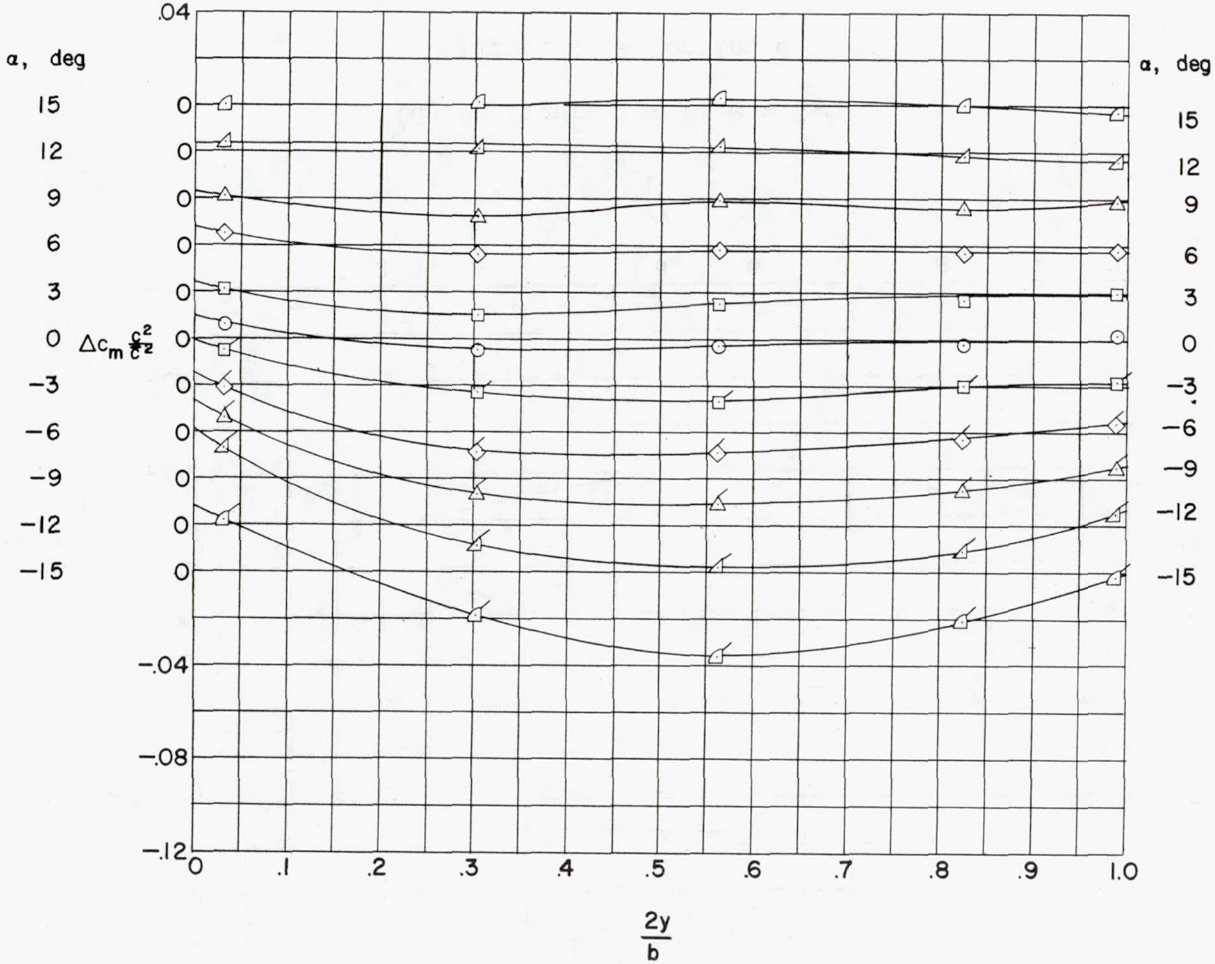

(c) Configuration C; M = 1.61.

Figure 17.- Continued.



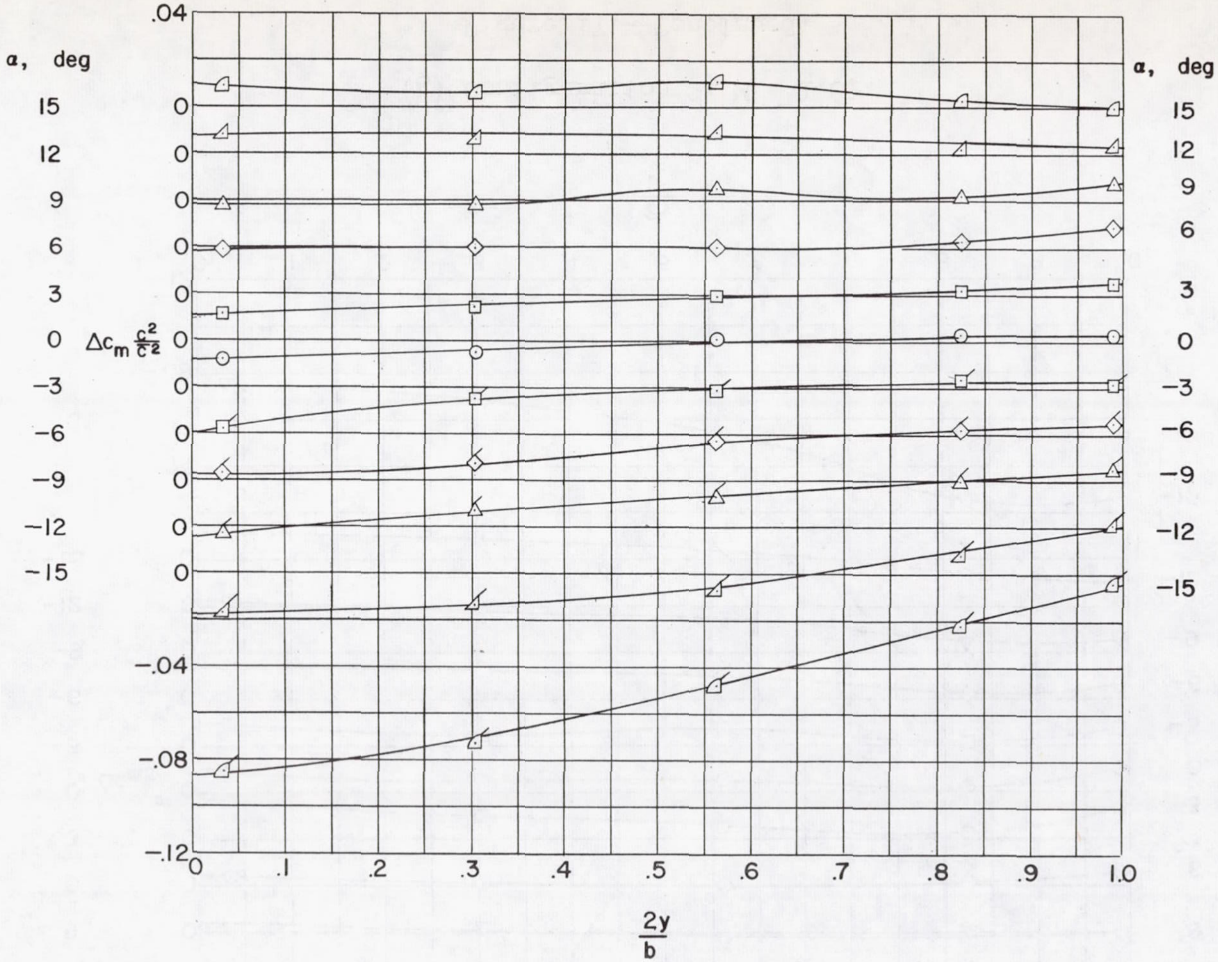

(d) Configuration D; M = 1.61.

Figure 17.- Continued.



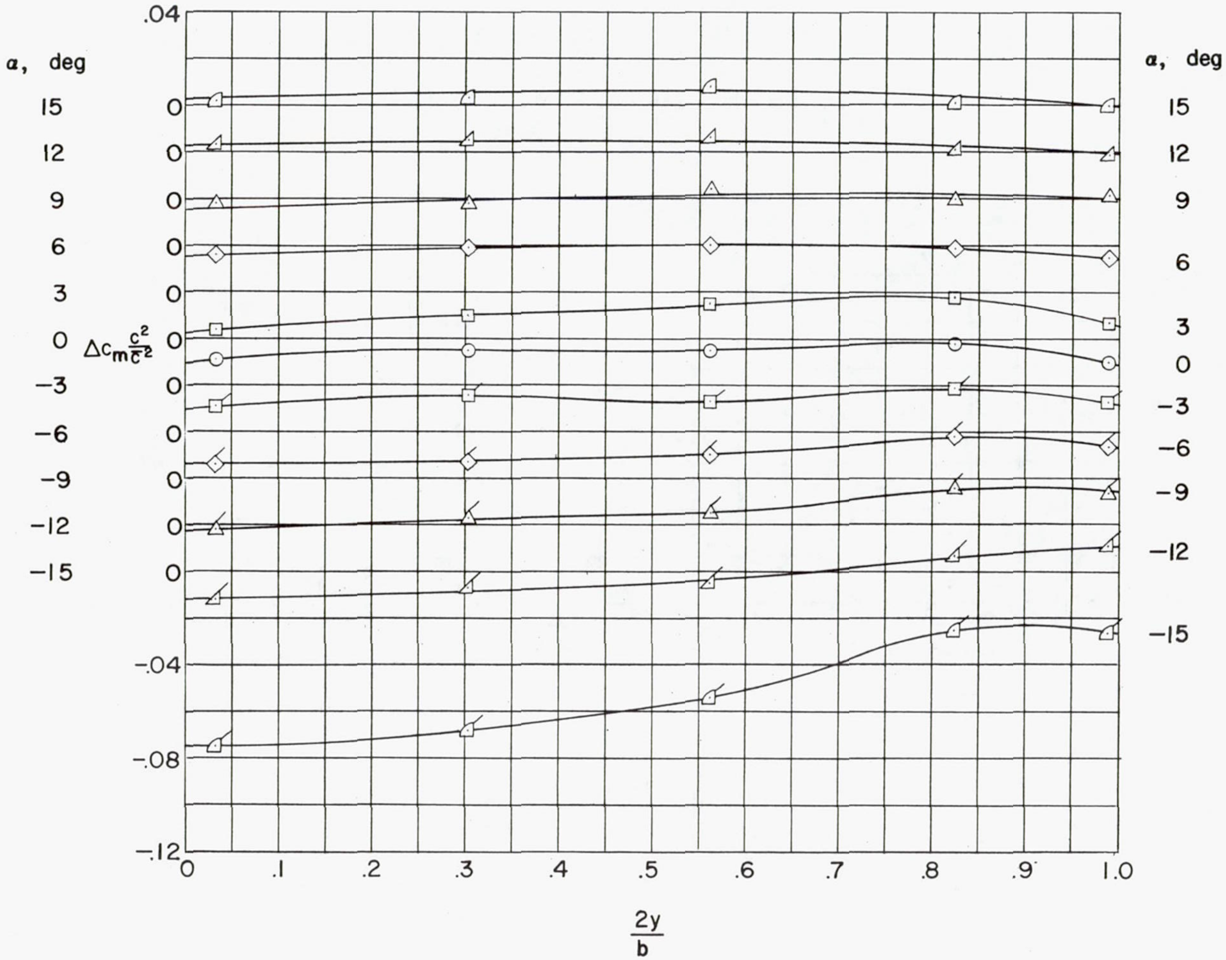

(e) Configuration E; M = 1.61.

Figure 17.- Continued.



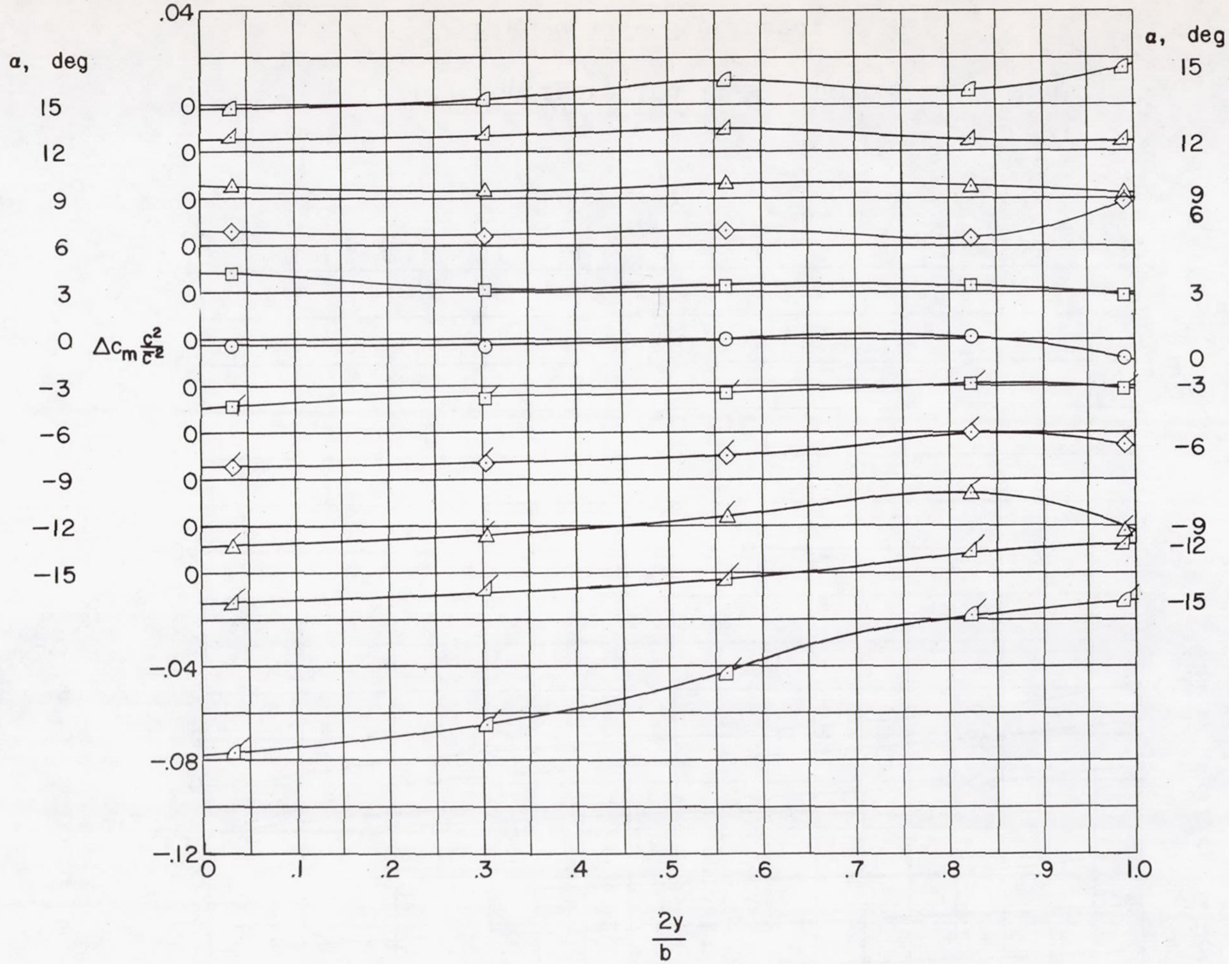

(f) Configuration F; M = 1.61.

Figure 17.- Continued.



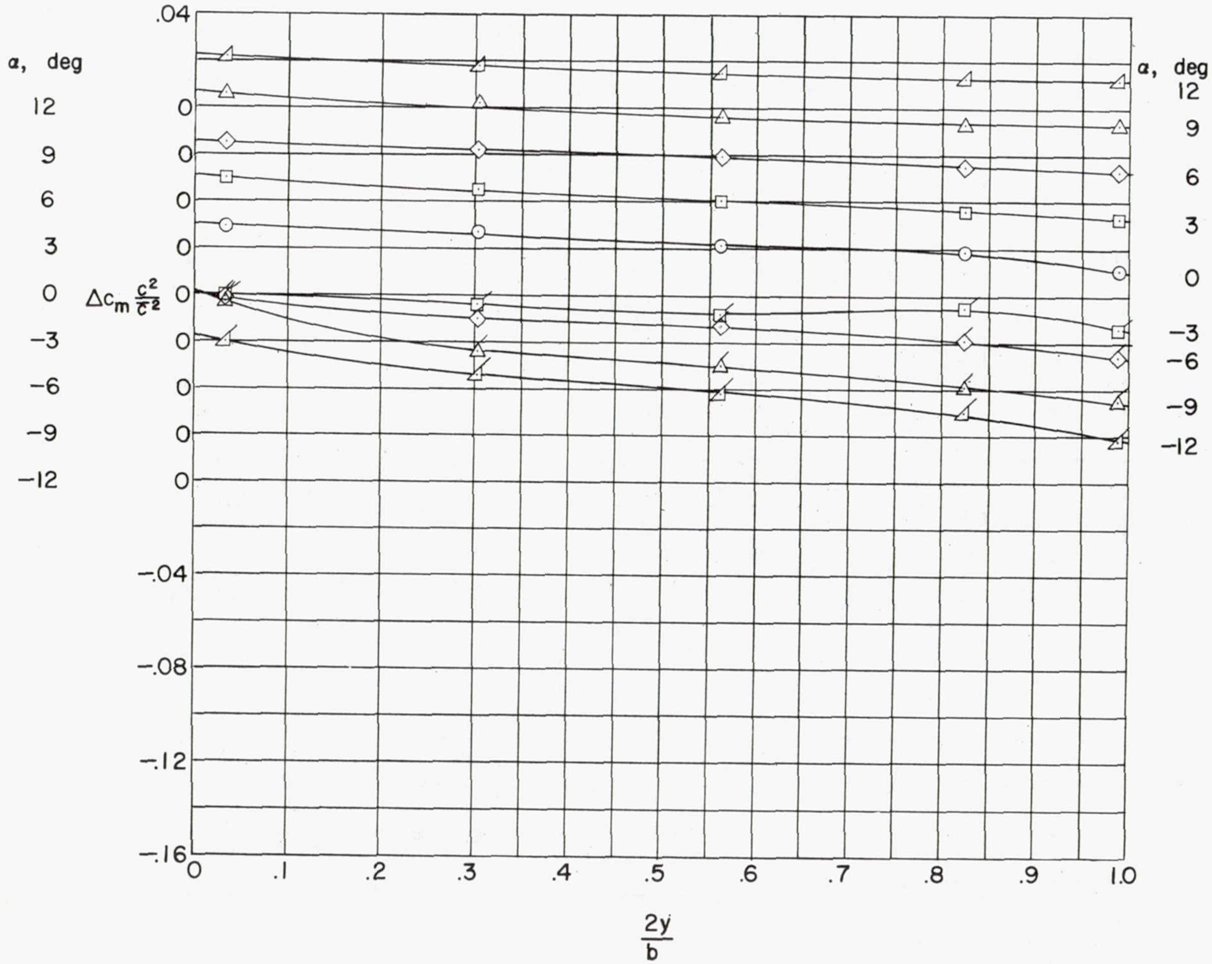

(g) Configuration G; M = 1.61.

Figure 17.- Continued.



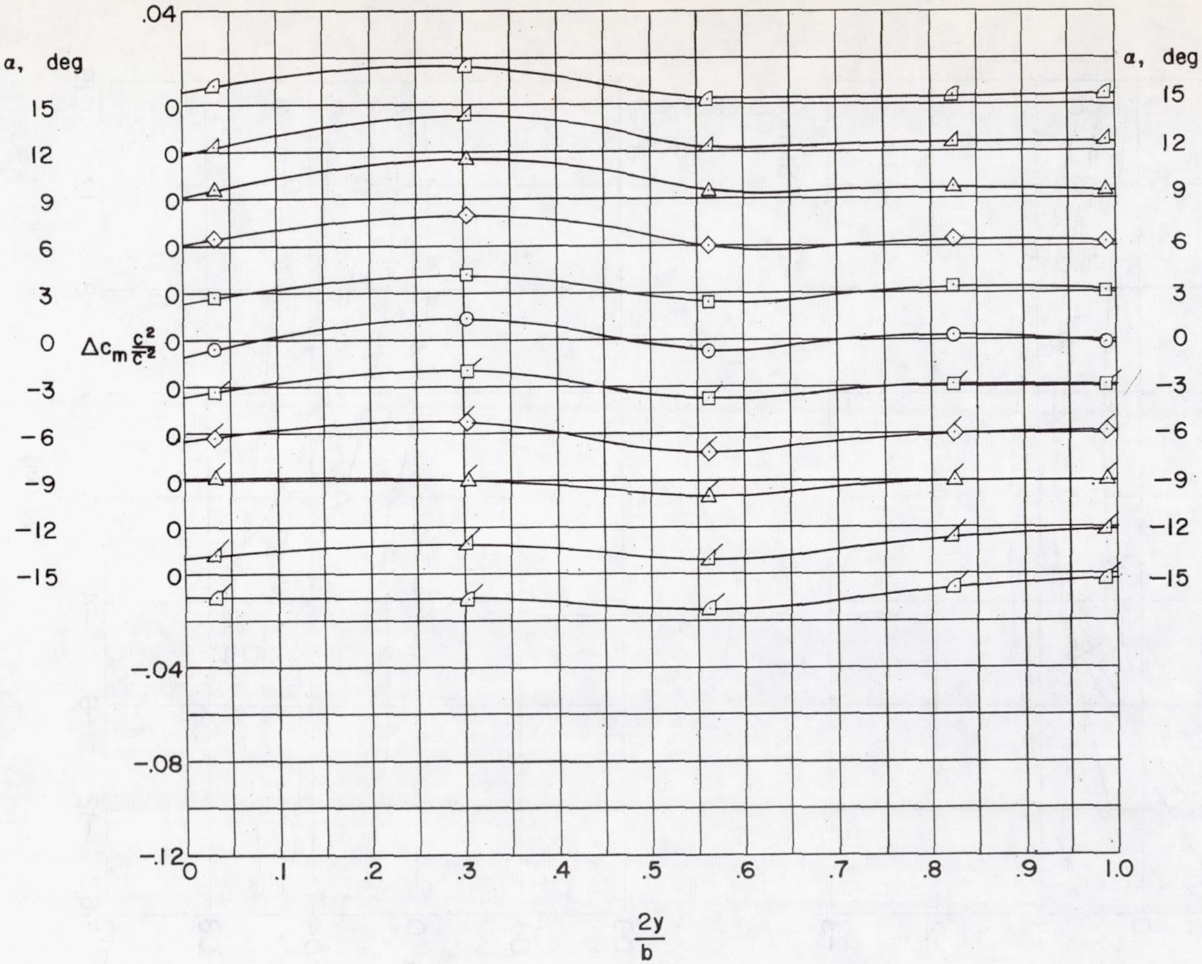

(h) Configuration H; M = 1.61.

Figure 17.- Continued.



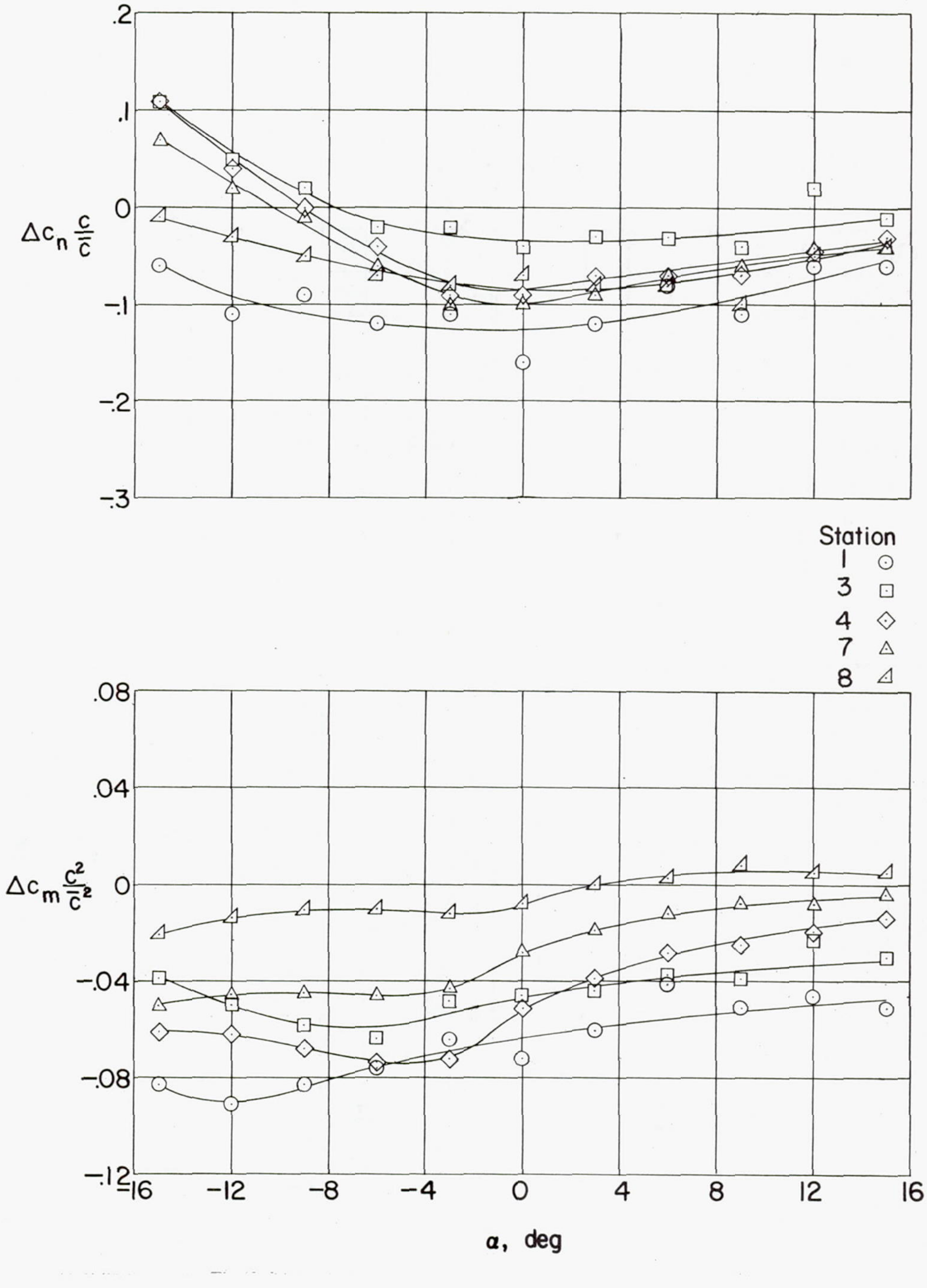

(i) Configuration I; M = 1.61.

Figure 17.- Continued.



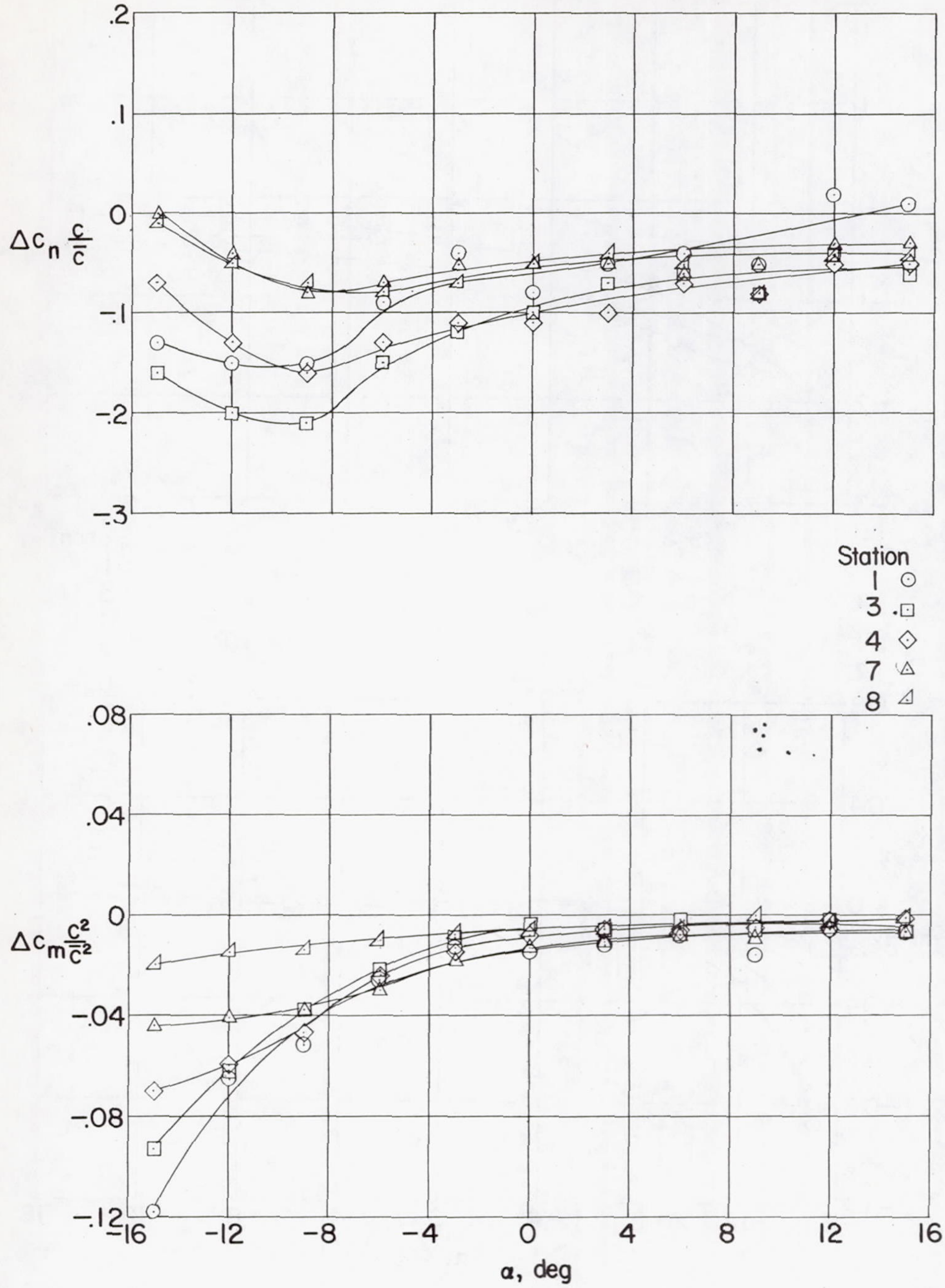

(j) Configuration C; M = 2.01.

Figure 17.- Concluded.



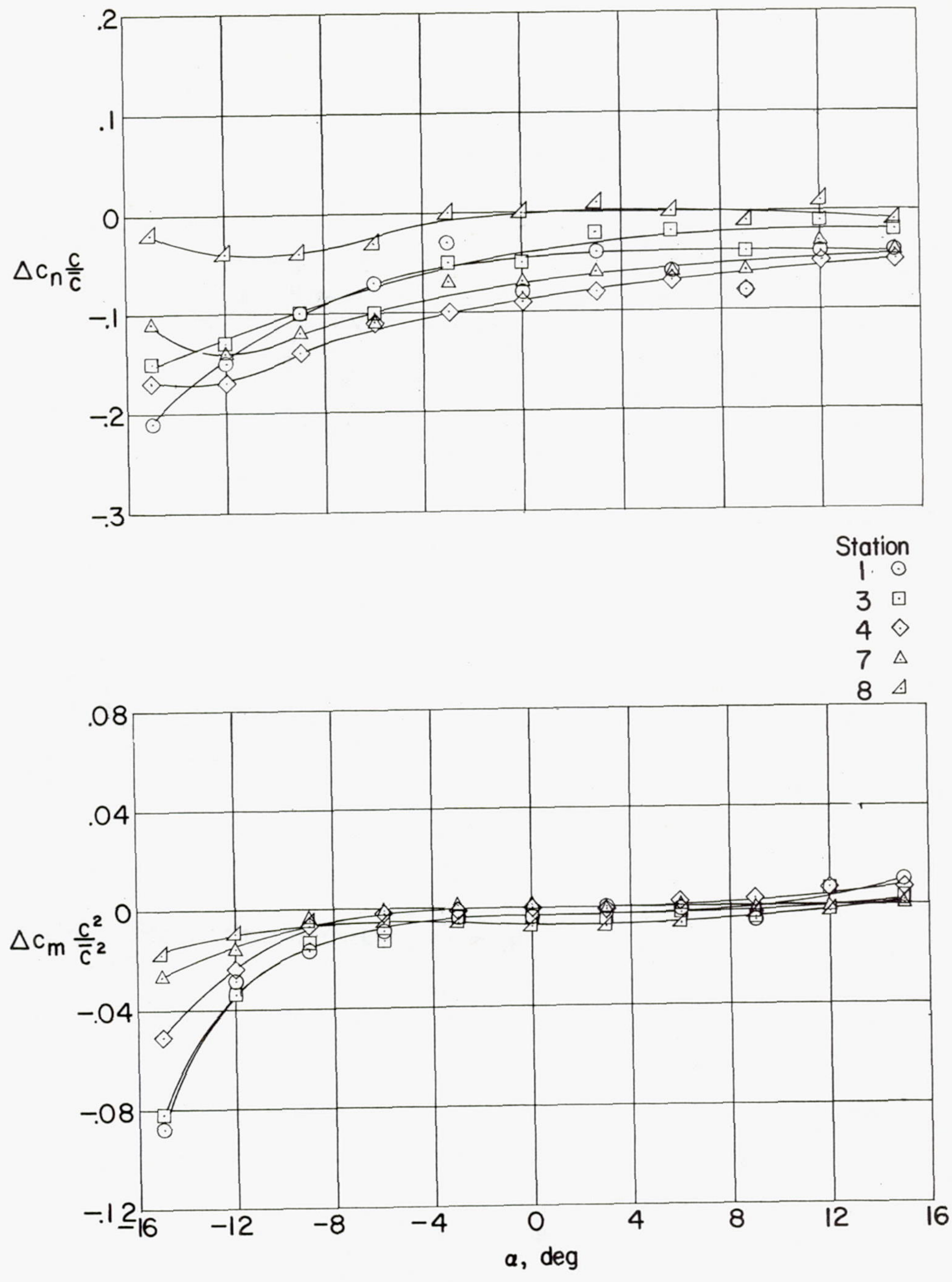

(a) Configuration A; M = 1.61.

Figure 18.- Incremental section normal-force and pitching-moment-coefficient variations with angle of attack.



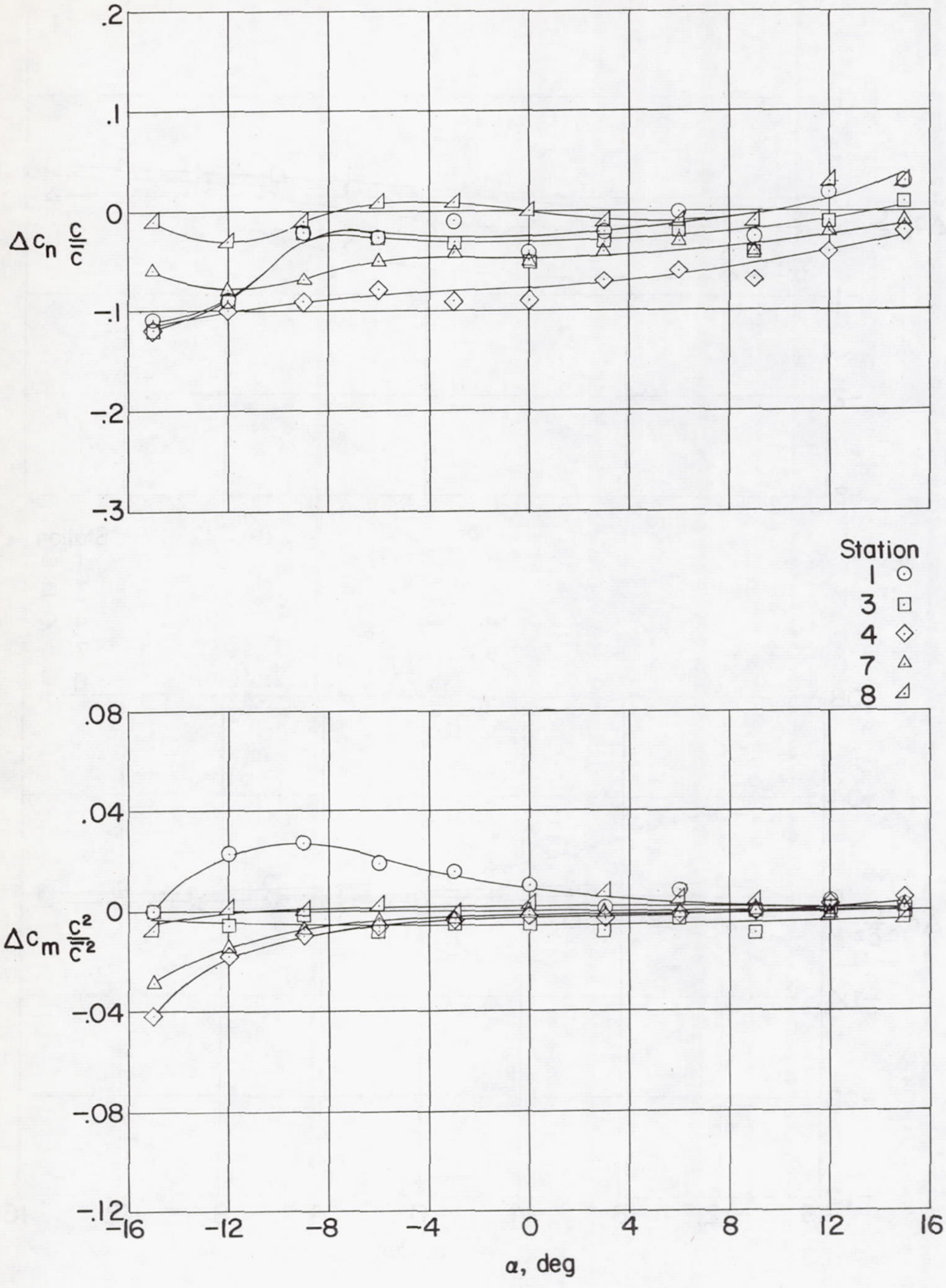

(b) Configuration B; M = 1.61.

Figure 18.- Continued.



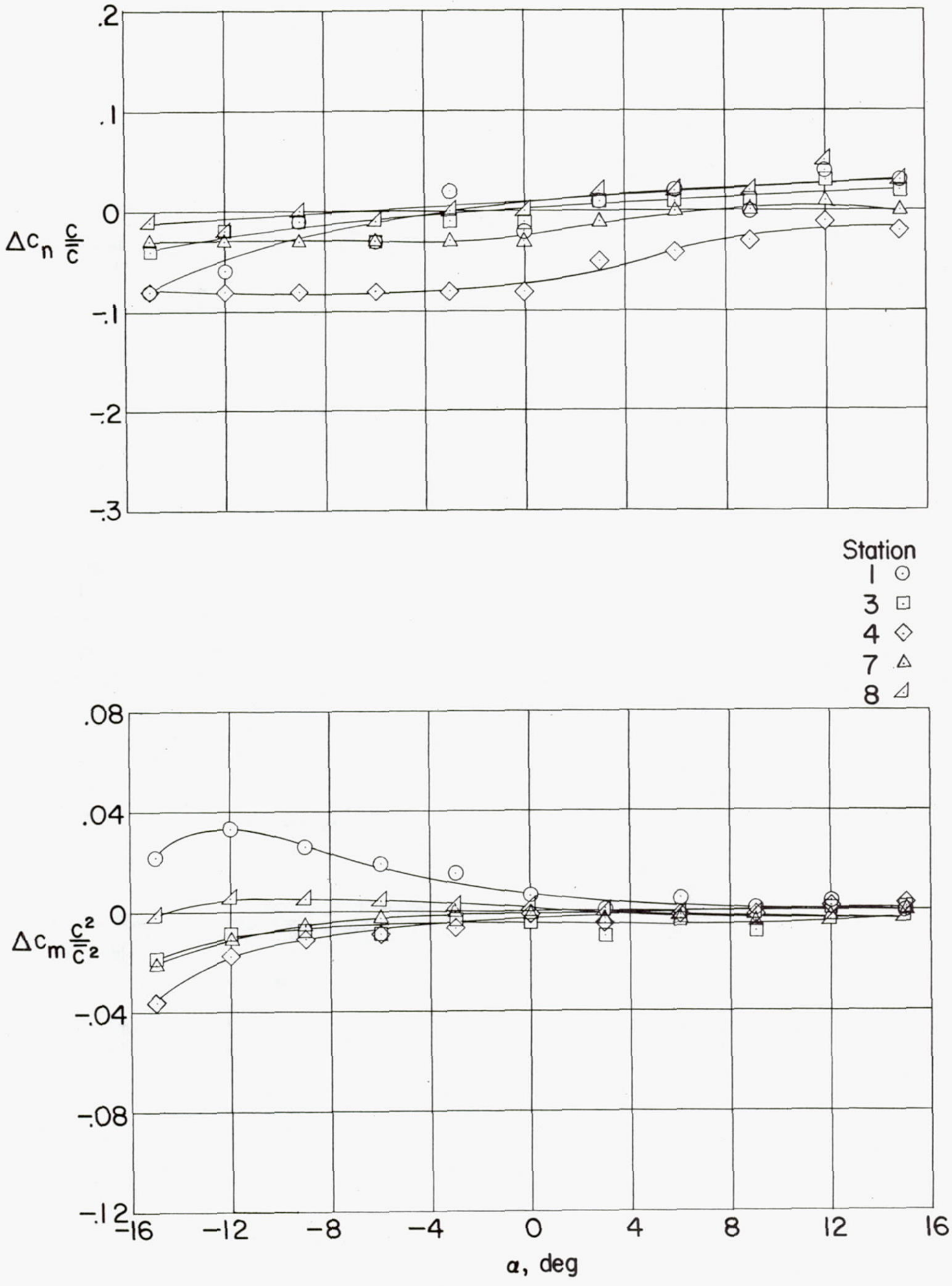

(c) Configuration C; M = 1.61.

Figure 18.- Continued.



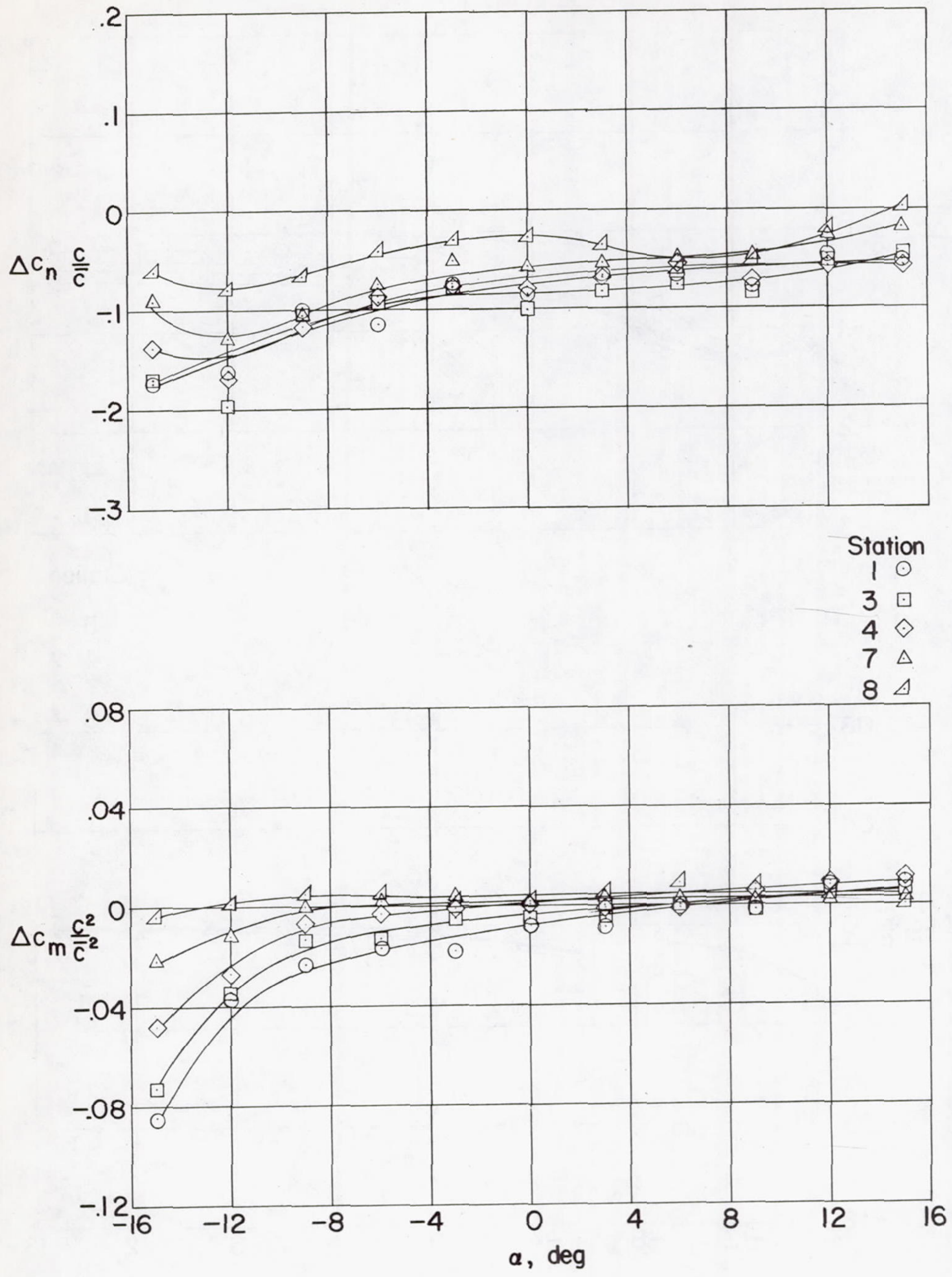

(d) Configuration D; M = 1.61.

Figure 18.- Continued.



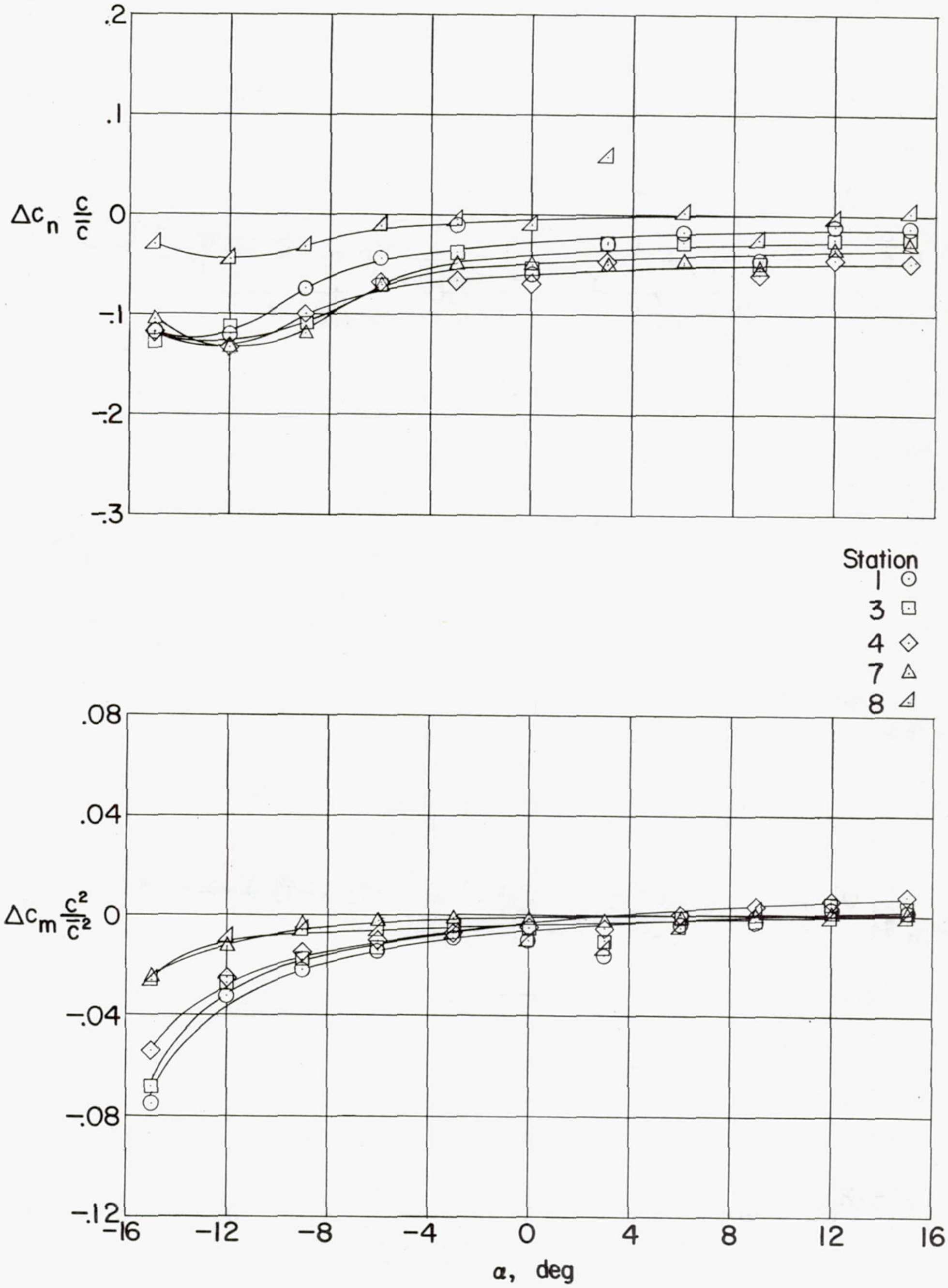

(e) Configuration E; M = 1.61.

Figure 18.- Continued.



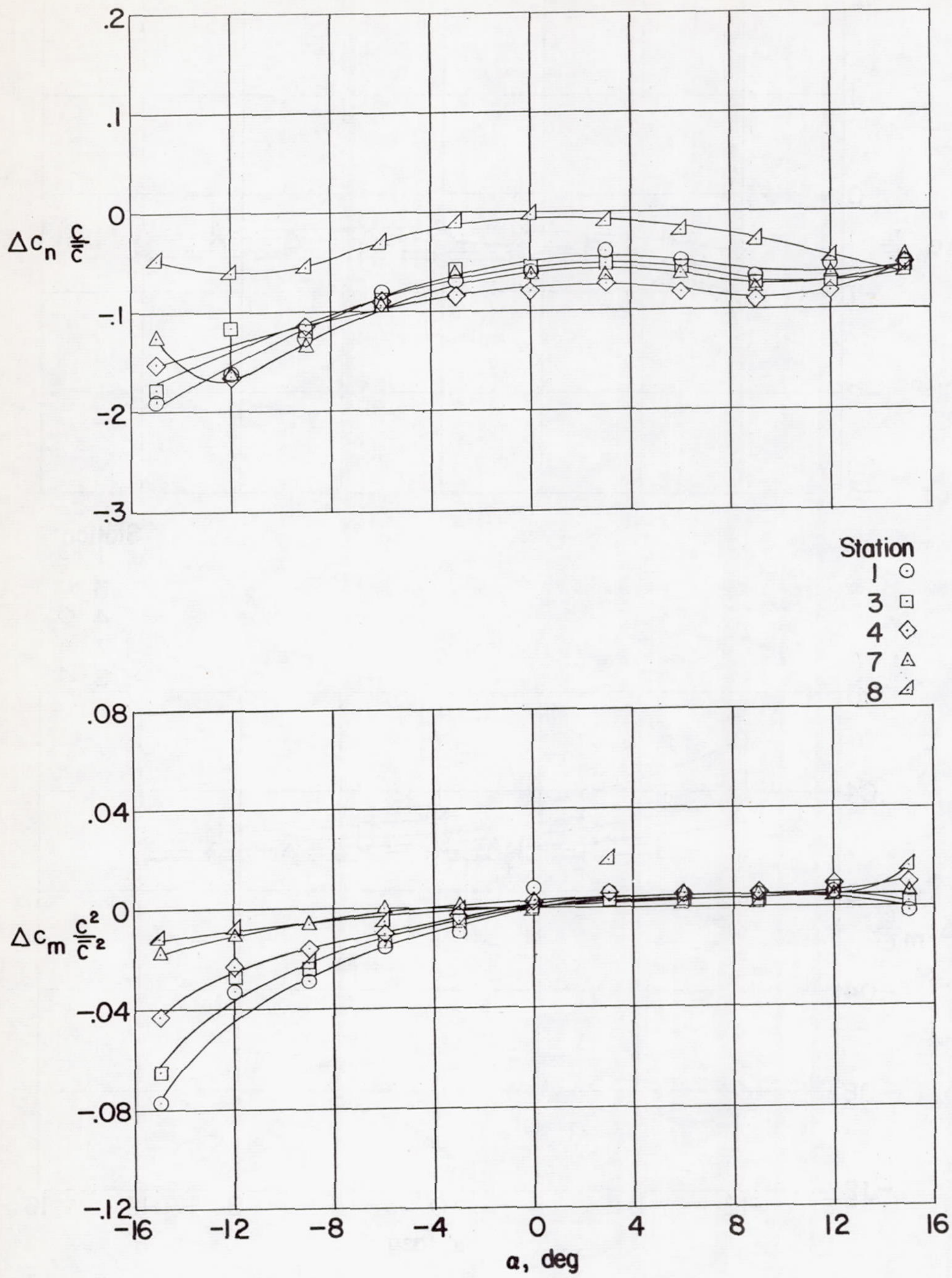

(f) Configuration F; M = 1.61.

Figure 18.- Continued.



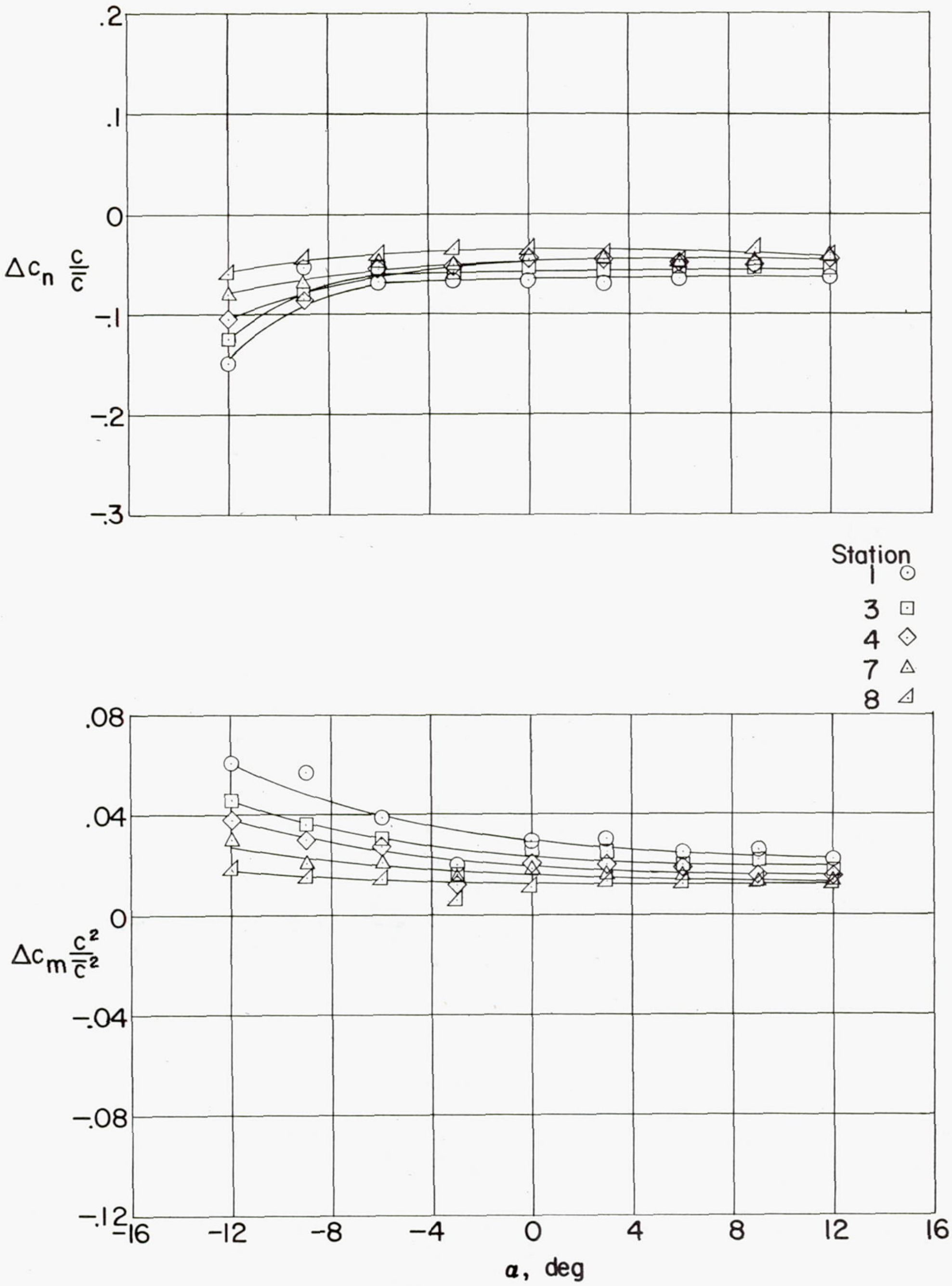

(g) Configuration G; M = 1.61.

Figure 18.- Continued.



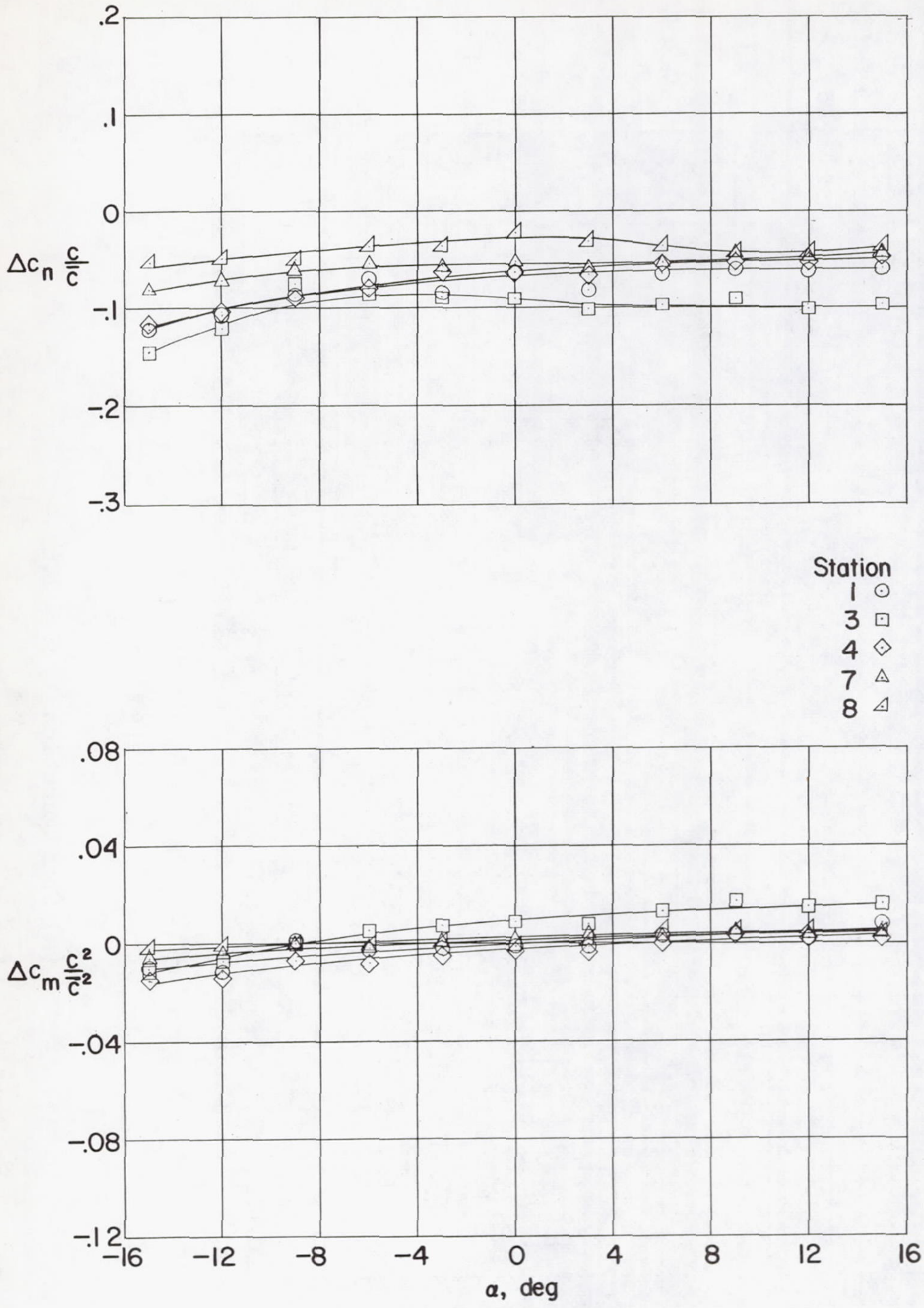

(h) Configuration H; M = 1.61.

Figure 18.- Continued.



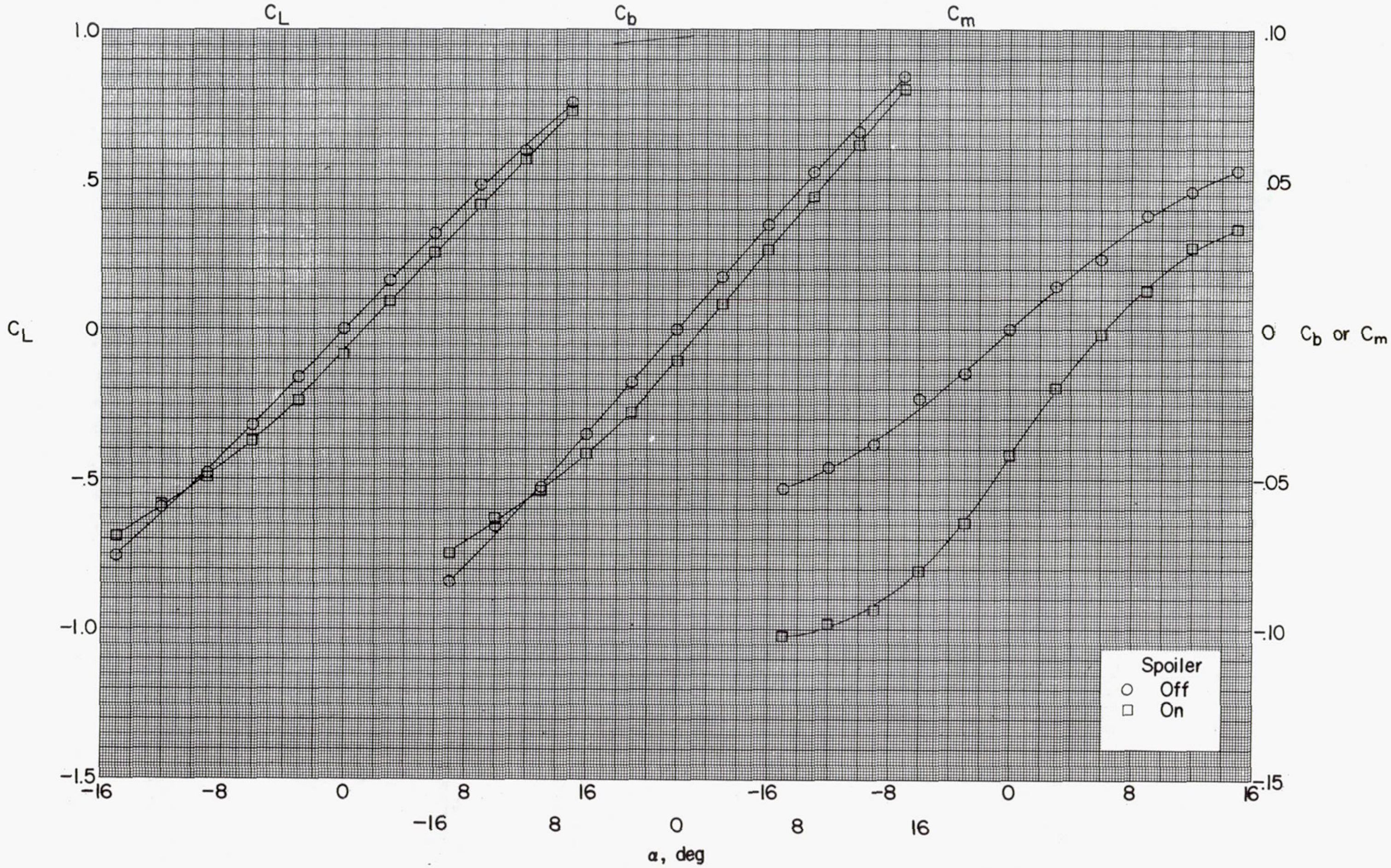

(i) Configuration I; M = 1.61.

Figure 18.- Continued.



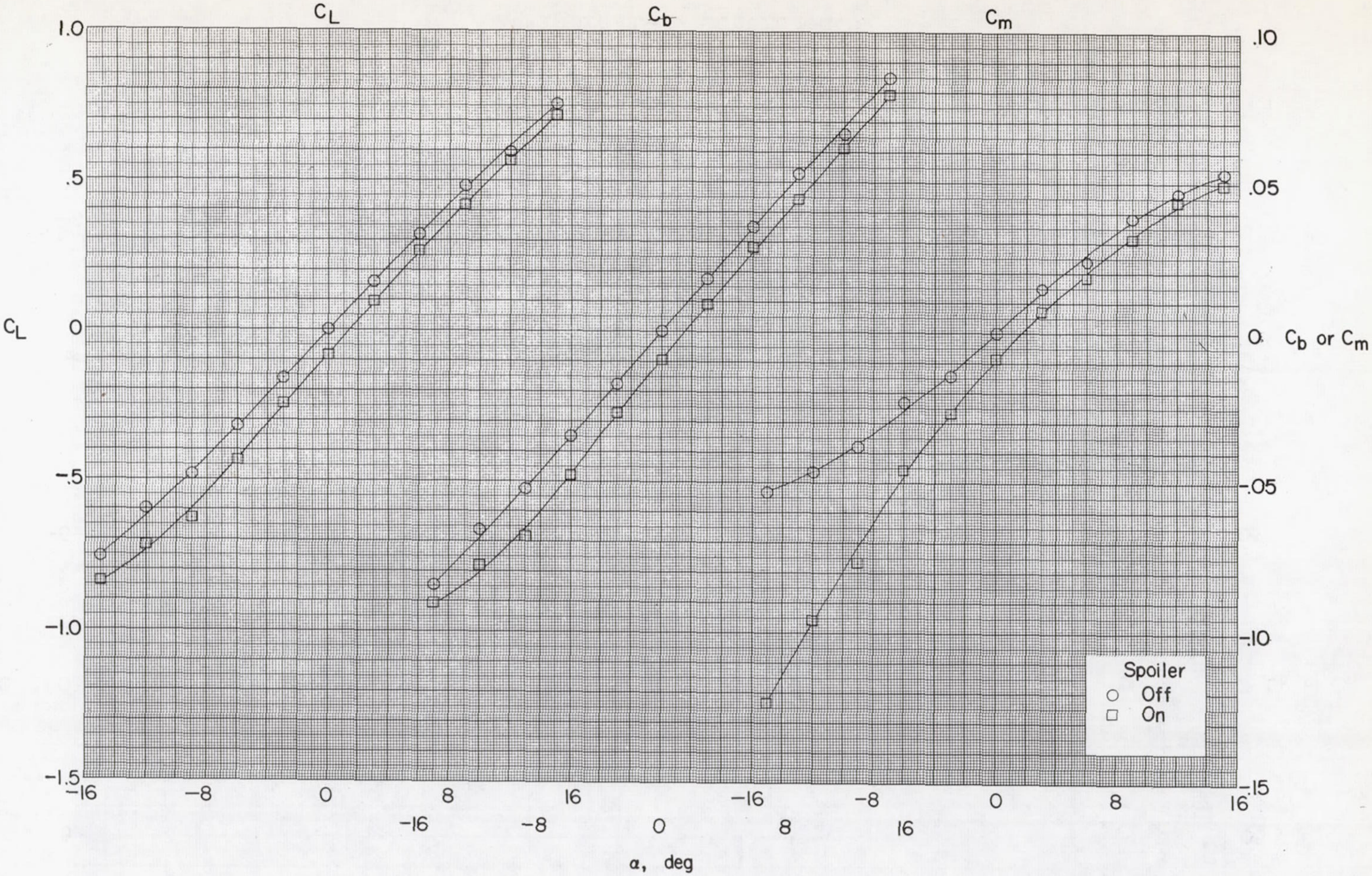

(j) Configuration C; M = 2.01.

Figure 18.- Concluded.



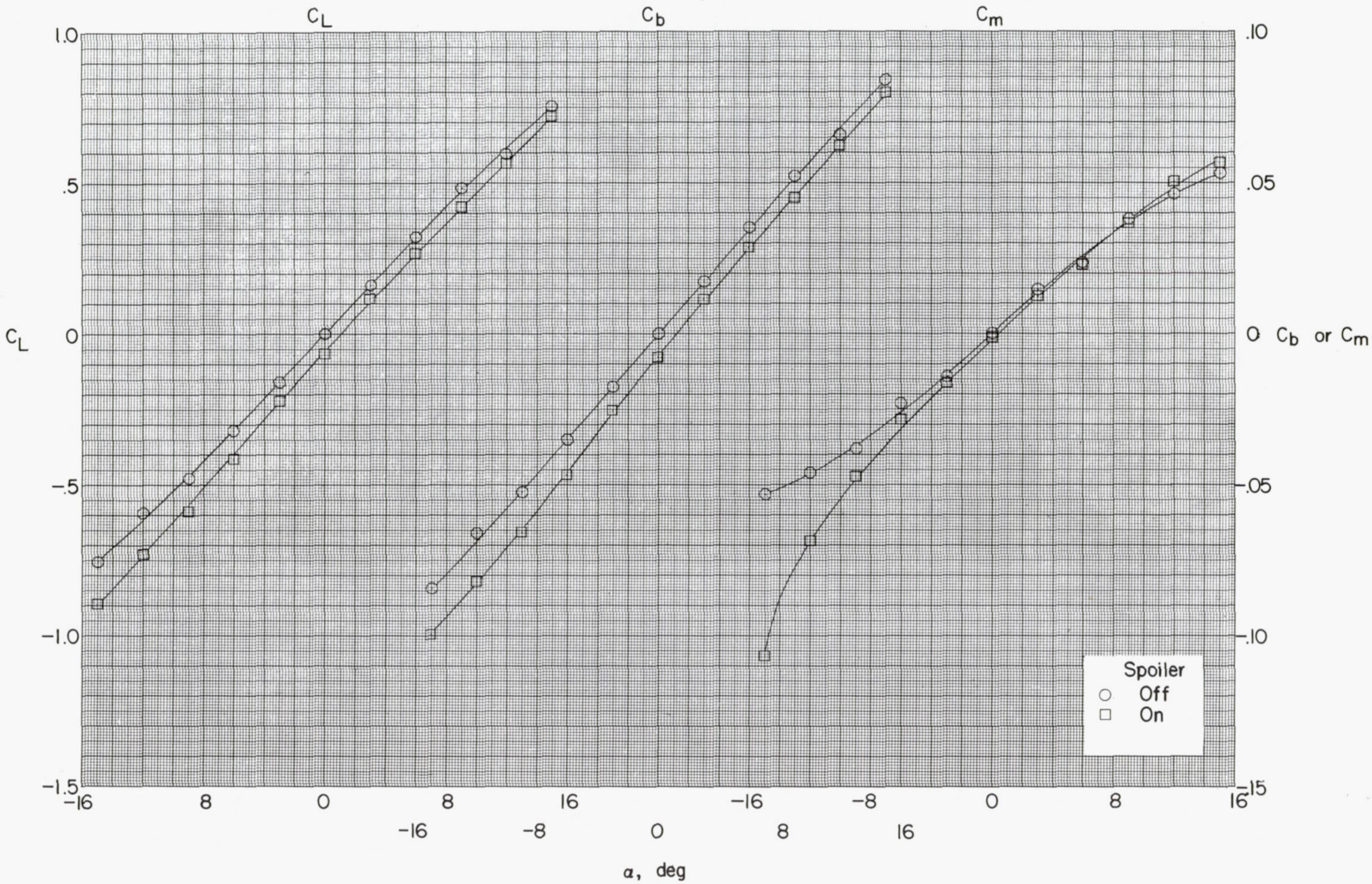

(a) Configuration A; M = 1.61.

Figure 19.- Variation of the wing lift, bending-moment, and pitching-moment coefficients with angle of attack for the nine spoiler configurations.



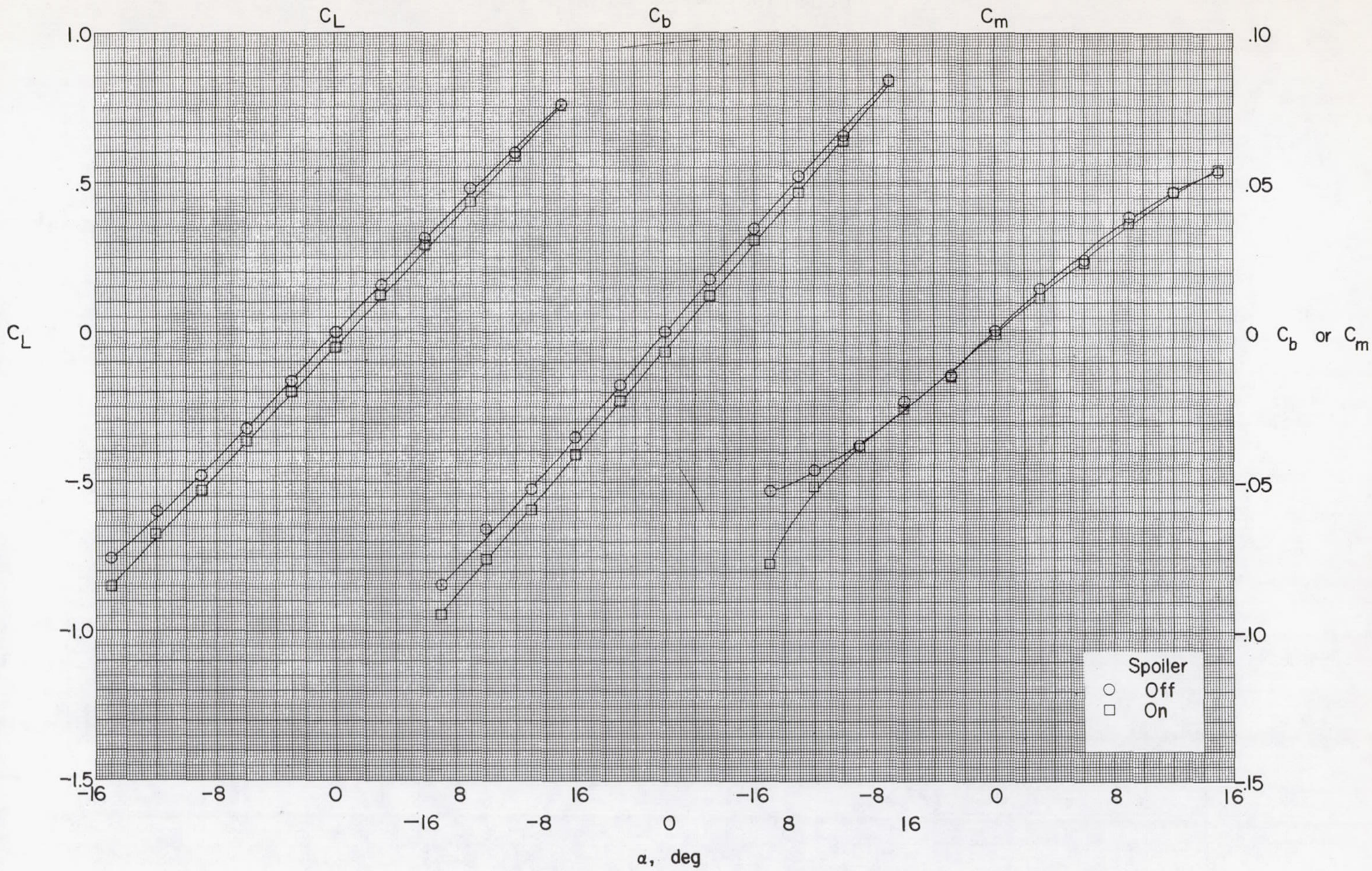

(b) Configuration B; M = 1.61.

Figure 19.- Continued.



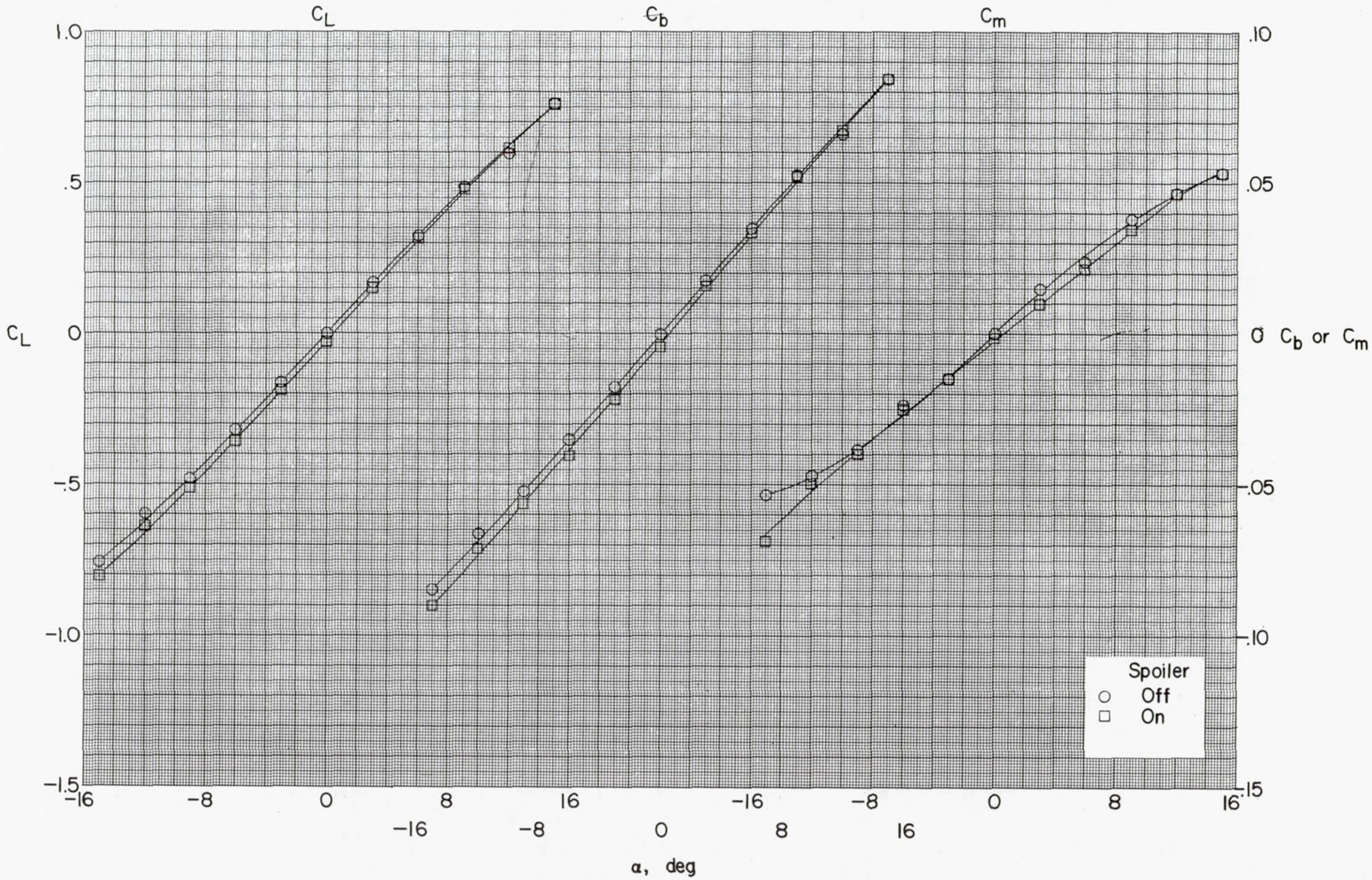

(c) Configuration C; M = 1.61.

Figure 19.- Continued.



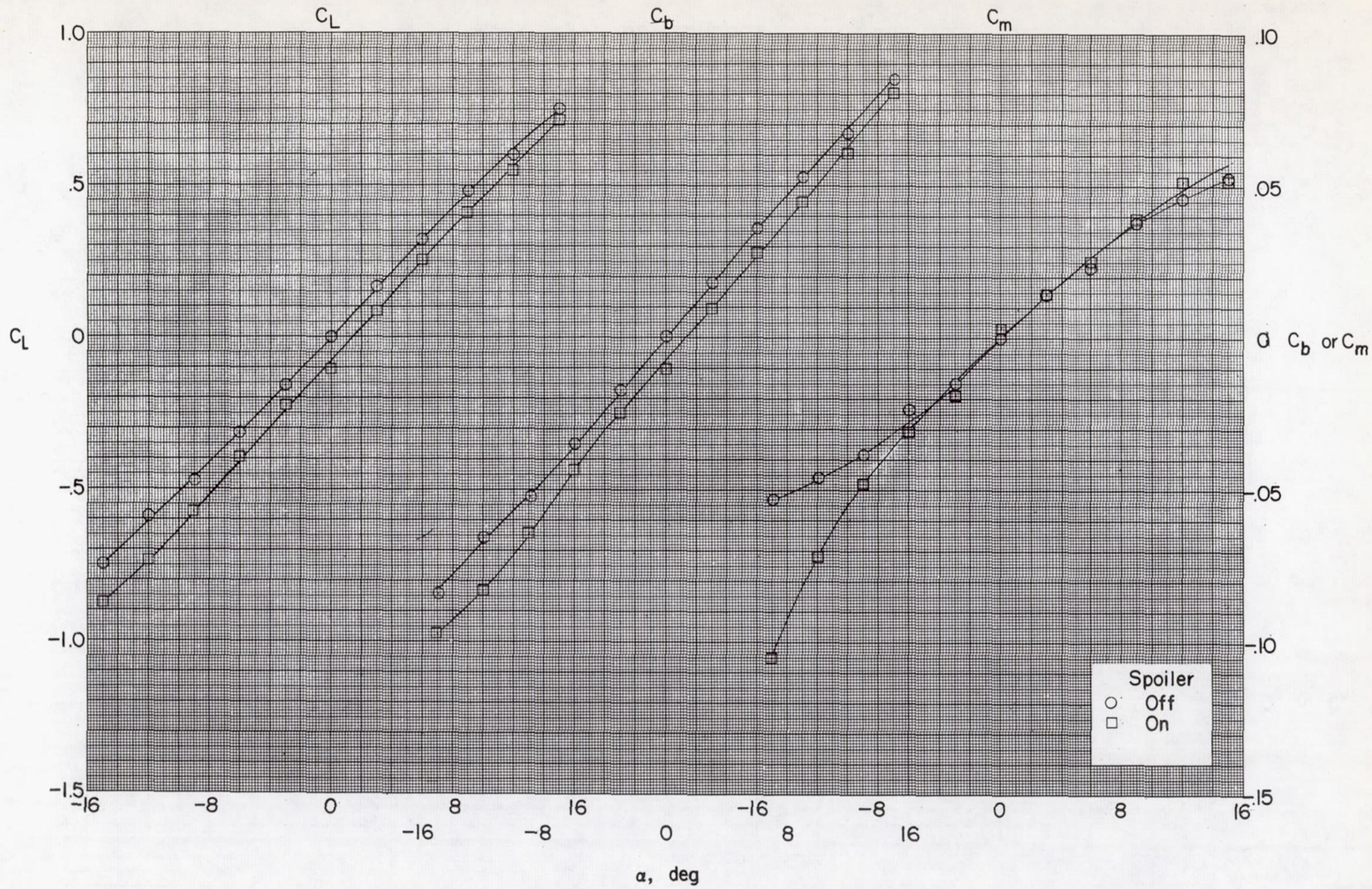

(d) Configuration D; M = 1.61.

Figure 19.- Continued.



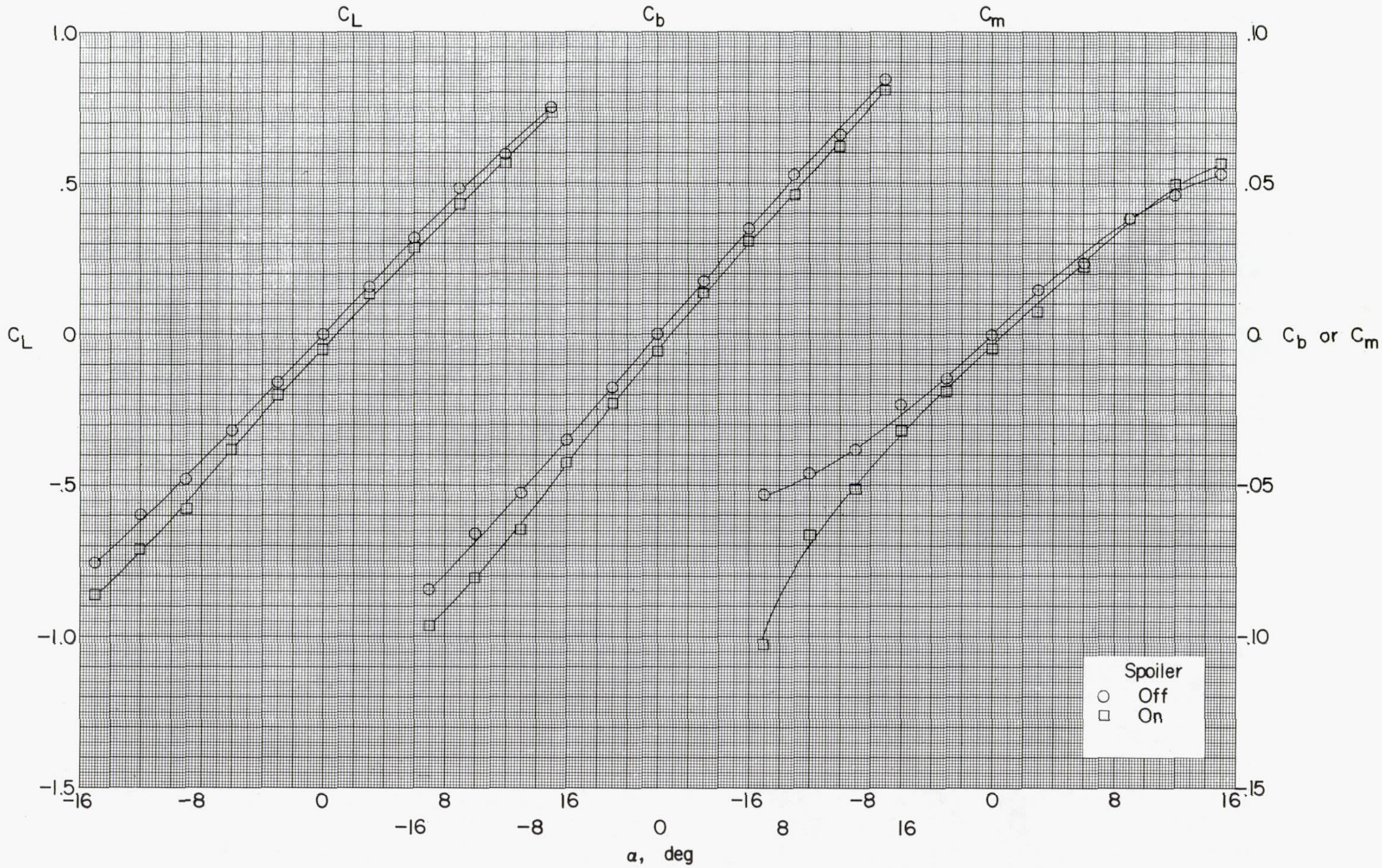

(e) Configuration E; M = 1.61.

Figure 19.- Continued.



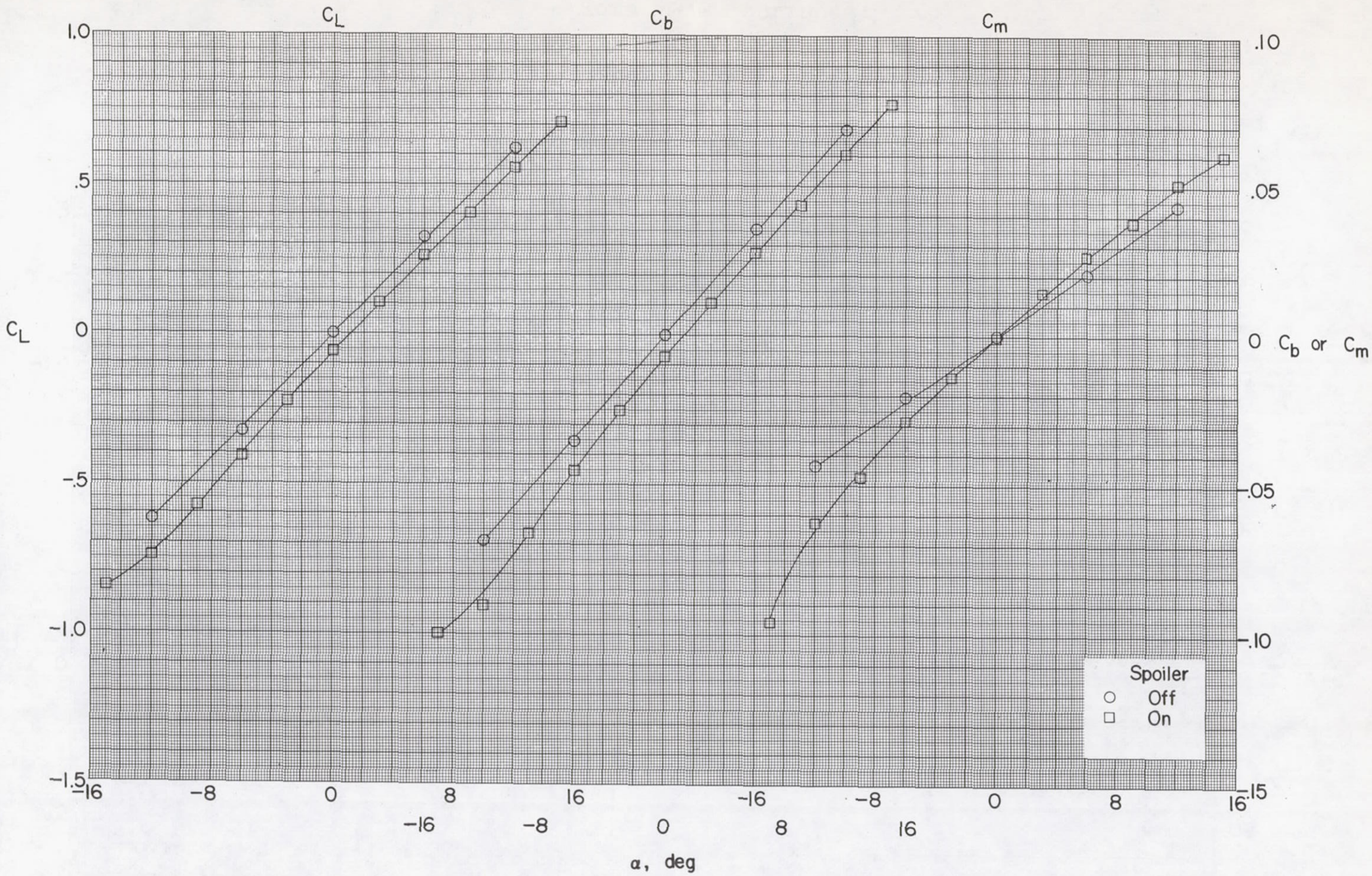

(f) Configuration F; M = 1.61.

Figure 19.- Continued.



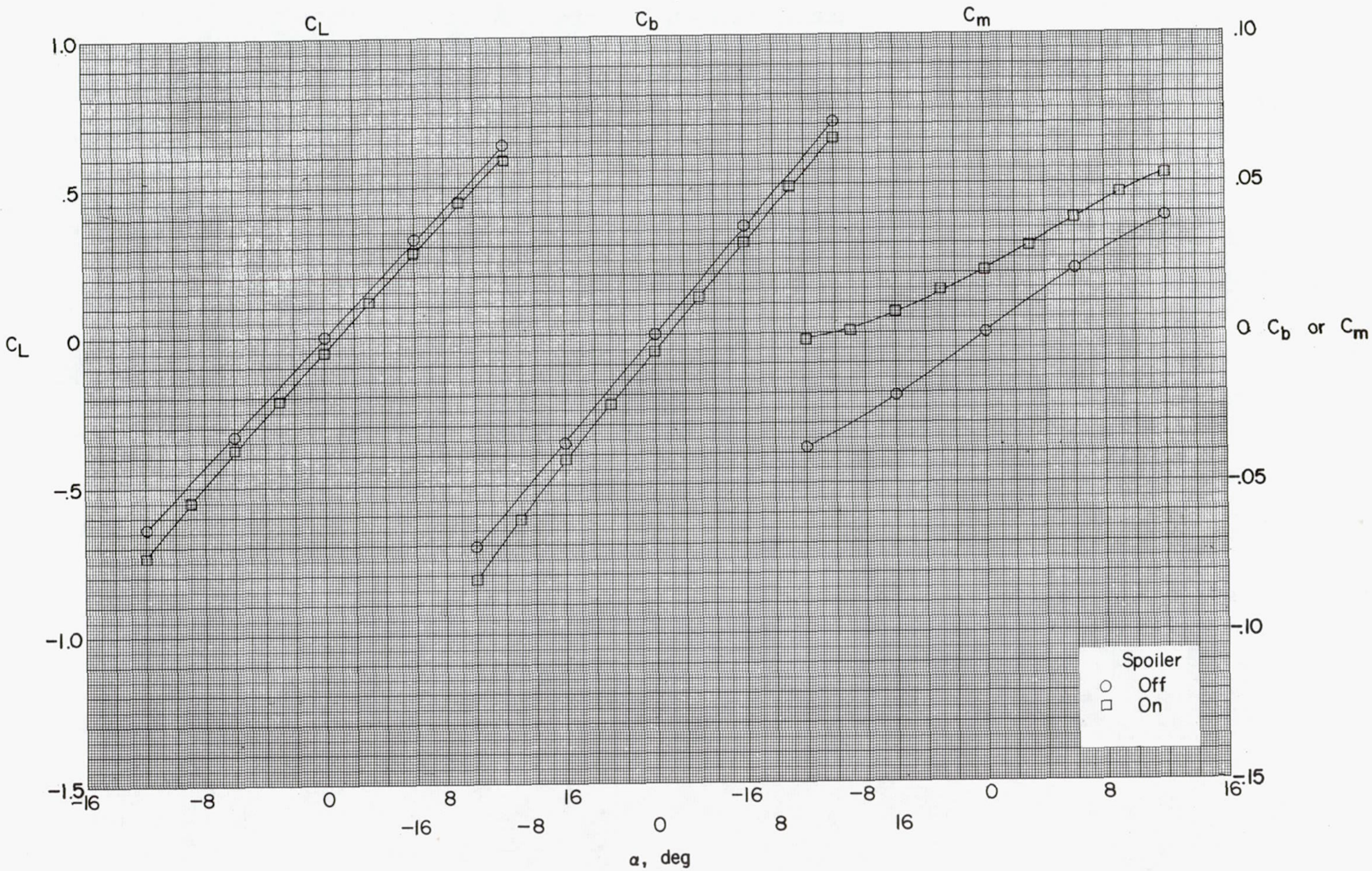

(g) Configuration G; M = 1.61.

Figure 19.- Continued.



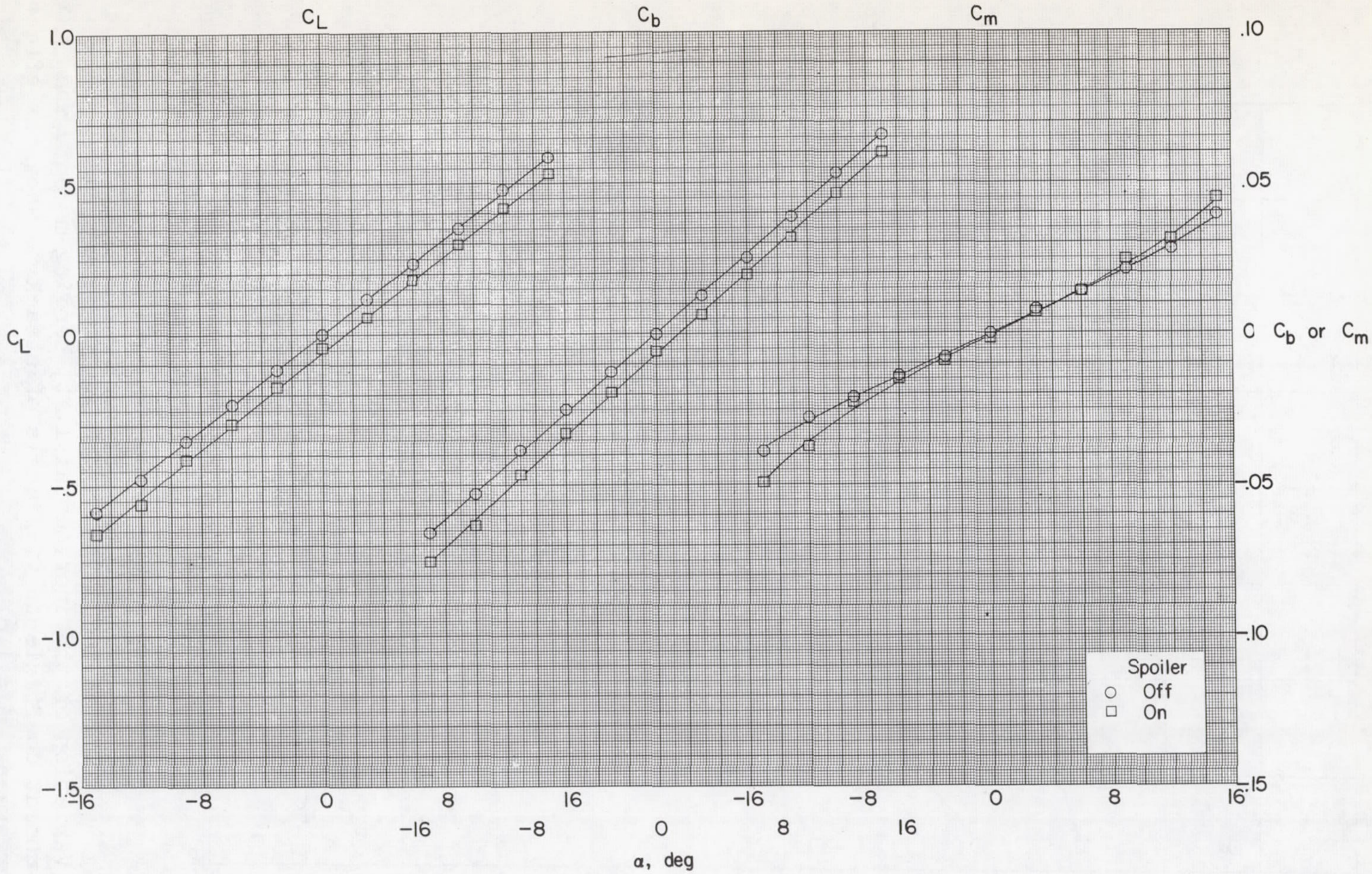

(h) Configuration H; M = 1.61.

Figure 19.- Continued.




(i) Configuration I; M = 1.61.

Figure 19.- Continued.




(j) Configuration C; M = 2.01.

Figure 19.- Concluded.

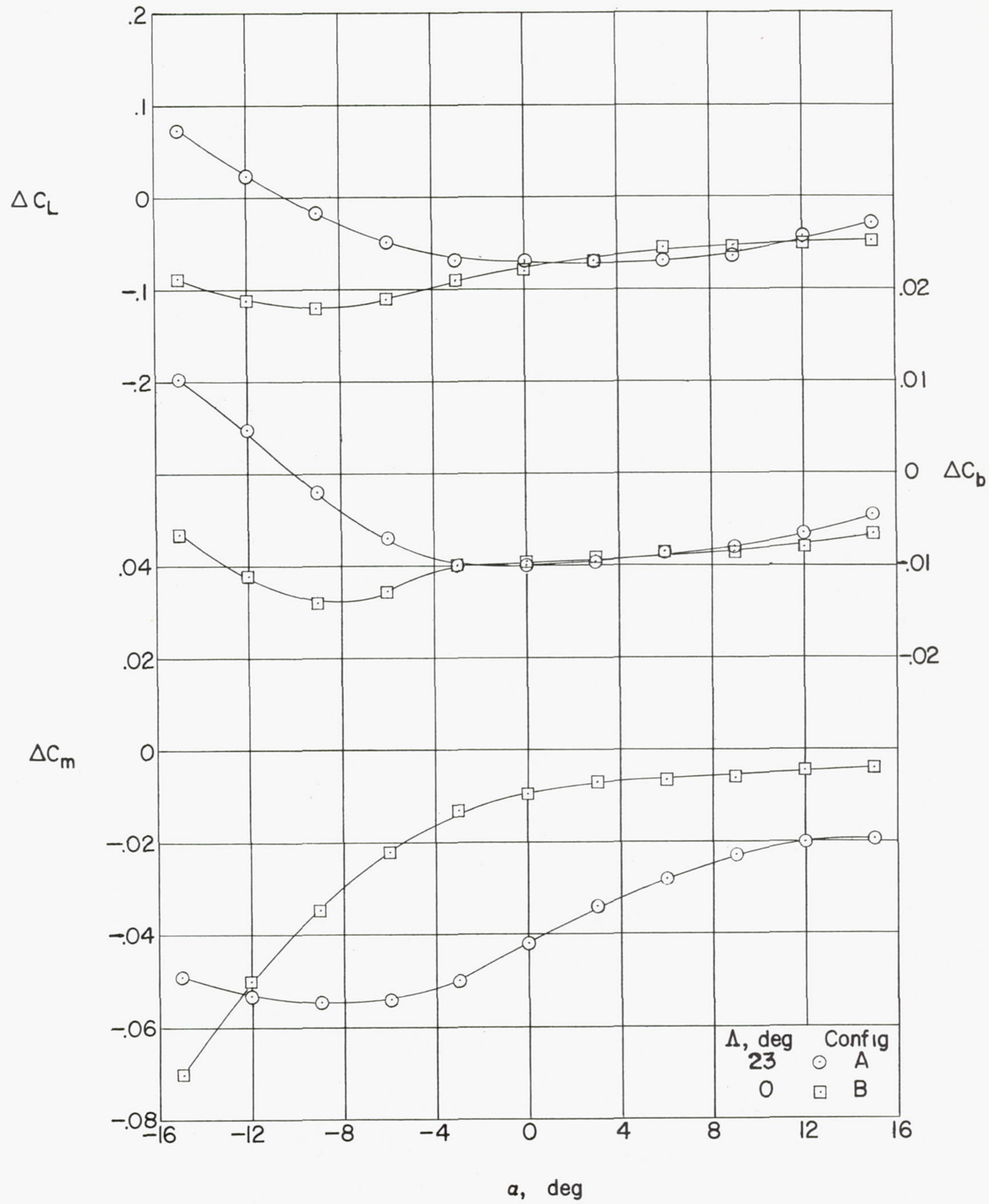



Figure 20.- Variation of the incremental lift, bending-moment, and pitching-moment coefficients with angle of attack to show the effect of spoiler sweep. M = 1.61.

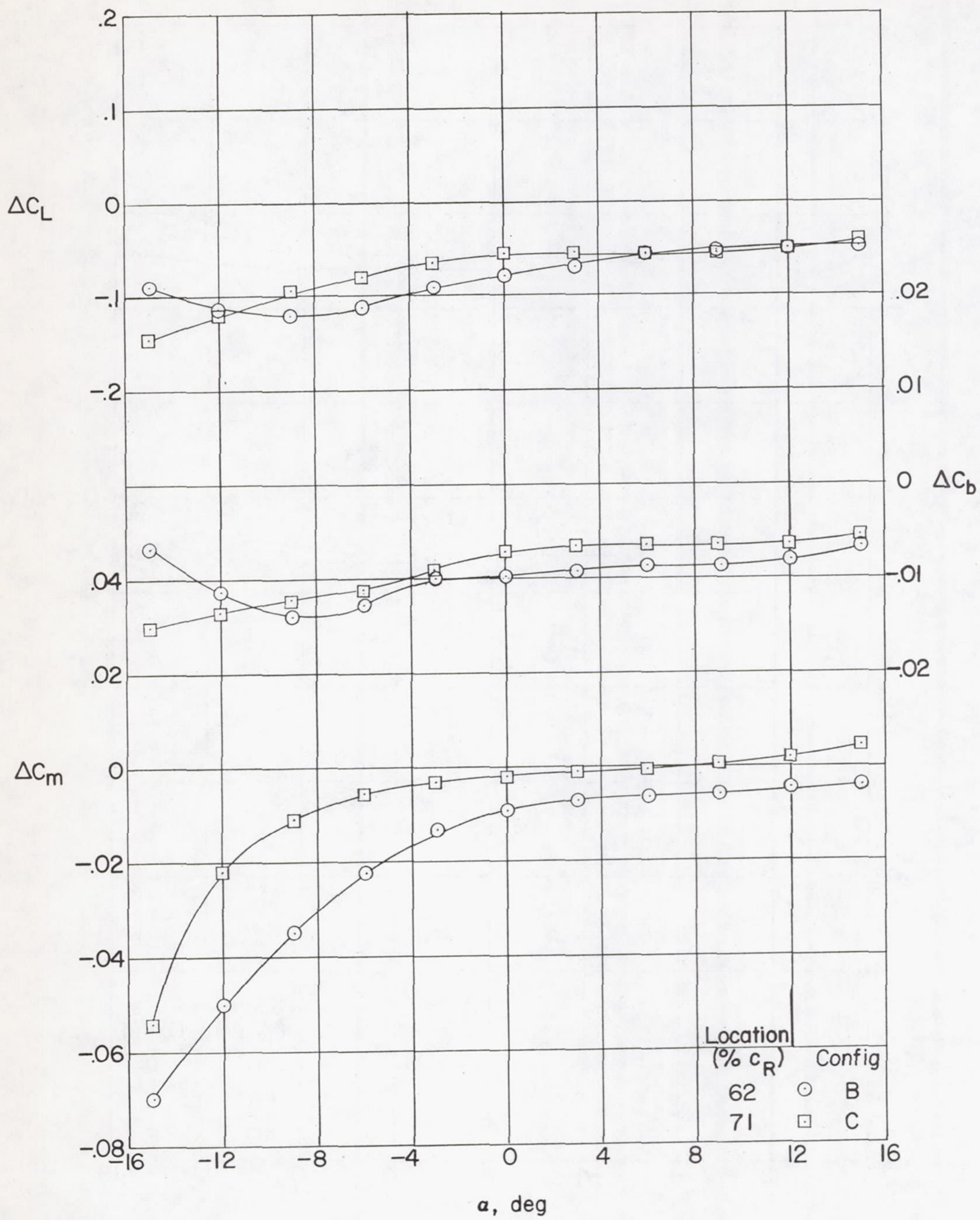



Figure 21.- Variation of the incremental lift, bending-moment, and pitching-moment coefficients with angle of attack to show the effect of rearward movements of the spoiler. M = 1.61.

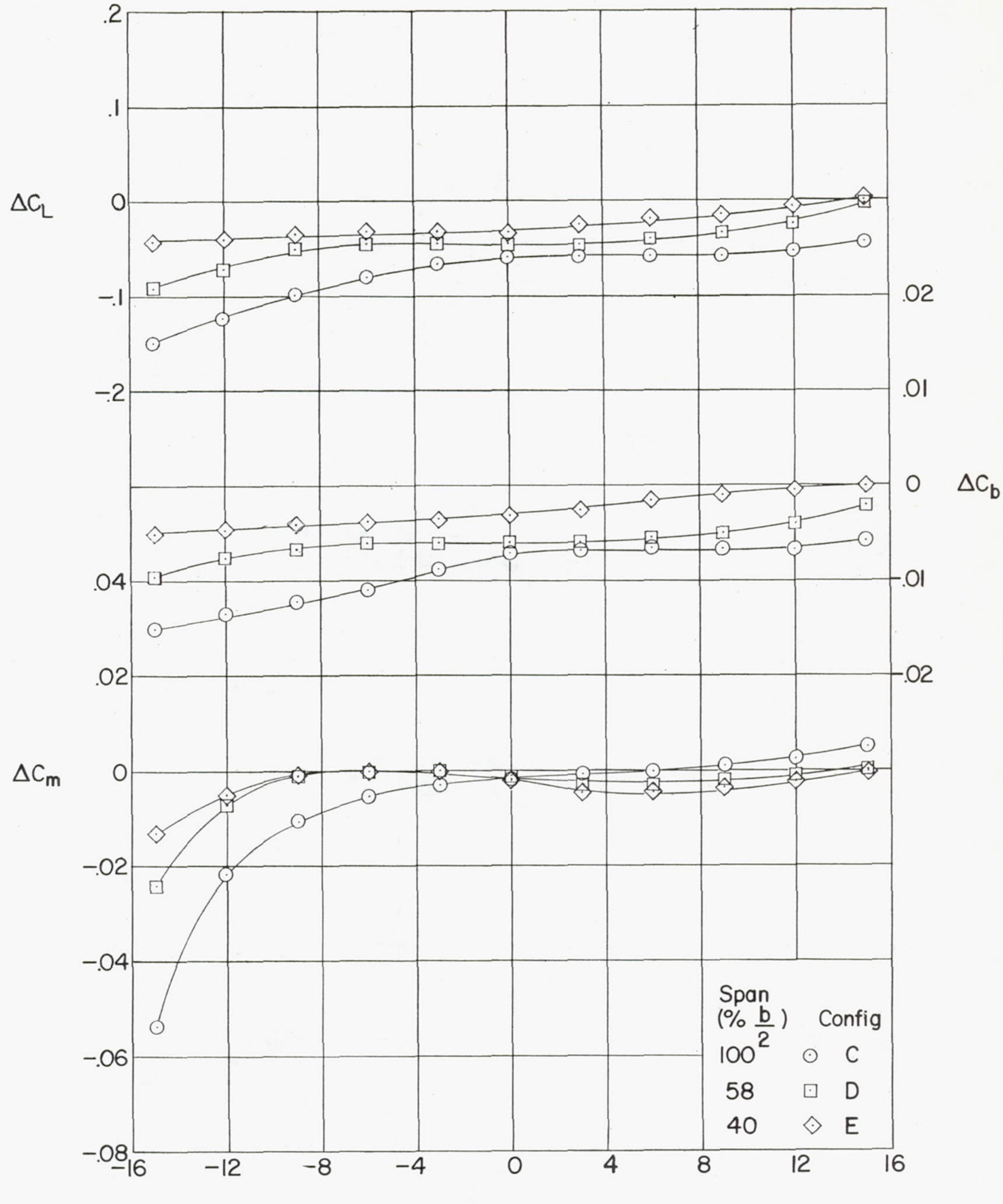



Figure 22.- Variation of the incremental lift, bending-moment, and pitching-moment coefficients with angle of attack to show the effect of reducing the spoiler span. M = 1.61.

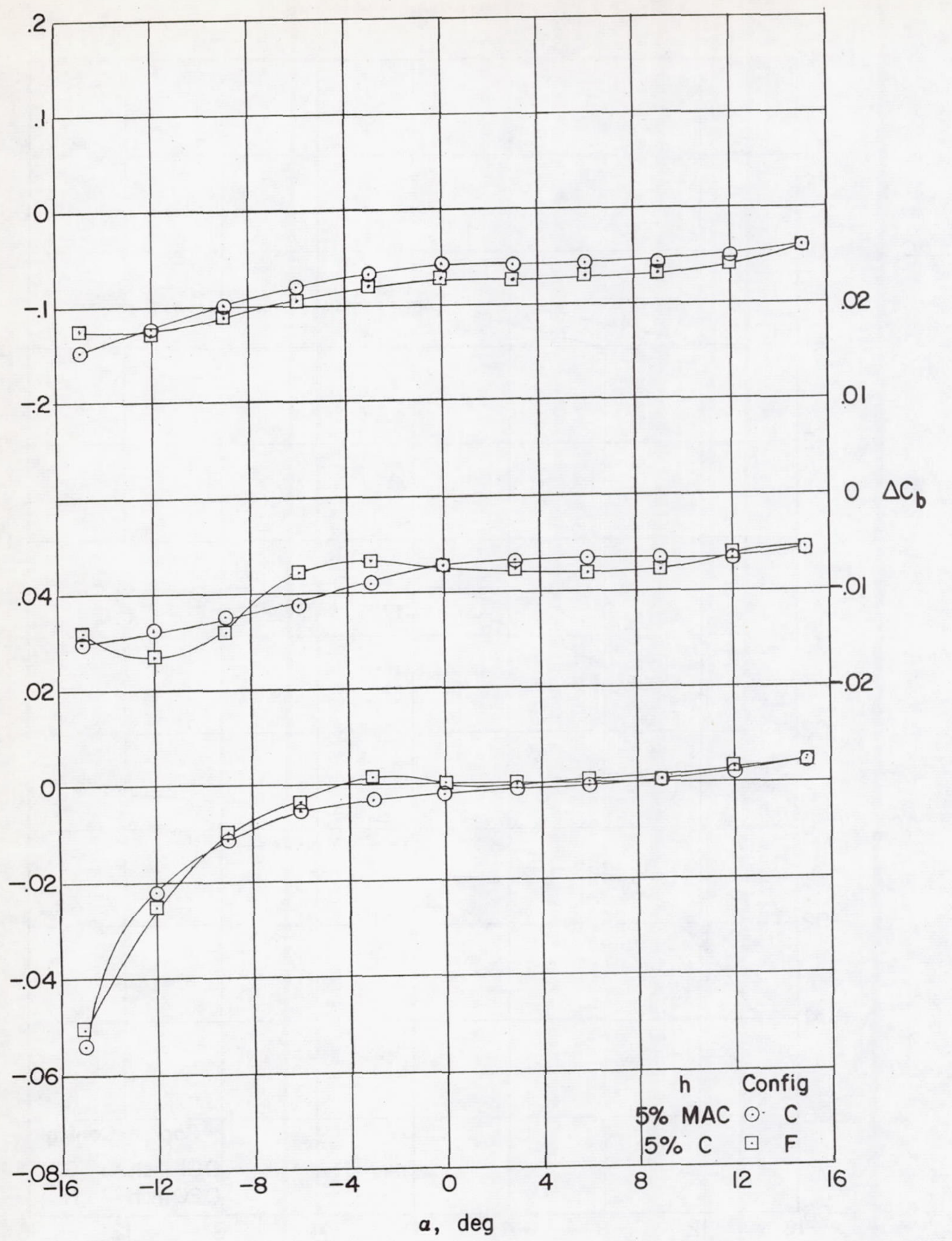



Figure 23.- Variation of the incremental lift, bending-moment, and pitching-moment coefficients with angle of attack for the 5-percent-chord-height and the 5-percent mean-aerodynamic-chord-height spoiler configurations. $M = 1.61$.

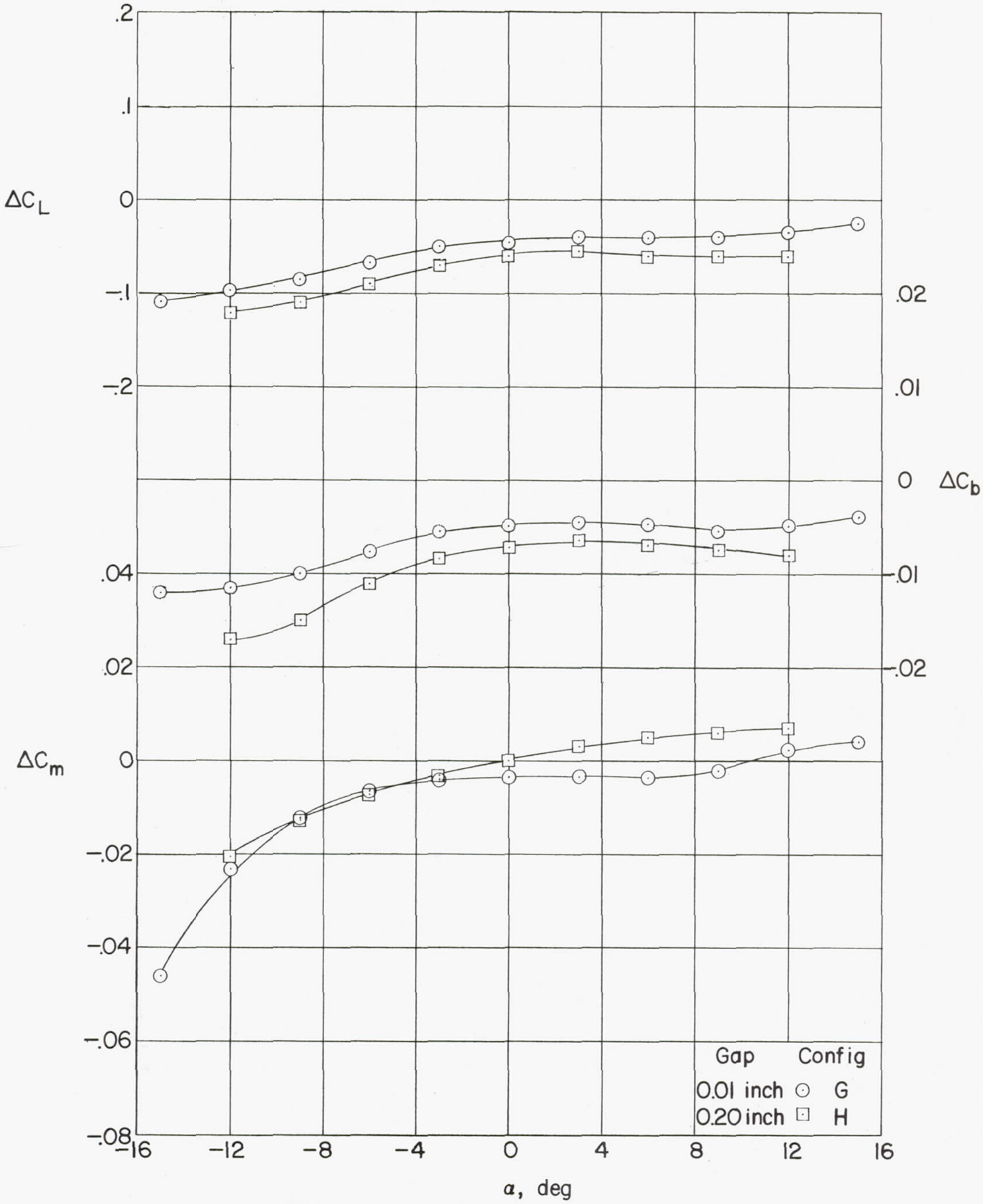



Figure 24.- Variation of the incremental lift, bending-moment, and pitching-moment coefficients with angle of attack for the 0.01-inch gap and the 0.20-inch gap configurations. M = 1.61.

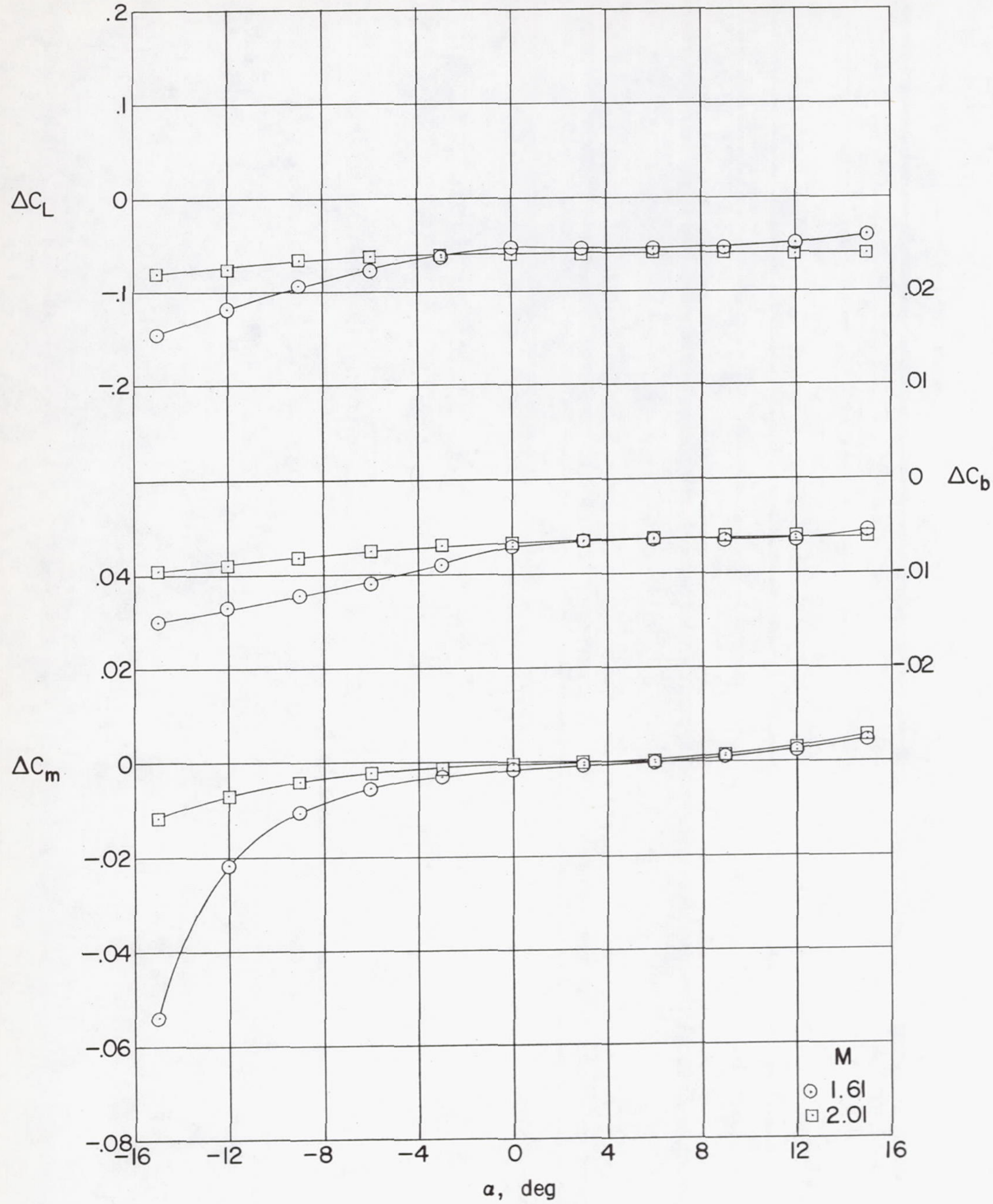



Figure 25.- Variation of the incremental lift, bending-moment, and pitching-moment coefficients with angle of attack for configuration C at the two test Mach numbers.