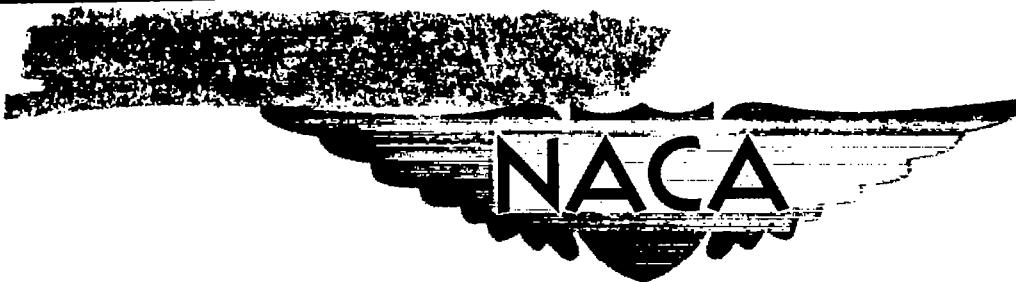


~~CONFIDENTIAL~~

NACA RM A52L04



# RESEARCH MEMORANDUM

8629

EXPERIMENTAL INVESTIGATION OF AERODYNAMICALLY BALANCED  
TRAILING-EDGE CONTROL SURFACES ON AN ASPECT RATIO 2  
TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS

By John W. Boyd and Frank A. Pfyl

Ames Aeronautical Laboratory  
Moffett Field, Calif.

Classification cancelled (or changed to Unclassified....)

By ..... NASH Tech Pub Announcement #4  
(NOT AUTHORIZED TO CHANGE)

By .....

16 Mar. 59

NK

GRADE OF OFFICER MAKING CHANGE)  
13 Mar. 61 CLASSIFIED DOCUMENT

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C., Secs. 702 and 704, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

NATIONAL ADVISORY COMMITTEE  
FOR AERONAUTICS

WASHINGTON

February 13, 1953

RECEIPT SIGNATURE  
REQUIRED

~~CONFIDENTIAL~~

5/9/98/13



## NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

RESEARCH MEMORANDUMEXPERIMENTAL INVESTIGATION OF AERODYNAMICALLY BALANCED  
TRAILING-EDGE CONTROL SURFACES ON AN ASPECT RATIO 2  
TRIANGULAR WING AT SUBSONIC AND SUPERSONIC SPEEDS

By John W. Boyd and Frank A. Pfyl

## SUMMARY

The results of an experimental investigation of several types of aerodynamically balanced trailing-edge flaps on an aspect ratio 2 triangular wing are presented. The balancing devices employed consisted of flap overhang, paddles, rectangular and triangular horns, and trailing-edge tabs. The lift, drag, pitching moment, hinge moment, and, in some instances, the rolling moment were obtained for Mach numbers of 0.6, 0.8, 0.9, 1.2, 1.3, 1.5, 1.7, and 1.9 at a constant Reynolds number of 4.4 million and for angles of attack from about  $-4^\circ$  to  $18^\circ$ . The flap deflections were varied from  $4^\circ$  to  $-28^\circ$ .

The results showed no significant nonlinearities in the pitching moments for the balanced flap arrangements investigated. Most of the flap balances did contribute nonlinear hinge-moment characteristics at subsonic speeds but showed essentially linear hinge-moment characteristics throughout the supersonic speed range.

Comparison of the control-surface parameters of the various flap balances with those of the unbalanced flap showed the following results:

The overhang balances gave appreciable reductions in the hinge-moment parameters at subsonic speeds but were relatively ineffective in providing aerodynamic balance at supersonic speeds at low angles of deflection. The configurations employing the overhang balances had, in some instances, minimum drag coefficients that were 15 percent greater than the minimum drag coefficients of the configuration employing the unbalanced flap.

The paddle balances mounted forward of the hinge line provided material reductions in the hinge-moment parameter,  $C_{hg}$ , throughout the speed range investigated but had little influence on  $C_{ha}$ . At supersonic

speeds, the balance effectiveness increased with increasing Mach number. The paddle balance mounted behind the hinge line showed negligible effect on the hinge-moment characteristics at subsonic speeds; at low supersonic Mach numbers material reductions in  $C_{h\delta}$  were realized but the balance effectiveness decreased with increasing Mach number. Addition of the paddle balances to the control resulted in large increases in the minimum drag coefficient.

The unshielded horn balances provided some reduction in the hinge-moment parameters throughout the speed range investigated. The 20.3-percent-area rectangular horn materially reduced both  $C_{h\alpha}$  and  $C_{h\delta}$  at supersonic speeds but resulted in large overbalanced values of  $C_{h\alpha}$  at subsonic speeds. Reducing the horn size to 6.4 percent resulted in considerably reduced aerodynamic balance at supersonic speeds with closely balanced values of  $C_{h\alpha}$  at subsonic speeds. The 5.5-percent-area triangular horn also showed closely balanced values of  $C_{h\alpha}$  at subsonic speeds but only a small reduction in the hinge-moment parameters at supersonic speeds.

The trailing-edge tab geared for equal and opposite deflections to that of the control surface produced substantial reductions in  $C_{h\delta}$  at subsonic speeds but was relatively ineffective in reducing  $C_{h\delta}$  at supersonic speeds.

Throughout the speed range investigated, only the trailing-edge tab caused any appreciable loss in the control pitching-moment effectiveness.

A comparison of the measured values of the pitching-moment-effectiveness parameter and the hinge-moment parameters with the theoretical values was made in the supersonic speed range for the unbalanced flap, the overhang balances and the horn balances. The results showed that the linearized theory predicted reasonably well the variation of the parameters with Mach number but not the absolute values.

#### INTRODUCTION

The excessive hinge moments associated with trailing-edge flaps when used as control devices on high-speed aircraft have necessitated the use of irreversible-powered control systems. To enable a pilot to safely fly such aircraft in case of power failure, the large control forces inherent in the flap-type control must be reduced. As part of a program of investigation of trailing-edge controls, several aerodynamically balanced control surfaces are currently being investigated in the Ames 6- by 6-foot supersonic wind tunnel to determine a satisfactory means for reducing the prohibitive control forces.

This paper presents the results of a portion of this work concerned with the properties of various types of aerodynamic balances designed to reduce the control hinge moments. The basic control configuration consisted of an unbalanced, constant-chord, trailing-edge, hinged flap with an area equal to approximately 14.6 percent of the exposed wing area. The balancing devices employed were constant-chord overhang, paddles, rectangular horns, and a triangular horn. A limited amount of data were also obtained on trailing-edge tabs. The aerodynamic balances studied are not necessarily optimum but do show which devices bear promise for reducing hinge moments of trailing-edge flap-type controls.

## SYMBOLS

- $b$  wing span, ft
- $c$  local wing chord measured parallel to plane of symmetry, ft
- $\bar{c}$  wing mean aerodynamic chord,  $\frac{\int_0^{b/2} c^2 dy}{\int_0^{b/2} c dy}$ , ft
- $C_D$  drag coefficient, drag/ $qS$
- $C_{D_0}$  minimum drag coefficient
- $C_h$  hinge-moment coefficient, hinge moment/ $2qM_A$
- $C_L$  lift coefficient, lift/ $qS$
- $C_l$  rolling-moment coefficient, rolling moment/ $qSb$
- $C_m$  pitching-moment coefficient about the 35-percent point of the wing mean aerodynamic chord, pitching moment/ $qS\bar{c}$
- $C_{h\delta}$  rate of change of hinge-moment coefficient with change in flap deflection for constant angle of attack,  $\partial C_h / \partial \delta$ , measured at  $\delta=0^\circ$ , per deg
- $C_{h\alpha}$  rate of change of hinge-moment coefficient with change in angle of attack for constant angle of flap deflection,  $\partial C_h / \partial \alpha$ , measured at  $\alpha=0^\circ$ , per deg
- $C_{m\delta}$  flap pitching-moment-effectiveness parameter for constant angle of attack,  $\partial C_m / \partial \delta$ , measured at  $\delta=0^\circ$ , per deg

- $l$  length of body including portion removed to accommodate sting, ft
- $M$  Mach number
- $M_A$  first moment of area of exposed flap area aft of hinge line of the unbalanced flap, ft<sup>2</sup>
- $q$  free-stream dynamic pressure,  $\frac{1}{2} \rho V^2$ , lb/sq ft
- $R$  Reynolds number, based on mean aerodynamic chord
- $r_0$  maximum body radius, ft
- $S$  wing area, including area within body, sq ft
- $V$  velocity of free stream, ft/sec
- $x$  longitudinal distance from nose of body, ft
- $y$  distance perpendicular to vertical plane of symmetry, ft
- $\alpha$  angle of attack of wing chord line, deg
- $\delta$  angle between wing chord and flap chord measured in a plane perpendicular to the flap hinge line, positive for downward deflection with respect to the wing, deg
- $\delta_t$  angle between flap chord and tab chord, positive for downward deflection with respect to the flap, deg
- $\rho$  mass density of air, slugs/cu ft

Subscript ,

- $n$  nominal flap angle

APPARATUS AND MODEL

The experimental investigation was conducted in the Ames 6- by 6-foot supersonic wind tunnel which is a closed-return variable-pressure wind tunnel with a Mach number range from 0.6 to 0.9 and from 1.2 to 2.0. The wind tunnel is described fully in reference 1.

The model consisted of a wing-fuselage combination employing a wing of triangular plan form of aspect ratio 2 symmetrically mounted on the fuselage. The wing had NACA 0005-63 airfoil sections in streamwise planes. The basic wing-control configuration consisted of the wing equipped with a full-span, constant-chord, unbalanced flap whose area was 14.6 percent of the exposed wing area (see fig. 1(a)). The model is shown mounted in the tunnel in figure 2.

The model incorporated flaps with the following types of aerodynamic balances:

1. Overhang balances:- The basic wing profile was tested in combination with both a round nose flap balance (fig. 1(b)) and a sharp nose flap balance (fig. 1(c)). The sharp nose flap balance was also tested with a modified wing profile (fig. 1(d)), the portion of the wing just ahead of the balance being tapered to a sharp edge. The balances had constant chord equal to 50 percent of the flap chord.

2. Paddle balances:- As shown in figures 1(e), (f), and (g), the paddle balances consisted of sharp-edge rectangular lifting surfaces which were attached to the right flap by booms that extended 1.09 inches outward from the chord plane of the flap. A set of 38-percent-span paddle balances was tested, one of which was attached to the upper surface of the flap and the other to the lower surface of the flap by booms that extended 0.425 inch forward of the flap hinge line (measured to the centroid of the paddle). Data were also obtained for a single 38-percent-span paddle mounted on the upper surface. Two 67-percent-span paddle balances were investigated, one of which was set at 0.425 inch ahead of the control hinge line on the upper surface and the other set at 0.425 inch behind the control hinge line on the upper surface (measured to the centroid of the paddle). The chord of the paddle balances was 0.85 inch in all cases.

3. Horn balances:- Three unshielded rectangular horn balance flaps were investigated with different areas forward of the hinge line. The horn areas forward of the hinge line are 20.3, 13.1, and 6.4 percent of the exposed flap area behind the hinge line of the unbalanced flap (figs. 1(i), (h), and (j), respectively). One triangular horn balance flap was also tested, as shown in figure 1(k). It should be noted that the configurations tested were not symmetrical, one employing the 20.3-percent-area rectangular horn on the right wing panel and the 13.1-percent-area rectangular horn on the left wing panel. (See figs. 1(i) and (h).) The other configuration incorporated the 6.4-percent rectangular horn on the left wing panel and the triangular horn on the right wing panel. (See figs. 1(j) and (k).)

4. Trailing-edge tabs:- Information was also obtained on trailing-edge tabs, a sketch of which is shown in figure 1(l).

The wing, the flaps, the paddles, and the trailing-edge tabs were of solid steel construction. The body used in the present investigation had a fineness ratio of 12.5 based on the length including that portion shown dotted in figure 1.

The forces and moments on the model were measured by an internal strain-gage balance. Flap hinge moments were measured by an electrical strain gage mounted in the body at the wing-body juncture.

#### TEST AND PROCEDURE

##### Range of Test Variables

The aerodynamic characteristics of the models as a function of angle of attack were investigated for a range of Mach numbers from 0.6 to 0.9 and from 1.2 to 1.9. Lift, drag, pitching-moment, hinge-moment, and, in some instances, rolling-moment measurements were made at constant flap deflections for angles of attack from about  $-4^{\circ}$  to  $18^{\circ}$ . The flap deflections were varied from  $4^{\circ}$  to  $-28^{\circ}$ . In some instances, the full range of flap deflections and angles of attack were not obtained because of structural limitations or other difficulties. The data presented were obtained at a Reynolds number of 4.4 million.

##### Reduction of Data

The test data have been reduced to standard NACA coefficient form. The pitching moments were calculated about an axis at 35 percent of the mean aerodynamic chord. Factors which affect the accuracy of these results are discussed in the following paragraphs.

Tunnel-wall interference. - Corrections to the subsonic results for the induced effects of tunnel walls resulting from lift on the model were made according to the methods of reference 2. The numerical values of these corrections (which were added to the uncorrected data) are:

$$\Delta\alpha = 0.55 C_L$$

$$\Delta C_D = 0.0095 C_L^2$$

The corrections to the pitching-moment coefficient were assumed to be negligible.

The effects at subsonic speeds of constriction of the flow by the tunnel walls were taken into account by the method of reference 3. At

a Mach number of 0.9, this correction amounted to a 4-percent increase in the Mach number over that determined from a calibration of the wind tunnel without a model in place.

For the tests at supersonic speeds, the reflection from the tunnel wall of the Mach wave originating at the nose of the body crossed the model only at a Mach number of 1.2. It is believed that the resulting interference effects were insignificant insofar as the incremental effects of flap deflection are concerned and no corrections for tunnel-wall effects were made.

Stream variations.- Tests at subsonic speeds in the Ames 6- by 6-foot supersonic wind tunnel have indicated small stream curvature or inclination in the pitch plane of the model. The longitudinal variation of static pressure in the region of the model is not known accurately at subsonic speeds, but a preliminary survey has indicated that it is less than 2 percent of the dynamic pressure. No correction for the stream curvature or the pressure variation was made. A survey of the air stream at supersonic speeds (ref. 1) has shown stream curvature only in the yaw plane of the model. The effects of this curvature on the measured characteristics of the present model are not known but are believed to be small as in the case of reference 4. The survey also indicated that there is a static-pressure variation of sufficient magnitude in the test section to affect the drag results. A correction was added to the measured drag coefficient, therefore, to account for the longitudinal buoyancy caused by this static pressure variation. This correction varied from -0.0008 at a Mach number of 1.3 to +0.0006 at a Mach number of 1.9.

Support interference.- At subsonic speeds, the effects of support interference on the aerodynamic characteristics of the model are not known. For the present model, it is believed that such effects consist primarily of a change in the base pressure of the model. The base pressure was measured, therefore, and the drag data were adjusted to correspond to a base pressure equal to the static pressure of the free stream.

At supersonic speeds, the interference of the sting on the body for a body-sting configuration similar to that of the present model is shown by reference 5 to be confined to a change in base pressure. The above-mentioned adjustment of the drag for base pressure, therefore, was also applied at supersonic speeds.

#### Precision

The uncertainties involved in determining dynamic pressure and in measuring forces with the strain-gage balance are fully described in

reference 6. The following table lists the uncertainty introduced into each corrected coefficient by the known uncertainties in the measurements:

<u>Quantity</u>	<u>Uncertainty</u>
Lift coefficient	$\pm 0.002$
Drag coefficient	$\pm .001$
Pitching-moment coefficient	$\pm .002$
Rolling-moment coefficient	$\pm .001$
Hinge-moment coefficient	$\pm .003$
Mach number	$\pm .01$
Reynolds number	$\pm .03 \times 10^6$
Angle of attack	$\pm 10^\circ$
Flap deflection angle	$\pm 25^\circ$

A further slight inaccuracy in the data as presented graphically is incurred as a result of the deflection of the control surface under load. The effect of this inaccuracy in the data is discussed later.

## RESULTS

The experimental data obtained in this investigation are presented in tabular form for the complete range of test variables for the flap balances investigated (tables I through XIII). For the purpose of analysis, a portion of the data is presented in graphical form.

Graphical data which indicate the variation of the pitching-moment and the hinge-moment coefficients with flap deflection for given angles of attack and the variation of the pitching-moment and the hinge-moment coefficients with angle of attack for given flap deflections are presented in figures 3 through 14 for the flap balances investigated. The data are presented only for Mach numbers of 0.6, 0.9, 1.3, and 1.9, since these are representative Mach numbers. It should be emphasized that the moment results are presented for two flaps deflected for the unbalanced flap and the overhang balances (see figs. 3 through 6) and for one flap deflected for the paddle balances and the horn balances. (See figs. 7 through 14.)

The hinge-moment coefficients for the unbalanced flap and the overhang balances are based on twice the moment of area of two flaps, whereas the hinge-moment coefficients for the paddle balances and the horn balances are based on twice the moment of area of one flap. The flap angles noted in figures 3 through 14 are nominal settings of the control surface. The exact flap settings can be obtained in tables I through XII.

CONFIDENTIAL

The pitching-moment-effectiveness parameter,  $C_{mg}$ , and the hinge-moment parameters,  $C_{ha}$  and  $C_{hg}$ , are presented as a function of Mach number in figures 15 and 16 for the various flap balances. The results presented (measured at  $C_L=0$ ) are for  $\delta$  equal to zero for the parameters,  $C_{mg}$  and  $C_{hg}$ , and for  $\alpha$  equal to zero for the parameter,  $C_{ha}$ . The experimental values of  $C_{mg}$ ,  $C_{hg}$ , and  $C_{ha}$  in the supersonic speed range are compared with the theoretical results obtained from references 7 and 8. Also presented in figures 15(a) through (h) is the minimum drag coefficient as a function of Mach number. The results for the unbalanced flap are presented in each case for comparison.

## DISCUSSION

In the discussion to follow, two types of data are utilized to point out the aerodynamic properties of the control flap with various balances. One set of data noted as basic characteristics (figs. 3 through 14) show the variation of hinge moment and pitching moment with flap deflection and angle of attack. Since these data are primarily useful in noting nonlinear hinge moments and pitching moments, the aforementioned deflection of the control surface under load is of little importance and no correction to the results was made. The other set of data is noted control-surface parameters (figs. 15 and 16) which consist essentially of the measured slopes of the pitching-moment and hinge-moment curves. These parameters are useful in evaluating the balance effectiveness of the various flap balances. Examination of the results show that the error in these parameters, due to omitting the correction resulting from deflection of the flap under load, is insignificant. In some instances at subsonic speed, the hinge-moment parameters are not accurate indications of the control-surface characteristics because of the nonlinear nature of the curves. These cases will be discussed in the text.

### Basic Characteristics

Unbalanced flap. - The data obtained from tests of the unbalanced flap are presented in figure 3. For the Mach number range investigated, the data show the variation of the pitching-moment coefficients and the hinge-moment coefficients with angle of attack and with angle of flap deflection to be essentially linear for flap settings up to approximately  $-12^\circ$ .

Overhang balances. - Overhang balances have been widely used in previous airplane designs, especially for aircraft designed for subsonic Mach numbers. The usefulness of such balances is somewhat in doubt at

transonic and supersonic speeds; however, the present investigation was undertaken because of the simplicity of such balances and since they permit mass balance of the flap. Results are presented for three overhang balances in figures 4, 5, and 6. The data show generally a linear variation of the pitching-moment coefficient with flap deflection and with angle of attack throughout the speed range investigated. Modifications to the wing trailing edge or flap nose shape have small influence on these characteristics.

At subsonic speeds, the use of flap overhang to provide aerodynamic balance results in nonlinear hinge moments for any of the combinations of wing trailing-edge profiles and flap nose shapes tested. It is noteworthy, however, that despite the nonlinearities exhibited, the results reveal generally closely balanced hinge moments for a small range of flap settings. (See figs. 4(a) and (b), 5(a) and (b), and 6(a) and (b).)

At supersonic speeds, the results show that the flap nose shape does not have a significant effect on the hinge-moment characteristics but that the wing profile has a rather large influence on the hinge-moment characteristics at angles of attack. The data show that regardless of flap nose shape (figs. 4(c) and (d), and 5(c) and (d)), the controls exhibit generally a linear variation of hinge-moment coefficient with flap deflection at moderate deflection angles ( $\delta < 80^\circ$ ) throughout the angle-of-attack range, but show no appreciable aerodynamic balance. As the angle of deflection is increased negatively, however, the balancing portion of the flap becomes more effective and produces some reduction in the hinge-moment coefficients. This can be explained, at least for the sharp nose flap, by the fact that the flow is probably separating from the wing forward of the flap and preventing the balancing portion of the flap from being fully effective at the low flap angles.

Similar hinge-moment characteristics at  $0^\circ$  angle of attack (see figs. 6(c) and (d)) are noted for the modified wing profile. At the higher angles of attack ( $\alpha = 8^\circ, 16^\circ$ ), however, the influence of the flow from the wing is apparently different, and a measure of aerodynamic balance is realized throughout the range of flap angles. Although no detailed analysis of the flow field is considered here, the nature of the flow in the vicinity of the balance may be analogous to the flow discussed in reference 9. The data of reference 9 show that at angles of attack of the order of  $8^\circ$ , the flow on the lower surface of the wing experiences no separation but expands slightly around the blunt trailing edge of the wing and impinges on the balance portion of the flap. The resulting shock and the associated high-pressure peak occurs, therefore, forward of the control hinge line, thereby affecting a substantial balancing moment.

Paddle balances.- Paddle balances appear to have certain useful properties for transonic and supersonic aircraft. For this reason, a number of balances of this type were investigated. Data are presented for these balances in figures 7 through 10. The results show that, in general, the variation of the pitching-moment coefficients with flap deflection and with angle of attack remain reasonably linear throughout the Mach number range for all the paddle configurations tested.

The results reveal generally nonlinear variations of the hinge-moment coefficients with flap deflection at subsonic speeds. The paddles mounted forward of the hinge line (see figs. 7(a) and (b), 8(a) and (b), and 9(a) and (b)) show closely balanced hinge moments at small deflection angles ( $\delta < 40^\circ$ ), followed by rather large underbalanced hinge moments at the higher flap settings. The paddle mounted behind the control hinge line (see figs. 10(a) and (b)) shows rather large underbalanced hinge moments throughout the range of flap angles. At supersonic speeds, all the paddle configurations tested show generally linear variations of the hinge-moment coefficients with flap deflection and with angle of attack.

Horn balances.- The results obtained for the three unshielded rectangular horns and a triangular horn balance are presented in figures 11 through 14. The data do not reveal any significant nonlinear variations of the pitching-moment coefficients with flap deflection or with angle of attack for the Mach numbers investigated.

The results show nonlinear hinge moments at subsonic speeds for the rectangular horn balances that may be undesirable (see figs. 11(a) and (b), 12(a) and (b), and 13(a) and (b)). Examination of the data reveals that the nonlinear character of the hinge-moment curves becomes less severe as the size of the horn is reduced from 20.3 percent to 6.4 percent. The triangular horn balance shows reasonably linear hinge-moment characteristics at subsonic speeds (figs. 14(a) and (b)). At supersonic speeds, no unusual nonlinearities in the hinge-moment curves are evident for any of the horn balances investigated (see figs. 11(c) and (d), 12(c) and (d), 13(c) and (d), and 14(c) and (d)).

Trailing-edge tab.- The results are not presented in basic data form for the trailing-edge tabs investigated but may be obtained from the tabulated data of table XIII if needed.

#### Control-Surface Parameters

Unbalanced flap.- The control-surface parameters for the unbalanced flap are presented in figure 15(a) as a function of Mach number. The results show a significant effect of Mach number on both pitching-moment

and hinge-moment characteristics. As the Mach number is changed from 0.9 to 1.2, the pitching-moment effectiveness is reduced by roughly 50 percent. As has been shown in previous investigations (e.g., ref. 10), this large reduction in control effectiveness combined with the variation of the static margin with Mach number (approximately 10-percent mean aerodynamic chord increase as the Mach number is increased from subsonic to supersonic speeds) would result in considerably higher flap settings for longitudinal balance ( $C_m = 0$ ) at a given lift coefficient at supersonic speeds than are necessary at subsonic speeds.

The results show also large increases in values of the hinge-moment parameters as the Mach number is increased from subsonic to supersonic speeds. It is worthy of note that, at subsonic speeds for a center-of-gravity location of 35-percent mean aerodynamic chord, the ratio of  $C_{h\delta}/C_{hs}$ , which is one of the parameters defining the stick-free stability, is such that a configuration employing this flap for longitudinal control would be unstable stick free. The large rearward shift in the neutral point that occurs through the transonic speed range insures a wide margin of stick-free stability at supersonic speeds.

Examination of the drag results reveals the usual increase in minimum drag coefficient that occurs for an aspect ratio 2 triangular wing as the Mach number is increased from subsonic to supersonic speeds.

A comparison of the theoretical and experimental values of the pitching-moment and hinge-moment parameters in the supersonic speed range shows that while theory predicts reasonably well the variation of the parameters  $C_{m\delta}$ ,  $C_{h\delta}$ , and  $C_{hs}$  with Mach number, it does not accurately predict the absolute values. The data show generally somewhat lower values of the pitching-moment-effectiveness parameter,  $C_{m\delta}$ , than those predicted by the linear theory. As has been shown previously for a configuration similar to the one under consideration (ref. 11), this reduction in  $C_{m\delta}$  from the theoretically predicted values results primarily from a loss in lift over the flap rather than a forward shift in the center of pressure of the loading. The theory also overestimates the magnitude of the hinge-moment parameters,  $C_{h\delta}$  and  $C_{hs}$ , the experimental values being approximately 80 percent of the theoretical values.

Overhang balances.— The characteristics of the various 50-percent overhang balances are presented in figures 15(b), (c), and (d) as a function of Mach number and compared with those of the unbalanced flap. The results show that flap overhang has no significant effect on the pitching-moment-effectiveness parameter,  $C_{m\delta}$ , at subsonic speeds, and the effect at supersonic speed is generally small except for the configuration employing the modified wing profile which produces somewhat higher values of  $C_{m\delta}$  than those of the unbalanced flap. (See fig. 15(d).)

The data show significant reductions in both hinge-moment parameters,  $C_{h\alpha}$  and  $C_{h\delta}$ , at subsonic speeds. The round nose flap balance exhibits small underbalanced values of  $C_{h\alpha}$  and slightly overbalanced values of  $C_{h\delta}$ . (See fig. 15(b).) Alteration of the nose shape from round to sharp results in less balance effectiveness. (See fig. 15(c).) A modification to the wing profile consisting of tapering the wing to a sharp edge just ahead of the balance results in closely balanced values of both  $C_{h\alpha}$  and  $C_{h\delta}$ . (See fig. 15(d).)

At supersonic speeds, the results show that flap overhang produces some reduction in  $C_{h\alpha}$  but has little influence on  $C_{h\delta}$ , the values of  $C_{h\delta}$  for the balanced flaps being of the same magnitude as those of the unbalanced flap. (See figs. 15(a), (b), and (c).) The parameters presented are not significantly affected by modification of either the wing profile or flap nose shape.

The relative ineffectiveness of the sharp nose flap overhang in reducing  $C_{h\delta}$  at supersonic speeds as compared with the large reductions in  $C_{h\delta}$  noted at subsonic speeds is probably due primarily to the difference in loading over the deflected flap at subsonic and supersonic speeds. At subsonic speeds, the high pressure peak inherent in the loading at the leading edge of the flap acts over the portion of the control forward of the hinge line, thereby bringing into play a large balancing moment. At supersonic speeds, practically no balancing moment is realized at small flap angles because the flow from the wing is separating and preventing the development of any load on the balancing portion of the flap. The exception to this is the flap balance incorporating the modified wing profile where the character of the flow at supersonic speeds at angles of attack is somewhat different and some loading is developed on the balancing portion of the flap. The reason for the ineffectiveness of the round nose flap in reducing  $C_{h\delta}$  at supersonic speeds is not known.

It is evident from the foregoing discussion that although a 50-percent-chord balance is adequate to balance reasonably well the hinge moments at subsonic speeds, substantially more aerodynamic balance is necessary at supersonic speeds. Previous results (refs. 9 and 11) have shown that greater balancing action may be attained at supersonic speeds with this type of balance either by increasing the amount of flap overhang or by extending the gap between the wing and the control surface for a given amount of aerodynamic balance. (The gap effect is discussed in detail in ref. 9.) Either of these modifications would likely result in overbalance at subsonic speeds.

Examination of the minimum drag results show that the shape of the wing profile just ahead of the flap is an important parameter in the consideration of low-drag configurations. The configurations employing the true-contour wing profile reveal a maximum increase in the minimum

drag coefficient above that of the unbalanced flap of approximately 7 percent (see figs. 15(b) and (c)). The model incorporating the modified wing profile shows increases in the minimum drag coefficient of approximately 15 percent at supersonic speeds. (See fig. 15(d).)

A comparison of the theoretical and experimental values of the parameters  $Cm\delta$  and  $Ch\delta$  at supersonic speeds shows that the theory predicts the variation of the parameters with Mach number but not the absolute values. The results show that the theory overestimates the pitching-moment-effectiveness parameter,  $Cm\delta$ , by approximately 30 percent. The data show further that, unlike the results of the unbalanced flap wherein the theory overpredicts the values of  $Ch\delta$ , the predicted values of  $Ch\delta$  for the balanced controls fall somewhat below the measured values. This discrepancy between theory and experiment for the sharp nose flaps is probably due primarily to the previously mentioned fact that the flow from the wing is separating and preventing the balancing portion of the flap from being fully effective at low flap settings. The results show that the theory overpredicts the values of  $Ch\alpha$ .

Paddle balances.-- Before presenting the control-surface parameters for the paddle balances, it is perhaps worthwhile to give brief mention to the fundamental ideas involved. The virtue of this type of balance is that at supersonic speeds, where it is most needed, the paddle has a powerful effect in reducing the rate of change of the hinge-moment coefficient with flap deflection but has little influence on the rate of change of the hinge-moment coefficient with angle of attack. The powerful balancing action at supersonic speeds is brought about as a result of the shock-expansion interference between the balance and the control surface. At negative control deflections, the lower surface of the upper paddle propagates expansion waves which impinge on the main control surface. The resulting loss in lift on the control causes the center of pressure of the load on the control surface to shift forward, thereby reducing the moment about the hinge line. A paddle mounted on the lower surface of the flap acts in an analogous manner by virtue of the compression waves emitted from its upper surface. A control employing a paddle balance suffers no loss in over-all lift since the paddle carries lift of the order of that lost on the control surface.

The foregoing discussion is admittedly a simplification of the flow phenomena involved but is believed to describe the underlying principle of the paddle balance to a first approximation. Certain other effects, such as the contribution of the lift, drag, and pitching moment of the paddle alone to the flap moment, the effect of the flow angularity over the wing ahead of the paddle, the interaction between the shock

~~CONFIDENTIAL~~

from the wing-flap juncture and the shock-expansion interference, and, in some instances, the choking effect between the paddle and the flap, are known to exist. It is difficult, however, to evaluate the individual effects of such factors and no attempt was made to do so in the present analysis.

To aid in evaluating the properties of the various paddle balances investigated, figures 15(e), (f), (g), and (h) were prepared which compare the parameters  $C_{m\delta}$ ,  $C_{h\delta}$ ,  $C_{h\alpha}$ , and  $C_{D_0}$  with those of the unbalanced flap. These data show that the addition of the paddle balances forward of the hinge line (see figs. 15(e), (f), and (g)) results in slight reductions in the flap effectiveness parameter,  $C_{m\delta}$ , at the high subsonic Mach numbers but has negligible influence on the flap effectiveness at supersonic speeds.

These paddles (mounted forward of the hinge line) provide large reductions in the hinge-moment parameter,  $C_{h\delta}$ , throughout the speed range investigated but have little influence on  $C_{h\alpha}$ . The results of figure 15(e) show that a 38-percent-span paddle mounted on the upper and lower surfaces of the control overbalances  $C_{h\delta}$  at Mach numbers below 0.8. At a Mach number of 1.2, the unbalanced values of  $C_{h\delta}$  are reduced by approximately 50 percent; as the Mach number is increased above 1.2, the paddles indicate progressively more balancing action until at a Mach number of 1.9 a reduction in  $C_{h\delta}$  of approximately 80 percent is realized.

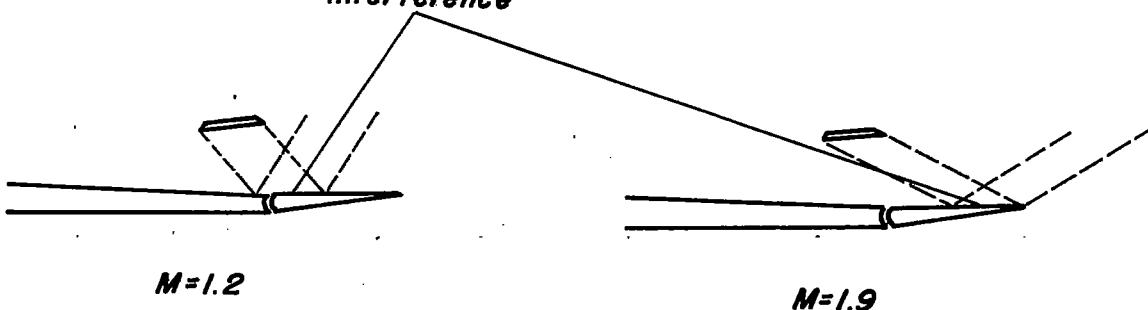
As shown in figure 15(f), removal of the paddle from the lower surface results in less aerodynamic balance, but material reductions in  $C_{h\delta}$  are still realized throughout the speed range.

A 67-percent-span paddle attached to the upper surface of the control forward of the hinge line is shown by the results of figure 15(g) to reveal essentially the same balance effectiveness as that noted for the semispan paddle balance on the upper and lower surfaces.

CONFIDENTIAL

The increased balance effectiveness shown by each of the paddles with increasing Mach number at supersonic speeds is explained as follows: The paddles are so located on the flap that at a Mach number of 1.2 the region of shock-expansion interference is restricted to the forward portion of the flap (see sketch 1).

*region of shock-expansion  
interference*



Sketch (1)

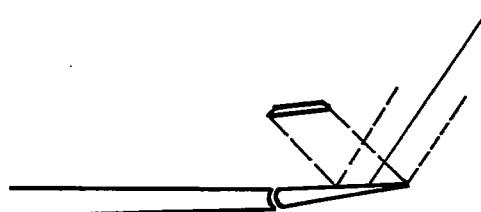
Sketch (2)

As the Mach number is increased, however, the region of influence of the paddle is gradually shifted toward the trailing edge of the flap (see sketch 2), and the resulting loss in lift brings about a progressively forward shift in the center of pressure of the load on the control surface.

The ability of the paddle to further reduce the hinge-moment parameter,  $C_{hg}$ , is restricted to that Mach number (in this case  $M=1.9$ ) wherein the disturbance from the trailing edge of the paddle strikes the trailing edge of the control.

This conclusion is substantiated by the results of figure 15(h) which presents the data for a 67-percent-span paddle balance mounted behind the control hinge line. (This paddle has negligible influence on the subsonic hinge-moment characteristics.) The location of the paddle is such that at a Mach number of 1.3, the disturbance from the paddle trailing edge just strikes the control at the trailing edge (see sketch 3).

*region of shock-expansion  
interference*

 $M=1.3$ 

Sketch (3)

 $M=1.9$ 

Sketch (4)

A reduction in  $C_{hg}$  of the order of that realized with the 67-percent-span paddle mounted forward of the hinge line is affected at this Mach number. As the Mach number is increased above 1.3, however, and the region of shock-expansion interference is diminished (see sketch 4), the balance effectiveness of the paddle decreases until at Mach numbers of 1.7 and above the values of  $C_{hg}$  are greater than those of the unbalanced flap. In this speed range ( $M > 1.3$ ) a considerable increase in the pitching-moment-effectiveness parameter,  $C_{mg}$ , is realized, since the paddle balance is no longer effecting a large reduction in lift on the control surface. The effectiveness at a Mach number of 1.9 is approximately twice as much as that of the unbalanced flap. The fact that this increase in effectiveness is somewhat greater than would normally be expected is probably due primarily to thickness effects of the paddle.

Examination of the minimum drag coefficients show large increases in the drag coefficient throughout the speed range due to the addition of the paddle balances. Though the drag increment is admittedly large, several points should be considered before discarding paddle balances from a drag standpoint. The penalty in drag must be weighed against the beneficial effects that the paddles have on the hinge-moment characteristics and the resulting smaller size of the power boost system required to handle the control forces. It should also be pointed out that the maximum thickness of the paddles is rather large (10 percent of the paddle chord) and that some improvement in the drag characteristics could be realized by use of thinner sections.

Horn balances. - The control-surface parameters are presented in figures 15(i), (j), (k), and (l) as a function of Mach number for the various unshielded horn balances tested and compared with the results

of the unbalanced flap. The results show that in general throughout the speed range investigated, the rectangular horn balances provide improvements in the pitching-moment effectiveness,  $C_{m\delta}$ , the magnitude of the improvement being dependent on the size of the horn. The triangular horn has practically no effect on the pitching-moment effectiveness.

The effect of horn size on the balance effectiveness can be seen by a comparison of the results of figures 15(i), (j), and (k). The 20.3-percent rectangular horn provides material reductions in both  $C_{h\alpha}$  and  $C_{h\delta}$  at supersonic speeds but overbalances  $C_{h\alpha}$  to a large degree at subsonic speed. Reduction in horn size to 13.1 percent (see fig. 15(j)) results in somewhat less aerodynamic balance at supersonic speeds and reduces to some extent the large overbalanced values of  $C_{h\alpha}$  at subsonic speeds. A further reduction in horn size to 6.4 percent (see fig. 15(k)) results in closely balanced values of  $C_{h\alpha}$  at subsonic speeds but only small reductions in the hinge-moment parameters at supersonic speeds. It should be emphasized here that the nonlinear variation of the hinge-moment coefficients with angle of attack for the rectangular horns at subsonic speeds (see figs. 11(a) and (b), 12(a) and (b), and 13(a) and (b)) is such that the parameter,  $C_{h\alpha}$ , is not a reliable indication of the balance effectiveness. The 5.5-percent-area triangular horn balance (see fig. 15(l)) provides closely balanced values of  $C_{h\alpha}$  at subsonic speeds but only slight reductions in the hinge-moment parameters at supersonic speeds.

The drag results are not presented graphically for the horn balance flaps because of the previously mentioned asymmetry of the model. Some indication of the magnitude of the drag increment resulting from the horn balances can be obtained, however, by examination of the results of the configuration incorporating the 20.3-percent-area rectangular horn and the 13.1-percent-area rectangular horn. (See table IX.) These data show a maximum increase in the minimum drag coefficient of the order of 10 percent over the speed range investigated.

The experimental values of  $C_{m\delta}$  and  $C_{h\delta}$  for the rectangular and triangular horns are compared with the linear theory in figures 15(i), (j), (k), and (l). These results show that again the theory predicts reasonably well the variation of the parameters with Mach number but not the absolute values. The experimental values of  $C_{m\delta}$  fall somewhat below the predicted values for all the horn balances investigated with the results of the triangular horn showing the closer agreement between theory and experiment. For all the horn balances investigated, the experimental values of  $C_{h\delta}$  fall considerably below those predicted by the theory.

Trailing-edge tabs.—During the present investigation, a limited amount of data was obtained on trailing-edge tabs. The results are

summarized in figure 16 in the form of  $C_{m\delta}$  and  $C_{h\delta}$  as a function of Mach number and compared with the data of the unbalanced flap. The results presented are for a tab geared such that it is deflected downward at the same rate that the flap is deflected upward. The displacement of the tab brings into play a moment assisting the deflection of the flap and a measure of aerodynamic balance is attained. The results reveal a reduction in pitching-moment effectiveness,  $C_{m\delta}$ , of approximately 20 percent at subsonic speeds due to deflecting the tab and a reduction of 10 to 15 percent at supersonic speeds. The tab is highly effective in reducing the hinge-moment parameter,  $C_{h\delta}$ , at subsonic speeds (approximately 50-percent reduction) but results in reductions in  $C_{h\delta}$  at supersonic speeds of only 10 percent.

#### CONCLUSIONS

The following general conclusions are indicated from a study of the basic characteristics:

1. For the Mach number range investigated, the data show essentially linear pitching-moment characteristics for the flap balances investigated.
2. Most of the flap balances had hinge-moment characteristics that were nonlinear at subsonic speeds. At supersonic speeds, no outstanding nonlinearities in the hinge moments were evident.

A comparison of the control-surface parameters for the various flap balances with those of the unbalanced flap revealed the following:

1. The incorporation of the 50-percent-chord overhang balance had no significant influence on the pitching-moment effectiveness throughout the speed range investigated. This type of balance provided material reductions in the hinge-moment parameters at subsonic speeds but was relatively ineffective in providing balance at supersonic speeds at low flap settings. The modifications of the wing profile and flap nose shape had only small influence on either the effectiveness or hinge-moment parameters. The results showed that in some instances the configurations employing the overhang balances had minimum drag coefficients that were 15 percent greater than those of the configuration employing the unbalanced flap.

2. Addition of the paddle balances to the control had only small effects on the pitching-moment effectiveness over the speed range investigated. The location of the paddle with respect to the control hinge line had a large effect on the balancing action of the device. The paddle balances mounted forward of the hinge line showed material

reductions in the hinge-moment parameter,  $C_{h\delta}$ , throughout the speed range but little influence on  $C_{h\alpha}$ . At supersonic speeds, the balance effectiveness of the paddles increased with increasing Mach number. The paddle mounted behind the hinge line showed negligible effect on the hinge-moment characteristics at subsonic speeds; at low supersonic Mach numbers material reductions in  $C_{h\delta}$  were realized, but the balance effectiveness of the paddle decreased with increasing Mach number. Addition of the paddles resulted in large increases in the minimum drag coefficient.

3. The unshielded rectangular horn balances provided slight improvements in the pitching-moment effectiveness over the Mach number range tested. The 20.3-percent rectangular horn provided a large reduction in both hinge-moment parameters,  $C_{h\alpha}$  and  $C_{h\delta}$ , at supersonic speeds but resulted in highly overbalanced values of  $C_{h\alpha}$  at subsonic speeds. Decreasing the horn size to 6.4 percent resulted in reasonably good balance at subsonic speeds ( $C_{h\alpha} \approx 0$ ) but produced only small reductions in the hinge-moment parameters at supersonic speeds. The 5.5-percent triangular horn showed similar balance effectiveness, reducing  $C_{h\alpha}$  to approximately zero at subsonic speeds but decreasing only slightly the hinge-moment parameters at supersonic speeds.

4. The results obtained for a trailing-edge tab geared for equal and opposite deflection to that of the control surface showed that the tab was highly effective in reducing the values of  $C_{h\delta}$  at subsonic speeds but provided only small reductions in  $C_{h\delta}$  at supersonic speeds. A loss in control effectiveness occurred throughout the speed range due to deflecting the tab.

5. A comparison of the linear theory with the experimental values of the pitching-moment-effectiveness parameter and the hinge-moment parameters was made in the supersonic speed range for the unbalanced flap, the overhang balances, and the horn balances. The results showed that the theory predicted reasonably well the variation of the parameters with Mach number but not the absolute values.

Ames Aeronautical Laboratory,  
National Advisory Committee for Aeronautics,  
Moffett Field, Calif.

#### REFERENCES

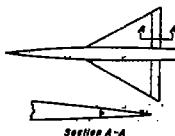
1. Frick, Charles W., and Olson, Robert N.: Flow Studies in the Asymmetric Adjustable Nozzle of the Ames 6- by 6-Foot Supersonic Wind Tunnel. NACA RM A9E24, 1949.

~~CONFIDENTIAL~~

2. Glauert, H.: Wind Tunnel Interference on Wings, Bodies, and Airscrews. R&M. No. 1566, British A.R.C., 1933.
3. Herriot, John G.: Blockage Corrections for Three-Dimensional Flow Closed-Throat Wind Tunnels, With Consideration of the Effect of Compressibility. NACA Rep. 995, 1950. (Supersedes NACA RM A7B28.)
4. Lessing, Henry C.: Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back  $63^{\circ}$  - Effect of Sideslip on Aerodynamic Characteristics at a Mach Number of 1.4 With the Wing Twisted and Cambered. NACA RM A50F09, 1950.
5. Perkins, Edward W.: Experimental Investigation of the Effects of Support Interference on the Drag of Bodies of Revolution at a Mach Number of 1.5. NACA TN 2292, 1951.
6. Hall, Charles F., and Heitmeyer, John C.: Aerodynamic Study of a Wing-Fuselage Combination Employing a Wing Swept Back  $63^{\circ}$  - Characteristics at Supersonic Speeds of a Model With the Wing Twisted and Cambered for Uniform Load. NACA RM A9J24, 1950.
7. Tucker, Warren A., and Nelson, Robert L.: Theoretical Characteristics in Supersonic Flow of Two Types of Control Surfaces on Triangular Wings. NACA Rep. 939, 1949. (Supersedes NACA TN 1660.)
8. Coale, Charles W.: Supersonic Characteristics of Rectangular Horn Balanced Ailerons. Douglas Rep. SM-13718, 1950.
9. Mueller, James N., and Czarnecki, K. R.: Preliminary Investigation at a Mach Number of 2.40 of the Effectiveness of Leading-Edge Balance on Flap-Type Controls. NACA RM L52F10, 1952.
10. Boyd, John W.: Aerodynamic Characteristics of Two 25-Percent-Area Trailing-Edge Flaps on an Aspect Ratio 2 Triangular Wing at Subsonic and Supersonic Speeds. NACA RM A52D01c, 1952.
11. Thomas, G. B.: Analysis of Supersonic Wind-Tunnel Tests of Balanced Aileron Configurations for the NIKE Guided Missile. Douglas Rep. SM-13796, 1950.

~~CONFIDENTIAL~~

TABLE I.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH AN UNBALANCED FLAP. DATA FOR TWO FLAPS.  $R = 4.4 \times 10^6$

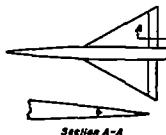
(a) Nominal  $\delta$ ,  $40^\circ$ 

$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	
0.60	-4.18	-0.111	0.0116	-0.024	-0.0290	3.94	0.90	-0.45	0.064	0.0085	-0.042	-0.0900	3.78	1.50	-0.52	-0.004	0.0148	-0.0310	-0.0779	3.76	
	-2.05	-0.019	.0085	-0.029	-0.0465	3.91		-0.57	.112	.0103	-0.044	-0.1060	3.74		-0.48	.040	.0152	-0.017	-0.1027	3.68	
	-1.46	.029	.0077	-0.032	-0.0565	3.89		1.09	.133	.0117	-0.045	-0.1060	3.74		1.01	.063	.0162	-0.020	-0.1151	3.65	
	-1.25	.052	.0078	-0.032	-0.0622	3.88		2.15	.179	.0153	-0.047	-0.1100	3.73		2.04	.106	.0191	-0.026	-0.1361	3.58	
	1.08	.094	.0091	-0.033	-0.0657	3.88		4.27	.289	.0273	-0.057	-0.1290	3.69		4.09	.190	.0284	-0.039	-0.1763	3.46	
	2.12	.116	.0105	-0.033	-0.0724	3.87		6.11	.412	.0492	-0.071	-0.1430	3.65		6.14	.275	.0432	-0.092	-0.2114	3.35	
	4.22	.161	.0135	-0.035	-0.0797	3.85		8.54	.533	.0818	-0.085	-0.1700	3.58		8.19	.397	.0640	-0.067	-0.2453	3.25	
	6.31	.232	.0225	-0.039	-0.0974	3.82	1.20	-4.11	-0.171	.0236	.010	-0.0668	3.86		10.25	.437	.0905	-0.076	-0.2616	3.14	
	8.42	.319	.0386	-0.045	-0.1130	3.79		-2.06	-0.071	.0163	.006	-0.0918	3.74		1.70	-4.10	-0.144	.0230	.012	.0068	4.02
10.53	.552	.0934	-0.050	-0.1537	3.72		-1.05	-0.022	.0145	.014	-0.1202	3.65		2.05	-0.066	.0162	.001	-0.0332	3.89		
12.43	.647	.1330	---	-0.1695	3.69		-2.2	.004	.0141	-0.017	-0.1331	3.62		-1.05	-0.028	.0148	-.005	-0.0520	3.84		
14.77	.774	.1916	.055	-0.1878	3.66		.18	.053	.0147	-0.024	-0.1615	3.54		.22	-.008	.0145	-.008	-0.0618	3.81		
16.88	.877	.2504	.055	-0.2034	3.63		1.01	.080	.0160	-0.029	-0.1707	3.51		.47	.033	.0150	-0.014	-0.0827	3.74		
17.94	.927	.2830	-0.053	-0.2132	3.61		2.04	.129	.0193	-0.036	-0.1918	3.45		1.00	.093	.0177	-0.017	-0.0938	3.71		
	2.27	-1.17	.0128	-0.025	-0.0340	3.92		4.09	.230	.0296	-0.053	-0.2313	3.34		2.03	.093	.0182	-0.022	-0.1142	3.65	
	-2.07	-0.17	.0085	-0.031	-0.0503	3.88		7.85	.424	.0677	-.086	-0.2982	3.15		4.08	.171	.0267	-.034	-0.1817	3.55	
	-0.99	.033	.0080	-0.034	-0.0631	3.85	1.30	-4.11	-0.164	.0257	.011	-0.0239	3.92		6.13	.246	.0403	-.045	-0.1872	3.42	
	-1.45	.058	.0083	-0.036	-0.0678	3.84		-2.06	-0.071	.0186	-.003	-0.0673	3.80		8.17	.322	.0592	-.055	-0.2203	3.32	
	.36	.102	.0098	-0.037	-0.0736	3.83		-1.05	.026	.0167	.009	-0.0913	3.73		10.23	.391	.0826	-.064	-0.2475	3.24	
	1.09	.125	.0112	-0.038	-0.0772	3.82		-0.06	.012	.0167	-.013	-0.1049	3.70		12.27	.448	.1082	-.073	-0.2748	3.16	
	2.14	.170	.0146	-0.046	-0.0865	3.80		-2.2	.002	.0164	-.013	-0.1330	3.62		1.90	-4.08	-0.131	.0223	.010	.0106	4.03
	4.25	.268	.0259	-0.048	-0.1051	3.76		.48	.045	.0169	-.019	-0.1294	3.62		-2.04	.061	.0162	.001	.0265	3.92	
	6.36	.376	.034	-0.056	-0.1231	3.72		1.01	.070	.0180	-.023	-0.1391	3.59		-1.04	-0.027	.0150	-.004	-0.0432	3.87	
	8.49	.491	.0730	-0.062	-0.1406	3.68		2.04	.116	.0210	-.030	-0.1622	3.52		-52	.009	.0147	-.007	-0.0520	3.84	
	10.60	.586	.1067	-0.059	-0.1774	3.60		4.09	.228	.0308	-.045	-0.2038	3.40		.47	.027	.0151	-.011	-0.0693	3.79	
	12.73	.686	.1523	-0.067	-0.2091	3.53		6.15	.304	.0471	-.029	-0.2437	3.28		.99	.046	.0177	-.014	-0.0769	3.76	
	14.83	.761	.1981	-0.063	-0.2259	3.49		8.21	.398	.0704	-.074	-0.2836	3.16		2.03	.082	.0179	-.019	-0.0965	3.71	
	16.95	.874	.2619	-0.071	-0.2381	3.47		9.03	.437	.0619	-.080	-0.3013	3.11		4.07	.150	.0254	-.028	-0.1304	3.61	
	0.90	-4.23	.121	.0137	-0.027	-0.0460	3.88	1.50	-4.10	-0.153	.0239	.012	-0.0660	3.98		6.11	.218	.0375	-.037	-0.1637	3.51
	-2.07	-0.16	.0086	-0.035	-0.0700	3.83		-2.05	-0.068	.0152	-.001	-0.0470	3.85		8.16	.266	.0543	-.046	-0.1934	3.42	
	-0.99	.037	.0081	-0.040	----	3.75		-1.05	-0.023	.0152	-.007	-0.0685	3.79		10.20	.349	.0752	-.054	-0.2225	3.33	
															12.25	.411	.1004	-.061	-0.2477	3.25	
															14.29	.471	.1298	-.067	-0.2755	3.17	

(b) Nominal  $\delta$ ,  $20^\circ$ 

$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	
0.60	-4.15	-0.148	0.0130	-0.009	0.0074	2.01	0.90	-0.50	0.018	0.0065	-0.021	-0.0361	1.91	1.50	-0.53	-0.014	0.0141	-0.004	-0.0306	1.90	
	-2.09	-0.057	.0090	-0.013	-0.0089	1.98		.53	.067	.0076	-.024	-0.0426	1.89		1.47	-0.028	0.0143	-.010	-0.0590	1.83	
	-1.03	-0.012	.0070	-0.015	-0.0178	1.96		1.07	.089	.0086	-.024	-0.0460	1.89		1.00	.051	.0152	-.013	-0.0641	1.80	
	-1.50	.010	.0070	-0.016	-0.0223	1.95		2.12	.140	.0118	-.028	-0.0558	1.86		2.04	.094	.0177	-.019	-0.0871	1.73	
	.51	.053	.0080	-0.018	-0.0297	1.94		4.24	.247	.0224	-.037	-0.0722	1.82		4.09	.179	.0263	-.034	-0.1287	1.60	
	1.04	.075	.0090	-0.018	-0.0357	1.93		6.37	.362	.0413	-.048	-0.0887	1.78		6.14	.264	.0405	-.045	-0.1694	1.49	
	2.10	.119	.0110	-0.020	-0.0431	1.92		8.50	.474	.0707	-.055	-0.1193	1.71		8.20	.349	.0611	-.057	-0.2003	1.38	
	4.19	.210	.0180	-0.024	-0.0580	1.89		1.20	-4.11	-0.187	.0237	.021	-0.0229	2.06		10.25	.426	.0867	-.069	-0.2370	1.27
	6.28	.308	.0330	-0.029	-0.0742	1.87		-2.05	.083	.0155	.005	-0.0184	1.94		1.70	-4.09	-0.152	.0230	.018	.0470	2.14
	8.39	.406	.0550	-0.033	-0.0891	1.84		-1.01	.039	.0130	-.002	-0.0422	1.88		-2.04	.076	.0159	.006	.0094	2.02	
	10.49	.512	.0860	-0.034	-0.1175	1.79		-0.95	.061	.0131	---	-0.0352	1.84		-1.00	-0.035	.0142	.001	.0086	1.97	
	12.61	.616	.1270	-0.033	-0.1353	1.76		.48	.035	.0133	-.013	-0.0617	1.76		-0.93	.016	.0139	-.002	-0.0222	1.93	
	14.72	.721	.1750	-0.036	-0.1532	1.73		1.00	.059	.0144	-.017	-0.0927	1.73		.47	.023	.0141	-.008	-0.0409	1.87	
	16.85	.841	.2370	-0.040	-0.1707	1.70		2.04	.118	.0172	-.023	-0.1101	1.68		1.00	.044	.0147	-.011	-0.0560	1.84	
	17.90	.891	.2680	-0.039	-0.1814	1.68		4.10	.210	.0265	-.040	-0.1569	1.55		2.03	.084	.0169	-.017	-0.0724	1.77	
	-4.18	-0.171	.0146	-0.008	0.035	2.00		6.15	.314	.0430	-.057	-0.1982	1.43		4.08	.151	.0249	-.028	-0.1108	1.66	
	-2.11	-0.057	.0067	-0.014	-0.0158	1.96		8.21	.419	.0675	-.074	-0.2413	1.31		6.13	.237	.0398	-.039	-0.1463	1.55	
	-1.04	-0.009	.0074	-0.017	-0.0248	1.94		8.94	.457	.0780	-.081	-0.2779	1.26		8.18	.321	.0562	-.049	-0.1812	1.44	
	-50	.014	.0072	-0.019	-0.0296	1.93		-1.00	.038	.0158	-.001	-0.0344	1.88		10.23	.381	.0790	-.059	-0.2076	1.36	
	.52	.060	.0080	-0.020	-0.0367	1.91		-0.95	.036	.0159	-.004	-0.0344	1.88		12.28	.452	.1070	-.068	-0.2416	1.26	
	2.11	.130	.0118	-0.023	-0.0497	1.89		.48	.031	.0158	-.011	-0.0364	1.81		-1.00	.033	.0145	0	.0035	2.01	
	4.22	.226	.0205	-0.029	-0.0653	1.85		1.03	.055	.0167	-.018	-0.0768	1.77		-0.93	.016	.0143	-.002	-0.044	1.98	
	6.34	.333</																			

TABLE I.- CONTINUED



Section A-A

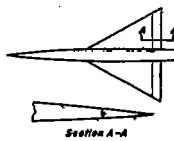
(c) Nominal  $\delta$ ,  $0^\circ$ 

M	a	C <sub>L</sub>	C <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	s	M	a	C <sub>L</sub>	C <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	s	M	a	C <sub>L</sub>	C <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	s
0.60	-4.17	-0.185	0.0177	0.007	0.036	0	0.50	8.45	0.395	0.0580	-0.022	-0.052	-0.2	1.50	2.02	0.081	0.0165	-0.013	0.048	-0.1
-2.06	-0.093	0.0102	0.002	0.019	0.010	0	10.29	.200	0.026	-0.027	-0.35	-1	4.08	.166	0.064	-0.026	-0.029	-0.026	-0.2	
-1.01	-0.049	0.0080	0	0.010	0	0	12.71	.608	1.377	-0.071	-1.04	-1	6.14	.293	0.0382	-0.039	-0.128	-0.020	-0.3	
-1.47	-0.027	0.0071	0	0.007	0	0	1.23	-1.10	-0.207	-0.008	0.066	-1	8.20	.157	0.0262	-0.020	-0.163	-0.020	-0.3	
-1.95	.013	0.0075	-0.003	-0.004	0	0	-2.00	-0.005	-0.005	0.013	0.041	-1	12.30	.497	0.151	-0.082	-0.200	-0.022	-0.3	
-0.98	.036	0.0077	-0.002	-0.007	0	0	-1.00	-0.026	-0.025	0.007	0.039	0	16.44	.648	1.944	-0.050	-0.329	-0.020	-0.3	
2.04	.078	0.0094	-0.004	-0.015	0	0	-1.47	-0.021	-0.029	0.004	0.039	0	17.45	.694	2.174	-0.093	-0.383	-0.020	-0.3	
4.15	.170	0.0104	-0.003	-0.014	0	0	-1.95	-0.017	-0.026	0.003	0.039	0	11.38	.574	1.821	-0.062	-0.276	-0.020	-0.3	
6.34	.266	0.0104	-0.014	-0.016	0	0	-2.03	-0.013	-0.026	0.003	0.039	0	16.44	.648	1.944	-0.050	-0.329	-0.020	-0.3	
8.35	.367	0.0190	-0.021	-0.021	0	0	-2.09	-0.011	-0.026	0.003	0.039	0	17.45	.694	2.174	-0.093	-0.383	-0.020	-0.3	
10.43	.467	0.0269	-0.021	-0.021	0	0	-2.09	-0.011	-0.026	0.003	0.039	0	11.38	.574	1.821	-0.062	-0.276	-0.020	-0.3	
12.52	.567	0.0310	-0.019	-0.017	0	0	-2.09	-0.011	-0.026	0.003	0.039	0	16.44	.648	1.944	-0.050	-0.329	-0.020	-0.3	
14.61	.667	0.0314	-0.014	-0.014	0	0	-2.09	-0.011	-0.026	0.003	0.039	0	17.45	.694	2.174	-0.093	-0.383	-0.020	-0.3	
16.70	.767	0.0314	-0.013	-0.013	0	0	-2.09	-0.011	-0.026	0.003	0.039	0	11.38	.574	1.821	-0.062	-0.276	-0.020	-0.3	
17.90	.867	0.0311	-0.013	-0.013	0	0	-2.09	-0.011	-0.026	0.003	0.039	0	16.44	.648	1.944	-0.050	-0.329	-0.020	-0.3	
0.80	-4.19	-1.191	0.0162	0.009	0.036	0	1.30	-1.11	-1.14	0.027	0.028	0.00	-2	1.70	-4.08	-1.16	0.028	0.024	0.073	-2
-2.08	-0.098	0.0099	0.004	0.019	0	0	-2.04	-0.028	-0.028	0.015	0.047	0	-2.03	-0.03	0.0161	0.012	0.036	0	-1	
-1.01	-0.050	0.0078	0.001	0.009	0	0	-1.00	-0.023	-0.029	0.019	0.023	0	-0.99	-0.023	0.0161	0.012	0.016	0	-1	
-1.47	-0.027	0.0072	0	0.006	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	-1.46	-0.028	0.0136	0.009	0.006	0	-1	
-1.95	.019	0.0073	-0.002	-0.004	0	0	-1.95	-0.028	-0.028	0.018	0.028	0	2.02	.074	0.028	-0.011	-0.043	-0.020	0	
1.00	.039	0.0078	-0.003	-0.008	0	0	-1.00	-0.028	-0.028	0.018	0.028	0	6.13	.229	0.030	-0.034	-0.120	-0.020	-0.3	
2.07	.086	0.0097	-0.005	-0.019	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	10.24	.377	0.074	-0.053	-0.182	-0.020	-0.3	
4.18	.182	0.0166	-0.012	-0.036	0	0	-1.47	-0.028	-0.028	0.018	0.028	0	12.89	.446	1.020	-0.068	-0.214	-0.020	-0.3	
6.31	.284	0.0116	-0.012	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	14.35	.515	1.377	-0.070	-0.247	-0.020	-0.3	
8.34	.384	0.0116	-0.012	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	16.40	.580	1.751	-0.072	-0.277	-0.020	-0.3	
10.43	.484	0.0166	-0.018	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	17.43	.604	1.963	-0.077	-0.299	-0.020	-0.3	
12.52	.584	0.0269	-0.023	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	12.89	.446	1.020	-0.068	-0.214	-0.020	-0.3	
14.61	.684	0.0310	-0.023	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	14.35	.515	1.377	-0.070	-0.247	-0.020	-0.3	
16.70	.784	0.0314	-0.023	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	16.40	.580	1.751	-0.072	-0.277	-0.020	-0.3	
17.90	.884	0.0314	-0.023	-0.043	0	0	-1.49	-0.028	-0.028	0.018	0.028	0	17.43	.604	1.963	-0.077	-0.299	-0.020	-0.3	
0.90	-4.22	-2.03	0.0175	.012	0.036	0	1.50	-1.11	-1.14	0.027	0.028	0.00	-2	2.00	-4.08	-1.14	0.024	0.019	0.065	-2
-2.10	-0.102	0.0092	0.005	0.017	0	0	-2.04	-0.028	-0.028	0.018	0.028	0	-2.03	-0.028	0.0147	0.010	0.036	0	-1	
-1.01	-0.042	0.0078	0.001	0.008	0	0	-2.03	-0.028	-0.028	0.018	0.028	0	-1.01	-0.028	0.0147	0.011	0.065	0	-1	
-1.48	-0.027	0.0068	-0.003	-0.005	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	-1.45	-0.028	0.0140	0.006	0.036	0	-1	
-1.95	.019	0.0071	-0.004	-0.005	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	-1.45	-0.028	0.0138	0.008	0.033	0	-1	
1.02	.093	0.0071	-0.004	-0.005	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	2.04	.057	0.028	-0.005	0.004	0	-1	
2.08	.193	0.0092	-0.008	-0.008	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	4.09	.114	0.028	-0.017	0.035	-0.020	0	
4.19	.293	0.0172	-0.015	-0.037	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	6.12	.205	0.043	-0.029	0.048	-0.020	0	
6.33	.393	0.0349	-0.023	-0.049	0	0	-1.45	-0.028	-0.028	0.018	0.028	0	8.17	.272	0.050	-0.041	0.136	-0.020	0	
0.80	-1.83	-2.36	0.0213	.027	0.040	-1.9	1.30	-1.10	-1.04	0.028	0.028	0.00	-2	1.70	-4.09	-1.16	0.028	0.024	0.073	-2
-1.13	-0.138	0.0118	.020	0.047	-1.9	0	-2.05	-0.028	-0.028	0.018	0.028	0	-2.04	-0.028	0.0147	0.017	0.065	-1.5		
-1.07	-0.091	0.0059	0.018	0.040	-2.0	0	-1.01	-0.028	-0.028	0.018	0.028	0	-1.01	-0.028	0.0147	0.011	0.065	-1.6		
-1.34	-0.058	0.0058	0.016	0.057	-2.0	0	-1.45	-0.028	-0.028	0.018	0.028	0	-1.45	-0.028	0.0140	0.006	0.036	-1.9		
-1.48	-0.023	0.0077	0.013	0.030	-2.0	0	-1.45	-0.028	-0.028	0.018	0.028	0	-1.45	-0.028	0.0138	0.008	0.033	-1.9		
1.02	.003	0.0078	0.013	0.026	-2.0	0	.58	-0.028	-0.028	0.018	0.028	0	2.04	.057	0.028	-0.005	0.004	0	-2	
2.09	.050	0.0091	0.011	0.026	-2.0	0	1.00	-0.028	-0.028	0.018	0.028	0	4.09	.114	0.028	-0.017	0.035	-0.020	0	
4.17	.152	0.0146	0.004	-0.002	-2.1	0	2.03	-0.028	-0.028	0.018	0.028	0	6.12	.221	0.039	-0.028	-0.074	-0.020	0	
6.35	.250	0.0212	-0.005	-0.033	-2.1	0	4.10	-0.028	-0.028	0.018	0.028	0	8.19	.296	0.052	-0.039	-0.109	-0.020	0	
8.40	.354	0.0212	-0.005	-0.033	-2.1	0	6.15	-0.028	-0.028	0.018	0.028	0	10.24	.367	0.072	-0.047	-0.138	-0.020	0	
10.51	.456	0.0265	-0.005	-0.035	-2.2	0	8.22	-0.028	-0.028	0.018	0.028	0	12.29	.437	0.109	-0.056	-0.173	-0.020	0	
12.63	.557	0.0214	-0.013	-0.041	-2.3	0	10.28	-0.028	-0.028	0.018	0.028	0	14.35	.505	0.136	-0.064	-0.204	-0.020	0	
14.75	.657	0.0302	-0.023	-0.047	-2.3	0	12.33	-0.028	-0.028	0.018	0.028	0	16.44	.568	0.169	-0.073	-0.230	-0.020	0	
15.88	.757	0.0261	-0.023	-0.047	-2.3	0	14.35	-0.028	-0.028	0.018	0.028	0	17.45	.631	0.201	-0.082	-0.256	-0.020	0	
17.94	.857	0.0273	-0.021	-0.047	-2.4	0	17.43	-0.028	-0.028	0.018	0.028	0	11.38	.574	0.234	-0.091	-0.281	-0.020	0	
0.90	-1.25	-2.25	0.0224	.034	.076	-1.9	1.50	-1.09	-1.05	0.028	0.028	0.00	-2	2.04	-4.08	-1.14	0.028	0.024	0.073	-2
-1.14	-1.46	0.0116	.024	.057	-1.9	0	10.29	-0.028	-0.028	0.018	0.028	0	-1.04	-0.028	0.0143	0.013	0.073	-2.1		
-1.08	-0.99	0.0048	0.020	0.051	-1.9	0	12.04	-0.028	-0.028	0.018	0.028	0	14.35	.182	0.052	-0.028	-0.074	-0.020	0	
-1.34	-0.71	0.007	0.020	0.046	-1.9	0	14.01	-0.028	-0.028	0.018	0.028	0	16.44	.252	0.082</					

CONFIDENTIAL

NACA RM A52L04

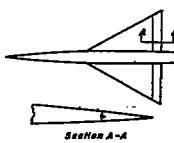
TABLE I.- CONTINUED

(e) Nominal  $\delta$ ,  $-4^\circ$ 

$K$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$	$K$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$
0.60	-1.22	-0.256	0.0225	0.037	0.087	-3.8	0.90	6.88	0.222	0.017	0.016	-3.9	1.50	4.10	0.145	0.0234	-0.018	0.006	-3.9
	-1.13	-0.165	0.135	0.02	0.070	-3.8	6.40	0.245	0.0494	0.012	-0.005	-4.0	6.15	2.31	0.038	-0.028	-0.034	-4.1	
	-1.05	-0.122	0.107	0.05	0.063	-3.8	10.33	0.335	0.018	0.004	-0.013	-4.0	8.21	3.14	0.046	-0.035	-0.071	-4.2	
	-0.95	-0.095	0.082	0.04	0.052	-3.8	1.20	-1.10	0.040	0.087	0.053	-3.3	10.36	3.93	0.0787	-0.047	-0.111	-4.3	
	-0.88	-0.079	0.064	0.03	0.042	-3.9	-1.03	-0.04	0.050	0.058	0.058	-3.4	14.37	5.46	1.430	-0.057	-0.150	-4.4	
	-0.82	-0.064	0.051	0.02	0.033	-3.9	-1.03	-0.04	0.050	0.058	0.058	-3.5	17.46	6.58	1.431	-0.074	-0.187	-4.5	
	-0.76	-0.058	0.045	0.02	0.028	-3.9	-1.03	-0.04	0.050	0.058	0.058	-3.6	-	-	-	-	-	-4.6	
	-0.71	-0.052	0.040	0.02	0.023	-3.9	-1.03	-0.04	0.050	0.058	0.058	-3.7	-	-	-	-	-	-4.7	
	-0.66	-0.048	0.035	0.02	0.021	-3.9	-1.03	-0.04	0.050	0.058	0.058	-3.8	-	-	-	-	-	-4.8	
	-0.62	-0.044	0.031	0.02	0.019	-3.9	-1.03	-0.04	0.050	0.058	0.058	-3.9	-	-	-	-	-	-4.9	
0.80	-1.25	-0.271	0.045	0.043	0.095	-3.7	1.30	-1.10	-0.216	0.320	0.046	-2.9	1.70	4.09	-0.176	0.0266	0.034	1.51	-3.5
	-2.15	-0.175	0.153	0.037	0.072	-3.8	2.04	-1.21	-0.220	0.311	0.047	-3.3	6.14	2.10	0.033	-0.022	-0.040	1.1	
	-1.10	-0.129	0.110	0.035	0.072	-3.8	1.01	-0.076	0.160	0.023	0.018	-3.3	8.20	2.05	0.0306	-0.038	-0.077	1.2	
	-1.07	-0.106	0.097	0.034	0.067	-3.8	-1.03	-0.076	0.170	0.021	0.018	-3.4	12.33	2.54	0.0728	-0.041	-0.108	1.3	
	-1.02	-0.088	0.083	0.033	0.065	-3.8	-1.03	-0.076	0.164	0.015	0.016	-3.5	14.34	2.61	0.1593	-0.049	-0.143	1.4	
	-0.98	-0.083	0.082	0.032	0.062	-3.8	-1.03	-0.076	0.164	0.015	0.016	-3.6	16.77	2.69	0.1618	-0.041	-0.168	1.5	
	-0.93	-0.076	0.076	0.031	0.059	-3.8	8.23	-0.076	0.164	0.013	0.016	-3.7	10.23	2.68	0.001	0.014	0.008	0.66	
	-0.88	-0.071	0.071	0.030	0.056	-3.8	10.23	-0.076	0.164	0.013	0.016	-3.8	12.28	2.74	0.001	0.014	0.008	0.67	
	-0.83	-0.067	0.067	0.029	0.053	-3.8	12.36	-0.076	0.164	0.013	0.016	-3.9	14.32	2.71	0.001	0.014	0.008	0.68	
	-0.79	-0.063	0.063	0.028	0.050	-3.8	14.32	-0.076	0.164	0.013	0.016	-3.9	16.72	2.78	0.001	0.014	0.008	0.69	
	-0.75	-0.060	0.060	0.027	0.047	-3.8	16.72	-0.076	0.164	0.013	0.016	-3.9	18.76	2.85	0.001	0.014	0.008	0.70	
0.90	-1.26	-0.289	0.080	0.056	0.117	-3.7	1.30	-1.10	-0.194	0.283	0.039	-1.73	1.90	4.08	-0.158	0.0261	0.038	1.30	-3.6
	-2.16	-0.188	0.150	0.045	0.099	-3.7	2.04	-0.084	0.169	0.025	0.017	-3.4	6.12	1.88	0.0220	-0.019	-0.066	1.1	
	-1.10	-0.159	0.113	0.042	0.091	-3.7	1.01	-0.066	0.169	0.020	0.016	-3.5	8.17	1.75	0.0217	-0.017	-0.061	1.2	
	-1.07	-0.144	0.099	0.041	0.089	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.6	10.28	1.80	0.0169	-0.014	-0.062	1.3	
	-1.02	-0.138	0.088	0.039	0.088	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.7	12.26	1.87	0.001	0.014	0.008	0.67	
	-0.98	-0.134	0.084	0.038	0.085	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.8	14.31	1.93	0.001	0.014	0.008	0.68	
	-0.93	-0.130	0.080	0.037	0.082	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.9	16.76	1.99	0.001	0.014	0.008	0.69	
	-0.88	-0.126	0.076	0.036	0.079	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.9	18.76	2.05	0.001	0.014	0.008	0.70	
	-0.83	-0.122	0.072	0.035	0.076	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.9	20.77	2.12	0.001	0.014	0.008	0.71	
	-0.79	-0.118	0.068	0.034	0.073	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.9	22.77	2.19	0.001	0.014	0.008	0.72	
	-0.75	-0.114	0.064	0.033	0.070	-3.7	-1.01	-0.066	0.170	0.019	0.016	-3.9	24.77	2.26	0.001	0.014	0.008	0.73	
0.60	-1.22	-0.333	0.0313	0.065	0.121	-7.8	0.90	6.30	0.158	0.0226	0.048	-0.115	1.50	2.09	0.043	0.0189	0.013	0.141	-7.6
	-2.16	-0.225	0.193	0.059	0.117	-7.8	6.82	0.263	0.042	0.042	0.101	-7.8	6.16	1.28	0.0345	-0.001	-0.097	-7.8	
	-1.13	-0.193	0.153	0.058	0.115	-7.8	10.21	0.375	0.0721	0.039	0.120	-7.8	8.21	2.13	0.0360	-0.012	-0.090	-7.9	
	-0.61	-0.171	0.136	0.058	0.113	-7.8	12.64	0.490	0.1147	0.038	0.138	-7.8	10.27	2.21	0.0336	-0.023	-0.103	-8.0	
	-0.53	-0.165	0.130	0.058	0.110	-7.8	14.07	0.605	0.1247	0.038	0.146	-7.8	12.33	2.29	0.0334	-0.033	-0.089	-8.1	
	-0.47	-0.160	0.126	0.057	0.107	-7.8	15.50	0.720	0.1347	0.038	0.154	-7.8	14.34	2.36	0.0332	-0.053	-0.070	-8.2	
	-0.42	-0.156	0.122	0.056	0.104	-7.8	16.93	0.835	0.1447	0.038	0.162	-7.8	16.77	2.43	0.0330	-0.073	-0.053	-8.3	
	-0.39	-0.153	0.120	0.055	0.102	-7.8	18.36	0.950	0.1547	0.038	0.170	-7.8	18.76	2.50	0.0328	-0.093	-0.033	-8.4	
	-0.36	-0.150	0.118	0.054	0.100	-7.8	19.79	1.065	0.1647	0.038	0.178	-7.8	20.77	2.57	0.0326	-0.113	-0.013	-8.5	
	-0.33	-0.147	0.116	0.053	0.098	-7.8	21.22	1.180	0.1747	0.038	0.186	-7.8	21.77	2.64	0.0324	-0.133	-0.013	-8.6	
	-0.30	-0.144	0.114	0.052	0.096	-7.8	22.65	1.295	0.1847	0.038	0.194	-7.8	22.77	2.71	0.0322	-0.153	-0.013	-8.7	
0.80	-1.25	-0.346	0.076	0.166	0.166	-7.7	1.30	-1.09	-0.247	0.374	0.061	-0.119	1.90	4.09	-0.194	0.0318	0.0227	0.144	-7.4
	-2.19	-0.242	0.166	0.139	0.177	-7.7	2.04	-0.084	0.164	0.044	0.177	-7.7	6.14	-0.084	0.0219	0.038	1.33	-7.5	
	-1.14	-0.199	0.173	0.166	0.179	-7.7	1.01	-0.066	0.164	0.044	0.184	-7.7	8.17	-0.084	0.0217	0.038	1.34	-7.6	
	-0.62	-0.178	0.158	0.166	0.171	-7.7	-1.01	-0.066	0.164	0.044	0.191	-7.7	10.28	-0.084	0.0215	0.038	1.35	-7.7	
	-0.53	-0.171	0.153	0.164	0.169	-7.7	-1.01	-0.066	0.164	0.044	0.198	-7.7	12.26	-0.084	0.0213	0.038	1.36	-7.8	
	-0.43	-0.169	0.151	0.163	0.168	-7.7	-1.01	-0.066	0.164	0.044	0.205	-7.7	14.34	-0.084	0.0211	0.038	1.37	-7.9	
	-0.40	-0.166	0.150	0.162	0.165	-7.7	-1.01	-0.066	0.164	0.044	0.212	-7.7	16.72	-0.084	0.0209	0.038	1.38	-8.0	
	-0.37	-0.164	0.148	0.161	0.163	-7.7	-1.01	-0.066	0.164	0.044	0.219	-7.7	18.76	-0.084	0.0207	0.038	1.39	-8.1	
	-0.34	-0.162	0.146	0.160	0.162	-7.7	-1.01	-0.066	0.164	0.044	0.226	-7.7	20.77	-0.084	0.0205	0.038	1.39	-8.2	
	-0.31	-0.160	0.144	0.159	0.161	-7.7	-1.01	-0.066	0.164	0.044	0.233	-7.7	22.77	-0.084	0.0203	0.038	1.39	-8.3	
	-0.28	-0.158	0.142	0.158	0.160	-7.7	-1.01	-0.066	0.164	0.044	0.240	-7.7	24.77	-0.084	0.0201	0.038	1.39	-8.4	
0.90	-1.26	-0.356	0.076	0.166	0.166	-7.8	1.30	-1.09	-0.247	0.374	0.061	-0.119	1.90	4.08	-0.173	0.0299	0.036	1.36	-7.4
	-2.19	-0.249	0.171	0.167	0.176	-7.8	2.04	-0.084	0.164	0.044	0.182	-7.8	6.15	-0.082	0.0218	0.036	1.37	-7.5	
	-1.14	-0.197	0.182	0.169	0.173	-7.8	1.01	-0.066	0.164	0.044	0.189	-7.8	8.17	-0.082	0.0216	0.036	1.38	-7.6	
	-0.61	-0.175	0.168	0.166	0.170	-7.8	-1.01	-0.066	0.164	0.044	0.196	-7.8	10.28	-0.082	0.0214	0.036	1.39	-7.	

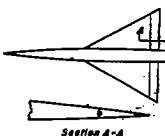
CONFIDENTIAL

TABLE I-- CONTINUED

(g) Nominal  $\delta$ ,  $-12^\circ$ 

M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	s	M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	s	M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	s
0.60	-1.30	-0.392	0.0439	0.094	0.212	-11.7	0.90	6.26	0.119	0.0273	0.067	0.212	-11.4	1.50	2.03	0.022	0.0223	0.007	0.434	-11.3
-2.20	-0.289	0.0268	0.095	0.181	-11.7		8.40	0.294	0.073	0.056	0.209	-11.5	4.16	1.16	0.0277	0.013	0.182	0.001	-11.3	
-1.16	-0.248	0.0219	0.094	0.181	-11.7		10.26	0.343	0.0783	0.056	0.209	-11.4	6.17	1.94	0.0376	0.001	0.135	0.001	-11.3	
-0.54	-0.217	0.0200	0.085	0.180	-11.7		12.50	0.371	0.1143	0.056	0.204	-11.7	8.22	2.79	0.0542	-0.012	0.091	0.001	-11.8	
-0.30	-0.194	0.0174	0.085	0.178	-11.7	1.21	-2.13	-0.205	0.036	0.068	0.103	-10.9	10.27	1.83	0.0767	-0.024	0.047	0.001	-11.9	
-0.28	-0.178	0.0160	0.085	0.174	-11.8		-0.38	-0.177	0.020	0.068	0.101	-10.9	12.15	1.44	0.1048	-0.035	0.002	0.002	-12.0	
1.26	-0.153	0.0140	0.063	0.163	-11.8		-0.52	-0.152	0.0273	0.076	0.205	-10.9	14.35	1.16	0.1378	-0.045	0.039	0.001	-12.1	
3.98	-0.031	0.0124	0.076	0.140	-11.8		-0.74	-0.103	0.0246	0.068	0.208	-11.0	16.44	0.99	0.1761	-0.033	0.076	0.001	-12.3	
6.15	-0.026	0.0110	0.075	0.122	-11.8		-0.93	-0.076	0.0239	0.068	0.209	-11.1	1.70	4.03	0.210	0.0380	0.078	0.267	-11.1	
8.27	-0.021	0.0100	0.075	0.122	-11.8		1.03	-0.051	0.0231	0.065	0.204	-11.0	2.08	2.08	0.205	0.0278	0.048	0.267	-11.2	
10.37	-0.017	0.0094	0.061	0.104	-11.9		2.09	-0.021	0.0211	0.065	0.204	-11.1	3.16	-0.073	0.0226	0.035	0.238	0.113	-11.3	
12.46	-0.015	0.0087	0.061	0.103	-12.0		4.17	-0.087	0.0269	0.035	0.204	-11.2	4.29	-0.035	0.0211	0.029	0.219	0.113	-11.4	
14.57	-0.013	0.0082	0.061	0.103	-12.0		6.23	-0.023	0.0219	0.019	0.204	-11.1	6.23	-0.023	0.0208	0.026	0.209	0.113	-11.5	
16.71	-0.012	0.0078	0.061	0.102	-12.0		8.24	-0.009	0.0264	0.014	0.204	-11.0	8.28	-0.027	0.0214	0.021	0.198	0.114	-11.6	
17.72	-0.011	0.0073	0.061	0.103	-12.0		10.30	-0.003	0.0264	0.011	0.201	-11.1	1.19	0.105	0.0261	0.009	0.145	0.115	-11.6	
0.80	-1.32	-0.404	0.084	0.251	-11.6		12.36	-0.023	0.0169	0.065	0.204	-11.8	6.15	1.28	0.0394	-0.002	0.101	0.117	-11.7	
-2.01	-0.282	0.0266	0.088	0.206	-11.6		14.43	-0.065	0.0151	0.065	0.207	-11.0	8.23	2.97	0.0501	-0.013	0.099	0.119	-11.9	
-1.16	-0.239	0.0249	0.087	0.209	-11.6	1.30	-1.05	-0.185	0.0339	0.068	0.208	-10.9	10.27	-0.32	0.0706	-0.023	0.039	0.120	-12.1	
-0.64	-0.218	0.0232	0.086	0.201	-11.6		2.03	-0.182	0.0287	0.068	0.207	-10.9	12.30	1.02	0.0933	-0.032	0.080	0.121	-12.1	
-0.41	-0.179	0.0198	0.086	0.193	-11.5		4.00	-0.138	0.0287	0.068	0.207	-10.9	14.31	1.08	0.1283	-0.040	0.078	0.122	-12.2	
93	-0.156	0.0186	0.085	0.193	-11.6		6.15	-0.096	0.0358	0.069	0.209	-11.5	16.41	0.53	0.1526	-0.045	0.061	0.123	-12.3	
1.93	-0.109	0.0167	0.082	0.191	-11.6		8.21	-0.051	0.0358	0.069	0.209	-11.5	17.41	0.57	0.1787	-0.048	0.059	0.123	-12.3	
4.06	-0.011	0.0152	0.073	0.171	-11.7		10.31	-0.014	0.0295	0.068	0.204	-11.6	1.19	0.105	0.0261	0.009	0.145	0.116	-12.6	
6.22	-0.088	0.0077	0.068	0.155	-11.7		12.36	-0.051	0.0295	0.067	0.209	-11.8	6.15	1.28	0.0394	-0.002	0.101	0.117	-12.7	
8.34	-0.033	0.0056	0.064	0.151	-11.8		14.43	-0.044	0.0291	0.068	0.206	-11.2	8.23	2.97	0.0501	-0.013	0.099	0.119	-12.8	
10.47	-0.009	0.0049	0.061	0.149	-11.8	1.30	2.07	-0.009	0.0281	0.064	0.204	-11.4	10.27	-0.32	0.0706	-0.023	0.039	0.120	-12.9	
12.59	-0.012	0.0071	0.061	0.147	-11.8		4.17	-0.087	0.0287	0.068	0.207	-11.2	14.30	1.08	0.1283	-0.040	0.078	0.121	-12.9	
14.70	-0.010	0.0071	0.061	0.147	-11.9		6.23	-0.042	0.0284	0.063	0.206	-11.2	16.41	0.53	0.1526	-0.045	0.061	0.123	-12.9	
16.75	-0.008	0.0065	0.061	0.146	-11.8		8.24	-0.087	0.0284	0.068	0.206	-11.8	17.41	0.57	0.1787	-0.048	0.059	0.123	-12.9	
17.81	-0.006	0.0109	0.061	0.147	-11.8		10.31	-0.027	0.0284	0.068	0.204	-11.8	1.19	0.105	0.0261	0.009	0.145	0.116	-12.6	
0.90	-1.32	-0.404	0.0907	0.107	0.260	-15.3	0.90	4.02	-0.033	0.0283	0.062	0.206	-15.3	1.50	4.16	0.089	0.0319	0.0065	0.261	-15.1
-2.21	-0.284	0.0266	0.094	0.279	-15.3		6.08	-0.065	0.0331	0.063	0.201	-15.3	6.17	1.74	0.0409	-0.013	0.212	0.153	-15.3	
-1.15	-0.239	0.0260	0.093	0.279	-15.3		8.16	-0.050	0.0330	0.063	0.206	-15.3	8.22	2.97	0.0563	0	0.165	0.154	-15.4	
-0.67	-0.211	0.0246	0.086	0.280	-15.3		10.26	-0.034	0.0282	0.065	0.200	-15.3	10.29	-0.32	0.0771	-0.013	0.183	0.156	-15.6	
-0.37	-0.190	0.0196	0.076	0.279	-15.3	1.20	-1.39	-0.234	0.0401	0.109	0.183	-14.6	12.33	-0.42	0.1043	-0.024	0.078	0.157	-15.7	
-0.27	-0.189	0.0197	0.076	0.279	-15.3		1.46	-0.165	0.0282	0.065	0.204	-14.6	14.33	0.47	0.1304	-0.033	0.036	0.158	-15.8	
1.82	-0.189	0.0203	0.076	0.280	-15.3		1.61	-0.165	0.0282	0.065	0.204	-14.6	16.41	0.78	0.1742	-0.042	0.005	0.160	-16.0	
3.98	-0.088	0.0151	0.074	0.280	-15.6		1.79	-0.193	0.0365	0.069	0.183	-14.6	17.47	0.67	0.1948	-0.046	0.020	0.160	-16.0	
6.09	-0.033	0.0161	0.074	0.280	-15.6		1.98	-0.116	0.0317	0.066	0.183	-14.7	1.70	-4.08	-0.228	0.0455	0.066	0.368	-14.8	
8.24	-0.019	0.0082	0.069	0.278	-15.7	1.30	2.04	-0.056	0.0299	0.074	0.183	-14.8	2.03	-0.151	0.0342	0.059	0.340	-14.9		
10.37	-0.011	0.0071	0.069	0.278	-15.7		4.17	-0.051	0.0282	0.075	0.183	-14.9	4.29	-0.32	0.0711	-0.027	0.028	0.161	-15.1	
12.46	-0.010	0.0073	0.069	0.278	-15.7		6.23	-0.161	0.0282	0.075	0.183	-14.9	12.30	-0.32	0.0871	-0.027	0.028	0.161	-15.1	
14.57	-0.009	0.0073	0.069	0.278	-15.8		8.23	-0.265	0.0267	0.080	0.203	-15.2	14.30	-0.21	0.1221	-0.032	0.028	0.162	-15.2	
16.67	-0.008	0.0073	0.069	0.278	-15.8		10.30	-0.374	0.0265	0.082	0.203	-15.3	16.35	-0.21	0.1448	-0.036	0.028	0.163	-15.3	
17.73	-0.007	0.0077	0.069	0.278	-15.8		12.36	-0.476	0.0265	0.082	0.203	-15.3	17.37	-0.21	0.1626	-0.037	0.028	0.162	-15.3	
0.80	-1.34	-0.436	0.110	0.301	-15.3	1.30	-2.03	-0.213	0.0429	0.066	0.186	-14.6	1.50	6.19	1.64	0.0382	0.007	0.174	0.159	-15.9
-2.23	-0.282	0.0381	0.104	0.299	-15.3		-1.00	-0.168	0.0382	0.079	0.180	-14.6	8.20	2.41	0.0520	-0.004	0.182	0.159	-15.9	
-1.15	-0.275	0.0325	0.102	0.299	-15.3		-1.46	-0.148	0.0361	0.068	0.182	-14.7	10.23	-0.32	0.0716	-0.014	0.086	0.159	-15.9	
-0.66	-0.232	0.0302	0.104	0.301	-15.3		1.01	-0.073	0.0329	0.065	0.182	-14.7	12.30	-0.32	0.0858	-0.033	0.083	0.161	-15.9	
-0.41	-0.192	0.0247	0.099	0.301	-15.3		2.06	-0.028	0.0316	0.066	0.182	-14.8	14.30	-0.32	0.1244	-0.031	0.087	0.161	-15.9	
1.91	-0.147	0.0223	0.097	0.299	-15.3		4.17	-0.071	0.0314	0.069	0.182	-15.0	16.41	0.60	0.1861	-0.037	0.083	0.161	-16.0	
4.03	-0.051	0.0196	0.091	0.299	-15.4		6.23	-0.174	0.0343	0.075	0.202	-15.1	17.43	0.77	0.1765	-0.040	0.084	0.161	-16.1	
6.19	-0.057	0.0238	0.094	0.298	-15.4		8.24	-0.267	0.0309	0.070	0.182	-15.3	1.70	-4.07	-0.202	0.0426	0.065	0.368	-15.2	
8.33	-0.163	0.0383	0.090	0.298	-15.5		10.30	-0.374	0.0304	0.075	0.182	-15.4	10.26	-0.32	0.0858	-0.037	0.085	0.161	-15.1	
10.45	-0.036	0.0361	0.091	0.298	-15.6		12.39	-0.477	0.0313	0.078	0.182	-15.5	12.36	-0.32	0.0858	-0.037	0.0			

TABLE I. - CONTINUED

(i) Nominal  $\delta$ ,  $-20^\circ$ 

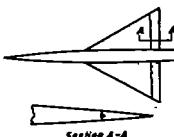
$X$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$
0.60	-4.28	-0.447	0.0610	0.117	0.317	-19.4	0.90	6.23	0.060	0.0350	0.093	0.332	-19.2	1.50	10.28	0.324	0.0797	-0.000	0.188	-19.4
-2.85	-3.86	0.045	1.14	.317	-19.4		8.38	.190	.0521	.078	.256		18.33	.406	.1056	.014	.140		-19.5	
-1.25	-3.22	0.041	1.13	.317	-19.4		10.51	.303	.0827	.073	.299		14.30	.481	.1364	.004	.094		-19.7	
-0.68	-2.74	0.037	1.13	.317	-19.4		1.20	1.01	-0.156	0.013	.108	.531	-18.4	15.44	.556	.1736	-.033	.099		-19.8
-0.24	-2.66	0.033	1.14	.321	-19.4		2.04	-.093	.0381	.093	.501		17.47	.591	.1937	-.036	.039		-19.8	
.77	-2.44	0.031	1.13	.312	-19.4															
1.82	-2.08	0.029	1.14	.312	-19.4															
3.90	-1.10	0.026	1.06	.266	-19.5															
6.02	-0.05	0.026	1.03	.270	-19.5															
8.22	-0.97	0.026	1.07	.247	-19.5															
10.33	-1.94	0.029	1.03	.249	-19.5															
12.43	-2.98	0.076	1.03	.253	-19.6															
14.53	-3.98	1.103	1.08	.253	-19.6															
16.63	-4.98	1.331	1.08	.253	-19.6															
17.70	-5.13	1.367	1.09	.253	-19.7	1.30	-.99	-.195	.0471	.099	.512		-18.5	1.70	1.407	-.244	.0546	.077	.421	-19.6
0.80	-4.36	-1.38	0.0634	1.80	.351	-19.2														
-2.25	-3.42	0.046	1.15	.345	-19.2															
-1.10	-3.00	0.046	1.13	.345	-19.2															
-0.67	-2.76	0.037	1.11	.345	-19.2															
.37	-2.88	0.037	1.11	.345	-19.2															
.90	-2.13	0.0318	1.10	.341	-19.2															
1.90	-1.70	0.0287	1.07	.330	-19.2															
4.01	-0.76	0.0247	1.07	.305	-19.3															
6.17	-0.31	0.0273	1.03	.280	-19.3															
8.32	-1.13	0.040	1.07	.260	-19.4															
10.44	-2.60	0.063	1.08	.223	-19.5															
12.56	-3.78	0.093	1.06	.202	-19.5	1.50	-2.00	-.194	.0456	.079	.458		-18.6	1.90	-1.00	-.144	.0389	.065	.384	-18.8
14.70	-4.88	1.382	1.07	.190	-19.5															
16.81	-5.75	1.847	1.06	.171	-19.6															
17.87	-6.07	2.214	1.06	.170	-19.6															
0.90	.38	-1.24	0.0421	.186	.455	-18.9														
.50	-1.24	0.0393	1.23	.449	-18.9															
1.21	-1.12	0.0355	1.19	.446	-18.9															
1.04	-0.68	0.0309	1.08	.383	-19.0															

(j) Nominal  $\delta$ ,  $-24^\circ$ 

$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$\delta$
0.60	-4.34	-0.464	0.0703	0.128	0.350	-23.4	1.20	2.03	0.028	0.0468	0.107	0.253	-22.5	1.50	14.39	0.459	0.1356	-0.024	0.235	-23.6
-2.85	-3.76	0.058	1.21	.344	-23.4		4.13	-.004	.0448	.082	.492		16.44	.534	.1726	-.023	.103		-23.7	
-1.21	-3.36	0.048	1.21	.345	-23.4		6.24	.106	.0522	.063	.425		17.47	.568	.1924	-.027	.085		-23.8	
-0.68	-3.18	0.045	1.22	.342	-23.4		8.30	.204	.0685	.047	.390									
-0.24	-2.78	0.0409	1.21	.343	-23.4		10.36	.319	.0915	.031	.365									
.77	-2.27	0.0387	1.20	.340	-23.5		12.38	.420	.1203	.017	.313									
1.81	-2.23	0.0321	1.18	.335	-23.5	1.50	-1.45	.524	.1592	.007	.269		1.70	-1.07	-.233	.0606	.083	.150	-.22.7	
3.00	-1.20	0.0295	1.10	.307	-23.5															
6.01	-0.04	0.0295	1.05	.297	-23.5															
8.21	.072	0.0265	1.01	.267	-23.6															
10.33	.183	0.024	1.01	.259	-23.6															
12.45	.292	0.019	1.08	.247	-23.6															
14.56	.395	1.169	1.09	.204	-23.6															
16.67	.495	1.591	1.09	.219	-23.7															
17.72	.594	1.841	1.03	.206	-23.7															
0.80	-1.21	-3.22	0.093	1.25	.355	-23.2														
-0.69	-3.00	0.0476	1.23	.366	-23.2															
-0.36	-2.61	0.030	1.23	.366	-23.2															
.08	-2.29	0.040	1.21	.369	-23.2															
1.88	-1.92	0.036	1.18	.378	-23.2															
3.99	-0.99	0.0320	1.15	.325	-23.3	1.50	-1.05	-.283	.0620	.091	.488		-22.6	1.90	-1.07	-.227	.0721	.071	.424	-22.8
6.19	.031	0.0335	1.03	.325	-23.3															
8.32	.130	0.0160	1.09	.269	-23.4															
10.45	.293	0.0521	1.03	.291	-23.5															
12.58	.371	1.023	.072	.224	-23.5															
14.73	.481	1.187	.059	.214	-23.6															
16.82	.572	1.886	.068	.195	-23.6															
17.89	.620	2.170	.064	.180	-23.6															
0.90	2.41	-1.17	0.0442	1.30	.458	-22.9														
3.94	-0.89	0.0391	1.19	.444	-23.0															
6.22	.041	0.0405	1.02	.377	-23.2															
8.42	.181	0.0572	0.98	.316	-23.3															

NACA

TABLE I.- CONCLUDED

(k) Nominal  $\delta$ ,  $-28^\circ$ 

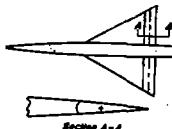
$\alpha$	$c_L$	$c_D$	$c_m$	$c_h$	$\delta$	$\alpha$	$c_L$	$c_D$	$c_m$	$c_h$	$\delta$	$\alpha$	$c_L$	$c_D$	$c_m$	$c_h$	$\delta$				
0.60	-1.37	-0.480	0.0798	0.131	0.390	-27.3	1.20	6.23	0.087	0.070	0.072	0.458	-26.7	1.70	-4.05	0.233	0.0647	0.088	0.468	-26.3	
	-2.28	-3.98	0.0631	0.129	3.98	-27.3		8.29	.194	.0738	.057	.438	-26.7		-2.02	-1.98	.0349	.062	.460	-26.3	
	-1.24	-3.60	0.0567	0.129	3.99	-27.3		10.36	.300	.0904	.041	.419	-26.8		-1.00	-1.50	.0201	.076	.446	-26.6	
	-1.11	-3.40	0.0537	0.129	3.91	-27.3		12.37	.404	.1201	.025	.369	-26.9		-4.49	-1.41	.0482	.073	.438	-26.6	
	-1.33	-3.00	0.0480	0.128	3.83	-27.3		14.44	.508	.1628	.015	.326	-27.0		1.00	-1.02	.0460	.067	.423	-26.7	
	-1.84	-2.91	0.0456	0.127	3.81	-27.3									2.04	-0.83	.0452	.065	.418	-26.7	
	1.85	-2.39	0.0416	0.126	3.72	-27.3	1.30	.80	-0.164	.0599	.107	.578	-26.3		4.14	-0.42	.0430	.077	.390	-26.3	
	3.92	-1.92	0.0361	0.125	3.56	-27.3		1.01	-1.53	.0933	.105	.575	-26.3		6.20	-1.24	.0422	.043	.350	-26.9	
	6.03	-0.63	0.0336	0.118	3.46	-27.3		2.03	-0.93	.0531	.090	.517	-26.5		8.25	-1.96	.0611	.020	.251	-27.2	
	8.17	.041	0.0353	0.112	3.31	-27.4		4.14	-0.14	.0508	.059	.436	-26.7		10.23	-2.73	.0789	.010	.226	-27.3	
	10.31	.149	0.0258	0.108	3.13	-27.4		6.23	.112	.0778	.055	.393	-26.8		12.31	.349	.1014	0	.188	-27.4	
	12.42	.263	0.0260	0.104	2.89	-27.4		8.29	.204	.0786	.043	.375	-26.9		14.35	.118	.1276	.010	.145	-27.5	
	14.53	.387	0.0259	0.103	2.71	-27.5		10.30	.298	.0929	.029	.340	-27.0		16.41	.184	.1602	.016	.128	-27.6	
	16.64	.497	0.0266	0.107	2.54	-27.5		12.35	.386	.1158	.016	.297	-27.1		17.43	.317	.1779	.028	.099	-27.8	
	17.70	.518	0.0264	0.108	2.39	-27.5		14.41	.470	.1508	.005	.254	-27.2								
								16.46	.559	.1913	.009	.204	-27.4								
								17.49	.597	.2127	-.013	.190	-27.4								
0.80	1.87	-21.7	0.0443	0.129	4.27	-27.0		1.50	-2.36	-.238	.097	.506	-26.3	1.90	-4.06	-2.39	.0653	.078	.455	-26.6	
	3.97	-1.26	0.0379	0.122	4.03	-27.0			-2.02	-.224	.0607	.095	.505	-26.5		-2.02	-1.70	.0525	.068	.429	-26.7
	6.11	.028	0.0382	0.115	3.76	-27.1			-1.00	-.187	.0567	.090	.495	-26.5		-4.99	-1.36	.0478	.062	.410	-26.7
	8.23	.098	0.0473	0.103	3.30	-27.2			-0.48	-.164	.0541	.087	.487	-26.5		-4.49	-1.18	.0459	.060	.402	-26.8
	10.34	.223	0.0693	0.091	2.94	-27.3			-0.49	-.124	.0503	.080	.474	-26.5		-9.44	-.083	.0430	.055	.380	-26.8
	12.46	.341	0.1025	0.081	2.78	-27.3			1.00	-.103	.0496	.077	.466	-26.6		1.98	-.065	.0418	.057	.369	-26.9
	14.58	.448	0.1402	0.079	2.63	-27.4			2.04	-.054	.0460	.067	.424	-26.7		6.18	-.029	.0402	.047	.346	-26.9
	16.61	.520	0.1865	0.076	2.30	-27.4			4.14	.038	.0450	.051	.398	-26.9		8.17	-.046	.0338	.035	.297	-27.1
	17.67	.600	0.2130	0.073	2.13	-27.7									10.21	.117	.0432	.024	.244	-27.2	
0.90	3.95	-1.19	0.0463	0.130	4.95	-26.8			6.22	.126	.0521	.038	.316	-27.0		12.26	.317	.0928	.001	.157	-27.2
	6.17	.012	0.0462	0.113	4.31	-26.9			8.27	.207	.0663	.027	.298	-27.1		14.30	.381	.1166	.008	.112	-27.6
	8.33	.153	0.0592	0.091	3.59	-27.1			10.27	.291	.0849	.014	.262	-27.2		16.34	.441	.1458	.013	.090	-27.7
	10.46	.285	0.0862	0.077	3.21	-27.2			12.32	.372	.1094	.003	.230	-27.3		17.37	.472	.1626	.015	.079	-27.7
1.20	2.32	-.126	0.0542	0.114	5.94	-26.3			14.38	.448	.1377	-.008	.181	-27.4							
	4.12	-.028	0.0515	0.092	5.21	-26.5			16.43	.523	.1739	-.017	.150	-27.5							
								17.67	.557	.1961	---	.139	-27.5								

CONFIDENTIAL

NACA

CONFIDENTIAL

TABLE II.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED  
WITH A 50-PERCENT BALANCE FLAP (TRUE CONTOUR WING PROFILE; ROUND  
NOSE FLAP). DATA FOR TWO FLAPS.  $R = 4.4 \times 10^6$

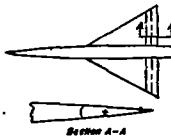
(a) Nominal  $\delta$ ,  $2^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	
0.60	-1.18	-0.197	0.0147	-0.005	0.011	2.1	0.50	8.55	0.495	0.0386	-0.046	-0.076	2.0	1.50	10.33	0.430	0.0820	-0.059	-0.192	1.9	
	-2.10	-0.067	0.006	-0.009	0.001	2.1		10.77	.578	0.1089	-0.050	-0.113	2.0		12.39	.510	0.1008	-0.080	-0.224	1.9	
-1.04	-0.032	0.006	-0.018	-0.001	2.1									1.50	12.39	.510	0.1008	-0.080	-0.224	1.9	
-1.20	0	0.008	-0.018	-0.003	2.1		1.50	-1.15	-1.188	0.0243	0.021	0.013	2.1		16.26	.661	0.0112	-0.098	-0.281	1.8	
-1.51	-0.053	0.005	-0.014	-0.004	2.1			-2.05	-0.057	0.0242	-0.008	-0.040	2.0		17.56	.696	0.0145	-0.103	-0.304	1.8	
1.00	-0.016	0.005	-0.016	-0.003	2.1				-1.59	-0.013	0.0182	-0.005	-0.019	2.0							
2.16	-0.116	0.016	-0.016	-0.003	2.1									1.50	-1.13	-1.18	0.036	0.018	0.030	2.1	
4.21	-0.064	0.018	-0.021	-0.019	2.0										-2.07	-0.78	0.0163	0.008	0.003	2.1	
6.31	-0.300	0.038	-0.025	-0.020	2.0										-1.02	-0.34	0.0159	0	-0.119	2.0	
8.42	-0.07	0.056	-0.031	-0.020	2.0										-1.23	-0.23	0.0141	0.008	-0.027	2.0	
10.53	-0.029	0.061	-0.039	-0.020	2.0										-1.23	-0.23	0.0141	0.008	-0.027	2.0	
12.65	-0.05	0.079	-0.056	-0.020	2.0										1.02	-0.45	0.0148	0.008	-0.025	2.0	
14.79	-0.118	0.078	-0.067	-0.020	2.0										2.07	-0.95	0.0170	0.011	-0.070	2.0	
16.93	-0.046	0.046	-0.035	-0.020	2.0										4.13	-1.62	0.0281	-0.059	-0.108	2.0	
18.00	-0.008	0.076	-0.036	-0.020	2.0										6.18	-2.01	0.0356	-0.040	-0.134	1.9	
															8.26	-3.17	0.0369	-0.050	-0.163	1.9	
															10.41	-3.82	0.0368	-0.053	-0.186	1.9	
															12.56	-4.36	0.0379	-0.058	-0.210	1.9	
															14.71	-4.87	0.0371	-0.067	-0.236	1.9	
															16.86	-5.39	0.0378	-0.061	-0.263	1.9	
															17.96	-5.96	0.0370	-0.064	-0.276	1.8	
0.80	-4.22	-0.163	0.0161	-0.003	0.007	2.1		-1.15	-1.15	0.0270	0.028	0.004	2.1		1.50	-1.11	-1.16	0.0269	0.019	0.03	2.0
4.13	-0.072	0.006	-0.009	0.000	2.1		-4.06	-0.065	0.0268	-0.005	-0.005	2.0			-2.06	-0.66	0.0177	0.009	0.011	2.0	
-4.05	-0.023	0.005	-0.012	-0.002	2.1		-1.03	-0.039	0.0265	-0.004	-0.004	2.0			-1.02	-0.31	0.0161	0	-0.005	1.9	
-1.22	-0.003	0.003	-0.011	-0.001	2.1										-1.23	-0.34	0.0139	0.003	-0.018	1.9	
-2.33	-0.045	0.006	-0.016	-0.003	2.1										-1.23	-0.34	0.0138	-0.007	-0.027	1.9	
1.07	0.071	0.008	-0.016	-0.003	2.1			1.03	0.056	0.0173	-0.015	-0.072	2.0		1.50	-1.11	-1.16	0.0263	0.019	0.03	2.0
4.26	-0.216	0.080	-0.025	-0.010	2.0			8.07	-1.01	0.0197	-0.042	-0.090	2.0		1.50	-1.11	-1.16	0.0269	0.019	0.03	2.0
6.37	-0.384	0.066	-0.038	-0.020	2.0			9.13	-1.94	0.0285	-0.036	-0.129	2.0			-2.06	-0.66	0.0177	0.009	0.011	2.0
8.47	-0.245	0.056	-0.038	-0.021	2.0			6.21	-1.90	0.0264	-0.041	-0.158	2.0			-1.02	-0.31	0.0161	0	-0.005	1.9
10.53	-0.236	0.050	-0.038	-0.021	2.0			8.26	-1.91	0.0279	-0.048	-0.198	2.0			-1.23	-0.34	0.0139	0.003	-0.018	1.9
12.65	-0.236	0.050	-0.038	-0.021	2.0			10.29	-1.89	0.0268	-0.048	-0.225	2.0			-1.23	-0.34	0.0138	-0.007	-0.027	1.9
14.79	-0.173	0.191	-0.081	-0.085	2.0			11.49	-1.87	0.0262	-0.048	-0.225	2.0			1.02	-0.31	0.0143	-0.010	-0.035	1.9
17.03	-0.048	0.260	-0.049	-0.099	2.0			12.50	-1.86	0.0278	-0.048	-0.225	2.0			-1.23	-0.34	0.0139	-0.008	-0.026	1.9
18.14	-0.04	0.307	-0.063	-0.116	2.0			16.55	-1.79	0.0271	-0.048	-0.219	2.0			6.11	-2.13	0.0283	-0.034	-0.110	1.9
															8.16	-2.60	0.0254	-0.048	-0.137	1.9	
															10.21	-3.14	0.0274	-0.048	-0.159	1.9	
															12.27	-4.10	0.0262	-0.056	-0.188	1.7	
															13.38	-4.72	0.1253	-0.063	-0.212	1.7	
															15.37	-5.23	0.1534	-0.066	-0.237	1.7	
															17.40	-5.63	0.1563	-0.063	-0.249	1.7	
0.90	-4.25	-0.177	0.070	-0.001	0.018	2.1		-1.15	-1.15	0.0273	0.029	0.038	2.1								
4.15	-0.074	0.004	-0.009	0.011	2.1		-4.08	-0.076	0.0269	-0.006	0.001	2.1									
-1.05	-0.028	0.005	-0.013	-0.003	2.1		-1.03	-0.036	0.0264	-0.013	0.003	2.0									
-2.33	-0.042	0.008	-0.018	-0.003	2.1		-1.33	-0.032	0.0263	-0.013	0.003	2.0									
1.08	0.076	0.009	-0.020	-0.007	2.1			1.03	0.056	0.0262	-0.013	0.006	2.0								
2.15	-0.126	0.117	-0.023	-0.021	2.1			4.18	-1.83	0.0263	-0.023	-0.072	2.0								
4.26	-0.226	0.213	-0.030	-0.020	2.0			8.26	-1.90	0.0263	-0.023	-0.125	2.0								
6.40	-0.338	0.084	-0.035	-0.027	2.0																

(b) Nominal  $\delta$ ,  $0^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$
0.60	-4.22	-0.194	0.0166	0.011	0.018	0	0.90	6.37	0.293	0.0338	-0.018	-0.093	0	1.50	1.14	0.16	0.0321	-0.025	-0.060	0
-4.18	-0.109	0.016	0.007	0.001	0	0	8.26	8.56	0.410	0.0411	-0.023	-0.071	0	6.21	8.43	0.408	0.031	-0.027	0	
-1.05	-0.029	0.007	0.002	0.000	0	0	10.69	7.91	0.1010	0.0356	-0.003	-0.100	0	8.26	10.43	0.392	0.029	-0.021	-1	
-1.20	-0.038	0.003	0.002	-0.000	0	0								10.74	10.43	0.396	0.029	-0.020	-1	
1.08	0.028	0.002	0.002	0.000	0	0								12.41	10.43	0.391	0.027	-0.018	-1	
2.08	-0.072	0.008	0.002	-0.003	0	0								14.46	10.43	0.381	0.021	-0.011	-1	
4.19	-0.162	0.027	0.007	-0.013	0	0								16.25	10.43	0.374	0.019	-0.009	-1	
6.29	-0.277	0.077	0.008	-0.023	0	0								17.79	10.43	0.363	0.013	-0.007	-1	
8.40	-0.350	0.045	0.013	-0.024	0	0								2.07	8.48	0.364	0.013	0.007	0	
10.53	-0.299	0.104	0.013	-0.024	0	0								4.13	10.43	0.353	0.012	0.006	0	
12.65	-0.194	0.124	0.013	-0.024	0	0								6.19	10.43	0.346	0.013	0.006	0	
14.79	-0.056	0.123	0.013	-0.024	0	0								8.48	10.43	0.341	0.014	0.006	0	
17.03	-0.022	0.123	0.013	-0.024	0	0								10.26	10.43	0.335	0.014	0.006	0	
17.96	-0.021																			

TABLE II.- CONTINUED

(c) Nominal  $\delta$ ,  $-2^\circ$ 

$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$
0.60	-4.25	-0.238	0.0212	0.027	0.010	-1.8	0.90	6.34	0.284	0.0286	0.008	-0.048	-2.0	1.50	2.07	0.068	0.0181	0.009	0.019	-1.8
-2.15	-1.145	0.0131	0.023	0.005	-1.9		8.47	-0.348	-0.051	0.004	-0.074	-2.0	4.13	1.58	0.023	-0.018	-0.015	-0.015	-1.9	
-1.11	-1.03	0.0110	0.022	-0.005	-1.9		10.61	-0.352	-0.059	0.001	-0.093	-2.0	6.20	2.02	0.029	-0.031	-0.048	-1.9		
-2.5	-0.080	0.0101	0.021	-0.005	-1.9		12.73	-0.365	-0.106	-0.010	-0.115	-2.0	8.27	2.38	0.076	-0.042	-0.077	-1.9		
-1.4	-0.050	0.0092	0.019	-0.005	-1.9		1.20	-4.14	-0.231	0.028	0.015	1.16	-1.8	10.33	1.08	0.035	-0.024	-0.077	-1.9	
-2.7	-0.022	0.0091	0.019	-0.005	-1.9		2.09	-0.09	-0.159	0.017	0.011	1.21	-1.9	12.40	1.87	0.115	-0.065	-0.138	-2.0	
2.05	-0.128	0.0099	0.017	-0.005	-1.9		1.04	-0.07	-0.179	0.022	0.016	1.06	-1.9	14.47	2.65	0.151	-0.072	-0.169	-2.0	
1.18	-0.118	0.0137	0.012	-0.013	-1.9		1.18	-0.05	-0.153	0.011	0.018	0.96	-1.9	15.53	0.60	0.190	-0.083	-0.193	-2.0	
6.26	-0.216	0.0828	0.007	0.018	-1.9		1.49	-0.07	-0.154	0.016	0.010	1.49	-1.9	17.48	0.77	0.155	-0.086	-0.208	-2.0	
10.49	-0.317	0.0738	0.003	0.020	-1.9		1.04	-0.02	-0.167	0.005	0.005	1.05	-1.9	1.70	-4.13	-0.171	0.074	0.030	-1.8	
12.29	-0.321	0.1065	0.003	0.020	-1.9		6.21	-0.76	-0.010	-0.034	0.022	1.04	-1.9	2.07	-0.07	-0.093	0.018	0.018	-1.8	
14.71	-0.320	0.1048	0.003	0.020	-1.9		8.29	-0.68	-0.058	0.050	0.009	0.98	-2.0	3.21	-0.51	0.007	0.019	0.005	-1.8	
16.86	-0.758	0.2135	-0.003	-0.027	-1.9		10.36	-0.58	-0.019	-0.054	0.009	0.98	-2.0	1.03	-0.08	0.019	0.005	0.005	-1.8	
17.92	-0.113	0.2462	-0.003	-0.033	-1.9		1.16	-0.59	-0.156	-0.138	-0.081	1.15	-2.1	2.07	-0.065	0.016	0.001	0.001	-1.8	
0.80	-4.29	-0.250	0.0235	0.033	.007	-2.0	14.53	-0.54	-0.09	-0.027	0.026	1.11	-1.7	6.19	2.22	0.363	0.085	0.168	-1.9	
-2.17	-1.153	0.0143	0.026	-0.010	-2.0		2.08	-0.08	-0.119	0.027	0.026	1.11	-1.8	10.31	3.70	0.767	-0.046	0.099	-1.9	
-1.12	-1.08	0.0113	0.026	-0.010	-2.0		1.30	-4.15	-0.213	0.028	0.014	1.11	-1.7	12.27	1.42	1.039	-0.056	0.123	-2.0	
-2.59	-0.084	0.0109	0.025	-0.011	-2.0		1.05	-0.07	-0.170	0.016	0.014	1.04	-1.8	14.43	3.11	1.372	-0.064	0.151	-2.0	
2.01	0.033	0.0099	0.015	-0.013	-2.0		2.51	0	0.018	0.018	0.006	0.62	-1.8	17.53	0.610	1.997	-0.071	0.185	-2.0	
4.22	-0.129	0.0147	0.012	-0.016	-2.0		1.04	-0.04	-0.187	0.004	0.003	0.93	-1.8	1.01	-0.085	0.017	0.008	0.047	-1.9	
6.31	-0.233	0.0270	0.006	0.019	-2.0		2.07	-0.07	-0.206	0.003	0.003	0.91	-1.8	2.06	-0.059	0.017	0.005	0.033	-1.9	
8.14	-0.342	0.0508	0.003	0.022	-2.0		4.14	-0.163	-0.277	0.018	0.006	1.05	-1.8	1.01	-0.023	0.016	0.001	0.005	-1.9	
10.37	-0.440	0.0619	-0.001	-0.062	-2.0		6.21	-0.29	-0.014	-0.032	-0.032	0.91	-1.8	8.23	-0.267	0.054	-0.032	0.066	-2.0	
12.69	-0.542	0.120	-0.002	-0.063	-2.0		8.27	-0.32	-0.060	-0.045	-0.074	1.04	-1.8	10.29	3.33	0.709	-0.039	0.089	-2.0	
14.73	-0.641	0.1673	-0.003	-0.063	-2.0		10.35	-0.38	-0.091	-0.059	-0.111	1.11	-1.9	12.33	3.92	0.952	-0.046	0.109	-2.0	
16.97	-0.756	0.2288	-0.012	-0.069	-2.0		12.42	-0.38	-0.126	-0.072	-0.145	1.25	-2.0	1.01	-0.023	0.016	0.001	0.005	-1.9	
18.03	-0.801	0.2511	-0.013	-0.069	-2.0		1.03	-0.35	-0.148	-0.097	-0.171	1.11	-1.9	8.18	2.00	0.347	-0.028	0.042	-2.0	
0.90	-4.29	-0.263	0.0251	0.040	.006	-2.0	15.26	-0.71	-0.216	-0.053	-0.207	2.00	-2.0	1.01	-0.059	0.017	-0.005	0.023	-1.9	
-2.18	-1.165	0.0151	0.035	-0.003	-2.0		17.59	-0.71	-0.241	-0.058	-0.218	2.00	-2.0	8.23	2.67	0.504	-0.032	0.066	-2.0	
-1.11	-1.115	0.0117	0.033	-0.003	-2.0		1.50	-4.14	-0.191	0.055	0.035	1.24	-1.8	12.33	3.92	0.952	-0.046	0.109	-2.0	
-2.59	-0.093	0.0107	0.032	-0.010	-2.0		-0.05	-0.060	0.019	0.013	0.074	-1.8		1.00	-0.080	0.018	0.001	0.005	-1.9	
0.5	-0.146	0.0096	0.029	-0.015	-2.0		-0.50	-0.037	0.016	0.011	0.064	-1.8		2.07	-0.059	0.017	0.005	0.033	-1.9	
1.00	-0.080	0.0098	0.027	-0.018	-2.0		-0.50	-0.040	0.016	0.010	0.065	-1.8		1.01	-0.023	0.016	0.001	0.005	-1.9	
2.07	0.033	0.0098	0.023	-0.014	-2.0		1.02	-0.027	0.016	0.010	0.037	-1.8		17.49	-0.59	1.776	-0.057	0.161	2.1	

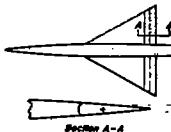
(d) Nominal  $\delta$ ,  $-4^\circ$ 

$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	
0.60	-4.27	-0.269	0.0243	0.043	0.003	-3.9	0.90	6.35	0.207	0.0986	0.089	-0.033	-3.9	1.50	2.07	0.061	0.0189	0.002	0.056	-3.8	
-2.16	-1.161	0.0153	0.039	-0.006	-3.9		8.45	-0.304	-0.013	0.027	0.026	-3.9		4.14	1.17	0.024	-0.012	0.019	-3.8		
-1.13	-1.138	0.0124	0.053	-0.012	-3.9		10.52	-0.404	-0.023	0.023	0.026	-3.9		6.20	2.33	0.0378	-0.008	0.011	-3.9		
-0.60	-0.115	0.0113	0.037	-0.013	-3.9		12.73	-0.502	-0.125	0.018	0.015	-3.9		8.26	3.17	0.056	-0.036	0.042	-3.9		
-1.39	-0.073	0.0096	0.036	-0.014	-3.9		1.20	-4.15	-0.247	0.034	0.018	1.09	-3.7	10.33	1.39	0.051	-0.047	0.073	-3.9		
-0.93	-0.021	0.0092	0.035	-0.015	-3.9		2.08	-0.08	-0.144	0.022	0.016	1.08	-3.7	12.40	1.47	0.122	-0.058	0.104	-3.9		
2.00	-0.003	0.0094	0.033	-0.017	-3.9		1.04	-0.09	-0.161	0.019	0.013	1.08	-3.7	14.46	2.45	0.180	-0.055	0.133	-4.0		
4.16	-0.169	0.0214	0.029	-0.022	-3.9		1.04	-0.08	-0.169	0.018	0.013	1.08	-3.7	15.52	0.60	1.095	-0.076	0.160	-4.0		
6.27	-0.268	0.0203	0.028	-0.028	-3.9		1.04	-0.08	-0.169	0.018	0.013	1.08	-3.7	17.56	0.665	2.122	-0.079	0.175	-4.0		
8.15	-0.367	0.0403	0.019	-0.030	-3.9		1.04	-0.07	-0.172	0.018	0.013	1.08	-3.6	1.70	-4.13	-0.177	0.035	1.36	-3.7		
10.46	-0.462	0.0583	0.018	-0.030	-3.9		2.10	-0.08	-0.182	0.018	0.013	1.08	-3.6	2.07	-0.07	-0.099	0.0176	0.018	-0.01	-3.8	
12.59	-0.569	0.1038	0.018	-0.030	-3.9		4.15	-0.18	-0.206	0.007	0.003	1.08	-3.6	1.04	-0.04	-0.039	0.0168	0.015	-0.003	-3.8	
14.71	-0.669	0.1965	0.016	-0.030	-3.9		6.21	-0.26	-0.203	0.023	0.013	1.08	-3.6	16.71	0.76	0.003	0.006	0.003	-0.003	-3.8	
16.69	-0.767	0.2063	0.016	-0.030	-3.9		8.29	-0.36	-0.202	0.023	0.013	1.08	-3.6	1.02	-0.03	-0.02	0.003	0.006	-0.003	-3.8	
17.92	-0.767	0.2360	0.016	-0.032	-3.9		10.37	-0.46	-0.239	0.024	0.013	1.08	-3.6	1.03	-0.02	-0.02	0.003	0.006	-0.003	-3.8	
0.80	-4.32	-0.269	0.0261	0.051	.007	-3.9	12.46	-0.56	-0.247	0.044	0.024	1.08	-3.7	1.03	-0.01	-0.029	0.0176	0.018	-0.001	-3.8	
-2.19	-1.191	0.0173	0.046	-0.033	-3.9		1.04	-0.08	-0.237	0.034	0.024	1.08	-3.7	12.37	1.37	0.024	-0.012	0.008	-3.8		
-1.14	-1.147	0.0150	0.045	-0.034	-3.9		1.04	-0.08	-0.237	0.034	0.024										

CONFIDENTIAL

NACA RM A52L04

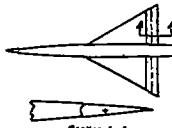
TABLE II.- CONTINUED

(e) Nominal  $\delta$ ,  $-80^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_b$	$\delta$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_b$	$\delta$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_b$	$\delta$
0.60	-4.32	-0.332	0.0358	0.067	-0.001	-7.9	0.90	8.44	0.273	0.0596	0.049	0.059	-7.8	1.50	2.10	0.040	0.0239	0.015	0.136	-7.7
-2.22	-2.15	0.239	0.059	-0.018	-7.9	10.60	3.77	0.029	0.15	0.053	-0.18	-7.8	4.14	1.25	0.059	0	.097	-7.8		
-1.17	-2.02	0.026	0.065	-0.017	-7.9	12.72	4.76	1.024	0.03	0.088	-7.8	6.20	2.12	0.040	-0.013	.099	-7.8			
-6.69	-1.82	0.039	0.064	-0.019	-7.9	1.20	-4.14	-0.281	0.014	0.080	0.268	-7.6	8.27	2.95	0.078	-0.024	.087	-7.8		
-3.3	-1.14	0.077	0.053	-0.008	-7.9	2.07	-1.79	0.020	0.053	0.295	-7.7	10.34	3.50	0.082	-0.036	-0.000	-7.9			
.66	-1.19	0.123	0.052	-0.030	-7.9	1.04	-1.29	0.026	0.059	0.295	-7.7	12.39	4.59	1.117	-0.047	-0.032	-7.9			
1.89	-0.75	0.139	0.060	-0.012	-7.9	-51	-1.03	0.070	0.051	0.248	-7.7	14.46	2.37	1.069	-0.071	-0.063	-7.9			
4.08	-0.19	0.139	0.056	-0.036	-7.9	4.6	-0.95	0.056	0.044	0.238	-7.7	16.54	6.12	1.077	-0.084	-0.091	-7.9			
6.21	-1.11	0.089	0.052	-0.042	-7.9	99	-0.08	0.027	0.040	0.228	-7.7	17.37	6.66	2.059	-0.068	-0.105	-7.9			
6.33	-2.15	0.036	0.048	-0.046	-7.9	2.05	0.05	0.021	0.031	0.199	-7.7	1.70	-4.13	-1.94	0.028	0.046	.203	-7.7		
10.45	-3.27	0.590	0.047	-0.060	-7.9	4.18	1.82	0.006	0.13	0.157	-7.7	-2.05	1.16	0.059	0.034	.174	-7.7			
12.55	-1.62	0.092	0.046	-0.066	-7.9	6.22	2.22	0.032	0.003	0.122	-7.8	-1.04	0.78	0.029	0.089	.164	-7.8			
14.65	-3.35	1.360	0.013	-0.059	-7.9	8.30	2.73	0.032	0.003	0.122	-7.8	-5.93	0.57	0.021	0.089	.158	-7.8			
16.75	-6.45	1.860	0.044	-0.075	-7.9	10.38	1.69	0.054	0.035	0.050	-7.8	1.03	0.01	0.029	0.016	.109	-7.8			
17.85	-7.15	2.222	0.040	-0.079	-7.9	12.46	5.62	1.345	0.015	0.15	-7.8	2.09	0.42	0.021	0.10	.111	-7.8			
0.80	-4.38	-3.15	0.091	0.067	.030	-7.8	1.30	-4.14	-2.16	0.0436	0.066	0.264	-7.6	6.29	1.97	0.038	0.13	.043	-7.8	
-2.41	-2.21	0.076	0.053	-0.032	-7.8	16.59	-	-	-	0.010	0.035	-7.9	8.31	2.71	0.044	-0.021	.014	-7.8		
-1.16	-1.75	0.026	0.061	-0.043	-7.8	2.07	-1.56	0.032	0.02	0.243	-7.7	10.53	3.34	0.076	-0.028	.103	-7.8			
-6.62	-1.92	0.018	0.060	-0.036	-7.8	4.5	-0.09	0.024	0.034	0.217	-7.7	12.64	4.15	1.039	-0.042	-0.040	-7.9			
-3.6	-1.12	0.096	0.059	-0.026	-7.8	2.03	0.033	0.029	0.016	0.173	-7.7	14.73	1.85	1.360	-0.049	-0.067	-7.9			
.99	-0.69	0.193	0.058	-0.022	-7.8	4.14	1.27	0.015	0.007	0.131	-7.8	16.86	5.50	1.789	-0.055	-0.088	-7.9			
1.97	-0.04	0.179	0.056	-0.010	-7.8	6.21	2.23	0.036	0.008	0.094	-7.8	17.91	5.92	1.933	-0.057	-0.101	-7.9			
2.01	-0.21	0.076	0.056	-0.022	-7.8	8.28	3.21	0.037	0.022	0.057	-7.8	-1.03	0.64	0.023	0.169	.178	-7.8			
-1.16	-1.92	0.027	0.059	-0.022	-7.8	10.35	4.11	0.057	0.035	0.023	-7.8	-5.1	-0.45	0.026	0.020	.157	-7.8			
6.88	-1.14	0.027	0.059	-0.044	-7.8	12.43	5.05	1.024	0.049	0.006	-7.9	.48	-0.13	0.017	0.016	.112	-7.8			
8.35	-2.43	0.059	0.049	-0.062	-7.9	24.20	3.94	1.645	0.061	0.046	-7.9	1.03	0.005	0.017	0.013	.134	-7.8			
8.42	-3.34	0.026	0.050	-0.062	-7.9	16.37	4.80	2.107	0.070	0.071	-7.9	2.07	0.41	0.024	0.008	.118	-7.8			
8.68	-4.46	1.081	0.043	-0.067	-7.9	17.61	7.17	2.346	0.073	0.081	-7.9	4.07	1.09	0.023	-0.002	.068	-7.9			
14.66	-2.56	1.542	0.034	-0.092	-7.9	2.07	-1.38	0.020	0.041	0.205	-7.7	6.12	1.79	0.038	-0.018	.049	-7.9			
16.20	-2.96	2.045	0.036	-0.100	-7.9	8.28	3.21	0.037	0.022	0.057	-7.8	10.21	3.10	0.068	-0.028	.005	-8.0			
17.95	-6.96	2.213	0.036	-0.102	-7.9	10.35	4.11	0.057	0.035	0.023	-7.8	-5.1	-0.45	0.026	0.020	.157	-7.8			
0.90	-4.34	-3.22	0.060	0.076	.112	-7.8	12.43	5.05	1.024	0.049	0.006	-7.9	.48	-0.13	0.017	0.016	.112	-7.8		
-2.41	-2.17	0.038	0.067	-0.053	-7.8	14.20	4.13	0.056	0.037	0.023	-7.7	1.03	0.005	0.017	0.013	.134	-7.8			
-1.14	-1.70	0.087	0.067	-0.078	-7.8	16.37	4.80	2.107	0.070	0.071	-7.9	2.07	0.41	0.024	0.008	.118	-7.8			
-6.62	-1.15	0.027	0.054	-0.068	-7.8	17.61	7.17	2.346	0.073	0.081	-7.9	4.07	1.09	0.023	-0.002	.068	-7.9			
-4.3	-1.02	0.247	0.061	-0.063	-7.8	2.07	-1.38	0.020	0.041	0.205	-7.7	6.12	1.79	0.038	-0.018	.049	-7.9			
.93	-0.075	0.229	0.060	-0.053	-7.8	8.28	3.21	0.037	0.022	0.057	-7.8	10.21	3.10	0.068	-0.028	.005	-8.0			
8.01	-0.026	0.226	0.056	-0.047	-7.8	10.35	4.11	0.057	0.035	0.023	-7.8	12.27	3.74	0.091	-0.033	-0.034	-8.0			
4.17	-0.75	0.249	0.049	-0.024	-7.8	12.43	5.05	1.024	0.041	0.026	-7.7	14.32	4.37	1.196	-0.040	-0.057	-8.0			
6.31	-1.81	0.073	0.045	-0.024	-7.8	17.61	7.17	2.346	0.073	0.081	-7.9	16.38	4.99	1.589	-0.044	-0.061	-8.0			
0.60	-4.31	-3.22	0.049	0.075	1.14	-11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	1.70	-4.12	-2.05	0.028	0.036	0.204	-11.2
-2.42	-2.23	0.033	0.059	0.063	11.5	10.31	3.42	0.044	0.051	0.060	0.059	-11.2	6.21	2.74	0.061	0.012	.096	-11.4		
-1.18	-2.23	0.0313	0.058	0.058	11.5	12.42	4.76	1.024	0.051	0.063	0.059	-11.2	10.21	3.75	0.061	0	.131	-11.4		
-6.65	-1.92	0.027	0.058	0.059	11.5	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	12.33	4.39	1.120	0.036	0.035	-11.2		
.84	-1.67	0.077	0.059	0.057	11.5	2.07	-1.38	0.020	0.041	0.205	0.056	-11.2	14.38	5.17	1.162	0.045	0.036	-11.6		
1.89	-1.02	0.029	0.058	0.058	11.5	1.04	-1.61	0.040	0.078	0.345	0.056	-11.2	16.46	5.92	1.162	0.053	0.043	-11.6		
4.01	-0.02	0.021	0.053	0.053	11.5	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	17.49	6.46	1.176	0.053	0.043	-11.6		
6.17	-0.69	0.059	0.049	0.053	11.5	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	18.52	7.02	1.176	0.053	0.043	-11.6		
8.25	-1.67	0.035	0.059	0.059	11.6	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	19.55	7.59	1.176	0.053	0.043	-11.6		
10.33	-2.67	0.066	0.058	0.057	11.6	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	20.58	8.16	1.176	0.053	0.043	-11.6		
12.47	-3.71	0.059	0.058	0.057	11.6	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	21.61	8.73	1.176	0.053	0.043	-11.6		
14.52	-4.76	0.060	0.058	0.057	11.6	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	22.64	9.30	1.176	0.053	0.043	-11.6		
16.58	-5.81	0.067	0.057	0.057	11.6	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	23.67	9.87	1.176	0.053	0.043	-11.6		
17.63	-6.86	0.067	0.057	0.057	11.6	1.20	-1.36	0.032	0.078	0.345	0.056	-11.2	24.70	10.44	1.176	0.053	0.043	-11.6		
0.80	-4.34	-3.22	0.036	0.075	1.14	-11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	1.70	-4.12	-2.05	0.028	0.036	0.204	-11.2
-2.42	-2.23	0.036	0.059	0.059	11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	6.21	2.74	0.061	0	.131	-11.4		
-1.15	-1.79	0.0330	0.058	0.054	11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	10.21	3.75	0.061	0.012	.096	-11.4		
-6.62	-1.54	0.027	0.058	0.053	11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	12.33	4.39	1.120	0.036	0.035	-11.2		
.89	-1.07	0.0282	0.058	0.052	11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	14.38	5.17	1.120	0.045	0.036	-11.2		
1.93	-0.56	0.028	0.052	0.052	11.4	1.20	-4.13	-3.09	0.056	0.099	0.372	-11.2	16.45	5.92	1.120	0.045	0.036	-11.2		
4.13	-0.34	0.0270	0.052	0.051	11.4	1.20	-													

CONFIDENTIAL

TABLE II.— CONCLUDED

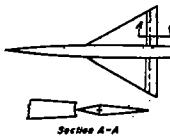


(g) Nominal  $\delta$ ,  $-16^\circ$

N	a	C_L	C_D	C_M	C_h	s	N	a	C_L	C_D	C_M	C_h	s	N	a	C_L	C_D	C_M	C_h	s		
0.60	-1.31	-0.349	0.0577	0.084	0.149	-16.0	1.20	0.90	6.26	0.141	0.0508	0.069	0.206	-15.9	1.70	1.50	2.06	-0.003	0.0386	0.042	0.280	-15.7
	-2.23	-2.71	0.046	0.085	0.140	-16.0		8.39	2.43	0.0693	0.065	0.186	-15.9	4.12	0.063	0.013	0.028	0.228	-15.8			
	-1.18	-227	0.0420	0.083	0.140	-16.0		10.51	3.30	0.1028	0.075	0.163	-15.9	6.15	0.169	0.024	0.014	0.198	-15.8			
	-65	-206	0.0397	0.081	0.141	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	8.21	0.251	0.063	0.001	0.153	-15.9			
	-38	-169	0.0373	0.082	0.149	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	10.27	0.339	0.073	-0.012	0.128	-15.9			
	84	-149	0.0361	0.082	0.147	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	12.33	0.421	0.151	-0.023	0.092	-16.0			
	1.89	-112	0.0348	0.082	0.144	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	14.40	0.499	0.186	-0.033	0.058	-16.0			
	4.00	-93	0.0310	0.083	0.144	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	16.46	0.570	0.187	-0.046	0.087	-16.0			
	6.14	0.048	0.0329	0.083	0.092	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	17.49	0.606	0.2074	-0.04	0.021	-16.0			
	8.23	143	0.0441	0.081	0.083	-16.0		11.16	3.30	0.1028	0.075	0.163	-15.9	1.70	4.11	-0.221	0.026	0.066	0.348	15.7		
0.80	10.34	242	0.0648	0.082	0.086	-16.0	1.30	2.01	0.093	0.048	0.075	0.349	0.157	1.70	2.06	-0.164	0.020	0.055	0.310	15.7		
	12.45	345	0.0736	0.081	0.088	-16.0		2.01	0.093	0.048	0.075	0.349	0.157		2.06	-0.164	0.020	0.055	0.310	15.7		
	14.56	447	0.1300	0.081	0.082	-16.0		2.01	0.093	0.048	0.075	0.349	0.157		3.03	-0.108	0.028	0.059	0.290	15.7		
	16.69	549	0.1759	0.086	0.087	-16.1		2.01	0.093	0.048	0.075	0.349	0.157		3.22	-0.090	0.036	0.047	0.288	15.7		
	17.74	598	0.1986	0.088	0	-16.1		2.01	0.093	0.048	0.075	0.349	0.157		4.05	-0.053	0.033	0.042	0.270	15.8		
	-1.32	-331	0.0601	0.082	0.203	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		4.11	0.085	0.079	0.020	0.197	15.8		
	-2.21	-239	0.0742	0.078	0.188	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		6.14	0.161	0.061	0.009	0.163	15.9		
	-1.16	-159	0.0434	0.077	0.188	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		8.19	0.231	0.061	-0.002	0.129	15.9		
	-64	-175	0.0415	0.077	0.189	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		10.25	0.311	0.079	-0.013	0.101	15.9		
	-35	-138	0.0390	0.076	0.189	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		12.30	0.385	0.104	-0.022	0.070	16.0		
0.90	.88	-114	0.0372	0.074	0.189	-15.9	1.50	2.01	0.093	0.048	0.075	0.349	0.157	1.90	4.11	0.085	0.079	0.020	0.197	15.8		
	1.94	-972	0.0333	0.073	0.180	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		6.14	0.161	0.061	0.009	0.163	15.9		
	4.12	0.021	0.0349	0.070	0.188	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		8.19	0.231	0.061	-0.002	0.129	15.9		
	6.22	115	0.0413	0.086	0.155	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		10.25	0.311	0.079	-0.013	0.101	15.9		
	8.34	217	0.0582	0.085	0.140	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		12.30	0.385	0.104	-0.022	0.070	16.0		
	10.47	319	0.0646	0.086	0.130	-15.9		2.01	0.093	0.048	0.075	0.349	0.157		14.36	0.453	0.134	-0.030	0.035	16.0		
	12.60	433	0.1193	0.077	0.094	-16.0		2.01	0.093	0.048	0.075	0.349	0.157		16.42	0.520	0.160	-0.035	0.009	16.0		
	14.72	536	0.1607	0.082	0.082	-16.0		2.01	0.093	0.048	0.075	0.349	0.157		18.48	0.588	0.228	-0.046	0.017	15.8		
	16.85	638	0.2124	0.082	0.072	-16.0		2.01	0.093	0.048	0.075	0.349	0.157		20.54	0.656	0.296	-0.057	0.012	15.8		
	17.90	675	0.2359	0.075	0.066	-16.0		2.01	0.093	0.048	0.075	0.349	0.157		22.60	0.724	0.364	-0.068	0.006	15.8		
0.90	-1.47	-362	0.0767	0.106	0.208	-15.8	1.50	17.53	0.661	0.203	0.039	0.075	0.260	1.90	-1.10	0.130	0.048	0.024	0.317	-15.7		
	-2.30	-255	0.0565	0.094	0.200	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-2.06	-0.127	0.087	0.045	0.277	-15.8		
	-1.22	-205	0.0503	0.090	0.279	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-1.03	-0.082	0.056	0.041	0.257	-15.8		
	-68	-180	0.0471	0.087	0.269	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.92	-0.073	0.046	0.038	0.238	-15.8		
	.33	-143	0.0450	0.087	0.269	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.82	-0.062	0.036	0.034	0.228	-15.8		
	.87	-117	0.0426	0.084	0.292	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.72	-0.051	0.028	0.034	0.218	-15.8		
	1.95	-974	0.0413	0.084	0.245	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.62	-0.040	0.020	0.034	0.208	-15.8		
	4.15	.030	0.0401	0.074	0.211	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.52	-0.029	0.012	0.034	0.198	-15.8		
	-1.22	-205	0.0503	0.090	0.200	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.42	-0.018	0.004	0.034	0.188	-15.8		
	-1.12	-180	0.0471	0.087	0.199	-15.8		17.53	0.661	0.203	0.039	0.075	0.260		-0.32	-0.007	0.002	0.034	0.178	-15.8		

NACA

TABLE III.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH A 50-PERCENT BALANCE FLAP (TRUE CONTOUR WING PROFILE; SHARP NOSE FLAP). DATA FOR TWO FLAPS.  $R = 4.4 \times 10^6$



(a) Nominal  $\delta$ ,  $4^\circ$

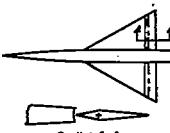
$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$
0.60	-1.18	-0.114	0.012	-0.008	-0.008	4.4	0.90	4.23	0.280	0.0270	-0.009	-0.005	4.3	1.50	3.91	0.190	0.028	-0.040	-0.168	3.9
-2.06	-0.021	0.005	-0.008	-0.016	4.4	6.39	3.93	0.063	-0.001	-0.001	-0.001	4.3	5.88	2.76	0.089	-0.002	-0.002	-0.198	3.8	
-4.41	-0.05	0.093	-0.031	-0.020	4.4	8.31	5.04	0.078	-0.009	-0.009	-0.009	4.2	7.86	3.61	0.051	-0.004	-0.004	-0.223	3.7	
-5.24	-0.09	0.004	-0.034	-0.024	4.4	10.68	6.18	1.181	-0.077	-0.077	-0.077	4.2	9.84	4.59	0.088	-0.073	-0.073	-0.234	3.7	
1.08	-1.15	-0.017	-0.033	-0.025	4.4	1.20	-4.11	-1.69	0.030	0.008	0.008	4.3	11.80	5.18	1.196	-0.054	-0.054	-0.282	3.6	
2.19	-1.00	-0.014	-0.033	-0.028	4.4	4.11	-0.71	-0.71	0.017	0.007	0.007	4.2	15.76	0.69	1.051	-0.098	-0.098	-0.310	3.5	
4.24	-0.02	0.027	-0.033	-0.022	4.4	7.03	-0.79	-0.79	0.014	0.006	0.006	4.1	15.73	7.03	0.803	-0.102	-0.102	-0.337	3.4	
6.30	-1.02	-0.017	-0.033	-0.028	4.4	8.41	-0.69	-0.69	0.011	0.005	0.005	4.0	1.70	-4.10	-1.42	0.021	0.011	0.011	4.4	
8.41	-1.01	-0.009	-0.047	-0.039	4.4	10.26	-0.69	0.037	0.028	0.028	0.028	4.0	-4.06	-0.27	0.194	-0.059	-0.059	-0.438	4.3	
10.51	-0.97	1.069	-0.047	-0.060	4.4	1.01	0.69	0.060	0.051	0.051	0.051	4.0	1.00	0.02	0.053	0.047	0.047	0.048	4.3	
12.61	-0.92	1.174	-0.043	-0.068	4.3	2.03	1.58	0.197	-0.058	-0.058	-0.058	3.9	1.00	-0.06	0.039	-0.066	-0.066	4.2		
14.73	-0.74	1.908	-0.042	-0.066	4.3	5.08	2.32	0.006	-0.023	-0.023	-0.023	3.8	1.00	-0.06	0.039	-0.076	-0.076	4.2		
16.85	-0.65	2.577	-0.051	-0.085	4.3	6.18	3.38	0.072	-0.073	-0.073	-0.073	3.7	1.00	-0.06	0.039	-0.079	-0.079	4.1		
17.99	-0.53	2.888	-0.051	-0.085	4.3	8.81	4.45	0.072	-0.076	-0.076	-0.076	3.7	2.05	0.92	0.190	-0.084	-0.084	1.04		
0.80	-1.22	-0.181	0.037	-0.024	4.4	10.33	5.79	1.198	-0.126	-0.126	-0.126	3.6	6.13	2.49	0.044	-0.023	-0.023	-0.277	3.6	
-2.06	-0.024	0.009	-0.030	-0.020	4.4	-3.05	-0.71	0.020	0.004	0.004	0.004	4.4	2.05	0.80	0.063	-0.022	-0.022	-0.204	3.5	
-3.13	-0.024	0.009	-0.023	-0.023	4.4	-1.04	-0.025	0.017	0.011	0.011	0.011	4.2	18.87	1.82	0.129	-0.113	-0.113	-0.226	3.7	
-4.29	-0.020	0.009	-0.023	-0.023	4.4	-2.06	-0.001	0.052	0.011	0.011	0.011	4.1	1.00	-0.06	0.039	-0.097	-0.097	3.6		
-5.45	-0.020	0.009	-0.027	-0.027	4.4	-1.06	-0.045	0.074	-0.082	-0.082	-0.082	4.1	16.37	5.95	1.085	-0.087	-0.087	-0.307	3.5	
-6.63	-0.020	0.009	-0.027	-0.027	4.4	1.01	0.70	0.034	0.023	0.023	0.023	4.0	17.40	0.89	0.109	-0.089	-0.089	3.5		
-7.79	-0.020	0.009	-0.027	-0.027	4.4	4.03	1.16	0.066	0.056	0.056	0.056	3.7	1.00	-0.06	0.039	-0.097	-0.097	3.5		
-8.95	-0.020	0.009	-0.027	-0.027	4.4	6.18	3.52	0.070	-0.058	-0.058	-0.058	3.6	-4.04	-0.60	0.176	0.009	0.009	0.040	4.3	
-10.10	-0.020	0.009	-0.026	-0.026	4.4	8.19	3.98	0.070	-0.054	-0.054	-0.054	3.7	-4.04	-0.60	0.176	0.009	0.009	0.040	4.3	
-11.26	-0.020	0.009	-0.026	-0.026	4.4	10.26	5.18	0.070	-0.054	-0.054	-0.054	3.6	1.00	-0.06	0.039	-0.094	-0.094	3.5		
-12.42	-0.020	0.009	-0.026	-0.026	4.4	12.35	5.20	0.070	-0.054	-0.054	-0.054	3.6	1.00	-0.06	0.039	-0.094	-0.094	3.5		
-13.58	-0.020	0.009	-0.026	-0.026	4.4	14.35	5.69	1.161	-0.113	-0.113	-0.113	3.4	2.05	0.84	0.109	-0.084	-0.084	1.04		
-14.73	-0.020	0.009	-0.026	-0.026	4.4	16.40	7.95	0.209	-0.124	-0.124	-0.124	3.4	4.05	1.56	0.024	-0.089	-0.089	1.12		
-15.88	-0.020	0.009	-0.026	-0.026	4.4	1.03	-1.99	-0.058	0.017	0.017	0.017	4.4	6.15	2.87	0.056	-0.045	-0.045	1.04		
-17.03	-0.020	0.009	-0.026	-0.026	4.4	-1.03	-0.026	0.060	-0.058	-0.058	-0.058	4.2	10.80	3.56	0.079	-0.033	-0.033	1.03		
-18.18	-0.020	0.009	-0.026	-0.026	4.4	-2.06	-0.004	0.056	-0.056	-0.056	-0.056	4.2	18.24	4.15	1.021	-0.061	-0.061	1.20		
-19.33	-0.020	0.009	-0.026	-0.026	4.4	-3.05	-0.004	0.056	-0.056	-0.056	-0.056	4.2	18.35	4.55	1.054	-0.070	-0.070	1.27		
-20.48	-0.020	0.009	-0.026	-0.026	4.4	-4.03	-0.004	0.056	-0.056	-0.056	-0.056	4.2	17.35	5.61	1.054	-0.071	-0.071	1.26		

(b) Nominal  $\delta$ ,  $2^\circ$

$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$
0.60	-1.18	-0.114	0.012	-0.008	2.4	0.90	6.35	0.347	0.040	-0.011	-0.034	2.4	1.50	4.08	0.180	0.0273	-0.033	-0.125	2.1	
-2.09	-0.021	0.009	-0.023	-0.016	2.4	8.49	4.73	0.173	-0.020	-0.020	-0.020	2.3	6.14	1.86	0.041	-0.046	-0.126	2.0		
-3.13	-0.021	0.009	-0.023	-0.016	2.4	10.66	1.07	0.069	-0.009	-0.009	-0.009	2.3	8.19	1.59	0.051	-0.077	-0.180	1.9		
-4.18	-0.021	0.009	-0.023	-0.016	2.4	-1.04	-0.021	0.052	0.011	0.011	0.011	2.1	10.28	1.45	0.068	-0.088	-0.208	1.8		
-5.24	-0.021	0.009	-0.023	-0.016	2.4	-2.06	-0.021	0.052	0.011	0.011	0.011	2.1	12.30	1.10	0.068	-0.097	-0.236	1.7		
-6.30	-0.021	0.009	-0.023	-0.016	2.4	-3.05	-0.021	0.052	0.011	0.011	0.011	2.1	14.35	0.75	0.068	-0.097	-0.236	1.6		
-7.35	-0.021	0.009	-0.023	-0.016	2.4	-4.03	-0.021	0.052	0.011	0.011	0.011	2.1	16.40	0.39	0.068	-0.097	-0.236	1.6		
-8.41	-0.021	0.009	-0.023	-0.016	2.4	-5.08	-0.021	0.052	0.011	0.011	0.011	2.1	18.45	0.05	0.068	-0.097	-0.236	1.5		
-9.46	-0.021	0.009	-0.023	-0.016	2.4	-6.11	-0.021	0.052	0.011	0.011	0.011	2.1	20.50	-0.25	0.068	-0.097	-0.236	1.5		
-10.51	-0.021	0.009	-0.023	-0.016	2.4	-7.16	-0.021	0.052	0.011	0.011	0.011	2.1	22.55	-0.50	0.068	-0.097	-0.236	1.5		
-11.56	-0.021	0.009	-0.023	-0.016	2.4	-8.20	-0.021	0.052	0.011	0.011	0.011	2.1	24.50	-0.75	0.068	-0.097	-0.236	1.5		
-12.61	-0.021	0.009	-0.023	-0.016	2.4	-9.25	-0.021	0.052	0.011	0.011	0.011	2.1	26.55	-1.00	0.068	-0.097	-0.236	1.5		
-13.66	-0.021	0.009	-0.023	-0.016	2.4	-10.29	-0.021	0.052	0.011	0.011	0.011	2.1	28.50	-1.25	0.068	-0.097	-0.236	1.5		
-14.71	-0.021	0.009	-0.023	-0.016	2.4	-11.33	-0.021	0.052	0.011	0.011	0.011	2.1	30.55	-1.50	0.068	-0.097	-0.236	1.5		
-15.76	-0.021	0.009	-0.023	-0.016	2.4	-12.37	-0.021	0.052	0.011	0.011	0.011	2.1	32.50	-1.75	0.068	-0.097	-0.236	1.5		
-16.81	-0.021	0.009	-0.023	-0.016	2.4	-13.41	-0.021	0.052	0.011	0.011	0.011	2.1	34.45	-2.00	0.068	-0.097	-0.236	1.5		
-17.96	-0.021	0.009	-0.023	-0.016	2.4	-14.45	-0.021	0.052	0.011	0.011	0.011	2.1	36.40	-2.25	0.068	-0.097	-0.236	1.5		
-18.01	-0.021	0.009	-0.023	-0.016	2.4	-15.49	-0.021	0.052	0.011	0.011	0.011	2.1	38.35	-2.50	0.068	-0.097	-0.236	1.5		
-19.06	-0.021	0.009	-0.023	-0.016	2.4	-16.53	-0.021	0.052	0.011	0.011	0.011	2.1	40.30	-2.75	0.068	-0.097	-0.236	1.5		
-20.11	-0.021	0.009	-0.023	-0.016	2.4	-17.57	-0.021	0.052	0.011	0.011	0.011	2.1	42.25	-3.00	0.068	-0.097	-0.236	1.5		
-21.16	-0.021	0.009	-0.023	-0.016	2.4	-18.61	-0.021	0.052	0.011	0.011	0.011	2.1	44.20	-3.25	0.068	-0.097	-0.236	1.5		
-22.21	-0.021	0.009	-0.023	-0.016	2.4															

~~CONFIDENTIAL~~

TABLE III.- CONTINUED

(c) Nominal  $\delta, 0^\circ$ 

$N$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	
0.60	-4.16	-0.183	0.0163	0.005	0.019	0.4	0.90	6.33	0.308	0.0318	-0.022	0.007	0	1.50	4.09	0.169	0.0860	-0.027	0.075	0.1	
-2.07	-0.090	0.0106	0.001	0.013	0.4	1.0	8.46	1.02	0.051	-0.030	0.029	0.007	0	6.11	2.09	0.059	0.0359	-0.039	0.09	0	
-1.03	-0.047	0.0089	0	0.009	0.4	10.58	3.28	0.050	-0.033	0.034	0	8.19	3.40	0.059	0.030	-0.030	0.12	0			
-1.8	0.020	0.0085	-0.003	0.005	0.4	2.04	1.01	0.070	0.018	0.006	0.028	0.007	0	10.24	1.18	0.052	0.029	-0.030	0.16	0	
-0.99	0.042	0.0089	-0.003	0.003	0.4	1.01	0.73	0.018	0.006	0.019	0.028	0.007	0	12.39	1.07	0.051	0.027	-0.030	0.19	0	
2.07	0.086	0.0108	-0.005	0.005	0.4	1.49	0.27	0.0142	0.003	0.007	0.014	0.007	0	14.34	2.73	0.058	0.033	-0.030	0.21	0	
4.16	1.79	0.0171	-0.009	0.005	0.4	1.47	0.020	0.0141	0.005	0.013	0.014	0.007	0	15.40	0.64	0.047	0.029	-0.030	0.23	0	
6.26	2.77	0.0306	-0.014	0.009	0.3	1.00	0.016	0.0147	0.009	0.023	0.014	0.007	0	17.43	0.61	0.047	0.029	-0.030	0.23	0	
8.38	3.83	0.0233	-0.017	0.017	0.3	2.04	0.096	0.0169	0.016	0.023	0.014	0.007	0	1.70	-1.08	-1.61	0.026	0.022	0.066	.6	
10.48	4.89	0.080	-0.018	0.026	0.3	4.09	1.29	0.087	0.031	0.076	0.014	0.007	0	10.00	-0.044	0.0151	0.005	0.015	0.14	0	
12.59	5.86	0.128	-0.015	0.045	0.3	6.15	2.99	0.041	0.047	0.113	0.014	0.007	0	12.32	-0.047	0.016	0.003	0.015	0.14	0	
14.70	5.90	0.169	0.016	0.050	0.3	8.21	4.05	0.054	0.054	0.143	0.014	0.007	0	14.37	2.73	0.058	0.033	-0.030	0.19	0	
16.84	5.19	0.218	0.013	0.051	0.3	10.26	5.07	0.070	0.077	0.166	0.014	0.007	0	15.40	0.64	0.047	0.029	-0.030	0.23	0	
17.89	5.71	0.263	0.024	0.056	0.3	12.33	6.21	0.139	0.097	0.198	0.014	0.007	0	17.43	0.61	0.047	0.029	-0.030	0.23	0	
0.80	-1.21	-0.195	0.021	0.009	0.22	1.30	-4.09	-1.91	0.088	0.088	0.088	0.088	0.088	0	6.13	2.31	0.0373	0.033	-0.030	0.100	0
-1.09	-0.095	0.0106	0.003	0.019	0.2	2.04	-0.96	0.0193	0.013	0.021	0.013	0.007	0	8.17	3.09	0.0359	0.033	-0.030	0.126	0	
-1.28	-0.028	0.0086	0.001	0.003	0.2	4.09	-0.020	0.0172	0.008	0.020	0.013	0.007	0	10.22	3.78	0.0784	0.054	-0.030	0.149	0	
-1.47	0.080	0.0084	0.003	0.006	0.2	6.15	-0.019	0.0192	0.003	0.008	0.014	0.007	0	12.32	5.25	0.1384	0.070	-0.030	0.21	0	
1.06	0.041	0.0089	0.004	0.006	0.2	8.21	-0.018	0.0193	0.004	0.011	0.014	0.007	0	14.37	2.80	0.1757	0.076	-0.030	0.23	0	
2.09	0.096	0.0169	-0.007	0.008	0.2	10.26	-0.017	0.0187	0.004	0.014	0.014	0.007	0	15.40	0.61	0.1663	0.078	-0.030	0.23	0	
4.19	1.90	0.184	-0.013	0.004	0.2	12.33	-0.017	0.0187	0.004	0.018	0.014	0.007	0	17.43	0.61	0.1663	0.078	-0.030	0.23	0	
6.31	2.29	0.232	-0.019	0.009	0.2	14.37	-0.016	0.0188	0.004	0.018	0.014	0.007	0	17.43	0.61	0.1663	0.078	-0.030	0.23	0	
8.43	3.03	0.295	-0.022	0.009	0.2	16.42	-0.015	0.0187	0.004	0.018	0.014	0.007	0	1.70	-1.08	-1.14	0.020	0.018	0.066	.5	
10.54	3.98	0.111	-0.021	0.027	0.2	8.20	8.20	0.054	0.056	0.138	0.014	0.007	0	12.32	-0.023	0.017	0.007	0.015	0.14	0	
12.67	5.76	0.136	-0.022	0.026	0.2	10.25	4.63	0.032	0.026	0.068	0.014	0.007	0	14.37	-0.030	0.0171	0.007	0.015	0.14	0	
14.71	7.05	0.183	-0.032	0.028	0.2	12.31	5.51	0.021	0.026	0.099	0.014	0.007	0	16.37	2.80	0.1757	0.076	-0.030	0.23	0	
16.80	8.14	0.243	-0.039	0.029	0.2	14.35	5.67	0.056	0.056	0.166	0.014	0.007	0	17.43	0.61	0.1663	0.078	-0.030	0.23	0	
17.97	8.87	0.272	-0.038	0.029	0.2	16.42	7.19	0.056	0.056	0.166	0.014	0.007	0	17.43	0.61	0.1663	0.078	-0.030	0.23	0	
0.90	-4.22	-0.207	0.087	0.012	0.20	0	1.50	-4.16	-1.74	0.0164	0.025	0.025	0.025	0	2.03	-0.05	0.020	0.018	0.066	0.5	
-2.11	-1.01	0.0101	0.004	0.017	0	3.03	-0.038	0.0179	0.012	0.035	0.025	0.025	0	6.12	-0.027	0.030	0.019	0.090	0.1		
-1.03	-0.052	0.0081	0.001	0.013	0	5.09	-0.038	0.0156	0.006	0.025	0.015	0.025	0	8.15	2.73	0.0214	0.017	0.037	0.116	0	
-1.55	-0.028	0.0076	0.001	0.012	0	7.07	-0.028	0.0149	0.002	0.024	0.014	0.024	0	10.22	3.39	0.0780	0.045	0.136	0		
-1.48	0.021	0.0077	-0.004	0.009	0	9.05	-0.028	0.0147	0.004	0.024	0.014	0.024	0	12.32	3.99	0.0953	0.028	0.151	0		
1.03	0.047	0.0082	-0.002	0.009	0	11.03	-0.028	0.0148	0.004	0.024	0.014	0.024	0	14.37	1.59	0.1254	0.037	0.184	0.1		
2.10	0.095	0.0104	-0.008	0.004	0	13.01	-0.028	0.0147	0.004	0.024	0.014	0.024	0	16.38	5.19	0.1588	0.061	0.204	0.2		
4.21	0.204	0.0190	-0.017	0.002	0	15.00	-0.028	0.0147	0.004	0.024	0.014	0.024	0	17.36	2.47	0.1776	0.068	0.216	0.2		

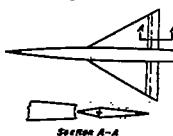
(d) Nominal  $\delta, -2^\circ$ 

$N$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$\delta$
0.60	-4.19	-0.218	0.023	-0.033	-1.4	0.90	6.31	0.273	0.0315	-0.004	0.005	-1.4	1.50	4.09	0.199	0.0251	-0.020	-0.032	-1.6	
-2.10	-1.12	0.0115	0.015	0.024	-1.4	10.26	1.86	0.056	-0.005	0.021	-1.5	6.11	2.09	0.059	0.0273	-0.033	-0.065	-1.7		
-1.51	-0.055	0.0097	0.015	0.024	-1.4	12.32	3.71	0.056	-0.013	0.037	-1.5	8.19	3.40	0.059	0.030	-0.034	-0.093	-1.7		
-1.49	-0.012	0.0088	0.013	0.024	-1.4	14.37	1.47	0.019	0.018	0.040	-1.5	10.24	1.48	0.059	0.032	-0.034	-0.121	-1.8		
1.03	0.010	0.0087	0.012	0.023	-1.4	16.42	-0.011	0.0174	0.017	0.038	-1.5	12.32	1.48	0.059	0.033	-0.034	-0.148	-1.9		
2.06	-0.07	0.0102	0.010	0.023	-1.4	18.46	-0.011	0.0174	0.017	0.038	-1.5	14.37	1.48	0.059	0.033	-0.034	-0.177	-2.0		
4.14	-1.16	0.018	0.006	0.003	-1.4	20.51	-0.011	0.0174	0.017	0.038	-1.5	16.37	0.65	0.059	0.033	-0.034	-0.200	-2.1		
6.28	-1.26	0.028	0.001	0.003	-1.4	22.56	-0.011	0.0174	0.017	0.038	-1.5	17.43	0.61	0.059	0.033	-0.034	-0.209	-2.1		
8.38	-1.42	0.047	-0.003	0.003	-1.4	24.61	-0.011	0.0174	0.017	0.038	-1.5	1.70	-4.08	-1.68	0.0267	0.028	1.05	-1.1		
10.48	-1.47	0.076	-0.002	0.003	-1.4	26.66	-0.011	0.0174	0.017	0.038	-1.5	12.32	-0.020	0.0303	0.015	0.072	1.2			
12.59	-1.47	0.074	-0.002	0.003	-1.4	28.71	-0.011	0.0174	0.017	0.038	-1.5	14.37	-0.020	0.0303	0.015	0.074	1.2			
14.66	-1.52	0.151	-0.003	0.003	-1.4	30.76	-0.011	0.0174	0.017	0.038	-1.5	16.37	-0.020	0.0303	0.015	0.074	1.2			
16.77	-1.78	0.213	-0.004	0.003	-1.4	32.82	-0.011	0.0174	0.017	0.038	-1.5	1.70	-0.020	0.0303	0.015	0.074	1.2			
17.86	-1.83	0.210	-0.002	0.003	-1.4	34.87	-0.011	0.0174	0.017	0.038	-1.5	12.32	-0.020	0.0303	0.015	0.074	1.2			
0.80	-4.21	-0.227	0.029	0.026	-1.4	1.50	-4.16	-0.020	0.0174	0.016	0.038	-1.5	1.50	4.09	0.199	0.0251	-0.020	-0.032	-1.6	
-2.11	-1.25	0.0																		

CONFIDENTIAL

NACA RM A52L04

TABLE III.- CONTINUED

(e) Nominal  $\delta_s = -4^\circ$ 

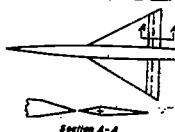
$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$b$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$b$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$b$	
0.60	-1.21	-0.422	0.0224	0.031	0.010	-3.4	1.20	-4.10	-0.240	0.0313	0.072	0.192	-2.9	1.50	8.19	0.317	0.054	-0.038	0.051	-3.6	
	-1.12	-1.16	0.0140	0.051	0.031	-3.4		-2.04	-1.37	0.058	0.023	0.165	-3.0		10.24	1.96	0.008	-0.49	-0.76	-3.7	
	-1.08	-1.16	0.114	0.051	0.031	-3.4		-1.01	-0.88	0.073	0.028	0.145	-3.0		14.40	1.77	0.116	-0.68	-1.03	-3.8	
	-1.04	-0.95	0.0155	0.031	0.029	-3.4		-0.46	-0.28	0.073	0.033	0.124	-3.1		14.53	1.53	0.144	-0.89	-1.36	-3.9	
	-1.01	-0.98	0.0091	0.027	0.024	-3.4		1.04	-0.13	0.072	0.031	0.117	-3.1		15.43	1.29	0.188	-0.77	-1.61	-3.9	
	-0.93	-0.93	0.0051	0.026	0.021	-3.4		2.05	0.02	0.069	0.035	0.099	-3.2		17.43	0.98	0.304	-0.86	-1.69	-4.0	
	-0.87	-0.17	0.0020	0.020	0.011	-3.4		4.01	0.16	0.029	0.010	0.039	-3.3		2.10	-4.08	-1.77	0.086	.033	-3.0	
	6.22	1.00	0.0216	0.015	0.009	-3.4		6.16	0.63	0.075	0.026	0.003	-3.4		8.08	-1.09	0.097	0.088	0.112	-3.1	
	8.38	3.05	0.0453	0.018	0.001	-3.4		8.21	0.63	0.064	0.021	0.013	-3.5		1.01	-1.01	-0.059	0.070	0.106	-3.2	
	10.42	1.10	0.0714	0.010	-0.006	-3.4		10.27	-4.75	0.066	-0.057	0.045	-3.6		1.48	-0.39	0.066	0.033	0.084	-3.2	
	12.53	5.09	1.065	0.011	-0.021	-3.4		12.34	-1.92	0.097	-0.073	0.076	-3.7		1.03	0.0	0.058	0.007	0.066	-3.2	
	14.63	6.17	1.511	0.010	-0.024	-3.4									1.08	0.01	0.057	0.004	0.057	-3.3	
	16.76	7.25	2.049	0.009	-0.038	-3.4									2.04	0.06	0.029	0.014	0.043	-3.3	
0.80	-1.23	-2.66	0.0232	0.043	0.048	-3.4	1.30	-4.09	-0.239	0.026	0.045	0.185	-4.9	1.50	8.19	0.317	0.054	-0.038	0.051	-3.6	
	-1.16	-1.66	0.0149	0.034	0.048	-3.4		-2.04	-1.83	0.028	0.024	0.040	-3.0		6.15	-2.08	-0.157	0.037	-0.13	0.05	
	-1.10	-1.20	0.0098	0.032	0.039	-3.4		-1.46	-0.06	0.074	0.013	0.096	-3.2		10.23	0.80	0.078	0.043	0.079	-3.7	
	-1.06	-0.97	0.0108	0.032	0.039	-3.4		1.04	-0.07	0.078	0.009	0.084	-3.2		12.27	1.43	1.018	-0.058	-1.06	-3.8	
	-1.01	-0.95	0.0094	0.030	0.037	-3.4		2.04	0.06	0.032	0.003	0.063	-3.3		14.33	1.98	1.384	-0.060	-1.31	-3.9	
	2.06	0.020	0.0092	0.026	0.011	-3.4		6.15	-2.01	0.028	0.011	0.026	-3.4		15.38	0.96	1.666	-0.069	-1.58	-3.9	
	4.20	1.17	0.0143	0.020	0.018	-3.4		8.21	-3.45	0.020	0.039	0.037	-3.6		17.41	0.95	1.886	-0.067	-1.61	-4.0	
	6.26	2.16	0.0284	0.019	0.019	-3.4		10.26	-4.37	0.074	-0.022	0.068	-3.7		1.90	-4.08	-1.57	0.026	0.027	1.28	
	8.38	3.23	0.0484	0.010	0.007	-3.4		12.38	-0.95	0.028	0.020	0.119	-3.8		4.04	-0.07	0.194	0.016	0.096	-3.2	
	10.49	4.22	0.0782	0.008	0.008	-3.4		14.37	-0.20	0.068	0.076	0.129	-3.8		1.00	-0.06	0.071	0.013	0.081	-3.2	
	12.61	5.28	1.170	0.005	-0.027	-3.4		15.43	-0.91	0.024	0.024	0.154	-3.9		1.48	-0.03	0.163	0.010	0.073	-3.2	
	14.74	6.38	1.616	-0.008	-0.027	-3.4		17.46	-1.74	0.039	-0.090	0.169	-3.9		1.03	0.00	0.197	0.007	0.097	-3.3	
	17.71	7.86	2.210	-0.008	-0.038	-3.4	1.30	-4.09	-1.93	0.009	0.038	0.198	-3.0		1.03	0.05	0.071	-0.008	0.033	-3.4	
0.90	-1.26	-2.79	0.0271	0.047	0.070	-3.4		-2.04	-1.00	0.024	0.024	0.144	-3.1		6.12	-2.07	1.23	0.027	-0.12	0.002	
	-1.13	-1.73	0.0156	0.040	0.076	-3.4		-1.08	-0.67	0.017	0.017	0.105	-3.1		10.20	-1.92	0.031	-0.021	0.024	-3.2	
	-1.09	-1.20	0.0123	0.038	0.076	-3.4		-0.47	-0.06	0.017	0.009	0.065	-3.2		12.20	-1.89	0.068	-0.045	0.068	-3.4	
	-1.07	-1.03	0.014	0.037	0.075	-3.4		2.04	0.021	0.012	0.014	0.047	-3.2		14.24	-1.87	0.086	-0.045	0.120	-3.6	
	-1.04	-0.97	0.0096	0.037	0.073	-3.4		6.14	-1.47	0.024	0.014	0.104	-3.4		15.34	-1.85	0.105	-0.048	0.140	-3.6	
	-1.02	-0.93	0.0093	0.039	0.073	-3.4		8.21	-0.83	0.037	-0.027	0.020	-3.5		17.37	-1.83	0.133	-0.053	0.150	-3.9	
0.60	-4.26	-0.316	0.0316	0.061	0.073	-7.5	0.90	6.31	0.168	0.0265	0.045	0.106	-7.3	1.50	2.10	0.043	0.0196	0.014	0.140	-7.1	
	-2.16	-2.26	0.0202	0.058	0.048	-7.5		8.43	-2.73	0.078	0.012	0.137	-7.2		4.10	1.28	0.021	0.002	1.01	-7.2	
	-1.12	-1.84	0.0167	0.057	0.045	-7.5		10.22	-3.85	0.078	0.031	0.155	-7.2		6.15	21.4	0.0363	-0.013	0.66	-7.3	
	-0.51	-1.65	0.0165	0.057	0.045	-7.5		12.64	-0.97	0.118	0.023	0.148	-7.2		8.21	-2.96	0.033	-0.084	0.035	-7.4	
	-0.34	-1.29	0.0122	0.077	0.045	-7.5		1.30	-4.09	-0.277	0.033	0.077	2.96	-6.7		10.26	-3.81	0.0779	-0.036	0.003	-7.5
	-0.36	-1.08	0.0114	0.066	0.041	-7.5		-2.03	-1.76	0.067	0.060	0.276	-6.7		12.33	-1.68	1.086	-0.046	0.026	-7.6	
	-1.93	-0.74	0.016	0.053	0.034	-7.5		-1.08	-1.28	0.023	0.023	0.268	-6.8		14.37	-5.96	1.361	-0.056	0.026	-7.7	
	4.15	0.37	0.013	0.049	0.032	-7.5		-0.49	-1.04	0.012	0.012	0.261	-6.8		16.43	-6.10	1.803	-0.064	0.076	-7.8	
	6.23	1.32	0.0176	0.045	0.028	-7.5		1.46	-0.95	0.020	0.023	0.239	-6.8		17.46	-6.46	2.023	-0.067	0.063	-7.9	
	9.33	2.36	0.0342	0.041	0.019	-7.5		2.07	-0.85	0.019	0.019	0.227	-6.9		1.70	-4.08	-1.94	0.034	0.04	2.16	
	10.45	3.46	0.0628	0.038	0.009	-7.5		2.69	-0.87	0.047	0.049	0.190	-7.0		-8.03	-1.16	0.0232	0.033	0.086	-6.9	
	12.58	4.45	0.0939	0.038	0.008	-7.5		4.11	-1.28	0.028	0.012	0.146	-7.1		-10.01	-0.78	0.0200	0.027	1.73	-7.0	
	15.58	5.52	0.158	0.036	-0.003	-7.5		6.25	-1.17	0.058	0.003	0.115	-7.2		-12.89	-0.59	0.0190	0.003	1.63	-7.0	
	17.77	7.27	1.021	0.034	0.004	-7.5		10.59	-3.95	0.074	0.020	0.086	-7.3		-14.16	-0.46	0.0179	0.019	1.47	-7.1	
0.80	-1.28	-3.28	0.038	0.068	0.076	-7.5	1.30	-4.09	-2.45	0.036	0.063	0.284	-6.7		1.06	-0.59	0.0190	0.003	1.47	-7.1	
	-2.18	-2.30	0.0223	0.064	0.057	-7.5		-1.01	-1.07	0.040	0.042	0.285	-6.8		1.46	-0.19	0.0237	0.039	2.35	-7.1	
	-1.13	-1.87	0.0180	0.063	0.056	-7.5		-1.49	-0.84	0.027	0.039	0.235	-6.8		1.06	-0.09	0.0203	0.018	0.136	-7.1	
	-1.06	-1.67	0.0163	0.063	0.056	-7.5		-1.45	-0.38	0.020	0.032	0.212	-6.9		12.89	-1.41	0.0233	0.023	0.021	-7.7	
	-0.35	-1.27	0.0108	0.063	0.059	-7.5		2.09	-0.96	0.014	0.027	0.199	-6.9		11.34	-1.84	1.281	-0.049	0.058	-7.7	
	-0.86	-1.03	0.0162	0.068	0.054	-7.5		4.11	-1.29	0.058	0.003	0.169	-7.0		17.42	-2.01	1.829	-0.056	0.088	-7.8	
	1.15	0.053	0.0120	0.058	0.051	-7.5		6.15	-2.21	0.038	-0.008	0.093	-7.3		8.19	-0.98	0.0208	0.023	0.021	-7.6	
	4.27	1.16	0.0213	0.046	0.041	-7.5		12.33	-5.04	0.169	-0.049	0.002	-7.6		10.23	-2.45	0.0216	0.027	0.023	-7.6	
	6.27	1.16	0.0213	0.046	0.041	-7.5		16.45	-6.70	0.193	-0.059	0.025	-7.7		1.02	-0.03	0.0178	0.013	1.16	-7.6	
	8.39	1.55	0.0404	0.042	0.031	-7.5		17.48	-7.09	0.233	-0.073	0.029	-7.7		2.06	-0.04	0.0183	0.007	1.01	-7.6	
	10.28	2.38	0.0679	0.042	0.027	-7.5		2.09	-0.95	0.023	0.021	0.169	-7.0		6.12	-1.78	0.0204	0.008	0.070	-7.3	
	12.59	3.69	1.051	0.033	0.028	-7.5		6.15	-2.21	0.058	-0.008	0.093	-7.3		10.21	-3.11	0.0577	-0.027	0.009	-7.6	
	14.75	5.75	1.159	0.027	0.027	-7.5		8.22	-3.19												

TABLE III.- CONCLUDED

(g) Nominal  $\delta$ ,  $-12^\circ$ 

$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$b$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$b$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$b$
0.60	-4.26	-0.356	0.0422	0.078	0.058	-11.6	0.90	5.26	0.122	0.0288	0.066	0.102	-11.4	1.50	4.16	0.097	0.0279	0.018	0.159	-11.2
-2.19	-2.44	0.301	0.060	0.041	0.041	-11.6	8.40	0.221	0.0476	0.064	0.122	-11.4	8.16	1.83	0.372	0.004	0.123	-11.3		
-1.16	-2.29	0.332	0.063	0.049	0.042	-11.6	10.53	-0.333	0.0776	0.058	0.156	-11.3	8.21	2.87	0.530	-0.006	0.123	-11.4		
-0.6	-2.29	0.319	0.063	0.049	0.042	-11.6	2.30	-4.08	-0.310	0.0512	0.077	0.158	-10.6	10.27	3.50	0.678	-0.020	0.298	-11.5	
-0.29	-1.96	0.316	0.063	0.049	0.042	-11.6	2.03	-2.03	-0.216	0.0571	0.084	0.156	-10.6	12.31	4.32	1.026	-0.031	0.293	-11.6	
-0.81	-1.73	0.313	0.064	0.049	0.042	-11.6	1.00	-1.73	0.328	0.0567	0.079	0.155	-10.7	13.37	3.09	1.373	-0.041	0.293	-11.7	
1.86	-1.28	0.316	0.064	0.049	0.042	-11.6	-1.48	-1.50	0.302	0.0502	0.073	0.150	-10.7	16.12	2.82	1.750	-0.049	0.294	-11.7	
3.96	-0.93	0.314	0.064	0.049	0.042	-11.6	0.45	-0.95	0.276	0.0569	0.079	0.157	-10.7	17.45	6.61	1.941	-0.052	0.311	-11.8	
6.15	-0.53	0.315	0.064	0.049	0.042	-11.6	0.96	-0.76	0.265	0.055	0.075	0.158	-10.8	1.70	-4.07	-0.212	0.0408	0.056	2.70	-10.8
8.27	-1.53	0.280	0.070	0.007	0.071	-11.6	2.01	-0.02	0.222	0.055	0.075	0.159	-10.9	-2.02	-1.36	0.231	0.146	0.239	-10.9	
10.37	-2.26	0.289	0.068	0	0.067	-11.7	4.17	-0.79	0.089	0.059	0.076	0.150	-11.0	-1.00	-0.99	0.233	0.140	0.226	-10.9	
12.49	-3.63	0.283	0.063	-0.002	0.067	-11.7	6.23	-1.83	0.052	0.052	0.076	0.151	-11.1	-4.49	-0.80	0.240	0.137	0.220	-11.0	
14.60	-4.72	0.216	0.066	-0.002	0.067	-11.7	8.24	-2.87	0.056	0.056	0.074	0.145	-11.2	-1.45	-0.84	0.226	0.133	0.204	-11.0	
16.72	-5.80	0.187	0.066	-0.003	0.067	-11.7	10.89	-3.93	0.058	0.058	0.078	0.143	-11.3	-0.96	-0.83	0.222	0.130	0.196	-11.0	
17.78	-6.39	0.192	0.062	-0.007	0.067	-11.7	12.36	-5.04	0.113	0.053	0.088	0.144	-11.4	2.07	-0.17	0.223	0.128	0.178	-11.1	
0.80	-4.40	-3.61	0.075	0.066	0.050	-11.5	1.30	-4.08	-0.272	0.0424	0.080	0.153	-10.6	4.15	0.95	0.263	0.013	1.39	-11.2	
-2.30	-2.73	0.265	0.084	0.072	0.072	-11.5	-2.02	-1.96	0.036	0.069	0.124	6.14	1.73	0.328	0.001	1.03	1.13	-11.3		
-1.26	-2.36	0.277	0.085	0.061	0.071	-11.5	-3.00	-1.15	0.032	0.064	0.116	8.19	2.48	0.425	-0.009	0.688	1.14	-11.4		
-0.74	-2.21	0.258	0.086	0.061	0.071	-11.5	-1.49	-1.20	0.030	0.069	0.104	10.84	3.22	0.654	-0.019	0.643	1.15	-11.5		
-0.40	-1.90	0.221	0.089	0.073	0.071	-11.5	-0.74	-0.73	0.021	0.062	0.092	12.29	3.95	0.943	-0.028	0.614	1.16	-11.6		
-0.93	-1.70	0.208	0.089	0.074	0.071	-11.5	-0.96	-0.21	0.021	0.069	0.087	14.33	4.62	1.233	-0.036	0.613	1.17	-11.7		
1.97	-1.23	0.176	0.085	0.078	0.071	-11.6	2.02	-0.03	0.026	0.042	0.089	16.39	5.39	1.577	-0.042	0.591	1.18	-11.8		
4.11	-0.02	0.159	0.079	0.073	0.071	-11.6	4.15	-0.94	0.008	0.058	0.158	17.42	6.06	1.768	-0.044	0.600	1.18	-11.8		
6.21	0.73	0.068	0.073	0.078	0.071	-11.6	6.16	-1.57	0.059	0.073	0.152	11.2	1.12	0.268	0.008	1.38	1.19	-11.2		
8.34	-1.82	0.372	0.073	0.070	0.071	-11.6	8.22	-2.88	0	0.058	0.078	11.1	1.01	-0.86	0.238	0.133	1.19	-11.0		
10.45	-2.61	0.616	0.070	0.071	0.071	-11.6	10.38	-3.74	0.051	0.078	0.091	12.32	-1.79	0.696	-0.006	0.624	1.13	-11.0		
12.58	-3.93	0.707	0.063	0.079	0.071	-11.5	12.34	-4.68	0.056	0.078	0.091	14.37	-2.55	0.828	-0.011	0.633	1.14	-11.1		
14.68	-4.99	1.980	0.068	0.070	0.071	-11.5	16.39	-5.54	0.053	0.078	0.088	16.36	-3.34	0.845	-0.016	0.631	1.14	-11.1		
16.82	-5.98	1.958	0.068	0.073	0.071	-11.5	18.35	-6.48	0.050	0.078	0.087	18.35	-4.16	0.862	-0.021	0.631	1.14	-11.1		
17.91	-6.91	2.122	0.068	0.073	0.071	-11.5	17.49	-7.47	0.051	0.078	0.087	20.88	-5.80	0.880	-0.026	0.631	1.14	-11.2		
0.90	4.30	-3.65	0.050	0.062	0.062	-11.2	1.50	-4.08	-0.236	0.0438	0.066	0.156	-10.7	4.15	-0.89	0.228	0.010	1.17	-11.2	
-2.18	-2.83	0.314	0.068	0.061	0.061	-11.3	-2.03	-1.97	0.030	0.057	0.078	10.8	1.12	0.239	0.006	0.624	1.13	-11.3		
-1.15	-2.46	0.286	0.069	0.063	0.061	-11.3	-1.00	-1.18	0.022	0.050	0.078	12.32	-1.61	0.696	-0.016	0.623	1.13	-11.3		
-0.66	-2.06	0.246	0.064	0.063	0.061	-11.3	-1.48	-0.99	0.023	0.050	0.078	14.37	-2.55	0.828	-0.021	0.622	1.14	-11.3		
-0.33	-1.74	0.224	0.064	0.063	0.061	-11.3	-1.48	-0.98	0.023	0.050	0.078	16.36	-4.16	0.862	-0.026	0.621	1.14	-11.3		
-0.85	-1.24	0.233	0.067	0.063	0.061	-11.3	-0.74	-0.94	0.023	0.050	0.078	18.35	-5.80	0.880	-0.031	0.621	1.14	-11.3		
1.91	-0.94	0.200	0.061	0.061	0.061	-11.4	2.07	-0.03	0.023	0.057	0.077	20.88	-7.47	0.908	-0.036	0.626	1.14	-11.4		
4.12	-0.11	0.195	0.072	0.061	0.061	-11.4	2.07	-0.03	0.023	0.057	0.077	20.88	-7.47	0.908	-0.043	0.626	1.14	-11.4		
0.60	-1.27	-0.353	0.0221	0.062	0.117	-15.4	0.90	8.39	0.195	0.0266	0.079	0.092	-15.4	1.50	4.16	0.066	0.0214	0.036	0.211	-15.0
-6.19	-2.81	0.443	0.064	0.094	0.094	-15.5	10.21	-2.97	0.084	0.077	0.091	-15.4	6.21	1.23	0.416	-0.001	0.211	1.15	-15.1	
-1.17	-2.44	0.378	0.068	0.094	0.094	-15.5	12.38	-3.99	0.119	0.079	0.091	-15.3	10.26	2.02	0.477	-0.020	0.210	1.16	-15.1	
-0.64	-2.24	0.362	0.062	0.094	0.094	-15.5	1.20	-4.08	-0.308	0.0526	0.079	0.092	-14.3	12.32	2.82	0.537	-0.026	0.210	1.16	-15.1
-0.29	-1.93	0.359	0.060	0.094	0.094	-15.5	-1.48	-4.08	0.0502	0.0509	0.089	0.092	-14.3	14.37	3.67	0.609	-0.036	0.210	1.16	-15.1
-0.81	-1.53	0.310	0.061	0.094	0.094	-15.6	-1.48	-4.08	0.0502	0.0509	0.089	0.092	-14.3	16.36	4.54	0.660	-0.046	0.210	1.16	-15.1
1.79	-1.16	0.215	0.068	0.094	0.094	-15.6	-1.48	-4.08	0.0502	0.0509	0.089	0.092	-14.3	17.45	5.41	0.721	-0.056	0.210	1.16	-15.1
3.96	-0.74	0.223	0.068	0.094	0.094	-15.6	-0.96	-4.08	0.0502	0.0509	0.089	0.092	-14.3	1.70	6.27	0.787	-0.066	0.210	1.16	-15.1
6.15	-0.24	0.223	0.068	0.094	0.094	-15.6	1.20	-0.97	0.0502	0.0509	0.089	0.092	-14.3	1.70	7.14	0.848	-0.076	0.210	1.16	-15.1
8.32	-1.40	0.241	0.067	0.094	0.094	-15.6	1.20	-0.97	0.0502	0.0509	0.089	0.092	-14.3	1.70	8.01	0.917	-0.086	0.210	1.16	-15.1
10.45	-2.37	0.311	0.061	0.094	0.094	-15.7	-0.96	-1.77	0.0502	0.0509	0.089	0.092	-14.3	12.32	2.82	0.537	-0.144	0.214	1.16	-15.1
-0.64	-2.06	0.223	0.062	0.094	0.094	-15.7	-0.96	-1.77	0.0502	0.0509	0.089	0.092	-14.3	14.37	3.67	0.609	-0.144	0.214	1.16	-15.1
-0.29	-1.61	0.201	0.063	0.094	0.094	-15.7	-0.96	-1.77	0.0502	0.0509	0.089	0.092	-14.3	16.36	4.54	0.660	-0.144	0.214	1.16	-15.1
-0.85	-1.24	0.191	0.063	0.094	0.094	-15.7	-0.96	-1.77	0.0502	0.0509	0.089	0.092	-14.3	17.45	5.41	0.721	-0.144	0.214	1.16	-15.1
1.91	-0.95	0.151	0.069	0.094	0.094	-15.7	1.06	-0.67	0.0502	0.0509	0.089	0.092	-14.3	1.70	6.27	0.787	-0.144	0.214	1.16	-15.1
4.08	-0.27	0.085	0.094	0.063	0.076	-15.6	2.09	-0.44	0.0502	0.0509	0.089	0.092	-14.3	1.70	7.14	0.848	-0.144	0.214	1.16	-15.1
6.15	-0.41	0.085	0.094	0.063	0.076	-15.6	4.16	-0.98	0.0502	0.0509	0.089	0.092	-14.3	1.70	8.01	0.917	-0.144	0.214	1.16	-15.1
8.32	-1.40	0.087	0.094	0.063	0.076	-15.6	6.23	-1.49	0.0											

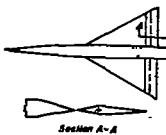
TABLE IV.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED  
WITH A 50-PERCENT BALANCE FLAP (MODIFIED WING PROFILE; SHARP  
NOSE FLAP). DATA FOR TWO FLAPS.  $R = 4.4 \times 10^6$

(a) Nominal  $\delta$ ,  $4^\circ$ 

$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$s$
0.60	-4.11	-0.104	0.032	-0.026	-0.007	3.7	0.90	6.26	0.363	-0.034	-0.033	3.6	1.50	-0.97	-0.057	0.019	-0.021	-0.109	3.7	
-2.03	-0.113	0.030	-0.026	-0.007	3.7	8.37	-1.65	0.733	-0.027	-0.068	3.5	2.00	-1.01	-0.021	-0.065	-0.124	3.7			
-5.59	-0.099	0.038	-0.031	-0.007	3.7	10.46	-1.63	0.708	-0.027	-0.180	3.4	4.04	-1.08	0.031	-0.041	-0.146	3.7			
-4.47	-0.085	0.039	-0.031	-0.007	3.7	12.22	-1.67	1.002	-0.026	-0.180	3.3	6.07	-0.98	0.043	-0.033	-0.168	3.7			
-2.28	-0.090	0.037	-0.032	-0.005	3.7	14.94	-1.62	2.082	-0.022	-0.151	3.3	8.09	-0.98	0.051	-0.051	-0.183	3.7			
1.04	-0.110	-0.016	-0.033	-0.005	3.7	16.76	-1.63	2.765	-0.025	-0.130	3.3	10.18	-0.95	-0.058	-0.076	-0.205	3.7			
5.08	-0.187	0.042	-0.083	-0.007	3.7	18.20	-0.42	-1.168	-0.029	-0.073	3.7	12.15	-2.02	-0.256	-0.054	-0.230	3.7			
4.16	-0.236	0.026	-0.037	-0.005	3.8	8.26	-0.07	-0.070	-0.029	-0.073	3.7	14.18	-1.73	-0.162	-0.092	-0.202	3.6			
6.24	-0.390	-0.030	-0.040	-0.008	3.7	8.06	-0.07	-0.059	-0.026	-0.090	3.7	16.21	-0.65	-0.034	-0.100	-0.283	3.6			
5.54	-0.31	0.030	-0.044	-0.018	3.7	10.03	-0.19	-0.179	-0.016	-0.115	3.7	17.22	-0.78	-0.260	-0.102	-0.297	3.6			
10.47	-0.053	-0.044	-0.057	-0.017	3.7	12.19	-0.09	-0.076	-0.019	-0.189	3.7									
12.48	-0.69	-0.044	-0.047	-0.017	3.6	14.7	-0.93	-0.183	-0.027	-0.147	3.7									
11.65	-0.77	-0.156	-0.044	-0.017	3.6	17.77	-0.77	-0.193	-0.030	-0.153	3.7									
16.65	-0.80	-0.217	-0.042	-0.016	3.6	2.03	-1.27	-0.029	-0.038	-0.163	3.7	-2.00	-0.61	-0.027	-0.001	-0.101	3.7			
27.69	-0.877	0.2458	-0.041	-0.044	3.6	2.08	-0.08	-0.026	-0.031	-0.079	3.7	-1.08	-0.022	-0.059	-0.006	-0.028	3.7			
0.60	-4.11	-0.109	0.135	-0.027	-0.016	3.7	8.26	-0.07	-0.027	-0.009	-0.073	3.7	-52	-0.004	-0.162	-0.009	-0.059	3.7		
-2.04	-0.103	0.097	-0.032	-0.016	3.7	8.10	-0.07	-0.027	-0.009	-0.073	3.7	-0.70	-0.188	-0.027	-0.018	-0.088	3.7			
-5.59	-0.082	-0.032	-0.032	-0.006	3.8	10.13	-0.21	-0.027	-0.005	-0.212	3.7	2.00	-0.05	-0.211	-0.041	-0.101	3.7			
-4.47	-0.074	0.027	-0.033	-0.005	3.8	12.19	-0.09	-0.024	-0.008	-0.093	3.7	6.07	-0.05	-0.043	-0.046	-0.145	3.7			
2.10	-0.117	-0.186	-0.038	-0.016	3.7	14.76	-0.02	-0.070	-0.024	-0.062	3.7	8.09	-0.11	-0.059	-0.056	-0.154	3.7			
4.16	-0.154	-0.239	-0.038	-0.016	3.7	17.73	-0.02	-0.070	-0.024	-0.071	3.7	10.11	-0.15	-0.054	-0.054	-0.154	3.7			
6.27	-0.249	-0.294	-0.043	-0.020	3.8	2.03	-0.05	-0.027	-0.015	-0.071	3.7	12.18	-0.15	-0.054	-0.055	-0.155	3.7			
8.35	-0.349	-0.431	-0.047	-0.024	3.8	8.16	-0.05	-0.027	-0.015	-0.071	3.7	14.17	-0.19	-0.058	-0.059	-0.159	3.7			
10.43	-0.536	-0.628	-0.048	-0.024	3.8	12.19	-0.05	-0.027	-0.015	-0.071	3.7	16.19	-0.23	-0.065	-0.066	-0.166	3.7			
12.48	-0.53	-1.013	-0.048	-0.024	3.8	14.7	-0.05	-0.027	-0.015	-0.071	3.7	17.81	-0.27	-0.066	-0.067	-0.167	3.7			
14.51	-0.572	-1.393	-0.049	-0.024	3.8	17.77	-0.05	-0.027	-0.015	-0.071	3.7									
16.65	-0.62	-1.877	-0.049	-0.024	3.8	2.03	-0.05	-0.027	-0.015	-0.071	3.7									
27.69	-0.672	-2.769	-0.049	-0.024	3.8	8.16	-0.05	-0.027	-0.015	-0.071	3.7									
0.60	-4.15	-0.118	0.147	-0.030	-0.028	3.6	14.19	-0.57	-1.782	-1.03	-0.261	3.6	-1.04	-0.12	-0.049	-0.009	-0.004	3.7		
-2.05	-0.021	0.035	-0.034	-0.017	3.7	16.22	-0.05	-1.719	-2.228	-1.20	2.01	-1.04	-0.02	-0.029	-0.002	-0.044	3.7			
-5.59	-0.026	0.036	-0.034	-0.017	3.7	17.44	-0.05	-1.746	-2.045	-1.12	2.07	-1.05	-0.02	-0.027	-0.002	-0.044	3.7			
-4.47	-0.047	0.036	-0.036	-0.019	3.7	1.50	-0.05	-1.19	-0.064	-0.011	-0.07	3.7	4.03	-1.52	-0.022	-0.030	-0.103	3.7		
-33	-0.054	0.126	-0.039	-0.023	3.7	2.00	-0.05	-0.057	-0.027	-0.044	3.7	6.03	-2.19	-0.041	-0.041	-0.184	3.7			
1.06	-0.125	0.134	-0.043	-0.028	3.6	1.03	-0.05	-0.057	-0.027	-0.044	3.7	8.08	-0.84	-0.053	-0.046	-0.143	3.7			
2.11	-0.166	0.170	-0.044	-0.028	3.7	1.03	-0.05	-0.057	-0.027	-0.044	3.7	10.10	-0.37	-0.076	-0.023	-0.168	3.7			
4.19	-0.256	0.261	-0.044	-0.028	3.8	1.03	-0.05	-0.057	-0.027	-0.044	3.7	12.13	-0.05	-0.104	-0.052	-0.181	3.7			
17.67	-0.672	-2.769	-0.049	-0.024	3.8	8.16	-0.05	-0.057	-0.027	-0.044	3.7	14.19	-0.45	-1.342	-0.069	-0.202	3.7			
0.60	-4.15	-0.118	0.147	-0.030	-0.028	3.6	14.19	-0.57	-1.782	-1.03	-0.261	3.6	-1.04	-0.12	-0.049	-0.009	-0.004	3.7		
-2.05	-0.021	0.035	-0.034	-0.017	3.7	16.22	-0.05	-1.719	-2.228	-1.20	2.01	-1.05	-0.02	-0.027	-0.002	-0.044	3.7			
-5.59	-0.026	0.036	-0.034	-0.017	3.7	17.44	-0.05	-1.746	-2.045	-1.12	2.07	-1.06	-0.02	-0.027	-0.002	-0.044	3.7			
-4.47	-0.047	0.036	-0.036	-0.019	3.7	1.50	-0.05	-1.19	-0.064	-0.011	-0.07	3.7	4.03	-1.52	-0.022	-0.030	-0.103	3.7		
-33	-0.054	0.126	-0.039	-0.023	3.7	2.00	-0.05	-0.057	-0.027	-0.044	3.7	6.03	-2.19	-0.041	-0.041	-0.184	3.7			
1.06	-0.125	0.134	-0.043	-0.028	3.6	1.03	-0.05	-0.057	-0.027	-0.044	3.7	8.08	-0.84	-0.053	-0.046	-0.143	3.7			
2.11	-0.166	0.170	-0.044	-0.028	3.7	1.03	-0.05	-0.057	-0.027	-0.044	3.7	10.10	-0.37	-0.076	-0.023	-0.168	3.7			
4.19	-0.256	0.261	-0.044	-0.028	3.8	1.03	-0.05	-0.057	-0.027	-0.044	3.7	12.13	-0.05	-0.104	-0.052	-0.181	3.7			
17.67	-0.672	-2.769	-0.049	-0.024	3.8	8.16	-0.05	-0.057	-0.027	-0.044	3.7	14.19	-0.45	-1.342	-0.069	-0.202	3.7			
0.60	-4.15	-0.118	0.147	-0.030	-0.028	3.6	14.19	-0.57	-1.782	-1.03	-0.261	3.6	-1.04	-0.12	-0.049	-0.009	-0.004	3.7		
-2.05	-0.021	0.035	-0.034	-0.017	3.7	16.22	-0.05	-1.719	-2.228	-1.20	2.01	-1.05	-0.02	-0.027	-0.002	-0.044	3.7			
-5.59	-0.026	0.036	-0.034	-0.017	3.7	17.44	-0.05	-1.746	-2.045	-1.12	2.07	-1.06	-0.02	-0.027	-0.002	-0.044	3.7			
-4.47	-0.047	0.036	-0.036	-0.019	3.7	1.50	-0.05	-1.19	-0.064	-0.011	-0.07	3.7	4.03	-1.52	-0.022	-0.030	-0.103	3.7		
-33	-0.054	0.126	-0.039	-0.023	3.7	2.00	-0.05	-0.057	-0.027	-0.044	3.7	6.03	-2.19	-0.041	-0.041	-0.184	3.7			
1.06	-0.125	0.134	-0.043	-0.028	3.6	1.03	-0.05	-0.057	-0.027	-0.044	3.7	8.08	-0.84	-0.053	-0.046	-0.143	3.7			
2.11	-0.166	0.170	-0.044	-0.028	3.7	1.03	-0.05	-0.057	-0.027	-0.044	3.7	10.10	-0.37	-0.076	-0.023	-0.168	3.7			
4.19	-0.256	0.261	-0.044	-0.028	3.8	1.03	-0.05	-0.057	-0.027	-0.044	3.7	12.13	-0.05	-0.104	-0.052	-0.181	3.7			
17.67	-0.672	-2.769	-0.049	-0.024	3.8	8.16	-0.05	-0.057	-0.027	-0.044	3.7	14.19	-0.45	-1.342	-0.069	-0.202	3.7			
0.60	-4.15	-0.118	0.147	-0.030	-0.028	3.6	14.19	-0.57	-1.782	-1.03	-0.261	3.6	-1.04	-0.12	-0.049	-0.009	-0.004	3.7		
-2.05	-0.021	0.035	-0.034	-0.017	3.7	16.22	-0.05	-1.719	-2.228	-1.20	2.01	-1.05	-0.02	-0.027	-0.002	-0.044	3.7			
-5.59	-0.026	0.036	-0.034	-0.017	3.7	17.44	-0.05	-1.746	-2.045	-1.12	2.07	-1.06	-0.02	-0.027	-0.002	-0.044	3.7			
-4.47	-0.047	0.036	-0.036	-0.019	3.7	1.50	-0.05	-1.19	-0.064	-0.011	-0.07	3.7	4.03	-1.52	-0.022	-0.030	-0.103	3.7		
-33	-0.054	0.126	-0.039	-0.023	3.7	2.00	-0.05	-0.057	-0.027	-0.044	3.7	6.03	-2.19	-0.041	-0.041	-0.184	3.7			
1.06	-0.125	0.134	-0.043	-0.028	3.6	1.03	-0.05	-0.057	-0.027	-0.044	3.7	8.08	-0.84	-0.053	-0.046	-0.143	3.7			
2.11	-0.166	0.170	-0.044	-0.028	3.7	1.03	-0.05	-0.057	-0.027	-0.044	3.7	10.10	-0.37	-0.076	-0.023	-0.168	3.7			
4.19	-0.256	0.261	-0.044	-0.028	3.8	1.03	-0.05	-0.057	-0.027	-0.044	3.7	12.13								

CONFIDENTIAL

TABLE IV.- CONTINUED

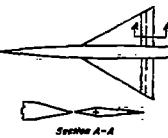
(c) Nominal  $\delta_s = 0^\circ$ 

X	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	S	X	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	S	X	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	S
0.60	-4.13	-0.493	0.0165	0.009	0.013	0	0.90	6.24	0.295	0.033	-0.028	0.002	0	1.50	2.00	0.077	0.0192	-0.018	-0.036	0
-2.05	-1.00	-0.099	.004	.008	0	0	8.34	.412	0.016	-0.030	-0.031	-0.1	0	4.04	1.61	0.071	-0.026	-0.060	0	
-1.01	-0.58	-	-	.003	0.008	0	10.43	.562	0.058	-0.039	-0.077	-0.2	0	6.06	2.14	0.046	-0.039	-0.031	0	
-1.48	-0.36	-0.079	.002	0.008	0	0	12.54	.656	0.102	-0.028	-0.111	-0.3	0	8.09	3.24	0.020	-0.021	-0.103	0	
.90	.004	-0.080	.001	0.005	0	0							0	10.12	1.03	0.036	-0.081	-0.129	0	
.97	.023	-0.084	0	0.003	0	0							0	12.14	1.63	0.136	-0.072	-0.152	0	
2.02	.067	.009	-0.002	0.003	0	0							0	14.17	2.77	0.488	-0.084	-0.126	0	
4.10	.199	.019	-0.006	0.003	0	0							0	16.22	.631	0.955	-0.080	-0.111	0	
6.19	.299	.027	-0.013	-0.002	0	0							0	17.23	.569	1.225	-0.085	-0.123	0	
8.27	.349	.034	-0.013	-0.002	0	0							0							
10.36	.387	.039	-0.014	-0.002	0	0							0							
12.44	.428	.044	-0.014	-0.002	0	0							0							
14.52	.468	.048	-0.015	-0.002	0	0							0							
16.60	.507	.052	-0.015	-0.002	0	0							0							
17.67	.541	.057	-0.015	-0.002	0	0							0							
0.80	-4.16	-2.00	.0176	.012	.008	0	1.20	-4.05	-0.203	0.025	0.035	.061	0	1.70	-4.04	-0.166	0.020	.086	.067	0
-2.05	-1.03	-0.095	.005	.013	.005	0	2.00	-2.00	-0.096	0.025	0.016	.058	0	4.04	-2.00	-0.089	0.017	.023	.039	0
-1.01	-0.58	-0.088	.004	.013	.005	0	4.04	-1.04	-0.097	0.025	0.016	.058	0	6.07	-2.00	-0.083	0.017	.027	.037	0
-1.48	-0.35	-0.088	.003	.012	.005	0	6.06	-0.58	-0.097	0.025	0.016	.058	0	8.09	-3.04	-0.089	0.016	.024	.034	0
.96	.031	-0.097	.001	-	-	0	8.06	-0.16	-0.097	0.025	0.016	.058	0	10.12	-1.63	-0.089	0.016	.024	.034	0
2.03	.076	.019	-0.003	.004	.005	0	10.13	-0.54	-0.099	-0.071	-0.140	0	0	12.15	-1.63	-0.089	0.016	.024	.034	0
4.13	.173	.0173	-0.010	.008	.005	0	12.15	-0.54	-0.099	-0.071	-0.140	0	0	14.19	-1.51	-0.089	0.016	.024	.034	0
6.20	.279	.034	-0.017	0	0	0	14.19	-0.54	-0.099	-0.071	-0.140	0	0	16.21	-1.63	-0.089	0.016	.024	.034	0
8.31	.387	.056	-0.022	-0.017	0	0	16.23	-0.54	-0.099	-0.071	-0.140	0	0	17.22	-0.93	-0.089	0.016	.024	.034	0
10.43	.485	.061	-0.022	-0.017	-1	0	17.24	-0.54	-0.099	-0.071	-0.140	0	0	19.29	-0.93	-0.089	0.016	.024	.034	0
12.48	.579	.129	-0.024	-0.017	-1	0	17.24	-0.54	-0.099	-0.071	-0.140	0	0	19.29	-1.48	-0.089	0.016	.024	.034	0
14.57	.680	.173	-0.030	-0.017	-1	0	17.24	-0.54	-0.099	-0.071	-0.140	0	0	19.29	-1.93	-0.089	0.016	.024	.034	0
16.60	.784	.246	-0.031	-0.016	-1	0	17.24	-0.54	-0.099	-0.071	-0.140	0	0	19.29	-2.38	-0.089	0.016	.024	.034	0
17.74	.884	.275	-0.031	-0.016	-1	0	17.24	-0.54	-0.099	-0.071	-0.140	0	0	19.29	-2.83	-0.089	0.016	.024	.034	0
0.90	-4.17	-2.13	-0.0201	.017	.012	0	1.20	-4.04	-0.165	0.027	0.027	.064	0	1.70	-4.04	-0.144	0.023	.063	.052	0
-2.05	-1.05	-0.093	.0113	.007	.023	0	2.00	-2.00	-0.087	0.031	0.013	.060	0	4.03	-2.00	-0.086	0.031	.060	.051	0
-1.01	-0.58	-0.085	.005	.028	.005	0	4.04	-0.58	-0.089	0.031	0.013	.060	0	6.07	-2.00	-0.085	0.031	.060	.051	0
-1.48	-0.34	-0.082	.0100	.004	.023	0	6.06	-0.16	-0.089	0.031	0.013	.060	0	8.08	-3.05	-0.085	0.031	.060	.051	0
.97	.037	-0.082	0	.004	.023	0	8.06	-0.16	-0.089	0.031	0.013	.060	0	10.10	-3.02	-0.085	0.031	.060	.051	0
2.04	.087	.0113	-0.005	.006	.023	0	10.13	-0.54	-0.089	0.031	0.013	.060	0	12.12	-3.02	-0.085	0.031	.060	.051	0
4.13	.186	.0185	-0.012	.017	.023	0	12.15	-0.54	-0.089	0.031	0.013	.060	0	14.19	-3.02	-0.085	0.031	.060	.051	0
17.73	.847	.262	-0.033	-0.023	4.3	0	17.24	-0.54	-0.089	0.031	0.013	.060	0	17.24	-0.93	-0.089	0.031	.060	.051	0
0.80	-4.18	-2.23	.0125	.029	-	0	1.20	-4.05	-0.225	0.031	.045	.138	0	1.70	-4.02	-0.130	0.047	.036	.021	0
-2.05	-1.12	-0.088	.028	.042	-	0	2.00	-2.02	-0.121	0.028	.029	.124	0	4.04	-2.02	-0.107	0.045	.036	.021	0
-1.01	-0.58	-0.088	.028	.042	-	0	4.04	-0.58	-0.121	0.028	.029	.124	0	6.06	-2.02	-0.106	0.045	.036	.021	0
-1.48	-0.34	-0.088	.028	.042	-	0	6.06	-0.16	-0.121	0.028	.029	.124	0	8.08	-3.05	-0.106	0.045	.036	.021	0
.97	.037	-0.088	0	.042	-	0	8.06	-0.16	-0.121	0.028	.029	.124	0	10.10	-3.02	-0.106	0.045	.036	.021	0
2.04	.087	.0113	-0.005	.006	-	0	10.13	-0.54	-0.121	0.028	.029	.124	0	12.12	-3.02	-0.106	0.045	.036	.021	0
4.13	.186	.0185	-0.012	.017	-	0	12.15	-0.54	-0.121	0.028	.029	.124	0	14.19	-3.02	-0.106	0.045	.036	.021	0
17.73	.847	.262	-0.033	-0.023	4.3	0	17.24	-0.54	-0.121	0.028	.029	.124	0	17.24	-0.93	-0.106	0.045	.036	.021	0
0.90	-4.19	-2.48	.0237	.035	.003	-4.1	1.20	-4.05	-1.85	0.030	.034	.123	-4.1	1.70	-4.04	-1.75	0.028	.026	.007	-2.1
-2.05	-1.48	-0.137	.029	.027	-4.1	0	2.01	-2.01	-1.04	0.029	.027	.025	-4.1	4.04	-2.00	-0.84	0.020	.016	.005	-2.1
-1.01	-0.66	-0.111	.028	.025	-4.1	0	4.04	-0.58	-1.04	0.029	.027	.025	-4.1	6.06	-2.00	-0.83	0.020	.016	.005	-2.1
-1.48	-0.34	-0.078	.029	.027	-4.1	0	6.06	-0.16	-1.04	0.029	.027	.025	-4.1	8.08	-3.05	-0.83	0.020	.016	.005	-2.1
.97	.037	-0.078	0	.029	-4.1	0	8.06	-0.16	-1.04	0.029	.027	.025	-4.1	10.10	-3.02	-0.83	0.020	.016	.005	-2.1
2.04	.087	.0097	.021	.001	-4.1	0	10.13	-0.54	-1.04	0.029	.027	.025	-4.1	12.12	-3.02	-0.83	0.020	.016	.005	-2.1
4.11	.133	.0150	.012	.037	-4.0	0	12.15	-0.54	-1.04	0.029	.027	.025	-4.1	14.19	-3.02	-0.83	0.020	.016	.005	-2.1
6.21	.246	.0279	.005	.015	-4.1	0	17.24	-0.54	-1.04	0.029	.027	.025	-4.1	17.24	-0.93	-0.83	0.020	.016	.005	-2.1

CONFIDENTIAL

NACA

TABLE IV.- CONTINUED

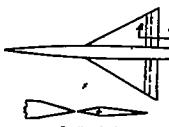
(e) Nominal  $\delta$ ,  $-4^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$
0.60	-1.18	-0.298	0.037	0.038	-0.010	-4.2	0.90	6.28	0.200	0.087	0.020	0.121	-3.8	1.50	4.05	0.135	0.026	-0.009	0.029	-4.2
-2.10	-1.16	-0.245	0.034	-0.015	-4.2	8.20	310	0.056	0.020	0.092	-3.9	6.07	216	0.060	-0.021	-0.003	0.029	-4.2		
-1.06	-1.29	-0.127	0.034	-0.005	-4.2	10.36	321	0.014	0.111	0.078	-3.9	8.10	208	0.056	-0.033	-0.022	0.029	-4.2		
-1.54	-1.12	-0.118	0.034	-0.005	-4.2	12.47	322	1.190	0.033	0.058	-4.0	10.13	300	0.079	-0.045	-0.029	0.029	-4.2		
-1.50	-0.71	-0.104	0.034	-0.005	-4.2	1.80	-4.05	-0.056	0.367	0.060	1.94	-4.1	14.16	539	1.133	-0.057	-0.113	0.1	-4.2	
-1.57	-0.041	-0.003	0.034	-0.005	-4.2	2.02	-2.02	-0.156	0.233	0.14	1.89	-4.1	16.22	618	1.184	-0.076	-0.135	0.1	-4.2	
2.01	-0.008	0.110	0.032	0.002	-4.2	4.20	-1.00	-0.104	0.214	0.035	1.77	-4.1	17.23	623	2.066	-0.079	-0.144	0.1	-4.2	
4.50	-0.176	0.124	0.029	0.008	-4.2	6.48	-0.48	-0.076	0.081	0.031	1.71	-4.1	1.70	-4.04	-1.28	0.316	0.038	-0.137	0.1	-4.2
6.19	-0.176	0.023	0.023	0.000	-4.2	7.50	-0.26	0.038	0.024	0.014	1.54	-4.1	2.01	-1.05	0.228	0.026	0.114	0.1	-4.2	
10.32	-0.30	-0.057	0.016	-0.005	0.3	1.02	-0.02	0.190	0.220	0.14	1.41	-4.1	-0.8	-0.053	0.284	0.019	0.100	0.1	-4.2	
12.39	-0.61	0.105	0.013	-0.004	0.3	2.04	0.048	0.220	0.13	0.216	-4.2	-0.47	-0.044	0.073	0.016	0.093	0.1	-4.2		
14.48	-0.90	0.144	0.013	-0.003	0.3	4.05	0.148	0.265	0.004	0.093	-4.2	-0.50	-0.007	0.163	0.011	0.077	0.1	-4.2		
16.56	-0.78	0.204	0.007	-0.008	0.3	6.06	0.256	0.040	0.221	0.069	-4.2	1.02	0.012	0.168	0.008	0.058	0.1	-4.2		
17.62	-0.76	0.272	0.006	-0.001	0.3	8.12	0.365	0.067	0.037	0.024	-4.2	1.99	0.045	0.186	0.003	0.091	0.1	-4.2		
0.80	-4.20	-0.270	0.073	0.042	-0.010	-4.2	12.19	589	1.312	0.073	-0.047	-4.2	4.04	-1.28	0.084	-0.008	0.013	0.1	-4.2	
-2.12	-1.74	0.158	0.036	-0.014	-4.2	1.30	-4.05	-0.237	0.390	0.028	1.97	-4.1	8.09	-2.77	0.017	-0.030	-0.044	0.1	-4.2	
-1.08	-1.37	0.032	0.039	0.008	-4.2	2.02	-2.02	-0.144	0.279	0.039	1.76	-4.1	10.12	349	0.078	-0.040	-0.067	0.1	-4.2	
-0.58	-1.15	0.127	0.040	0.004	-4.2	1.00	-0.092	0.036	0.030	0.163	-4.1	12.14	424	0.097	-0.050	0.050	0.1	-4.2		
-0.20	-0.64	0.115	0.032	-0.016	-4.2	-1.48	-0.066	0.025	0.085	1.53	-4.1	14.17	495	-0.111	-0.060	-0.114	0.1	-4.2		
-0.98	-0.042	0.118	0.034	0.008	-4.2	1.90	0.21	0.024	0.19	1.94	-4.1	16.20	523	1.164	-0.064	-0.134	0.1	-4.2		
2.02	-0.003	0.029	0.034	0.001	-4.2	1.02	0.003	0.021	0.165	1.08	-4.1	17.21	588	1.149	-0.067	-0.144	0.1	-4.2		
4.11	-0.021	0.031	0.014	-0.001	-4.2	2.03	0.025	-0.0237	0.008	0.088	-4.2	1.99	0.046	0.186	0.003	0.091	0.1	-4.2		
6.26	-0.188	0.022	0.004	0.008	-4.2	6.06	0.249	0.026	0.024	0.092	-4.2	6.07	201	0.055	-0.019	-0.018	0.1	-4.2		
8.27	-0.208	0.049	0.017	0.002	-4.2	6.06	0.249	0.026	0.024	0.092	-4.2	8.09	-2.77	0.017	-0.030	-0.044	0.1	-4.2		
10.36	-0.401	0.073	0.015	-0.011	0.3	8.11	1.104	0.024	0.026	0.092	-4.2	-0.98	-0.056	0.023	0.017	0.029	0.1	-4.2		
12.45	-0.505	0.108	0.006	0.004	0.3	10.14	1.437	0.009	0.021	0.091	-4.2	-1.17	-0.038	0.082	0.014	0.028	0.1	-4.2		
14.54	-0.612	0.155	0.002	0.018	0.3	12.17	1.573	0.022	0.124	0.070	-4.2	-1.01	-0.005	0.076	0.009	0.028	0.1	-4.2		
16.63	-0.715	0.204	-0.005	-0.020	0.3	14.21	1.662	0.077	0.077	0.062	-4.2	1.01	0.012	0.175	-0.007	0.062	0.1	-4.2		
17.70	-0.803	0.240	-0.016	-0.024	0.3	16.24	1.703	-0.088	0.126	0.082	-4.2	1.99	0.046	0.187	-0.002	0.066	0.1	-4.2		
0.90	-4.21	-0.278	0.081	0.040	-0.003	-4.2	17.29	7.748	---	0.092	-0.141	-4.2	4.03	-1.14	0.042	-0.008	0.025	0.1	-4.2	
-2.13	-1.62	0.173	0.043	-0.007	-4.2	1.50	-8.01	-0.139	0.233	0.031	1.91	-4.1	8.06	-2.50	0.088	-0.026	-0.031	0.1	-4.2	
-1.08	-1.34	0.146	0.041	0.004	-4.2	-9.99	-0.072	0.019	0.023	1.91	-4.1	10.11	318	0.087	-0.031	-0.054	0.1	-4.2		
-0.56	-1.12	0.136	0.036	0.004	-4.2	-1.47	-0.058	0.188	0.019	1.91	-4.1	12.13	379	0.0914	-0.042	-0.077	0.1	-4.2		
-0.95	-0.042	0.127	0.030	0.008	-4.2	-5.0	-0.111	0.019	0.13	0.98	-4.1	14.16	440	1.194	-0.048	-0.099	0.1	-4.2		
2.03	-0.006	0.121	0.035	0.004	-4.2	1.08	0.010	0.018	0.010	0.087	-4.2	16.18	501	1.1519	-0.053	-0.119	0.1	-4.2		
4.13	-0.090	0.158	0.037	-0.112	-3.8	1.99	0.050	0.020	0.004	0.059	-4.2	17.19	532	1.1701	-0.055	-0.126	0.1	-4.2		

(f) Nominal  $\delta$ ,  $-8^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$b$
0.60	-1.21	-0.320	0.035	0.062	-0.026	-8.3	8.30	0.246	0.074	0.028	0.160	-7.7	1.50	4.11	0.106	0.0274	0.011	0.105	-8.2	
-2.11	-0.285	0.029	0.060	-0.026	-8.3	10.39	350	0.078	0.026	0.061	0.151	-7.7	1.50	4.11	0.107	0.0287	0.013	0.087	-8.2	
-1.10	-1.26	0.019	0.060	0.026	-0.026	-8.3	12.44	457	1.107	0.034	0.143	-7.7	-1.50	4.11	0.108	0.0297	0.013	0.088	-8.2	
-0.59	-1.177	0.017	0.062	-0.026	-8.3	14.50	577	1.157	0.022	0.139	-7.7	-1.50	4.11	0.109	0.0307	0.013	0.089	-8.2		
-1.54	-1.35	0.016	0.061	-0.026	-8.3	1.80	-4.04	-0.276	0.053	0.080	0.273	-8.1	1.70	4.11	0.110	0.0317	0.013	0.090	-8.2	
-0.97	-1.139	0.019	0.061	-0.026	-8.3	2.02	-1.06	0.019	0.059	0.069	0.273	-8.1	1.70	4.11	0.111	0.0327	0.013	0.091	-8.2	
1.93	-0.083	0.127	0.010	0.015	-8.3	4.05	-1.00	0.024	0.054	0.061	0.273	-8.1	1.70	4.11	0.112	0.0337	0.013	0.092	-8.2	
4.03	-0.021	0.120	0.009	0.010	-8.3	6.06	-1.00	0.024	0.054	0.061	0.273	-8.1	1.70	4.11	0.113	0.0347	0.013	0.093	-8.2	
6.12	-0.96	0.169	0.019	0.013	-8.3	8.05	-1.00	0.024	0.054	0.061	0.273	-8.1	1.70	4.11	0.114	0.0357	0.013	0.094	-8.2	
8.22	-1.18	0.193	0.014	0.013	-8.3	10.00	-1.00	0.024	0.054	0.061	0.273	-8.1	1.70	4.11	0.115	0.0367	0.013	0.095	-8.2	
10.32	-0.310	0.058	0.016	-0.003	-8.3	12.05	0.030	0.024	0.054	0.061	0.273	-8.1	1.70	4.11	0.116	0.0377	0.013	0.096	-8.2	
-1.21	-0.299	0.026	0.016	-0.003	-8.3	14.39	1.104	0.024	0.054	0.060	0.273	-8.1	1.70	4.11	0.117	0.0387	0.013	0.097	-8.2	
-1.10	-1.18	0.027	0.016	-0.003	-8.3	16.00	1.159	0.024	0.054	0.060	0.273	-8.1	1.70	4.11	0.118	0.0397	0.013	0.098	-8.2	
-0.45	-1.18	0.026	0.016	-0.003	-8.3	18.05	1.174	0.024	0.054	0.060	0.273	-8.1	1.70	4.11	0.119	0.0407	0.013	0.099	-8.2	
-0.93	-1.03	0.017	0.016	-0.003	-8.3	1.00	-0.48	0.024	0.054	0.060	0.273	-8.1	1.70	4.11	0.120	0.0417	0.013	0.099	-8.2	
1.96	-0.051	0.126	0.011	-0.007	-8.3	4.04	-0.103	0.024	0.054	0.060	0.273	-8.1	1.70	4.11	0.121	0.0427	0.013	0.100	-8.2	
4.04	-0.024	0.120	0.010	0.018	-8.3	6.08	-0.103	0.024	0.054	0.060	0.273	-8.1	1.70	4.11	0.122	0.0437	0.013	0.101	-8.2	
6.15	-0.102	0.162	0.019	0.018	-8.3	8.04	-0.103	0.024	0.054	0.060	0.27									

TABLE IV. - CONCLUDED

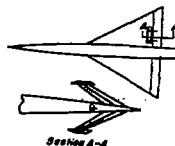
(g) Nominal  $\delta$ ,  $-12^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$S$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$S$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$S$		
0.60	-0.66	-0.214	0.0691	0.079	-0.007	-12.0	0.90	12.45	0.397	0.1036	0.065	0.180	-11.4	1.50	4.08	0.073	0.0309	0.025	0.182	-12.2		
.42	-1.176	0.061	0.078	-0.013	-12.0	14.54	.509	1.522	.025	0.190	-11.3	6.13	.154	0.391	.019	1.34	.230	.054	.007	.090	-12.2	
.94	-1.153	0.047	0.079	-0.018	-12.0	1.20	-4.03	-0.301	0.050	0.074	.354	-12.1	10.13	.317	0.0722	.006	0.055	.302	0.056	.017	.026	-12.2
1.93	-1.116	0.020	0.078	-0.023	-12.0	-2.01	-2.22	0.0425	0.067	0.360	-12.1	12.16	.302	0.056	.017	.026	.302	0.056	.017	.026	-12.2	
3.98	-0.068	0.068	0.065	-0.031	-12.0	-1.00	-1.78	0.073	0.083	0.300	-12.1	14.19	.470	0.126	.027	0.114	1.19	0.470	.027	0.114	-12.3	
6.07	.030	0.191	0.022	-0.039	-12.0	-4.9	-1.54	0.325	0.079	.345	-12.1	16.22	.549	1.631	.037	.027	.549	1.631	.037	.027	-12.3	
8.17	.134	0.055	0.077	-0.047	-12.1	.45	-1.11	0.030	0.073	.334	-12.1	17.23	.595	1.632	.044	.027	.595	1.632	.044	.027	-12.3	
10.38	.242	0.003	0.075	-0.066	-12.1	1.00	-0.69	0.328	0.076	.365	-12.1	1.70	-4.03	-0.210	0.046	.060	.287	-12.1				
12.55	.330	0.071	0.074	-0.053	-12.1	2.03	-0.64	0.314	0.066	.315	-12.1	2.01	-1.42	0.341	.051	.263	1.24	0.341	.051	.263	-12.1	
14.43	.438	1.106	0.073	-0.047	-12.1	4.06	0.044	0.304	0.075	.260	-12.1	.99	-1.02	0.297	.044	.255	-12.1					
16.26	.535	1.981	0.072	-0.045	-12.1	6.14	1.42	0.367	0.041	.213	-12.2	.48	-0.94	0.271	.042	.241	-12.1					
17.36	.590	1.830	0.072	-0.043	-12.1	8.17	2.47	0.357	0.026	.175	-12.2	.50	-0.93	0.275	.039	.220	-12.2					
0.80	-4.22	-0.316	0.067	0.073	0.094	-11.7	10.25	.343	0.083	.011	.134	-12.2	1.01	-0.37	0.036	.036	.206	-12.2				
-2.15	-2.38	0.074	0.071	0.075	0.061	-11.8	12.18	1.46	0.1070	.001	.090	-12.2	2.03	-0.004	0.065	.035	.183	-12.2				
-1.12	-2.04	0.089	0.076	0.061	0.089	-11.8	14.22	.543	1.434	-0.012	.065	-12.2	4.08	-0.71	0.092	.025	.137	-12.2				
-.68	-2.05	0.313	0.055	0.089	0.089	-11.9	1.30	-4.03	-0.265	0.056	.062	.364	-12.1	6.07	.147	0.067	.014	.095	-12.2			
.42	-1.74	0.059	0.087	0.082	0.082	-11.9	-2.00	-0.201	0.049	0.077	.359	-12.1	8.10	.222	0.052	.003	.097	-12.2				
.94	-1.58	0.070	0.087	0.088	0.088	-12.0	-1.00	-1.42	0.050	0.068	.357	-12.1	10.12	.297	0.068	.007	.086	-12.2				
1.93	-1.12	0.043	0.089	0.089	0.089	-12.0	-4.8	-1.29	0.052	0.068	.354	-12.1	12.15	.365	0.056	.017	.084	-12.3				
3.59	-0.068	0.094	0.089	0.088	0.088	-12.0	-1.00	-1.29	0.052	0.068	.355	-12.1	14.17	.436	1.177	.026	.084	-12.3				
6.07	.068	0.089	0.089	0.089	0.089	-12.1	1.01	-0.66	0.035	0.056	.310	-12.1	16.20	.504	1.505	.032	.078	-12.3				
8.17	.180	0.089	0.089	0.089	0.089	-12.1	1.00	-0.66	0.035	0.056	.310	-12.1	17.34	.539	1.633	.035	.100	-12.3				
10.31	.267	0.070	0.089	0.089	0.089	-12.1	1.00	-0.66	0.035	0.056	.310	-12.1	2.03	-0.004	0.065	.035	.183	-12.2				
12.39	.362	0.065	0.089	0.089	0.089	-12.1	4.07	-0.201	0.039	0.056	.325	-12.2	4.00	-1.21	0.329	.041	.236	-12.2				
14.38	.452	1.216	0.073	0.089	0.089	-12.1	6.14	1.32	0.061	0.056	.310	-12.2	6.06	-0.86	0.286	.036	.226	-12.2				
15.38	.535	1.682	0.080	0.089	0.089	-12.1	8.14	2.42	0.061	0.056	.310	-12.2	8.08	-0.86	0.286	.036	.226	-12.2				
17.38	.599	1.988	0.080	0.089	0.089	-12.1	10.18	3.34	0.061	0.056	.310	-12.2	10.11	-0.86	0.286	.036	.226	-12.2				
0.90	-4.23	-0.346	0.069	0.097	0.170	-11.4	14.20	1.20	0.037	0.024	0.056	-12.2	1.01	-0.37	0.039	.034	.260	-12.1				
-2.15	-2.53	0.040	0.090	0.090	0.143	-11.5	16.23	2.30	0.176	0.035	0.056	-12.2	2.00	-1.21	0.329	.041	.236	-12.2				
-1.13	-2.22	0.073	0.087	0.089	0.089	-11.5	1.30	-4.03	-0.242	0.058	.071	.332	-12.1	6.06	.138	0.046	.016	.088	-12.2			
.61	-2.05	0.052	0.091	0.091	0.091	-11.5	1.30	-2.01	-0.201	0.058	.071	.332	-12.1	8.08	.204	0.059	.001	.094	-12.2			
.94	-1.68	0.031	0.093	0.093	0.093	-11.5	1.30	-1.00	-0.201	0.058	.071	.332	-12.1	10.11	.270	0.063	.007	.089	-12.2			
1.93	-1.01	0.084	0.089	0.089	0.089	-11.6	-1.00	-1.23	0.036	0.056	.366	-12.1	12.13	.357	0.083	.014	.082	-12.3				
4.03	-0.27	0.036	0.088	0.088	0.088	-11.6	-1.00	-1.03	0.031	0.056	.366	-12.1	14.16	.399	1.087	.023	.084	-12.3				
6.15	.077	0.081	0.081	0.081	0.081	-11.6	-1.00	-0.66	0.0281	0.046	.363	-12.1	16.18	.457	1.350	.024	.081	-12.3				
8.27	.193	0.045	0.076	0.076	0.076	-11.6	1.00	-0.66	0.0277	0.044	.363	-12.1	17.20	.488	1.554	.024	.081	-12.3				
10.35	.285	0.070	0.074	0.074	0.074	-11.6	2.03	0.003	0.0283	0.038	.360	-12.2	2.03	-0.004	0.065	.035	.183	-12.3				

(h) Nominal  $\delta$ ,  $-16^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$S$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$S$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$S$
0.60	-1.30	-0.306	0.081	0.071	0.128	-16.1	0.90	-6.11	0.087	0.031	0.108	.079	-16.1	1.50	4.07	0.039	0.0371	0.048	0.235	-16.3
-2.14	-2.29	0.072	0.071	0.128	0.128	-16.1	5.23	1.45	0.075	0.031	0.068	.071	-16.1	6.13	.121	0.0436	.037	1.18	.230	-16.3
-1.11	-2.00	0.048	0.079	0.135	0.135	-16.1	10.33	2.44	0.078	0.031	0.068	.071	-16.1	8.16	.204	0.0228	.025	1.16	.230	-16.3
-.68	-1.99	0.045	0.082	0.109	0.109	-16.1	12.40	3.25	0.084	0.031	0.068	.071	-16.1	10.14	.286	0.0733	.012	1.00	.230	-16.3
.42	-1.86	0.035	0.090	0.090	0.090	-16.2	1.20	-4.03	-0.317	0.0766	0.110	.356	-16.2	12.16	.366	0.063	.001	.059	.230	-16.3
-.68	-1.69	0.038	0.090	0.090	0.090	-16.2	-2.01	-2.42	0.066	0.101	.356	-16.2	14.19	.442	1.247	.009	.021	.230	-16.3	
.94	-1.58	0.056	0.089	0.090	0.090	-16.2	-1.00	-0.69	0.039	0.076	.356	-16.2	17.23	.555	1.788	.022	.053	.230	-16.3	
1.93	-1.31	0.049	0.090	0.090	0.090	-16.2	-1.00	-1.86	0.046	0.076	.356	-16.2	1.70	-4.03	-0.226	0.071	.070	.356	-16.2	
3.59	-0.056	0.087	0.090	0.090	0.090	-16.2	-1.00	-1.86	0.046	0.076	.356	-16.2	2.01	-1.55	0.045	.040	.060	.314	-16.2	
6.07	.056	0.087	0.090	0.090	0.090	-16.2	-1.00	-1.86	0.046	0.076	.356	-16.2	-1.00	-1.19	0.076	.022	.030	.302	-16.2	
8.17	.197	0.053	0.092	0.090	0.090	-16.2	2.02	-0.69	0.0416	0.076	.356	-16.2	-1.48	-1.02	0.0328	.028	.290	.302	-16.2	
12.31	.272	0.078	0.090	0.090	0.090	-16.2	10.18	3.24	0.078	0.077	.356	-16.2	12.15	.375	0.069	.008	.020	.302	-16.2	
14.38	.306	1.008	0.090	0.090	0.090	-16.2	4.06	0	0.058	0.078	.356	-16.2	14.18	.449	0.071	0.0335	.020	.268	-16.2	
16.47	.460	1.045	0.090	0.090	0.090	-16.2	6.13	0.94	0.042	0.076	.356	-16.2	16.20	.512	1.986	-0.18	0.027	.230	-16.2	
17.31	.513	1.633	0.090	0.090	0.090	-16.2	10.20	-0.003	0.0281	0.037	.356	-16.2	2.02	-0.003	0.035	.045	.230	-16.2		
0.80	-4.21	-0.307	0.071	0.076	0.155	-15.9	1.30	-4.03	-0.286	0.0699	0.066	.356	-16.2	4.07	-0.45	0.040	.035	.179	-16.3	
-2.14	-2.28	0.074	0.071	0.135	0.135	-15.9	-2.01	-1.87	0.057	0.077	.356	-16.2	6.12	.122	0.0405	.029	.155	.230	-16.3	
-1.																				

TABLE V.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH 38-PERCENT-SPAN PADDLE BALANCES MOUNTED ON THE UPPER AND LOWER SURFACES OF THE FLAP. DATA FOR ONE FLAP.  $R = 4.4 \times 10^6$

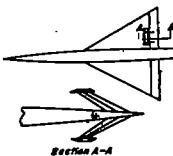


Section A-A

(a) Nominal  $\delta$ ,  $2^\circ$ 

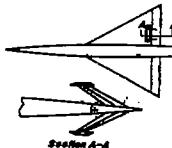
$X$	$a$	$c_x$	$c_p$	$c_m$	$c_h$	$c_t$	$b$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_t$	$b$	$X$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_t$	$b$
0.60	-1.16	-0.016	0.008	0.008	-0.0048	1.9	0.90	6.35	0.131	0.0408	-0.03	0.085	-0.0048	1.7	1.50	1.00	0.036	0.016	-0.03	0.033	-0.0025	1.7	
-6.06	-0.073	0.114	-0.007	0.003	-0.0049	1.9		8.46	.414	0.0637	-0.09	0.071	-0.0039	1.7		8.04	0.059	0.005	-0.016	0.020	-0.0017	1.7	
-1.05	-0.023	0.097	-0.005	0.018	-0.0049	1.9		10.36	.530	0.0906	-0.038	0.128	-0.0023	1.5		4.10	0.081	0.005	-0.023	0.034	-0.0014	1.6	
-7.21	-0.023	0.093	-0.005	0.017	-0.0049	1.9		12.70	.611	0.1410	-0.039	0.184	-0.0024	1.4		6.15	0.059	0.005	-0.041	0.027	-0.0012	1.5	
-1.03	-0.023	0.093	-0.005	0.016	-0.0048	1.9										18.30	0.148	0.015	-0.09	0.176	-0.0029	1.5	
2.09	-0.05	0.026	-0.005	0.004	-0.0048	1.9										10.85	1.40	0.025	-0.05	0.224	-0.0029	1.5	
4.18	-0.16	0.026	-0.005	0.004	-0.0048	1.9										18.31	1.46	0.119	-0.07	0.226	-0.0029	1.5	
6.28	-0.27	0.026	-0.005	0.004	-0.0048	1.9										15.45	1.65	0.170	-0.09	0.303	-0.0027	1.6	
8.38	-0.38	0.026	-0.005	0.004	-0.0048	1.9										17.45	1.61	0.200	-0.09	0.313	-0.0025	1.6	
10.49	-0.49	0.026	-0.005	0.004	-0.0048	1.9										1.70	-1.00	-1.51	0.06	0.080	-0.067	2.1	
12.60	-0.59	0.026	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.005	-0.016	0.020	-0.0018	2.0	
14.70	-0.69	0.026	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0015	1.9	
16.80	-0.79	0.026	-0.005	0.004	-0.0048	1.9										6.14	0.236	0.040	-0.036	0.020	-0.0014	1.8	
17.88	-0.89	0.026	-0.005	0.004	-0.0048	1.9										8.19	0.310	0.086	-0.046	0.141	-0.0008	1.4	
0.80	-1.18	-0.173	0.016	0.004	-0.0048	1.9										10.23	0.276	0.059	-0.052	0.171	-0.0014	1.8	
-2.08	-0.073	0.112	-0.005	0.004	-0.0048	1.9										14.34	0.316	0.145	-0.067	0.204	-0.0014	1.8	
-1.03	-0.028	0.093	-0.005	0.004	-0.0048	1.9										16.39	0.356	0.178	-0.077	0.229	-0.0013	1.7	
-1.28	-0.005	0.093	-0.005	0.004	-0.0048	1.9										17.40	0.381	0.207	-0.080	0.239	-0.0013	1.7	
-0.38	0.011	0.103	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.059	-0.014	0.038	-0.0010	1.8	
1.04	-0.061	0.026	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0008	1.6	
2.20	-0.113	0.036	-0.005	0.004	-0.0048	1.9										6.14	0.236	0.040	-0.036	0.020	-0.0014	1.7	
3.21	-0.163	0.036	-0.005	0.004	-0.0048	1.9										8.19	0.310	0.086	-0.046	0.141	-0.0008	1.4	
4.21	-0.213	0.036	-0.005	0.004	-0.0048	1.9										10.23	0.276	0.059	-0.052	0.171	-0.0014	1.8	
5.21	-0.263	0.036	-0.005	0.004	-0.0048	1.9										14.34	0.316	0.145	-0.067	0.204	-0.0014	1.8	
6.21	-0.313	0.036	-0.005	0.004	-0.0048	1.9										16.39	0.356	0.178	-0.077	0.229	-0.0013	1.7	
7.21	-0.363	0.036	-0.005	0.004	-0.0048	1.9										17.40	0.381	0.207	-0.080	0.239	-0.0013	1.7	
8.21	-0.413	0.036	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.059	-0.014	0.038	-0.0010	1.8	
9.21	-0.463	0.036	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0008	1.6	
10.21	-0.513	0.036	-0.005	0.004	-0.0048	1.9										6.14	0.236	0.040	-0.036	0.020	-0.0014	1.7	
11.21	-0.563	0.036	-0.005	0.004	-0.0048	1.9										8.19	0.310	0.086	-0.046	0.141	-0.0008	1.4	
12.21	-0.613	0.036	-0.005	0.004	-0.0048	1.9										10.23	0.276	0.059	-0.052	0.171	-0.0014	1.8	
13.21	-0.663	0.036	-0.005	0.004	-0.0048	1.9										14.34	0.316	0.145	-0.067	0.204	-0.0014	1.8	
14.21	-0.713	0.036	-0.005	0.004	-0.0048	1.9										16.39	0.356	0.178	-0.077	0.229	-0.0013	1.7	
15.21	-0.763	0.036	-0.005	0.004	-0.0048	1.9										17.40	0.381	0.207	-0.080	0.239	-0.0013	1.7	
16.21	-0.813	0.036	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.059	-0.014	0.038	-0.0010	1.8	
17.21	-0.863	0.036	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0008	1.6	
0.90	-1.21	-0.184	0.019	0.004	-0.0048	1.9										10.23	0.276	0.059	-0.052	0.171	-0.0014	1.8	
-2.09	-0.061	0.130	-0.005	0.004	-0.0048	1.9										14.34	0.316	0.145	-0.067	0.204	-0.0014	1.8	
-1.06	-0.021	0.093	-0.005	0.004	-0.0048	1.9										16.39	0.356	0.178	-0.077	0.229	-0.0013	1.7	
-1.26	-0.071	0.103	-0.005	0.004	-0.0048	1.9										17.40	0.381	0.207	-0.080	0.239	-0.0013	1.7	
-1.46	-0.121	0.103	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.059	-0.014	0.038	-0.0010	1.8	
-1.66	-0.171	0.103	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0008	1.6	
-1.86	-0.221	0.103	-0.005	0.004	-0.0048	1.9										6.14	0.236	0.040	-0.036	0.020	-0.0014	1.7	
-2.06	-0.271	0.103	-0.005	0.004	-0.0048	1.9										8.19	0.310	0.086	-0.046	0.141	-0.0008	1.4	
-2.26	-0.321	0.103	-0.005	0.004	-0.0048	1.9										10.23	0.276	0.059	-0.052	0.171	-0.0014	1.8	
-2.46	-0.371	0.103	-0.005	0.004	-0.0048	1.9										14.34	0.316	0.145	-0.067	0.204	-0.0014	1.8	
-2.66	-0.421	0.103	-0.005	0.004	-0.0048	1.9										16.39	0.356	0.178	-0.077	0.229	-0.0013	1.7	
-2.86	-0.471	0.103	-0.005	0.004	-0.0048	1.9										17.40	0.381	0.207	-0.080	0.239	-0.0013	1.7	
-3.06	-0.521	0.103	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.059	-0.014	0.038	-0.0010	1.8	
-3.26	-0.571	0.103	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0008	1.6	
-3.46	-0.621	0.103	-0.005	0.004	-0.0048	1.9										6.14	0.236	0.040	-0.036	0.020	-0.0014	1.7	
-3.66	-0.671	0.103	-0.005	0.004	-0.0048	1.9										8.19	0.310	0.086	-0.046	0.141	-0.0008	1.4	
-3.86	-0.721	0.103	-0.005	0.004	-0.0048	1.9										10.23	0.276	0.059	-0.052	0.171	-0.0014	1.8	
-4.06	-0.771	0.103	-0.005	0.004	-0.0048	1.9										14.34	0.316	0.145	-0.067	0.204	-0.0014	1.8	
-4.26	-0.821	0.103	-0.005	0.004	-0.0048	1.9										16.39	0.356	0.178	-0.077	0.229	-0.0013	1.7	
-4.46	-0.871	0.103	-0.005	0.004	-0.0048	1.9										17.40	0.381	0.207	-0.080	0.239	-0.0013	1.7	
-4.66	-0.921	0.103	-0.005	0.004	-0.0048	1.9										8.04	0.051	0.059	-0.014	0.038	-0.0010	1.8	
-4.86	-0.971	0.103	-0.005	0.004	-0.0048	1.9										4.09	0.198	0.075	-0.024	0.027	-0.0008	1.6	
-5.06	-1.021	0.103	-0.005	0.004	-0.0048	1.9										6.14	0.236	0.040	-0.036	0.020	-0.0014	1.7	
-5.26	-1.071	0.103	-0																				

TABLE V. - CONTINUED

(c) Nominal  $\delta$ ,  $-2^{\circ}$ 

$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$S$	$M$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$S$	$M$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$S$	
0.60	-1.19	-0.206	0.0210	0.014	0.007	0.003	-2.0	0.90	6.30	0.282	0.0326	-0.011	-0.05	0.0011	-2.2	1.30	4.09	0.163	0.0268	-0.02	-0.02	0.0012	-2.2	
	-2.07	-0.114	0.014	0.009	0.005	0.004	-2.1		8.42	0.386	0.0517	-0.15	-0.05	0.0011	-2.3	6.15	2.93	0.0222	-0.035	-0.06	0.0016	-2.3		
	-1.06	-0.076	0.006	0.007	0.004	0.004	-2.1		10.53	0.485	0.0661	-0.18	-0.113	0.0015	-2.3	8.20	3.31	0.0219	-0.046	-0.130	0.0016	-2.3		
	-0.56	-0.045	0.004	0.007	0.005	0.004	-2.1		1.20	1.11	-0.034	0.0303	0.06	0.05	0.0016	-1.8	10.26	4.14	0.073	-0.05	-0.153	0.0017	-2.6	
	-1.03	-0.052	0.012	0.009	0.009	0.008	-2.1		1.03	-0.114	0.0210	0.020	0.05	0.0019	-1.9	12.31	4.91	0.1178	-0.065	-0.213	0.0021	-2.7		
	2.03	-0.057	0.026	0.003	0.013	0.001	-2.1		1.02	-0.054	0.059	0.13	0.05	0.0020	-1.9	14.37	3.56	0.1534	-0.078	-0.237	0.0022	-2.8		
	4.15	-0.056	0.026	0.003	0.013	0.001	-2.1		1.09	-0.039	0.075	0.18	0.05	0.0018	-1.9	16.43	3.90	0.1931	-0.086	-0.266	0.0018	-2.9		
	6.24	-0.055	0.026	0.003	0.013	0.001	-2.1		1.08	-0.032	0.078	0.22	0.05	0.0017	-2.0	17.49	3.70	0.2175	-0.090	-0.273	0.0019	-2.9		
	8.34	-0.053	0.026	0.003	0.013	0.001	-2.1		1.08	-0.036	0.082	0.21	0.05	0.0017	-2.0	1.70	-3.91	-0.166	0.022	0.02	0.073	0.0021	-1.8	
	10.43	-0.053	0.026	0.003	0.013	0.001	-2.1		1.05	-0.065	0.0203	0.09	0.02	0.0012	-2.1	2.04	-0.088	0.087	0.101	0.044	0.002	0.002	-1.9	
0.80	12.53	-0.056	0.026	0.003	0.013	0.001	-2.1		1.10	-0.165	0.028	0.08	0.02	0.0010	-2.1	1.01	-0.082	0.088	0.005	0.018	0.0016	0.0007	-2.0	
	14.62	-0.056	0.026	0.003	0.013	0.001	-2.1		1.16	-0.268	0.0441	0.040	0.08	0.0005	-2.2	1.47	-0.182	0.080	0.005	0.007	0.0016	0.0007	-2.1	
	16.71	-0.056	0.026	0.003	0.013	0.001	-2.1		1.23	-0.396	0.079	0.06	0.06	0.0016	-2.3	1.59	-0.202	0.083	0.005	0.009	0.0016	0.0007	-2.1	
	17.83	-0.056	0.026	0.003	0.013	0.001	-2.1		1.29	-0.289	0.098	0.072	0.145	0.0020	-2.2	1.77	-0.193	0.086	0.005	0.009	0.0016	0.0007	-2.1	
	1.11	-0.216	0.026	0.018	0.023	0.004	-2.0		1.30	4.09	-0.198	0.030	0.03	0.111	0.0006	-1.7	8.19	-0.106	0.022	0.021	0.064	0.002	0.002	-1.9
	-1.03	-0.117	0.013	0.011	0.008	0.005	-2.0		1.04	-0.074	0.033	0.07	0.07	0.0011	-1.8	10.20	-0.104	0.023	0.023	0.064	0.002	0.002	-2.1	
	-1.03	-0.071	0.019	0.009	0.008	0.007	-2.0		1.01	-0.058	0.026	0.011	0.07	0.0011	-1.9	12.29	-0.102	0.022	0.022	0.064	0.002	0.002	-2.1	
	-1.03	-0.048	0.013	0.008	0.008	0.008	-2.1		1.08	-0.033	0.020	0.005	0.06	0.0011	-2.0	14.34	-0.096	0.021	0.021	0.064	0.002	0.002	-2.1	
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.09	-0.034	0.019	0.009	0.02	0.0012	-2.0	15.39	-0.096	0.021	0.021	0.064	0.002	0.002	-2.1	
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.16	-0.036	0.022	0.005	0.010	0.0013	-2.3	17.49	-0.096	0.021	0.021	0.064	0.002	0.002	-2.1	
0.90	1.11	-0.216	0.026	0.018	0.023	0.004	-2.0		1.50	4.10	-0.198	0.030	0.03	0.111	0.0006	-1.7	8.19	-0.106	0.022	0.021	0.064	0.002	0.002	-1.9
	-1.03	-0.117	0.013	0.011	0.008	0.005	-2.0		1.04	-0.074	0.033	0.07	0.07	0.0011	-1.8	10.20	-0.104	0.023	0.023	0.064	0.002	0.002	-2.1	
	-1.03	-0.071	0.019	0.009	0.008	0.007	-2.0		1.01	-0.058	0.026	0.011	0.07	0.0011	-1.9	12.29	-0.102	0.022	0.022	0.064	0.002	0.002	-2.1	
	-1.03	-0.048	0.013	0.008	0.008	0.008	-2.1		1.08	-0.033	0.020	0.005	0.06	0.0011	-2.0	14.34	-0.096	0.021	0.021	0.064	0.002	0.002	-2.1	
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.09	-0.034	0.019	0.009	0.02	0.0012	-2.0	15.39	-0.096	0.021	0.021	0.064	0.002	0.002	-2.1	
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.16	-0.036	0.022	0.005	0.010	0.0013	-2.3	17.49	-0.096	0.021	0.021	0.064	0.002	0.002	-2.1	
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.23	-0.036	0.026	0.005	0.010	0.0013	-2.3	1.70	-4.13	-0.150	0.028	0.028	0.064	0.002	0.002	-1.9
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.30	-0.036	0.026	0.005	0.010	0.0013	-2.3	1.77	-4.09	-0.150	0.028	0.028	0.064	0.002	0.002	-1.9
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.37	-0.036	0.026	0.005	0.010	0.0013	-2.3	1.84	-4.05	-0.150	0.028	0.028	0.064	0.002	0.002	-1.9
	-1.03	-0.045	0.013	0.008	0.008	0.008	-2.1		1.44	-0.036	0.026	0.005	0.010	0.0013	-2.3	1.91	-4.01	-0.150	0.028	0.028	0.064	0.002	0.002	-1.9
0.80	12.53	-0.056	0.026	0.003	0.013	0.001	-2.1		1.50	4.10	-0.180	0.029	0.028	0.081	0.0002	-1.8	6.11	-0.200	0.0376	0.026	0.081	0.0013	-1.9	
	13.62	-0.056	0.026	0.003	0.013	0.001	-2.1		1.57	-0.054	0.026	0.021	0.028	0.0007	-2.0	8.16	-0.268	0.0334	0.035	0.081	0.0016	-2.0		
	14.71	-0.056	0.026	0.003	0.013	0.001	-2.1		1.64	-0.051	0.021	0.021	0.028	0.0007	-2.0	10.20	-0.333	0.0377	0.046	0.081	0.0016	-2.0		
	15.79	-0.056	0.026	0.003	0.013	0.001	-2.1		1.71	-0.051	0.021	0.021	0.028	0.0007	-2.0	12.25	-0.396	0.0381	0.050	0.081	0.0016	-2.0		
	16.88	-0.056	0.026	0.003	0.013	0.001	-2.1		1.78	-0.051	0.021	0.021	0.028	0.0007	-2.0	14.29	-0.459	0.1265	0.058	0.081	0.0016	-2.0		
	17.97	-0.056	0.026	0.003	0.013	0.001	-2.1		1.85	-0.051	0.021	0.021	0.028	0.0007	-2.0	16.33	-0.519	0.1598	0.059	0.081	0.0016	-2.0		
	18.06	-0.056	0.026	0.003	0.013	0.001	-2.1		1.92	-0.051	0.021	0.021	0.028	0.0007	-2.0	17.36	-0.549	0.1788	0.061	0.081	0.0016	-2.0		
	18.15	-0.056	0.026	0.003	0.013	0.001	-2.1		1.99	-0.051	0.021	0.021	0.028	0.0007	-2.0	1.70	-4.09	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	18.24	-0.056	0.026	0.003	0.013	0.001	-2.1		2.06	-0.051	0.021	0.021	0.028	0.0007	-2.0	1.77	-4.05	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	18.33	-0.056	0.026	0.003	0.013	0.001	-2.1		2.13	-0.051	0.021	0.021	0.028	0.0007	-2.0	1.84	-4.01	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
0.90	19.42	-0.056	0.026	0.003	0.013	0.001	-2.1		2.20	-0.051	0.021	0.021	0.028	0.0007	-2.0	1.91	-4.07	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	20.51	-0.056	0.026	0.003	0.013	0.001	-2.1		2.27	-0.051	0.021	0.021	0.028	0.0007	-2.0	2.08	-4.03	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	21.59	-0.056	0.026	0.003	0.013	0.001	-2.1		2.34	-0.051	0.021	0.021	0.028	0.0007	-2.0	2.15	-4.09	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	22.68	-0.056	0.026	0.003	0.013	0.001	-2.1		2.41	-0.051	0.021	0.021	0.028	0.0007	-2.0	2.26	-4.05	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	23.77	-0.056	0.026	0.003	0.013	0.001	-2.1		2.48	-0.051	0.021	0.021	0.028	0.0007	-2.0	2.37	-4.01	-0.159	0.028	0.028	0.064	0.002	0.002	-1.9
	24.86	-0.056	0.026	0.003	0.013	0.001	-2.1		2.55	-0.051	0.021	0.021	0.028	0.0007	-2.0	2.46</								

TABLE V. - CONTINUED

(e) Nominal  $\delta$ ,  $-8^\circ$ 

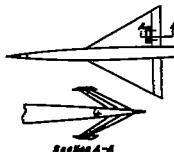
$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_i$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_i$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_i$	$a$
0.60	-4.22	-0.268	0.0269	0.038	0.093	0.0186	-8.1	0.90	6.16	0.281	0.033	0.010	0.010	0.0108	-8.1	1.50	1.10	0.147	0.0077	-0.013	0.004	0.0053	-8.2
-8.13	-1.70	0.058	0.33	0.081	0.187	-8.1		8.23	3.44	0.255	0.007	0.22	0.116	0.116	-8.1	6.15	2.22	0.042	-0.008	-0.047	0.003	0.003	-8.3
-1.09	-1.25	0.149	0.31	0.088	0.131	-8.1		10.28	1.52	0.255	0.007	-0.022	0.114	0.114	-8.2	8.20	3.15	0.042	-0.017	-0.043	0.002	0.002	-8.4
-1.37	-1.04	0.138	0.31	0.086	0.131	-8.1		1.20	-4.10	-0.243	-0.048	-0.02	0.190	0.094	-7.6	12.36	1.96	0.123	-0.029	-0.174	0.001	0.001	-8.5
-1.40	-0.62	0.126	0.30	0.080	0.131	-8.1		-2.05	-1.39	-0.243	-0.036	-0.02	0.165	0.087	-7.7	13.36	2.49	0.176	-0.069	-0.193	0.008	0.008	-8.7
-1.93	-0.97	0.131	0.27	0.077	0.129	-8.1		-1.08	-0.92	-0.212	-0.029	-0.02	0.162	0.080	-7.7	15.12	0.23	0.188	-0.078	-0.214	0.009	0.009	-8.8
2.04	-0.09	0.131	0.27	0.077	0.129	-8.1		-50	-0.66	-0.0202	-0.026	-0.02	0.157	0.089	-7.7	17.15	0.60	0.202	-0.061	-0.222	0.004	0.004	-8.8
4.16	1.08	0.160	0.23	-0.007	0.125	-8.2		-51	-0.17	0.195	-0.08	-0.141	0.088	0.088	-7.7								
6.13	1.96	0.239	0.17	-0.017	0.128	-8.2		1.04	-1.04	0.196	-0.15	-0.138	0.086	0.086	-7.8	1.70	-1.09	-0.179	0.033	-0.01	0.117	0.036	-7.8
8.31	2.98	0.428	0.22	-0.034	0.128	-8.2		2.09	0.68	0.204	-0.07	-0.07	0.081	0.081	-7.8	1.70	-2.04	-0.101	0.217	0.223	0.083	0.043	-7.9
10.41	4.07	0.708	0.09	-0.056	0.120	-8.3		4.11	1.58	0.204	-0.09	-0.068	0.075	0.075	-8.0	-1.01	-0.61	0.192	0.165	0.066	0.048	0.048	-7.9
12.58	5.14	1.067	0.010	-0.071	0.112	-8.3		6.16	2.63	0.205	-0.08	-0.07	0.071	0.071	-8.1	-1.49	-0.61	0.208	0.133	0.055	0.042	0.042	-8.0
14.63	6.85	1.518	0.10	-0.077	0.112	-8.3		8.23	3.73	0.205	-0.042	-0.012	0.072	0.072	-8.2	-1.51	-0.01	0.180	0.068	0.035	0.044	0.044	-8.0
16.76	7.89	2.084	0.05	-0.093	0.112	-8.3		10.89	4.75	0.209	-0.058	-0.056	0.073	0.073	-8.3	1.03	-0.19	0.183	0.004	0.226	0.045	0.045	-8.1
17.80	7.78	2.370	0.05	-0.103	0.138	-8.3		12.35	5.84	0.211	-0.075	-0.133	0.068	0.068	-8.5	2.03	-0.58	0.197	-0.001	0.007	0.045	0.045	-8.1
0.80	-4.25	-0.269	0.013	0.044	0.076	0.065	-8.0	14.43	6.72	0.183	-0.074	-0.156	0.037	0.037	-8.6	6.14	2.12	0.217	-0.024	-0.066	0.049	0.049	-8.4
-2.14	-1.69	0.068	0.37	0.048	0.125	-8.0		1.30	-4.09	-0.218	0.037	0.045	0.178	0.061	-7.6	8.19	2.87	0.207	-0.044	-0.104	0.018	0.018	-8.5
-1.09	-1.24	0.179	0.39	0.047	0.130	-8.0		-2.04	-1.24	-0.227	0.031	-0.195	0.067	0.067	-7.7	10.28	3.61	0.169	-0.043	-0.158	0.031	0.031	-8.6
-1.57	-1.01	0.168	0.34	0.043	0.133	-8.0		-1.01	-0.78	-0.227	0.024	-0.143	0.069	0.069	-7.7	12.29	4.29	0.163	-0.092	-0.161	0.034	0.034	-8.6
-2.00	-0.56	0.192	0.33	0.058	0.132	-8.1		-4.3	-0.29	-0.217	0.021	-0.132	0.058	0.058	-7.8	14.33	4.97	0.134	-0.066	-0.178	0.037	0.037	-8.7
-1.92	-0.35	0.149	0.31	0.054	0.132	-8.1		-1.46	-0.08	-0.212	0.014	-0.113	0.057	0.057	-7.8	16.39	5.62	0.170	-0.066	-0.195	0.038	0.038	-8.8
-2.06	-0.15	0.153	0.29	0.059	0.132	-8.1		1.06	-0.01	-0.214	0.011	-0.102	0.058	0.058	-7.9	17.14	5.94	0.193	-0.068	-0.205	0.035	0.035	-8.8
-2.08	-0.12	0.193	0.23	0.054	0.132	-8.2		6.25	0.83	0.214	-0.011	-0.093	0.055	0.055	-7.9								
-2.09	-0.08	0.259	0.21	0.054	0.132	-8.2		8.19	1.54	0.214	-0.011	-0.083	0.055	0.055	-8.1	1.90	-4.97	-0.159	0.086	0.025	0.031	0.031	-7.9
-1.58	-0.56	0.059	0.11	-0.048	0.115	-8.2		10.26	2.24	0.214	-0.011	-0.073	0.055	0.055	-8.2	-2.08	-0.56	0.217	0.015	0.066	0.035	0.035	-8.0
10.59	-1.13	0.113	0.32	0.072	0.122	-8.2		12.61	2.93	0.214	-0.011	-0.063	0.055	0.055	-8.1	-1.06	-0.56	0.194	0.033	0.061	0.036	0.036	-8.0
12.50	-1.61	0.217	0.06	-0.078	0.122	-8.2		14.74	3.62	0.214	-0.011	-0.053	0.055	0.055	-8.1	-1.48	-0.53	0.193	0.033	0.061	0.036	0.036	-8.0
14.74	-1.74	0.244	0.021	-0.059	0.130	-8.2		16.87	4.34	0.214	-0.011	-0.049	0.055	0.055	-8.1	-1.46	-0.53	0.193	0.033	0.061	0.036	0.036	-8.1
17.92	-1.92	0.243	-0.012	-0.059	0.120	-8.2		17.90	5.06	0.214	-0.011	-0.048	0.055	0.055	-8.1	1.62	-0.52	0.193	0.033	0.060	0.036	0.036	-8.1
0.90	-4.16	-0.272	0.035	0.045	0.146	-0.111	-7.8	1.50	-1.09	-0.195	0.020	0.088	0.170	0.045	-7.6	6.11	1.89	0.204	-0.022	0.043	0.043	0.043	-8.1
-2.05	-0.163	0.218	0.36	0.117	0.109	-7.9		-2.04	-1.09	-0.229	0.023	0.126	0.045	0.045	-7.8	8.15	2.15	0.205	-0.023	-0.132	0.043	0.043	-8.6
-1.02	-1.13	0.183	0.32	0.112	0.113	-7.9		-1.01	-0.65	-0.200	0.019	0.104	0.030	0.030	-7.8	10.20	3.00	0.205	-0.059	-0.128	0.043	0.043	-8.6
-1.51	-0.69	0.174	0.31	0.113	0.117	-7.9		-1.42	-0.04	-0.193	0.016	0.091	0.029	0.029	-7.9	12.23	3.84	0.203	-0.043	-0.133	0.047	0.047	-8.6
-1.44	-0.43	0.160	0.29	0.109	0.120	-7.9		-1.47	-0.04	-0.193	0.016	0.091	0.029	0.029	-7.9	14.26	4.14	0.213	-0.043	-0.133	0.050	0.050	-8.7
-1.97	-0.08	0.164	0.28	0.108	0.119	-7.9		-2.08	-0.002	-0.186	0.005	0.095	0.025	0.025	-7.9	16.34	5.04	0.205	-0.033	-0.133	0.052	0.052	-8.7
2.08	-0.03	0.167	0.29	0.086	0.119	-8.0		1.04	-0.020	-0.191	0.005	0.095	0.025	0.025	-8.0	17.36	5.21	0.212	-0.023	-0.137	0.054	0.054	-8.8
4.15	-1.39	0.227	0.17	0.060	0.122	-8.0		2.04	-0.053	-0.207	0	0	0	0	-8.2								

(f) Nominal  $\delta$ ,  $-12^\circ$ 

$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_i$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_i$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_i$	$b$
0.60	-4.24	0.890	0.030	0.050	0.088	0.173	-12.0	0.90	6.29	0.221	0.033	0.080	0.194	0.0162	-11.7	1.50	1.10	0.136	0.0298	-0.007	0.028	0.0080	-12.1
-2.15	-1.96	0.226	0.043	0.073	0.176	0.182	-12.0	10.53	8.11	0.226	0.030	0.083	0.197	0.0167	-11.7	8.20	3.09	0.163	-0.023	-0.073	0.031	0.031	-12.1
-1.11	-1.55	0.196	0.31	0.043	0.171	0.182	-12.0	12.50	1.54	0.226	0.030	0.083	0.197	0.0167	-11.7	10.26	3.74	0.163	-0.023	-0.072	0.031	0.031	-12.1
-1.59	-1.33	0.181	0.31	0.043	0.171	0.182	-12.0	14.47	2.24	0.226	0.030	0.083	0.197	0.0167	-11.7	12.36	4.41	0.163	-0.023	-0.071	0.031	0.031	-12.1
-1.46	-0.93	0.165	0.23	0.057	0.190	0.182	-12.0	16.41	2.94	0.226	0.030	0.083	0.197	0.0167	-11.7	14.37	5.08	0.163	-0.023	-0.070	0.031	0.031	-12.1
-1.94	-0.70	0.158	0.24	0.051	0.187	0.182	-12.0	18.39	3.64	0.226	0.030	0.083	0.197	0.0167	-11.7	16.36	5.75	0.163	-0.023	-0.069	0.031	0.031	-12.1
2.01	-0.25	0.158	0.24	0.050	0.187	0.182	-12.0	20.37	4.31	0.226	0.030	0.083	0.197	0.0167	-11.7	18.36	6.44	0.163	-0.023	-0.068	0.031	0.031	-12.1
4.13	-0.66	0.177	0.36	0.053	0.187	0.182	-12.0	22.35	5.00	0.226	0.030	0.083	0.197	0.0167	-11.7	16.35	7.11	0.163	-0				

CONFIDENTIAL

TABLE V. - CONTINUED

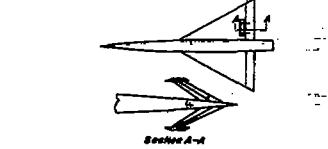
(g) Nominal  $\delta$ ,  $-16^\circ$ 

$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$s$	
0.60	-4.26	-0.312	0.0397	0.060	0.181	0.0226	-19.7	0.90	-6.33	0.204	0.0429	0.030	0.128	0.0354	-15.7	1.50	6.14	0.184	0.0420	-0.005	0.031	0.0106	-16.0	
	-2.17	-0.217	0.0521	0.071	0.184	0.0213	-19.7		8.41	-0.310	0.0516	0.024	0.109	0.0171	-15.8		8.21	0.196	0.0416	-0.027	0.027	0.0100	-16.1	
	-1.13	-0.176	0.0623	0.074	0.184	0.0217	-19.7		10.53	-0.419	0.0733	0.017	0.087	0.0165	-15.8		10.26	0.197	0.0511	-0.037	0.021	0.0092	-16.3	
	-0.60	-0.156	0.0740	0.074	0.184	0.0222	-19.7		1.20	-4.10	-0.278	0.072	0.076	0.245	0.0167	-15.4		12.32	0.197	0.1142	-0.049	0.125	0.0096	-16.4
	.11	-0.117	0.0749	0.074	0.186	0.0229	-19.7		-2.04	-0.178	0.0314	0.019	0.307	0.0174	-15.2		14.37	0.196	0.1483	-0.067	0.142	0.0094	-16.5	
	.37	-0.092	0.0751	0.073	0.184	0.0230	-19.7		-1.01	-0.131	0.0317	0.017	0.306	0.0178	-15.2		16.43	0.191	0.1883	-0.069	0.167	0.0083	-16.6	
	2.03	-0.072	0.0802	0.071	0.181	0.0227	-19.8		-50	-0.105	0.0303	0.019	0.308	0.0179	-15.2		17.48	0.189	0.208	-0.073	0.173	0.0075	-16.6	
	4.10	-0.042	0.0811	0.071	0.180	0.0224	-19.9		-19	-0.088	0.0289	0.019	0.287	0.0178	-15.2		1.70	-4.09	-0.197	0.0386	0.043	0.210	0.0085	-15.4
	6.23	-0.023	0.0870	0.071	0.181	0.0213	-19.9		2.08	-0.022	0.0293	0.013	0.266	0.0171	-15.3		-2.04	-0.116	0.0286	0.034	0.170	0.0090	-15.3	
	8.33	-0.003	0.0418	0.071	0.189	0.0223	-19.9		4.16	-0.126	0.0314	0.013	0.217	0.0180	-15.1		-1.01	-0.081	0.0294	0.028	0.159	0.0090	-15.6	
	10.43	-0.024	0.0569	0.074	0.186	0.0222	-16.0		6.17	-0.230	0.0422	0.005	0.160	0.0182	-15.6		-49	-0.064	0.0243	0.029	0.138	0.0090	-15.6	
	12.59	-0.111	0.0986	0.074	0.186	0.0219	-16.0		8.23	-0.336	0.0697	0.022	0.117	0.0190	-15.7		21	-0.028	0.0232	0.019	0.116	0.0090	-15.7	
	14.76	-0.271	0.1106	0.074	0.181	0.0222	-16.0		10.30	-0.448	0.0992	0.040	0.096	0.0183	-15.9		1.03	-0.008	0.0232	0.016	0.106	0.0091	-15.7	
	16.73	-0.562	0.1543	0.070	0.181	0.0230	-16.3		12.36	-0.563	0.1371	0.061	0.132	0.0187	-15.7		2.08	-0.024	0.0240	0.020	0.098	0.0092	-15.8	
	17.78	-0.714	0.2137	0.070	0.183	0.0237	-16.3									1.48	-0.024	0.0240	0.020	0.098	0.0092	-15.8		
0.80	-4.27	-0.308	0.0456	0.061	0.189	0.0219	-15.8	1.30	-4.09	-0.249	0.0473	0.065	0.276	0.0188	-15.2		6.14	-0.195	0.0329	0.013	0.086	0.0092	-16.1	
	-2.17	-0.212	0.0340	0.071	0.182	0.0214	-15.8		-2.04	-0.156	0.0365	0.014	0.244	0.0188	-15.3		8.19	-0.195	0.0327	0.013	0.086	0.0092	-16.1	
	-1.12	-0.159	0.0302	0.070	0.183	0.0217	-15.8		-1.01	-0.112	0.0334	0.014	0.238	0.0190	-15.4		10.28	-0.195	0.0326	0.013	0.085	0.0092	-16.3	
	-0.59	-0.124	0.0283	0.070	0.182	0.0219	-15.8		-50	-0.088	0.0315	0.014	0.215	0.0190	-15.4		12.38	-0.195	0.0325	0.013	0.085	0.0092	-16.3	
	.45	-0.129	0.0263	0.070	0.183	0.0205	-15.8		1.03	-0.043	0.0301	0.014	0.193	0.0190	-15.4		14.38	-0.195	0.0324	0.013	0.085	0.0092	-16.3	
	.98	-0.080	0.0256	0.070	0.182	0.0203	-15.8		1.63	-0.047	0.0303	0.014	0.193	0.0190	-15.4		16.39	-0.195	0.1334	-0.092	0.177	0.0092	-16.6	
	2.01	-0.079	0.0247	0.070	0.182	0.0202	-15.8		2.16	-0.050	0.0303	0.014	0.193	0.0190	-15.4		17.42	-0.195	0.1892	-0.061	0.204	0.0098	-15.7	
	4.16	-0.053	0.0267	0.070	0.182	0.0207	-15.9		3.16	-0.052	0.0302	0.014	0.193	0.0190	-15.7		6.14	-0.195	0.0329	0.013	0.086	0.0092	-16.1	
	6.28	-0.051	0.0361	0.070	0.182	0.0208	-15.9		6.16	-0.055	0.0305	0.014	0.193	0.0190	-15.7		8.19	-0.195	0.0328	0.013	0.085	0.0092	-16.1	
	8.38	-0.050	0.0359	0.070	0.181	0.0211	-16.0		8.23	-0.058	0.0308	0.014	0.193	0.0190	-15.7		10.28	-0.195	0.0327	0.013	0.085	0.0092	-16.1	
	10.48	-0.058	0.0333	0.070	0.182	0.0216	-16.0		10.38	-0.061	0.0312	0.014	0.193	0.0190	-15.7		12.38	-0.195	0.0326	0.013	0.085	0.0092	-16.1	
	12.59	-0.171	0.1185	0.070	0.182	0.0209	-16.0		12.38	-0.064	0.0317	0.014	0.193	0.0190	-15.7		14.38	-0.195	0.0325	0.013	0.085	0.0092	-16.1	
	14.78	-0.291	0.1670	0.070	0.182	0.0205	-16.0		14.40	-0.067	0.0321	0.014	0.193	0.0190	-15.7		16.39	-0.195	0.1691	-0.099	0.194	0.0091	-16.6	
	16.74	-0.667	0.2215	0.070	0.181	0.0203	-16.0		16.46	-0.077	0.0321	0.014	0.193	0.0190	-15.7		17.42	-0.195	0.1892	-0.061	0.204	0.0098	-16.7	
	17.93	-0.741	0.2491	0.070	0.182	0.0209	-16.0		17.48	-0.081	0.0323	0.014	0.193	0.0190	-15.7		1.03	-0.007	0.0311	0.008	0.197	0.0078	-15.9	
0.90	-4.26	-0.310	0.0489	0.066	0.186	0.0226	-15.5	1.50	-4.09	-0.218	0.0423	0.064	0.217	0.0168	-15.4		4.05	-0.167	0.0361	0.036	0.166	0.0072	-16.0	
	-2.16	-0.203	0.0359	0.070	0.184	0.0215	-15.5		-2.04	-0.134	0.0319	0.014	0.193	0.0171	-15.3		6.12	-0.175	0.0372	0.012	0.085	0.0080	-16.2	
	-1.11	-0.156	0.0312	0.070	0.184	0.0219	-15.5		-1.01	-0.091	0.0321	0.014	0.193	0.0171	-15.3		8.17	-0.173	0.0371	0.012	0.085	0.0080	-16.4	
	-0.58	-0.133	0.0284	0.070	0.183	0.0211	-15.6		-50	-0.059	0.0272	0.014	0.192	0.0171	-15.3		10.23	-0.173	0.0368	0.012	0.085	0.0080	-16.4	
	.47	-0.089	0.0276	0.070	0.183	0.0205	-15.6		1.03	-0.026	0.0299	0.014	0.193	0.0171	-15.3		12.26	-0.173	0.0362	0.012	0.085	0.0080	-16.4	
	.96	-0.064	0.0270	0.070	0.183	0.0204	-15.6		1.03	-0.024	0.0281	0.014	0.193	0.0171	-15.3		14.31	-0.173	0.1200	-0.042	0.195	0.0084	-16.5	
	2.04	-0.034	0.0267	0.070	0.183	0.0204	-15.6		2.08	-0.023	0.0271	0.014	0.193	0.0171	-15.3		16.36	-0.173	0.1592	-0.046	0.196	0.0086	-16.6	
	2.21	-0.071	0.0304	0.070	0.182	0.0207	-15.7		2.16	-0.027	0.0302	0.014	0.193	0.0171	-15.3		17.38	-0.173	0.1703	-0.048	0.198	0.0089	-16.6	

(h) Nominal  $\delta$ ,  $-20^\circ$ 

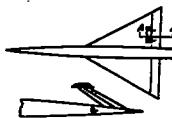
$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_t$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_t$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_t$	$s$
0.60	-4.26	-0.319	0.0455	0.064	0.181	0.0226	-19.7	0.90	-6.33	0.204	0.0429	0.030	0.128	0.0154	-15.7	1.50	1.03	-0.016	0.0308	0.026	0.175	0.0146	-19.5
	-2.17	-0.231	0.0349	0.061	0.184	0.0213	-19.7		8.41	-0.310	0.0516	0.024	0.109	0.0171	-15.8		8.21	-0.196	0.0316	-0.027	0.087	0.0140	-19.6
	-1.13	-0.181	0.0310	0.061	0.184	0.0217	-19.7		10.53	-0.419	0.0733	0.017	0.087	0.0165	-15.8		10.26	-0.196	0.0315	-0.027	0.086	0.0140	-19.6
	-0.61	-0.169	0.0295	0.061	0.184	0.0214	-19.7		-50	-0.088	0.0315	0.017	0.193	0.0171	-15.4		12.32	-0.196	0.0314	-0.027	0.085	0.0139	-19.6
	.43	-0.131	0.0270	0.061	0.184	0.0205	-19.7		1.03	-0.031	0.0295	0.014	0.193	0.0171	-15.3		14.37	-0.196	0.0313	-0.027	0.085	0.0139	-19.6
	.96	-0.113	0.0263	0.060	0.184	0.0206	-19.7		1.03	-0.031	0.0294	0.014	0.193	0.0171	-15.3		16.39	-0.196	0.0312	-0.027	0.085	0.0139	-19.6

TABLE V. - CONCLUDED

(i) Nominal  $\delta$ ,  $-24^\circ$ 

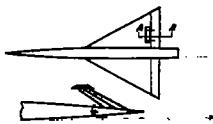
$X$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$b$	$X$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$b$	$X$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$b$
0.60	-1.26	-0.343	0.0504	0.065	0.213	0.0227	-23.8	0.90	5.32	0.181	0.0505	0.036	0.154	0.0226	-23.8	1.50	4.15	0.105	0.037	0.111	0.111	0.0157	-23.8
-2.18	-0.234	0.059	0.061	0.208	0.0236	-23.8		8.45	295	0.0710	0.029	0.099	0.0187	-23.9		6.16	1.91	0.047	-0.008	0.060	0.0158	-24.0	
-1.13	-1.198	0.056	0.060	0.209	0.0242	-23.8		10.98	399	0.1018	0.025	0.085	0.0186	-23.9		8.21	275	0.056	-0.014	0.021	0.0146	-24.1	
-1.61	-1.169	0.058	0.061	0.211	0.0243	-23.8		1.20	-4.10	-304	0.0580	0.088	0.376	0.0214	-23.1		10.27	360	0.051	-0.027	0.047	0.0141	-24.3
-1.43	-1.129	0.054	0.056	0.204	0.0245	-23.8		-2.04	-204	0.0464	0.047	0.361	0.0205	-23.1		12.32	143	0.1166	-0.040	0.083	0.0134	-24.4	
-1.96	-1.059	0.057	0.057	0.205	0.0247	-23.8		-1.01	-156	0.0427	0.054	0.361	0.0229	-23.1		14.37	320	0.1502	-0.021	-0.105	0.0129	-24.5	
1.26	-0.059	0.057	0.057	0.204	0.0253	-23.8		-0.98	-131	0.0413	0.051	0.369	0.0230	-23.1		16.43	296	0.1897	-0.060	-0.130	0.0119	-24.5	
6.20	-1.114	0.057	0.057	0.204	0.0253	-23.8		-0.96	-131	0.0413	0.051	0.370	0.0235	-23.1		17.46	633	0.2113	-0.064	-0.139	0.0109	-24.6	
8.31	-1.215	0.058	0.058	0.205	0.0258	-23.9		1.06	103	0.0595	0.054	0.370	0.0235	-23.2									
10.12	-1.125	0.058	0.058	0.205	0.0258	-23.9		2.06	103	0.0595	0.054	0.371	0.0238	-23.2		8.03	-139	0.058	-0.053	0.037	0.0137	-23.3	
18.53	-1.159	0.049	0.043	0.101	0.024	-24.0		4.16	101	0.0535	0.035	0.272	0.0214	-23.4		1.03	-100	0.0449	0.039	0.128	0.0139	-23.6	
14.59	-0.922	0.048	0.043	0.089	0.0245	-24.0		6.17	101	0.0535	0.036	0.278	0.0211	-23.2		4.49	-960	0.0335	0.039	0.170	0.0138	-23.6	
16.71	-0.630	0.048	0.041	0.073	0.0240	-24.0		8.23	319	0.0759	0.020	0.187	0.0111	-23.1		14.37	320	0.0280	0.029	0.142	0.0137	-23.7	
17.76	-0.680	0.042	0.033	0.063	0.0230	-24.0		10.30	124	0.0620	0.027	0.198	0.0126	-23.8		1.02	-980	0.0345	0.026	0.132	0.0138	-23.7	
0.80	-1.26	-0.319	0.050	0.068	0.263	0.0204	-23.6	12.37	149	0.0605	0.025	0.186	0.0120	-23.0		4.09	-102	0.0563	0.009	0.049	0.0134	-24.0	
-2.18	-0.224	0.041	0.063	0.257	0.0215	-23.6		1.06	-273	0.0582	0.077	0.328	0.0196	-23.8		8.10	121	0.0671	-0.005	0.038	0.0134	-24.2	
-1.13	-1.180	0.050	0.061	0.223	0.0221	-23.6	1.30	-4.09	180	0.0467	0.063	0.316	0.0205	-23.8		10.24	365	0.0828	-0.021	0.061	0.0137	-24.4	
-1.60	-1.157	0.050	0.059	0.248	0.0224	-23.6		-2.04	-135	0.0427	0.066	0.307	0.0207	-23.3		12.29	100	0.1092	-0.037	0.107	0.0127	-24.5	
-1.43	-1.115	0.056	0.056	0.244	0.0227	-23.6		-1.01	-135	0.0427	0.066	0.309	0.0206	-23.1		14.34	467	0.1365	0.043	0.137	0.0125	-24.6	
-0.93	-0.092	0.048	0.057	0.238	0.0228	-23.6		-0.96	-118	0.0412	0.058	0.300	0.0206	-23.3		16.39	535	0.1666	-0.046	0.161	0.0124	-24.6	
1.99	-0.050	0.043	0.057	0.207	0.0233	-23.6		-1.18	-658	0.0395	0.047	0.288	0.0211	-23.1		17.42	599	0.1933	-0.053	0.173	0.0119	-24.7	
4.14	-0.042	0.033	0.053	0.171	0.024	-23.8		1.01	-444	0.0391	0.043	0.285	0.0218	-23.1									
6.27	-1.149	0.030	0.044	0.133	0.0233	-23.9		2.07	-107	0.0387	0.046	0.286	0.0202	-23.1		4.08	-193	0.0483	0.048	0.232	0.0117	-23.3	
8.40	-0.261	0.020	0.037	0.110	0.0233	-23.9		4.16	105	0.0338	0.038	0.276	0.0192	-23.6		8.17	-123	0.0379	0.038	0.195	0.0118	-23.6	
10.48	-0.372	0.056	0.051	0.088	0.0228	-24.0		6.17	199	0.0444	0.044	0.295	0.0185	-23.8		1.03	-888	0.0345	0.033	0.179	0.0118	-23.6	
12.59	-0.472	0.124	0.068	0.081	0.0218	-24.1		8.23	295	0.0734	0.031	0.175	0.0182	-23.8		14.37	591	0.0952	0.030	0.170	0.0118	-23.6	
14.73	-0.596	0.179	0.107	0.082	0.0213	-24.1		10.28	393	0.0954	0.030	0.196	0.0184	-23.8		16.36	483	0.1537	-0.039	0.180	0.0119	-24.7	
16.85	-0.696	0.227	0.133	0.103	0.0213	-24.2		12.34	487	0.0952	0.030	0.197	0.0184	-23.8		17.38	513	0.1733	-0.041	0.190	0.0116	-24.7	
0.90	-4.30	-0.330	0.053	0.065	0.280	0.0215	-23.5	17.49	694	0.2354	-0.069	0.091	0.0217	-24.4									
-2.18	-0.228	0.056	0.065	0.274	0.0226	-23.5	1.50	-4.09	150	0.0332	0.066	0.282	0.0163	-23.5		6.13	160	0.0420	-0.008	0.013	0.0115	-24.2	
-1.12	-1.179	0.041	0.053	0.270	0.0225	-23.5		-2.04	-155	0.0332	0.066	0.282	0.0163	-23.5		8.17	227	0.0551	-0.012	0.061	0.0116	-24.3	
-1.60	-1.155	0.042	0.053	0.261	0.0231	-23.5		-8.04	-155	0.0419	0.068	0.249	0.0154	-23.4		10.23	592	0.0727	-0.020	0.104	0.0116	-24.2	
-1.43	-1.114	0.042	0.051	0.261	0.0235	-23.5		-1.01	-113	0.0412	0.065	0.235	0.0156	-23.4		12.26	361	0.0952	-0.025	0.129	0.0113	-24.3	
-0.93	-0.050	0.034	0.041	0.263	0.0243	-23.5		-0.90	-101	0.0366	0.062	0.226	0.0166	-23.5		14.31	422	0.1217	-0.034	0.157	0.0114	-24.6	
2.00	-0.043	0.033	0.045	0.245	0.0245	-23.5		-1.49	-649	0.0349	0.062	0.216	0.0165	-23.5		16.36	483	0.1537	-0.039	0.180	0.0115	-24.7	
4.18	-0.063	0.041	0.050	0.213	0.0243	-23.6		1.02	-305	0.0348	0.033	0.205	0.0167	-23.5		17.38	513	0.1733	-0.041	0.190	0.0116	-24.7	
0.80	-4.30	-0.318	0.067	0.069	0.311	0.0215	-27.3	1.50	-4.08	149	0.0620	0.088	0.330	0.0218	-27.3		4.16	101	0.0428	0.014	0.086	0.0275	-27.9
-2.17	-0.224	0.049	0.062	0.241	0.0244	-27.7		8.45	295	0.0754	0.030	0.108	0.0215	-27.9		6.16	167	0.0526	0.014	0.090	0.0274	-26.1	
-1.13	-1.189	0.046	0.060	0.238	0.0248	-27.7		10.26	399	0.1044	0.030	0.087	0.0217	-27.9		8.22	270	0.0659	-0.011	0.049	0.0168	-26.1	
-1.61	-1.169	0.050	0.061	0.238	0.0250	-27.7		-2.04	-155	0.0419	0.065	0.245	0.0205	-27.9		10.27	356	0.0924	-0.023	0.049	0.0164	-26.2	
-1.43	-1.129	0.056	0.058	0.238	0.0253	-27.7		-1.01	-135	0.0427	0.066	0.236	0.0207	-27.9		12.33	455	0.1193	-0.035	0.047	0.0157	-26.1	
-0.93	-0.052	0.037	0.048	0.238	0.0258	-27.7		-0.96	-131	0.0413	0.065	0.237	0.0206	-27.9		14.37	591	0.1537	-0.039	0.047	0.0156	-26.1	
1.99	-0.049	0.039	0.037	0.241	0.0250	-27.6		1.01	-649	0.0414	0.064	0.230	0.0233	-27.3		1.02	-107	0.0397	0.039	0.176	0.0156	-27.6	
4.13	-0.039	0.038	0.033	0.241	0.0250	-27.6		2.06	-101	0.0437	0.058	0.245	0.0227	-27.1		4.08	-222	0.0549	0.060	0.243	0.0158	-27.4	
6.27	-1.147	0.047	0.044	0.183	0.0238	-27.7		4.16	100	0.0471	0.021	0.161	0.0211	-27.7		8.03	115	0.0589	0.024	0.137	0.0151	-26.0	
8.40	-0.268	0.061	0.035	1.163	0.0238	-27.8		6.17	193	0.0520	0.007	0.107	0.0207	-27.8		6.14	169	0.0563	0.021	0.148	0.0148	-26.3	
10.48	-0.375	0.067	0.028	0.996	0.0229	-27.9		8.23	289	0.0766	-0.007	0.104	0.0194	-27.8		10.23	320	0.0829	-0.020	0.068	0.0144	-26.3	
12.59	-0.508	0.120	0.025	0.958	0.0230	-28.0		10.26	385	0.1016	-0.023	0.077	0.0177	-26.0		12.28	398	0.1070	-0.030	0.086	0.0144	-26.4	
14.73	-0.601	0.178	0.014	0.94	0.0231	-28.1		12.35	479	0.1337	-0.027	0.007	0.0164	-26.1		14.35	460	0.1363	-0.039	0.115	0.0143	-26.5	
16.85	-0.696	0.277	0.012	0.93	0.0230	-28.1		14.40	56														

TABLE VI.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED  
WITH A 38-PERCENT-SPAN PADDLE BALANCE MOUNTED ON THE UPPER SURFACE  
OF THE FLAP. DATA FOR ONE FLAP.  $R = 4.4 \times 10^6$

(a) Nominal  $\delta$ ,  $2^\circ$ 

$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$s$
0.60	-4.16	-0.168	0.0159	-0.003	0.013	-0.0035	2.0	0.90	-0.53	0.005	0.0092	-0.018	0.030	-0.0047	1.9	1.50	0.47	0.020	0.0196	-0.005	0.058	-0.0011	1.8
-2.06	-0.075	0.0103	-0.007	0.001	-0.0035	2.0		2.0	-0.50	0.02	0.0056	-0.018	0.039	-0.0044	1.9	1.00	0.043	0.0163	-0.008	0.067	-0.0010	1.7	
-1.06	-0.036	0.0087	-0.007	-0.004	-0.0035	1.9		1.9	1.04	0.067	0.0104	-0.015	0.031	-0.0044	1.9	2.04	0.082	0.0188	-0.014	0.090	-0.0008	1.7	
-0.51	-0.006	0.0063	-0.010	-0.007	-0.0035	1.9		1.9	2.11	0.117	0.022	-0.015	0.035	-0.0044	1.8	4.09	0.170	0.0269	-0.027	0.151	-0.0007	1.5	
-0.29	-0.036	0.0056	-0.011	-0.003	-0.0035	1.9		1.9	4.21	0.122	0.022	-0.017	0.038	-0.0043	1.8	6.15	0.246	0.0409	-0.030	0.158	-0.0003	1.4	
1.01	0.061	0.0093	-0.012	-0.013	-0.0035	1.9		1.9	6.35	0.131	0.037	-0.035	0.039	-0.0042	1.7	8.20	0.310	0.0609	-0.028	0.203	-0.0001	1.3	
2.09	1.06	0.114	-0.014	-0.026	-0.0035	1.9		1.9	8.45	0.145	0.046	-0.123	0.032	-0.0041	1.7	10.25	0.420	0.0866	-0.034	0.254	-0.0001	1.2	
4.17	1.97	0.182	-0.018	-0.035	-0.0035	1.9		1.9	10.79	0.265	0.099	-0.173	0.003	-0.003	1.5	11.38	1.05	1.033	-0.070	1.278	-0.002	1.1	
5.27	2.92	0.321	-0.023	-0.047	-0.0035	1.9		1.9															
8.38	3.97	0.631	-0.027	-0.062	-0.0035	1.8	1.20	-4.11	-0.203	0.067	0.008	-0.0016	1.9	1.70	-4.09	-0.161	0.0282	-0.022	0.040	-0.0014	2.1		
10.48	5.03	0.938	-0.030	-0.066	-0.0035	1.8		1.8	-0.67	0.156	0.012	-0.037	0.012	-0.0016	1.8	-2.4	-0.083	0.0178	-0.011	0.062	-0.0012	2.0	
12.58	6.08	1.236	-0.033	-0.070	-0.0035	1.7		1.7	-0.85	0.158	0.009	-0.040	0.016	-0.0016	1.7	-1.01	-0.103	0.0266	-0.003	0.065	-0.0010	1.9	
14.68	7.08	1.535	-0.036	-0.074	-0.0035	1.7		1.7	-0.97	0.160	0.006	-0.043	0.017	-0.0016	1.7	-1.18	-0.116	0.0316	-0.002	0.069	-0.0012	1.8	
16.81	8.03	1.836	-0.039	-0.078	-0.0035	1.6		1.6	-1.07	0.162	0.004	-0.046	0.019	-0.0016	1.7	-1.37	-0.134	0.038	-0.002	0.073	-0.0007	1.7	
17.95	8.94	2.051	-0.042	-0.087	-0.0035	1.6		1.6	-1.00	0.168	0.001	-0.049	0.021	-0.0016	1.5	-1.57	-0.154	0.0416	-0.002	0.076	-0.0006	1.6	
0.80	-4.38	-1.74	0.0172	-0.001	-0.014	-0.0048	2.0		2.0	-1.10	-0.177	0.029	-0.133	-0.163	-0.0020	1.6	2.04	-0.073	0.0178	-0.012	0.067	-0.0009	1.7
-2.08	-0.75	0.0205	-0.007	-0.001	-0.0047	1.9		1.9	6.15	0.207	0.049	-0.149	-0.199	-0.0021	1.4	6.13	0.293	0.038	-0.033	0.188	-0.0002	1.5	
-1.06	-0.28	0.0090	-0.010	-0.009	-0.0047	1.9		1.9	6.28	0.207	0.047	-0.150	-0.245	-0.0021	1.4	6.18	0.306	0.058	-0.045	0.179	-0.0004	1.4	
-0.58	-0.065	0.0065	-0.011	-0.013	-0.0046	1.9		1.9	6.45	0.210	0.045	-0.154	-0.250	-0.0021	1.3	6.25	0.316	0.068	-0.054	0.189	-0.0005	1.3	
-0.29	-0.041	0.0050	-0.013	-0.024	-0.0045	1.9	1.30	-8.05	-0.099	0.0200	0.018	-0.101	-0.203	-0.0019	1.9	10.23	-0.115	0.0781	-0.022	0.218	-0.0009	1.2	
1.04	0.65	0.059	-0.014	-0.023	-0.0045	1.9		1.9	-1.03	-0.095	0.0177	0.015	-0.105	-0.205	-0.0019	1.8	1.50	-0.08	-0.143	0.019	0.031	-0.0012	2.1
2.11	1.11	0.163	-0.016	-0.026	-0.0045	1.9		1.9	-1.14	-0.093	0.0175	0.014	-0.106	-0.206	-0.0019	1.8	2.04	-0.08	0.0178	0.015	0.032	-0.0012	2.0
4.20	2.07	0.328	-0.022	-0.030	-0.0045	1.8		1.8	-1.25	-0.091	0.0173	0.012	-0.107	-0.207	-0.0019	1.7	-1.00	-0.08	0.0187	0.014	0.039	-0.0010	1.9
5.32	2.95	0.529	-0.026	-0.033	-0.0045	1.8		1.8	-1.36	-0.089	0.0171	0.010	-0.108	-0.208	-0.0019	1.7	-0.85	-0.08	0.0193	0.015	0.040	-0.0008	1.9
6.45	3.92	0.729	-0.030	-0.036	-0.0045	1.8		1.8	-1.47	-0.087	0.0169	0.008	-0.109	-0.209	-0.0019	1.7	-0.70	-0.08	0.0199	0.016	0.041	-0.0006	1.9
8.55	5.02	0.929	-0.034	-0.037	-0.0045	1.8		1.8	-1.58	-0.085	0.0167	0.006	-0.110	-0.210	-0.0019	1.7	-0.55	-0.08	0.0203	0.017	0.042	-0.0005	1.9
10.65	6.08	0.912	-0.037	-0.037	-0.0045	1.7		1.7	-1.69	-0.083	0.0165	0.004	-0.111	-0.211	-0.0019	1.7	-0.40	-0.08	0.0207	0.018	0.043	-0.0005	1.9
12.75	7.04	1.132	-0.039	-0.037	-0.0045	1.6		1.6	-1.80	-0.081	0.0163	0.002	-0.112	-0.212	-0.0019	1.6	-0.25	-0.08	0.0211	0.019	0.044	-0.0005	1.9
14.79	7.98	1.331	-0.039	-0.037	-0.0045	1.5		1.5	-1.91	-0.079	0.0160	0.000	-0.113	-0.213	-0.0019	1.5	-0.10	-0.08	0.0213	0.017	0.045	-0.0005	1.9
16.83	8.88	1.530	-0.039	-0.037	-0.0045	1.5		1.5	-2.02	-0.077	0.0158	-0.003	-0.114	-0.214	-0.0019	1.5	-0.05	-0.08	0.0213	0.015	0.046	-0.0005	1.9
17.98	8.77	1.730	-0.039	-0.037	-0.0045	1.4	1.20	-4.11	-0.111	0.0272	0.034	-0.039	-0.0007	1.0	1.70	-4.09	-0.154	0.0282	-0.022	0.083	-0.0001	1.7	
0.90	-4.22	-1.05	0.0180	-0.002	-0.012	-0.0048	2.0		2.0	-4.10	-0.174	0.0265	0.024	-0.030	-0.0019	2.0	8.16	0.273	0.0316	-0.036	0.149	-0.0007	1.7
-2.10	-0.97	0.0185	-0.002	-0.001	-0.0048	1.9		1.9	-4.02	-0.173	0.0263	0.023	-0.030	-0.0019	1.9	10.21	0.375	0.0323	-0.046	0.153	-0.0007	1.7	
-1.03	-0.83	0.0111	-0.006	-0.017	-0.0047	1.9		1.9	-4.03	-0.172	0.0262	0.023	-0.029	-0.0019	1.9	12.20	0.393	0.0323	-0.047	0.153	-0.0007	1.7	
-0.50	-0.33	0.0093	-0.011	-0.025	-0.0047	1.9		1.9	-4.05	-0.171	0.0261	0.022	-0.029	-0.0019	1.9	14.30	0.413	0.0323	-0.048	0.154	-0.0007	1.7	
-0.29	-0.036	0.0086	-0.004	-0.023	-0.0047	1.9		1.9	-4.07	-0.170	0.0260	0.022	-0.029	-0.0019	1.9	16.39	0.433	0.0323	-0.049	0.155	-0.0007	1.7	
0.60	-4.16	-0.188	0.0166	0.005	-0.011	-0.0011	0	0.90	1.01	0.043	0.0093	-0.005	-0.027	-0.0004	0	1.50	1.00	0.036	0.0161	-0.005	-0.038	0.0004	-0.1
-2.06	-0.095	0.0105	0.003	-0.004	-0.0011	0		1.01	2.09	0.093	0.0113	-0.006	-0.035	-0.0002	0	1.50	2.04	0.080	0.0183	-0.011	-0.050	0.0004	-0.1
-1.03	-0.026	0.0096	0.003	-0.004	-0.0011	0		1.01	1.19	0.194	0.0106	-0.016	-0.036	-0.0002	0	1.50	4.10	0.169	0.0863	-0.028	-0.100	0.0006	-0.3
-0.50	-0.017	0.0086	0.003	-0.004	-0.0010	0		1.01	6.38	3.03	0.034	-0.022	-0.073	-0.0002	0	1.50	6.15	0.246	0.0866	-0.037	-0.137	0.011	-0.4
-0.29	-0.009	0.0076	0.003	-0.004	-0.0010	0		1.01	8.45	4.06	0.035	-0.028	-0.117	-0.0002	0	1.50	8.25	0.334	0.0866	-0.048	-0.176	0.023	-0.5
0.60	-4.16	-0.188	0.0166	0.005	-0.011	-0.0011	0	0.90	10.37	0.070	0.060	-0.005	-0.028	-0.0009	0	1.50	11.79	0.470	0.1067	-0.059	-0.264	0.0018	-0.7
-2.06	-0.095	0.0105	0.003	-0.004	-0.0011	0		1.01	-0.03	-0.029	0.010	-0.017	-0.028	-0.0006	0	1.50	-2.04	-0.067	0.0178	0.014	-0.068	0.0002	0
-1.03	-0.026	0.0096	0.003	-0.004	-0.0011	0		1.01	-1.03	-0.026	0.010	-0.017	-0.028	-0.0006	0	1.50	-1.01	-0.068	0.0178	0.014	-0.068	0.0002	0
-0.50	-0.017	0.0086	0.003	-0.004	-0.0010	0		1.01	-1.11	-0.024	0.010	-0.017	-0.028	-0.0006	0	1.50	-1.18	-0.068	0.0178	0.014	-0.068	0.0002	0
-0.29	-0.009	0.0076	0.003	-0.004	-0.0010	0		1.01	-1.19	-0.022	0.010	-0.017	-0.028	-0.0006	0	1.50	-1.16	-0.068	0.0178	0.014	-0.068	0.0002	0
0.60	-4.16	-0.188	0.0166	0.005	-0.011	-0.0011	0	0.90	1.01	1.19	0.092	-0.011	-0.029	-0.0006	0	1.50	1.01	1.16	0.0863	-0.028	-0.100	0.0006	-0.3
-2.06	-0.095	0.0105	0.003	-0.004	-0.0011	0		1.01</															

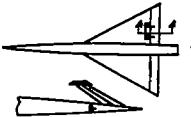
TABLE VI.- CONTINUED



Section A-4  
(c) Nominal  $\delta$ ,  $-2^\circ$

$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$b$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$b$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$b$	
0.60	-4.18	-0.202	0.0184	0.014	0.031	0.0095	-2.0	0.90	6.32	-0.286	-0.0338	-0.011	-0.020	0.004	-2.2	1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2	
	-2.09	-0.116	-0.020	-0.008	0.031	0.0093	-2.0		6.43	-0.285	-0.033	-0.016	-0.026	0.004	-2.3		6.15	245	0.0392	-0.022	-0.056	0.0083	-0.2	
	-1.05	-0.055	0.005	0.007	0.031	0.0093	-2.0		10.56	-0.284	-0.031	-0.016	-0.026	0.004	-2.4		5.21	329	0.0391	-0.044	-0.135	0.0083	-0.2	
	-0.43	-0.041	0.005	0.007	0.031	0.0093	-2.0		1.01	-0.283	-0.030	-0.016	-0.026	0.004	-2.5		10.26	408	0.0393	-0.066	-0.181	0.0083	-0.6	
	-0.23	-0.033	0.005	0.006	0.031	0.0093	-2.0		1.02	-0.282	-0.029	-0.016	-0.026	0.004	-2.6		12.31	487	0.0393	-0.066	-0.210	0.0083	-0.7	
	-0.16	-0.025	0.005	0.006	0.031	0.0093	-2.0		1.03	-0.281	-0.028	-0.016	-0.026	0.004	-2.7		14.37	561	0.0393	-0.074	-0.240	0.0083	-0.8	
	-0.10	-0.019	0.005	0.006	0.031	0.0093	-2.0		1.04	-0.280	-0.027	-0.016	-0.026	0.004	-2.8		16.42	634	0.0393	-0.084	-0.275	0.0083	-0.9	
	-0.06	-0.012	0.005	0.006	0.031	0.0093	-2.0		1.05	-0.279	-0.026	-0.016	-0.026	0.004	-2.9		17.47	669	0.0393	-0.087	-0.296	0.0083	-0.9	
	-0.03	-0.008	0.005	0.006	0.031	0.0093	-2.0		1.06	-0.278	-0.025	-0.016	-0.026	0.004	-2.0		1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2
	-0.02	-0.005	0.005	0.006	0.031	0.0093	-2.0		1.07	-0.277	-0.024	-0.016	-0.026	0.004	-2.1		6.15	245	0.0392	-0.032	-0.056	0.0083	-0.2	
	-0.01	-0.003	0.005	0.006	0.031	0.0093	-2.0		1.08	-0.276	-0.023	-0.016	-0.026	0.004	-2.2		5.21	329	0.0391	-0.044	-0.135	0.0083	-0.2	
	-0.01	-0.002	0.005	0.006	0.031	0.0093	-2.0		1.09	-0.275	-0.022	-0.016	-0.026	0.004	-2.3		10.26	408	0.0393	-0.066	-0.181	0.0083	-0.6	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.10	-0.274	-0.021	-0.016	-0.026	0.004	-2.4		12.31	487	0.0393	-0.074	-0.210	0.0083	-0.7	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.11	-0.273	-0.020	-0.016	-0.026	0.004	-2.5		14.37	561	0.0393	-0.084	-0.240	0.0083	-0.8	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.12	-0.272	-0.019	-0.016	-0.026	0.004	-2.6		16.42	634	0.0393	-0.093	-0.275	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.13	-0.271	-0.018	-0.016	-0.026	0.004	-2.7		17.47	669	0.0393	-0.097	-0.296	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.14	-0.270	-0.017	-0.016	-0.026	0.004	-2.8		1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.15	-0.269	-0.016	-0.016	-0.026	0.004	-2.9		6.15	245	0.0392	-0.032	-0.056	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.16	-0.268	-0.015	-0.016	-0.026	0.004	-2.0		5.21	329	0.0391	-0.044	-0.135	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.17	-0.267	-0.014	-0.016	-0.026	0.004	-2.1		10.26	408	0.0393	-0.066	-0.181	0.0083	-0.6	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.18	-0.266	-0.013	-0.016	-0.026	0.004	-2.2		12.31	487	0.0393	-0.074	-0.210	0.0083	-0.7	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.19	-0.265	-0.012	-0.016	-0.026	0.004	-2.3		14.37	561	0.0393	-0.084	-0.240	0.0083	-0.8	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.20	-0.264	-0.011	-0.016	-0.026	0.004	-2.4		16.42	634	0.0393	-0.093	-0.275	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.21	-0.263	-0.010	-0.016	-0.026	0.004	-2.5		17.47	669	0.0393	-0.097	-0.296	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.22	-0.262	-0.009	-0.016	-0.026	0.004	-2.6		1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.23	-0.261	-0.008	-0.016	-0.026	0.004	-2.7		6.15	245	0.0392	-0.032	-0.056	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.24	-0.260	-0.007	-0.016	-0.026	0.004	-2.8		5.21	329	0.0391	-0.044	-0.135	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.25	-0.259	-0.006	-0.016	-0.026	0.004	-2.9		10.26	408	0.0393	-0.066	-0.181	0.0083	-0.6	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.26	-0.258	-0.005	-0.016	-0.026	0.004	-2.0		12.31	487	0.0393	-0.074	-0.210	0.0083	-0.7	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.27	-0.257	-0.004	-0.016	-0.026	0.004	-2.1		14.37	561	0.0393	-0.084	-0.240	0.0083	-0.8	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.28	-0.256	-0.003	-0.016	-0.026	0.004	-2.2		16.42	634	0.0393	-0.093	-0.275	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.29	-0.255	-0.002	-0.016	-0.026	0.004	-2.3		17.47	669	0.0393	-0.097	-0.296	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.30	-0.254	-0.001	-0.016	-0.026	0.004	-2.4		1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.31	-0.253	-0.000	-0.016	-0.026	0.004	-2.5		6.15	245	0.0392	-0.032	-0.056	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.32	-0.252	-0.001	-0.016	-0.026	0.004	-2.6		5.21	329	0.0391	-0.044	-0.135	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.33	-0.251	-0.002	-0.016	-0.026	0.004	-2.7		10.26	408	0.0393	-0.066	-0.181	0.0083	-0.6	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.34	-0.250	-0.003	-0.016	-0.026	0.004	-2.8		12.31	487	0.0393	-0.074	-0.210	0.0083	-0.7	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.35	-0.249	-0.004	-0.016	-0.026	0.004	-2.9		14.37	561	0.0393	-0.084	-0.240	0.0083	-0.8	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.36	-0.248	-0.005	-0.016	-0.026	0.004	-2.0		16.42	634	0.0393	-0.093	-0.275	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.37	-0.247	-0.006	-0.016	-0.026	0.004	-2.1		17.47	669	0.0393	-0.097	-0.296	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.38	-0.246	-0.007	-0.016	-0.026	0.004	-2.2		1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.39	-0.245	-0.008	-0.016	-0.026	0.004	-2.3		6.15	245	0.0392	-0.032	-0.056	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.40	-0.244	-0.009	-0.016	-0.026	0.004	-2.4		5.21	329	0.0391	-0.044	-0.135	0.0083	-0.2	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.41	-0.243	-0.010	-0.016	-0.026	0.004	-2.5		10.26	408	0.0393	-0.066	-0.181	0.0083	-0.6	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.42	-0.242	-0.011	-0.016	-0.026	0.004	-2.6		12.31	487	0.0393	-0.074	-0.210	0.0083	-0.7	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.43	-0.241	-0.012	-0.016	-0.026	0.004	-2.7		14.37	561	0.0393	-0.084	-0.240	0.0083	-0.8	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.44	-0.240	-0.013	-0.016	-0.026	0.004	-2.8		16.42	634	0.0393	-0.093	-0.275	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.45	-0.239	-0.014	-0.016	-0.026	0.004	-2.9		17.47	669	0.0393	-0.097	-0.296	0.0083	-0.9	
	-0.01	-0.001	0.005	0.006	0.031	0.0093	-2.0		1.46	-0.238	-0.015	-0.016	-0.026	0.004	-2.0		1.50	4.10	0.160	0.0262	-0.020	-0.058	0.0083	-0.2
	-0.01</																							

TABLE VI.- CONTINUED

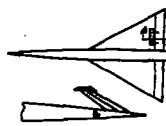


Section A-A

(e) Nominal  $\delta$ ,  $-8^\circ$ 

$K$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$s$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$s$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$s$
0.60	-1.22	-0.255	0.025	0.036	0.097	0.0124	-7.9	0.90	6.30	0.235	0.0389	0.012	0.080	0.0138	-7.9	1.50	2.04	0.061	0.0196	0.003	0.074	0.0058	-7.8
-2.13	-1.63	0.166	0.031	0.077	0.019	-7.9	8.42	-0.33	-0.063	0.010	-	0.023	-7.9	6.10	1.14	0.0265	0.011	0.033	0.0058	0.063	-7.9		
-1.09	-1.20	0.137	0.030	0.074	0.0123	-7.9	10.54	-1.39	-0.092	0.009	0.025	-7.9	6.15	2.30	0.0390	0.023	0.005	0.060	0.060	-8.1			
-56	-0.97	0.125	0.029	0.072	0.0124	-7.9	12.67	-0.50	-0.104	0.005	0.022	-8.0	8.21	3.15	0.0578	0.034	0.050	0.060	0.060	-8.2			
-50	-0.96	0.111	0.029	0.067	0.0125	-7.9	1.20	-4.10	-0.246	0.034	0.023	-7.3	10.26	-3.95	0.0823	-0.045	-0.094	0.060	0.060	-8.3			
-36	-0.93	0.110	0.028	0.061	0.0125	-7.9	8.42	-2.05	-0.186	0.028	0.040	0.021	0.060	12.31	-1.73	0.1121	-0.073	-0.123	0.065	0.065	-8.4		
2.05	0.25	0.115	0.026	0.051	0.0121	8.0	-1.02	-0.07	0.016	0.033	0.026	0.060	14.37	-5.90	0.1167	-0.065	-0.151	0.070	0.070	-8.5			
4.17	1.06	0.151	0.026	0.032	0.0116	8.0	-2.90	-0.021	0.071	0.029	0.010	0.061	16.42	-6.24	0.1873	-0.073	-0.185	0.064	0.064	-9.6			
6.22	1.99	0.132	0.017	0.016	0.0117	8.0	-3.0	-0.021	0.071	0.029	0.010	0.061	17.45	-6.59	0.2091	-0.077	-0.202	0.059	0.059	-8.7			
8.32	3.08	0.031	0.016	0.007	0.0119	8.1	-3.0	-0.021	0.071	0.029	0.010	0.061	1.70	-4.09	-1.82	0.0299	0.033	-1.58	0.040	0.040	-7.6		
10.43	4.06	0.0703	0.009	0	0.0198	8.1	1.03	-0.003	0.0179	0.019	0.019	0.007	-7.6	-2.04	-1.03	0.0211	0.024	0.127	0.045	0.045	-7.7		
12.53	5.08	0.097	0.016	0.011	0.0108	8.1	2.11	-0.021	0.063	0.020	0.009	0.002	-7.7	1.04	-0.63	0.0187	0.018	0.110	0.045	0.045	-7.7		
14.66	6.13	0.153	0.016	0.017	0.0111	8.1	2.17	-0.021	0.063	0.020	0.008	0.002	-7.7	-1.45	-0.63	0.0179	0.013	0.100	0.047	0.047	-7.7		
16.78	7.13	0.205	0.008	0.027	0.0136	8.1	8.23	-0.021	0.067	0.021	0.009	0.009	-8.0	-1.31	-0.03	0.0173	0.010	0.081	0.048	0.048	-7.8		
17.84	7.60	0.271	0.008	0.030	0.0133	8.1	10.29	-0.021	0.067	0.021	0.007	0.007	-8.1	1.04	0.018	0.0176	0.007	0.071	0.049	0.049	-7.8		
0.80	-4.26	-2.70	0.026	0.03	0.0117	0.026	-7.8	12.46	-0.73	0.030	-	-1.04	0.069	-8.3	6.14	2.10	0.0369	-0.021	-0.119	0.074	0.074	-8.1	
-4.24	-1.18	0.072	0.035	0.008	0.0120	7.8	-2.04	-0.021	0.064	0.033	0.021	0.007	-7.4	6.19	2.06	0.0537	-0.031	-0.061	0.073	0.073	-8.2		
-1.09	-1.22	0.085	0.033	0.003	0.0133	7.8	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	10.24	-0.57	0.0760	-0.040	-0.094	0.073	0.073	-8.3		
-0.97	-1.11	0.085	0.033	0.003	0.0131	7.8	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	12.29	-0.23	0.1023	-0.043	-0.110	0.061	0.061	-8.4		
-0.95	-0.98	0.081	0.031	0.006	0.0133	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	14.34	-0.19	0.1335	-0.058	-0.142	0.064	0.064	-8.5		
-0.88	-0.97	0.081	0.031	0.006	0.0133	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	16.39	-0.06	0.1651	-0.053	-0.159	0.065	0.065	-8.6		
-0.85	-0.87	0.082	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	17.42	-0.05	0.1897	-0.055	-0.151	0.065	0.065	-8.6		
-0.82	-0.75	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	1.09	1.33	0.0289	-0.010	0.015	0.061	0.061	-8.0		
-0.78	-0.75	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.14	2.10	0.0369	-0.021	0.019	0.074	0.074	-8.1		
-0.75	-0.72	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.19	2.06	0.0537	-0.031	0.016	0.073	0.073	-8.2		
-0.72	-0.70	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	10.24	-0.57	0.0760	-0.040	0.004	0.072	0.072	-8.3		
-0.69	-0.67	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	12.29	-0.23	0.1023	-0.043	0.010	0.071	0.071	-8.4		
-0.66	-0.65	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	14.34	-0.19	0.1335	-0.058	0.014	0.070	0.070	-8.5		
-0.63	-0.63	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	16.39	-0.06	0.1651	-0.053	0.018	0.069	0.069	-8.6		
-0.60	-0.60	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	17.42	-0.05	0.1897	-0.055	0.022	0.068	0.068	-8.6		
-0.57	-0.57	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	1.09	1.33	0.0289	-0.010	0.022	0.067	0.067	-8.0		
-0.54	-0.54	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.14	2.10	0.0369	-0.021	0.019	0.074	0.074	-8.1		
-0.51	-0.51	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.19	2.06	0.0537	-0.031	0.016	0.073	0.073	-8.2		
-0.48	-0.48	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	10.24	-0.57	0.0760	-0.040	0.004	0.072	0.072	-8.3		
-0.45	-0.45	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	12.29	-0.23	0.1023	-0.043	0.010	0.071	0.071	-8.4		
-0.42	-0.42	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	14.34	-0.19	0.1335	-0.058	0.014	0.070	0.070	-8.5		
-0.39	-0.39	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	16.39	-0.06	0.1651	-0.053	0.018	0.069	0.069	-8.6		
-0.36	-0.36	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	17.42	-0.05	0.1897	-0.055	0.022	0.068	0.068	-8.6		
-0.33	-0.33	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	1.09	1.33	0.0289	-0.010	0.022	0.067	0.067	-8.0		
-0.30	-0.30	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.14	2.10	0.0369	-0.021	0.019	0.074	0.074	-8.1		
-0.27	-0.27	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.19	2.06	0.0537	-0.031	0.016	0.073	0.073	-8.2		
-0.24	-0.24	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	10.24	-0.57	0.0760	-0.040	0.004	0.072	0.072	-8.3		
-0.21	-0.21	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	12.29	-0.23	0.1023	-0.043	0.010	0.071	0.071	-8.4		
-0.18	-0.18	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	14.34	-0.19	0.1335	-0.058	0.014	0.070	0.070	-8.5		
-0.15	-0.15	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	16.39	-0.06	0.1651	-0.053	0.018	0.069	0.069	-8.6		
-0.12	-0.12	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	17.42	-0.05	0.1897	-0.055	0.022	0.068	0.068	-8.6		
-0.09	-0.09	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	1.09	1.33	0.0289	-0.010	0.022	0.067	0.067	-8.0		
-0.06	-0.06	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.14	2.10	0.0369	-0.021	0.019	0.074	0.074	-8.1		
-0.03	-0.03	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	6.19	2.06	0.0537	-0.031	0.016	0.073	0.073	-8.2		
-0.00	-0.00	0.085	0.031	0.006	0.0129	7.9	-2.04	-0.021	0.064	0.031	0.020	0.007	-7.4	10.24	-0								

TABLE VI.-- CONTINUED



Section A-A

(g) Nominal  $\delta$ ,  $-16^\circ$ 

$H$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_b$	$C_I$	$S$	$H$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_b$	$C_I$	$S$	$H$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_b$	$C_I$	$S$	
0.60	-1.06	0.305	0.0360	0.035	0.291	0.0053	-15.5	0.90	4.21	0.093	0.0239	0.036	0.225	0.0060	-15.3	1.30	1.03	0.004	0.0243	0.022	0.870	0.0106	-14.1	
	-2.17	.213	.0257	.021	.211	.0062	-15.5		6.33	.207	.0366	.027	.204	.0059	-15.4		2.09	.040	.0292	.015	.245	.0104	-14.1	
	-1.11	.113	.0211	.020	.212	.0065	-15.5		8.41	.310	.0275	.022	.176	.0071	-15.4		4.10	.125	.0307	.002	.156	.0101	-14.1	
	-5.69	.150	.0208	.020	.217	.0066	-15.5		10.33	.314	.0093	.018	.192	.0054	-15.4		6.16	.210	.0419	.011	.144	.0101	-14.1	
	-25	.113	.0200	.020	.223	.0068	-15.3		12.36	.322	.159	.009	.188	.0053	-15.4		10.27	.376	.0326	.033	.040	.0097	-14.7	
	-58	.091	.0183	.020	.221	.0069	-15.3									12.33	.346	.115	.042	.003	.0098	-13.0		
	1.22	.046	.0175	.018	.199	.0069	-15.3	1.20	+1.10	-1.83	.0443	.078	.161	.0169	-13.7		14.38	.731	.1450	.036	.0099	-13.2		
	4.08	.049	.0188	.018	.170	.0067	-15.6		-2.04	-1.85	.0233	.062	.103	.0176	-13.8		1.70	-4.08	-1.97	.0377	.046	.206	.0073	-15.0
	6.24	.144	.0249	.010	.150	.0067	-15.6		-1.01	-1.36	.0284	.075	.101	.0181	-13.8		-2.03	.119	.0278	.034	.264	.0079	-14.8	
	8.34	.218	.0106	.037	.129	.0067	-15.6		-7.9	-1.11	.0269	.051	.306	.0182	-13.8		-1.01	.080	.0247	.028	.249	.0080	-14.2	
	10.39	.318	.0543	.031	.105	.0066	-15.7		1.02	-0.38	.0292	.041	.379	.0183	-13.8		-1.49	.080	.0236	.028	.231	.0081	-14.2	
	12.50	.153	.0097	.031	.093	.0065	-15.7		2.08	-0.15	.0259	.033	.354	.0177	-13.9		1.03	.001	.0225	.019	.214	.0081	-14.3	
	14.61	.256	.143	.032	.068	.0067	-15.7		4.16	.118	.0314	.034	.304	.0169	-14.1		.51	.021	.0226	.017	.204	.0082	-14.3	
	16.74	.676	.1982	.036	.049	.0072	-15.8		6.17	.220	.0349	.040	.216	.0161	-14.2		2.05	.041	.0275	.011	.159	.0083	-14.7	
	17.80	.724	.226	.027	.035	.0070	-15.8		8.23	.388	.0552	.018	.194	.0160	-14.8		6.14	.194	.0350	.014	.166	.0083	-14.6	
0.80	-4.28	.301	.0374	.057	.283	.0160	-14.4	1.30	-4.08	-2.51	.0448	.065	.355	.0044	-14.8		10.21	.344	.0761	.033	.066	.0098	-14.9	
	-6.17	.204	.0261	.051	.280	.0171	-14.4		-2.03	-1.59	.0340	.058	.351	.0046	-14.8		14.34	.451	.1315	.046	.039	.0089	-15.1	
	-1.12	.159	.0227	.049	.282	.0174	-14.4		10.30	.436	.0299	.034	.122	.0150	-14.6		-2.08	.116	.0267	.020	.210	.0080	-15.1	
	-39	.136	.0213	.048	.216	.0177	-14.4		12.35	.511	.1286	.052	.037	.0147	-14.8		-1.01	.071	.0336	.021	.159	.0088	-15.3	
	.16	.093	.0193	.045	.241	.0179	-14.4		13.39	.602	.1519	.062	.021	.0154	-14.9		8.19	.270	.0947	.063	.053	.0081	-14.8	
	.95	.069	.0187	.045	.237	.0179	-14.4		1.30	-4.08	-2.51	.0448	.065	.355	.0044	-14.8		12.29	.414	.1013	.046	.037	.0088	-15.0
	2.02	.024	.0186	.041	.286	.0183	-14.4		-1.01	-1.16	.0303	.046	.346	.0047	-14.8		16.39	.516	.1666	.056	.068	.0089	-15.1	
	4.17	.071	.0221	.038	.202	.0185	-14.5		-4.49	-0.92	.0269	.042	.341	.0047	-14.9		1.03	.001	.0225	.017	.204	.0081	-14.8	
	6.89	.176	.0308	.034	.183	.0186	-14.5		.75	-0.06	.0272	.036	.346	.0047	-14.9		4.09	.117	.0287	.001	.143	.0088	-14.5	
	10.36	.265	.0502	.028	.182	.0192	-14.5		1.08	-0.21	.0278	.032	.291	.0046	-15.0		6.14	.194	.0350	.014	.166	.0083	-14.6	
	10.81	.323	.0795	.028	.182	.0193	-14.5		2.09	.030	.0278	.048	.290	.0046	-15.0		.56	.017	.0220	.016	.171	.0081	-15.3	
	12.40	.141	.1519	.020	.182	.0194	-14.5		4.11	-0.20	.0233	.009	.237	.0047	-15.2		1.08	.002	.0219	.013	.162	.0082	-15.4	
	14.74	.618	.1645	.011	.111	.0188	-14.7		6.16	.217	.0454	.002	.190	.0043	-15.3		10.21	.344	.0761	.033	.066	.0089	-15.1	
	16.55	.703	.2169	.010	.142	.0188	-14.6		8.21	.312	.0844	.039	.137	.0041	-15.7		1.08	.002	.0219	.013	.162	.0082	-15.4	
	17.91	.724	.2473	.007	.172	.0203	-14.6		10.21	.407	.1605	.034	.177	.0039	-15.7		2.07	.039	.0227	.009	.146	.0082	-15.4	
0.90	-4.29	.315	.0428	.061	.273	.0032	-15.8	1.30	-4.09	-2.20	.0406	.055	.341	.01010	-15.8		12.35	.466	.1070	.040	.037	.0088	-15.2	
	-2.17	.209	.0281	.056	.274	.0035	-15.8		14.37	.294	.1610	.060	.034	.0034	-15.9		8.17	.243	.0512	.026	.037	.0088	-15.7	
	-1.12	.161	.0243	.053	.285	.0038	-15.8		1.30	-4.09	-2.20	.0406	.055	.341	.01010	-15.8		10.22	.310	.0700	.033	.032	.0088	-15.8
	-39	.128	.0230	.050	.287	.0039	-15.8		-2.04	-1.34	.0300	.041	.322	.0104	-14.0		12.37	.374	.0920	.035	.035	.0083	-15.9	
	.36	.094	.0207	.050	.281	.0050	-15.8		-1.01	-0.92	.0267	.035	.310	.0104	-14.0		14.31	.454	.1201	.040	.037	.0084	-15.0	
	.89	.068	.0203	.048	.277	.0050	-15.8		-3.50	-0.707	.0284	.031	.287	.0104	-14.0		15.36	.467	.1593	.048	.056	.0083	-15.0	
	1.98	.016	.0196	.034	.252	.0059	-15.3		1.30	-0.08	.0242	.023	.278	.0105	-14.1		17.38	.524	.1702	.043	.066	.0086	-15.1	

(h) Nominal  $\delta$ ,  $-20^\circ$ 

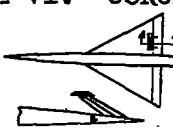
$H$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_b$	$C_I$	$S$	$H$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_b$	$C_I$	$S$	$H$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_b$	$C_I$	$S$	
0.60	-4.66	.0315	0.0403	0.058	.0276	0.0211	-19.3	0.90	6.31	-0.193	0.0372	0.030	.0232	0.0207	-19.3	1.30	4.11	0.119	0.0343	0.006	.0239	0.0139	-19.2	
	-2.16	.223	.0300	.054	.273	.0220	-19.3		8.38	.308	.0505	.023	.190	.0173	-19.3		6.16	.200	.0449	.005	.169	.0138	-19.4	
	-1.12	.179	.0261	.051	.271	.0222	-19.3		10.31	.105	.0918	.080	.185	.0179	-19.3		8.21	.263	.0517	.017	.139	.0133	-19.5	
	-.60	.157	.0216	.052	.270	.0223	-19.3		-1.01	-1.25	.0336	.044	.478	.0227	-18.6		10.27	.366	.0587	.030	.067	.0129	-19.7	
	.34	.119	.0208	.051	.274	.0223	-19.3		-4.10	-3.03	.0500	.066	.193	.0207	-18.6		18.38	.447	.1129	.042	.048	.0130	-19.8	
	.87	.099	.0219	.051	.273	.0223	-19.3		-2.04	-1.35	.0326	.064	.173	.0221	-18.6		14.37	.560	.1452	.051	.021	.0130	-19.9	
	1.92	.056	.0224	.046	.273	.0240	-19.2		-1.01	-1.25	.0336	.064	.178	.0229	-18.6		1.70	-4.08	-2.05	.0424	.022	.246	.0111	-19.9
	4.09	.039	.0224	.046	.245	.0236	-19.2		-6.40	-0.08	.0303	.034	.159	.0233	-18.7		-2.03	.129	.0323	.040	.248	.0115	-19.9	
	6.22	.133	.0279	.047	.224	.0233	-19.2		1.00	-0.20	.0300	.050	.155	.0234	-18.7		-1.02	.090	.0350	.024	.211	.0115	-19.0	
	8.31	.257	.0427	.037	.199	.0233	-19.2		2.05	-0.20	.0303	.042	.154	.0238	-18.7		-2.00	.129	.0350	.025	.263	.0115	-19.1	
	10.42	.341	.0668	.034	.157	.0233	-19.2		4.10	-0.20	.0302	.039	.152	.0238	-18.7		-1.02	.090	.0350	.024	.211	.0115	-19.0	
	12.47	.198	.0991	.035	.168	.0233	-19.2		4.16	-0.20	.0302	.039	.152	.0238	-18.7		-2.00	.129	.0350	.025	.263	.0115	-19.1	
	15.98	.143	.191	.034	.146	.0238	-19.7		8.23	.309	.0671	.009	.277	.0192	-19.3		-2.00	.129	.03					

C

NACA RM A52L04

49

TABLE VI.- CONCLUDED



Section A-A

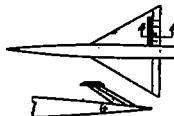
(i) Nominal  $\delta$ ,  $-24^\circ$ 

M	a	c <sub>L</sub>	c <sub>D</sub>	c <sub>m</sub>	c <sub>b</sub>	c <sub>1</sub>	b	M	a	c <sub>L</sub>	c <sub>D</sub>	c <sub>m</sub>	c <sub>b</sub>	c <sub>1</sub>	b	M	a	c <sub>L</sub>	c <sub>D</sub>	c <sub>m</sub>	c <sub>b</sub>	c <sub>1</sub>	b
0.60	-2.26	0.321	0.0443	0.060	0.296	0.0227	-23.4	0.90	4.17	0.056	0.0287	0.045	0.296	0.0240	-23.3	1.50	2.08	0.020	0.0320	0.026	0.348	0.0169	-22.9
-2.17	-2.31	0.337	0.0443	0.071	0.291	0.0237	-23.4	8.37	1.05	0.051	0.0291	0.033	0.292	0.0223	-23.4	6.16	1.07	0.0376	0.026	0.378	0.0160	-23.1	
-1.13	-1.88	0.296	0.0443	0.073	0.290	0.0240	-23.5	10.70	1.06	0.050	0.0290	0.028	0.163	0.0179	-23.5	8.21	1.07	0.0477	0.023	0.228	0.0158	-23.3	
-1.60	-1.87	0.298	0.0443	0.075	0.290	0.0241	-23.5	1.03	1.19	0.050	0.0295	0.018	0.163	0.0171	-23.6	10.27	1.07	0.0561	0.022	0.191	0.0153	-23.4	
-1.33	-1.26	0.279	0.0443	0.074	0.288	0.0246	-23.5	1.20	4.09	-0.309	0.0547	0.090	0.303	0.0287	-22.6	12.32	1.07	0.0561	0.026	0.116	0.0147	-23.6	
-1.55	-1.05	0.270	0.0443	0.073	0.287	0.0248	-23.5	2.01	2.11	0.049	0.0349	0.075	0.165	0.0243	-23.6	16.43	1.07	0.057	0.026	0.088	0.0146	-23.8	
1.93	-0.90	0.241	0.0443	0.073	0.279	0.0249	-23.5	1.01	1.61	0.0379	0.068	0.021	0.251	0.0251	-22.6	1.01	1.61	0.0477	0.023	0.191	0.0147	-23.6	
4.10	0.89	0.248	0.0443	0.074	0.264	0.0254	-23.5	1.50	1.61	0.0362	0.065	0.017	0.251	0.0251	-22.6	1.50	1.61	0.075	0.028	0.191	0.0146	-23.8	
6.21	1.86	0.303	0.0443	0.073	0.290	0.0240	-23.5	1.00	0.068	0.038	0.055	0.165	0.0261	0.026	-22.6	1.00	0.068	0.064	0.026	0.116	0.0147	-23.6	
8.31	2.29	0.048	0.0443	0.079	0.220	0.0249	-23.6	2.05	-0.016	0.039	0.047	0.167	0.0256	0.0256	-22.7	14.36	0.16	0.1473	0.048	0.054	0.0143	-23.8	
10.41	1.36	0.067	0.0443	0.075	0.205	0.0245	-23.6	4.16	0.090	0.032	0.029	0.168	0.0244	0.0244	-22.8	12.32	1.01	0.033	0.028	0.090	0.0143	-23.7	
12.47	1.49	1.015	0.0443	0.076	0.195	0.0242	-23.6	6.17	1.93	0.0495	0.012	0.026	0.031	0.023	-23.0	1.02	0.18	0.0301	0.026	0.298	0.0143	-23.1	
14.59	1.42	0.36	0.0443	0.073	0.173	0.0246	-23.7	8.25	0.299	0.064	0.004	0.135	0.0238	0.0238	-23.1	2.07	0.03	0.0309	0.020	0.261	0.014	-23.1	
16.70	6.69	1.954	0.0443	0.073	0.160	0.0261	-23.7	1.00	0.068	0.059	0.021	0.262	0.0219	0.0219	-23.2	1.00	0.068	0.033	0.029	0.300	0.0143	-23.0	
17.75	7.04	2.229	0.0443	0.073	0.149	0.0259	-23.7	1.00	0.068	0.059	0.021	0.262	0.0219	0.0219	-23.2	1.00	0.068	0.033	0.029	0.300	0.0143	-23.9	
0.60	-4.26	-0.325	0.0471	0.065	0.265	0.0207	-23.8	12.35	5.09	0.132	0.039	0.190	0.209	0.024	-23.4	6.14	1.07	0.0367	0.044	0.312	0.0143	-22.8	
-2.18	-2.29	0.034	0.0471	0.066	0.321	0.0226	-23.3	14.42	6.15	0.210	0.046	0.160	0.209	0.024	-23.4	8.19	1.07	0.0367	0.044	0.312	0.0143	-22.9	
-1.13	-1.84	0.311	0.0471	0.078	0.321	0.0226	-23.3	1.30	-4.18	-0.270	0.0254	0.078	0.184	0.0298	-22.5	10.24	0.07	0.0783	0.028	0.093	0.0143	-23.7	
-1.60	-1.61	0.023	0.0471	0.077	0.322	0.0227	-23.3	2.03	-0.281	0.0437	0.065	0.161	0.0213	0.0213	-22.5	12.29	0.07	0.1013	0.033	0.066	0.0143	-23.7	
-1.46	-1.20	0.267	0.0471	0.075	0.317	0.0234	-23.3	1.00	-0.136	0.0395	0.058	0.173	0.0213	0.0213	-22.6	14.34	0.06	0.1327	0.042	0.037	0.0143	-23.5	
-0.99	-0.96	0.026	0.0471	0.074	0.314	0.0234	-23.3	1.00	-0.136	0.0395	0.058	0.173	0.0213	0.0213	-22.6	15.40	0.07	0.133	0.042	0.037	0.0143	-23.9	
2.07	-0.048	0.026	0.0471	0.074	0.297	0.0239	-23.4	1.44	-0.119	0.0379	0.055	0.167	0.0217	0.0217	-22.6	17.42	0.07	0.1665	0.029	0.001	0.0143	-23.9	
4.20	0.047	0.311	0.0471	0.074	0.275	0.0239	-23.4	1.44	-0.119	0.0379	0.055	0.167	0.0217	0.0217	-22.6	1.44	1.07	0.0349	0.03	0.169	0.0143	-23.4	
6.33	1.56	0.049	0.0471	0.074	0.251	0.0231	-23.4	1.44	-0.119	0.0379	0.055	0.167	0.0217	0.0217	-22.6	1.44	1.07	0.0349	0.03	0.169	0.0143	-23.4	
8.39	2.66	0.035	0.0471	0.075	0.213	0.0231	-23.4	2.03	-0.136	0.0395	0.058	0.173	0.0217	0.0217	-22.7	1.00	0.07	0.0320	0.028	0.201	0.0143	-23.1	
10.46	3.86	0.039	0.0471	0.075	0.197	0.0231	-23.4	1.44	-0.119	0.0379	0.055	0.167	0.0217	0.0217	-22.6	1.44	1.07	0.0349	0.03	0.169	0.0143	-23.4	
12.54	5.01	1.16	0.0471	0.075	0.180	0.0231	-23.4	1.44	-0.119	0.0379	0.055	0.167	0.0217	0.0217	-22.6	1.44	1.07	0.0349	0.03	0.169	0.0143	-23.4	
14.71	6.09	1.62	0.0471	0.075	0.165	0.0231	-23.4	8.21	-0.091	0.0307	0.051	0.173	0.0217	0.0217	-22.7	12.29	0.07	0.067	0.023	0.275	0.0143	-23.1	
15.83	7.25	2.223	0.0471	0.075	0.145	0.0231	-23.4	10.97	-0.086	0.0303	0.058	0.173	0.0217	0.0217	-22.7	14.34	0.07	0.067	0.023	0.275	0.0143	-23.1	
17.71	7.01	2.223	0.0471	0.075	0.136	0.0231	-23.4	12.32	-0.089	0.0303	0.058	0.173	0.0217	0.0217	-22.7	1.07	0.07	0.069	0.029	0.207	0.0143	-23.8	
-1.27	-1.27	0.048	0.0471	0.075	0.135	0.0231	-23.4	1.44	-0.119	0.0379	0.055	0.167	0.0217	0.0217	-22.7	1.07	0.07	0.069	0.029	0.207	0.0143	-23.8	
-2.17	-2.17	0.036	0.0471	0.075	0.128	0.0231	-23.4	8.23	-0.091	0.0307	0.051	0.173	0.0217	0.0217	-22.7	1.07	0.07	0.069	0.029	0.207	0.0143	-23.8	
-1.14	-1.96	0.038	0.0471	0.075	0.122	0.0231	-23.4	12.33	-0.099	0.0306	0.057	0.173	0.0217	0.0217	-22.7	1.07	0.07	0.069	0.029	0.207	0.0143	-23.8	
0.60	-0.62	0.176	0.0321	0.058	0.334	0.0253	-27.4	1.90	6.30	0.170	0.0416	0.037	0.026	0.0838	-27.3	1.50	4.16	0.099	0.0402	0.016	0.266	0.0180	-27.1
-0.93	-1.13	0.082	0.0321	0.058	0.326	0.0256	-27.4	10.36	8.35	0.291	0.0504	0.026	0.021	0.156	-27.4	6.16	1.07	0.0496	0.022	0.229	0.0177	-27.2	
1.56	-0.69	0.086	0.0321	0.058	0.316	0.0256	-27.4	1.30	0.07	0.01	0.021	0.021	0.0173	0.0173	-27.5	8.21	1.07	0.0555	0.029	0.209	0.0170	-27.3	
1.58	-0.62	0.082	0.0321	0.058	0.306	0.0255	-27.4	1.20	-4.57	-0.320	0.0637	-	0.543	0.0242	-26.5	10.27	1.07	0.0562	0.021	0.164	0.0167	-27.4	
2.41	-1.04	0.084	0.0321	0.058	0.288	0.0255	-27.4	2.04	-0.221	0.0474	0.067	0.166	0.0261	0.0261	-26.5	16.43	1.07	0.0562	0.023	0.164	0.0167	-27.4	
8.12	1.28	0.084	0.0321	0.058	0.256	0.0255	-27.4	1.01	-0.176	0.0437	0.074	0.166	0.0274	0.0274	-26.5	1.01	1.07	0.0562	0.023	0.164	0.0167	-27.4	
10.12	1.42	0.086	0.0321	0.058	0.245	0.0255	-27.4	1.01	-0.176	0.0437	0.074	0.166	0.0274	0.0274	-26.5	1.01	1.07	0.0562	0.023	0.164	0.0167	-27.4	
12.18	1.42	1.018	0.0321	0.058	0.236	0.0255	-27.4	1.01	-0.176	0.0437	0.074	0.166	0.0274	0.0274	-26.5	1.01	1.07	0.0562	0.023	0.164	0.0167	-27.4	
14.60	5.12	1.339	0.0321	0.058	0.203	0.0255	-27.4	9.99	0.080	0.0352	0.068	0.159	0.0283	0.0283	-26.6	12.32	0.07	0.0562	0.023	0.164	0.0167	-27.4	
15.72	6.74	1.94	0.0321	0.058	0.193	0.0255	-27.4	1.01	-0.176	0.0437	0.074	0.166	0.0274	0.0274	-26.5	12.32	0.07	0.0562	0.023	0.164	0.0167	-27.4	
17.71	7.01	2.223	0.0321	0.058	0.178	0.0255	-27.4	1.01	-0.176	0.0437	0.074	0.166	0.0274	0.0274	-26.5	12.32	0.07	0.0562	0.023	0.164	0.0167	-27.4	
-1.27	-1.27	0.036	0.0321	0.058	0.178	0.0255	-27.4	1.01	-0.176	0.0437	0.074	0.166	0.0274	0.0274	-26.5	1.01	1.07	0.0562	0.023	0.164	0.0167	-27.4	
-2.17	-2.17	0.036	0.0321	0.058	0.165	0.0255	-27.4	2.07	-0.003	0.0356	0.048	0.166	0.0281	0.0281	-26.7	1.01	1.07	0.05					

CONFIDENTIAL

TABLE VII.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED  
WITH A 67-PERCENT-SPAN PADDLE BALANCE MOUNTED ON THE UPPER SURFACE  
OF THE FLAP FORWARD OF THE HINGE LINE. DATA FOR ONE FLAP.

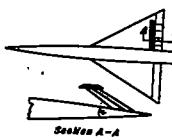
$$R = 4.4 \times 10^6$$

(a) Nominal  $\delta_s$ ,  $2^\circ$ 

M	a	C <sub>L</sub>	C <sub>D</sub>	C <sub>H</sub>	C <sub>m</sub>	C <sub>I</sub>	s	M	a	C <sub>L</sub>	C <sub>D</sub>	C <sub>H</sub>	C <sub>m</sub>	C <sub>I</sub>	s	M	a	C <sub>L</sub>	C <sub>D</sub>	C <sub>H</sub>	C <sub>m</sub>	C <sub>I</sub>	s	
0.60	-1.18	-0.159	0.0157	-0.002	0.004	-0.0045	1.9	0.90	6.25	0.318	0.0297	-0.030	-0.104	0.029	1.6	1.50	4.09	0.166	0.0276	-0.025	-0.135	0.0001	1.4	
	-2.06	-0.074	0.0101	-0.005	0	-0.006	1.9		8.22	1.09	0.0277	-0.031	-0.234	0.022	1.5		6.13	0.292	0.043	-0.037	-0.174	0.0008	1.3	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.9		10.18	2.37	0.0277	-0.033	-0.180	0.021	1.4		8.19	0.337	0.051	-0.049	-0.211	0.0003	1.2	
	-2.06	-0.007	0.006	-0.010	-0.001	-0.0048	1.9									10.24	0.317	0.065	-0.051	-0.245	0.0004	1.1		
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.8	1.20	-4.10	-0.26	-0.0266	0.029	-0.033	-0.012	1.8		11.34	0.269	0.047	-0.041	-0.305	0.0008	1.0	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.8			-2.05	-0.105	-0.0266	0.025	-0.054	0.006	1.7		10.53	0.243	0.043	-0.049	-0.340	0.0003	0.9
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.8		-1.01	-0.07	-0.0266	0.026	-0.056	0.006	1.6		11.43	0.217	0.043	-0.049	-0.360	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.8		-4.49	-0.092	-0.0267	0.023	-0.053	0.007	1.6		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.8		-4.7	-0.07	-0.0265	0.023	-0.055	0.007	1.6		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		-0.99	-0.043	-0.0272	0.023	-0.063	0.007	1.6		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		2.03	-0.091	-0.0259	0.023	-0.065	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7		1.16	-0.059	-0.0259	0.023	-0.067	0.007	1.5		11.43	0.193	0.049	-0.049	-0.340	0.0003	0.8	
	-1.06	-0.089	0.0084	-0.009	-0.001	-0.0048	1.7</																	

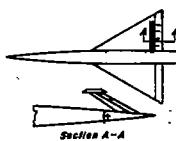
CONFIDENTIAL

TABLE VII.- CONTINUED

(c) Nominal  $\delta_s$ ,  $-2^\circ$ 

$K$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$s$	$K$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$s$	$K$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$s$
0.60	-1.20	-0.212	0.0198	0.025	-0.016	0.0038	-1.0	0.90	6.31	0.273	0.0334	-0.010	-0.074	0.0051	-2.4	1.20	2.04	0.071	0.0201	-0.006	-0.028	—	-2.4
-2.09	-1.16	0.0132	0.010	-0.008	-0.005	-0.002	-1.0	8.43	3.72	0.056	-0.002	-0.092	0.0041	-2.2	4.09	1.59	0.0277	-0.019	-0.091	—	—	-2.5	
-1.04	-0.75	0.0111	-0.008	-0.008	-0.003	-0.002	-1.0	10.22	4.88	0.0507	-0.016	-0.138	0.0042	-2.6	6.15	2.45	0.0408	-0.031	-0.131	—	—	-2.7	
-1.22	-0.51	0.0107	-0.008	-0.008	-0.003	-0.002	-1.0	12.67	5.91	0.133	-0.026	-0.167	0.0040	-2.7	8.20	3.31	0.0603	-0.043	-0.164	—	—	-2.8	
-1.46	-0.07	0.0103	-0.008	-0.008	-0.003	-0.002	-1.0	14.10	-2.25	0.0297	0.030	.048	—	—	10.23	4.11	0.0598	-0.034	-0.193	—	—	-2.9	
1.03	0.022	0.012	-0.006	-0.006	-0.004	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	12.31	4.92	0.1198	-0.064	-0.217	—	—	-2.9	
2.10	0.05	0.012	-0.006	-0.006	-0.004	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	14.36	5.67	0.1514	-0.074	-0.243	—	—	-3.0	
4.15	1.53	0.0173	-0.001	-0.004	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	16.41	6.46	0.1926	-0.082	-0.273	—	—	-3.1	
6.24	1.91	0.0271	-0.006	-0.006	-0.004	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	6.76	0.2151	-0.086	—	—	—	-3.2	
8.34	2.34	0.0483	-0.010	-0.001	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	7.01	0.2357	-0.087	—	—	—	-3.2	
10.45	2.76	0.0784	-0.010	-0.001	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	7.29	0.2551	-0.095	—	—	—	-3.2	
12.54	3.19	0.1126	-0.009	-0.001	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	7.58	0.2746	-0.098	—	—	—	-3.2	
14.65	3.63	0.1526	-0.009	-0.001	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	7.87	0.2941	-0.101	—	—	—	-3.2	
16.78	4.07	0.2203	-0.012	-0.001	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	8.16	0.3136	-0.104	—	—	—	-3.2	
17.83	4.08	0.2517	-0.012	-0.001	-0.002	-0.002	-1.0	14.10	-2.04	0.0203	0.024	.019	—	—	17.43	8.45	0.3321	-0.107	—	—	—	-3.2	
0.80	-1.22	-0.213	0.017	0.008	-0.007	—	-1.2	1.20	4.10	-2.05	0.0317	0.037	.072	0.0118	-2.0	4.09	-1.73	0.0287	0.009	0.355	—	—	-2.1
-2.12	-1.13	0.0136	0.002	-0.001	-0.001	—	-1.2	1.20	4.10	-2.05	0.0317	0.032	.063	0.0104	-2.0	4.09	-1.56	0.0287	0.018	0.286	—	—	-2.2
-1.03	-0.75	0.0111	0.005	-0.003	-0.003	—	-1.2	1.20	4.10	-2.05	0.0317	0.022	.043	0.0082	-2.1	4.09	-1.39	0.0287	0.012	0.182	—	—	-2.3
-0.51	-0.04	0.0103	0.006	-0.003	-0.003	—	-1.2	1.20	4.10	-2.05	0.0317	0.016	.029	0.0068	-2.2	4.09	-1.22	0.0287	0.007	0.164	—	—	-2.4
-0.36	-0.04	0.0101	0.006	-0.003	-0.003	—	-1.2	1.20	4.10	-2.05	0.0317	0.012	.019	0.0067	-2.2	4.09	-1.05	0.0287	0.003	0.146	—	—	-2.5
1.04	0.04	0.0101	0.006	-0.003	-0.003	—	-1.2	1.20	4.10	-2.05	0.0317	0.008	.019	0.0067	-2.2	4.09	-0.88	0.0287	0.001	0.128	—	—	-2.6
2.06	0.07	0.0113	0.006	-0.003	-0.003	—	-1.2	1.20	4.10	-2.05	0.0317	0.004	.019	0.0029	-2.3	4.09	-0.71	0.0287	0.001	0.110	—	—	-2.7
4.18	1.66	0.1048	-0.004	-0.007	-0.007	—	-1.2	1.20	4.10	-2.05	0.0317	0.002	.019	0.0030	-2.3	4.09	-0.54	0.0287	0.001	0.092	—	—	-2.8
6.29	2.70	0.311	-0.010	-0.005	-0.005	—	-1.2	1.20	4.10	-2.05	0.0317	0.005	.030	0.0131	-2.3	4.09	-0.37	0.0287	0.005	0.074	—	—	-2.9
8.41	3.76	0.773	-0.013	-0.007	-0.007	—	-1.2	1.20	4.10	-2.05	0.0317	0.009	.030	0.0231	-2.3	4.09	-0.20	0.0287	0.005	0.056	—	—	-2.9
10.51	4.61	0.983	-0.009	-0.012	-0.012	—	-1.2	1.20	4.10	-2.05	0.0317	0.022	.043	0.0282	-2.1	4.09	-0.03	0.0287	0.015	0.031	—	—	-2.1
12.62	5.70	1.265	-0.017	-0.017	-0.017	—	-1.2	1.20	4.10	-2.05	0.0317	0.016	.029	0.0068	-2.2	4.09	0.08	0.0287	0.017	0.0218	—	—	-2.2
14.74	6.79	1.723	-0.021	-0.016	-0.016	—	-1.2	1.20	4.10	-2.05	0.0317	0.012	.019	0.0067	-2.2	4.09	0.17	0.0287	0.017	0.0218	—	—	-2.2
16.86	7.78	2.319	-0.024	-0.016	-0.016	—	-1.2	1.20	4.10	-2.05	0.0317	0.010	.019	0.0067	-2.2	4.09	0.26	0.0287	0.017	0.0218	—	—	-2.2
17.92	8.82	2.611	-0.023	-0.015	-0.015	—	-1.2	1.20	4.10	-2.05	0.0317	0.008	.019	0.0067	-2.2	4.09	0.35	0.0287	0.017	0.0218	—	—	-2.2
0.90	-1.24	-0.234	0.0215	0.003	-0.007	0.004	-2.3	1.20	4.09	-1.85	0.0267	0.037	.033	0.0056	-2.3	4.09	-1.47	0.0278	0.029	0.056	0.014	—	-2.4
-2.12	-1.25	0.0135	0.005	-0.007	0.003	-2.3	1.20	4.09	-1.85	0.0267	0.032	.022	0.0045	-2.3	4.09	-1.10	0.0278	0.014	0.032	0.023	—	-2.4	
-1.06	-0.75	0.0114	0.016	-0.005	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.028	.022	0.0045	-2.3	4.09	-0.76	0.0278	0.023	0.032	0.023	—	-2.5	
-0.54	-0.04	0.0103	0.016	-0.005	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.024	.022	0.0045	-2.3	4.09	-0.37	0.0278	0.023	0.032	0.023	—	-2.6	
-0.34	-0.04	0.0103	0.016	-0.005	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.020	.022	0.0045	-2.3	4.09	-0.08	0.0278	0.023	0.032	0.023	—	-2.7	
1.01	0.03	0.0108	0.016	-0.005	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.016	.022	0.0045	-2.3	4.09	0.38	0.0278	0.023	0.032	0.023	—	-2.8	
2.07	0.04	0.0117	-0.007	-0.005	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.012	.022	0.0045	-2.3	4.09	0.98	0.0278	0.023	0.032	0.023	—	-2.9	
4.14	1.14	0.159	0.007	-0.007	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.008	.022	0.0045	-2.3	4.09	1.58	0.0278	0.023	0.032	0.023	—	-2.9	
6.23	2.29	0.259	-0.007	-0.007	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.004	.022	0.0045	-2.3	4.09	2.18	0.0278	0.023	0.032	0.023	—	-2.9	
8.33	3.35	0.471	-0.007	-0.007	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.000	.022	0.0045	-2.3	4.09	2.78	0.0278	0.023	0.032	0.023	—	-2.9	
10.43	4.43	0.742	-0.007	-0.007	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.000	.022	0.0045	-2.3	4.09	3.38	0.0278	0.023	0.032	0.023	—	-2.9	
12.54	5.50	1.118	-0.003	-0.009	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.000	.022	0.0045	-2.3	4.09	3.98	0.0278	0.023	0.032	0.023	—	-2.9	
14.65	6.53	1.563	-0.003	-0.008	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.000	.022	0.0045	-2.3	4.09	4.58	0.0278	0.023	0.032	0.023	—	-2.9	
16.78	7.63	2.167	-0.007	-0.008	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.000	.022	0.0045	-2.3	4.09	5.18	0.0278	0.023	0.032	0.023	—	-2.9	
17.83	8.03	2.434	-0.007	-0.008	0.005	-2.3	1.20	4.09	-1.85	0.0267	0.000	.022	0.0045	-2.3	4.09	5.78	0.0278	0.023	0.032	0.023	—	-2.9	
0.80	-1.24	-0.233	0.0206	0.026	-0.005	—	-4.0	1.20	8.42	0.361	0.0566	-0.003	-0.059	—	-4.2	1.20	4.09	0.297	0.0271	-0.019	-0.070	0.0039	-4.3
-2.12	-1.13	0.0148	0.018	0.005	-0.007	—	-4.0	10.33	4.65	0.059	-0.008	-0.078	—	-4.2	4.09	0.297	0.0271	-0.017	-0.067	0.0041	-4.4		
-1.06	-0.04	0.0132	0.016	0.005	-0.007	—	-4.0	12.65	4.65	0.059	-0.017	-0.086	—	-4.3	4.09	0.298	0.0271	-0.016	-0.066	0.0040	-4.5		
-0.53	-0.04	0.0113	0.016	0.005	-0.007	—	-4.0	14.10	4.65	0.059	-0.026	-0.095	—	-4.3	4.09	0.300	0.0271	-0.015	-0.065	0.0041	-4.6		
-0.34	-0.04	0.0108	0.016	0.005	-0.007	—	-4.0	14.10	4.65	0.059													

TABLE VII.- CONTINUED

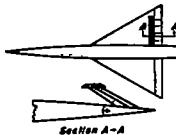
(e) Nominal  $\delta$ ,  $-8^\circ$ 

$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$s$		
0.60	-2.26	-0.260	0.0775	0.039	0.073	0.0165	-7.9	0.90	6.27	0.221	0.0330	0.014	0.046	0.0351	-7.9	1.50	2.04	0.095	0.0214	0.004	0.026	0.0069	-8.0		
-2.13	-1.169	.0186	.031	.046	.016	.0168	-8.0		6.39	.345	.0521	.011	.074	.0136	-7.9		4.09	.140	.0879	-.009	-.012	.0089	-.8.1		
-1.09	-1.125	.0152	.029	.047	.0188	.0177	-8.0		10.32	.433	.0676	.005	.077	.0131	-7.9		6.15	.285	.0402	-.081	-.046	.0071	-.8.2		
-1.56	-1.102	.0141	.029	.044	.019	.0179	-8.0										8.19	.310	.0555	-.032	-.077	.0067	-.8.3		
-1.06	-1.061	.0129	.028	.046	.0131	.0171	-8.0										10.24	.199	.0582	-.043	-.096	.0070	-.8.4		
1.03	-0.38	.0123	.027	.035	.0132	.0170	-8.0										12.30	.170	.1116	-.054	-.120	.0072	-.8.4		
2.02	.007	.0129	.027	.028	.0126	.016	-8.0										14.35	.242	.1461	-.064	-.143	.0078	-.8.5		
4.03	.100	.0163	.021	.026	.0124	.016	-8.0										16.40	.082	.1659	-.074	-.186	.0076	-.8.6		
6.21	.193	.0243	.017	.009	.0124	.017	-8.1										17.43	.539	.0478	-.076	-.203	.0063	-.8.7		
8.30	.496	.0421	.012	.015	.0127	.011	-8.1		1.08	.001	.0196	.018	.084	.0106	-7.8										
10.41	.400	.0711	.010	.023	.0130	.0130	-8.1			2.09	.049	.0210	.018	.084	.0106	-7.8		1.70	1.09	.092	.0093	.036	.103	.0050	-7.7
12.51	.500	.1064	.011	.042	.0121	.011	-8.1			4.10	.148	.0277	.003	.064	.0103	-7.9		8.18	.283	.0544	-.030	-.082	.0056	-7.8	
18.68	.693	.1504	.013	.074	.016	.018	-8.1			6.15	.247	.0413	.029	.103	.0105	-8.0		10.22	.156	.0769	-.033	-.108	.0061	-8.4	
16.74	.782	.2063	.006	.073	.0143	.015	-8.2			8.21	.377	.0632	.033	.108	.0116	-8.1		12.27	.161	.1019	-.046	-.124	.0059	-8.4	
17.79	.776	.2357	.005	.085	.0143	.013	-8.2			10.05	.157	.0897	.047	.058	.0118	-8.2		13.32	.156	.1326	-.056	-.114	.0058	-8.5	
0.80	-4.26	-2.77	.0311	.043	.066	.0131	-7.9			12.14	.557	.1262	.054	.090	.0115	-8.3		1.32	.019	.008	.008	.008	.008	.0059	-8.0
-2.14	-1.173	.0203	.032	.066	.0128	.0128	-7.9			14.17	.654	.1687	.070	.102	.0099	-8.3		2.03	.092	.0006	.0006	.0006	.0006	.0059	-8.1
-1.09	-1.128	.0173	.034	.066	.0133	.0129	-7.9	1.50	-1.10	-2.23	.030	.048	.169	.0078	-7.6		4.08	.129	.0466	-.009	-.082	.0061	-.8.1		
-1.56	-1.106	.0161	.034	.066	.0137	.0127	-7.9			2.04	.134	.0256	.034	.143	.0060	-7.6		6.13	.297	.0378	-.019	-.053	.0063	-.8.2	
.43	-0.64	.0143	.034	.066	.0140	.0120	-7.9			3.01	.088	.031	.029	.130	.0084	-7.7		8.18	.283	.0544	-.030	-.082	.0056	-8.3	
1.02	-0.039	.0143	.031	.066	.0140	.0140	-7.9			5.00	.065	.0221	.024	.119	.0084	-7.7		10.22	.156	.0769	-.033	-.108	.0061	-8.4	
2.02	.010	.0143	.028	.044	.0136	.0136	-8.0			7.00	.118	.0214	.018	.104	.0085	-7.8		12.27	.161	.1019	-.046	-.124	.0059	-8.4	
4.19	.109	.0108	.028	.044	.0134	.0134	-8.0			9.03	.007	.0214	.018	.097	.0087	-7.8		13.32	.156	.1326	-.056	-.114	.0058	-8.5	
6.28	.205	.0890	.016	.007	.0140	.0140	-8.0			11.00	.054	.0230	.003	.080	.0086	-7.8		15.37	.259	.1391	-.069	-.168	.0067	-8.6	
8.36	.121	.0493	.011	.008	.0150	.0150	-8.1			13.00	.046	.0265	.004	.087	.0087	-7.9		17.40	.290	.1887	-.064	-.180	.0065	-8.6	
10.48	.128	.0774	.011	.016	.0126	.0126	-8.1			15.00	.146	.0895	.019	.044	.0086	-8.2		1.90	4.07	.166	.0381	.030	.083	.0044	-7.8
12.58	.239	.1160	.005	.087	.0168	.0168	-8.1			16.15	.240	.0846	.019	.044	.0086	-8.2		8.18	.273	.0696	-.025	-.075	.0053	-8.1	
14.78	.653	.1506	.001	.044	.0142	.0142	-8.2			18.20	.335	.0633	.033	.038	.0083	-8.2		15.20	.318	.0697	-.033	-.098	.0053	-8.1	
16.83	.743	.2235	.010	.070	.0121	.0121	-8.2			20.26	.447	.0859	.045	.064	.0083	-8.2		18.24	.318	.0697	-.040	-.116	.0053	-8.4	
17.79	.793	.2570	.012	.076	.0125	.0125	-8.2			22.30	.519	.1224	.077	.098	.0084	-8.3		16.33	.241	.1366	-.050	-.151	.0060	-8.2	
0.90	-4.26	-2.80	.0323	.045	.065	.0123	-7.8			24.37	.610	.1614	.089	.142	.0076	-8.3		2.03	.047	.0006	.0006	.0006	.0006	.0050	-8.0
-2.15	-1.173	.0203	.037	.065	.0119	.0119	-7.9	1.50	-1.08	-2.04	.034	.041	.153	.0058	-7.6		4.07	.116	.0257	-.008	-.021	.0056	-.8.1		
-2.13	-1.171	.0177	.034	.065	.0125	.0125	-7.9			2.04	.117	.0203	.029	.111	.0058	-7.7		6.11	.185	.0337	-.017	-.049	.0054	-.8.2	
-1.57	-1.104	.0164	.034	.065	.0133	.0133	-7.9			3.01	.101	.0203	.023	.098	.0066	-7.6		8.16	.273	.0696	-.025	-.075	.0053	-.8.1	
-1.40	-0.058	.0163	.031	.064	.0134	.0134	-7.9			5.00	.149	.0202	.0203	.079	.0066	-7.8		15.20	.318	.0697	-.033	-.098	.0053	-.8.1	
.93	-0.034	.0163	.030	.063	.0136	.0136	-7.9			7.00	.103	.0193	.021	.087	.0067	-7.9		16.24	.318	.0697	-.040	-.116	.0053	-.8.4	
2.04	.017	.0154	.027	.066	.0137	.0137	-7.9			9.03	.101	.0193	.021	.087	.0067	-7.9		18.24	.249	.1399	-.046	-.131	.0057	-.8.4	
4.21	.120	.0204	.021	.041	.0141	.0141	-8.0			11.04	.013	.0198	.010	.046	.0069	-7.9		17.35	.250	.1707	-.051	-.168	.0062	-.8.5	

(f) Nominal  $\delta$ ,  $-12^\circ$ 

$X$	$a$	$C_L$	$C_B$	$C_m$	$C_h$	$C_t$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$s$	
0.60	-4.26	-.287	.0326	.046	.0140	.0179	-11.8	0.90	6.31	.220	.0554	.021	.0100	.0181	-11.8	1.50	2.09	.046	.0240	.010	.110	0.0096	-11.7	
-2.18	-.192	.0289	.041	.0115	.0172	.0177	-11.8		8.39	.318	.0555	.019	.0126	.0162	-11.8		4.09	.130	.0899	-.003	.068	.0065	-.11.8	
-1.10	-.119	.0195	.040	.0112	.0177	.0177	-11.9	10.51	.420	.0572	.012	.0137	.0199	-11.7		6.15	.215	.0411	-.015	.029	.0065	-.12.0		
-.57	-.123	.0183	.040	.0112	.0180	.0179	-11.9									8.20	.300	.0593	-.026	-.004	.0073	-.12.1		
.37	-.090	.0167	.040	.0109	.0187	.0177	-11.9	12.0	-4.10	-1.67	.0303	.050	.193	.0141	-11.3		10.24	.199	.0460	-.037	.023	.0065	-.12.2	
1.98	-.067	.0166	.039	.0106	.0187	.0177	-11.9			1.01	.119	.0266	.043	.191	.0150	-11.3		12.31	.156	.0460	-.038	.026	.0065	-.12.2
4.13	.068	.0175	.034	.0171	.0178	.0178	-11.9			3.00	.095	.0253	.040	.184	.0150	-11.3		14.35	.236	.1490	-.058	.082	.0065	-.12.3
6.23	.182	.0245	.030	.056	.0280	.0280	-12.0			5.00	.147	.0241	.033	.173	.0133	-11.6		16.41	.205	.1841	-.066	.126	.0062	-.12.4
12.38	.232	.0382	.022	.033	.0177	.0177	-12.0			7.00	.028	.0249	.029	.149	.0124	-11.6		17.44	.644	.2057	-.071	.140	.0064	-.12.5
12.59	.287	.1140	.003	.068	.0174	.0174	-12.0			9.03	.120	.0307	.005	.073	.0148	-11.8		2.03	.114	.0327	-.003	.023	.0068	-.11.6
14.60	.387	.1140	.003	.068	.0174	.0174	-12.0			11.00	.124	.0307	.005	.074	.0148	-11.8		4.07	.114	.0327	-.003	.023	.0068	-.11.6
14.79	.394	.0776	.021	.071	.019																			

TABLE VII.- CONTINUED

(g) Nominal  $\delta$ ,  $-16^\circ$ 

$K$	$\alpha$	$C_L$	$C_D$	$C_M$	$C_h$	$C_t$	$S$	$K$	$\alpha$	$C_L$	$C_D$	$C_M$	$C_h$	$C_t$	$S$	$K$	$\alpha$	$C_L$	$C_D$	$C_M$	$C_h$	$C_t$	$S$
0.60	-1.25	-0.302	0.0380	0.074	0.203	0.0187	-19.6	0.90	6.39	0.204	0.0372	0.024	0.009	0.0170	-19.7	1.50	2.08	0.034	0.0277	0.018	0.171	0.0118	-19.4
	-2.15	-0.207	0.0779	0.061	0.197	0.0183	-19.6		6.39	-0.304	0.0719	0.022	0.008	0.0170	-19.7		4.10	0.120	0.0330	0.008	0.131	0.0115	-19.4
	-1.11	-1.65	0.0243	0.061	0.197	0.0183	-19.6		10.20	0.104	0.0371	0.020	0.008	0.0165	-19.6		6.15	0.205	0.0441	-0.008	0.031	0.0115	-19.4
	-2.9	-1.16	0.0230	0.061	0.199	0.0183	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		8.20	0.259	0.0610	-0.028	0.031	0.0111	-19.4
	-3.3	-1.07	0.0214	0.061	0.205	0.0202	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		10.23	0.372	0.0636	-0.038	0.033	0.0108	-19.4
	-6.7	-0.065	0.0203	0.061	0.200	0.0202	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		12.30	0.455	0.1118	-0.043	0.030	0.0106	-19.4
	1.22	-0.053	0.0211	0.061	0.194	0.0199	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		14.35	0.528	0.1454	-0.043	0.030	0.0107	-19.4
	8.38	-0.26	0.0417	0.061	0.193	0.0193	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		16.40	0.601	0.1841	-0.048	0.030	0.0108	-19.4
	10.38	-0.343	0.0582	0.061	0.193	0.0193	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		17.43	0.637	0.2048	-0.055	0.030	0.0101	-19.4
	12.48	-0.367	0.0576	0.061	0.193	0.0193	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		14.00	0.678	0.2346	-0.065	0.030	0.0105	-19.4
	14.59	-0.367	0.0564	0.061	0.193	0.0193	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		16.40	0.711	0.2644	-0.075	0.030	0.0103	-19.4
	16.70	-0.367	0.0573	0.061	0.193	0.0193	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		17.43	0.744	0.2942	-0.085	0.030	0.0105	-19.4
	17.76	-0.79	0.227	0.061	0.193	0.0193	-19.6		12.63	-0.216	0.0295	0.020	0.008	0.0165	-19.5		14.00	0.778	0.3240	-0.095	0.030	0.0107	-19.4
0.80	-4.26	-0.268	0.0405	0.061	0.203	0.0203	-19.5	1.20	14.42	-0.636	0.1706	-0.054	0.035	0.0143	-19.9	1.70	-4.07	-0.202	0.0404	.0.058	0.217	0.0087	-19.3
	-4.16	-0.203	0.0395	0.061	0.199	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		8.20	-0.313	0.0304	-0.056	0.092	0.0124	-19.4
	-1.11	-0.254	0.0241	0.061	0.207	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		-1.00	-0.364	0.0274	-0.056	0.092	0.0124	-19.4
	-5.9	-0.25	0.0213	0.061	0.202	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		-1.49	-0.363	0.0263	-0.057	0.093	0.0123	-19.4
	-3.7	-0.023	0.0223	0.061	0.197	0.0173	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.35	-0.364	0.0263	-0.057	0.093	0.0123	-19.4
	1.96	-0.021	0.0218	0.061	0.197	0.0173	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		16.40	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	4.16	-0.27	0.0241	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		17.43	-0.364	0.0263	-0.057	0.093	0.0122	-19.4
	6.29	-0.172	0.0241	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.00	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	8.34	-0.27	0.0241	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		16.40	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	10.43	-0.37	0.0271	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		17.43	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	12.52	-0.37	0.0271	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.35	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	14.61	-0.37	0.0271	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		16.40	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	16.70	-0.37	0.0271	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		17.43	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
	17.76	-0.72	0.245	0.061	0.195	0.0186	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.00	-0.364	0.0263	-0.057	0.093	0.0121	-19.4
0.90	-4.26	-0.310	0.0426	0.061	0.208	0.020	-19.5	1.20	14.42	-0.636	0.1706	-0.084	0.035	0.0143	-19.9	1.70	-4.07	-0.179	0.0383	0.039	0.161	0.0072	-19.3
	-2.17	-0.204	0.0300	0.061	0.203	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		8.20	-0.209	0.0292	0.030	0.137	0.0073	-19.4
	-1.11	-0.254	0.0271	0.061	0.202	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		-1.00	-0.364	0.0267	0.030	0.137	0.0073	-19.4
	-5.9	-0.254	0.0271	0.061	0.202	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		-1.49	-0.364	0.0267	0.030	0.137	0.0073	-19.4
	-3.7	-0.023	0.0271	0.061	0.202	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.35	-0.364	0.0267	0.030	0.137	0.0073	-19.4
	1.96	-0.021	0.0221	0.061	0.200	0.0207	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		16.40	-0.364	0.0267	0.030	0.137	0.0073	-19.4
	4.19	-0.021	0.0220	0.061	0.198	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		17.43	-0.364	0.0267	0.030	0.137	0.0073	-19.4
	6.29	-0.021	0.0271	0.061	0.198	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.00	-0.364	0.0267	0.030	0.137	0.0073	-19.4
	-2.18	-0.209	0.0346	0.061	0.187	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		6.15	-0.166	0.0407	0.041	0.028	0.0106	-19.4
	-1.12	-0.167	0.0300	0.061	0.186	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		8.20	-0.233	0.0542	-0.014	0.028	0.0102	-19.4
	-5.9	-0.167	0.0300	0.061	0.186	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		-1.00	-0.364	0.0307	0.029	0.028	0.0099	-20.0
	-3.7	-0.066	0.0266	0.061	0.186	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.35	-0.364	0.0295	0.027	0.028	0.0101	-20.0
	1.97	-0.023	0.0275	0.061	0.183	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		16.40	-0.364	0.0295	0.027	0.028	0.0103	-20.0
	4.20	-0.023	0.0265	0.061	0.183	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		17.43	-0.364	0.0295	0.027	0.028	0.0103	-20.0
	6.32	-0.023	0.0392	0.061	0.183	0.0208	-19.5		12.63	-0.207	0.0271	0.020	0.008	0.0165	-19.5		14.00	-0.364	0.0295	0.027	0.028	0.0103	-20.0

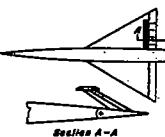
CONFIDENTIAL

NACA

CONFIDENTIAL

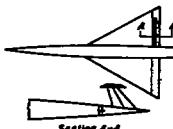
NACA RM A52L04

TABLE VII.- CONCLUDED

(i) Nominal  $\delta$ , -24°

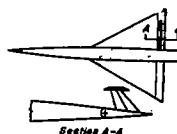
$M$	$a$	$C_D$	$C_D$	$C_m$	$C_h$	$C_l$	$S$	$M$	$c$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$S$	$M$	$a$	$C_D$	$C_D$	$C_m$	$C_h$	$C_l$	$S$	
0.60	-4.25	-0.310	0.0456	0.097	0.268	0.0998	-23.6	0.90	8.38	0.298	0.0601	0.021	0.120	0.0175	-23.8	1.50	6.15	0.183	0.0503	0.003	0.184	0.0176	-23.3	
	-2.17	-0.217	0.0350	0.093	0.263	0.1042	-23.6		10.50	0.405	0.0907	0.016	0.125	0.0165	-23.8		8.20	0.270	0.097	-0.013	1.45	0.0168	-23.6	
	-1.12	-0.178	0.0318	0.092	0.262	0.1077	-23.6		1.20	-4.09	-0.309	0.0578	0.087	0.433	0.0211	-22.8		10.24	0.377	0.086	-0.023	1.17	0.0158	-23.7
	-0.60	-0.157	0.0303	0.092	0.269	0.1091	-23.6			-2.04	-0.210	0.0456	0.078	0.419	0.0230	-22.9		18.30	0.434	0.1136	-0.034	0.98	0.0152	-23.8
	.34	-0.137	0.0281	0.091	0.254	0.1112	-23.6			-1.01	-0.164	0.0416	0.065	0.421	0.0240	-22.9		14.35	0.512	0.1472	-0.045	0.93	0.0152	-23.9
	.88	-0.096	0.0271	0.091	0.251	0.1115	-23.6			-0.50	-0.141	0.0402	0.063	0.418	0.0244	-22.9		16.39	0.584	0.1837	-0.053	0.93	0.0152	-24.0
	1.32	-0.059	0.0265	0.091	0.237	0.1098	-23.6			-0.20	-0.111	0.0402	0.063	0.418	0.0244	-22.9		17.42	0.618	0.2044	-0.056	0.94	0.0147	-24.0
	1.74	-0.035	0.0277	0.091	0.235	0.1054	-23.6			-0.04	-0.089	0.0385	0.055	0.407	0.0249	-22.9		1.70	-4.07	-0.217	0.008	0.98	0.0144	-23.2
	2.17	-0.017	0.0330	0.094	0.218	0.1055	-23.7			0.94	-0.070	0.0381	0.053	0.402	0.0229	-22.9		2.03	-0.339	0.0401	0.045	0.95	0.0150	-23.3
	2.60	-0.003	0.0452	0.098	0.194	0.1172	-23.7			2.04	-0.080	0.0381	0.047	0.395	0.0229	-22.9		-1.00	-0.102	0.0367	0.041	0.94	0.0152	-23.3
	3.03	-0.023	0.0459	0.096	0.185	0.1209	-23.7			4.15	-0.093	0.0417	0.030	0.313	0.0249	-23.2		1.00	-0.102	0.0367	0.041	0.94	0.0152	-23.3
	3.46	-0.035	0.0459	0.096	0.176	0.1177	-23.7			6.16	-0.152	0.0510	0.011	0.292	0.0232	-23.3		1.11	-0.086	0.0372	0.039	0.95	0.0153	-23.3
	3.88	-0.036	0.0459	0.096	0.168	0.1171	-23.8			8.22	-0.100	0.0704	0.005	0.242	0.0233	-23.4		1.14	-0.044	0.0341	0.032	0.93	0.0156	-23.3
	4.30	-0.029	0.0458	0.096	0.159	0.1179	-23.8			10.28	-0.103	0.0565	0.019	0.223	0.0232	-23.4		1.16	-0.023	0.0337	0.030	0.95	0.0154	-23.4
	4.72	-0.020	0.0458	0.096	0.150	0.1179	-23.8			12.34	-0.130	0.036	0.192	0.227	0.0233	-23.4		2.07	-0.183	0.0336	0.023	0.96	0.0153	-23.4
	5.14	-0.014	0.0459	0.097	0.141	0.1179	-23.8			14.42	-0.162	0.070	0.043	0.161	0.0211	-23.6		4.14	-0.097	0.0375	-0.010	0.97	0.0149	-23.3
	5.56	-0.007	0.0459	0.097	0.132	0.1179	-23.7			16.51	-0.174	0.065	0.040	0.154	0.0215	-23.6		6.14	-0.174	0.065	0.040	0.96	0.0146	-23.6
	5.98	-0.003	0.0459	0.097	0.123	0.1179	-23.7			18.59	-0.190	0.065	0.040	0.154	0.0215	-23.6		8.19	-0.200	0.0605	-0.011	0.93	0.0142	-23.7
	6.40	-0.020	0.0371	0.096	0.114	0.1179	-23.7			20.64	-0.195	0.066	0.033	0.157	0.0210	-23.0		10.24	-0.206	0.0799	-0.021	0.91	0.0137	-23.8
	6.82	-0.012	0.0371	0.096	0.105	0.1179	-23.7			22.67	-0.195	0.066	0.033	0.157	0.0210	-23.0		12.49	-0.198	0.1043	-0.031	0.97	0.0137	-23.8
	7.24	-0.007	0.0371	0.096	0.096	0.1179	-23.7			24.74	-0.195	0.066	0.033	0.156	0.0210	-23.0		14.33	-0.167	0.1134	-0.040	0.94	0.0136	-23.9
	7.66	-0.003	0.0371	0.096	0.087	0.1179	-23.7			26.82	-0.195	0.065	0.033	0.156	0.0210	-23.0		16.39	-0.193	0.1069	-0.046	0.94	0.0135	-23.6
	8.08	-0.027	0.0371	0.096	0.078	0.1179	-23.7			28.90	-0.195	0.065	0.033	0.156	0.0210	-23.0		17.41	-0.166	0.1079	-0.048	0.92	0.0131	-23.0
	8.50	-0.014	0.0371	0.096	0.069	0.1179	-23.7			31.98	-0.195	0.065	0.033	0.156	0.0210	-23.0		2.01	-0.063	0.0396	0.034	0.96	0.0127	-23.0
	8.92	-0.007	0.0371	0.096	0.060	0.1179	-23.7			34.06	-0.195	0.065	0.033	0.156	0.0210	-23.0		4.16	-0.091	0.0438	0.048	0.95	0.0126	-23.0
	9.34	-0.003	0.0371	0.096	0.051	0.1179	-23.7			36.14	-0.195	0.065	0.033	0.156	0.0210	-23.0		6.19	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	9.76	-0.020	0.0371	0.096	0.042	0.1179	-23.7			38.22	-0.195	0.065	0.033	0.156	0.0210	-23.0		8.19	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	10.18	-0.012	0.0371	0.096	0.033	0.1179	-23.7			40.29	-0.195	0.065	0.033	0.156	0.0210	-23.0		10.24	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	10.60	-0.007	0.0371	0.096	0.024	0.1179	-23.7			42.37	-0.195	0.065	0.033	0.156	0.0210	-23.0		12.31	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	11.02	-0.003	0.0371	0.096	0.015	0.1179	-23.7			44.45	-0.195	0.065	0.033	0.156	0.0210	-23.0		14.38	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	11.44	-0.027	0.0371	0.096	0.006	0.1179	-23.7			46.53	-0.195	0.065	0.033	0.156	0.0210	-23.0		16.45	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	11.86	-0.014	0.0371	0.096	0.000	0.1179	-23.7			48.61	-0.195	0.065	0.033	0.156	0.0210	-23.0		18.52	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	12.28	-0.007	0.0371	0.096	-0.001	0.1179	-23.7			50.69	-0.195	0.065	0.033	0.156	0.0210	-23.0		20.59	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	12.70	-0.003	0.0371	0.096	-0.006	0.1179	-23.7			52.77	-0.195	0.065	0.033	0.156	0.0210	-23.0		22.66	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	13.12	-0.027	0.0371	0.096	-0.017	0.1179	-23.7			54.85	-0.195	0.065	0.033	0.156	0.0210	-23.0		24.54	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	13.54	-0.014	0.0371	0.096	-0.028	0.1179	-23.7			56.93	-0.195	0.065	0.033	0.156	0.0210	-23.0		26.42	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	13.96	-0.007	0.0371	0.096	-0.039	0.1179	-23.7			58.01	-0.195	0.065	0.033	0.156	0.0210	-23.0		28.30	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	14.38	-0.003	0.0371	0.096	-0.050	0.1179	-23.7			60.09	-0.195	0.065	0.033	0.156	0.0210	-23.0		30.18	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	14.80	-0.027	0.0371	0.096	-0.061	0.1179	-23.7			62.17	-0.195	0.065	0.033	0.156	0.0210	-23.0		31.97	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	15.22	-0.014	0.0371	0.096	-0.072	0.1179	-23.7			64.25	-0.195	0.065	0.033	0.156	0.0210	-23.0		33.85	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	15.64	-0.007	0.0371	0.096	-0.083	0.1179	-23.7			66.33	-0.195	0.065	0.033	0.156	0.0210	-23.0		35.73	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	16.06	-0.003	0.0371	0.096	-0.094	0.1179	-23.7			68.41	-0.195	0.065	0.033	0.156	0.0210	-23.0		37.61	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	16.48	-0.027	0.0371	0.096	-0.105	0.1179	-23.7			70.49	-0.195	0.065	0.033	0.156	0.0210	-23.0		39.49	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	16.90	-0.014	0.0371	0.096	-0.116	0.1179	-23.7			72.57	-0.195	0.065	0.033	0.156	0.0210	-23.0		41.38	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	17.32	-0.007	0.0371	0.096	-0.127	0.1179	-23.7			74.65	-0.195	0.065	0.033	0.156	0.0210	-23.0		43.26	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	17.74	-0.003	0.0371	0.096	-0.138	0.1179	-23.7			76.73	-0.195	0.065	0.033	0.156	0.0210	-23.0		45.14	-0.159	0.0405	0.056	0.95	0.0125	-23.0
	18.16	-0.027	0.0371	0.096	-0.149	0.1179	-23.7			78.81														

TABLE VIII.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED  
WITH A 67-PERCENT-SPAN PADDLE BALANCE MOUNTED ON THE UPPER SURFACE  
OF THE FLAP AFT OF THE HINGE LINE. DATA FOR ONE FLAP.  $R=4.4 \times 10^6$ .

(a) Nominal  $\delta$ ,  $2^\circ$ 

$K$	$c$	$C_L$	$C_D$	$C_M$	$C_h$	$C_t$	$s$	$K$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$C_t$	$s$	$K$	$a$	$C_L$	$C_D$	$C_M$	$C_h$	$C_t$	$s$
0.60	-1.16	-0.170	0.0163	-0.001	-0.019	-0.0037	1.8	0.50	6.33	0.307	0.0361	-0.025	-0.136	-0.0007	1.5	1.50	4.09	0.160	0.0276	-0.084	-0.079	0.0004	1.6
-2.06	-0.078	0.0111	-0.005	-0.033	-0.0040	1.8	6.44	4.11	0.0629	-0.027	-0.150	-0.0003	1.5	6.14	2.50	0.0410	-0.036	-0.122	0.0006	1.7			
-1.07	-0.053	0.0097	-0.007	-0.041	-0.0041	1.8	10.37	-0.24	0.0787	-0.033	-0.198	0	8.19	3.38	0.0602	-0.048	-0.163	0.0008	1.8				
-1.35	-0.030	0.0091	-0.008	-0.045	-0.0041	1.8	1.05	-0.24	0.0787	-0.033	-0.198	0	10.84	4.13	0.0602	-0.050	-0.143	0.0010	1.9				
-1.49	-0.033	0.0092	-0.008	-0.045	-0.0041	1.8	1.03	-0.24	0.0787	-0.033	-0.198	0	11.34	4.53	0.0602	-0.050	-0.143	0.0010	1.9				
1.04	-0.101	0.0115	-0.012	-0.065	-0.0045	1.7	1.99	-0.33	0.161	0.005	-0.24	-0.0003	1.7	16.45	6.39	0.1608	-0.170	-0.247	0.0012	1.6			
2.06	-0.101	0.0115	-0.012	-0.065	-0.0045	1.7	1.96	-0.33	0.161	0.005	-0.24	-0.0003	1.7	17.43	6.76	0.1599	-0.093	-0.193	0.0013	1.6			
4.17	-0.171	0.0179	-0.012	-0.086	-0.0045	1.7	1.99	-0.33	0.161	0.005	-0.24	-0.0003	1.7	17.43	6.76	0.1599	-0.093	-0.193	0.0013	1.6			
6.27	-0.261	0.0313	-0.021	-0.096	-0.0043	1.7	1.96	-0.33	0.161	0.005	-0.24	-0.0003	1.7	17.43	6.76	0.1599	-0.093	-0.193	0.0013	1.6			
8.36	-0.361	0.0530	-0.033	-0.107	-0.0021	1.7	2.03	-0.39	0.165	-0.103	-0.24	-0.0001	1.6	1.70	-4.11	-0.161	0.087	-0.024	-0.095	-0.0004	2.1		
10.46	-0.461	0.0834	-0.043	-0.126	-0.0018	1.6	4.07	-0.39	0.165	-0.103	-0.24	-0.0001	1.6	2.05	-0.093	0.019	0.133	-0.057	-0.0002	2.0			
12.57	-0.561	0.1216	-0.053	-0.139	-0.0018	1.6	6.16	-0.39	0.165	-0.103	-0.24	-0.0001	1.6	1.02	-0.084	0.016	0.094	-0.047	-0.0002	2.0			
14.69	-0.661	0.1698	-0.063	-0.154	-0.0018	1.6	6.21	-0.40	0.166	-0.105	-0.24	-0.0001	1.6	1.03	-0.084	0.016	0.093	-0.047	-0.0002	1.9			
16.81	-0.805	0.2273	-0.073	-0.176	-0.0018	1.5	10.27	-0.51	0.169	-0.105	-0.24	-0.0011	1.1	2.04	-0.76	-0.157	-0.017	-0.083	-0.0002	1.8			
17.86	-0.853	0.2593	-0.083	-0.188	-0.0018	1.5	12.33	-0.61	0.176	-0.105	-0.24	-0.0011	1.0	1.10	-0.76	-0.157	-0.017	-0.083	-0.0002	1.8			
0.80	-1.20	-0.176	0.0161	-0.008	-0.040	-0.0046	1.8	1.30	-1.10	0.196	0.005	-0.30	-0.0008	2.0	6.16	-2.27	0.185	-0.028	-0.171	-0.0006	1.6		
-2.05	-0.048	0.0117	-0.008	-0.046	-0.0046	1.7	9.00	-1.01	0.202	0.005	-0.31	-0.0003	1.9	6.25	-3.07	0.185	-0.033	-0.187	-0.0012	1.7			
-1.05	-0.036	0.0100	-0.008	-0.046	-0.0046	1.7	1.06	-0.09	0.202	0.005	-0.31	-0.0003	1.9	10.28	-1.51	0.185	-0.043	-0.195	-0.0012	1.7			
-1.52	-0.011	0.0095	-0.007	-0.047	-0.0046	1.7	1.49	-0.31	0.202	0.005	-0.31	-0.0003	1.9	12.27	-1.44	0.185	-0.043	-0.195	-0.0012	1.7			
1.02	-0.071	0.0105	-0.018	-0.062	-0.0036	1.7	1.47	-0.31	0.202	0.005	-0.31	-0.0003	1.9	14.31	-0.51	0.178	-0.053	-0.211	-0.0022	1.1			
2.10	-0.104	0.0165	-0.018	-0.092	-0.0036	1.6	1.00	-0.36	0.189	-0.013	-0.32	-0.0001	1.8	16.37	-0.70	-0.176	-0.074	-0.209	-0.0022	1.0			
4.20	-0.202	0.0201	-0.018	-0.112	-0.0037	1.6	2.04	-0.36	0.191	-0.012	-0.32	0	17.39	-0.69	-0.196	-0.074	-0.207	-0.0020	.9				
6.31	-0.303	0.0326	-0.023	-0.117	-0.0036	1.6	4.09	-1.77	0.199	-0.026	-0.32	-0.0008	1.6	1.90	-4.07	-0.144	0.063	-0.004	0.0004	2.1			
8.43	-0.406	0.0601	-0.027	-0.122	-0.003	1.6	6.13	-2.71	0.199	-0.026	-0.32	-0.0006	1.6	2.03	-0.074	0.019	0.083	-0.063	-0.0002	2.0			
10.53	-0.491	0.0904	-0.032	-0.133	-0.003	1.5	8.23	-3.66	0.199	-0.026	-0.32	-0.0006	1.5	2.03	-0.074	0.019	0.083	-0.063	-0.0002	2.0			
12.65	-0.599	0.1305	-0.037	-0.146	-0.003	1.5	10.28	-4.77	0.199	-0.026	-0.32	-0.0006	1.5	1.99	-0.99	0.019	0.083	-0.063	-0.0002	1.9			
14.76	-0.710	0.1833	-0.042	-0.176	-0.003	1.4	12.31	-5.6	0.199	-0.026	-0.32	-0.0006	1.5	1.98	-1.44	0.019	0.083	-0.063	-0.0002	1.9			
16.89	-0.803	0.2362	-0.047	-0.188	-0.003	1.4	14.37	-6.9	0.199	-0.026	-0.32	-0.0006	1.5	1.97	-2.03	0.019	0.083	-0.063	-0.0002	1.9			
17.94	-0.845	0.2678	-0.052	-0.195	-0.003	1.3	16.43	-7.4	0.199	-0.026	-0.32	-0.0006	1.5	1.96	-2.40	0.019	0.083	-0.063	-0.0002	1.9			
0.90	-1.22	-0.203	0.0217	-0.008	-0.065	-0.0046	1.7	1.50	-1.09	0.208	-0.027	-0.31	-0.0005	2.1	4.08	-1.95	0.020	-0.083	-0.104	-0.0003	1.6		
-2.10	-0.095	0.0133	-0.008	-0.083	-0.0046	1.7	9.00	-1.09	0.208	-0.027	-0.31	-0.0005	2.0	8.15	-2.16	0.020	-0.083	-0.104	-0.0003	1.7			
-1.08	-0.054	0.0100	-0.008	-0.093	-0.0046	1.7	1.03	-0.09	0.208	-0.027	-0.31	-0.0005	2.0	10.20	-2.17	0.020	-0.083	-0.104	-0.0003	1.7			
-1.37	-0.021	0.0099	-0.007	-0.103	-0.0046	1.7	1.02	-0.09	0.208	-0.027	-0.31	-0.0005	2.0	12.25	-2.17	0.020	-0.083	-0.104	-0.0003	1.7			
-1.47	-0.026	0.0113	-0.009	-0.113	-0.0046	1.6	1.51	-0.27	0.212	-0.026	-0.32	-0.0005	2.0	13.23	-2.17	0.020	-0.083	-0.104	-0.0003	1.7			
1.02	-0.092	0.0117	-0.013	-0.118	-0.0046	1.6	1.51	-0.27	0.212	-0.026	-0.32	-0.0005	2.0	14.28	-2.17	0.020	-0.083	-0.104	-0.0003	1.7			
2.10	-0.102	0.0139	-0.013	-0.126	-0.0046	1.5	2.04	-0.37	0.178	-0.005	-0.32	-0.0005	2.0	15.34	-2.24	0.020	-0.083	-0.104	-0.0003	1.7			
4.21	-0.203	0.0221	-0.021	-0.148	-0.0040	1.5	17.47	-7.35	0.197	-0.029	-0.32	-0.0005	2.0	1.99	-0.98	0.020	-0.083	-0.104	-0.0003	1.7			
-8.11	-0.108	0.0123	-0.013	-0.043	-0.0046	1.5	1.50	-1.09	0.208	-0.029	-0.32	-0.0005	2.0	6.14	-2.24	0.020	-0.083	-0.104	-0.0003	1.7			
-1.03	-0.055	0.0103	-0.002	-0.043	-0.0046	1.5	2.05	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	8.19	-3.00	0.020	-0.083	-0.104	-0.0003	1.7			
-2.04	-0.033	0.0097	-0.002	-0.049	-0.0046	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	10.23	-3.09	0.020	-0.083	-0.104	-0.0003	1.7			
-1.48	-0.014	0.0095	-0.002	-0.049	-0.0046	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	12.28	-3.09	0.020	-0.083	-0.104	-0.0003	1.7			
-1.01	-0.038	0.0100	-0.003	-0.045	-0.0046	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	14.33	-3.08	0.020	-0.083	-0.104	-0.0003	1.7			
2.06	-0.065	0.0110	-0.003	-0.045	-0.0046	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	15.36	-3.08	0.020	-0.083	-0.104	-0.0003	1.7			
-1.18	-0.020	0.0122	-0.002	-0.047	-0.0046	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	17.41	-3.08	0.020	-0.083	-0.104	-0.0003	1.7			
-8.41	-0.084	0.0267	-0.028	-0.066	-0.0046	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	4.07	-1.32	0.020	-0.083	-0.104	-0.0003	1.7			
-10.32	-0.176	0.0483	-0.036	-0.119	-0.0026	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	6.11	-2.01	0.020	-0.083	-0.104	-0.0003	1.7			
-12.69	-0.263	0.0883	-0.042	-0.136	-0.0026	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	8.16	-2.07	0.020	-0.083	-0.104	-0.0003	1.7			
-14.78	-0.359	0.1297	-0.047	-0.149	-0.0026	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	10.24	-2.07	0.020	-0.083	-0.104	-0.0003	1.7			
-16.88	-0.454	0.2233	-0.052	-0.165	-0.0026	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	12.28	-2.07	0.020	-0.083	-0.104	-0.0003	1.7			
-17.94	-0.538	0.2843	-0.053	-0.165	-0.0040	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	14.37	-2.07	0.020	-0.083	-0.104	-0.0003	1.7			
-4.83	-0.219	0.0223	-0.016	-0.048	-0.0040	1.5	2.04	-0.09	0.208	-0.029	-0.32	-0.0005	2.0	2.03	-0.63	0.020	-0.083	-0.104	-0.0003	1.7			
-2.11	-0.115	0.0136	-0.009	-0.049																			

TABLE VIII.- CONTINUED

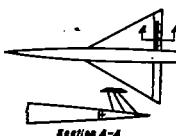
(c) Nominal  $\delta$ ,  $-2^\circ$ 

M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$\delta$	M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$\delta$	M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$\delta$
0.60	-4.19	0.205	0.0105	0.013	0.044	0.0036	-2.0	0.90	6.32	0.078	0.0313	-0.007	0.048	0.0063	-2.0	2.50	2.04	0.069	0.0197	-0.004	0.046	0.0034	-1.9
-2.10	-0.116	0.130	0.011	0.047	0.0032	-2.0	8.13	3.71	0.029	-0.005	-0.073	0.059	0.0054	-2.0	4.07	1.53	0.0670	-0.016	0.001	0.037	0.0034	-2.0	
-1.03	-0.071	0.108	0.008	0.018	0.0033	-2.0	10.22	1.74	0.052	-0.013	-0.123	0.054	0.0054	-2.0	6.14	2.36	0.0589	-0.003	-0.037	0.004	0.0034	-2.0	
-1.51	-0.047	0.100	0.008	0.015	0.0033	-2.0	12.67	1.00	0.029	-0.029	-0.147	0.055	0.0054	-2.0	8.80	3.83	0.0591	-0.040	-0.079	0.039	0.0034	-2.0	
-1.46	-0.003	0.096	0.007	0.007	0.0033	-2.0	1.20	-1.11	-0.229	0.031	0.043	0.028	0.0051	-1.8	1.20	1.24	0.0533	-0.026	-0.118	0.044	0.0034	-2.0	
1.03	-0.019	0.099	0.005	0.002	0.0031	-2.1	8.11	1.02	0.029	0.001	0.021	0.027	0.0051	-1.9	12.30	1.81	0.0533	-0.062	-0.155	0.043	0.0034	-2.0	
2.09	0.053	0.111	0.004	-0.005	0.008	-2.1	8.01	-0.03	-0.185	0.021	0.027	0.006	0.0051	-1.9	14.35	2.25	0.0533	-0.072	-0.192	0.047	0.0034	-2.0	
4.15	-0.153	0.152	0	-0.014	0.027	-2.1	1.02	-0.077	-0.178	0.020	0.040	0.0051	-1.9	16.41	2.26	0.0581	-0.079	-0.239	0.023	0.0034	-2.0		
6.25	-0.248	0.272	-0.004	-0.028	0.031	-2.1	-1.49	-0.053	-0.164	0.015	0.037	0.0059	-2.0	17.43	6.63	0.2007	-0.053	-0.260	0.045	0.0034	-2.0		
8.34	-0.346	0.480	-0.008	-0.041	0.045	-2.1	-1.47	-0.011	-0.156	0.009	0.020	0.0051	-2.0	1.50	2.04	0.069	0.0197	-0.004	0.046	0.0034	-1.9		
10.44	-0.447	0.766	-0.008	-0.062	0.045	-2.2	1.00	0.023	0.013	0.005	0.013	0.0049	-2.0	1.70	-4.09	-1.72	0.089	.031	1.71	0.0028	-1.5		
12.56	-0.549	1.111	-0.007	-0.078	0.043	-2.2	2.05	0.71	0.040	-0.001	0.009	0.0049	-2.1	-2.04	-2.04	-0.054	0.039	0.19	0.0026	-1.6			
14.66	-0.650	1.590	-0.007	-0.093	0.046	-2.2	4.10	1.69	0.027	-0.017	0.043	0.0047	-2.0	-1.01	-0.054	0.079	0.014	0.116	0.0027	-1.7			
16.76	-0.757	2.164	-0.011	-0.120	0.048	-2.3	6.15	2.78	0.041	-0.032	0.076	0.018	0.023	-2.3	12.30	1.81	0.0533	-0.062	-0.155	0.043	0.0034	-2.0	
17.85	-0.819	2.477	-0.011	-0.131	0.087	-2.3	8.21	3.81	0.032	-0.048	0.096	0.0077	0.023	-2.3	16.41	2.26	0.0581	-0.072	-0.192	0.047	0.0034	-2.0	
0.60	-4.22	-0.217	0.0213	0.020	-0.039	0.037	-2.0	12.33	5.84	0.128	-0.075	-0.183	0.075	0.025	-2.0	1.50	2.04	0.069	0.0197	-0.004	0.046	0.0034	-1.9
-2.18	-0.181	0.133	0.013	0.021	0.037	-2.0	1.30	-4.10	-0.209	0.021	0.039	0.013	0.0033	-1.7	1.70	4.09	-1.72	0.089	.031	1.71	0.0028	-1.5	
-1.05	-0.074	0.110	0.011	0.013	0.038	-2.0	2.04	-1.15	0.026	0.024	0.040	0.0036	0.017	-2.0	6.14	2.16	0.0573	-0.026	-0.077	0.036	0.0034	-2.0	
-1.52	-0.051	0.102	0.010	0.016	0.038	-2.0	1.02	-0.058	0.020	0.017	0.009	0.0039	0.018	-2.0	8.19	3.83	0.0545	-0.036	-0.068	0.037	0.0034	-2.0	
-1.54	-0.004	0.097	0.008	0.002	0.036	-2.0	1.49	-0.044	0.019	0.014	0.002	0.0038	0.018	-2.0	10.28	3.63	0.0563	-0.043	-0.106	0.039	0.0034	-2.0	
1.04	0.019	0.100	0.007	-0.003	0.037	-2.1	-1.49	-0.061	0.014	0.002	0.003	0.0038	0.018	-2.1	12.30	1.81	0.0533	-0.052	-0.112	0.042	0.0034	-2.0	
2.07	0.058	0.115	0.004	-0.011	0.032	-2.1	-0.51	0.001	0.019	0.008	0.003	0.0039	0.019	-2.1	14.38	2.08	0.0506	-0.065	-0.171	0.046	0.0034	-2.0	
4.18	-0.179	0.179	-0.002	-0.031	0.034	-2.1	1.03	0.025	0.013	0.004	0.002	0.0039	0.020	-2.1	17.41	6.00	0.1917	-0.070	-0.231	0.044	0.0034	-2.0	
6.30	-0.266	0.315	-0.008	-0.036	0.045	-2.1	2.04	0.71	0.022	-0.003	0.009	0.0038	0.020	-2.1	8.19	3.83	0.0545	-0.015	0.011	0.033	0.0034	-2.0	
8.40	-0.367	0.544	-0.018	-0.062	0.045	-2.1	4.19	1.63	0.028	-0.017	0.012	0.0042	0.0042	-2.1	1.50	4.09	1.12	0.089	.031	1.12	0.0028	-1.5	
10.42	-0.459	0.844	-0.009	-0.088	0.045	-2.1	6.15	2.97	0.045	-0.030	0.006	0.0043	0.0042	-2.1	1.70	-4.06	-1.52	0.075	.027	1.52	0.0028	-1.5	
12.54	-0.551	1.240	-0.016	-0.104	0.049	-2.1	8.21	3.94	0.038	-0.044	0.095	0.0142	0.0042	-2.1	6.14	3.17	0.0563	-0.036	-0.068	0.037	0.0034	-2.0	
14.66	-0.651	1.573	-0.001	-0.126	0.077	-2.1	10.26	4.40	0.040	-0.055	0.128	0.018	0.024	-2.1	12.30	1.81	0.0533	-0.047	-0.119	0.037	0.0034	-2.0	
16.78	-0.758	2.140	-0.003	-0.101	0.011	-2.1	12.33	5.84	0.028	-0.068	0.176	0.0047	0.024	-2.1	14.38	2.08	0.0506	-0.077	0.194	0.038	0.0034	-2.0	
17.89	-0.819	2.471	-0.023	-0.119	0.066	-2.1	1.00	0.027	0.017	0.006	0.006	0.0033	0.018	-2.1	12.30	1.81	0.0533	-0.052	-0.101	0.041	0.0034	-2.0	
-4.28	-0.239	0.243	0.026	0.028	0.046	0.016	-2.0	17.47	7.30	0.126	-0.090	0.273	0.039	0.029	-2.0	2.03	4.09	0.052	0.026	0.003	0.048	0.0034	-1.9
-2.18	-0.131	0.140	0.020	0.029	0.046	0.016	-2.0	1.50	-4.08	-0.192	0.089	0.035	0.018	0.0033	-1.7	8.19	3.83	0.0557	-0.023	-0.077	0.030	0.0034	-2.0
-1.03	-0.081	0.115	0.014	0.004	0.046	0.016	-2.0	1.02	-0.061	0.014	0.019	0.007	0.0033	0.017	-2.0	8.19	3.83	0.0557	-0.043	0.016	0.033	0.0034	-2.0
-1.51	-0.058	0.106	0.013	-0.004	0.049	0.021	-2.1	-1.49	-0.039	0.017	0.022	0.007	0.0033	0.017	-2.1	10.28	3.34	0.0573	-0.073	0.103	0.034	0.0034	-2.0
1.04	0.036	0.103	0.009	-0.010	0.048	0.016	-2.1	-0.51	0.005	0.017	0.006	0.0033	0.018	-2.1	12.30	1.81	0.0533	-0.043	-0.094	0.038	0.0034	-2.0	
2.07	0.055	0.119	0.006	-0.022	0.048	0.016	-2.1	1.00	0.027	0.017	0.006	0.0033	0.018	-2.1	14.38	2.08	0.0506	-0.077	0.191	0.041	0.0034	-2.0	
4.19	-0.168	0.193	-0.002	-0.040	0.040	0.000	-2.1	1.00	0.027	0.017	0.006	0.0034	0.018	-2.1	17.47	7.30	0.0558	-0.056	0.204	0.045	0.0034	-1.7	

(d) Nominal  $\delta$ ,  $-4^\circ$ 

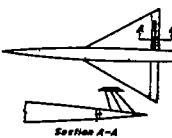
M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$\delta$	M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$\delta$	M	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$\delta$
0.60	-4.21	0.229	0.0211	0.024	0.070	0.0071	-2.2	0.90	6.32	0.072	0.0323	0.002	0.011	0.0099	-1.1	1.50	2.04	0.069	0.0197	-0.004	0.046	0.0034	-3.9
-3.11	-1.13	0.124	0.019	0.046	0.069	0.011	-2.2	6.42	3.54	0.056	-0.001	-0.023	0.050	0.011	-2.0	6.14	2.36	0.0563	-0.027	0.036	0.0034	-3.9	
-1.03	-0.081	0.111	0.016	0.043	0.069	0.011	-2.2	10.59	4.61	0.062	-0.002	-0.033	0.056	0.011	-2.0	8.19	3.83	0.0545	-0.036	-0.068	0.037	0.0034	-2.0
-1.51	-0.056	0.111	0.016	0.043	0.069	0.011	-2.2	1.20	-1.20	-0.236	0.048	0.016	0.009	0.0071	-2.0	12.30	1.81	0.0533	-0.037	-0.077	0.036	0.0034	-2.0
-1.46	-0.020	0.102	0.015	0.036	0.069	0.011	-2.2	-0.05	-1.15	0.021	0.004	0.007	0.009	0.0073	-2.0	12.30	1.81	0.0533	-0.047	-0.083	0.036	0.0034	-2.0
1.03	0	0.003	0.103	0.014	0.036	0.069	-2.1	-0.05	-0.058	0.017	0.004	0.002	0.0071	0.0073	-2.1	12.30	1.81	0.0533	-0.047	-0.083	0.036	0.0034	-2.0
2.09	-0.016	0.115	0.012	0.021	0.069	0.011	-2.1	-0.05	-0.061	0.014	0.004	0.002	0.0071	0.0073	-2.1	14.38	2.08	0.0506</					

TABLE VIII.- CONTINUED

(e) Nominal  $\delta$ ,  $-8^\circ$ 

$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$\delta$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$\delta$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_1$	$\delta$	
0.60	-1.23	0.285	0.0287	0.037	0.135	0.0194	-7.8	0.90	6.28	0.222	0.0346	0.019	0.139	0.0164	-7.7	1.50	2.09	0.054	0.0217	0.006	0.139	0.0076	-7.6	
	-2.14	-1.66	0.0181	0.33	0.125	0.013	-7.8		6.40	0.34	0.0492	0.015	0.141	0.0149	-7.7		4.10	0.37	0.0282	-0.006	0.097	0.0078	-7.7	
	-1.09	-1.23	0.0196	0.38	0.116	0.013	-7.8		10.92	1.40	0.0673	0.004	0.108	0.0241	-7.6		6.16	1.21	0.0403	0.019	0.077	0.0083	-7.9	
	-27	-1.03	0.0139	0.31	0.115	0.013	-7.9		1.20	-4.10	-0.294	0.0399	0.078	0.206	0.0111	-7.4		8.22	0.37	0.0282	-0.006	0.097	0.0078	-7.4
	-14	-0.60	0.0124	0.30	0.102	0.013	-7.9		2.09	-1.50	0.0247	0.02	0.184	0.0139	-7.5		10.96	0.37	0.0282	-0.006	0.097	0.0078	-7.5	
	-93	-0.37	0.0124	0.28	0.106	0.012	-7.9		-1.01	0.03	0.0212	0.035	0.173	0.0137	-7.5		12.34	0.37	0.0211	0.005	0.043	0.0083	-8.0	
	-2.08	0.008	0.028	0.028	0.028	0.019	-7.9		0.39	-0.08	0.0201	0.035	0.166	0.0137	-7.6		14.40	0.37	0.0212	0.005	0.043	0.0083	-8.2	
	-1.25	0.002	0.0161	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		16.45	0.37	0.0212	0.005	0.043	0.0083	-8.3	
	1.25	0.002	0.0161	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		17.48	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	8.31	0.002	0.0161	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		18.52	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	10.15	0.002	0.0163	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		19.56	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	10.15	0.002	0.0163	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		20.60	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	12.38	0.002	0.0163	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		21.73	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	14.44	0.002	0.0163	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		22.80	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	16.77	0.002	0.0163	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		23.87	0.37	0.0208	0.005	0.038	0.0083	-8.3	
	17.83	0.002	0.0163	0.024	0.026	0.013	-7.9		0.51	-0.08	0.0201	0.035	0.166	0.0137	-7.6		24.94	0.37	0.0208	0.005	0.038	0.0083	-8.3	
0.80	-1.23	-0.273	0.0297	0.044	0.145	0.037	-7.7		2.10	-0.07	0.0207	0.034	0.138	0.0131	-7.6	1.70	-4.09	-0.187	0.0282	0.004	0.204	0.0084	-7.2	
	-2.13	-1.73	0.0194	0.37	0.125	0.035	-7.8		4.11	-1.74	0.0276	0.03	0.138	0.0131	-7.5		6.14	-0.18	0.0282	0.004	0.204	0.0084	-7.2	
	-1.09	-1.26	0.0163	0.35	0.123	0.038	-7.8		6.17	-2.46	0.0216	0.036	0.138	0.0131	-7.5		8.19	-0.18	0.0282	0.004	0.204	0.0084	-7.2	
	-27	-1.05	0.0151	0.35	0.123	0.038	-7.8		8.22	-3.24	0.0287	0.032	0.138	0.0131	-7.5		10.24	-0.18	0.0282	0.004	0.204	0.0084	-7.2	
	-10	-0.62	0.0136	0.33	0.120	0.041	-7.8		10.26	-4.02	0.0214	0.031	0.138	0.0131	-7.5		12.25	-0.18	0.0282	0.004	0.204	0.0084	-7.2	
	-92	-0.39	0.0133	0.32	0.115	0.043	-7.8		12.29	-4.80	0.0204	0.032	0.138	0.0131	-7.5		14.34	-0.18	0.0282	0.004	0.204	0.0084	-7.2	
	-2.03	-0.12	0.0135	0.32	0.107	0.041	-7.8		14.38	-5.58	0.0204	0.032	0.138	0.0131	-7.5		16.39	-0.18	0.0282	0.004	0.204	0.0084	-7.2	
	-4.28	0.008	0.0174	0.32	0.105	0.041	-7.8		14.42	-6.37	0.0207	0.034	0.138	0.0131	-7.5		17.41	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	6.26	0.008	0.0174	0.32	0.105	0.041	-7.8		14.46	-7.16	0.0207	0.034	0.138	0.0131	-7.5		17.45	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	8.37	0.012	0.0180	0.33	0.104	0.042	-8.0		14.50	-7.94	0.0207	0.034	0.138	0.0131	-7.5		17.54	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	10.48	0.11	0.0180	0.32	0.105	0.042	-8.0		14.54	-8.72	0.0208	0.034	0.138	0.0131	-7.5		17.63	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	12.60	0.19	0.0182	0.32	0.105	0.042	-8.1		14.58	-9.50	0.0208	0.034	0.138	0.0131	-7.5		17.72	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	14.73	0.28	0.0182	0.32	0.105	0.042	-8.1		14.62	-10.28	0.0208	0.034	0.138	0.0131	-7.5		17.81	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	16.83	0.37	0.0182	0.32	0.105	0.042	-8.1		14.66	-11.06	0.0208	0.034	0.138	0.0131	-7.5		17.89	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
	17.83	0.46	0.0182	0.32	0.105	0.042	-8.1		14.70	-11.84	0.0208	0.034	0.138	0.0131	-7.5		17.98	-0.18	0.0201	0.004	0.196	0.0076	-8.1	
0.90	-1.27	-0.29	0.0268	0.051	0.186	0.031	-7.6		14.74	-12.62	0.0227	0.037	0.139	0.0141	-7.5		17.47	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-2.15	-1.27	0.0207	0.048	0.185	0.031	-7.7		14.78	-13.40	0.024	0.038	0.139	0.0141	-7.5		17.56	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-1.09	-1.31	0.0172	0.039	0.189	0.030	-7.6		14.82	-14.18	0.0246	0.038	0.139	0.0141	-7.5		17.64	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-27	-1.08	0.0158	0.038	0.189	0.031	-7.6		14.86	-14.96	0.0247	0.038	0.139	0.0141	-7.5		17.73	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-10	-0.64	0.0151	0.039	0.184	0.031	-7.7		14.90	-15.74	0.0247	0.038	0.139	0.0141	-7.5		17.80	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-93	-0.35	0.0151	0.038	0.184	0.031	-7.7		14.94	-16.52	0.0247	0.038	0.139	0.0141	-7.5		17.89	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-2.07	-0.14	0.0151	0.038	0.184	0.031	-7.7		14.98	-17.30	0.0247	0.038	0.139	0.0141	-7.5		17.94	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	4.21	0.14	0.0151	0.038	0.184	0.031	-7.7		15.02	-18.08	0.0247	0.038	0.139	0.0141	-7.5		17.98	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	11.9	0.19	0.0152	0.038	0.185	0.031	-7.8		15.06	-18.86	0.0247	0.038	0.139	0.0141	-7.5		18.04	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
0.80	-1.27	-0.29	0.0347	0.050	0.191	0.035	-7.6		15.10	-19.64	0.0247	0.038	0.139	0.0141	-7.5		17.40	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-2.15	-1.28	0.0240	0.048	0.186	0.036	-7.6		15.14	-20.42	0.0247	0.038	0.139	0.0141	-7.5		17.58	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-1.11	-1.47	0.0203	0.048	0.186	0.036	-7.6		15.18	-21.20	0.0247	0.038	0.139	0.0141	-7.5		17.72	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-79	-1.26	0.0191	0.048	0.186	0.036	-7.6		15.22	-21.98	0.0247	0.038	0.139	0.0141	-7.5		17.86	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-47	-0.83	0.0173	0.041	0.189	0.037	-7.6		15.26	-22.76	0.0247	0.038	0.139	0.0141	-7.5		17.99	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	-59	-0.61	0.0166	0.048	0.187	0.037	-7.6		15.30	-23.54	0.0247	0.038	0.139	0.0141	-7.5		18.13	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	2.03	0.14	0.0166	0.048	0.187	0.037	-7.6		15.34	-24.32	0.0247	0.038	0.139	0.0141	-7.5		18.27	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	4.18	0.24	0.0193	0.043	0.187	0.037	-7.7		15.38	-25.10	0.0247	0.038	0.139	0.0141	-7.5		18.41	-0.18	0.0208	0.005	0.196	0.0076	-7.7	
	6.39	0.38	0.0193	0.043	0.187	0.037	-7.7		15.42	-25.88	0.0247													

TABLE VIII.- CONTINUED



(g) Nominal  $\delta$ ,  $-16^\circ$

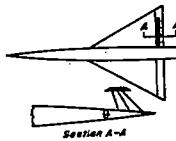
K	a	C_L	C_D	C_m	C_h	C_l	b	H	a	C_L	C_D	C_m	C_h	C_l	b	H	a	C_L	C_D	C_m	C_h	C_l	b	
0.60	-4.24	-0.300	0.0463	0.053	0.226	0.0397	-15.6	0.90	6.31	0.151	0.0355	0.031	0.189	0.0213	-15.6	1.30	2.08	0.033	0.0270	0.018	0.246	0.0126	-15.8	
	-2.12	-0.111	0.0268	0.050	0.226	0.0505	-15.6		8.38	.301	0.0292	0.04	0.189	0.0177	-15.7		4.11	.118	0.020	0.0132	0.005	0.211	0.0123	-15.3
	-1.10	-0.70	0.0235	0.050	0.226	0.0212	-15.6		10.51	0.048	0.0711	0.018	0.176	0.0181	-15.6		6.16	0.14	0.043	0.0129	-0.008	0.166	0.0123	-15.4
	-0.56	-0.17	0.0220	0.050	0.234	0.0217	-15.5		12.63	0.114	0.1265	0.010	0.193	0.0187	-15.6		8.21	0.050	0.060	0.020	0.014	0.156	0.0123	-15.6
	-0.26	-0.153	0.0235	0.050	0.237	0.0217	-15.5		14.76	0.141	0.1421	0.010	0.193	0.0187	-15.6		10.27	.370	0.050	0.031	0.008	0.123	0.0123	-15.6
	-0.16	-0.092	0.0235	0.050	0.237	0.0217	-15.5		16.89	0.161	0.1541	0.010	0.193	0.0187	-15.6		12.33	0.144	0.059	0.024	0.014	0.123	0.0123	-15.8
	-0.08	-0.045	0.0236	0.050	0.221	0.0220	-15.6		19.02	0.181	0.1651	0.010	0.193	0.0187	-15.6		14.36	0.165	0.050	0.024	0.017	0.124	0.0123	-15.3
	-0.04	-0.048	0.0235	0.050	0.216	0.0220	-15.6		21.15	0.201	0.1761	0.010	0.193	0.0187	-15.6		16.49	0.182	0.050	0.024	0.017	0.125	0.0123	-15.3
	-0.02	-0.048	0.0240	0.050	0.217	0.0220	-15.6		23.28	0.221	0.1871	0.010	0.193	0.0187	-15.6		17.47	0.204	0.050	0.024	0.017	0.124	0.0121	-15.1
	-0.01	-0.048	0.0240	0.050	0.217	0.0220	-15.6		25.41	0.241	0.1981	0.010	0.193	0.0187	-15.6		19.56	0.203	0.050	0.024	0.017	0.124	0.0121	-15.1
0.80	-4.27	-305	0.0356	0.057	0.251	0.0175	-15.4	1.30	10.30	0.147	0.0193	0.029	0.179	0.0193	-15.5	1.70	-4.09	-0.201	0.042	0.048	.307	0.0108	-15.0	
	-2.16	-208	0.0264	0.052	0.247	0.0186	-15.4		12.37	0.153	0.0221	0.027	0.166	0.0193	-15.5		-2.06	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-1.12	-106	0.0244	0.050	0.246	0.0189	-15.4		14.44	0.162	0.0251	0.027	0.165	0.0193	-15.5		-1.01	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.59	-139	0.0218	0.049	0.249	0.0190	-15.4		16.51	0.171	0.0281	0.027	0.166	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.36	-0.96	0.0210	0.048	0.249	0.0196	-15.4		18.58	0.181	0.0311	0.027	0.167	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.20	-0.074	0.0203	0.047	0.247	0.0196	-15.4		20.65	0.191	0.0317	0.027	0.168	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.13	-0.076	0.0203	0.047	0.247	0.0196	-15.4		22.72	0.201	0.0323	0.027	0.169	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.07	-0.076	0.0203	0.047	0.247	0.0196	-15.4		24.79	0.211	0.0329	0.027	0.170	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.04	-0.076	0.0203	0.047	0.247	0.0196	-15.4		26.86	0.221	0.0335	0.027	0.171	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
	-0.02	-0.076	0.0203	0.047	0.247	0.0196	-15.4		28.93	0.231	0.0341	0.027	0.172	0.0193	-15.5		-0.50	-0.201	0.042	0.048	0.006	0.122	0.0122	-15.0
0.90	-4.98	-314	0.0414	0.061	0.241	0.0169	-15.3	1.50	-4.09	-0.256	0.0473	0.067	0.323	0.0192	-15.1	1.90	-4.07	-0.183	0.0347	0.048	.320	0.0056	-15.1	
	-2.16	-209	0.0285	0.053	0.230	0.0175	-15.3		-2.04	-0.256	0.0533	0.067	0.323	0.0192	-15.1		-2.03	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-1.12	-109	0.0242	0.051	0.229	0.0180	-15.3		-1.01	-0.256	0.0587	0.067	0.324	0.0192	-15.1		-1.01	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.56	-136	0.0231	0.049	0.238	0.0185	-15.3		-0.96	-0.257	0.0637	0.067	0.325	0.0192	-15.1		-0.95	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.37	-0.93	0.0212	0.048	0.231	0.0189	-15.3		-0.91	-0.257	0.0682	0.067	0.326	0.0192	-15.1		-0.91	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.20	-0.087	0.0203	0.047	0.228	0.0191	-15.3		-0.86	-0.257	0.0727	0.067	0.327	0.0192	-15.1		-0.86	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.16	-0.086	0.0199	0.047	0.229	0.0191	-15.3		-0.81	-0.257	0.0772	0.067	0.328	0.0192	-15.1		-0.81	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.08	-0.086	0.0199	0.047	0.229	0.0191	-15.3		-0.76	-0.257	0.0817	0.067	0.329	0.0192	-15.1		-0.76	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.04	-0.086	0.0199	0.047	0.229	0.0191	-15.3		-0.71	-0.257	0.0862	0.067	0.330	0.0192	-15.1		-0.71	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0
	-0.02	-0.086	0.0199	0.047	0.229	0.0191	-15.3		-0.66	-0.257	0.0907	0.067	0.331	0.0192	-15.1		-0.66	-0.183	0.0347	0.048	0.005	0.122	0.0122	-15.0

(h) Nominal  $\delta$ ,  $-20^\circ$

M	$\alpha$	OL	O <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	C <sub>1</sub>	B	K	$\alpha$	O <sub>L</sub>	O <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	C <sub>1</sub>	B	M	$\alpha$	OL	O <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	C <sub>1</sub>	B
0.60	-4.25	-0.308	0.0397	0.059	0.869	0.0391	-19.5	0.90	6.32	0.190	0.0378	0.032	0.194	0.0210	-19.5	1.50	4.16	0.111	-	0.011	0.263	0.019	-19.1
	-2.16	-0.214	0.0303	0.059	0.866	0.0392	-19.5	8.40	.303	0.056	0.022	0.196	0.0163	-19.6	1.22	19.0	0.104	-0.002	0.287	0.018	0.194	-19.3	
	-1.12	-0.173	0.0265	0.059	0.866	0.0207	-19.5	10.93	.303	0.056	0.018	0.199	0.0270	-19.6	8.22	2.77	0.0508	-0.014	0.195	0.015	0.195	-19.2	
	-0.60	-0.152	0.0251	0.059	0.866	0.0210	-19.5	2.04	-0.10	0.052	0.018	0.192	0.0270	-19.6	10.27	.361	0.0833	-0.023	0.192	0.014	0.192	-19.3	
	-0.49	-0.144	0.0231	0.059	0.866	0.0218	-19.5	2.04	-0.10	0.052	0.018	0.196	0.0212	-18.9	12.33	.340	1.111	-0.077	0.191	0.010	0.196	-19.6	
	-0.37	-0.092	0.0233	0.059	0.861	0.0272	0.0220	-19.5	2.04	-0.10	0.052	0.017	0.190	0.0212	-18.9	14.38	.317	1.145	-0.047	0.067	0.019	0.190	-19.7
	1.98	-0.049	0.0229	0.059	0.866	0.0221	-19.5	-2.0	-0.10	0.050	0.017	0.186	0.0220	-18.9	16.44	.317	1.159	-0.055	0.025	0.015	0.195	-19.9	
	4.10	0.040	0.0265	0.059	0.866	0.0249	0.0287	-19.5	-2.0	-0.10	0.050	0.017	0.187	0.0220	-18.9	17.47	.365	2.034	-0.099	0.010	0.137	0.017	-19.9
	6.22	-0.331	0.0262	0.059	0.866	0.0231	0.0287	-19.5	-1.8	-0.08	0.052	0.013	0.181	0.0220	-18.9	1.70	-4.08	-0.209	0.047	0.053	3.42	0.184	-18.9
	8.32	-0.233	0.0269	0.059	0.866	0.0205	0.0234	-19.6	1.01	-0.03	0.056	0.018	0.185	0.0225	-18.9	2.03	-1.31	0.033	0.042	0.267	0.184	-18.9	
	10.43	-0.155	0.0265	0.059	0.866	0.0231	0.0239	-19.6	2.05	-0.03	0.051	0.014	0.185	0.0225	-18.9	1.01	-0.094	0.0320	0.036	0.161	0.128	-19.6	
	12.49	-0.152	0.0272	0.059	0.866	0.0238	0.0275	-19.6	4.16	-0.09	0.052	0.025	0.183	0.0223	-19.0	-0.50	-0.073	0.0260	0.033	0.309	0.126	-19.0	
	14.66	-0.152	0.0274	0.059	0.866	0.0238	0.0237	-19.7	6.17	-0.09	0.0475	0.009	0.187	0.0222	-19.1	1.08	-0.014	0.0283	0.025	0.293	0.127	-19.0	
	16.72	-0.047	0.194	0.059	0.866	0.0233	0.0274	-19.7	6.23	-0.09	0.051	0.008	0.189	0.0218	-19.2	5.31	-0.034	0.0265	-	0.297	0.126	-19.0	
	17.77	0.694	0.2202	0.059	0.866	0.0233	0.0275	-19.7	10.30	-0.09	0.053	0.008	0.183	0.0214	-19.3	2.08	-0.08	0.0287	0.019	0.279	0.127	-19.1	
	0.80	-2.18	-0.219	0.0267	0.059	0.867	0.0201	-19.3	1.30	-0.09	0.057	0.024	0.177	0.0223	-18.8	4.10	-1.05	0.0311	-0.007	0.234	0.124	-19.4	
	-1.13	-0.132	0.0289	0.059	0.867	0.0203	-19.3	-1.01	-0.09	0.056	0.024	0.180	0.0225	-18.8	6.25	-1.02	0.0429	-0.004	0.194	0.023	0.194	-19.4	
	-0.50	-0.050	0.0267	0.059	0.867	0.0203	-19.3	-1.01	-0.09	0.056	0.024	0.180	0.0225	-18.8	8.20	-0.27	0.079	-0.015	0.180	0.020	0.193	-19.3	
	-0.29	-0.110	0.0245	0.059	0.867	0.0209	-19.3	-1.01	-0.09	0.056	0.024	0.180	0.0225	-18.8	10.25	-0.30	0.0782	-0.024	0.196	0.020	0.192	-19.2	
	-0.38	-0.066	0.0248	0.059	0.867	0.0203	-19.3	-1.01	-0.09	0.056	0.024	0.180	0.0225	-18.8	12.30	-0.30	0.1031	-0.024	0.197	0.022	0.196	-19.6	
	2.00	-0.040	0.0232	0.059	0.867	0.0278	0.0213	-19.3	-1.01	-0.09	0.053	0.021	0.174	0.0224	-18.9	14.25	-0.27	0.175	-0.024	0.196	0.022	0.197	-19.6
	4.15	0.055	0.0250	0.059	0.867	0.0203	0.0219	-19.4	1.01	-0.09	0.052	0.021	0.177	0.0225	-18.9	16.30	-0.26	0.1870	-0.024	0.196	0.022	0.197	-19.6
	6.28	0.195	0.0336	0.059	0.867	0.0219	0.0219	-19.4	2.07	-0.08	0.052	0.024	0.174	0.0225	-18.9	17.43	-0.29	0.1864	-0.021	0.192	0.022	0.197	-19.9
	8.40	0.273	0.0312	0.059	0.867	0.0215	0.0219	-19.4	4.16	-0.08	0.052	0.024	0.179	0.0225	-18.9	2.08	-0.08	0.0287	0.019	0.279	0.127	-19.1	
	10.47	0.372	0.0769	0.059	0.867	0.0217	0.0188	-19.6	6.17	-0.08	0.051	0.025	0.171	0.0221	-19.1	1.90	-4.07	-0.187	0.0423	0.046	0.245	0.113	-18.9
	12.59	0.775	1.136	0.022	0.059	0.867	0.0189	-19.6	8.23	-0.08	0.0570	-0.009	0.181	0.020	-19.2	-2.03	-1.17	0.0239	0.036	0.223	0.114	-19.0	
	14.71	0.511	1.173	0.020	0.059	0.867	0.0202	-19.6	10.29	-0.08	0.055	0.022	0.188	0.0218	-19.7	-1.01	-0.053	0.0300	0.021	0.191	0.115	-19.0	
	16.83	0.695	2.149	0.111	0.059	0.867	0.0208	-19.6	12.31	-0.08	0.052	0.022	0.181	0.0214	-19.5	-0.49	-0.065	0.0290	0.029	0.307	0.115	-19.0	
	17.90	7.75	2.437	0.093	0.059	0.867	0.0205	-19.6	14.40	-0.08	0.051	0.022	0.178	0.0213	-19.6	-0.30	-0.030	0.0277	0.028	0.291	0.115	-19.1	
	0.90	-4.30	-0.383	0.0467	0.065	0.805	0.0184	-19.4	16.46	-0.08	0.051	-0.007	0.176	0.0212	-19.7	1.02	-0.101	0.0274	0.021	0.282	0.114	-19.1	
	-2.18	-0.221	0.0335	0.065	0.805	0.0195	-19.4	17.49	-0.08	0.051	-0.007	0.174	0.0212	-19.6	2.07	-0.086	0.0278	0.017	0.285	0.114	-19.4		
	-1.12	-0.172	0.0287	0.065	0.805	0.0197	-19.4	1.50	-4.09	-0.236	0.0484	-0.053	0.172	0.0211	-19.8	6.13	-1.04	0.0405	-0.003	0.285	0.111	-19.3	
	-0.60	-0.145	0.0273	0.065	0.805	0.0201	-19.4	-2.04	-0.10	0.051	-0.050	0.173	0.0211	-19.8	8.11	-0.38	0.0330	-0.012	0.195	0.111	-19.3		
	-0.59	-0.106	0.0251	0.065	0.805	0.0204	-19.4	-1.01	-0.09	0.054	-0.052	0.172	0.0211	-19.8	10.22	-0.27	0.0718	-0.020	0.196	0.116	-19.6		
	-0.54	-0.080	0.0244	0.065	0.805	0.0207	-19.4	-5.04	-0.087	0.050	-0.046	0.166	0.0213	-19.9	12.27	-0.63	0.0294	-0.028	0.0283	0.019	-19.7		
	2.02	-0.031	0.0240	0.065	0.805	0.0207	-19.4	-5.04	-0.086	0.050	-0.046	0.0303	0.0214	-19.9	14.31	-0.23	0.1201	-0.034	0.0163	0.016	-19.8		
	4.19	0.075	0.0857	0.042	0.236	0.0213	-19.4	1.08	-0.08	0.050	-0.030	0.161	0.0212	-19.9	16.36	-0.63	0.2013	-0.038	0.0112	0.019	-19.9		

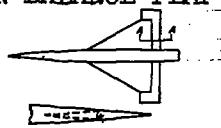
NACA

TABLE VIII.- CONCLUDED

(i) Nominal  $\delta$ ,  $-24^\circ$ 

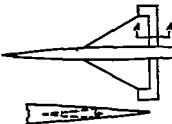
$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_l$	$\delta$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_l$	$\delta$	$M$	$a$	$c_L$	$c_D$	$c_m$	$c_h$	$c_l$	$\delta$
0.60	-4.26	0.316	0.0444	0.059	0.305	0.0205	-23.5	0.90	6.31	0.177	0.0387	0.035	0.213	0.0219	-23.5	1.20	1.02	0.034	0.0347	0.037	0.416	0.0183	-22.8
-2.17	-228	0.343	0.077	-309	0.220	-23.5		8.39	0.292	0.0373	0.026	-156	-0.172	-23.7	2.07	-1.00	0.0392	0.031	0.406	0.0182	-22.8		
-1.13	-186	0.304	0.056	-308	0.226	-23.5		10.32	.406	0.0594	0.020	-157	-0.165	-23.7	4.12	-1.07	0.0398	0.018	0.368	0.0179	-22.9		
-6.2	-159	0.268	0.05	-308	0.229	-23.5		12.65	.534	0.1291	0.111	-147	-0.166	-23.7	6.15	-1.02	0.0397	0.018	0.368	0.0179	-22.9		
.43	-124	0.261	0.04	-304	0.230	-23.5										8.21	-1.05	0.0396	0.018	0.368	0.0179	-23.1	
.96	-103	0.253	0.04	-303	0.232	-23.5		-1.01	-1.182	-0.596	0.081	-143	-0.163	-23.8	10.47	-1.02	0.0392	0.018	0.368	0.0179	-23.2		
1.97	-95	0.244	0.02	-289	0.230	-23.5		-2.04	-1.210	-0.456	0.073	-143	-0.164	-23.8	12.15	-1.03	0.0388	0.018	0.368	0.0179	-23.1		
4.09	-97	0.244	0.02	-289	0.230	-23.5		-1.58	-1.133	-0.456	0.073	-143	-0.164	-23.8	14.38	-1.02	0.0388	0.018	0.368	0.0179	-23.1		
6.22	120	0.307	0.047	277	0.221	-23.6		1.48	-1.082	-0.456	0.073	-143	-0.165	-23.8	16.43	-1.01	0.0381	0.018	0.368	0.0179	-23.1		
8.32	222	0.444	0.041	249	0.249	-23.6		-1.01	-1.182	-0.596	0.081	-143	-0.166	-23.8	18.48	-1.02	0.0384	0.018	0.368	0.0179	-23.1		
10.43	327	0.674	0.038	222	0.247	-23.7		1.04	-1.182	-0.596	0.081	-143	-0.167	-23.8	20.47	-1.02	0.0384	0.018	0.368	0.0179	-23.1		
12.48	424	0.982	0.040	210	0.241	-23.7		2.04	-1.037	-0.596	0.081	-143	-0.168	-23.8	22.56	-1.02	0.0388	0.018	0.368	0.0179	-23.1		
14.60	526	1.365	0.040	196	0.243	-23.7		1.16	-1.082	-0.595	0.081	-143	-0.169	-23.8	24.73	-1.02	0.0384	0.018	0.368	0.0179	-23.1		
16.72	624	1.911	0.036	186	0.272	-23.7		8.23	-1.027	-0.595	0.081	-143	-0.170	-23.8	26.89	-1.02	0.0384	0.018	0.368	0.0179	-23.1		
17.78	693	2.196	0.037	181	0.273	-23.7		10.30	-1.021	-0.595	0.081	-143	-0.170	-23.8	28.93	-1.02	0.0384	0.018	0.368	0.0179	-23.1		
0.80	-1.29	-126	0.087	0.066	334	0.203	-23.3	12.36	-210	-1.301	-0.34	-139	-0.029	-23.8	1.02	-0.02	0.0322	-0.089	0.341	0.0174	-23.0		
-2.19	-125	0.359	0.021	337	0.217	-23.3		14.44	-610	-1.707	0.02	-202	0.0195	-23.5	2.07	-0.02	0.0322	-0.089	0.343	0.0174	-23.1		
-1.11	-156	0.356	0.029	337	0.217	-23.3									4.15	-0.099	0.0362	-0.011	0.276	0.0143	-23.2		
-6.21	-154	0.309	0.028	337	0.223	-23.3		-2.04	-1.082	-0.416	0.061	-141	-0.215	-23.8	6.15	-0.175	0.0454	-0.001	0.236	0.0140	-23.3		
.14	-124	0.284	0.027	339	0.223	-23.3		-1.01	-1.182	-0.416	0.061	-141	-0.216	-23.8	8.20	-0.200	0.0500	-0.011	0.207	0.0138	-23.4		
.96	-100	0.271	0.026	336	0.223	-23.3		-1.50	-1.182	-0.416	0.061	-141	-0.217	-23.8	10.25	-0.206	0.0506	-0.011	0.207	0.0138	-23.4		
1.99	-93	0.267	0.024	317	0.223	-23.3		-1.48	-0.74	-0.375	0.059	-140	-0.225	-23.8	12.30	-0.206	0.0506	-0.011	0.207	0.0138	-23.4		
4.13	-94	0.279	0.026	309	0.223	-23.4		1.01	-0.501	-0.375	0.059	-140	-0.226	-23.8	14.35	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
6.27	-146	0.363	0.043	281	0.230	-23.4		2.06	-0.004	-0.361	0.060	-140	-0.226	-23.8	16.40	-0.200	0.0506	-0.011	0.207	0.0138	-23.4		
8.39	265	0.524	0.033	216	0.222	-23.6		8.23	-0.004	-0.361	0.060	-140	-0.227	-23.8	18.43	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
10.47	367	0.783	0.038	192	0.196	-23.6		4.16	-0.001	-0.361	0.060	-140	-0.228	-23.8	20.47	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
12.60	478	1.151	0.033	169	0.184	-23.7		6.17	-0.158	-0.362	0.061	-140	-0.229	-23.8	22.56	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
14.72	579	1.579	0.037	163	0.184	-23.7		8.23	-0.202	-0.362	0.061	-140	-0.230	-23.8	24.73	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
16.84	671	2.054	0.037	153	0.184	-23.7		10.29	-0.377	-0.362	0.061	-140	-0.231	-23.8	26.89	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
17.92	758	2.470	0.036	137	0.094	-23.7		12.34	-0.467	-0.362	0.061	-140	-0.232	-23.8	14.30	-0.205	0.0506	-0.011	0.207	0.0138	-23.4		
0.90	-4.31	-342	0.530	0.073	376	0.205	-23.1	16.46	-635	-0.205	-0.593	-150	-0.181	-23.7	2.06	-0.020	0.0305	-0.019	0.290	0.0124	-23.2		
-2.19	-236	0.361	0.073	358	0.213	-23.2		17.49	-675	-0.205	-0.597	-150	-0.171	-23.7	4.15	-0.090	0.0344	-0.010	0.295	0.0122	-23.3		
-1.13	-186	0.332	0.062	354	0.219	-23.2									6.13	-0.158	0.0424	0	0.295	0.0120	-23.3		
-6.21	-151	0.317	0.061	358	0.221	-23.2		-1.01	-1.177	-0.421	0.061	-140	-0.215	-23.8	8.18	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
.43	-124	0.277	0.057	337	0.223	-23.2		-1.01	-1.182	-0.421	0.061	-140	-0.216	-23.8	10.22	-0.226	0.0526	-0.010	0.294	0.0119	-23.5		
.96	-113	0.269	0.057	339	0.223	-23.2		-1.50	-1.182	-0.421	0.061	-140	-0.217	-23.8	12.37	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
1.97	-103	0.261	0.057	339	0.223	-23.2		-1.01	-1.182	-0.421	0.061	-140	-0.218	-23.8	14.32	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
4.13	-94	0.278	0.057	324	0.220	-23.3		-1.01	-1.182	-0.421	0.061	-140	-0.219	-23.8	16.37	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
6.21	110	0.338	0.057	324	0.220	-23.3		-1.50	-1.182	-0.421	0.061	-140	-0.220	-23.8	18.43	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
8.31	214	0.669	0.057	264	0.223	-23.5		-0.99	-0.082	-0.421	0.060	-140	-0.221	-23.8	20.47	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
10.42	322	0.990	0.050	235	0.223	-23.5		-2.07	-0.032	-0.421	0.060	-140	-0.222	-23.8	22.56	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
12.53	431	1.317	0.050	223	0.223	-23.5		-0.99	-0.082	-0.421	0.060	-140	-0.223	-23.8	24.73	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
14.60	530	1.805	0.050	210	0.223	-23.5		-1.41	-0.082	-0.421	0.060	-140	-0.224	-23.8	26.89	-0.227	0.0527	-0.010	0.294	0.0119	-23.5		
16.72	643	1.930	0.051	197	0.273	-23.7		8.24	-290	0.070	0	-140	-0.225	-23.8	1.01	-0.005	0.0365	0.057	0.403	0.0174	-26.6		
17.77	693	2.201	0.057	190	0.272	-23.7		10.30	-393	0.070	0	-140	-0.226	-23.8	12.37	-0.01	0.0365	0.057	0.403	0.0174	-26.6		
0.80	-4.30	-336	0.541	0.071	372	0.221	-27.2	1.30	-4.10	-0.581	0.065	-141	-0.216	-27.4	1.70	-4.08	-0.027	0.0397	0.054	0.408	0.0174	-26.6	
-2.19	-239	0.361	0.066	372	0.226	-27.2		-2.04	-1.052	-0.581	0.065	-141	-0.217	-27.4	2.03	-1.01	0.0446	0.054	0.408	0.0174	-26.6		
-1.14	-197	0.372	0.054	374	0.224	-27.2		-1.01	-1.182	-0.581	0.065	-141	-0.218	-27.4	4.14	-0.101	0.0441	0.054	0.408	0.0174	-26.6		
-6.21	-174	0.353	0.053	371	0.224	-27.2		-1.01	-1.182	-0.581	0.065	-141	-0.219	-27.4	6.15	-0.158	0.0454	0.054	0.408	0.0174	-26.6		
.43	-134	0.293	0.056	366	0.224	-27.2		-1.01	-1.182	-0.581	0.065	-141	-0.220	-27.4	8.18	-0.18	0.0454	0.054	0.408	0.0174	-26.6		
.96	-110	0.315	0.051	363	0.224	-27.2		-0.99	-0.083	-0.581	0.065	-141	-0.221	-27.4	10.22	-0.18	0.0454	0.054	0.408	0.0174	-26.6		
1.12	-93	0.310	0.051	337	0.224	-27.2		-2.05	-0.033	-0.581	0.065	-141	-0.222	-27.4	12.37	-0.18	0.0454						

TABLE IX.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH A 20.3-PERCENT-AREA RECTANGULAR HORN BALANCE ON THE RIGHT WING PANEL AND A 13.1-PERCENT-AREA RECTANGULAR HORN BALANCE ON THE LEFT WING PANEL. DATA FOR 20.3-PERCENT-AREA HORN BALANCE FLAP DEFLECTED.  $R = 4.4 \times 10^6$

(a) Nominal  $\delta$ ,  $2^\circ$ 

$K$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$s$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$s$	$K$	$a$	$c_L$	$c_D$	$c_m$	$c_b$	$c_1$	$s$	
0.60	-4.19	0.084	0.0158	0.0055	-0.079	-0.0051	1.4	0.90	6.38	0.041	0.0895	-0.035	0.087	-0.0061	1.6	0.50	4.10	0.180	0.0059	-0.032	0.051	-0.0065	1.4	
-4.05	-0.077	0.0095	-0.005	-0.047	-0.0054	1.5			8.51	0.148	0.0680	-0.045	0.092	1.6		6.16	0.078	0.0115	-0.047	0.070	-0.0052	1.3		
-1.03	0.039	0.0076	-0.005	-0.028	-0.0029	1.5		10.63	0.229	0.1047	-0.050	0.093	-0.0061	1.5		8.82	0.377	0.062	-0.050	-0.087	-0.0054	1.2		
-1.07	-0.031	0.0074	-0.005	-0.027	-0.0029	1.5			8.05	0.108	0.1261	-0.045	0.095	-0.0061	1.5		10.88	1.40	0.0971	-0.073	-1.05	-0.0052	1.1	
-1.13	0.026	0.0088	-0.005	-0.018	-0.0029	1.5			1.01	0.018	0.113	-0.041	0.097	-0.0060	1.4		12.33	0.263	0.1821	-0.065	-1.13	-0.0056	1.0	
2.80	0.055	0.0161	-0.018	0.011	-0.0051	1.6			1.01	0.010	0.1138	-0.035	0.098	-0.0061	1.4		12.35	0.259	0.1801	-0.065	-1.15	-0.0056	1.0	
1.89	0.026	0.0168	-0.018	0.009	-0.0070	1.7			1.18	0.003	0.113	-0.031	0.093	-0.0055	1.4		16.35	0.240	0.1745	-0.065	-1.15	-0.0056	0.9	
5.29	0.021	0.0174	-0.007	-0.005	-0.0051	1.7			1.18	0.010	0.113	-0.031	0.093	-0.0055	1.4		17.45	0.111	0.1879	-0.109	-1.12	-0.0053	0.9	
2.80	0.055	0.0161	-0.018	0.011	-0.0051	1.7			1.03	0.018	0.113	-0.035	0.097	-0.0060	1.4		17.45	0.111	0.1879	-0.109	-1.12	-0.0053	0.9	
5.29	0.021	0.0174	-0.007	-0.005	-0.0051	1.7			1.03	0.010	0.113	-0.031	0.093	-0.0055	1.4		17.45	0.111	0.1879	-0.109	-1.12	-0.0053	0.9	
10.63	0.027	0.0088	-0.005	-0.003	-0.0029	1.6			1.01	0.018	0.114	-0.031	0.097	-0.0060	1.4		14.10	-0.162	0.094	-0.065	0.009	-0.0056	1.6	
10.75	0.153	0.0187	-0.035	0.013	-0.0051	1.7			2.03	0.105	0.1178	-0.028	0.098	-0.0061	1.4		12.05	-0.080	0.1145	-0.065	-0.024	-0.0052	1.5	
14.87	0.785	0.186	-0.036	0.015	-0.0071	1.6			1.17	0.005	0.1146	-0.035	0.098	-0.0061	1.4		16.35	0.240	0.1745	-0.065	-1.15	-0.0056	0.9	
16.99	-0.877	0.182	-0.037	0.013	-0.0056	1.6			5.84	0.133	0.069	-0.078	0.092	-0.0062	1.3		14.37	0.082	0.1842	-0.067	-0.026	-0.0052	1.5	
18.07	0.901	0.789	-0.034	0.010	-0.0053	1.5			10.31	0.118	0.1011	-0.059	0.100	-0.0067	1.2		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
0.80	-4.21	0.028	0.0175	-0.009	-0.0050	1.3	1.30	4.11	1.97	0.085	0.031	0.068	-0.0031	1.5		4.09	1.94	0.0873	-0.065	-0.021	-0.005	-0.0056	1.3	
-1.02	-0.021	0.0182	-0.001	-0.005	-0.0050	1.3			1.03	0.005	0.095	-0.035	0.097	-0.0061	1.4		8.80	0.319	0.0773	-0.065	-0.026	-0.0053	1.3	
-1.06	-0.038	0.0083	-0.004	-0.005	-0.0050	1.3			1.01	0.017	0.116	-0.035	0.097	-0.0061	1.4		16.35	0.240	0.1745	-0.065	-1.15	-0.0056	1.0	
-2.23	0.014	0.0178	-0.006	-0.005	-0.0050	1.3			1.11	0.017	0.116	-0.035	0.097	-0.0061	1.4		16.35	0.240	0.1745	-0.065	-1.15	-0.0056	1.0	
1.04	0.065	0.0087	-0.018	0.004	-0.0050	1.6			1.47	0.022	0.118	-0.035	0.098	-0.0060	1.4		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
2.11	0.021	0.0183	-0.015	0.003	-0.0050	1.7			1.01	0.049	0.113	-0.035	0.097	-0.0060	1.4		17.34	0.635	0.1811	-0.065	-0.028	-0.0052	1.0	
6.31	0.118	0.0189	-0.009	0.003	-0.0050	1.7			2.02	0.098	0.119	-0.037	0.098	-0.0061	1.4		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
8.45	0.122	0.0180	-0.013	0.003	-0.0050	1.6			1.41	0.017	0.116	-0.035	0.097	-0.0061	1.4		17.34	0.635	0.1811	-0.065	-0.028	-0.0052	1.0	
10.77	0.158	0.187	-0.036	0.019	-0.0050	1.6			6.18	0.108	0.095	-0.065	0.099	-0.0061	1.3		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
12.70	0.681	0.139	-0.044	0.008	-0.0050	1.6			8.84	0.322	0.074	-0.067	0.098	-0.0061	1.3		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
14.85	0.790	0.191	-0.031	0.011	-0.0050	1.5			10.31	0.109	0.078	-0.065	0.111	-0.0062	1.2		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
15.97	0.854	0.225	-0.031	0.011	-0.0070	1.5			12.38	0.261	0.136	-0.057	0.107	-0.0065	1.1		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
18.03	0.904	0.875	-0.034	0.009	-0.0070	1.5			14.64	0.663	0.176	-0.110	0.170	-0.0063	1.0		1.00	0.003	0.117	-0.065	-0.027	-0.0052	1.1	
0.90	-4.24	-0.029	0.0187	-0.013	-0.0051	1.3	1.50	4.11	1.78	0.086	0.027	0.065	-0.0031	1.5		2.04	0.078	0.1814	-0.013	-0.031	-0.005	-0.0056	1.5	
-2.11	0.093	0.0093	-0.002	-0.005	-0.0050	1.4			2.03	0.087	0.173	-0.018	0.098	-0.0061	1.5		6.16	0.145	0.0823	-0.065	-0.027	-0.005	-0.0056	1.4
-1.02	-0.046	0.0065	-0.004	-0.005	-0.0050	1.3			1.00	0.048	0.150	-0.050	0.098	-0.0061	1.5		8.15	0.265	0.0993	-0.065	-0.027	-0.005	-0.0056	1.4
-3.33	-0.013	0.0065	-0.007	-0.005	-0.0050	1.3			1.00	0.048	0.150	-0.050	0.098	-0.0061	1.5		10.84	0.350	0.0793	-0.065	-0.027	-0.005	-0.0056	1.4
1.02	0.036	0.0067	-0.010	0.013	-0.0050	1.3			1.00	0.048	0.150	-0.050	0.098	-0.0061	1.5		12.35	0.165	0.0992	-0.065	-0.027	-0.005	-0.0056	1.4
2.13	0.127	0.0169	-0.018	0.008	-0.0050	1.3			1.47	0.046	0.150	-0.050	0.098	-0.0061	1.5		14.33	0.170	0.0991	-0.065	-0.027	-0.005	-0.0056	1.4
2.15	0.936	0.0247	-0.029	0.004	-0.0050	1.7			8.05	0.021	0.076	-0.017	0.098	-0.0061	1.5		16.35	0.240	0.1745	-0.065	-0.027	-0.005	-0.0056	1.4
0.80	-4.24	-0.026	0.0187	-0.014	-0.0051	1.3	1.30	-4.12	-1.02	0.086	0.026	0.065	-0.0031	1.5		1.00	-0.167	0.093	-0.065	-0.027	-0.005	-0.0056	1.4	
-2.11	0.110	0.0184	-0.016	0.005	-0.0050	1.3			2.03	0.085	0.178	-0.018	0.098	-0.0061	1.5		10.84	0.350	0.0793	-0.065	-0.027	-0.005	-0.0056	1.4
-1.02	-0.029	0.0085	-0.006	-0.005	-0.0050	1.3			1.00	0.048	0.150	-0.050	0.098	-0.0061	1.5		12.35	0.165	0.0991	-0.065	-0.027	-0.005	-0.0056	1.4
-1.05	-0.034	0.0075	-0.006	-0.005	-0.0050	1.3			1.00	0.048	0.150	-0.050	0.098	-0.0061	1.5		14.33	0.170	0.0991	-0.065	-0.027	-0.005	-0.0056	1.4
-1.77	0.035	0.0075	-0.007	0.007	-0.0050	1.3			1.47	0.026	0.153	-0.050	0.098	-0.0061	1.5		1.00	0.003	0.117	-0.065	-0.027	-0.005	-0.0056	1.4
2.10	0.933	0.0103	-0.027	0.007	-0.0050	1.3			1.00	0.048	0.150	-0.050	0.098	-0.0061	1.5		16.35	0.240	0.1745	-0.065	-0.027	-0.005	-0.0056	1.4
4.21	0.195	0.079	-0.043	0.003	-0.0050	1.3			2.03	0.081	0.169	-0.044	0.098	-0.0061	1.5		1.00	0.003	0.117	-0.065	-0.027	-0.005	-0.0056	1.4
5.15	0.790	0.090	-0.047	0.003	-0.0050	1.3			1.47	0.026	0.153	-0.050	0.098	-0.0061	1.5		1.00	0.003	0.117	-0.065	-0.027	-0.005	-0.0056	1.4
6.15	0.906	0.111	-0.048	0.003	-0.0050	1.3			8.05	0.026	0.166	-0.047	0.098	-0.0061	1.5		1.00	0.003	0.117	-0.065	-0.027	-0.005	-0.0056	1.4
10.56	1.001	0.111	-0.048	0.003	-0.0050	1.3			10.39	0.026	0.166	-0.047	0.098	-0.0061	1.5		1.00	0.003	0.117	-0.065	-0.027	-0.005	-0.0056	1.4
12.62	1.151	0.136	-0.043	0.016	-0.0050	1.3			14.39	0.026	0.166	-0.047	0.098	-0.0061	1.5		1.00	0.003	0.117	-0.065	-0.027	-0.005	-0.0056	1.4
14.82	1.187	0.167	-0.043	0.016	-0.0050	1.3			15.39	0.026	0.166													

TABLE IX.- CONTINUED

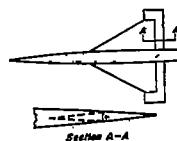
(c) Nominal  $\delta$ ,  $-2^\circ$ 

$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$
0.60	-1.21	-0.226	0.019	0.023	0.058	0.0036	-2.3	0.90	8.48	0.402	0.0594	-0.022	0.057	0.0024	-2.0	1.50	6.17	0.246	0.0392	-0.039	0.004	0.0014	-2.2
	-2.13	-1.27	0.010	0.013	-0.045	0.0028	-4.5		10.60	.309	0.092	-0.031	0.038	0.0019	-2.0		8.23	.366	0.0571	-0.053	-0.02	0.001	-2.2
	-1.07	-0.73	0.008	0.012	-0.045	0.0028	-4.5		1.20	+1.12	-0.23	0.063	0.043	0.046	0.0029	-2.0	10.29	.447	0.055	-0.066	-0.02	0.0015	-2.2
	-1.46	-0.093	0.014	0.010	0.009	0.0021	-2.1		-2.06	-0.12	0.070	0.029	0.047	0.0026	-2.0	12.35	.505	0.1173	-0.071	-0.053	0.0016	-2.2	
	1.02	0.094	0.016	0.014	0.009	0.0021	-2.1		-1.05	-0.05	0.047	0.015	0.050	0.0026	-2.0	14.41	.563	0.1943	-0.088	-0.055	0.0013	-2.2	
	2.03	0.064	0.0011	0.005	0.041	0.0013	-0.1		-1.45	-0.05	0.039	0.013	0.045	0.0016	-2.0	15.47	.601	0.1977	-0.095	-0.055	0.0009	-2.2	
	4.16	1.63	0.151	-0.011	0.082	0.0013	-0.0		-1.05	-0.05	0.039	0.013	0.045	0.0016	-2.0	17.50	.697	0.2213	-0.104	-0.121	0.0001	-2.2	
	6.27	2.50	0.261	-0.007	0.080	0.0016	-0.0		1.03	-0.05	0.039	0.013	0.045	0.0016	-2.0	1.70	+1.10	.173	0.0650	-0.031	0.05	0.0005	-2.2
	8.39	3.35	0.460	-0.014	0.072	0.0009	-0.0		2.03	-0.05	0.038	0.012	0.045	0.0012	-1.9		2.03	-0.05	0.0473	0.018	0.04	0.0008	-2.2
	10.48	4.57	0.787	-0.015	0.071	0.0009	-0.0		4.12	-0.05	0.038	0.012	0.045	0.0006	-1.9		1.01	-0.05	0.0473	0.013	0.039	0.0009	-2.2
	12.62	5.77	1.119	-0.003	0.066	0.0008	-0.0		6.18	-0.05	0.038	0.012	0.045	0.0005	-1.9		-1.18	-0.05	0.0473	0.009	0.031	0.0010	-2.2
	14.74	6.90	1.589	-0.023	0.067	-0.0007	-0.1		8.20	-0.05	0.038	0.012	0.045	0.0008	-2.1		-2.29	-0.05	0.0473	0.001	0.022	0.0011	-2.2
	16.85	8.04	2.333	-0.033	0.032	0.0034	-2.1		10.30	-0.05	0.038	0.012	0.045	0.0011	-2.1		-4.07	-0.05	0.0473	-0.002	0.021	0.0011	-2.2
	17.95	8.73	2.625	-0.030	0.025	0.0035	-2.1		12.39	-0.05	0.038	0.012	0.045	0.0011	-2.1		2.04	-0.05	0.0473	-0.009	0.020	0.0011	-2.2
0.80	-1.24	-2.38	0.013	0.089	-0.067	0.0033	-2.3		3.30	+1.12	-0.209	0.094	0.041	0.053	0.0015	-2.0	4.10	-1.15	0.0233	-0.022	-0.004	0.0016	-2.2
	-2.13	-1.35	0.021	0.020	-0.058	0.0028	-2.3		-2.05	-0.05	0.056	0.023	0.046	0.0013	-2.0	6.15	.233	0.0366	-0.031	-0.02	0.0018	-2.2	
	-1.07	-0.83	0.002	0.016	-0.038	0.0028	-2.3		-1.03	-0.05	0.056	0.023	0.046	0.0013	-2.0	8.21	.305	0.0466	-0.046	-0.035	0.0020	-2.2	
	-0.53	-0.98	0.003	0.014	-0.028	0.0028	-2.3		-1.49	-0.05	0.056	0.023	0.046	0.0012	-2.0	10.26	.383	0.0783	-0.071	-0.032	0.0023	-2.2	
	-0.20	-0.10	0.007	0.012	-0.028	0.0028	-2.1		-0.50	-0.05	0.056	0.023	0.046	0.0013	-2.0	12.31	.455	0.1065	-0.057	-0.039	0.0024	-2.2	
	1.04	0.05	0.002	0.012	-0.028	0.0028	-2.1		-1.05	-0.05	0.056	0.023	0.046	0.0013	-2.0	14.37	.522	0.1393	-0.075	-0.056	0.0025	-2.2	
	2.07	0.09	0.006	0.005	-0.056	0.0019	-2.0		2.05	-0.05	0.056	0.023	0.046	0.0012	-2.0	16.43	.590	0.1777	-0.082	-0.103	0.0022	-2.2	
	4.19	1.74	0.164	-0.004	0.015	0.0015	-1.9		4.15	-0.05	0.056	0.023	0.046	0.0011	-2.0	17.45	.624	0.1988	-0.084	-0.114	0.0016	-2.2	
	6.31	2.78	0.309	-0.011	0.074	0.0018	-2.0		6.19	-0.05	0.056	0.023	0.046	0.0010	-2.1	1.90	+1.10	.195	0.0250	-0.025	0.056	0.0016	-2.2
	8.43	3.95	0.534	-0.017	0.063	0.0024	-2.0		8.26	-0.05	0.056	0.023	0.046	0.0009	-2.2	2.04	-0.05	0.0185	0.014	0.041	0.0018	-2.2	
	10.55	5.61	0.877	-0.020	0.055	0.0023	-2.0		10.39	-0.05	0.056	0.023	0.046	0.0007	-2.3	11.01	-0.05	0.0185	0.012	0.031	0.0019	-2.2	
	12.68	7.92	1.289	-0.027	0.047	0.0008	-2.0		12.39	-0.05	0.056	0.023	0.046	0.0005	-2.4	-1.69	-0.05	0.0187	0.005	0.027	0.0019	-2.2	
	16.54	8.93	2.110	-0.044	0.018	0.0004	-2.1		14.45	-0.05	0.056	0.023	0.046	0.0011	-2.5	16.43	.467	0.1623	-0.063	-0.073	0.0033	-2.2	
	18.61	8.68	2.744	-0.047	-0.002	-0.0018	-2.0		16.53	-0.05	0.056	0.023	0.046	0.0004	-2.5	17.45	.599	0.1802	-0.068	-0.099	0.0037	-2.2	
0.90	-1.26	-2.26	0.037	0.034	-0.064	0.0031	-2.3		17.56	-0.05	0.056	0.023	0.046	0.0014	-2.6	4.09	.138	0.0243	-0.019	-0.005	0.0020	-2.2	
	-2.15	-1.46	0.022	0.026	-0.076	0.0033	-2.3		-2.05	-0.05	0.056	0.023	0.046	0.0015	-2.6	6.18	.205	0.0343	-0.028	-0.02	0.0024	-2.2	
	-1.07	-0.60	0.009	0.009	-0.041	0.0028	-2.3		-1.02	-0.05	0.056	0.023	0.046	0.0018	-2.6	8.20	.273	0.0567	-0.038	-0.037	0.0026	-2.2	
	-0.53	-0.02	0.003	0.011	-0.021	0.0028	-2.3		-1.01	-0.05	0.056	0.023	0.046	0.0018	-2.6	10.26	.342	0.0717	-0.047	-0.050	0.0026	-2.2	
	-0.20	-0.01	0.003	0.013	-0.019	0.0028	-2.3		-0.48	-0.05	0.056	0.023	0.046	0.0019	-2.6	12.30	.404	0.0953	-0.057	-0.064	0.0033	-2.2	
	1.03	0.03	0.005	0.015	-0.031	0.0028	-2.1		-0.50	-0.05	0.056	0.023	0.046	0.0012	-2.6	14.37	.467	0.1263	-0.063	-0.073	0.0033	-2.2	
	2.19	0.76	0.093	0.004	-0.031	0.0028	-2.0		2.03	-0.05	0.056	0.023	0.046	0.0012	-2.6	16.41	.529	0.1608	-0.068	-0.092	0.0034	-2.2	
	4.22	1.09	0.176	-0.003	0.017	0.0018	-2.0		4.11	-0.05	0.056	0.023	0.046	0.0013	-2.6	17.44	.599	0.1802	-0.068	-0.099	0.0037	-2.2	
	6.35	1.37	0.342	-0.013	0.072	0.0018	-2.0																

(d) Nominal  $\delta$ ,  $-4^\circ$ 

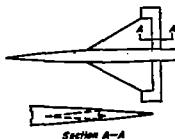
$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$
0.60	-4.23	-0.247	0.0216	0.031	-0.061	0.0057	-2.3	0.90	6.34	0.273	0.0315	-0.004	0.101	0.0062	-3.9	1.50	4.11	0.164	0.0249	-0.021	0.037	0.0032	-2.2
	-2.13	-1.50	0.131	0.023	-0.050	0.0051	-2.3		8.47	-379	0.0567	-0.11	0.115	0.0070	-3.8		6.27	.253	0.0325	-0.035	-0.028	0.0035	-2.2
	-1.07	-1.01	0.010	0.021	-0.025	0.0057	-2.3		10.60	-1.05	0.096	-0.19	0.117	0.0065	-3.8		8.83	.339	0.0524	-0.049	-0.031	0.0034	-2.2
	-0.53	-0.77	0.090	0.028	-0.012	0.0056	-2.3		12.39	-0.25	0.096	-0.19	0.117	0.0065	-3.8		10.28	.420	0.0640	-0.062	-0.048	0.0034	-2.2
	-0.20	-0.33	0.088	0.018	-0.009	0.0054	-2.1		-2.05	-0.25	0.096	-0.19	0.117	0.0065	-3.8		12.31	.505	0.1192	-0.073	-0.051	0.0034	-2.2
	-0.93	-0.09	0.081	0.017	-0.009	0.0052	-2.1		-1.02	-0.25	0.096	-0.19	0.117	0.0065	-3.8		14.37	.577	0.1592	-0.075	-0.056	0.0033	-2.2
	-0.20	-0.07	0.008	0.017	-0.009	0.0052	-2.1		-0.50	-0.25	0.096	-0.19	0.117	0.0065	-3.8		16.41	.626	0.1946	-0.093	-0.078	0.0033	-2.2
	-0.93	-0.24	0.037	0.007	-0.056	0.0019	-2.0		1.05	-0.25	0.096	-0.19	0.117	0.0065	-3.8		1.70	-1.10	-0.027	-0.027	0.017	0.0017	-2.2
	-0.20	-0.24	0.037	0.007	-0.056	0.0019	-2.0		2.05	-0.25	0.096	-0.19	0.117										

TABLE IX.- CONTINUED

(e) Nominal  $\delta$ ,  $-8^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_t$	$b$		
0.60	-4.29	0.282	0.070	0.046	0.026	0.016	-8.5	0.90	6.46	0.357	0.079	0	0.203	0.0137	-7.9	1.50	10.26	0.412	0.0626	-0.033	0.089	0.0056	-8.3		
	-2.16	-1.187	0.163	0.040	-0.047	0.0144	-8.5		1.20	-4.12	-0.266	0.031	-0.067	0.178	0.0124	-7.9		12.34	0.491	0.1132	-0.066	-0.008	0.0056	-8.4	
	-1.11	-1.138	0.126	0.037	-0.039	0.0144	-8.5			-2.05	-1.97	0.229	0.047	0.180	0.0119	0.016	-7.9	14.40	0.568	0.1192	-0.076	-0.011	0.0056	-8.3	
	-0.58	-1.117	0.110	0.036	-0.029	0.0144	-8.5			-1.08	-1.04	0.190	0.038	0.192	0.0116	0.016	-7.8	16.46	0.645	0.1914	-0.085	-0.031	0.0053	-8.3	
	-0.39	-0.072	0.090	0.034	-0.007	0.0142	-8.5			-0.51	-0.076	0.174	0.023	0.194	0.007	0.007	-7.8	17.49	0.683	0.2147	-0.090	-0.043	0.0057	-8.6	
	-0.90	-0.048	0.086	0.033	-0.006	0.0138	-8.4				-0.20	-0.025	0.061	0.024	0.197	0.0105	0.007	-7.8							
	2.03	.007	0.068	0.030	0.025	0.030	-8.4			1.03	.004	0.062	0.020	0.197	0.0103	0.007	-7.8	1.70	-4.10	-0.187	0.301	0.039	0.187	0.0050	
	4.18	.108	.0127	.023	.053	.0126	-8.3			2.10	.050	0.175	0.010	0.192	0.0098	0.008	-7.8		-2.04	-0.104	0.005	0.026	0.110	0.0053	-8.1
	6.23	.204	.0225	.017	.082	.0124	-8.3			4.12	.166	0.247	0.010	0.188	0.0092	0.008	-7.8		-1.01	-0.063	0.0176	0.080	0.103	0.0054	-8.1
	8.34	.308	.0393	.016	.085	.0132	-8.3			6.18	.273	0.393	0.029	0.178	0.0091	0.008	-7.9		-0.49	-0.042	0.0167	0.016	0.086	0.0054	-8.1
	10.45	.414	.0702	.006	.068	.0121	-8.3			8.23	.383	0.628	0.047	0.158	0.0088	0.008	-8.0		-0.03	0.019	0.0109	0.010	0.059	0.0054	-8.1
	12.56	.523	.1079	.003	.092	.0109	-8.3			10.31	.491	0.932	0.064	0.127	0.0084	0.008	-8.0		2.04	.059	0.021	0.005	0.054	0.0054	-8.2
	14.69	.639	.1594	.001	.090	.0100	-8.3			12.39	.610	1.333	0.056	0.103	0.0087	0.008	-8.1		6.10	.143	0.034	0.0074	0.007	0.028	-8.2
	15.83	.777	.2187	.007	.084	.0136	-8.3											6.15	.219	0.0360	-0.025	0.024	0.0059	-8.3	
	17.90	.885	.2185	.007	.079	.0131	-8.3											8.20	.289	0.0531	-0.026	0.025	0.0054	-8.4	
0.80	-4.28	.269	0.0302	.052	0.022	0.035	-8.4	1.30	-4.12	-2.05	-0.138	0.024	0.039	0.172	0.0086	-7.9		10.26	0.405	0.026	0.110	0.0053	0.028	-8.2	
	-2.17	-1.190	0.079	0.044	-0.030	0.0141	-8.4			-1.02	-0.066	0.020	0.030	0.173	0.0083	-7.9		12.31	0.370	0.0760	-0.047	0.028	0.0057	-8.2	
	-1.11	-1.142	0.144	0.045	-0.025	0.0147	-8.4			-0.50	-0.062	0.0194	0.028	0.171	0.0083	0.008	-7.9		14.35	0.510	0.1353	-0.069	-0.037	0.0071	-8.2
	-0.29	-1.119	0.124	0.040	-0.011	0.0150	-8.4			1.05	.014	0.182	0.018	0.168	0.0080	0.008	-7.9		16.41	.278	0.1727	-0.072	-0.050	0.0073	-8.6
	.38	-0.078	0.082	0.037	0.018	0.0147	-8.4			2.06	.063	0.196	0.056	0.158	0.0079	0.008	-7.9		17.44	.511	0.1934	-0.079	0.0070	0.0070	-8.7
	.97	-0.041	0.100	0.036	0.030	0.0142	-8.4			4.12	.162	0.270	0.018	0.162	0.0078	0.008	-8.0	1.90	-4.09	-0.166	0.0272	0.032	0.111	0.0043	-8.1
	2.05	.112	.0169	.031	.053	.0135	-8.4			6.19	.260	0.068	0.026	0.165	0.0078	0.008	-8.0		-2.04	-0.092	0.0185	0.028	0.0056	0.0047	-8.1
	4.12	.220	.0222	.019	.053	.0135	-8.4			8.25	.397	0.683	0.043	0.163	0.0073	0.008	-8.0		-1.01	-0.055	0.0160	0.016	0.057	0.0047	-8.2
	6.27	.223	.0264	.013	.057	.0146	-8.4			10.31	.453	0.908	0.058	0.179	0.0079	0.008	-8.0		-0.85	0.037	0.0153	0.013	0.062	0.0047	-8.2
	8.40	.288	.0183	.009	.059	.0147	-8.4			12.38	.544	1.253	0.072	0.155	0.0065	0.008	-8.0		14.34	.517	0.1228	-0.053	0.015	0.0058	-8.6
	10.51	.329	.0791	.005	.059	.0125	-8.4			14.44	.631	1.665	0.084	0.160	0.0060	0.008	-8.0		16.40	.519	0.1559	-0.059	-0.027	0.0072	-8.6
	12.61	.354	.1203	.004	.051	.0121	-8.4			16.51	.716	2.130	0.095	0.07	0.047	0.014	-8.4		17.43	.550	0.1732	-0.061	-0.061	0.0071	-8.7
	14.78	.660	.1695	.011	.051	.0112	-8.4			17.55	.758	2.394	0.102	-0.007	0.037	-8.3									
	16.88	.764	.2208	.017	.050	.0111	-8.4										6.11	.203	0.0220	-0.011	0.037	0.0056	-8.3		
	17.96	.808	.2560	.018	.053	.0112	-8.4										8.18	.263	0.0452	-0.030	0.003	0.0056	-8.3		
0.90	-4.31	.309	0.023	.061	0.040	0.030	-8.5	1.50	-4.11	-2.05	-0.117	0.023	0.046	0.152	0.0064	-7.9		10.24	0.329	0.0584	-0.039	-0.013	0.0061	-8.3	
	-2.18	-2.01	0.077	0.028	-0.018	0.0138	-8.5			-1.02	-0.072	0.0165	0.023	0.158	0.0064	0.008	-7.9		12.29	0.395	0.0922	-0.047	-0.031	0.0066	-8.5
	-1.11	-1.18	0.129	0.047	-0.013	0.0144	-8.5			-0.51	-0.071	0.0165	0.021	0.158	0.0062	0.008	-7.9		14.34	.517	0.1228	-0.053	0.015	0.0058	-8.6
	-0.39	-0.059	0.088	0.040	-0.011	0.0141	-8.5			1.04	.019	0.165	0.093	0.165	0.0063	0.008	-7.9		16.40	.519	0.1559	-0.059	-0.027	0.0072	-8.6
	.93	-0.039	0.088	0.038	-0.018	0.0178	-8.5			2.03	.064	0.181	0.088	0.169	0.0063	0.008	-7.9		17.43	.550	0.1732	-0.061	-0.061	0.0071	-8.7
	2.08	.083	0.094	0.031	.110	0.034	-8.5			4.11	.151	0.281	0.021	0.164	0.0063	0.008	-7.9								
	4.24	.142	.0164	.018	.119	0.036	-8.5			6.17	.242	0.381	0.028	0.170	0.0064	0.008	-7.9								
	6.33	.258	0.0326	.010	.192	0.032	-7.9			8.22	.327	0.574	0.041	0.169	0.0065	0.008	-7.9								
0.80	-4.29	.029	0.033	.052	0.025	0.043	-8.5	1.30	-4.12	-2.05	-0.114	0.023	0.046	0.067	0.0129	-7.9		10.26	0.289	0.0390	-0.021	0.012	0.0093	-12.0	
	-2.18	-2.01	0.079	0.029	-0.018	0.0143	-8.5			-1.02	-0.072	0.0165	0.023	0.158	0.0064	0.008	-7.9		12.29	0.341	0.0779	-0.031	0.009	0.0093	-12.0
	-1.13	-1.160	0.184	0.050	-0.020	0.0136	-8.5			-0.51	-0.071	0.0165	0.021	0.158	0.0062	0.008	-7.9		14.34	.517	0.1228	-0.053	0.015	0.0058	-12.2
	-0.60	-1.149	0.167	0.050	-0.015	0.0201	-8.5			1.04	.026	0.179	0.027	0.158	0.0061	0.008	-7.9		16.40	.519	0.1559	-0.059	-0.027	0.0072	-12.2
	-0.34	-1.104	0.145	0.047	-0.001	0.0203	-8.5			2.06	.027	0.179	0.027	0.158	0.0061	0.008	-7.9		17.43	.550	0.1732	-0.061	-0.061	0.0071	-12.2
	-0.94	-0.079	0.088	0.040	-0.017	0.0178	-8.5			4.12	.166	0.279	0.027	0.158	0.0061	0.008	-7.9								
	-0.94	-0.059	0.036	0.037	-0.017	0.0178	-8.5			6.19	.266	0.468	0.026	0.158	0.0061	0.008	-7.9								
	2.02	-0.152	0.134	0.043	-0.016	0.0178	-8.5			8.23	.347	0.658	0.027	0.158	0.0061	0.008	-7.9								
	4.19	.193	0.056	0.023	-0.017	0.0178	-8.5			10.30	.471	0.924	0.027	0.158	0.0061	0.008	-7.9								
	6.31	.290	0.056	0.023	-0.017	0.0178	-8.5			12.39	.593	1.317	0.027	0.158	0.0061	0.008	-7.9								
	8.38	.305	0.056	0.023	-0.017	0.0178	-8.5										6.11	.247	0.0223	0.015	0.217	0.022	0.008	-12.1	
	10.50	.361	.072	0.016	.189	0.037	-8.5			1.02	-1.04	0.243	0.049	0.237	0.018	0.008	-7.9		8.21	.269	0.0389	-0.020	0.005	0.0085	-12.1
	12.63	.516	.1150	.003	.139	0.070																			

TABLE IX.- CONCLUDED

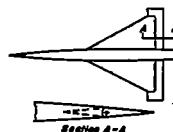
(g) Nominal  $\delta$ ,  $-24^\circ$ 

$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$s$	$X$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$s$	
0.60	-1.29	-0.333	0.0492	0.070	0.159	0.0209	-24.2	0.90	6.32	0.166	0.0368	0.016	0.174	0.0275	-24.1	1.50	1.16	0.109	0.0357	0.012	0.191	0.0190	-23.9	
	-2.24	-0.344	0.0578	0.065	0.151	0.0238	-24.2		8.47	0.209	0.093	0.022	0.174	0.0234	-24.1		6.17	1.97	0.052	-0.003	1.54	0.0189	-24.0	
	-1.26	-0.335	0.058	0.065	0.151	0.0238	-24.2		10.22	0.403	0.093	0.021	0.187	0.023	-24.0		6.23	1.97	0.053	-0.03	1.59	0.0187	-24.0	
	-0.63	-0.354	0.058	0.065	0.151	0.0271	-24.3	1.20	4.12	-0.334	0.0646	0.02	0.168	0.0269	-23.4		10.29	1.97	0.055	-0.085	1.44	0.0187	-24.1	
	.36	-0.371	0.0313	0.065	0.151	0.0271	-24.4		2.08	-0.334	0.0646	0.02	0.168	0.0269	-23.4		12.35	1.96	0.056	-0.040	1.13	0.0189	-24.1	
	.55	-0.371	0.0313	0.065	0.151	0.0271	-24.4		4.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4		14.41	1.97	0.054	-0.03	0.88	0.0183	-24.3	
	1.38	-0.371	0.0313	0.065	0.151	0.0271	-24.4		6.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4		15.47	1.93	0.053	-0.031	0.97	0.0180	-24.3	
	1.58	-0.371	0.0313	0.065	0.151	0.0271	-24.4		8.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4		17.50	1.91	0.053	-0.03	0.98	0.0174	-24.4	
	6.21	-0.371	0.0313	0.065	0.151	0.0271	-24.4		10.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
	8.45	-0.371	0.0313	0.065	0.151	0.0271	-24.4		12.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
	10.52	-0.371	0.0313	0.065	0.151	0.0271	-24.4		14.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
	12.47	-0.371	0.0313	0.065	0.151	0.0271	-24.4		16.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
	13.24	-0.371	0.0313	0.065	0.151	0.0271	-24.4		18.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
	15.36	-0.371	0.0313	0.065	0.151	0.0271	-24.4		20.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
	17.73	-0.371	0.0313	0.065	0.151	0.0271	-24.4		22.03	-0.334	0.0646	0.02	0.168	0.0269	-23.4									
0.80	-1.31	-0.371	0.0313	0.076	0.199	0.0201	-24.0	1.30	4.13	-0.269	0.0191	0.008	0.168	0.0289	-23.5	1.70	4.10	-0.200	0.0488	0.007	2.46	0.0192	-23.7	
	-2.21	-0.371	0.0313	0.076	0.199	0.0201	-24.1		6.08	-0.269	0.0191	0.008	0.168	0.0289	-23.5		2.03	-1.44	0.0373	0.047	2.22	0.0196	-23.7	
	-1.16	-0.371	0.0313	0.076	0.199	0.0201	-24.1		8.16	-0.269	0.0191	0.008	0.168	0.0289	-23.5		3.08	-1.40	0.0373	0.041	2.27	0.0198	-23.7	
	-0.63	-0.371	0.0313	0.076	0.199	0.0201	-24.1		10.24	-0.269	0.0191	0.008	0.168	0.0289	-23.5		4.10	-1.36	0.0373	0.037	2.24	0.0196	-23.7	
	.94	-0.371	0.0313	0.076	0.199	0.0201	-24.1		12.32	-0.269	0.0191	0.008	0.168	0.0289	-23.5		5.10	-1.32	0.0373	0.033	2.25	0.0196	-23.8	
	1.93	-0.371	0.0313	0.076	0.199	0.0201	-24.1		14.39	-0.269	0.0191	0.008	0.168	0.0289	-23.5		6.15	-1.28	0.0373	0.03	2.27	0.0191	-23.8	
	4.11	-0.371	0.0313	0.076	0.199	0.0201	-24.1		16.46	-0.269	0.0191	0.008	0.168	0.0289	-23.5		7.10	-1.24	0.0373	0.026	2.26	0.0189	-24.2	
	6.27	-0.371	0.0313	0.076	0.199	0.0201	-24.1		18.53	-0.269	0.0191	0.008	0.168	0.0289	-23.5		8.16	-1.20	0.0373	0.026	2.26	0.0189	-24.2	
	8.46	-0.371	0.0313	0.076	0.199	0.0201	-24.1		20.60	0	0.0379	0.0191	0.008	0.168	0.0289	-23.5		9.13	-1.16	0.0373	0.026	2.27	0.0189	-24.2
	10.47	-0.371	0.0313	0.076	0.199	0.0201	-24.1		22.67	-0.269	0.0191	0.008	0.168	0.0289	-23.5		10.15	-1.12	0.0373	0.026	2.27	0.0189	-24.2	
	12.60	-0.371	0.0313	0.076	0.199	0.0201	-24.1		24.74	-0.269	0.0191	0.008	0.168	0.0289	-23.5		11.16	-1.08	0.0373	0.026	2.27	0.0189	-24.2	
	14.74	-0.371	0.0313	0.076	0.199	0.0201	-24.1		26.81	-0.269	0.0191	0.008	0.168	0.0289	-23.5		12.13	-1.04	0.0373	0.026	2.27	0.0189	-24.2	
	16.87	-0.371	0.0313	0.076	0.199	0.0201	-24.1		28.88	-0.269	0.0191	0.008	0.168	0.0289	-23.5		13.10	-1.00	0.0373	0.026	2.27	0.0189	-24.2	
	17.92	-0.371	0.0313	0.076	0.199	0.0201	-24.1		30.95	-0.269	0.0191	0.008	0.168	0.0289	-23.5		14.07	-0.96	0.0373	0.026	2.27	0.0189	-24.2	
0.90	-4.33	-0.356	0.0607	0.068	0.268	0.0222	-23.8	1.50	4.11	-0.249	0.0533	0.0171	0.171	0.0275	-23.6	1.90	4.10	-0.195	0.0456	0.00	2.23	0.0158	-23.8	
	-2.22	-0.356	0.0607	0.068	0.268	0.0222	-23.8		6.25	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		2.05	-1.23	0.0352	0.04	2.23	0.0171	-23.8	
	-1.17	-0.356	0.0607	0.068	0.268	0.0222	-23.8		8.29	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		3.08	-1.20	0.0352	0.04	2.23	0.0171	-23.8	
	.48	-0.356	0.0607	0.068	0.268	0.0222	-23.8		10.33	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		4.10	-1.17	0.0352	0.04	2.23	0.0171	-23.8	
	.32	-0.356	0.0607	0.068	0.268	0.0222	-23.8		12.39	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		5.10	-1.14	0.0352	0.04	2.23	0.0171	-23.8	
	.84	-0.356	0.0607	0.068	0.268	0.0222	-23.8		14.46	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		6.15	-1.11	0.0352	0.04	2.23	0.0171	-23.8	
	1.96	-0.356	0.0607	0.068	0.268	0.0222	-23.8		16.53	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		7.10	-1.08	0.0352	0.04	2.23	0.0171	-23.8	
	4.13	-0.356	0.0607	0.068	0.268	0.0222	-23.8		18.60	-0.249	0.0533	0.0171	0.171	0.0275	-23.6		8.16	-1.05	0.0352	0.04	2.23	0.0171	-23.8	
								2.07	0.018	0.0316	0.027	0.238	0.0191	-23.7			9.13	-1.02	0.0352	0.04	2.23	0.0171	-23.8	
																	10.15	-0.99	0.0352	0.04	2.23	0.0171	-23.8	
																	11.16	-0.96	0.0352	0.04	2.23	0.0171	-23.8	
																	12.13	-0.93	0.0352	0.04	2.23	0.0171	-23.8	
																	13.10	-0.90	0.0352	0.04	2.23	0.0171	-23.8	
																	14.07	-0.87	0.0352	0.04	2.23	0.0171	-23.8	
																	15.04	-0.84	0.0352	0.04	2.23	0.0171	-23.8	
																	16.01	-0.81	0.0352	0.04	2.23	0.0171	-23.8	
																	17.04	-0.78	0.0352	0.04	2.23	0.0171	-23.8	

NACA

CONFIDENTIAL

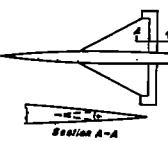
TABLE X.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH A 20.3-PERCENT-AREA RECTANGULAR HORN BALANCE ON THE RIGHT WING PANEL AND A 13.1-PERCENT-AREA RECTANGULAR HORN BALANCE ON THE LEFT WING PANEL. DATA FOR 13.1-PERCENT-AREA HORN BALANCE FLAP DEFLECTED.  $R = 4.4 \times 10^6$

(a) Nominal  $\delta$ ,  $2^\circ$ 

$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$							
0.60	-0.19	-0.183	0.0157	-0.005	-0.013	0.0028	2.2	0.90	-0.16	0.537	0.021	-0.089	-0.002	2.2	1.50	-0.11	0.188	0.0258	-0.038	-0.112	0.0008	1.6
	-0.13	-0.128	0.0116	-0.005	-0.013	0.0028	2.2		0.59	0.342	0.053	-0.095	-0.026	2.1	6.17	0.269	-0.095	-0.046	-0.144	0.0001	1.7	
	-1.00	-0.07	0.0080	-0.004	-0.005	0.0021	2.2		0.53	0.359	0.055	-0.095	-0.026	2.1	8.24	0.275	-0.010	-0.026	-0.176	-0.0008	1.6	
	-0.5	-0.03	0.0077	-0.005	-0.016	0.0021	2.2		0.53	0.359	0.055	-0.095	-0.026	2.1	10.30	0.266	-0.076	-0.070	-0.207	-0.0003	1.5	
	1.03	-0.04	0.0068	-0.005	-0.011	0.0017	2.2		0.03	0.210	0.050	-0.05	-0.033	2.1	14.71	0.212	-0.081	-0.081	-0.240	-0.0006	1.3	
	2.10	-0.07	0.0105	-0.013	-0.008	0.0011	2.2		-1.05	0.020	0.027	-0.006	-0.031	2.1	14.71	0.208	-0.076	-0.076	-0.245	-0.0006	1.2	
	4.20	-0.08	0.0176	-0.018	-0.016	0.002	2.2		-4.7	0.028	0.021	-0.002	-0.039	2.1	16.49	0.169	-0.069	-0.101	-0.277	-0.0009	1.1	
	6.29	-0.11	0.0232	-0.028	-0.019	0.003	2.2		-9.7	0.025	0.028	-0.006	-0.035	2.0	17.50	-0.09	-0.231	-0.105	-0.347	-0.0017	1.0	
	9.38	-0.14	0.0268	-0.030	-0.024	0.0031	2.2		-1.05	0.031	0.031	-0.011	-0.055	2.0	1.70	-4.11	-0.161	0.029	-0.023	-0.030	0.0006	2.4
	10.22	-0.08	0.0265	-0.030	-0.024	0.0031	2.2		2.05	0.035	0.038	-0.020	-0.054	2.0		-2.05	-0.079	0.050	0.010	0.008	0.0005	2.3
	12.54	-0.16	0.0277	-0.033	-0.026	0.0032	2.1		1.05	0.035	0.038	-0.020	-0.054	2.0		-1.00	-0.039	0.030	-0.001	0.006	0.0006	2.2
	14.77	-0.23	0.0277	-0.033	-0.026	0.0032	2.0		6.19	0.035	0.038	-0.020	-0.054	2.0		-4.8	-0.088	0.026	-0.027	-0.073	0.0006	2.1
	16.51	-0.23	0.0264	-0.042	-0.021	0.002	2.0		8.86	0.035	0.038	-0.020	-0.054	2.0		-1.47	-0.089	0.026	-0.027	-0.073	0.0006	2.0
	17.99	-0.08	0.0277	-0.034	-0.024	0.0039	2.0		10.34	0.035	0.038	-0.020	-0.054	2.0		-1.05	-0.089	0.026	-0.027	-0.073	0.0006	2.0
0.60	-4.21	-0.19	0.0171	0.009	-0.017	0.0035	2.2		1.05	0.035	0.038	-0.020	-0.054	2.0		4.10	-0.163	0.035	-0.035	-0.068	0.0008	2.0
	-2.10	-0.09	0.0095	0	-0.003	0.0020	2.2	1.30	-1.12	0.092	0.0273	0.030	0.039	2.1	6.16	0.292	-0.071	-0.030	-0.124	-0.0009	1.9	
	-1.08	-0.09	0.0075	-0.004	-0.003	0.0020	2.2		-2.05	0.035	0.038	-0.020	-0.054	2.0		8.22	-0.137	0.056	-0.020	-0.161	0.0006	1.8
	-0.5	-0.02	0.0070	-0.006	-0.009	0.0019	2.2		-1.05	0.046	0.061	-0.006	-0.020	2.0		10.27	-0.090	0.074	-0.003	-0.191	0.0007	1.7
	-0.25	-0.02	0.0072	-0.006	-0.009	0.0018	2.2		-1.05	0.046	0.061	-0.006	-0.020	2.0		12.33	-0.049	0.085	-0.070	-0.293	0.0006	1.6
	1.04	-0.08	0.0071	-0.006	-0.009	0.0018	2.2		0.05	0.046	0.061	-0.006	-0.020	2.0		14.39	-0.031	0.082	-0.078	-0.295	0.0006	1.5
	2.11	-0.14	0.006	-0.007	0.0019	0.0018	2.2		1.05	0.046	0.061	-0.006	-0.020	2.0		16.45	-0.026	0.085	-0.080	-0.295	0.0006	1.4
	4.23	-0.27	0.0094	-0.021	0.002	0.002	2.2		2.05	0.046	0.061	-0.006	-0.020	2.0		17.49	-0.020	0.082	-0.087	-0.299	0.0006	1.3
	6.36	-0.34	0.0064	-0.031	-0.017	0.0018	2.2		4.12	0.047	0.062	-0.006	-0.020	2.0		8.06	-0.024	0.082	-0.087	-0.299	0.0006	1.2
	8.49	-0.43	0.0035	-0.035	-0.006	0.0018	2.1		6.19	0.046	0.063	-0.010	-0.021	1.9		10.24	-0.024	0.082	-0.087	-0.299	0.0006	1.1
	10.59	-0.52	0.0026	-0.034	-0.006	0.0018	2.0		8.86	0.047	0.062	-0.010	-0.021	1.9		12.37	-0.024	0.082	-0.087	-0.299	0.0006	1.0
	12.73	-0.62	0.0018	-0.034	-0.006	0.0018	2.0		10.38	0.048	0.062	-0.010	-0.021	1.9		14.43	-0.024	0.082	-0.087	-0.299	0.0006	1.0
	14.87	-0.71	0.0014	-0.034	-0.006	0.0018	2.0		12.39	0.048	0.062	-0.010	-0.021	1.9		16.49	-0.024	0.082	-0.087	-0.299	0.0006	1.0
	17.00	-0.80	0.0012	-0.034	-0.006	0.0018	2.0		14.43	0.048	0.062	-0.010	-0.021	1.9		18.56	-0.024	0.082	-0.087	-0.299	0.0006	1.0
	18.27	-0.89	0.0009	-0.034	-0.006	0.0018	2.0		16.56	0.048	0.062	-0.010	-0.021	1.9		20.62	-0.024	0.082	-0.087	-0.299	0.0006	1.0
0.60	-1.4	-0.08	0.0166	0.0126	-0.026	0.0034	2.2	1.50	-4.12	0.176	0.041	-0.026	0.007	2.1	1.50	-4.10	-0.144	0.033	0.019	-0.003	0.0008	2.4
	-0.11	-0.097	0.006	0.006	-0.033	0.0021	2.1		-1.05	0.046	0.061	-0.026	0.007	2.0	1.00	0.046	0.061	-0.026	-0.111	-0.0008	2.3	
	-1.07	-0.040	0.0078	0.004	-0.030	0.0028	2.2		-1.05	0.049	0.064	-0.026	0.007	2.0	2.05	0.066	0.068	-0.027	-0.103	-0.0008	2.2	
	-0.5	-0.018	0.0068	-0.007	-0.029	0.0028	2.2		-1.05	0.046	0.061	-0.026	0.007	2.0	4.11	-0.177	0.024	-0.028	-0.088	-0.0013	1.9	
	-0.30	-0.039	0.0071	-0.010	-0.021	0.0027	2.2		-1.05	0.047	0.062	-0.026	0.007	2.0	8.23	-0.149	0.061	-0.023	-0.133	-0.0017	1.8	
	1.06	-0.039	0.0078	-0.013	-0.013	0.0024	2.2		-1.05	0.048	0.063	-0.026	0.007	2.0	10.28	-0.140	0.063	-0.027	-0.135	-0.0018	1.7	
	2.13	-0.184	0.0107	-0.018	-0.005	0.0018	2.2		-1.05	0.047	0.062	-0.026	0.007	2.0	12.37	-0.142	0.062	-0.027	-0.135	-0.0018	1.6	
0.60	-1.4	-0.14	0.0166	0.0126	-0.026	0.0034	2.2	1.50	-4.12	0.176	0.041	-0.026	0.007	2.1	1.50	-4.09	-0.145	0.038	-0.031	-0.003	0.0008	1.9
	-0.11	-0.097	0.006	0.006	-0.033	0.0021	2.1		-1.05	0.046	0.061	-0.026	0.007	2.0	1.00	0.046	0.061	-0.026	-0.111	-0.0008	2.3	
	-1.07	-0.040	0.0078	0.004	-0.030	0.0028	2.2		-1.05	0.049	0.064	-0.026	0.007	2.0	2.05	0.066	0.068	-0.027	-0.103	-0.0008	2.2	
	-0.5	-0.018	0.0068	-0.007	-0.029	0.0028	2.2		-1.05	0.046	0.061	-0.026	0.007	2.0	4.11	-0.177	0.024	-0.028	-0.088	-0.0013	1.9	
	-0.30	-0.039	0.0077	-0.010	-0.027	0.0027	2.2		-1.05	0.047	0.062	-0.026	0.007	2.0	8.23	-0.149	0.061	-0.023	-0.133	-0.0017	1.8	
	1.01	-0.039	0.0077	-0.010	-0.027	0.0027	2.2		-1.05	0.048	0.063	-0.026	0.007	2.0	10.28	-0.140	0.063	-0.027	-0.135	-0.0018	1.7	
	2.09	-0.091	0.0077	-0.006	-0.013	0.0023	2.1		-1.05	0.049	0.064	-0.026	0.007	2.0	12.37	-0.142	0.062	-0.027	-0.135	-0.0018	1.6	
	4.81	-0.194	0.0174	-0.014	-0.006	0.0032	2.0		-1.05	0.048	0.063	-0.026	0.007	2.0	14.39	-0.141	0.061	-0.027	-0.135	-0.0018	1.5	
	6.33	-0.26	0.0333	-0.021	-0.008	0.0028	2.0		-1.05	0.047	0.062	-0.026	0.007	2.0	16.45	-0.140	0.060	-0.027	-0.135	-0.0018	1.4	
	8.43	-0.47	0.0264	-0.027	-0.006	0.002	2.0		-1.05	0.048	0.063	-0.026	0.007	2.0	18.56	-0.140	0.060	-0.027	-0.135	-0.0018	1.3	
	10.59	-0.62	0.0265	-0.028	-0.006	0.002	2.0		-1.05	0.049	0.064	-0.026	0.007	2.0	20.62	-0.140	0.060	-0.027	-0.135	-0.0018	1.2	
	12.63	-0.79	0.0269	-0.030	-0.006	0.002	2.0		-1.05	0.048	0.063	-0.026	0.007	2.0	22.67	-0.140	0.060	-0.027	-0.135	-0.0018	1.1	
	14.78	-0.96	0.0271	-0.030	-0.006	0.002	2.0		-1.05	0.049	0.064	-0.026	0.007	2.0	24.74	-0.140	0.060	-0.027	-0.135	-0.0018	1.0	
	16.89	-1.03	0.0264	-0.030	-0.006	0.002	2.0		-1.05	0.048	0.063	-0.026	0.007	2.0	26.81	-0.140	0.060	-0.027	-0.135	-0.0018	1.0	
	17.96	-1.07	0.0268	-0.034	-0.006	0.002	2.0		-1.05	0.049	0.064	-0.026	0.007	2.0	28.88	-0.140	0.060	-0.027	-0.135	-0.0018	1.0	
0.60	-8.48	-0.43	0.0634	0.030	0.01	0.036	2.2	1.50	-8.24	-0.101	0.0099	-0.005	0.018	0.1	1.50	-8.4						

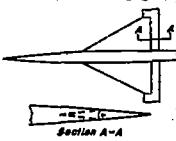
CONFIDENTIAL

TABLE X. - CONTINUED

(c) Nominal  $\delta$ ,  $-2^\circ$ 

M	a	$C_L$	$C_D$	$C_M$	$C_R$	$C_I$	b	M	a	$C_L$	$C_D$	$C_M$	$C_R$	$C_I$	b	M	a	$C_L$	$C_D$	$C_M$	$C_R$	$C_I$	b	
0.60	-1.21	-0.218	0.0186	0.020	0.030	-0.004	-1.6	0.90	6.32	0.284	0.0321	-0.017	0.008	-0.0073	-1.8	1.50	2.07	0.084	0.0172	-0.011	0.008	-0.0026	-1.6	
-2.11	-0.119	-0.009	-0.16	-0.17	-0.053	-1.6	8.13	.381	-0.022	-0.022	-0.0072	-1.9	4.11	.470	-0.026	-0.026	-0.030	-0.0021	-0.0021	-0.0021	-0.0021	-2.0		
-1.04	-0.072	-0.005	-0.12	-0.17	-0.029	-1.6	10.57	.515	-0.049	-0.049	-0.0072	-1.9	6.17	.264	-0.039	-0.040	-0.063	-0.0030	-0.0030	-0.0030	-0.0030	-2.1		
-1.52	-0.049	-0.0073	-0.09	-0.11	-0.029	-1.6	12.70	.622	-0.040	-0.040	-0.0075	-1.1	8.23	.312	-0.067	-0.067	-0.097	-0.0033	-0.0033	-0.0033	-0.0033	-2.2		
-1.43	-0.04	-0.0073	-0.09	-0.11	-0.027	-1.6	13.91	.731	-0.040	-0.040	-0.0075	-1.1	10.29	.333	-0.070	-0.072	-0.127	-0.0033	-0.0033	-0.0033	-0.0033	-2.3		
1.03	0.020	-0.0076	-0.06	-0.08	-0.023	-1.6	1.20	-1.12	-0.226	-0.280	-0.045	-1.6	-0.020	-1.3	12.29	.313	-0.128	-0.128	-0.184	-0.0033	-0.0033	-0.0033	-0.0033	-2.3
2.05	.070	-0.009	-0.04	-0.07	-0.026	-1.6	8.03	.118	-0.020	-0.020	-0.020	-1.6	14.43	.290	-0.163	-0.166	-0.198	-0.0036	-0.0036	-0.0036	-0.0036	-2.6		
4.17	.169	-0.175	-0.02	-0.04	-0.072	-1.6	1.02	-0.063	-0.046	-0.036	-0.030	-1.6	16.47	.267	-0.198	-0.199	-0.232	-0.0043	-0.0043	-0.0043	-0.0043	-2.6		
6.27	.265	-0.265	-0.08	-0.13	-0.074	-1.6	1.49	-0.036	-0.037	-0.021	-0.024	-1.6	17.50	.705	-0.233	-0.233	-0.246	-0.0046	-0.0046	-0.0046	-0.0046	-2.6		
8.38	.369	-0.437	-0.14	-0.05	-0.077	-1.6	2.10	-0.020	-0.013	-0.002	-0.004	-1.6	1.70	-4.10	-0.269	-0.267	-0.268	-0.0022	-0.0022	-0.0022	-0.0022	-1.4		
10.50	.474	-0.600	-0.17	-0.19	-0.065	-1.6	4.12	-0.021	-0.020	-0.003	-0.004	-1.6	-2.04	-0.087	-0.072	-0.065	-0.0022	-0.0022	-0.0022	-0.0022	-1.6			
11.73	.597	-0.705	-0.20	-0.20	-0.097	-2.0	6.15	-0.018	-0.018	-0.004	-0.006	-0.0	-1.00	-0.046	-0.043	-0.038	-0.0020	-0.0020	-0.0020	-0.0020	-1.6			
16.86	.786	-0.230	-0.08	-0.06	-0.067	-2.0	8.25	-0.117	-0.059	-0.06	-0.068	-0.0	-0.88	-0.141	-0.141	-0.141	-0.0023	-0.0023	-0.0023	-0.0023	-1.7			
17.94	.888	-0.269	-0.03	-0.07	-0.064	-2.0	10.32	-0.023	-0.024	-0.020	-0.020	-0.0	-2.05	-0.076	-0.064	-0.065	-0.0023	-0.0023	-0.0023	-0.0023	-1.8			
0.80	-4.24	-0.226	0.026	0.02	0.032	-0.004	-1.6	12.40	.931	-0.142	-0.170	-0.058	-2.5	4.10	.535	0.035	-0.003	-0.023	-0.0020	-0.0020	-0.0020	-0.0020	-1.6	
-2.12	-0.125	-0.016	-0.17	-0.16	-0.022	-1.6	1.30	-4.09	-0.209	-0.024	-0.039	-1.3	8.21	.313	-0.053	-0.053	-0.093	-0.0018	-0.0018	-0.0018	-0.0018	-2.0		
-1.06	-0.073	-0.009	-0.14	-0.16	-0.022	-1.6	2.04	-1.00	-0.030	-0.023	-0.027	-1.6	10.26	.365	-0.141	-0.141	-0.177	-0.0018	-0.0018	-0.0018	-0.0018	-2.0		
-1.58	-0.049	-0.001	-0.12	-0.12	-0.026	-1.6	4.18	-0.048	-0.048	-0.048	-0.048	-1.6	12.32	.160	-0.177	-0.177	-0.195	-0.0020	-0.0020	-0.0020	-0.0020	-2.0		
-2.01	-0.002	-0.077	-0.10	-0.10	-0.028	-1.6	6.25	-0.051	-0.051	-0.051	-0.051	-1.6	14.38	.529	-0.141	-0.141	-0.188	-0.0020	-0.0020	-0.0020	-0.0020	-2.0		
1.03	0.023	-0.001	-0.08	-0.08	-0.026	-1.6	8.00	-0.039	-0.066	-0.020	-0.030	-1.7	16.43	.630	-0.208	-0.208	-0.231	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
2.08	.070	-0.008	-0.04	-0.06	-0.062	-1.6	1.00	-0.039	-0.066	-0.020	-0.030	-1.7	1.70	-4.08	-0.140	-0.137	-0.147	-0.0017	-0.0017	-0.0017	-0.0017	-1.6		
4.20	.160	-0.168	-0.05	-0.07	-0.069	-1.6	2.04	-0.088	-0.089	-0.010	-0.022	-1.6	4.10	.108	-0.078	-0.078	-0.093	-0.0018	-0.0018	-0.0018	-0.0018	-1.6		
6.38	.250	-0.268	-0.07	-0.08	-0.069	-1.6	4.10	-0.108	-0.073	-0.027	-0.037	-1.6	6.15	.535	-0.141	-0.141	-0.177	-0.0018	-0.0018	-0.0018	-0.0018	-1.6		
12.62	.340	-0.344	-0.13	-0.13	-0.063	-1.6	6.15	-0.057	-0.056	-0.043	-0.044	-2.1	8.21	.313	-0.053	-0.053	-0.093	-0.0018	-0.0018	-0.0018	-0.0018	-2.0		
14.62	.430	-0.438	-0.17	-0.17	-0.071	-2.0	8.21	-0.052	-0.057	-0.048	-0.048	-2.2	10.26	.365	-0.141	-0.141	-0.177	-0.0018	-0.0018	-0.0018	-0.0018	-2.0		
16.90	.519	-0.517	-0.20	-0.20	-0.075	-2.0	10.26	-0.047	-0.045	-0.045	-0.045	-2.2	12.32	.160	-0.177	-0.177	-0.195	-0.0020	-0.0020	-0.0020	-0.0020	-2.0		
18.00	.609	-0.597	-0.22	-0.22	-0.070	-2.0	12.40	-0.048	-0.048	-0.048	-0.048	-2.2	14.38	.529	-0.141	-0.141	-0.188	-0.0020	-0.0020	-0.0020	-0.0020	-2.0		
18.90	.699	-0.687	-0.24	-0.24	-0.063	-2.0	14.40	-0.049	-0.049	-0.049	-0.049	-2.2	16.43	.630	-0.208	-0.208	-0.231	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
19.00	.789	-0.777	-0.26	-0.26	-0.060	-2.0	16.40	-0.050	-0.050	-0.050	-0.050	-2.2	18.47	.705	-0.277	-0.277	-0.294	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
19.50	.879	-0.867	-0.28	-0.28	-0.056	-2.0	18.40	-0.051	-0.051	-0.051	-0.051	-2.2	20.54	.781	-0.343	-0.343	-0.360	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
20.50	.969	-0.957	-0.30	-0.30	-0.052	-2.0	20.50	-0.052	-0.052	-0.052	-0.052	-2.2	22.59	.857	-0.410	-0.410	-0.427	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
21.50	1.059	-1.047	-0.32	-0.32	-0.048	-2.0	21.50	-0.053	-0.053	-0.053	-0.053	-2.2	23.64	.931	-0.477	-0.477	-0.494	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
22.50	1.149	-1.137	-0.34	-0.34	-0.044	-2.0	22.50	-0.054	-0.054	-0.054	-0.054	-2.2	24.69	.000	-0.543	-0.543	-0.560	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
23.50	1.239	-1.227	-0.36	-0.36	-0.040	-2.0	23.50	-0.055	-0.055	-0.055	-0.055	-2.2	25.74	.077	-0.610	-0.610	-0.627	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
24.50	1.329	-1.315	-0.38	-0.38	-0.036	-2.0	24.50	-0.056	-0.056	-0.056	-0.056	-2.2	26.79	.154	-0.677	-0.677	-0.694	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
25.50	1.419	-1.403	-0.40	-0.40	-0.032	-2.0	25.50	-0.057	-0.057	-0.057	-0.057	-2.2	27.84	.231	-0.744	-0.744	-0.761	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
26.50	1.509	-1.491	-0.42	-0.42	-0.028	-2.0	26.50	-0.058	-0.058	-0.058	-0.058	-2.2	28.89	.308	-0.811	-0.811	-0.828	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
27.50	1.599	-1.579	-0.44	-0.44	-0.024	-2.0	27.50	-0.059	-0.059	-0.059	-0.059	-2.2	29.94	.385	-0.878	-0.878	-0.895	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
28.50	1.689	-1.657	-0.46	-0.46	-0.020	-2.0	28.50	-0.060	-0.060	-0.060	-0.060	-2.2	31.09	.462	-0.945	-0.945	-0.962	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
29.50	1.779	-1.737	-0.48	-0.48	-0.016	-2.0	29.50	-0.061	-0.061	-0.061	-0.061	-2.2	32.14	.539	-1.012	-1.012	-1.029	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
30.50	1.869	-1.807	-0.50	-0.50	-0.012	-2.0	30.50	-0.062	-0.062	-0.062	-0.062	-2.2	33.20	.616	-1.079	-1.079	-1.096	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
31.50	1.959	-1.907	-0.52	-0.52	-0.008	-2.0	31.50	-0.063	-0.063	-0.063	-0.063	-2.2	34.25	.693	-1.146	-1.146	-1.163	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
32.50	2.049	-1.997	-0.54	-0.54	-0.004	-2.0	32.50	-0.064	-0.064	-0.064	-0.064	-2.2	35.30	.770	-1.213	-1.213	-1.230	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
33.50	2.139	-2.037	-0.56	-0.56	-0.000	-2.0	33.50	-0.065	-0.065	-0.065	-0.065	-2.2	36.35	.847	-1.280	-1.280	-1.297	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
34.50	2.229	-2.137	-0.58	-0.58	-0.004	-2.0	34.50	-0.066	-0.066	-0.066	-0.066	-2.2	37.40	.924	-1.347	-1.347	-1.364	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
35.50	2.319	-2.227	-0.60	-0.60	-0.000	-2.0	35.50	-0.067	-0.067	-0.067	-0.067	-2.2	38.45	.991	-1.414	-1.414	-1.431	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
36.50	2.419	-2.317	-0.62	-0.62	-0.004	-2.0	36.50	-0.068	-0.068	-0.068	-0.068	-2.2	39.50	.068	-1.481	-1.481	-1.498	-0.0025	-0.0025	-0.0025	-0.0025	-2.7		
37.50	2.519	-2.407	-0.64	-0.64	-0.000	-2.0	37.50	-0.069	-															

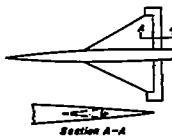
TABLE X.- CONTINUED

(e) Nominal  $\delta$ ,  $-80^\circ$ 

$M$	$a$	$C_L$	$C_D$	$C_H$	$C_B$	$C_I$	$b$	$M$	$a$	$C_L$	$C_D$	$C_H$	$C_B$	$C_I$	$b$	$M$	$a$	$C_L$	$C_D$	$C_H$	$C_B$	$C_I$	$b$	
0.60	-4.26	-0.273	0.0261	0.042	0.104	-0.0137	-7.5	0.90	6.31	0.848	0.0323	0.009	0.123	-0.0163	-7.4	1.50	2.05	0.054	0.0183	0	0.134	-0.0070	-7.4	
	-2.15	-0.178	0.0163	0.036	0.094	-0.0149	-7.6		8.45	1.345	0.052	0.003	0.147	-0.0165	-7.3		4.11	1.192	0.024	0.008	0.008	-0.0072	-7.4	
	-1.10	-0.131	0.0130	0.034	0.083	-0.0154	-7.6		10.59	1.259	0.000	0.000	0.145	-0.0169	-7.3		6.18	2.040	0.036	0.008	0.008	-0.0072	-7.3	
	-0.58	-0.109	0.0117	0.032	0.080	-0.0157	-7.6		12.72	0.965	0.320	-0.016	0.113	-0.0161	-7.4		8.24	3.225	0.076	-0.011	0.019	-0.0071	-7.3	
	-0.39	-0.083	0.0101	0.030	0.077	-0.0162	-7.6									10.30	1.471	0.031	-0.003	-0.015	-0.0075	-7.3		
	-0.28	-0.063	0.0097	0.028	0.075	-0.0161	-7.6	1.20	-4.12	-0.862	0.042	0.004	0.102	-0.0161	-6.7		12.37	1.487	-0.133	-0.004	-0.015	-0.0075	-6.0	
	2.04	-0.009	0.0123	0.028	0.073	-0.0163	-7.6		-2.05	-1.51	0.022	0.003	0.103	-0.0165	-6.8		14.43	1.564	-0.196	-0.004	-0.006	-0.0077	-8.1	
	4.18	-1.09	0.0137	0.021	0.071	-0.0168	-7.6		-1.02	-0.98	0.017	0.003	0.259	-0.0165	-6.8		16.90	1.640	-0.195	-0.003	-0.119	-0.0063	-8.1	
	6.23	-2.05	0.0226	0.013	0.067	-0.0173	-7.6		-5.3	-0.71	0.014	0.003	0.261	-0.0166	-6.8		17.53	1.673	-0.212	-0.007	-0.131	-0.0061	-8.3	
	8.39	-3.05	0.031	0.008	0.056	-0.0178	-7.6									1.70	-1.11	-0.186	0.006	0.038	0.221	-0.0052	-6.9	
	10.45	-4.12	0.0711	0.009	0.040	-0.0183	-7.7		1.03	0.005	0.0167	0.001	0.230	-0.0168	-7.0		-2.05	-0.104	0.002	0.025	0.188	-0.0060	-7.0	
	12.57	-5.20	0.109	0.003	0.024	-0.0186	-7.7		2.05	0.063	0.0181	0.005	0.198	-0.0110	-7.1		-1.02	-0.062	0.0173	0.019	0.170	-0.0060	-7.1	
	14.69	-6.33	1.933	0.001	0.013	-0.0191	-7.7		4.11	1.09	0.0235	0.013	0.147	-0.0115	-7.2		-5.0	-0.043	0.063	0.161	0.160	-0.0059	-7.1	
	15.81	-7.41	2.096	0.001	0.002	-0.0209	-7.8		6.18	1.475	0.043	-0.013	1.05	-0.0123	-7.4		-7.4	-0.002	0.039	0.142	-0.0052	-7.2		
	17.88	-8.79	2.390	0.002	0.003	-0.0210	-7.8		8.24	1.962	0.034	-0.0168	0.070	-0.0115	-7.5		1.04	0.19	0.062	0.006	1.33	-0.0058	-7.2	
0.80	-4.26	-0.283	0.024	0.047	0.121	-0.0129	-7.4	12.39	6.05	1.344	-0.0185	0.005	0.268	-0.0126	-7.8		2.05	0.059	0.0175	0	0.114	-0.0057	-7.3	
	-2.16	-0.180	0.0178	0.039	0.118	-0.0132	-7.4									4.11	1.139	0.0240	-0.013	0.174	-0.0056	-7.5		
	-1.11	-0.138	0.0133	0.037	0.097	-0.0151	-7.5	1.30	-4.12	-0.234	0.047	0.03	0.253	-0.0185	-6.8		6.16	2.118	0.039	-0.023	0.137	-0.0054	-7.5	
	-0.58	-0.110	0.021	0.037	0.093	-0.0153	-7.5		-2.05	-1.33	0.028	0.015	0.257	-0.0184	-6.8		8.22	2.294	0.0334	-0.036	0.003	-0.0054	-7.7	
	-0.48	-0.059	0.016	0.032	0.100	-0.0160	-7.5		-1.02	-0.65	0.020	0.015	0.254	-0.0185	-6.9		10.27	2.369	0.0760	-0.046	0.088	-0.0059	-7.9	
	2.03	-0.013	0.010	0.029	0.089	-0.0169	-7.5		-5.4	-0.10	0.0182	0.015	0.199	-0.0184	-7.0		12.37	1.371	0.026	0.016	0.161	-0.0054	-6.0	
	4.23	-1.21	0.036	0.019	0.084	-0.0167	-7.5		1.04	0.125	0.0185	0.013	0.192	-0.0185	-7.1		14.39	2.068	-0.155	-0.004	0.192	-0.0052	-8.1	
	6.27	-2.22	0.072	0.013	0.077	-0.0167	-7.5		2.06	0.064	0.0201	0.008	0.168	-0.0188	-7.2		17.47	1.609	0.0335	-0.072	0.134	-0.0056	-8.3	
	8.39	-3.23	0.142	0.008	0.062	-0.0172	-7.6		4.18	1.161	0.0273	0.013	0.124	-0.0180	-7.3		1.04	0.19	0.062	0.006	1.33	-0.0058	-7.3	
	10.45	-5.24	0.193	0.004	0.044	-0.0160	-7.6		6.19	1.259	0.016	0.008	0.185	-0.0185	-7.6	1.90	-4.09	-0.166	0.008	0.082	0.190	-0.0056	-7.0	
	12.54	-6.37	1.192	0.004	0.048	-0.0166	-7.7		8.29	1.354	0.0268	0.014	0.186	-0.0187	-7.6		-2.05	-0.093	0.019	0.021	0.188	-0.0054	-7.4	
	14.76	-7.50	1.696	0.011	0.049	-0.0177	-7.7		10.31	1.453	0.0198	0.008	0.188	-0.0188	-7.7		-1.02	-0.022	0.015	0.142	0.134	-0.0056	-7.4	
	16.77	-7.70	1.903	0.018	0.043	-0.0197	-7.7		12.39	1.544	0.0263	0.013	0.171	-0.0187	-7.9		-4.3	-0.037	0.021	0.134	0.134	-0.0054	-7.4	
	17.97	-8.12	2.369	0.020	0.065	-0.0196	-7.8		14.42	1.633	0.0212	0.013	0.175	-0.0188	-8.0		1.04	-0.017	0.005	0.166	0.166	-0.0051	-7.3	
0.90	-4.31	-0.293	0.0267	0.041	0.129	-0.0123	-7.3	12.55	7.13	1.340	-0.0182	0.005	0.269	-0.0127	-8.1		1.04	0.19	0.062	0.006	1.34	-0.0057	-7.1	
	-2.17	-0.197	0.0180	0.034	0.146	-0.0147	-7.3		12.55	7.16	1.340	-0.0182	0.005	0.269	-0.0127	-8.2		6.19	1.24	0.031	-0.021	0.136	-0.0054	-7.2
	-1.11	-0.133	0.0121	0.034	0.143	-0.0144	-7.3	1.30	-4.12	-0.206	0.039	0.044	0.249	-0.0189	-6.8		8.19	2.060	0.0400	-0.030	0.088	-0.0044	-7.4	
	-0.58	-0.083	0.0121	0.034	0.142	-0.0143	-7.3		-2.05	-1.15	0.020	0.013	0.251	-0.0189	-6.9		10.25	2.327	0.0693	-0.037	0.064	-0.0044	-7.6	
	-0.48	-0.063	0.0106	0.032	0.132	-0.0150	-7.4		-1.02	-0.67	0.0160	0.012	0.252	-0.0188	-7.0		12.39	1.321	0.0234	-0.046	0.065	-0.0043	-6.0	
	-0.39	-0.057	0.0107	0.031	0.131	-0.0152	-7.4		-4.12	-0.13	0.0185	0.012	0.251	-0.0189	-7.1		14.39	1.324	0.0234	-0.047	0.065	-0.0043	-6.1	
	-0.28	-0.027	0.0116	0.027	0.124	-0.0161	-7.4		1.04	0.059	0.0166	0.005	0.153	-0.0189	-7.2		16.41	1.214	0.0234	-0.047	0.129	-0.0044	-6.8	
0.80	-4.26	-0.296	0.0266	0.046	0.190	-0.0132	-11.2	1.30	-4.12	-0.242	0.0386	0.061	0.367	-0.0210	-10.4		1.04	-1.11	-0.193	0.016	0.295	-0.0072	-10.6	
	-2.16	-0.194	0.0208	0.038	0.190	-0.0138	-11.2		8.42	1.138	0.0263	0.017	0.292	-0.0218	-11.2		-1.02	-0.069	0.0178	0.021	0.261	-0.0071	-10.8	
	-1.11	-0.130	0.0130	0.041	0.190	-0.0141	-11.2		-2.05	-1.17	0.0249	0.016	0.293	-0.0218	-10.4		-5.0	-0.049	0.0178	0.021	0.313	-0.0070	-10.9	
	-0.58	-0.079	0.0156	0.034	0.105	-0.0183	-11.3		-1.02	-0.65	0.0186	0.013	0.291	-0.0218	-10.5		1.04	-0.011	0.0169	0.015	0.216	-0.0069	-10.9	
	-0.48	-0.079	0.0177	0.027	0.101	-0.0183	-11.3		-5.0	-0.087	0.0198	0.013	0.291	-0.0218	-10.5		16.51	1.635	0.1121	-0.071	0.026	-0.0068	-12.0	
	-0.39	-0.071	0.0174	0.030	0.102	-0.0183	-11.3		4.11	-0.071	0.0186	0.013	0.291	-0.0218	-10.5		17.55	1.672	0.1148	-0.061	0.026	-0.0065	-12.0	
	-0.28	-0.027	0.0169	0.027	0.101	-0.0183	-11.3		1.04	0.059	0.0185	0.013	0.291	-0.0218	-10.6		1.04	-1.11	-0.193	0.016	0.295	-0.0072	-10.6	
	0.80	-4.26	-0.296	0.0266	0.046	0.190	-0.0132	-11.2	1.30	-4.12	-0.242	0.0386	0.061	0.367	-0.0210	-10.4		-2.05	-0.069	0.0178	0.021	0.261	-0.0071	-10.8
	-2.16	-0.194	0.0208	0.038	0.190	-0.0138	-11.2		8.42	1.138	0.0263	0.017	0.292	-0.0218	-10.4		-1.02	-0.069	0.0178	0.021	0.263	-0.0070	-10.8	
	-1.11	-0.130	0.0130	0.041	0.190	-0.0141	-11.2		-2.05	-1.15	0.0268	0.018	0.293	-0.0218	-10.6		1.04	-0.011	0.0169	0.015	0.216	-0.0069	-10.9	
	-0.58	-0.079	0.0156	0.034	0.105	-0.0183	-11.3		-1.02	-0.65	0.0223	0.018	0.294	-0.0218	-10.5		16.40	1.620	0.1347	-0.060	0.036	-0.0068	-11.9	
	-0.48	-0.079	0.0174	0.030	0.106	-0.0183	-11.3		4.11	-0.071	0.0186	0.018	0.294	-0.0218	-10.4		10.28	2.365	0.0754	-0.061	0.029	-0.0067	-11.0	
	-0.39	-0.071	0.0174	0.030	0.106	-0.0183	-11.3		1.04															

CONFIDENTIAL

TABLE X.- CONTINUED

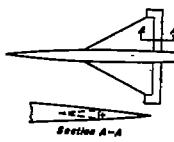
(g) Nominal  $\delta$ ,  $-16^\circ$ 

$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_I$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_I$	$\delta$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_I$	$\delta$
0.60	-4.29	-3.35	0.0365	0.060	0.012	-0.0006	-15.3	0.90	-1.96	-0.017	0.0071	0.048	0.203	-0.0026	-15.0	1.50	10.31	0.300	0.0038	-0.0013	0.115	-0.0102	-15.3
	-2.18	-2.49	0.0264	0.059	0.010	-0.0006	-15.3		-6.20	-0.107	0.020	0.35	0.240	-0.0037	-15.0		22.57	1.474	0.1134	-0.0014	0.079	-0.0121	-15.2
	-1.14	-1.80	0.0220	0.056	0.008	-0.0006	-15.3		6.35	-0.107	0.017	0.051	0.228	-0.0035	-15.1		14.44	1.448	0.1185	-0.0013	0.042	-0.0122	-15.6
	-0.61	-1.61	0.0230	0.053	0.006	-0.0006	-15.3		8.45	-0.107	0.018	0.058	0.203	-0.0033	-15.1		16.50	1.424	0.1092	-0.0012	0.038	-0.0127	-15.1
	-0.32	-1.23	0.0181	0.051	0.005	-0.0006	-15.3		10.56	-0.107	0.012	0.065	0.192	-0.0031	-15.0		17.74	1.361	0.1061	-0.0012	0.034	-0.0136	-15.6
	-0.27	-0.96	0.0173	0.049	0.004	-0.0006	-15.3																
	1.98	-0.49	0.0163	0.048	0.004	-0.0006	-15.3																
	4.12	-0.92	0.0174	0.045	0.004	-0.0006	-15.4																
	6.24	-1.18	0.0186	0.046	0.005	-0.0006	-15.4																
	8.35	-2.49	0.0193	0.043	0.004	-0.0006	-15.4																
	10.41	-3.23	0.0189	0.040	0.003	-0.0006	-15.4																
	12.56	-4.98	1.003	0.028	0.011	-0.0006	-15.4																
	14.65	-5.98	1.165	0.027	0.013	-0.0006	-15.4																
	16.77	-6.73	1.172	0.028	0.005	-0.0006	-15.4																
	17.83	-7.22	2.255	0.028	0.003	-0.0006	-15.6																
0.80	-1.31	-3.19	0.0194	0.056	0.006	-0.0188	-15.1	1.20	-1.41	-0.026	0.012	0.043	0.115	-0.0026	-14.3	1.70	-4.11	-0.202	0.0777	0.049	0.356	-0.0114	-14.4
	-2.39	-2.15	0.0263	0.057	0.007	-0.0187	-15.4		-0.96	-0.031	0.039	0.039	0.110	-0.0026	-14.3		-9.05	-0.180	0.0774	0.047	0.329	-0.0114	-14.5
	-2.13	-1.72	0.0224	0.056	0.006	-0.0181	-15.1		2.09	-0.030	0.039	0.037	0.108	-0.0023	-14.6		-1.08	-0.080	0.0824	0.039	0.222	-0.0113	-14.6
	-0.61	-1.16	0.0207	0.051	0.004	-0.0181	-15.1		4.13	-0.138	0.036	0.037	0.096	-0.0016	-14.7		-1.46	-0.059	0.0832	0.037	0.202	-0.0112	-14.6
	-0.34	-1.04	0.0196	0.050	0.004	-0.0182	-15.1		6.20	-0.124	0.024	0.031	0.098	-0.0013	-14.8		-1.03	-0.061	0.0820	0.031	0.187	-0.0110	-14.7
	-0.89	-0.78	0.0173	0.047	0.006	-0.0182	-15.2		8.31	-0.139	0.024	0.028	0.096	-0.0013	-14.9		2.10	-0.044	0.0827	0.031	0.184	-0.0109	-14.8
	1.96	-0.62	0.0168	0.047	0.007	-0.0182	-15.2		10.34	-0.130	0.020	0.026	0.096	-0.0013	-15.1		4.11	-0.123	0.0877	0.032	0.181	-0.0104	-15.0
	4.19	-0.62	0.0199	0.039	0.007	-0.0182	-15.2		12.42	-0.130	0.016	0.017	0.097	-0.0016	-15.2		6.16	-0.126	0.0886	0.035	0.159	-0.0102	-15.1
	6.31	-1.08	0.0103	0.032	0.004	-0.0182	-15.2		12.39	-0.137	0.018	0.016	0.093	-0.0016	-15.3		8.14	-0.127	0.0943	0.036	0.120	-0.0101	-15.3
	8.39	-2.92	0.0191	0.026	0.007	-0.0182	-15.2		16.53	-0.133	0.010	0.011	0.093	-0.0016	-15.3		10.27	-0.134	0.0763	0.036	0.093	-0.0106	-15.4
	10.50	-3.93	0.0174	0.021	0.006	-0.0182	-15.3		17.57	-0.132	0.008	0.009	0.093	-0.0016	-15.3		12.34	-0.134	0.0734	0.036	0.093	-0.0106	-15.6
	12.59	-5.20	1.180	0.016	0.006	-0.0182	-15.3										18.39	-0.137	0.073	0.036	0.093	-0.0106	-15.7
	14.78	-6.17	1.162	0.017	0.001	-0.0181	-15.3										16.46	-0.136	0.0711	0.031	0.093	-0.0106	-15.8
	16.92	-7.88	2.210	0.013	0.007	-0.0181	-15.3										17.49	-0.139	0.0709	0.036	0.093	-0.0106	-15.9
	17.97	-7.78	2.902	0.011	0.006	-0.0181	-15.3																
0.90	-4.32	-3.33	0.0154	0.047	0.006	-0.0182	-14.8	1.50	-4.11	-0.225	0.0408	0.077	0.383	-0.0129	-14.3	1.90	-1.10	-0.173	0.0355	0.041	0.311	-0.0102	-14.6
	-2.20	-2.22	0.0260	0.059	0.004	-0.0182	-14.8		-0.99	-0.003	0.038	0.022	0.060	-0.0126	-14.8		-2.04	-0.106	0.0862	0.030	0.279	-0.0096	-14.7
	-1.14	-1.17	0.0234	0.051	0.004	-0.0182	-14.9		2.09	-0.046	0.040	0.024	0.062	-0.0126	-14.8		-1.08	-0.070	0.0834	0.030	0.263	-0.0096	-14.8
	-0.61	-1.18	0.0219	0.048	0.005	-0.0182	-14.9		4.12	-0.134	0.039	0.026	0.062	-0.0126	-14.9		-1.43	-0.088	0.0813	0.037	0.240	-0.0096	-14.9
	-0.34	-1.04	0.0192	0.046	0.006	-0.0182	-14.9		6.16	-0.126	0.034	0.026	0.062	-0.0126	-14.9		-1.08	-0.083	0.0821	0.036	0.221	-0.0096	-15.0
	.08	-0.76	0.0182	0.044	0.004	-0.0182	-14.9		8.24	-0.106	0.036	0.029	0.061	-0.0126	-15.0		-1.43	-0.088	0.0813	0.037	0.201	-0.0096	-15.0
	2.21	-2.31	0.0217	0.046	0.004	-0.0182	-14.9										12.30	-0.161	0.0937	0.036	0.081	-0.0096	-15.6
	4.21	-2.21	0.0217	0.046	0.004	-0.0182	-14.9										14.31	-0.142	0.0915	0.036	0.081	-0.0096	-15.8
	6.21	-1.84	0.0271	0.046	0.004	-0.0182	-14.9										16.41	-0.131	0.0946	0.036	0.081	-0.0096	-15.8
	8.21	-1.69	0.0296	0.046	0.004	-0.0182	-14.9										18.41	-0.129	0.0946	0.036	0.081	-0.0096	-15.9
	10.21	-1.22	0.0289	0.049	0.004	-0.0182	-14.9										20.41	-0.128	0.0946	0.036	0.081	-0.0096	-15.9
	12.21	-0.96	0.0281	0.046	0.004	-0.0182	-14.9										22.41	-0.127	0.0946	0.036	0.081	-0.0096	-15.9
	14.21	-0.93	0.0281	0.046	0.004	-0.0182	-14.9										24.41	-0.126	0.0946	0.036	0.081	-0.0096	-15.9
	16.21	-0.78	0.0281	0.046	0.004	-0.0182	-14.9										26.41	-0.125	0.0946	0.036	0.081	-0.0096	-15.9
	18.21	-0.63	0.0281	0.046	0.004	-0.0182	-14.9										28.41	-0.124	0.0946	0.036	0.081	-0.0096	-15.9
	20.21	-0.50	0.0281	0.046	0.004	-0.0182	-14.9										30.41	-0.123	0.0946	0.036	0.081	-0.0096	-15.9
	22.21	-0.43	0.0281	0.046	0.004	-0.0182	-14.9										32.41	-0.122	0.0946	0.036	0.081	-0.0096	-15.9
	24.21	-0.33	0.0281	0.046	0.004	-0.0182	-14.9										34.41	-0.121	0.0946	0.036	0.081	-0.0096	-15.9
	26.21	-0.23	0.0281	0.046	0.004	-0.0182	-14.9										36.41	-0.120	0.0946	0.036	0.081	-0.0096	-15.9
	28.21	-0.13	0.0281	0.046	0.004	-0.0182	-14.9										38.41	-0.119	0.0946	0.036	0.081	-0.0096	-15.9
	30.21	-0.03	0.0281	0.046	0.004	-0.0182	-14.9										40.41	-0.118	0.0946	0.036	0.081	-0.0096	-15.9
	32.21	-0.03	0.0281	0.046	0.004	-0.0182	-14.9										42.41	-0.117	0.0946	0.036	0.081	-0.0096	-15.9
	34.21	-0.03	0.0281	0.046	0.004	-0.0182	-14.9										44.41	-0.116	0.0946	0.036	0.081	-0.0096	-15.9
	36.21	-0.03	0.0281	0.046	0.004	-0.0182	-14.9										46.41	-0.115	0.0946	0.036	0.081	-0.0096	-15.9
	38.21	-0.03	0.0281	0.046	0.004	-0.0182	-14.9										48.41	-0.114	0.0946	0.036	0.081	-0.0096	-15.9
	40.21	-0.03	0.0281	0.046	0.004	-0.018																	

CONFIDENTIAL

NACA RM A52L04

TABLE X.- CONCLUDED

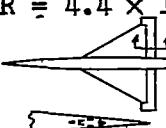
(i) Nominal  $\delta$ ,  $-24^\circ$ 

$K$	$a$	$c_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$c_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$c_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	
0.60	-4.30	-0.345	0.0483	0.072	0.312	0.0248	-23.1	0.90	-1.16	-0.202	0.0341	0.073	0.408	-0.0264	-22.6	1.50	12.39	0.452	0.1147	-0.043	0.171	-0.0173	-23.2	
-2.20	-0.205	-0.314	0.056	0.305	-0.305	-0.0255	-23.2	-	-0.64	-0.177	-0.0201	0.071	0.405	-0.0287	-22.5	1.50	13.51	0.489	-0.075	-0.131	-0.0178	-23.3		
-1.17	-0.213	-0.321	0.057	0.307	-0.307	-0.0279	-23.3	-	-0.53	-0.153	-0.0241	0.069	0.405	-0.0280	-22.6	1.50	12.53	0.609	0.1900	-0.062	-0.108	-0.0178	-23.4	
-0.62	-0.183	-0.297	0.059	0.305	-0.305	-0.0283	-23.4	-	-0.50	-0.102	-0.0261	0.067	0.405	-0.0285	-22.6	1.50	12.56	0.646	0.2121	-0.066	-0.097	-0.0186	-23.5	
-0.16	-0.140	-0.265	0.061	0.303	-0.303	-0.0288	-23.5	-	-0.48	-0.076	-0.0260	0.067	0.397	-0.0290	-22.7	1.50	12.59	0.683	0.2239	-0.071	-0.097	-0.0186	-23.5	
.97	-0.119	-0.229	0.063	0.302	-0.302	-0.0296	-23.6	-	-0.45	-0.065	-0.0264	0.066	0.384	-0.0292	-22.9	1.70	12.70	0.51	-0.076	0.034	-0.036	0.303	-22.4	
1.94	-0.075	-0.243	0.061	0.284	-0.311	-0.0296	-23.7	-	-0.43	-0.053	-0.0264	0.066	0.364	-0.0292	-23.0	1.70	12.70	0.45	-0.059	0.0288	-0.030	0.305	-22.4	
4.04	-0.022	-0.251	0.059	0.272	-0.322	-0.0328	-23.8	-	-0.38	-0.041	-0.0264	0.066	0.343	-0.0292	-23.1	1.70	12.70	0.41	-0.027	0.0288	-0.027	0.306	-22.4	
6.22	.121	-0.253	0.051	0.246	-0.333	-0.0333	-23.9	-	-0.35	-0.031	-0.0264	0.066	0.323	-0.0292	-23.4	1.70	12.70	0.38	-0.027	0.0288	-0.026	0.306	-22.4	
8.33	.224	-0.151	0.041	0.246	-0.333	-0.0333	-23.9	-	-0.32	-0.021	-0.0264	0.066	0.303	-0.0292	-23.1	1.70	12.70	0.35	-0.027	0.0288	-0.026	0.306	-22.4	
10.44	.326	-0.051	0.041	0.233	-0.340	-0.0340	-23.9	-	-0.29	-0.011	-0.0264	0.066	0.283	-0.0292	-23.4	1.70	12.70	0.32	-0.027	0.0288	-0.026	0.306	-22.4	
12.51	.432	-0.002	0.041	0.220	-0.345	-0.0345	-23.4	1.20	3.02	0.051	0.0346	0.038	0.434	-0.0277	-22.4	1.70	12.70	0.29	-0.027	0.0288	-0.026	0.306	-22.4	
14.62	.539	.157	0.036	0.211	-0.353	-0.0374	-23.4	-	4.17	0.113	0.0265	0.020	0.370	-0.0278	-22.5	1.70	12.70	0.26	-0.027	0.0288	-0.027	0.306	-22.5	
16.73	.643	.191	0.038	0.208	-0.374	-0.0374	-23.4	-	6.19	0.219	0.0284	0.01	0.335	-0.0273	-22.7	1.70	12.70	0.23	-0.027	0.0288	-0.027	0.306	-22.5	
17.61	.697	.219	0.040	0.204	-0.386	-0.0386	-23.4	-	8.26	0.321	0.0292	-0.014	0.348	-0.0272	-22.7	1.70	12.70	0.20	-0.027	0.0288	-0.027	0.306	-22.5	
0.80	-1.33	-3.43	0.050	0.374	-0.265	-0.0265	-22.9	-	10.34	0.421	0.0295	-0.009	0.330	-0.0279	-22.9	1.70	12.70	0.17	-0.027	0.0278	-0.027	0.306	-22.6	
-2.22	-2.42	-0.363	0.058	0.330	-0.243	-0.0243	-22.9	-	14.50	0.637	0.0275	-0.01	0.243	-0.0293	-23.0	1.70	12.70	0.14	-0.027	0.0278	-0.027	0.306	-22.6	
-1.16	-1.96	-0.313	0.056	0.309	-0.226	-0.0226	-22.9	-	1.30	2.15	0.036	-0.045	0.029	0.406	-0.0227	-22.4	1.70	12.70	0.11	-0.027	0.0278	-0.027	0.306	-22.6
-0.66	-1.72	-0.287	0.056	0.306	-0.205	-0.0205	-22.9	-	4.17	1.17	0.0265	0.020	0.370	-0.0278	-22.5	1.70	12.70	0.08	-0.027	0.0278	-0.027	0.306	-22.5	
.40	-1.33	-0.272	0.056	0.333	-0.072	-0.0272	-22.9	-	6.18	0.213	0.0284	0.001	0.335	-0.0273	-22.7	1.70	12.70	0.05	-0.027	0.0278	-0.027	0.306	-22.5	
.85	-1.09	-0.260	0.063	0.305	-0.076	-0.0276	-23.0	-	8.26	0.321	0.0292	-0.014	0.348	-0.0272	-22.7	1.70	12.70	0.02	-0.027	0.0278	-0.027	0.306	-22.5	
1.93	-0.98	-0.250	0.063	0.299	-0.312	-0.0341	-23.0	-	10.34	0.421	0.0295	-0.009	0.330	-0.0275	-22.8	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
4.11	-0.49	-0.276	0.051	0.283	-0.323	-0.0323	-23.1	-	14.50	0.637	0.0275	-0.01	0.243	-0.0293	-23.0	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
6.29	.198	.094	0.043	0.263	-0.327	-0.0327	-23.1	-	12.38	0.493	0.0248	-0.016	0.223	-0.0293	-23.0	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
8.46	.271	.162	0.036	0.237	-0.305	-0.0305	-23.1	-	14.46	0.581	0.0264	-0.017	0.186	-0.0246	-23.2	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
10.49	.374	.196	0.036	0.218	-0.283	-0.0283	-23.3	-	16.54	0.673	0.0216	-0.009	0.152	-0.0238	-23.3	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
12.61	.492	.118	0.019	0.264	-0.081	-0.0277	-23.3	-	17.57	0.713	0.0266	-0.004	0.150	-0.0252	-23.3	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
14.77	.604	.164	0.018	0.195	-0.077	-0.0277	-23.3	1.50	2.09	-0.024	0.0302	0.024	0.370	-0.0187	-22.4	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
16.91	.716	.213	0.013	0.195	-0.0305	-0.0305	-23.3	-	4.12	1.14	0.0342	0.008	0.296	-0.0182	-22.7	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
17.95	.799	.247	0.009	0.196	-0.0310	-0.0310	-23.3	-	6.19	0.204	0.0436	-0.006	0.255	-0.0180	-22.8	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
0.90	-1.36	-0.308	0.055	0.086	0.426	-0.0228	-22.6	-	8.25	0.366	0.0383	-0.018	0.234	-0.0179	-22.9	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	
-2.22	-2.23	-0.397	0.057	0.071	0.417	-0.0247	-22.6	-	10.32	0.373	0.0383	-0.021	0.206	-0.0176	-23.0	1.70	12.70	0.01	-0.027	0.0278	-0.027	0.306	-22.5	

(j) Nominal  $\delta$ ,  $-28^\circ$ 

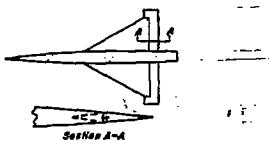
$K$	$a$	$c_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$c_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$c_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$
0.60	-4.31	-0.317	0.0527	0.073	0.383	-0.0252	-27.1	0.90	-4.35	-0.362	0.0599	0.087	0.448	-0.0283	-26.5	1.50	8.23	0.274	0.0621	-0.0181	0.251	-0.0162	-26.9
-2.21	-2.95	-0.303	0.051	0.330	-0.0252	-27.1	-	-8.23	-0.262	-0.0446	0.080	0.439	-0.0286	-26.5	1.50	10.30	0.360	0.0858	-0.028	0.230	-0.0160	-27.0	
-1.17	-2.19	-0.362	0.057	0.305	-0.0252	-27.1	-	-1.18	-0.215	0.0392	0.077	0.443	-0.0287	-26.5	1.50	12.37	0.412	0.1145	-0.038	0.204	-0.0157	-27.1	
-.63	-1.90	-0.319	0.066	0.309	-0.0252	-27.1	-	-0.54	-0.192	0.0377	0.075	0.45	-0.0281	-26.5	1.50	14.43	.519	0.1880	-0.050	0.156	-0.0159	-27.3	
.31	-1.52	-0.313	0.065	0.329	-0.0302	-27.1	-	3.1	-0.180	0.0344	0.073	0.440	-0.0280	-26.5	1.50	17.53	.597	0.1883	-0.058	0.132	-0.0157	-27.4	
.83	-1.32	-0.307	0.066	0.311	-0.0319	-0.0319	-27.1	-	1.92	-0.069	0.0311	0.072	0.437	-0.0289	-26.6	1.50	2.07	.076	0.0893	-0.031	.390	-0.0145	-26.4
1.82	.059	.029	0.064	.386	-0.0319	-0.0319	-27.1	-	4.16	-0.069	0.0316	0.071	0.422	-0.0281	-26.6	1.50	2.07	.016	0.0894	-0.024	.367	-0.0144	-26.5
4.07	.011	.080	0.059	.297	-0.0343	-0.0343	-27.2	-	4.16	-0.069	0.0322	0.074	0.422	-0.0283	-26.6	1.50	10.30	.020	0.0385	-0.010	.290	-0.0138	-26.8
6.21	.110	.135	0.055	.283	-0.0343	-0.0343	-27.2	-	6.31	-0.069	0.0419	0.043	0.395	-0.0283	-26.7	1.50	12.37	.472	0.1345	-0.043	.185	-0.0129	-27.4
8.33	.213	.237	0.047	.266	-0.0348	-0.0348	-27.3	-	8.36	-0.069	0.0419	0.043	0.395	-0.0283	-26.7	1.50	13.45	.538	0.1700	-0.049	.109	-0.0125	-27.4
10.43	.318	.069	0.042	.237	-0.0348	-0.0348	-27.3	-	10.35	-0.069	0.0419	0.043	0.395	-0.0283	-26.7	1.50	17.48	.572					

TABLE XI.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH  
A 5.5-PERCENT-AREA TRIANGULAR HORN BALANCE ON THE RIGHT WING PANEL AND  
A 6.4-PERCENT-AREA RECTANGULAR HORN BALANCE ON THE LEFT WING PANEL.  
DATA FOR 6.4-PERCENT-AREA RECTANGULAR HORN BALANCE FLAP DEFLECTED.  
 $R = 4.4 \times 10^6$ .

(a) Nominal  $\delta$ ,  $2^\circ$ 

$X$	$a$	$c_L$	$c_D$	$c_m$	$c_p$	$c_t$	$b$	$X$	$a$	$c_L$	$c_D$	$c_m$	$c_p$	$c_t$	$b$	$X$	$a$	$c_L$	$c_D$	$c_m$	$c_p$	$c_t$	$b$
0.60	-1.13	-0.18%	0.019%	-0.005	-0.003	0.002%	1.9	0.90	6.39	-0.339	0.036	-0.035	-0.017	0.0011	1.9	1.30	6.18	-0.273	0.041%	-0.047	-0.102	0.0011	1.9
	-0.08	-0.05%	0.009%	-0.001	-0.001	-0.001	1.9		6.50	-0.347	0.036	-0.041	-0.018	0.0011	1.8		6.24	-0.285	-0.043%	-0.053	-0.134	0.0010	1.8
	-1.05	-0.07%	0.001%	-0.004	-0.002	0.002%	1.9		10.67	-0.359	0.049	-0.050	-0.019	0.0007	1.7		10.84	-0.345	-0.053	-0.078	-0.161	0.0010	1.7
	-0.38	-0.013	0.077%	-0.003	-0.017	0.002%	1.9									12.35	-0.327	0.036	-0.054	-0.084	-0.012	1.2	
	-1.49	-0.011	0.075%	-0.003	-0.006	0.001%	1.9	1.20	-1.13	-0.214	0.016	-0.015	-0.003	0.0023	2.0		14.44	-0.299	-0.053	-0.093	-0.137	0.0012	1.1
	-1.03	-0.056	0.005%	-0.005	-0.005	0.001%	2.0		-0.06	-0.14	0.013	-0.015	-0.003	0.0019	1.9		16.51	-0.288	0.063	-0.093	-0.146	0.0008	1.0
	2.10	-0.07	0.008%	-0.004	-0.004	0.001%	2.0		-1.02	-0.138	0.012	-0.014	-0.003	0.0017	1.8		17.33	-0.278	0.053	-0.093	-0.169	0.0004	1.0
	-1.48	-0.007	0.007%	-0.004	-0.004	0.001%	2.0		-1.47	-0.082	0.012	-0.013	-0.003	0.0015	1.8		1.70	-4.11	-0.161	0.028	0.081	0.0004	2.1
	-0.38	-0.007	0.007%	-0.004	-0.004	0.001%	2.0		1.01	-0.053	0.012	-0.012	-0.003	0.0011	1.8		-1.00	-0.039	0.013	0.084	-0.112	0.0007	2.0
	0.41	-0.007	0.008%	-0.004	-0.004	0.001%	2.0		2.03	-0.057	0.010	-0.011	-0.003	0.0008	1.7		-1.49	-0.039	0.013	0.084	-0.112	0.0007	1.9
	10.98	-0.08	0.067%	-0.033	-0.021	-0.003%	1.9		4.13	-0.116	0.021	-0.020	-0.003	0.0002	1.6		6.19	-0.284	0.044	-0.060	-0.124	0.0010	1.8
	12.57	-0.02	0.036%	-0.031	-0.021	-0.003%	1.9		6.29	-0.136	0.024	-0.024	-0.003	0.0002	1.7		10.39	-0.278	0.044	-0.060	-0.124	0.0010	1.8
	14.78	-0.02	0.179%	-0.037	-0.021	-0.003%	1.8		8.28	-0.155	0.022	-0.024	-0.003	0.0010	1.4		1.03	-0.039	0.016	0.046	-0.093	0.0010	1.8
	16.39	-0.02	0.241%	-0.044	-0.029	-0.003%	1.8		10.37	-0.168	0.024	-0.026	-0.003	0.0009	1.4		2.04	-0.039	0.016	0.046	-0.093	0.0011	1.8
	17.98	-0.02	0.276%	-0.044	-0.033	-0.003%	1.8		12.43	-0.180	0.026	-0.028	-0.003	0.0011	1.2		6.16	-0.164	0.028	-0.028	-0.074	0.0014	1.7
0.80	-1.23	-0.19%	0.017%	-0.009	-0.004	0.002%	1.8		-1.12	-0.198	0.021	-0.023	-0.003	0.0013	1.9		5.22	-0.240	0.076	-0.093	-0.185	0.0018	1.7
	-2.10	-0.09%	0.018%	-0.008	-0.004	0.002%	1.9		-0.06	-0.197	0.019	-0.020	-0.003	0.0011	1.9		10.26	-0.193	0.018	-0.093	-0.188	0.0019	1.4
	-1.02	-0.02	0.073%	-0.005	-0.004	0.002%	1.9		-1.01	-0.085	0.016	-0.018	-0.003	0.0012	1.9		12.33	-0.166	0.018	-0.093	-0.173	0.0021	1.3
	-0.31	-0.02	0.073%	-0.005	-0.004	0.002%	1.9		-1.47	-0.082	0.017	-0.017	-0.003	0.0010	1.9		14.39	-0.156	0.018	-0.093	-0.162	0.0023	1.2
	1.0%	-0.01	0.086%	-0.010	-0.003	0.002%	2.0		-1.01	-0.082	0.016	-0.016	-0.003	0.0011	1.8		15.49	-0.163	0.018	-0.093	-0.227	0.0024	1.1
	2.11	-0.01	0.113%	-0.014	-0.003	0.002%	2.0		1.01	-0.066	0.017	-0.014	-0.003	0.0011	1.8		17.46	-0.164	0.018	-0.093	-0.239	0.0021	1.0
	4.28	-0.02	0.204%	-0.013	-0.003	0.002%	2.0		2.06	-0.099	0.019	-0.019	-0.003	0.0011	1.8		6.16	-0.154	0.028	-0.093	-0.102	0.0017	1.6
	6.35	-0.02	0.220%	-0.013	-0.003	0.002%	2.0		4.12	-0.156	0.028	-0.028	-0.003	0.0008	1.6		1.90	-1.03	-0.147	0.027	0.086	0.0003	2.1
	8.35	-0.02	0.236%	-0.013	-0.003	0.002%	2.0		6.18	-0.156	0.028	-0.028	-0.003	0.0008	1.2		-1.00	-0.039	0.016	0.046	-0.093	0.0007	1.9
	10.32	-0.02	0.251%	-0.013	-0.003	0.002%	2.0		8.20	-0.156	0.028	-0.028	-0.003	0.0008	1.2		10.29	-0.131	0.018	-0.093	-0.154	0.0005	2.0
	12.30	-0.02	0.267%	-0.013	-0.003	0.002%	2.0		10.28	-0.156	0.028	-0.028	-0.003	0.0008	1.2		12.35	-0.119	0.018	-0.093	-0.154	0.0005	2.0
	14.28	-0.02	0.283%	-0.013	-0.003	0.002%	2.0		12.35	-0.156	0.028	-0.028	-0.003	0.0008	1.2		14.31	-0.119	0.018	-0.093	-0.154	0.0005	2.0
	16.25	-0.02	0.300%	-0.013	-0.003	0.002%	2.0		14.32	-0.156	0.028	-0.028	-0.003	0.0008	1.2		16.31	-0.119	0.018	-0.093	-0.154	0.0005	2.0
	18.23	-0.02	0.316%	-0.013	-0.003	0.002%	2.0		16.30	-0.156	0.028	-0.028	-0.003	0.0008	1.2		18.29	-0.119	0.018	-0.093	-0.154	0.0005	2.0
0.90	-1.44	-0.207	0.018%	-0.013	-0.003	0.002%	1.8		-1.12	-0.179	0.029	-0.027	-0.003	0.0007	2.0		8.19	-0.283	0.028	-0.093	-0.182	0.0020	1.8
	-2.11	-0.097	0.017%	-0.013	-0.003	0.002%	1.8		-2.06	-0.167	0.019	-0.018	-0.003	0.0007	1.9		10.30	-0.117	0.009	-0.060	-0.121	0.0023	1.3
	-1.03	-0.041	0.074%	-0.004	-0.003	0.002%	1.8		-1.02	-0.082	0.019	-0.018	-0.003	0.0007	1.9		12.35	-0.117	0.009	-0.060	-0.121	0.0023	1.3
	-1.49	-0.013	0.059%	-0.005	-0.004	0.002%	1.8		-1.46	-0.080	0.019	-0.018	-0.003	0.0007	1.9		14.31	-0.117	0.009	-0.060	-0.121	0.0023	1.3
	-0.30	-0.038	0.073%	-0.010	-0.004	0.002%	1.8		-1.48	-0.082	0.019	-0.018	-0.003	0.0009	1.8		16.31	-0.117	0.009	-0.060	-0.121	0.0023	1.3
	1.06	-0.056	0.073%	-0.013	-0.004	0.002%	2.0		1.01	-0.046	0.019	-0.018	-0.003	0.0010	1.8		17.30	-0.071	0.009	-0.060	-0.121	0.0023	1.3
	2.13	-0.025	0.112%	-0.013	-0.004	0.002%	2.0		2.05	-0.093	0.017	-0.016	-0.003	0.0010	1.8		4.12	-0.071	0.009	-0.060	-0.121	0.0023	1.3
	4.88	-0.02	0.239%	-0.013	-0.004	0.002%	2.0		4.12	-0.185	0.026	-0.026	-0.003	0.0010	1.8		6.16	-0.157	0.027	-0.093	-0.121	0.0023	1.3
0.60	-4.20	-0.203	0.0172	0.014	-0.020	-0.003%	0.1	0.90	6.37	-0.320	0.036	-0.026	-0.007	-0.0032	0.1	1.30	4.11	-0.177	0.026	-0.028	-0.046	-0.0011	0
	-2.43	-0.098	0.017%	0.014	-0.020	-0.003%	0.1		8.21	-0.312	0.036	-0.026	-0.007	-0.0032	0		6.17	-0.166	0.027	-0.028	-0.046	-0.0011	0
	-1.17	-0.034	0.064%	0.017	-0.020	-0.003%	0.1		10.61	-0.322	0.036	-0.026	-0.007	-0.0032	0		8.23	-0.161	0.027	-0.028	-0.046	-0.0011	0
	-0.49	-0.034	0.078%	0.010	-0.020	-0.003%	0.1		-1.02	-0.221	0.026	-0.026	-0.007	-0.0032	0		10.29	-0.131	0.027	-0.028	-0.046	-0.0011	0
	-0.37	-0.012	0.078%	0.010	-0.020	-0.003%	0.1		-2.06	-0.112	0.026	-0.026	-0.007	-0.0033	0		12.35	-0.119	0.027	-0.028	-0.046	-0.0011	0
	1.00	-0.036	0.084%	0.017	-0.020	-0.003%	0.1		-1.02	-0.059	0.026	-0.026	-0.007	-0.0033	0		14.31	-0.119	0.027	-0.028	-0.046	-0.0011	0
	2.05	-0.029	0.100%	0.017	-0.020	-0.003%	0.1		-1.48	-0.031	0.026	-0.026	-0.007	-0.0033	0		16.31	-0.119	0.027	-0.028	-0.046	-0.0011	0
	4.28	-0.02	0.166%	0.017	-0.020	-0.003%	0.1		-1.02	-0.027	0.026	-0.026	-0.007	-0.0033	0		1.00	-0.039	0.027	-0.028	-0.046	-0.0011	0
	8.35	-0.02	0.183%	0.017	-0.020	-0.003%	0.1		-1.47	-0.027	0.026	-0.026	-0.007	-0.0033	0		4.12	-0.039	0.027	-0.028	-0.046	-0.0011	0
	12.30	-0.02	0.204%	0.017	-0.020	-0.003%	0.1		-1.02	-0.027	0.026	-0.026	-0.007	-0.0033	0		6.16	-0.039	0.027	-0.028	-0.046	-0.0011	0
	16.25	-0.02	0.221%	0.017	-0.020	-0.003%	0.1		-1.47	-0.027	0.026	-0.026	-0.007	-0.0033	0		8.21	-0.039	0.027	-0.028	-0.046	-0.0011	0
	20.20	-0.02	0.238%	0.017	-0.020	-0.003%	0.1		-1.02	-0.027</													

TABLE XI.- CONTINUED

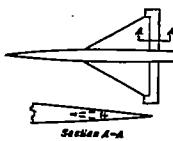
(c) Nominal  $\delta$ ,  $-2^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$	$N$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$
0.60	-4.21	-0.223	0.187	0.022	-0.011	-0.0048	-2.0	0.90	6.35	0.298	0.0339	-0.018	0.041	-0.0064	-1.8	1.50	6.17	0.289	0.0302	-0.019	-0.023	-2.1	
	-2.18	-1.25	0.107	0.15	-0.14	-0.004	-2.0		8.48	.408	0.0605	-0.023	0.041	-0.0067	-1.9		8.23	.211	0.0292	-0.017	-0.023	-2.8	
-1.03	-0.77	0.062	0.112	-0.006	-0.005	-2.0		10.62	.516	0.060	-0.035	0.041	-0.0066	-2.0		10.47	.427	0.0693	-0.021	-0.023	-6.3		
-1.22	-0.54	0.074	0.11	-0.002	-0.005	-2.0										12.35	.267	0.1171	-0.017	-0.023	-0.1		
-4.5	-0.10	0.070	0.09	0.11	-0.006	-1.9	1.80		4.12	.226	0.0261	0.045	0.110	-0.0026	-1.6		14.47	.192	0.087	-0.147	-0.022	-2.5	
1.03	0.14	0.071	0.08	0.17	-0.007	-1.9			4.06	.122	0.0177	0.045	0.073	-0.0030	-1.7		16.47	.622	0.1976	-0.097	-0.176	-0.0065	
2.04	0.63	0.069	0.005	0.30	-0.003	-1.9			4.02	.069	0.0146	0.045	0.088	-0.0032	-1.7								-2.7
4.16	1.64	0.113	-0.03	0.44	-0.006	-1.9			4.05	.061	0.0137	0.045	0.083	-0.0034	-1.8								
6.27	2.26	0.263	-0.005	0.40	-0.003	-1.9			4.08	.061	0.0135	0.045	0.080	-0.0036	-1.8								
8.37	3.93	0.493	-0.013	0.28	-0.002	-1.9			4.06	.037	0.0137	0.045	0.070	-0.0039	-1.8								
10.48	6.67	0.793	-0.018	0.11	-0.007	-1.9			4.05	.090	0.0162	0.045	0.061	-0.0046	-1.9								
12.61	7.76	1.200	-0.020	0.03	-0.009	-2.0			4.08	.192	0.0218	0.045	0.050	-0.0050	-2.0								
14.73	8.83	1.573	-0.023	0.016	-0.012	-2.0			4.05	.411	0.0236	0.045	0.045	-0.0042	-2.1								
16.87	10.61	2.313	-0.032	0.020	-0.007	-2.0			4.08	.445	0.0231	0.045	0.048	-0.0046	-2.2								
17.93	8.65	2.627	-0.028	0.038	-0.010	-2.0			4.05	.39	0.0230	0.045	0.046	-0.0046	-2.0								
0.60	-4.25	-0.237	0.211	0.026	-0.007	-0.0047	-2.0	1.30	4.12	.213	0.0227	0.040	0.108	-0.0028	-1.6	1.70	-4.10	-0.173	0.060	-0.030	-0.026	-1.6	
-2.13	-1.13	0.116	0.18	0.18	-0.005	-2.0			4.06	.199	0.0188	0.043	0.078	-0.0029	-1.7			4.05	-0.090	0.173	-0.017	0.023	-1.7
-1.07	-0.68	0.093	0.148	0.048	-0.007	-2.0			4.03	.061	0.0168	0.043	0.063	-0.0026	-1.7			4.02	-0.053	0.150	-0.011	0.002	-1.8
-1.22	-0.57	0.078	0.13	0.048	-0.007	-2.0			4.05	.062	0.0166	0.043	0.063	-0.0029	-1.7			4.04	-0.054	0.144	-0.007	0.002	-1.8
-1.03	-0.08	0.078	0.08	0.21	-0.008	-1.9			4.05	.061	0.0158	0.043	0.062	-0.0028	-1.8			4.03	-0.051	0.144	-0.006	0.002	-2.0
2.07	0.70	0.052	0.008	0.21	-0.008	-1.9			4.06	.061	0.0156	0.043	0.062	-0.0029	-1.8			4.01	.231	0.206	-0.034	-0.013	-2.1
4.19	1.75	0.165	-0.006	0.47	-0.006	-1.8			4.05	.083	0.0245	0.040	0.030	-0.0030	-1.8			8.21	.305	0.0474	-0.045	-0.065	-0.012
6.31	2.75	0.312	-0.012	0.46	-0.006	-1.8			4.12	.071	0.0271	0.040	0.035	-0.0032	-1.9	1.90	-4.10	-0.141	0.025	-0.030	-1.7		
8.43	4.05	0.492	-0.018	0.23	-0.002	-1.9			4.18	.183	0.0211	0.040	0.043	-0.0034	-2.0			8.22	.305	0.0474	-0.045	-0.065	-0.012
10.55	5.42	0.781	-0.021	0.000	-0.005	-1.9			4.25	.307	0.0265	0.040	0.051	-0.0034	-2.1			10.26	.362	0.0781	-0.056	-0.060	-0.010
12.68	6.94	1.208	-0.019	0.05	-0.005	-1.9			4.32	.319	0.0279	0.040	0.053	-0.0035	-2.3			12.32	.436	1.066	-0.065	-0.117	-0.008
14.81	8.82	1.812	-0.036	0.029	-0.005	-1.9			4.39	.363	0.0287	0.040	0.055	-0.0036	-2.3			14.37	.393	1.399	-0.073	-0.142	-0.008
16.93	10.82	2.422	-0.045	0.031	-0.005	-1.9			4.46	.401	0.0297	0.040	0.057	-0.0037	-2.3			16.43	.429	1.773	-0.082	-0.167	-0.006
18.01	12.82	2.752	-0.048	0.036	-0.005	-1.9			4.53	.439	0.0305	0.040	0.058	-0.0038	-2.6			18.06	.466	1.991	-0.084	-0.177	-0.009
0.90	-4.26	-0.251	0.223	0.032	-0.004	-0.0047	-2.0	1.50	4.11	.191	0.0267	0.032	0.097	-0.0027	-1.6	1.70	-4.10	-0.154	0.0242	-0.023	-1.7		
-2.14	-1.14	0.116	0.23	0.026	-0.005	-0.004	-2.0		4.05	.099	0.0263	0.032	0.069	-0.0026	-1.7			4.02	-0.080	0.173	-0.013	0.008	-1.8
-1.09	-0.88	0.097	0.17	0.12	-0.006	-0.004	-2.0		4.01	.054	0.0223	0.032	0.062	-0.0026	-1.7			4.01	-0.041	0.172	-0.009	0.019	-2.3
-1.24	-0.60	0.073	0.15	0.05	-0.006	-0.004	-2.0		4.08	.030	0.0247	0.032	0.064	-0.0026	-1.7			4.01	-0.029	0.163	-0.005	0.003	-2.4
-1.36	-0.093	0.063	0.11	0.02	-0.006	-0.004	-1.9		4.07	.016	0.0244	0.032	0.063	-0.0026	-1.8			4.01	-0.028	0.163	-0.005	0.003	-2.5
1.05	0.25	0.072	0.08	0.34	-0.006	-1.9			4.00	.034	0.0149	0.032	0.063	-0.0026	-1.8			16.42	.530	1.616	-0.066	-0.155	-0.0021
2.09	0.75	0.093	0.002	0.58	-0.006	-1.8			2.05	.079	0.0170	0.032	0.058	-0.0024	-1.9			17.45	.561	1.808	-0.065	-0.166	-0.0021
4.21	1.92	0.176	-0.010	0.65	-0.006	-1.8			2.05	.072	0.0172	0.032	0.058	-0.0024	-2.0								

(d) Nominal  $\delta$ ,  $-4^\circ$ 

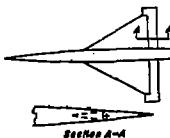
$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$	$N$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$	$N$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$b$	
0.60	-6.23	0.0217	0.029	0.005	-0.009	-3.8	0.90	6.38	0.273	0.0319	-0.006	0.059	-0.0104	-3.7	1.50	4.11	0.164	0.0052	-0.002	0.023	-0.0042	-3.5		
-2.13	-1.18	0.130	0.023	0.003	-0.003	-3.9		8.47	.377	0.0568	-0.012	0.074	-0.0108	-3.6		8.23	.211	0.0287	-0.036	-0.021	-0.004	-3.9		
-1.06	-1.01	0.101	0.020	0.003	-0.003	-3.8		10.62	.487	0.0588	-0.020	0.088	-0.0103	-3.7		8.22	.247	0.0287	-0.036	-0.021	-0.004	-3.9		
-1.22	-0.57	0.079	0.019	0.10	-0.003	-3.8			4.12	.244	0.0269	0.052	0.165	-0.0029	-3.3			10.26	.320	0.0616	-0.043	-0.020	-0.004	-3.1
-4.5	-0.02	0.082	0.17	0.022	-0.009	-3.8	1.20		4.06	.126	0.0187	0.053	0.138	-0.0037	-3.4			12.35	.200	0.1157	-0.073	-0.088	-0.019	-3.2
1.02	-0.06	0.081	0.16	0.028	-0.009	-3.8			4.05	.065	0.0226	0.053	0.129	-0.0037	-3.4			8.22	.247	0.0287	-0.036	-0.021	-0.004	-3.1
2.08	-0.47	0.093	0.13	0.038	-0.007	-3.8			4.05	.077	0.0219	0.052	0.129	-0.0037	-3.4			10.25	.314	0.1529	-0.047	-0.086	-0.007	-2.3
4.15	1.13	0.143	0.005	0.056	-0.004	-3.7			4.05	.059	0.0244	0.051	0.122	-0.0038	-3.4			12.31	.373	0.1953	-0.093	-0.143	-0.004	-1.3
6.25	2.11	0.260	-0.001	0.07	-0.005	-3.7			4.05	.151	0.0205	0.050	0.086	-0.0039	-3.4			14.36	.454	0.257	-0.135	-0.203	-0.004	-1.3
8.36	3.19	0.359	-0.007	0.16	-0.001	-3.8			4.05	.087	0.0214	0.050	0.100	-0.0041	-3.5			16.42	.515	0.361	-0.19	-0.271	-0.004	-1.3
10.47	4.76	0.753	-0.01	0.31	-0.009	-3.8			4.05	.195	0.0215	0.050	0.090	-0.0042	-3.5									

TABLE XI. - CONTINUED

(e) Nominal  $\delta$ ,  $-8^\circ$ 

$X$	$a$	$c_x$	$c_y$	$c_m$	$c_b$	$c_z$	$b$	$X$	$a$	$c_x$	$c_y$	$c_m$	$c_b$	$c_z$	$b$	$X$	$a$	$c_x$	$c_y$	$c_m$	$c_b$	$c_z$	$b$
0.60	-1.25	-0.278	0.0872	0.044	0.031	-0.030	-7.7	0.90	6.33	0.248	0.0389	0.005	0.153	-0.018	-7.4	1.50	2.05	0.061	0.083	0.001	0.126	-0.0073	-7.4
	-2.16	-1.12	0.168	0.038	0.037	-0.032	-7.6		8.43	0.346	0.0294	0.004	0.152	-0.018	-7.4		4.11	-1.21	0.072	-0.014	0.002	-0.013	-7.4
	-1.10	-1.35	0.133	0.036	0.033	-0.034	-7.6		10.58	1.46	0.050	-0.007	0.159	-0.018	-7.3		5.17	-2.40	0.056	-0.018	0.001	-0.013	-7.3
	-0.36	-1.12	0.119	0.035	0.036	-0.033	-7.6		12.72	1.96	0.053	-0.017	0.158	-0.018	-7.3		8.22	-3.54	0.057	-0.014	0.003	-0.012	-7.3
	-0.39	-0.68	0.108	0.033	0.047	-0.033	-7.6									10.28	-1.48	0.057	-0.016	0.003	-0.012	-7.3	
	-0.93	-0.93	0.098	0.032	0.022	-0.033	-7.7	1.20	-4.12	-0.265	0.048	0.065	0.292	-0.013	-7.0		14.40	-1.88	0.135	-0.016	0.003	-0.009	-8.0
	2.03	-0.05	0.010	0.028	0.029	-0.032	-7.7		-2.05	-1.54	0.023	0.042	0.235	-0.013	-7.0		15.47	-1.83	0.163	-0.018	0.003	-0.013	-8.1
	4.18	-1.09	0.041	0.021	0.015	-0.024	-7.7		-1.08	-1.00	0.027	0.039	0.230	-0.011	-7.0		17.50	0.61	0.235	-0.020	0.003	-0.006	-8.2
	6.43	-2.05	0.025	0.016	0.02	-0.024	-7.7		-1.08	-0.76	0.025	0.036	0.230	-0.011	-7.0								
	8.17	-	-	-	-	-	-		1.03	-0.50	0.026	0.036	0.234	-0.011	-7.0								
	10.22	-	-	-	-	-	-		2.00	-0.26	0.026	0.036	0.234	-0.011	-7.0								
	12.39	-	-	-	-	-	-		4.11	-0.09	0.024	0.036	0.234	-0.011	-7.0								
	14.24	-	-	-	-	-	-		6.18	0.15	0.026	0.036	0.234	-0.011	-7.0								
	16.11	-7.46	2.110	-0.01	0.023	-0.026	-7.6		8.25	-0.53	0.022	0.036	0.234	-0.011	-7.0								
	17.15	-8.00	2.242	0	0.036	-0.030	-7.6		10.22	-1.97	0.027	0.037	0.234	-0.011	-7.0								
0.80	-1.26	-0.85	0.097	0.049	0.070	-0.034	-7.7	12.39	-5.94	-0.318	0.079	0.080	-0.016	-7.6	1.70	-4.10	-1.87	0.086	0.001	0.187	-0.0071	-7.1	
	-0.17	-1.16	0.216	0.041	0.064	-0.034	-7.7		-4.13	-2.37	0.035	0.053	0.245	-0.011	-7.0		-2.05	-1.05	0.082	0.021	0.001	-0.008	-7.2
	-1.11	-1.37	0.337	0.041	0.062	-0.034	-7.7		-6.06	-1.35	0.040	0.057	0.225	-0.011	-7.0		-1.02	-0.64	0.074	0.020	0.001	-0.006	-7.3
	-0.38	-1.15	0.293	0.047	0.061	-0.034	-7.7		-1.02	-0.85	0.023	0.058	0.225	-0.011	-7.0		-1.49	-0.64	0.075	0.016	0.001	-0.008	-7.3
	-0.18	-0.69	0.199	0.036	0.059	-0.034	-7.7		-1.02	-0.59	0.020	0.058	0.225	-0.011	-7.0		-2.1	-0.64	0.076	0.016	0.001	-0.006	-7.4
	-0.97	-0.93	0.196	0.034	0.057	-0.034	-7.6		-1.02	-0.35	0.020	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	2.03	-0.93	0.192	0.034	0.057	-0.034	-7.6		-1.02	-0.13	0.020	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	4.21	-1.21	0.356	0.030	0.057	-0.034	-7.6		-1.02	-0.05	0.020	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	6.26	-2.22	0.376	0.034	0.058	-0.034	-7.6		-2.05	-0.02	0.020	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	8.39	-3.34	0.479	0.034	0.058	-0.034	-7.6		-4.12	-0.02	0.024	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	10.51	-5.25	0.761	0.04	0.057	-0.034	-7.7		6.19	-0.26	0.043	0.057	0.225	-0.011	-7.0		-2.05	-0.61	0.071	0.011	0.001	-0.008	-7.4
	12.65	-7.05	1.203	0.035	0.058	-0.034	-7.7		8.25	-0.34	0.033	0.057	0.225	-0.011	-7.0		-1.01	-0.61	0.071	0.011	0.001	-0.008	-7.4
	14.78	-9.54	1.643	0.032	0.058	-0.034	-7.7		10.38	-0.42	0.039	0.059	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	16.98	-17.70	2.234	0.034	0.058	-0.034	-7.7		12.38	-0.50	0.030	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
	17.98	-2.80	2.942	0.032	0.057	-0.034	-7.6		14.45	-0.57	0.038	0.058	0.225	-0.011	-7.0		-1.08	-0.61	0.071	0.011	0.001	-0.008	-7.4
0.90	-1.30	-2.98	0.317	0.029	0.057	-0.034	-7.7	17.50	-7.29	-0.231	0.070	-0.013	-0.014	-8.1	1.90	-4.09	-0.169	0.081	0.033	0.129	-0.0064	-7.3	
	-2.19	-1.19	0.208	0.047	0.073	-0.034	-7.6		-4.11	-2.09	0.020	0.046	0.211	-0.0078	-7.1		-2.04	-0.64	0.064	0.023	0.001	-0.008	-7.3
	-1.12	-1.41	0.141	0.047	0.072	-0.034	-7.6		-6.06	-1.16	0.023	0.046	0.211	-0.0077	-7.1		-1.01	-0.65	0.064	0.023	0.001	-0.008	-7.3
	-0.38	-1.15	0.129	0.041	0.063	-0.034	-7.6		-8.02	-0.26	0.023	0.046	0.211	-0.0077	-7.1		-1.08	-0.64	0.064	0.023	0.001	-0.008	-7.3
	-0.36	-0.66	0.092	0.037	0.066	-0.034	-7.6		-1.02	-0.16	0.023	0.046	0.211	-0.0077	-7.1		-10.24	-3.34	0.070	0.033	0.001	-0.008	-8.0
	-0.93	-0.93	0.096	0.037	0.064	-0.034	-7.5		-1.02	-0.06	0.022	0.046	0.211	-0.0077	-7.1		12.30	-0.41	0.076	0.047	0.001	-0.008	-8.0
	2.10	-1.05	0.251	0.035	0.064	-0.034	-7.5		-2.05	-0.05	0.022	0.046	0.211	-0.0077	-7.1		14.34	-0.41	0.077	0.047	0.001	-0.008	-8.1
	4.20	-1.82	0.377	0.037	0.064	-0.034	-7.5		-2.05	-0.05	0.022	0.046	0.211	-0.0077	-7.1		15.40	-0.26	0.071	0.050	0.001	-0.008	-8.2
	6.32	-4.73	0.635	0.033	0.064	-0.034	-7.5		-2.05	-0.05	0.022	0.046	0.211	-0.0077	-7.1		17.43	-0.27	0.071	0.050	0.001	-0.008	-8.2
	8.32	-7.23	0.733	0.033	0.064	-0.034	-7.5		-2.05	-0.05	0.022	0.046	0.211	-0.0077	-7.1								
	10.43	-3.77	0.663	0.039	0.064	-0.034	-7.5		-2.05	-0.05	0.022	0.046	0.211	-0.0077	-7.1								
	12.54	-1.65	1.046	0.032	0.064	-0.034	-7.5		-4.12	-0.55	0.022	0.046	0.211	-0.0077	-7.1								
	14.68	-5.98	1.907	0.034	0.064	-0.034	-7.5		6.19	-2.65	0.022	0.046	0.211	-0.0077	-7.1								
	16.80	-17.70	2.028	0.033	0.064	-0.034	-7.5		8.27	-3.75	0.022	0.046	0.211	-0.0077	-7.1								
	17.98	-7.98	2.321	0.034	0.064	-0.034	-7.5		10.34	-5.85	0.022	0.046	0.211	-0.0077	-7.1								
	-4.30	-3.07	0.353	0.060	1.31	-0.176	-11.6		12.42	-7.93	0.146	-0.071	-1.35	-0.0210	-11.2		-2.05	-1.96	0.0342	0.046	0.046	-0.0099	-11.0
	-2.18	-2.05	0.231	0.059	1.30	-0.176	-11.6		-4.12	-2.51	0.040	0.059	3.10	-0.0235	-10.8		-2.05	-1.15	0.040	0.032	0.046	-0.0099	-11.2
	-1.13	-1.96	0.166	0.058	1.30	-0.176	-11.6		-4.06	-1.52	0.040	0.059	3.10	-0.0235	-10.8		-1.02	-0.73	0.040	0.032	0.046	-0.0099	-11.2
	-0.36	-1.36	0.178	0.058	1.30	-0.176	-11.6		-1.02	-1.02	0.040	0.059	3.10	-0.0235	-10.8		-1.49	-0.93	0.040	0.032	0.046	-0.0099	-11.2
	-0.35	-0.93	0.173	0.058	1.30	-0.176	-11.6		-1.02	-0.76	0.040	0.059	3.10	-0.0235	-10.8		-1.02	-0.73	0.040	0.032	0.046	-0.0099	-11.2
	-0.66	-0.66	0.171	0.058	1.30	-0.176	-11.6		-1.02	-0.50	0.040	0.059	3.10	-0.0235	-10.8		-1.02	-0.73	0.040	0.032	0.046	-0.0099	-11.2
	-1.97	-0.64	0.174	0.058	1.30	-0.176	-11.6		-1.02	-0.24	0.040	0.059	3.10	-0.0235	-10.8		-1.02	-0.73	0.040	0.032	0.046	-0.0099	-11.2
	4.20	-0.96	0.160	0.058	1.30	-0.176	-11.6		-1.02	-0.08	0.040	0.059	3.10	-0									

TABLE XI.- CONCLUDED

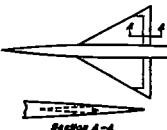
(g) Nominal  $\delta$ ,  $-16^\circ$ 

M	a	CL	CD	C <sub>D</sub>	C <sub>H</sub>	C <sub>I</sub>	b	M	a	CL	CD	C <sub>D</sub>	C <sub>H</sub>	C <sub>I</sub>	b	M	a	CL	CD	C <sub>D</sub>	C <sub>H</sub>	C <sub>I</sub>	b
0.60	-1.29	0.323	0.0375	0.062	0.140	-0.0178	-15.6	0.90	6.76	0.211	0.0336	0.026	0.195	-0.0189	-15.4	1.50	2.09	0.041	0.0245	0.015	—	-0.0139	-15.1
-2.18	-1.32	0.028	0.028	0.058	0.144	-0.0204	-15.6	1.32	8.42	.380	0.065	0.019	0.201	-0.0176	-15.3	4.11	-1.90	0.059	-0.002	0.207	-0.0137	-15.2	
-1.11	-1.32	0.028	0.028	0.058	0.144	-0.0208	-15.7	10.56	4.42	0.067	0.013	0.249	-0.0179	-15.2	6.17	-2.19	0.049	-0.148	0.171	-0.0133	-15.3		
-0.64	-1.67	0.0208	0.027	0.057	0.130	-0.0220	-15.7	1.20	-4.18	-0.304	0.070	0.088	0.360	-0.0200	-14.7	10.29	-3.93	0.056	-0.002	0.278	-0.0130	-15.4	
-1.28	0.178	0.027	0.127	0.0227	0.157	-0.0237	-15.7	2.06	-1.95	0.0338	0.068	0.365	0.0210	-14.7	10.35	-3.49	0.058	-0.002	0.268	-0.0127	-15.5		
-1.12	0.105	0.020	0.056	0.021	0.157	-0.0231	-15.7	1.03	-1.43	0.0281	0.069	0.373	0.0223	-14.6	14.41	-3.47	0.053	-0.002	0.263	-0.0125	-15.6		
1.28	0.058	0.0199	0.054	0.133	0.126	-0.0234	-15.7	0.51	-1.13	0.0272	0.064	0.371	0.0223	-14.6	16.47	-6.23	0.055	-0.002	0.258	-0.0123	-15.7		
1.92	0.049	0.0173	0.056	0.133	0.126	-0.0234	-15.7	0.48	-0.64	0.0258	0.044	0.368	0.0221	-14.6	17.50	0.60	0.220	-0.002	0.258	-0.0121	-15.8		
1.12	0.049	0.0173	0.056	0.133	0.126	-0.0234	-15.7	1.01	-0.36	0.0247	0.040	0.365	0.0222	-14.7	1.70	-4.10	-0.207	0.059	-0.002	0.253	-0.0126	-15.8	
8.35	2.47	0.0399	0.035	0.126	0.126	-0.0237	-15.7	2.07	-0.28	0.0247	0.039	0.335	0.0214	-14.8	2.05	-1.25	0.059	-0.002	0.255	-0.0124	-15.9		
12.53	1.54	0.090	0.028	0.111	0.111	-0.0243	-15.7	4.18	-1.35	0.0303	0.071	0.363	0.0209	-14.9	1.03	-0.94	0.054	-0.002	0.254	-0.0123	-15.9		
12.65	1.55	0.065	0.162	0.027	0.105	-0.0250	-15.7	6.18	2.85	0.0437	0.111	0.244	0.0211	-15.1	5.50	-0.64	0.058	-0.002	0.253	-0.0122	-15.9		
16.77	0.67	1.987	0.027	0.103	0.0267	-0.0257	-15.7	8.89	0.90	0.0533	0.088	0.225	0.0201	-15.1	10.27	-1.02	0.056	-0.002	0.252	-0.0123	-15.0		
17.84	-.723	0.2269	0.028	0.101	0.0272	-0.0272	-15.7	10.38	1.99	0.047	0.16	0.197	0.0195	-15.3	1.50	-0.24	0.026	-0.002	0.244	-0.0121	-15.0		
0.60	-1.31	-3.21	0.0407	0.056	0.194	-0.0186	-15.4	14.48	0.673	0.1786	0.071	0.158	-0.0267	-15.4	2.08	-1.41	0.031	-0.122	0.118	-0.0118	-15.1		
-2.19	-2.24	0.0280	0.050	0.178	0.0222	-0.024	-15.4	1.30	-4.12	-0.267	0.038	0.073	0.357	-0.0143	-14.6	4.10	-1.19	0.051	-0.002	0.253	-0.0113	-15.3	
-1.14	-1.77	0.0235	0.058	0.172	0.0235	-0.0245	-15.5	-2.06	-0.167	0.0313	0.055	0.351	-0.0144	-14.7	6.16	-2.00	0.056	-0.002	0.256	-0.0106	-15.4		
-0.61	-1.52	0.0219	0.056	0.172	0.0238	-0.0245	-15.5	-1.03	-0.119	0.0274	0.058	0.355	-0.0144	-14.6	8.21	-2.73	0.056	-0.002	0.255	-0.0103	-15.7		
1.14	-1.18	0.021	0.053	0.156	0.0248	-0.025	-15.5	-0.51	-0.093	0.0258	0.043	0.350	-0.0143	-14.7	12.38	-4.27	0.059	-0.002	0.254	-0.0103	-15.8		
0.98	-0.86	0.0183	0.023	0.156	0.0225	-0.0255	-15.5	0.53	-0.046	0.0240	0.039	0.330	-0.0142	-14.7	14.38	-4.92	0.1341	-0.005	0.256	-0.0099	-15.7		
4.17	0.75	0.0232	0.048	0.161	0.0256	-0.0255	-15.5	1.68	0.21	0.0238	0.031	0.332	-0.0141	-14.7	16.43	-5.60	0.1704	-0.005	0.254	-0.0098	-16.1		
6.30	1.83	0.0304	0.032	0.173	0.0247	-0.0255	-15.5	2.09	0.039	0.0241	0.022	0.301	-0.0137	-14.8	17.46	-5.94	0.1907	-0.009	0.253	-0.0102	-16.0		
8.37	2.87	0.0493	0.081	0.166	0.0247	-0.0255	-15.5	4.12	-1.35	0.0308	0.003	0.353	-0.0133	-15.0	1.90	-4.10	-0.184	0.047	0.043	-0.002	0.253	-0.0095	-15.0
10.49	3.88	0.0772	0.081	0.171	0.0250	-0.0255	-15.5	6.18	2.32	0.0431	0.013	0.280	-0.0135	-15.1	2.04	-1.10	0.051	-0.02	0.254	-0.0089	-15.1		
12.50	2.03	0.0219	0.018	0.173	0.0235	-0.0255	-15.5	8.26	0.37	0.0632	0.027	0.194	-0.0133	-15.2	1.01	-0.74	0.022	-0.027	0.253	-0.0088	-15.1		
14.56	1.76	0.021	0.018	0.173	0.0234	-0.0255	-15.5	10.33	1.42	0.0595	0.042	0.160	-0.0133	-15.4	14.40	-5.60	0.1802	-0.005	0.252	-0.0087	-15.1		
16.59	1.72	0.216	0.026	0.163	0.0235	-0.0255	-15.5	12.39	2.16	0.1200	0.058	0.124	-0.0136	-15.5	16.45	-6.00	0.1800	-0.005	0.251	-0.0086	-15.2		
17.98	1.73	0.216	0.027	0.173	0.0230	-0.0255	-15.5	14.47	0.69	0.1642	0.057	0.093	-0.0136	-15.6	1.45	-0.20	0.0200	-0.019	0.250	-0.0085	-15.2		
0.90	-1.33	0.0437	0.076	0.248	0.0164	-0.0245	-15.2	16.23	0.69	0.2106	0.052	0.063	-0.0144	-15.7	1.96	-0.001	0.037	-0.016	0.194	-0.0055	-15.2		
-2.21	-2.35	0.0285	0.058	0.223	0.0190	-0.0245	-15.3	1.50	-1.71	0.0232	0.057	0.063	-0.0144	-15.7	2.07	-1.86	0.0804	-0.01	0.192	-0.0055	-15.3		
-1.15	-1.82	0.0233	0.053	0.213	0.0190	-0.0245	-15.3	-1.41	-0.232	0.041	0.060	0.118	-0.0143	-14.7	4.09	-1.59	0.0853	-0.001	0.194	-0.0054	-15.3		
-0.62	-1.52	0.0216	0.052	0.216	0.0193	-0.0245	-15.3	-0.20	-1.42	0.0303	0.045	0.103	-0.0145	-14.8	6.14	-1.74	0.0533	-0.001	0.191	-0.0056	-15.5		
1.34	-1.14	0.0184	0.058	0.196	0.0200	-0.0245	-15.4	-1.02	-0.057	0.0267	0.038	0.104	-0.0144	-14.8	8.20	-2.46	0.0526	-0.002	0.196	-0.0074	-15.7		
1.98	-0.87	0.0178	0.057	0.199	0.0202	-0.0245	-15.4	-0.51	-0.074	0.0254	0.034	0.099	-0.0144	-14.8	12.25	0.20	0.0569	-0.009	0.193	-0.0073	-15.8		
4.21	0.99	0.0210	0.035	0.196	0.0204	-0.0245	-15.4	1.03	-0.008	0.0238	0.023	0.061	-0.0140	-14.9	12.45	0.39	0.1902	-0.004	0.193	-0.0068	-16.1		
17.81	0.64	0.2210	0.040	0.184	0.0203	-0.0245	-15.6	1.30	-4.11	-0.290	0.051	0.111	-0.0235	-22.5	1.70	-4.10	-0.283	0.048	0.061	-0.0175	-22.6		
0.60	-4.30	-0.343	0.0471	0.071	0.241	-0.0248	-23.4	0.90	1.93	0.064	0.0259	0.052	0.312	-0.0318	-23.0	1.50	6.16	-0.196	0.0458	-0.004	0.211	-0.0186	-23.2
-2.21	-2.28	0.0379	0.070	0.273	-0.0245	-23.4	4.17	0.059	0.0274	0.056	0.328	-0.0389	-23.2	8.28	-2.80	0.0561	-0.016	0.198	-0.0186	-23.2			
-1.17	-1.22	0.0202	0.032	0.271	-0.0245	-23.4	6.38	0.176	0.0317	0.035	0.239	-0.0392	-23.2	10.28	-3.85	0.0611	-0.089	0.173	-0.0182	-23.3			
-0.57	-1.91	0.0287	0.057	0.271	-0.0245	-23.4	8.41	0.290	0.0586	0.047	0.227	-0.0396	-23.3	12.32	-4.19	0.0611	-0.038	0.177	-0.0179	-23.4			
-0.31	-1.20	0.0284	0.056	0.265	0.0213	-0.0245	-23.4	10.29	0.409	0.0505	0.018	0.224	-0.0393	-23.3	14.40	-5.60	0.1802	-0.005	0.170	-0.0175	-23.5		
1.89	0.085	0.0240	0.056	0.200	-0.0234	-0.0245	-23.5	12.68	0.105	0.008	0.217	-0.0232	-23.3	17.19	0.639	0.2105	-0.067	0.060	-0.0186	-23.7			
4.07	0.0123	0.0243	0.059	0.204	-0.0234	-0.0245	-23.5	2.05	-0.014	0.0340	0.016	0.406	-0.0300	-22.5	1.70	-4.10	-0.283	0.048	0.061	-0.0175	-22.6		
6.23	1.11	0.0854	0.074	0.199	0.0225	-0.0245	-23.5	4.07	-0.111	0.034	0.059	0.318	-0.0283	-22.5	8.21	-2.05	0.0533	-0.002	0.193	-0.0173	-22.7		
8.35	2.35	0.0374	0.045	0.205	-0.0234	-0.0245	-23.5	6.24	0.217	0.058	0.012	0.309	-0.0283	-22.5	11.02	-3.02	0.0533	-0.022	0.194	-0.0174	-22.7		
10.33	1.62	0.061	0.048	0.200	-0.0234	-0.0245	-23.5	10.21	0.280	0.060	0.012	0.301	-0.0277	-22.5	13.25	-4.00	0.0580	-0.028	0.194	-0.0171	-22.7		
12.30	1.82	0.059	0.039	0.199	-0.0234	-0.0245	-23.5	10.31	0.270	0.067	0.011	0.297	-0.0271	-22.5	15.25	-5.10	0.0580	-0.028	0.194	-0.0169	-22.8		
14.28	1.93	0.110	0.039	0.199	-0.0234	-0.0245	-23.5	10.31	0.270	0.067	0.011	0.297	-0.0271	-22.5	17.38	-4.07	0.0589	-0.028	0.194	-0.0169	-22.8		
16.25	1.93	0.193	0.038	0.191	-0.0234	-0.0245	-23.5	12.38	0.260	0.074													

~~CONFIDENTIAL~~

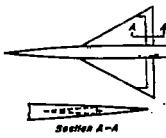
TABLE XII.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED WITH  
A 5.5-PERCENT-AREA TRIANGULAR HORN BALANCE ON THE RIGHT WING PANEL AND  
A 6.4-PERCENT-AREA RECTANGULAR HORN BALANCE ON THE LEFT WING PANEL.  
DATA FOR 5.5-PERCENT-AREA TRIANGULAR HORN BALANCE FLAP DEFLECTED.

$$R = 4.4 \times 10^8$$

(a) Nominal  $\delta_e$ ,  $2^\circ$ 

X	c	$C_D$	$C_L$	$C_M$	$C_P$	$C_Q$	S	M	a	$C_D$	$C_L$	$C_M$	$C_P$	$C_Q$	S	X	c	$C_D$	$C_L$	$C_M$	$C_P$	$C_Q$	S
0.60	-1.15	0.171	0.0150	0.003	-0.011	-0.0095	1.7	0.90	1.05	0.069	-0.077	-0.011	-0.026	-0.008	1.7	1.20	0.17	0.022	0.0140	-0.005	-0.016	0.003	1.6
	-0.05	0.061	0.0075	0.008	-0.017	-0.0075	1.7		2.12	-0.115	-0.008	-0.019	-0.026	-0.005	1.7		1.01	0.046	-0.017	-0.010	-0.025	-0.002	1.6
	-1.25	-0.056	0.0081	-0.004	-0.019	-0.005	1.7		4.27	0.231	-0.000	-0.004	-0.033	-0.007	1.7		2.03	-0.050	0.075	-0.016	-0.073	-0.001	1.6
	-1.35	-0.019	0.0073	-0.005	-0.021	-0.005	1.7		6.39	-0.161	-0.033	-0.033	-0.026	-0.005	1.6		1.11	-0.057	-0.007	-0.014	-0.071	-0.003	1.6
	-1.45	0.030	0.0073	-0.007	-0.021	-0.005	1.7		8.26	-0.151	-0.043	-0.033	-0.027	-0.005	1.5		0.18	-0.053	-0.013	-0.014	-0.066	-0.003	1.5
	1.08	0.058	0.0085	-0.005	-0.008	-0.005	1.7		1.20	-1.13	-0.003	-0.006	-0.008	-0.001	1.6		3.47	-0.023	-0.037	-0.037	-0.037	-0.020	1.1
	2.08	1.00	0.0103	-0.010	-0.021	-0.005	1.7		2.05	-0.068	-0.009	-0.013	-0.009	-0.001	1.7		1.70	-1.11	-0.161	-0.041	0.083	0.008	1.9
	4.18	1.94	0.0174	-0.021	-0.036	-0.005	1.7		4.28	-0.067	-0.017	-0.036	-0.005	-0.001	1.6		1.08	-0.039	0.014	-0.017	0.017	-0.017	1.7
	6.28	3.81	0.0257	-0.021	-0.037	-0.005	1.6		6.45	-0.063	-0.030	-0.001	-0.031	-0.005	1.6		1.47	-0.047	-0.019	-0.008	-0.029	-0.009	1.7
	8.38	6.82	0.0287	-0.021	-0.037	-0.005	1.6		8.26	-0.063	-0.030	-0.001	-0.031	-0.005	1.5		1.47	-0.047	-0.019	-0.008	-0.029	-0.009	1.7
	10.48	1.05	0.0286	-0.021	-0.037	-0.005	1.6		1.05	-0.063	-0.030	-0.001	-0.031	-0.005	1.6		1.02	-0.047	-0.019	-0.008	-0.029	-0.009	1.7
	12.58	2.95	0.0285	-0.021	-0.036	-0.005	1.5		1.05	-0.068	-0.030	-0.013	-0.077	-0.001	1.6		1.47	-0.047	-0.019	-0.008	-0.029	-0.009	1.7
	14.68	7.04	0.0287	-0.021	-0.037	-0.005	1.5		1.05	-0.068	-0.030	-0.013	-0.073	-0.001	1.6		1.02	-0.047	-0.019	-0.008	-0.029	-0.009	1.7
	16.78	1.95	0.0284	-0.021	-0.036	-0.005	1.5		1.05	-0.068	-0.030	-0.013	-0.073	-0.001	1.6		1.47	-0.047	-0.019	-0.008	-0.029	-0.009	1.7
	17.98	4.89	0.0282	-0.021	-0.035	-0.005	1.5		1.05	-0.067	-0.030	-0.013	-0.073	-0.001	1.6		1.11	-0.043	-0.008	-0.007	-0.026	-0.008	1.7
	4.18	-1.81	0.0156	-0.012	-0.005	-0.005	1.7		10.45	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		6.18	-0.051	-0.046	-0.046	-0.046	-0.007	1.7
	4.19	-0.66	0.0095	-0.005	-0.005	-0.005	1.7		12.49	-0.059	-0.046	-0.065	-0.054	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.007	1.7
	4.20	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-1.13	-0.190	-0.065	-0.008	1.8		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7	
	4.21	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		4.05	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.22	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.23	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.24	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.25	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.26	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.27	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.28	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.29	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.30	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.31	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.32	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.33	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.34	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.35	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.36	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.37	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.38	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.39	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.40	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.41	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.42	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.43	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.44	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.45	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.46	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.47	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.48	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.49	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-0.051	-0.046	-0.046	-0.046	-0.008	1.7
	4.50	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		12.35	-0.050	-0.045	-0.045	-0.045	-0.008	1.7
	4.51	-0.05	0.0078	-0.005	-0.005	-0.005	1.7		1.30	-0.068	-0.029	-0.049	-0.029	-0.008	1.1		10.35	-					

TABLE XII.- CONTINUED

(c) Nominal  $\delta$ ,  $-2^\circ$ 

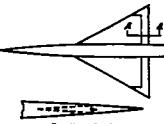
$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$		
0.60	-4.19	-0.205	0.0166	0.018	0.02	0.0010	-2.2	0.90	6.45	-0.290	0.0342	-0.012	0.010	0.0031	-2.1	1.50	4.18	0.168	0.0246	-0.023	-0.022	0.0017	-2.1		
-2.11	-1.19	0.0106	0.013	0.021	0.0014	-2.2		8.61	-0.391	0.0597	-0.017	0.004	0.0037	-2.4		6.17	-0.293	0.0382	-0.036	-0.027	0.0023	-2.2			
-1.05	-0.73	0.0053	0.011	0.020	0.0017	-2.2		10.82	-0.504	0.0967	-0.020	0.0081	0.0040	-2.5		8.27	-0.337	0.0582	-0.048	-0.032	0.0027	-2.6			
-3.2	-0.50	0.0075	0.012	0.020	0.0017	-2.2										10.30	-0.418	0.0635	-0.060	-0.025	0.0031	-2.7			
-4.0	-0.07	0.0070	0.009	0.019	0.0019	-2.2			-1.13	-0.281	0.0271	0.01	0.128	0.0003	-1.8		10.36	-0.496	0.1144	-0.070	-0.199	0.0036	-2.8		
1.04	0.15	0.0073	0.008	0.019	0.0019	-2.2			-2.06	-0.115	0.0171	0.023	0.097	0.0007	-1.9		14.43	-0.578	0.1009	-0.060	-0.191	0.0049	-2.9		
2.04	0.63	0.0087	0.003	0.016	0.0017	-2.2			-1.03	-0.065	0.0144	0.015	0.083	0.0011	-2.0		16.49	-0.644	0.1905	-0.050	-0.221	0.0043	-3.0		
4.17	-1.29	0.0145	0.013	0.013	0.0019	-2.2			-1.49	-0.036	0.0135	0.011	0.076	0.0011	-2.0		17.53	-0.683	0.2162	-0.049	-0.239	0.0038	-3.1		
6.26	-2.54	0.0269	-0.005	0	0.0021	-2.3			-58	0.010	0.0132	0.004	0.057	0.0013	-2.1										
8.37	-3.54	0.0486	-0.013	-0.016	0.0035	-2.3			1.01	-0.34	0.0137	0	0.050	0.0016	-2.1		1.70	-4.11	-0.168	0.082	0.026	0.005	-0.0006	-1.9	
10.48	-4.55	0.0766	-0.013	-0.016	0.0028	-2.3			2.06	0.083	0.0158	-0.007	0.034	0.0019	-2.1			0.018	0.016	0.060	0	-2.0			
12.60	-5.60	0.1148	-0.013	-0.02	0.0063	-2.4			4.12	0.187	0.0240	-0.024	0.000	0.0021	-2.3			-1.01	-0.047	0.046	0.009	0.002	0.0004	-2.1	
14.73	-6.72	0.1636	-0.014	-0.018	0.0021	-2.4			6.19	0.291	0.0394	-0.041	0.034	0.0028	-2.4			-4.9	-0.203	0.1413	0.006	0.042	0.0006	-2.1	
16.87	-8.02	0.2262	-0.020	-0.006	0.0057	-2.4			8.27	0.396	0.0594	-0.057	0.073	0.0038	-2.3			-1.7	0.012	0.040	0	0.027	0.0006	-2.2	
17.93	-8.86	0.2853	-0.018	-0.009	0.0057	-2.5			10.33	0.501	0.0933	-0.073	0.118	0.0037	-2.6			1.00	0.031	0.1410	-0.019	-0.003	0.0043	-2.9	
									12.40	0.611	0.1361	-0.091	0.162	0.0042	-2.8			2.04	0.072	0.2199	-0.009	0.004	0.0018	-2.2	
0.00	-4.24	-0.227	0.0200	0.023	0.018	0.0012	-2.2									6.16	-0.151	0.0252	-0.025	0.0012	0.0012	-2.1			
-2.13	-1.28	0.0112	0.016	0.024	0.0016	-2.2										6.26	-0.229	0.0398	-0.032	0.0025	0.0025	-2.2			
-1.05	-0.74	0.0087	0.012	0.023	0.0018	-2.2										8.20	-0.307	0.0525	-0.032	0.0082	0.0082	-2.6			
-1.43	-0.65	0.0079	0.012	0.020	0.0021	-2.2										10.07	-0.387	0.0622	-0.022	0.0117	0.0084	-2.7			
-1.46	-0.65	0.0079	0.012	0.020	0.0021	-2.2										12.33	-0.447	0.1026	-0.062	0.146	0.0041	-2.8			
1.07	-0.18	0.0078	0.010	0.020	0.0024	-2.2										14.36	-0.513	0.1363	-0.069	0.172	0.0047	-2.9			
2.09	-0.69	0.0091	0.005	0.019	0.0022	-2.2				1.00	-0.336	0.0261	0.026	0.011	-2.1			16.45	-0.580	0.1742	-0.075	0.199	0.0053	-3.0	
4.20	-1.71	0.0160	-0.003	0.013	0.0024	-2.2				2.05	0.083	0.0168	-0.003	0.021	-2.2			17.48	-0.613	0.1948	-0.077	-0.214	0.0051	-3.0	
6.22	-2.75	0.0206	-0.010	0.001	0.0034	-2.3				4.19	-0.176	0.0290	-0.024	0.011	0.0023	-2.3			12.10	-0.151	0.0252	-0.025	0.0012	0.0012	-2.1
8.43	-3.80	0.0547	-0.015	-0.019	0.0025	-2.3				6.19	-0.276	0.0398	-0.036	0.049	-0.025	-2.4			10.90	-0.310	0.0839	-0.023	0.006	-0.0006	-2.0
10.56	-4.70	0.0845	-0.013	-0.025	0.0034	-2.4				8.25	-0.369	0.0621	-0.052	0.088	0.0026	-2.6			12.07	-0.398	0.1042	-0.066	0.045	0.0008	-2.1
12.69	-5.83	0.1265	-0.021	-0.017	0.0034	-2.4				10.32	-0.460	0.0906	-0.065	0.126	0.0030	-2.7			14.26	-0.447	0.1234	-0.070	0.141	0.0004	-2.1
14.83	-6.69	0.1776	-0.027	-0.018	0.0033	-2.5				12.36	-0.493	0.1252	-0.077	0.165	0.0031	-2.8			16.49	-0.512	0.1427	-0.075	0.199	0.0044	-2.9
16.96	-8.08	0.2367	-0.033	-0.019	0.0023	-2.5				14.49	-0.531	0.1669	-0.081	0.203	0.0031	-2.9			18.30	-0.501	0.1946	-0.091	-0.129	0.0046	-2.7
18.02	-8.84	0.2677	-0.035	-0.013	0.0022	-2.5				16.52	-0.578	0.2141	-0.099	0.233	0.0032	-3.1			18.35	-0.559	0.1232	-0.057	-0.156	0.0045	-2.8
									17.56	-0.799	0.2403	-0.104	-0.050	0.0013	-2.2			20.07	-0.136	0.0218	-0.016	-0.023	0.0016	-2.1	
0.90	-4.27	-0.239	0.0213	0.028	0.016	0.0016	-2.2									6.11	-0.205	0.0311	-0.009	-0.027	0.0022	-2.4			
-2.13	-1.33	0.0108	0.020	0.027	0.016	0.0016	-2.2									8.19	-0.259	0.0490	-0.036	-0.077	0.0026	-2.5			
-1.07	-0.61	0.0079	0.016	0.027	0.0022	-2.1										10.24	-0.332	0.0691	-0.041	-0.103	0.0032	-2.6			
-53	-0.53	0.0055	0.014	0.027	0.0023	-2.1										12.30	-0.401	0.0946	-0.051	-0.129	0.0040	-2.7			
-4.5	-0.07	0.0061	0.011	0.030	0.0027	-2.1										14.35	-0.459	0.1232	-0.057	-0.156	0.0045	-2.8			
1.05	0.02	0.0064	0.010	0.030	0.0027	-2.1										16.40	-0.517	0.1565	-0.059	-0.174	0.0053	-2.9			
2.08	-0.74	0.0083	0.005	0.024	0.0027	-2.1										17.43	-0.547	0.1731	-0.063	-0.185	0.0056	-2.9			
4.22	-1.86	0.0166	-0.006	0.015	0.0027	-2.1																			

(d) Nominal  $\delta$ ,  $-4^\circ$ 

$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$	$K$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$b$
0.60	-4.22	-0.230	0.0000	-0.026	-0.0040	0.0045	-1.2	0.90	6.33	0.270	0.0310	-0.003	0.017	0.0069	-4.2	1.50	4.11	0.168	0.0232	-0.020	0.017	0.0025	-4.2
-2.16	-1.02	0.012	0.011	0.026	0.0045	0.0050	-2.2		8.46	0.373	0.0553	-0.007	-0.003	0.0070	-4.3		6.18	-0.248	0.0368	-0.033	-0.019	0.0039	-4.3
-1.07	-0.65	0.0087	0.016	0.037	0.0049	0.0051	-2.2		10.59	0.479	0.0877	-0.014	0.010	0.0077	-4.3		8.24	-0.332	0.0564	-0.045	-0.036	0.0032	-4.5
-1.43	-0.65	0.0080	0.017	0.037	0.0051	0.0051	-2.2									10.82	-0.307	0.0581	-0.036	-0.025	0.0035	-4.6	
-1.46	-0.65	0.0079	0.017	0.037	0.0051	0.0051	-2.2									12.96	-0.491	0.1127	-0.067	-0.128	0.0040	-4.7	
2.09	-0.47	0.0091	0.013	0.037	0.0052	0.0052	-2.2									14.42	-0.566	0.1487	-0.077	-0.157	0.0044	-4.9	
4.17	-1.14	0.0130	0.007	0.037	0.0051	0.0051	-2.2									17.78	-0.677	0.2136	-0.089	-0.184	0.0046	-5.0	
6.31	-2.38	0.0256	-0.003	0.014	0.0056	0.0051	-2.2																
8.43	-3.75	0.0568	-0.003	0.018	0.0058	0.0051	-2.3									10.09	-0.376	0.0494	-0.047	-0.087	0.0043	-4.8	
10.58	-4.41	0.0743	-0.006	0.020	0.0060	0.0053	-2.3																

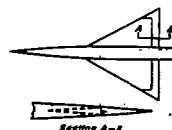
CONFIDENTIAL

TABLE XII.- CONTINUED

(e) Nominal  $\delta$ ,  $-8^\circ$ 

$X$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$S$	$X$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$S$	$X$	$\alpha$	$C_L$	$C_D$	$C_m$	$C_h$	$C_1$	$S$	
0.60	-1.24	0.298	0.0230	0.039	0.072	0.0108	-8.1	0.90	6.32	0.243	0.0300	0.012	0.120	0.0127	-8.0	1.50	2.05	0.069	0.0179	0	0.189	0.0053	-7.7	
	-2.14	-1.170	0.0147	0.035	0.088	0.0118	-8.1		6.45	0.242	0.0305	0.0127	0.126	0.0126	-7.9		4.11	1.92	0.049	0.014	0.098	0.0050	-7.9	
	-1.10	-1.183	0.0113	0.034	0.074	0.0119	-8.1		10.78	0.244	0.0309	0	0.127	0.0127	-7.9		6.18	2.39	0.077	0.027	0.054	0.0052	-8.0	
	-1.27	-1.102	0.0101	0.033	0.074	0.0120	-8.1		1.20	-4.18	-0.222	0.0216	0.060	0.0178	-7.3		8.24	3.26	0.057	0.039	0.014	0.0054	-8.2	
	-1.46	-0.680	0.0085	0.032	0.079	0.0122	-8.1		-2.05	-0.15	0.016	0.042	0.025	0.0187	-7.4		10.30	4.03	0.089	0.050	-0.023	0.0056	-8.2	
	.93	-0.036	0.0084	0.031	0.076	0.0123	-8.1		-1.08	-0.05	0.0181	0.034	0.022	0.0201	-7.4		12.36	4.83	1.121	0.084	-0.029	0.0072	-8.0	
	2.93	0.012	0.0083	0.028	0.073	0.0116	-8.1		50	0.069	0.0159	0.020	0.027	0.001	-7.4		14.42	5.29	1.177	0.071	-0.021	0.0073	-7.9	
	4.18	1.08	0.0127	0.022	0.088	0.0118	-8.1		51	0.020	0.0153	0.026	0.022	0.002	-7.5		17.53	6.70	2.119	-0.063	-0.131	0.0072	-7.7	
	6.23	2.04	0.0024	0.017	0.093	0.021	-8.1		1.00	0.008	0.0162	0.028	0.024	0.009	-7.5									
	8.34	3.07	0.0047	0.018	0.093	0.021	-8.2		2.03	0.050	0.0175	0.029	0.027	0.009	-7.6		1.70	-4.10	-0.180	0.084	0.016	0.0027	-7.4	
	10.44	4.05	0.0050	0.018	0.093	0.021	-8.2		4.12	1.61	0.045	0.008	0.017	0.009	-7.7			-2.05	-0.059	0.054	0.013	0.0036	-7.6	
	12.57	5.01	0.0059	0.017	0.093	0.021	-8.3		6.19	0.266	0.087	0.025	0.029	0.009	-8.0			-1.02	-0.059	0.059	0.014	0.0039	-7.6	
	14.69	6.02	0.0061	0.017	0.093	0.021	-8.3		8.26	3.75	0.067	0.048	0.029	0.009	-8.1			-0.48	-0.039	0.059	0.014	0.0041	-7.7	
	15.85	7.03	0.0063	0.017	0.093	0.021	-8.3		10.33	1.79	0.079	0.048	0.029	0.009	-8.3			1.07	-0.034	0.048	0.008	0.0043	-7.7	
	17.99	8.02	0.0145	0.017	0.093	0.021	-8.3		12.42	5.90	0.180	0.076	0.006	0.009	-8.3			1.03	-0.023	0.036	0.008	0.0045	-7.7	
0.80	-1.28	-2.74	0.0051	0.045	0.096	0.0096	-8.0		14.50	0.694	0.176	-0.06	-0.027	0.009	-8.4			2.03	0.061	0.0171	0.024	0.0047	-7.6	
	-2.16	-1.175	0.0150	0.040	0.093	0.0112	-8.0		1.30	-4.18	-0.223	0.020	0.026	0.0049	-7.4			4.11	1.47	0.037	0.013	0.067	0.0052	-7.0
	-1.10	-1.228	0.0165	0.046	0.093	0.0100	-7.9		4.05	1.06	0.024	0.024	0.028	0.008	-7.4			6.16	2.17	0.034	0.021	0.068	0.0051	-7.1
	-2.38	-1.106	0.0113	0.037	0.093	0.0106	-7.9		4.05	-0.05	0.079	0.020	0.027	0.008	-7.5			8.22	2.93	0.027	0.019	0.068	0.0052	-7.8
	.39	-0.065	0.0094	0.035	0.097	0.0107	-7.9		4.12	-0.05	0.079	0.020	0.027	0.008	-7.7			10.28	3.66	0.073	0.045	-0.028	0.0056	-7.5
	.92	-0.037	0.0088	0.033	0.093	0.0106	-7.9		6.19	-0.05	0.087	0.020	0.026	0.008	-7.6			12.33	4.36	1.026	0.047	-0.025	0.0051	-7.3
	2.05	-0.017	0.0090	0.029	0.091	0.0102	-8.0		8.26	-0.05	0.088	0.020	0.026	0.008	-7.6			14.39	5.04	1.124	0.053	-0.021	0.0051	-7.7
	4.22	-1.02	0.0143	0.022	0.078	0.0107	-8.0		10.33	1.75	0.079	0.048	0.029	0.009	-8.1			15.54	5.70	1.244	0.058	-0.021	0.0051	-7.8
	6.28	-1.022	0.0265	0.035	0.093	0.0133	-8.1		12.42	5.90	0.180	0.076	0.006	0.009	-8.3			17.56	6.60	1.347	-0.070	-0.132	0.0050	-8.9
	8.41	3.31	0.0053	0.008	0.040	0.0147	-8.1		14.50	0.694	0.176	-0.06	-0.027	0.009	-8.4			2.03	0.061	0.0171	0.024	0.0047	-7.6	
	10.52	5.43	0.0028	0.008	0.040	0.0121	-8.2		1.30	-4.18	-0.223	0.020	0.026	0.0049	-7.4			4.11	1.47	0.037	0.013	0.067	0.0052	-7.0
	12.66	7.57	0.0021	0.008	0.040	0.0121	-8.2		4.05	1.06	0.024	0.024	0.028	0.008	-7.4			6.16	2.17	0.034	0.021	0.068	0.0051	-7.1
	14.80	9.68	0.0016	0.008	0.040	0.0121	-8.3		6.19	2.33	0.060	0.026	0.028	0.008	-7.5			8.22	2.93	0.027	0.019	0.068	0.0052	-7.8
	16.92	11.80	0.0014	0.008	0.040	0.0121	-8.3		8.26	3.04	0.060	0.026	0.028	0.008	-7.5			10.28	3.66	0.065	0.040	-0.028	0.0056	-7.4
	17.99	13.93	0.0014	0.008	0.040	0.0121	-8.3		10.33	3.71	0.067	0.026	0.028	0.008	-7.5			12.33	4.36	1.026	0.047	-0.025	0.0051	-7.3
0.90	-1.28	-0.281	0.020	0.030	0.096	0.0096	-7.9		1.30	-4.18	-0.223	0.020	0.026	0.0049	-7.4			4.11	1.47	0.037	0.013	0.067	0.0052	-7.0
	-2.17	-1.175	0.0195	0.043	0.093	0.0120	-7.9		4.05	-0.05	0.079	0.020	0.027	0.008	-7.5			6.16	2.17	0.034	0.021	0.068	0.0051	-7.1
	-1.10	-1.228	0.0128	0.040	0.091	0.0116	-7.9		6.19	-0.05	0.079	0.020	0.027	0.008	-7.5			8.22	2.93	0.027	0.019	0.068	0.0052	-7.8
	-2.38	-1.101	0.0110	0.039	0.092	0.0120	-7.8		8.26	-0.05	0.079	0.020	0.027	0.008	-7.6			10.28	3.66	0.065	0.040	-0.028	0.0056	-7.4
	.40	-0.059	0.0092	0.035	0.093	0.0120	-7.9		10.33	-0.05	0.079	0.020	0.027	0.008	-7.6			12.33	4.36	1.026	0.047	-0.025	0.0051	-7.3
	.95	-0.030	0.0090	0.034	0.091	0.0120	-7.9		12.42	5.90	0.180	0.076	0.006	0.007	-7.6			14.44	5.70	1.164	0.053	-0.021	0.0056	-7.8
	2.07	0.071	0.0087	0.039	0.091	0.0120	-7.9		14.50	0.694	0.176	-0.06	-0.027	0.009	-7.7			17.53	6.60	1.347	-0.070	-0.132	0.0050	-8.9
	4.24	1.36	0.0137	0.020	0.092	0.0120	-7.9		1.30	-4.18	-0.223	0.020	0.026	0.0049	-7.4			2.03	0.061	0.0171	0.024	0.0047	-7.6	
0.80	-1.28	-0.285	0.023	0.030	0.096	0.0096	-7.9		4.05	-0.05	0.079	0.020	0.027	0.008	-7.5			4.11	1.47	0.037	0.013	0.067	0.0052	-7.0
	-2.17	-1.150	0.0203	0.049	0.093	0.0124	-7.9		6.19	2.33	0.061	0.026	0.028	0.008	-7.5			6.16	2.17	0.034	0.021	0.068	0.0051	-7.1
	-1.10	-1.226	0.0166	0.047	0.092	0.0121	-7.8		8.26	-0.05	0.079	0.020	0.027	0.008	-7.6			8.22	2.93	0.027	0.019	0.068	0.0052	-7.8
	-2.38	-1.104	0.0154	0.047	0.093	0.0121	-7.8		10.33	-0.05	0.079	0.020	0.027	0.008	-7.6			12.33	4.36	1.026	0.047	-0.025	0.0056	-7.4
	.41	-0.068	0.0132	0.045	0.091	0.0121	-7.8		12.42	-0.05	0.079	0.020	0.027	0.008	-7.6			14.44	5.70	1.164	0.053	-0.021	0.0056	-7.3
	.95	-0.035	0.0126	0.044	0.091	0.0121	-7.8		14.50	-0.05	0.079	0.020	0.027	0.008	-7.6			17.53	6.60	1.347	-0.070	-0.132	0.0050	-8.9
	2.05	-0.059	0.0124	0.040	0.091	0.0121	-7.8		1.30	-4.18	-0.223	0.020	0.026	0.0049	-7.4			4.11	1.47	0.037	0.013	0.067	0.0052	-7.0
	4.15	-0.098	0.0124	0.038	0.091	0.0121	-7.8		4.05	0.061	0.026	0.022	0.008	0.007	-7.4			6.16	2.17	0.034	0.021	0.068	0.0051	-7.1
	6.27	-0.198	0.0261	0.027	0.097	0.0123	-7.8		6.19	1.42	0.146	0.024	0.017	0.010	-11.7			8.22	2.93	0.027	0.019	0.068	0.0052	-7.8
	8.40	-0.303	0.0461	0.017	0.095	0.0161	-7.8		8.26	1.42	0.146	0.024	0.017	0.010	-11.7			10.28	3.66	0.065	0.040	-0.027	0.0056	-7.4
	10.51	-0.393	0.073	0.017	0.095	0.0161	-7.8	</td																

TABLE XII.—CONTINUED



(g) Nominal  $\delta$ ,  $-16^\circ$

K	a	Or	C <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	C <sub>t</sub>	s	M	c	C <sub>L</sub>	C <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	C <sub>t</sub>	s	K	a	Or	C <sub>D</sub>	C <sub>m</sub>	C <sub>b</sub>	C <sub>t</sub>	s	
0.60	-4.26	-0.304	0.0356	0.098	0.208	0.0179	-15.8	0.90	6.37	0.206	0.0326	0.029	0.213	0.0191	-15.7	1.50	2.10	0.045	0.0225	0.014	0.288	0.0110	15.2	
	-2.18	-0.213	0.047	0.095	0.189	0.0191	-15.9	8.13	313	0.055	0.023	0.026	0.0178	-15.7	4.12	1.32	0.083	-0.001	0.241	0.0113	15.4			
	-1.13	-0.174	0.0212	0.094	0.188	0.0206	-15.9	10.37	416	0.055	0.021	0.023	0.0189	-15.6	6.18	0.216	0.058	-0.015	0.197	0.0113	15.5			
	-0.61	-0.154	0.0196	0.093	0.187	0.0211	-15.9	12.70	522	0.057	0.019	0.029	0.0189	-15.1	8.29	301	0.072	-0.027	0.159	0.0114	15.6			
	-0.33	-0.136	0.0174	0.094	0.191	0.0222	-15.9	1.20	4.12	-285	0.0438	0.026	0.020	0.0150	-14.9	10.31	316	0.017	-0.039	0.118	0.0114	15.8		
	-0.87	-0.093	0.0168	0.096	0.199	0.0227	-15.8		-2.06	-129	0.0315	0.016	0.13	0.0179	-14.9	12.37	163	0.105	-0.069	0.078	0.0117	16.0		
	1.92	-0.047	0.0155	0.091	0.189	0.0205	-15.9		-1.02	-137	0.0274	0.017	0.147	0.0189	-14.9	14.43	364	0.140	-0.059	0.080	0.0117	16.1		
	4.12	-0.027	0.0166	0.095	0.176	0.0222	-15.9		-1.51	-110	0.0283	0.013	0.14	0.0189	-14.9	16.50	515	0.158	-0.057	0.085	0.0118	16.2		
	6.25	-0.045	0.0228	0.090	0.164	0.0222	-15.9		-1.43	-062	0.0283	0.013	0.103	0.0189	-14.9	17.54	824	0.208	-0.071	0.013	0.012	16.3		
0.80	10.41	-0.347	0.0262	0.092	0.133	0.0259	-16.0	1.20	-6.6	-036	0.0235	0.011	0.108	0.0189	-14.9	1.70	-4.11	-0.045	0.039	0.016	0.314	0.0070	15.2	
	18.32	-0.448	0.0793	0.091	0.117	0.0222	-16.0		2.08	109	0.0235	0.012	0.176	0.0189	-15.0		-2.04	112	0.058	0.031	0.291	0.0079	15.2	
	14.65	-0.560	0.1420	0.090	0.100	0.0222	-16.0		4.17	162	0.0200	0.014	0.345	0.0189	-15.1		-1.02	0.076	0.021	0.088	0.0013	0.0013	15.3	
	16.80	-0.628	0.2005	0.093	0.080	0.0218	-16.1		6.20	330	0.0161	0.004	0.289	0.0177	-15.1		-5.70	0.095	0.016	0.025	0.0074	0.0016	15.3	
	17.86	-0.749	0.2131	0.093	0.070	0.0203	-16.1		8.27	133	0.0283	0.021	0.260	0.0189	-15.1		-0.47	0.087	0.019	0.066	0.0036	0.0016	15.3	
	-4.30	-0.309	0.0381	0.061	0.250	0.0151	-15.6	1.30	10.35	444	0.0219	0.037	0.221	0.0173	-15.7		1.04	0.004	0.005	0.015	0.223	0.0088	15.3	
	-2.19	-0.218	0.0253	0.056	0.228	0.0168	-15.7		12.92	556	0.0289	0.037	0.174	0.0173	-15.7		4.10	0.023	0.022	0.003	0.236	0.0091	15.4	
	-1.13	-0.170	0.0215	0.055	0.223	0.0166	-15.7		-1.12	-292	0.0193	0.058	0.392	0.0181	-14.9		6.16	126	0.076	0.076	0.156	0.0094	15.5	
	-0.61	-0.147	0.0199	0.052	0.229	0.0193	-15.7		-2.05	-197	0.0181	0.053	0.391	0.0181	-14.9		8.22	276	0.239	0.025	0.160	0.0100	15.6	
	-0.34	-0.105	0.0177	0.053	0.237	0.0203	-15.6		-1.02	-109	0.0273	0.045	0.387	0.0182	-15.0		10.88	429	0.315	0.045	0.269	0.0103	15.7	
0.90	-0.88	-0.050	0.0159	0.058	0.238	0.0201	-15.6	1.30	-10	-056	0.0261	0.041	0.342	0.0184	-14.9	1.90	-4.10	-0.074	0.025	0.009	0.236	0.0091	15.4	
	-1.96	-0.028	0.0156	0.056	0.228	0.0200	-15.7		45	-041	0.0284	0.034	0.371	0.0187	-15.0		4.10	0.023	0.022	0.003	0.266	0.0094	15.5	
	4.17	-0.074	0.0180	0.041	0.212	0.0203	-15.7		8.09	036	0.0287	0.022	0.335	0.0183	-15.1		6.16	126	0.076	0.076	0.156	0.0094	15.6	
	6.31	-0.185	0.0286	0.033	0.200	0.0207	-15.7		4.13	132	0.0303	0.006	0.291	0.0185	-15.2		8.22	276	0.239	0.025	0.160	0.0100	15.6	
	8.39	-0.290	0.0477	0.033	0.178	0.0212	-15.8		6.19	277	0.0267	-0.009	0.251	0.0184	-15.4		14.40	487	0.320	0.068	0.247	0.0108	16.1	
	10.31	-0.366	0.0761	0.023	0.158	0.0285	-15.8		8.29	321	0.0261	-0.023	0.210	0.0184	-15.2		16.46	598	0.368	0.060	0.262	0.0114	16.3	
	12.67	-0.400	0.1146	0.021	0.145	0.0289	-15.9		10.33	417	0.0289	-0.037	0.171	0.0186	-15.4		17.50	795	0.386	0.060	0.299	0.0114	16.3	
	14.77	-0.468	0.1681	0.013	0.137	0.0196	-15.9		-2.05	-137	0.0261	-0.023	0.210	0.0184	-15.2		-2.03	-0.051	0.024	0.007	0.267	0.0067	16.3	
	15.93	-0.733	0.2224	0.004	0.140	0.0290	-15.9		18.40	505	0.0213	-0.050	0.187	0.0138	-15.8		-1.02	-0.066	0.016	0.022	0.0074	0.0067	16.4	
	18.00	-0.777	0.2504	0.001	0.164	0.0317	-15.8		14.47	595	0.0203	-0.062	0.186	0.0110	-16.0		-0.90	-0.049	0.007	0.020	0.0074	0.0074	16.4	
0.90	-4.31	-0.318	0.0416	0.069	0.894	0.0155	-15.4	1.50	-4.11	-216	0.0387	0.054	0.348	0.0089	-15.0	1.90	0.05	0.017	0.007	0.025	0.0013	0.0013	15.5	
	-2.19	-0.215	0.0367	0.062	0.261	0.0166	-15.5		-2.05	-133	0.0280	0.041	0.342	0.0089	-15.0		4.10	0.014	0.017	0.007	0.233	0.0071	0.0013	15.5
	-1.13	-0.172	0.0265	0.060	0.269	0.0165	-15.5		-1.02	-087	0.0283	0.034	0.331	0.0103	-15.1		6.15	161	0.052	0.013	0.203	0.0083	0.0013	15.6
	-0.63	-0.147	0.0207	0.052	0.263	0.0190	-15.5		17.57	719	0.0256	-0.077	0.021	0.0188	-16.2		8.21	234	0.065	0.021	0.098	0.0087	0.0013	15.9
	-0.32	-0.102	0.0167	0.057	0.284	0.0201	-15.5		-1.02	-057	0.0283	0.034	0.331	0.0103	-15.1		10.23	312	0.089	0.030	0.068	0.0089	0.0016	16.0
	-0.09	-0.079	0.0178	0.052	0.262	0.0202	-15.4		-5.0	-057	0.0280	0.030	0.343	0.0085	-15.1		12.31	378	0.092	0.031	0.062	0.0095	0.0016	16.1
	1.98	-0.020	0.0159	0.046	0.266	0.0201	-15.5		-4.05	-024	0.0287	0.024	0.314	0.0107	-15.1		14.36	440	0.1199	0.043	0.080	0.0102	0.0016	16.2
	4.21	-0.052	0.0195	0.039	0.232	0.0199	-15.6		1.03	004	0.0218	0.020	0.306	0.0109	-15.1		16.42	499	0.1277	0.047	0.085	0.0107	0.0016	16.3
	-17.43	-0.268	0.2504	0.001	0.164	0.0317	-15.8		-17.43	-268	0.0210	0.086	0.286	0.0170	-15.6		-17.43	-0.065	0.026	0.009	0.161	0.0016	0.0016	16.4

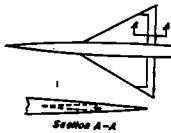
(h) Nominal  $\delta$ ,  $-20^\circ$

K	a	O_L	C_D	C_m	C_h	C_l	b	H	a	O_L	C_D	C_m	C_h	C_l	b	H	a	O_L	C_D	C_m	C_h	C_l	b		
0.60	-1.98	-0.315	0.030	0.062	0.293	0.0187	-19.6	0.90	6.38	0.188	0.0341	0.036	0.873	0.0218	-19.4	1.50	2.01	0.0265	0.019	0.383	0.0135	0.190	-19.1		
	-2.23	-0.230	0.020	0.059	0.239	0.0110	-29.7		8.41	0.252	0.0545	0.046	2.37	-0.186	-19.5	4.12	4.12	0.1307	0.009	0.264	0.0135	0.193	-19.1		
	-1.15	-0.185	0.035	0.053	0.208	0.0217	-29.7		10.24	0.102	0.0619	0.210	2.30	0.186	-19.5	6.18	10.20	0.0419	-0.009	0.243	0.0137	0.193	-19.3		
	-0.62	-0.152	0.021	0.053	0.208	0.0206	-29.7		12.87	0.123	0.1291	0.011	2.54	0.0800	-19.5	8.24	0.292	0.0593	-0.002	0.212	0.0136	0.193	-19.3		
	-1.31	-0.198	0.050	0.050	0.233	0.0245	-19.7		14.80	0.133	0.1721	0.003	2.65	0.0215	-19.4	10.30	13.70	0.0687	-0.034	0.174	0.0134	0.193	-19.5		
	-0.85	-0.108	0.056	0.053	0.229	0.0245	-19.7	1.20	4.23	-0.302	0.0511	0.089	1.98	0.190	-18.6	12.36	15.44	0.1113	-0.045	1.31	0.0137	0.193	-19.6		
	1.91	-0.057	0.176	0.057	0.232	0.0221	-19.7		6.38	-0.206	0.0377	0.073	4.66	0.0814	-18.6	14.23	23.31	0.1464	-0.036	0.089	0.0135	0.193	-19.0		
	4.09	-0.31	0.180	0.051	0.215	0.0247	-19.7		7.03	-0.194	0.0333	0.061	4.75	0.0225	-18.6	16.20	16.06	0.1899	-0.004	0.051	0.0135	0.193	-19.0		
	6.23	-0.228	0.038	0.051	0.209	0.0244	-19.7		7.98	-0.129	0.0316	0.063	4.73	0.0229	-18.6	17.93	0.64	0.2077	-0.068	0.033	0.0138	0.193	-19.0		
	8.34	-0.33	0.090	0.051	0.197	0.0249	-19.8		8.43	-0.081	0.0348	0.072	4.64	0.0234	-18.6	1.70	-4.10	0.203	-0.0394	0.031	3.52	0.0090	0.193	-18.9	
0.80	10.44	-0.34	0.061	0.054	0.188	0.0247	-19.8		9.28	-0.055	0.0287	0.051	4.60	0.0236	-18.6	-2.05	-1.02	0.1283	0.0394	0.035	3.33	0.2203	-0.003	0.193	-18.9
	12.50	-0.42	0.036	0.051	0.189	0.0249	-19.8		9.48	-0.018	0.0236	0.041	4.55	0.0226	-18.7	-2.0	-0.62	0.0247	0.029	3.15	0.1039	0.0105	0.193	-18.9	
	14.68	-0.33	0.173	0.051	0.167	0.0250	-19.8		9.49	0.119	0.216	0.044	0.04	0.39	0.0211	-19.0	9.4	-0.02	0.0231	0.023	3.05	0.0107	0.0107	0.191	-19.1
	16.76	-0.61	0.193	0.051	0.148	0.0279	-19.9		9.68	0.26	0.203	0.046	0.013	3.17	0.0218	-19.1	9.68	-0.02	0.0236	0.020	3.00	0.0106	0.0101	0.191	-19.1
	17.82	-0.70	0.234	0.051	0.136	0.0279	-19.9		10.23	0.32	0.293	0.030	0.286	0.0206	-19.2	4.10	11.16	0.0850	0.001	2.36	0.0111	0.191	-19.3		
	19.89	-0.34	0.0435	0.067	0.204	0.0166	-19.4	1.30	-0.12	-0.261	0.0401	0.075	4.31	0.0149	-15.7	8.22	2.68	0.0545	-0.022	1.97	0.0117	0.191	-19.3		
	21.19	-0.28	0.020	0.062	0.216	0.0191	-19.5		2.03	-0.170	0.0374	0.060	4.37	0.0159	-15.7	10.27	4.94	0.0760	-0.031	1.33	0.0119	0.191	-19.7		
	-1.15	-0.184	0.0361	0.061	0.256	0.0244	-19.5		2.18	-0.124	0.0350	0.073	4.36	0.0175	-15.7	12.33	4.13	1.016	-0.041	0.022	0.0122	0.191	-19.8		
	-0.62	-0.163	0.021	0.061	0.268	0.0244	-19.5		2.21	-0.100	0.0314	0.049	4.38	0.0177	-15.7	14.39	4.61	1.320	-0.050	0.025	0.0126	0.191	-19.0		
	-0.32	-0.123	0.0217	0.061	0.261	0.0223	-19.5		2.44	-0.055	0.0294	0.049	4.23	0.0183	-15.7	15.45	5.47	1.677	-0.056	0.0229	0.0126	0.191	-19.0		
0.90	-0.86	-0.093	0.020	0.059	0.261	0.0223	-19.5		2.59	-0.021	0.0294	0.039	4.22	0.0185	-15.7	17.49	5.81	1.880	-0.058	0.021	0.0129	0.191	-19.1		
	1.93	-0.093	0.020	0.059	0.261	0.0220	-19.5		2.67	0.07	0.0223	0.030	3.87	0.0179	-15.8	1.90	-4.09	-0.180	0.0376	0.042	3.16	0.0076	0.191	-19.0	
	4.14	-0.041	0.020	0.048	0.261	0.0231	-19.5		2.74	0.17	0.0231	0.033	3.98	0.0177	-15.0	-2.04	-1.08	0.0260	0.031	2.95	0.0083	0.191	-19.1		
	6.29	-0.087	0.039	0.048	0.254	0.0231	-19.5		2.81	0.34	0.0284	0.039	4.22	0.0185	-15.7	17.49	5.81	1.880	-0.058	0.021	0.0129	0.191	-19.1		
	8.42	-0.273	0.088	0.048	0.214	0.0230	-19.6		2.97	0.087	0.0223	0.030	3.87	0.0179	-15.8	1.90	-4.09	-0.180	0.0376	0.042	3.16	0.0076	0.191	-19.1	
	10.48	-0.074	0.074	0.048	0.214	0.0230	-19.6		3.07	0.22	0.0283	0.030	3.87	0.0179	-15.8	1.90	-4.09	-0.180	0.0376	0.042	3.16	0.0076	0.191	-19.1	
	12.62	-0.125	0.126	0.048	0.192	0.0195	-19.7		3.18	0.21	0.0274	0.030	3.87	0.0174	-15.1	1.90	-4.09	-0.180	0.0376	0.042	3.16	0.0076	0.191	-19.1	
	14.75	-0.158	0.187	0.048	0.167	0.0195	-19.7		3.38	0.15	0.0254	0.030	3.87	0.0177	-15.0	1.90	-4.09	-0.180	0.0376	0.042	3.16	0.0076	0.191	-19.1	
	16.90	-0.703	0.202	0.048	0.151	0.0191	-19.8		3.68	0.05	0.0234	0.030	3.87	0.0174	-15.4	1.90	-4.09	-0.180	0.0376	0.042	3.16	0.0076	0.191	-19.1	
	17.97	-0.70	0.231	0.048	0.145	0.0194	-19.8	1.50	-4.18	-0.227	0.0434	0.060	3.87	0.0111	-18.8	8.19	2.61	0.0506	-0.019	1.32	0.0108	0.191	-19.7		
0.90	-1.32	-0.0485	0.077	0.064	0.304	0.0178	-19.2		12.59	-0.045	0.0328	0.047	3.78	0.0183	-18.8	10.23	-3.07	0.0596	-0.087	1.01	0.0104	0.191	-19.6		
	-2.20	-0.029	0.070	0.064	0.304	0.0190	-19.2		14.45	-0.04	0.0315	0.047	3.73	0.0180	-18.8	12.30	-3.72	0.0587	-0.035	0.008	0.0106	0.191	-19.6		
	-1.14	-0.101	0.082	0.067	0.339	0.0210	-19.2		15.38	-0.028	0.0303	0.065	0.93	0.0186	-18.8	14.36	-4.36	1.34	0.0205	-0.041	2.76	0.0085	0.0197	-19.6	
	-0.62	-0.167	0.085	0.067	0.342	0.0219	-19.2		17.56	-0.01	0.0296	0.073	0.79	0.0130	-18.9	1.02	-0.02	0.0227	0.016	2.56	0.0085	0.0197	-19.3		
	-1.24	-0.221	0.085	0.067	0.342	0.0224	-19.3		18.50	-0.008	0.0295	0.074	0.79	0.0130	-18.8	4.09	-1.06	0.0278	0	2.06	0.0093	0.0191	-19.1		
	-0.62	-0.167	0.085	0.067	0.342	0.0224	-19.3		19.53	-0.003	0.0293	0.074	0.79	0.0130	-18.9	6.15	-1.75	0.0370	-0.010	1.24	0.0092	0.0196	-19.6		
	-1.24	-0.221	0.085	0.067	0.342	0.0224	-19.3		20.56	-0.001	0.0293	0.074	0.79	0.0130	-18.8	8.19	-2.41	0.0506	-0.019	1.32	0.0108	0.191	-19.7		
	-1.97	-0.096	0.069	0.061	0.365	0.0224	-19.3		21.59	-0.001	0.0295	0.074	0.79	0.0130	-18.8	10.23	-3.07	0.0596	-0.087	1.01	0.0104	0.191	-19.6		
	-1.97	-0.096	0.069	0.061	0.365	0.0224	-19.3		22.62	-0.001	0.0293	0.074	0.79	0.0130	-18.8	12.30	-3.72	0.0587	-0.035	0.008	0.0106	0.191	-19.6		
	-4.18	-0.070	0.0268	0.047	0.306	0.0234	-19.3		23.65	-0.004	0.0293	0.074	0.79	0.0130	-18.9	16.43	-4.94	1.287	-0.043	0.0119	2.01	0.0104	0.191	-20.1	

NACA

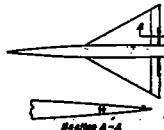
CONFIDENTIAL

TABLE XIII.- CONCLUDED

(i) Nominal  $\delta$ ,  $-24^\circ$ 

$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$s$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$s$	$M$	$a$	$C_L$	$C_D$	$C_m$	$C_h$	$C_l$	$s$	
0.60	-1.29	-0.325	0.0457	0.056	0.284	0.0353	-23.8	0.90	6.32	-0.176	0.0363	0.041	0.303	0.0244	-23.5	1.50	4.12	0.111	0.0334	0.009	0.305	0.0157	-23.3	
	-2.19	-0.238	0.041	0.053	0.268	0.020	-23.8		8.46	-0.265	0.057	0.031	0.276	0.0205	-23.6		6.17	0.109	0.0443	-0.005	0.269	0.0159	-23.5	
	-1.15	-0.199	-0.0301	0.053	0.265	0.020	-23.8		10.73	-0.393	0.054	0.021	0.239	0.0188	-23.7		8.23	0.261	0.0512	-0.017	0.250	0.0159	-23.5	
	-0.63	-0.176	0.032	0.053	0.263	0.021	-23.8										10.30	0.367	0.0535	-0.009	0.216	0.0156	-23.6	
	-31	-0.140	0.0255	0.052	0.259	0.020	-23.8			-1.03	-0.218	0.045	0.051	0.209	0.0205	-22.7		12.36	1.146	0.1127	-0.041	1.179	0.0156	-23.7
	-58	-0.115	0.0246	0.052	0.257	0.020	-23.8			-2.01	-0.147	0.042	0.052	0.201	0.0205	-22.7		14.42	0.322	0.1162	-0.051	1.134	0.0157	-23.9
	1.89	-0.077	0.0237	0.052	0.251	0.020	-23.8			-1.03	-0.077	0.043	0.052	0.201	0.0205	-22.7		16.48	0.359	0.1861	-0.060	0.099	0.0154	-24.0
	4.08	-0.059	0.0239	0.057	0.251	0.020	-23.8			-2.01	-0.147	0.043	0.052	0.201	0.0205	-22.7		17.52	0.315	0.0707	-0.054	0.083	0.0148	-23.1
	8.21	-0.153	0.0278	0.052	0.243	0.020	-23.9			-1.02	-0.032	0.054	0.051	0.207	0.0212	-22.7								
	10.41	-0.129	0.0165	0.044	0.236	0.020	-23.9			-2.01	-0.032	0.054	0.051	0.207	0.0212	-22.7		1.70	-4.10	-0.209	0.0435	0.058	0.263	0.0148
	12.54	-0.104	0.034	0.042	0.223	0.020	-23.9			-1.02	-0.032	0.054	0.051	0.207	0.0212	-22.7			-2.03	-0.311	0.0329	0.042	0.263	0.0148
	14.61	-0.082	0.032	0.042	0.215	0.020	-23.9			-1.02	-0.032	0.054	0.051	0.207	0.0212	-22.7			-1.02	-0.391	0.0295	0.036	0.263	0.0148
	15.73	-0.061	0.030	0.042	0.208	0.020	-23.9			-1.02	-0.032	0.054	0.051	0.207	0.0212	-22.7			-1.50	-0.70	0.0282	0.038	0.248	0.0148
	17.88	-0.042	0.027	0.033	0.175	0.020	-24.0			-1.02	-0.032	0.054	0.051	0.207	0.0212	-22.7			1.02	-0.91	0.0266	0.036	0.233	0.0148
0.80	-1.32	-0.321	0.0482	0.072	0.333	0.028	-23.5	1.30	-4.12	-0.274	0.049	0.080	0.161	0.0173	-22.8		6.15	0.387	0.0410	-0.007	0.217	0.0139	-23.6	
	-2.20	-0.235	0.035	0.067	0.307	0.020	-23.5		-2.01	-0.151	0.045	0.066	0.171	0.0173	-22.8		8.21	0.261	0.0564	-0.017	1.193	0.0136	-23.7	
	-1.16	-0.196	0.0311	0.066	0.314	0.020	-23.5		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		10.26	0.339	0.0777	-0.087	1.175	0.0136	-23.7	
	-0.63	-0.175	0.0294	0.066	0.311	0.020	-23.5		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		12.38	1.06	0.1031	-0.031	1.155	0.0139	-23.9	
	-30	-0.155	0.0266	0.064	0.304	0.020	-23.5		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		14.37	0.71	0.1311	-0.046	0.093	0.0145	-24.0	
	1.91	-0.095	0.0245	0.061	0.303	0.020	-23.5		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		16.43	0.542	0.1687	-0.050	0.070	0.0145	-24.1	
	6.28	-0.145	0.0250	0.061	0.293	0.020	-23.5		-2.01	-0.009	0.047	0.059	0.180	0.0208	-22.9		17.46	0.771	0.1688	-0.054	0.070	0.0145	-24.2	
	8.40	-0.126	0.0237	0.061	0.270	0.020	-23.7		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		4.10	-0.109	0.0311	0.009	0.263	0.0132	-23.4	
	10.48	-0.104	0.0219	0.061	0.221	0.020	-23.8		-2.01	-0.057	0.046	0.079	0.177	0.0180	-22.8		6.15	0.387	0.0410	-0.007	0.217	0.0139	-23.6	
	12.56	-0.082	0.0201	0.061	0.210	0.020	-23.8		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		8.21	0.261	0.0564	-0.017	1.193	0.0136	-23.7	
	14.65	-0.061	0.0183	0.061	0.205	0.020	-23.8		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		10.26	0.339	0.0777	-0.087	1.175	0.0136	-23.7	
	17.75	-0.041	0.0163	0.061	0.190	0.020	-23.8		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		12.38	1.06	0.1031	-0.031	1.155	0.0139	-23.9	
	17.97	-0.021	0.0140	0.061	0.149	0.020	-23.8		-1.02	-0.057	0.046	0.079	0.177	0.0180	-22.8		14.37	0.71	0.1311	-0.046	0.093	0.0145	-24.0	
0.90	-4.34	-0.342	0.0562	0.079	0.367	0.0184	-23.3	1.50	-4.11	-0.265	0.079	0.064	0.145	0.0207	-22.9		4.10	-0.187	0.0415	0.046	0.361	0.0094	-23.1	
	-2.21	-0.243	0.0578	0.076	0.363	0.0205	-23.3		-2.01	-0.126	0.079	0.064	0.145	0.0207	-22.9		6.15	0.387	0.0410	-0.007	0.217	0.0139	-23.6	
	-1.16	-0.196	0.0301	0.070	0.366	0.0219	-23.3		-2.01	-0.126	0.079	0.064	0.145	0.0207	-22.9		8.21	0.261	0.0564	-0.017	1.193	0.0136	-23.7	
	-63	-0.155	0.0301	0.069	0.363	0.0226	-23.3		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.9		10.26	0.339	0.0777	-0.087	1.175	0.0136	-23.7	
	-38	-0.135	0.0275	0.068	0.307	0.020	-23.3		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.9		12.38	1.06	0.1031	-0.031	1.155	0.0139	-23.9	
	83	-0.110	0.0264	0.067	0.307	0.020	-23.3		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.9		14.37	0.71	0.1311	-0.046	0.093	0.0145	-24.0	
	1.93	-0.098	0.0242	0.063	0.360	0.020	-23.4		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.9		16.43	0.542	0.1687	-0.050	0.070	0.0145	-24.1	
	4.17	-0.073	0.0205	0.054	0.343	0.0205	-23.4		-2.01	-0.026	0.086	0.063	0.145	0.0207	-22.9		17.44	0.522	0.1722	-0.043	0.068	0.0134	-24.2	
0.60	-0.34	-0.332	0.0511	0.070	0.348	0.0208	-27.7	0.90	8.35	-0.282	0.0611	0.036	0.310	0.0230	-27.5	1.50	4.16	0.110	0.0355	0.012	0.314	0.0173	-27.3	
	-2.18	-0.214	0.034	0.066	0.311	0.020	-27.7		10.39	0.352	0.048	0.023	0.283	0.0100	-27.5		6.16	0.387	0.0498	-0.001	0.282	0.0173	-27.4	
	-1.15	-0.193	0.034	0.066	0.311	0.020	-27.7		12.58	0.505	0.134	0.013	0.296	0.0200	-27.6		8.22	0.276	0.0658	-0.013	0.266	0.0173	-27.4	
	-63	-0.155	0.0301	0.066	0.311	0.020	-27.7		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.7		10.26	0.339	0.0777	-0.087	1.175	0.0136	-27.7	
	-38	-0.135	0.0265	0.067	0.309	0.020	-27.7		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.7		12.38	1.06	0.1031	-0.031	1.155	0.0139	-27.9	
	83	-0.110	0.0245	0.067	0.308	0.020	-27.7		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.7		14.37	0.71	0.1311	-0.046	0.093	0.0145	-27.8	
	1.93	-0.095	0.0223	0.061	0.312	0.020	-27.7		-1.02	-0.057	0.079	0.064	0.145	0.0207	-22.7		16.43	0.591	0.1896	-0.056	0.130	0.0173	-27.9	
	4.17	-0.073	0.0201	0.051	0.307	0.020	-27.7		-2.01	-0.057	0.079	0.064	0.145	0.0207	-22.7		17.44	0.522	0.2079	-0.059	0.122	0.0173	-27.9	
0.80	-4.32	-0.336	0.0501	0.074	0.362	0.0149	-47.4	1.30	-4.12	-0.278	0.069	0.083	0.498	0.061	-46.7		4.10	-0.192	0.0411	0.048	0.401	0.0126	-46.8	
	-2.21	-0.241	0.0571	0.072	0.350	0.0173	-47.4		-2.01	-0.183	0.064	0.070	0.512	0.062	-46.7		6.16	0.387	0.0409	-0.004	0.231	0.0173	-47.5	
	-1.16	-0.203	0.0327	0.070	0.353	0.0188	-47.4		-1.02	-0.142	0.060	0.063	0.516	0.062	-46.7		8.22	0.276	0.0658	-0.014	0.210	0.0173	-47.6	
	-63	-0.184	0.0310	0.069	0.356	0.0195	-47.4		-1.02	-0.142	0.060	0.063	0.517	0.062	-46.7		10.26	0.339	0.0777	-0.087	1.175	0.0136	-47.7	
	-31	-0.165	0.0285	0.069	0.350	0.0209	-47.4		-1.02	-0.142	0.060	0.063	0.517	0.062	-46.7									

TABLE XIII.- AERODYNAMIC CHARACTERISTICS OF A TRIANGULAR WING EQUIPPED  
WITH TRAILING-EDGE TABS ON THE UNBALANCED FLAP



(a) Nominal  $\delta$ ,  $0^\circ$ ;  $\delta_t$ ,  $5^\circ$

(b) Nominal  $\delta$ ,  $-2^{\circ}$ ;  $\delta_+$ ,  $5^{\circ}$

(c) Nominal  $\delta$ ,  $-4^\circ$ ;  $\delta_\pm$ ,  $5^\circ$

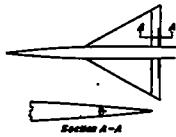
<i>H</i>	<i>a</i>	<i>c<sub>1</sub></i>	<i>c<sub>2</sub></i>	<i>c<sub>3</sub></i>	<i>c<sub>4</sub></i>	<i>c<sub>5</sub></i>	<i>c<sub>6</sub></i>	<i>c<sub>7</sub></i>	<i>c<sub>8</sub></i>	<i>c<sub>9</sub></i>	<i>c<sub>10</sub></i>	<i>c<sub>11</sub></i>	<i>c<sub>12</sub></i>	<i>c<sub>13</sub></i>	<i>c<sub>14</sub></i>	<i>c<sub>15</sub></i>	<i>c<sub>16</sub></i>	<i>c<sub>17</sub></i>	<i>c<sub>18</sub></i>	<i>c<sub>19</sub></i>	<i>c<sub>20</sub></i>	<i>c<sub>21</sub></i>	<i>c<sub>22</sub></i>	<i>c<sub>23</sub></i>	<i>c<sub>24</sub></i>	<i>c<sub>25</sub></i>	<i>c<sub>26</sub></i>	<i>c<sub>27</sub></i>	<i>c<sub>28</sub></i>	<i>c<sub>29</sub></i>	<i>c<sub>30</sub></i>	<i>c<sub>31</sub></i>	<i>c<sub>32</sub></i>	<i>c<sub>33</sub></i>	<i>c<sub>34</sub></i>	<i>c<sub>35</sub></i>	<i>c<sub>36</sub></i>	<i>c<sub>37</sub></i>	<i>c<sub>38</sub></i>	<i>c<sub>39</sub></i>	<i>c<sub>40</sub></i>	<i>c<sub>41</sub></i>	<i>c<sub>42</sub></i>	<i>c<sub>43</sub></i>	<i>c<sub>44</sub></i>	<i>c<sub>45</sub></i>	<i>c<sub>46</sub></i>	<i>c<sub>47</sub></i>	<i>c<sub>48</sub></i>	<i>c<sub>49</sub></i>	<i>c<sub>50</sub></i>																																																																	
-0.60	-1.20	-0.94	-0.24	-0.27	-0.15	-0.08	-0.05	-0.03	-0.02	-0.01	-0.005	-0.002	-0.001	-0.0005	-0.0002	-0.0001	-0.00005	-0.00002	-0.00001	-0.000005	-0.000002	-0.000001	-0.0000005	-0.0000002	-0.0000001	-0.00000005	-0.00000002	-0.00000001	-0.000000005	-0.000000002	-0.000000001	-0.0000000005	-0.0000000002	-0.0000000001	-0.00000000005	-0.00000000002	-0.00000000001	-0.000000000005	-0.000000000002	-0.000000000001	-0.0000000000005	-0.0000000000002	-0.0000000000001	-0.00000000000005	-0.00000000000002	-0.00000000000001	-0.000000000000005	-0.000000000000002	-0.000000000000001	-0.0000000000000005	-0.0000000000000002	-0.0000000000000001	-0.00000000000000005	-0.00000000000000002	-0.00000000000000001	-0.000000000000000005	-0.000000000000000002	-0.000000000000000001	-0.0000000000000000005	-0.0000000000000000002	-0.0000000000000000001	-0.00000000000000000005	-0.00000000000000000002	-0.00000000000000000001	-0.000000000000000000005	-0.000000000000000000002	-0.000000000000000000001	-0.0000000000000000000005	-0.0000000000000000000002	-0.0000000000000000000001	-0.00000000000000000000005	-0.00000000000000000000002	-0.00000000000000000000001	-0.000000000000000000000005	-0.000000000000000000000002	-0.000000000000000000000001	-0.0000000000000000000000005	-0.0000000000000000000000002	-0.0000000000000000000000001	-0.00000000000000000000000005	-0.00000000000000000000000002	-0.00000000000000000000000001	-0.000000000000000000000000005	-0.000000000000000000000000002	-0.000000000000000000000000001	-0.0000000000000000000000000005	-0.0000000000000000000000000002	-0.0000000000000000000000000001	-0.00000000000000000000000000005	-0.00000000000000000000000000002	-0.00000000000000000000000000001	-0.000000000000000000000000000005	-0.000000000000000000000000000002	-0.000000000000000000000000000001	-0.0000000000000000000000000000005	-0.0000000000000000000000000000002	-0.0000000000000000000000000000001	-0.00000000000000000000000000000005	-0.0000000000000000000000000000002	-0.0000000000000000000000000000001	-0.000000000000000000000000000000005	-0.00000000000000000000000000000002	-0.00000000000000000000000000000001	-0.0000000000000000000000000000000005	-0.000000000000000000000000000000002	-0.000000000000000000000000000000001	-0.00000000000000000000000000000000005	-0.0000000000000000000000000000000002	-0.0000000000000000000000000000000001	-0.000000000000000000000000000000000005	-0.00000000000000000000000000000000002	-0.00000000000000000000000000000000001	-0.0000000000000000000000000000000000005	-0.000000000000000000000000000000000002	-0.000000000000000000000000000000000001	-

(d) Nominal  $\delta_-, -8^\circ$ ;  $\delta_+, 5^\circ$

~~CONFIDENTIAL~~

24 NAC

TABLE XIII.— CONTINUED



(e) Nominal  $\delta$ ,  $0^\circ$ ;  $\delta_t$ ,  $10^\circ$

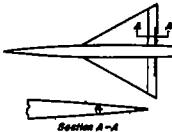
(f) Nominal  $\delta$ , -2°;  $\delta_+$ , 10°

(g) Nominal  $\delta$ ,  $-4^\circ$ ;  $\delta_+$ ,  $10^\circ$

(h) Nominal  $\delta$ ,  $-8^\circ$ ;  $\delta_t$ ,  $10^\circ$

NACA

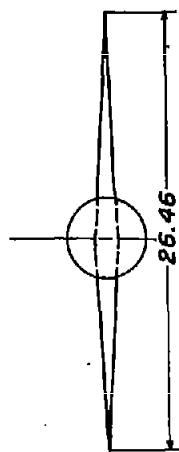
TABLE XIII.- CONCLUDED

(i) Nominal  $\delta$ ,  $0^\circ$ ;  $\delta_t$ ,  $15^\circ$ 

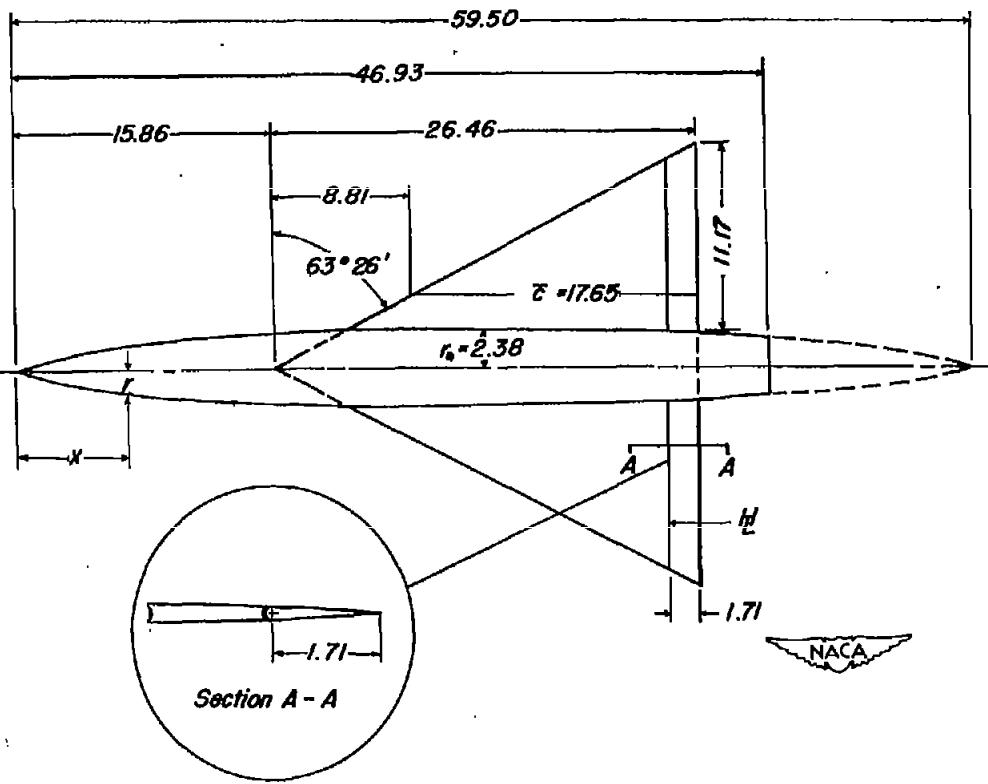
$H$	$a$	$c_L$	$c_D$	$c_x$	$c_y$	$c_z$	$K$	$a$	$c_L$	$c_D$	$c_x$	$c_y$	$c_z$	$K$	$a$	$c_L$	$c_D$	$c_x$	$c_y$	$c_z$	$s$
0.60	-4.13	-0.158	0.034	-0.003	-0.054	-4.1	0.90	8.16	0.019	-0.003	-0.028	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-8.07	-0.080	0.053	-0.003	-0.103	-0.1	10.90	8.25	0.020	-0.003	-0.029	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-1.18	-0.055	0.053	-0.003	-0.103	-1.0	12.80	8.35	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-1.24	-0.056	0.053	-0.003	-0.103	-1.0	13.70	8.40	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.12	-0.056	0.053	-0.003	-0.103	-1.0	14.60	8.45	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.18	-0.056	0.053	-0.003	-0.103	-1.0	15.50	8.50	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.24	-0.056	0.053	-0.003	-0.103	-1.0	16.40	8.55	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.30	-0.056	0.053	-0.003	-0.103	-1.0	17.30	8.60	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.36	-0.056	0.053	-0.003	-0.103	-1.0	18.20	8.65	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.42	-0.056	0.053	-0.003	-0.103	-1.0	19.10	8.70	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.48	-0.056	0.053	-0.003	-0.103	-1.0	20.00	8.75	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.54	-0.056	0.053	-0.003	-0.103	-1.0	20.90	8.80	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.60	-0.056	0.053	-0.003	-0.103	-1.0	21.80	8.85	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.66	-0.056	0.053	-0.003	-0.103	-1.0	22.70	8.90	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.72	-0.056	0.053	-0.003	-0.103	-1.0	23.60	8.95	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.78	-0.056	0.053	-0.003	-0.103	-1.0	24.50	9.00	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.84	-0.056	0.053	-0.003	-0.103	-1.0	25.40	9.05	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.90	-0.056	0.053	-0.003	-0.103	-1.0	26.30	9.10	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-2.96	-0.056	0.053	-0.003	-0.103	-1.0	27.20	9.15	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.02	-0.056	0.053	-0.003	-0.103	-1.0	28.10	9.20	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.08	-0.056	0.053	-0.003	-0.103	-1.0	29.00	9.25	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.14	-0.056	0.053	-0.003	-0.103	-1.0	29.90	9.30	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.20	-0.056	0.053	-0.003	-0.103	-1.0	30.80	9.35	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.26	-0.056	0.053	-0.003	-0.103	-1.0	31.70	9.40	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.32	-0.056	0.053	-0.003	-0.103	-1.0	32.60	9.45	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.38	-0.056	0.053	-0.003	-0.103	-1.0	33.50	9.50	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.44	-0.056	0.053	-0.003	-0.103	-1.0	34.40	9.55	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.50	-0.056	0.053	-0.003	-0.103	-1.0	35.30	9.60	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.56	-0.056	0.053	-0.003	-0.103	-1.0	36.20	9.65	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.62	-0.056	0.053	-0.003	-0.103	-1.0	37.10	9.70	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.68	-0.056	0.053	-0.003	-0.103	-1.0	38.00	9.75	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.74	-0.056	0.053	-0.003	-0.103	-1.0	38.90	9.80	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.80	-0.056	0.053	-0.003	-0.103	-1.0	39.80	9.85	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.86	-0.056	0.053	-0.003	-0.103	-1.0	40.70	9.90	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.92	-0.056	0.053	-0.003	-0.103	-1.0	41.60	9.95	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-3.98	-0.056	0.053	-0.003	-0.103	-1.0	42.50	10.00	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.04	-0.056	0.053	-0.003	-0.103	-1.0	43.40	10.05	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.10	-0.056	0.053	-0.003	-0.103	-1.0	44.30	10.10	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.16	-0.056	0.053	-0.003	-0.103	-1.0	45.20	10.15	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.22	-0.056	0.053	-0.003	-0.103	-1.0	46.10	10.20	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.28	-0.056	0.053	-0.003	-0.103	-1.0	47.00	10.25	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.34	-0.056	0.053	-0.003	-0.103	-1.0	47.90	10.30	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.40	-0.056	0.053	-0.003	-0.103	-1.0	48.80	10.35	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.46	-0.056	0.053	-0.003	-0.103	-1.0	49.70	10.40	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.52	-0.056	0.053	-0.003	-0.103	-1.0	50.60	10.45	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.58	-0.056	0.053	-0.003	-0.103	-1.0	51.50	10.50	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.64	-0.056	0.053	-0.003	-0.103	-1.0	52.40	10.55	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.70	-0.056	0.053	-0.003	-0.103	-1.0	53.30	10.60	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.76	-0.056	0.053	-0.003	-0.103	-1.0	54.20	10.65	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.82	-0.056	0.053	-0.003	-0.103	-1.0	55.10	10.70	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.88	-0.056	0.053	-0.003	-0.103	-1.0	56.00	10.75	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-4.94	-0.056	0.053	-0.003	-0.103	-1.0	56.90	10.80	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023	-0.015	-0.110	-0.2	0.1
	-5.00	-0.056	0.053	-0.003	-0.103	-1.0	57.80	10.85	0.021	-0.003	-0.034	-0.1	-0.6	1.90	2.04	0.021	-0.023				

*Equation of fuselage ordinates*

$$\frac{r}{r_0} = \left[ 1 - (1 - 2X)^2 \right]^{3/4}$$

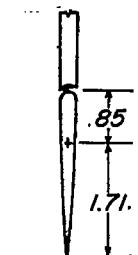
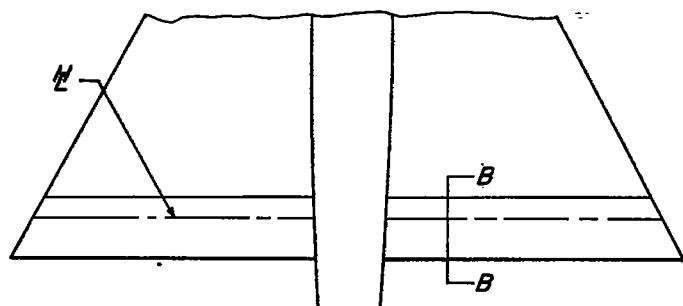


*Dimensions in Inches*

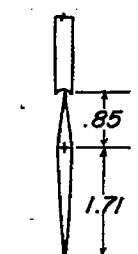
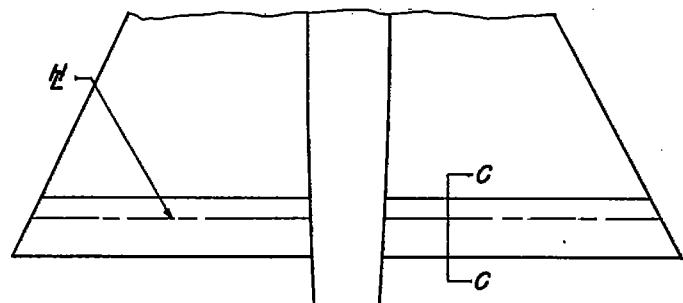


(a) Unbalanced flap.

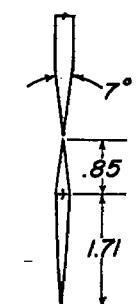
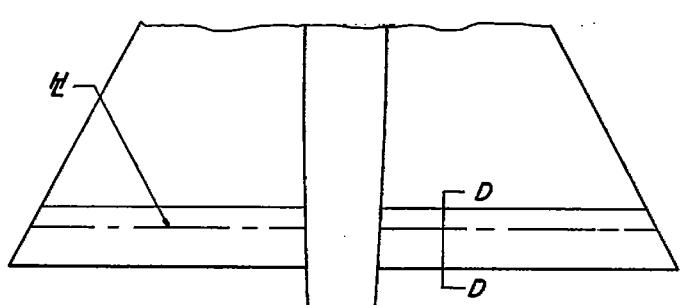
Figure 1. Dimensional sketch of model.



(b) 50-percent balanced flap (true contour wing profile; round nose flap)



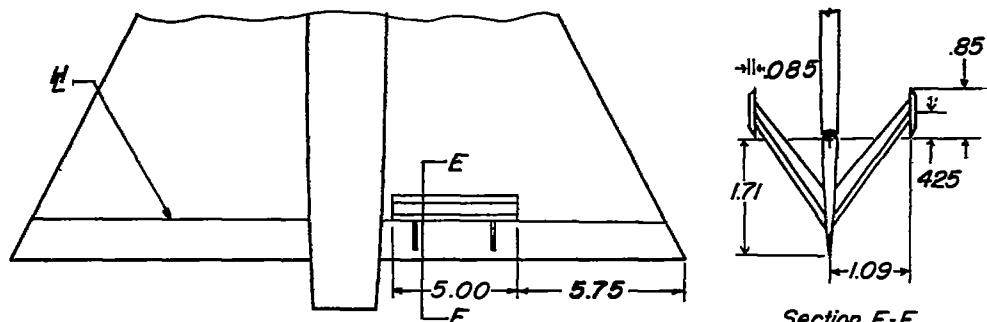
(c) 50-percent balanced flap (true contour wing profile; sharp nose flap).



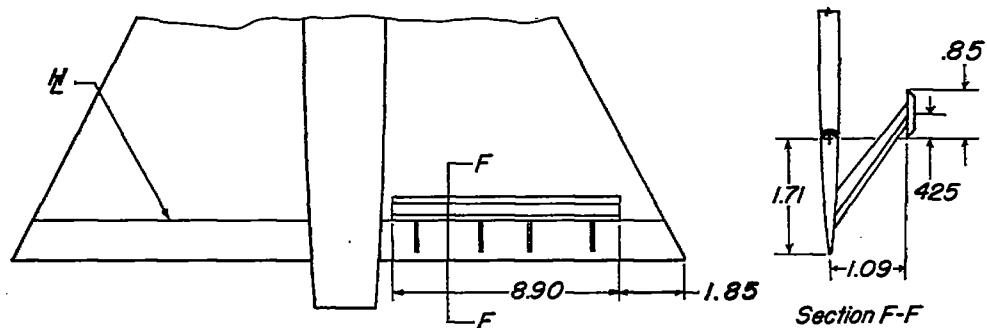
(d) 50-percent balanced flap (modified wing profile; sharp nose flap).

NACA

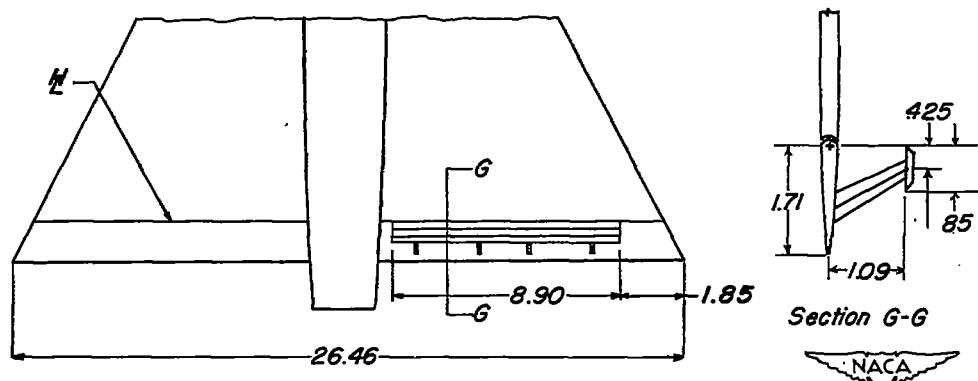
Figure 1.—Continued.



(e) 38-percent-span paddle balance on upper and lower surfaces forward of hinge line.

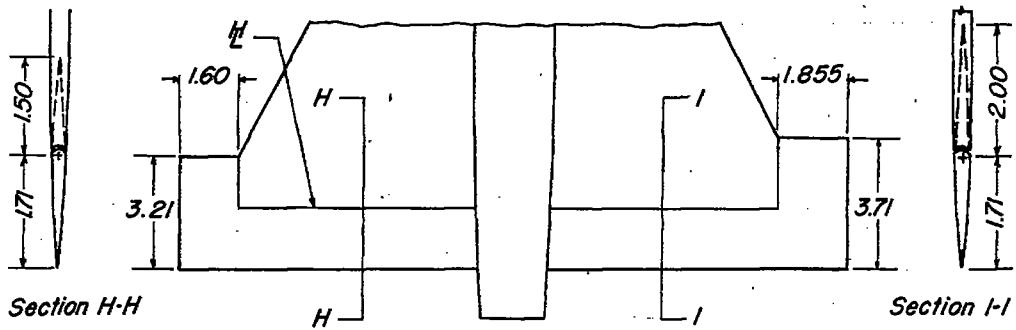


(f) 67-percent-span paddle balance on upper surface forward of hinge line.



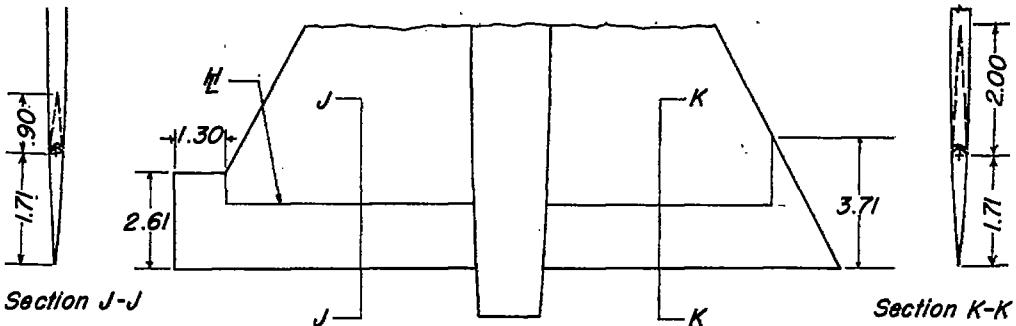
(g) 67-percent-span paddle balance on upper surface aft of hinge line.

Figure 1. — Continued.



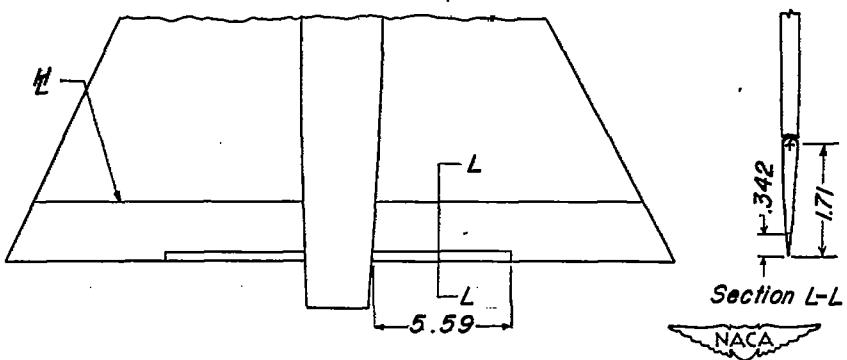
(h) 13.1-percent-area rectangular horn balance flap.

(i) 20.3-percent-area rectangular horn balance flap.



(j) 6.4-percent-area rectangular horn balance flap.

(k) 5.5-percent-area triangular horn balance flap.



(l) Trailing-edge tab.

Figure 1. — Concluded.



Figure 2.- Control-surface model mounted in the Ames 6- by 6-foot supersonic wind tunnel. (Fitted with 50-percent balance flaps.)

~~CONFIDENTIAL~~

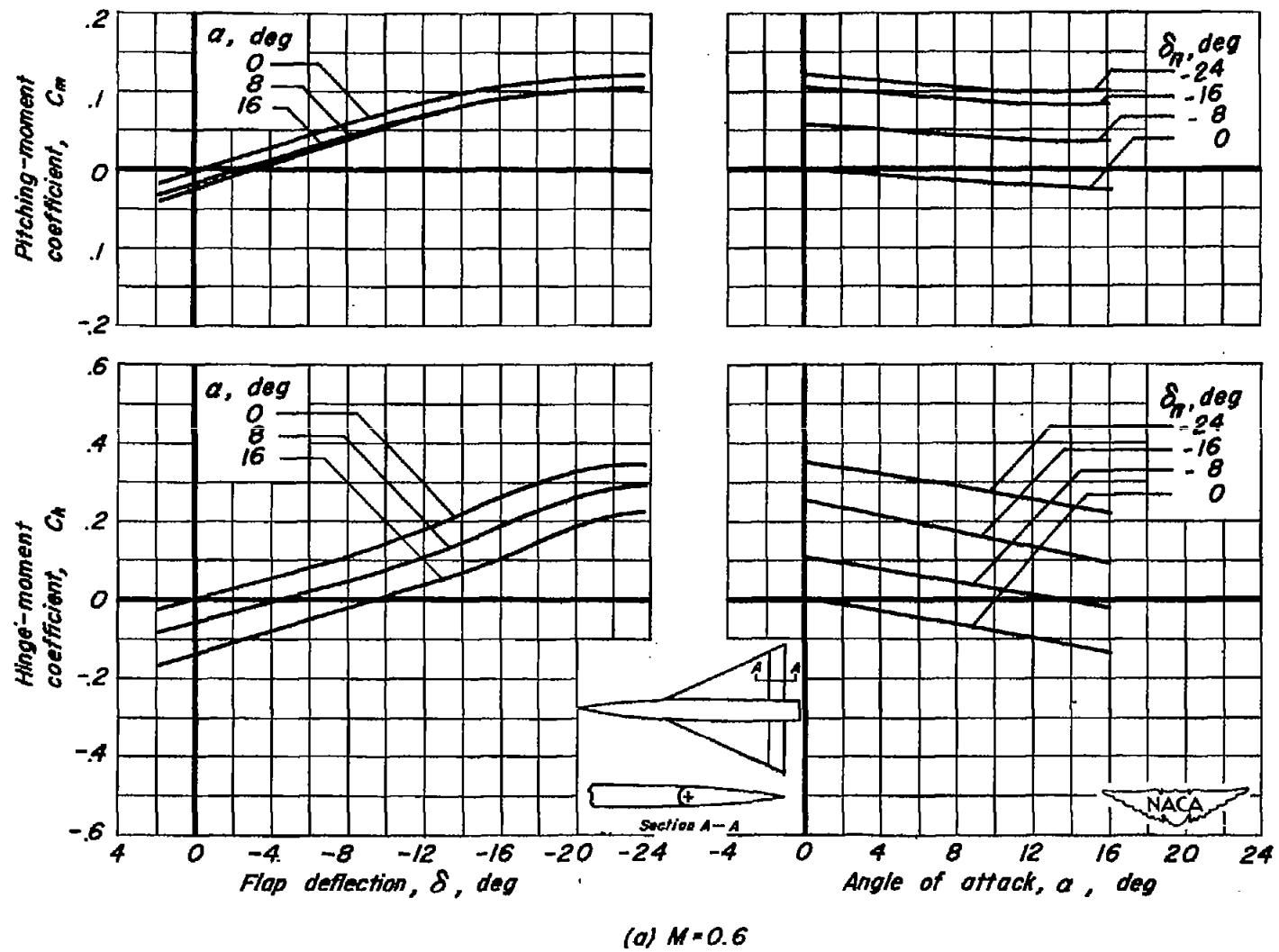
(a)  $M=0.6$ 

Figure 3. - The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the unbalanced flap. Data for two flaps.  $R = 4.4 \times 10^6$ .

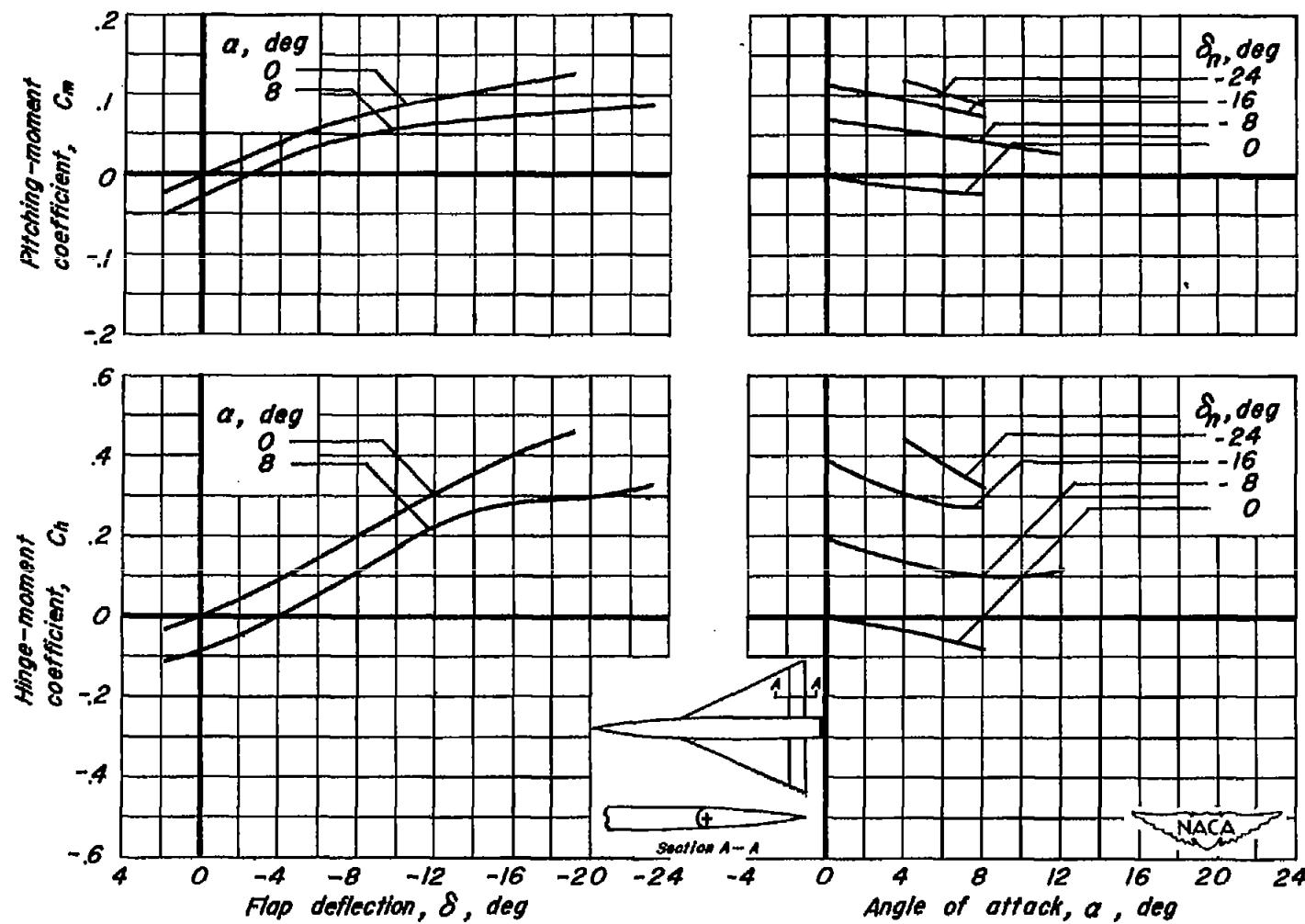
(b)  $M=0.9$ 

Figure 3.—Continued.

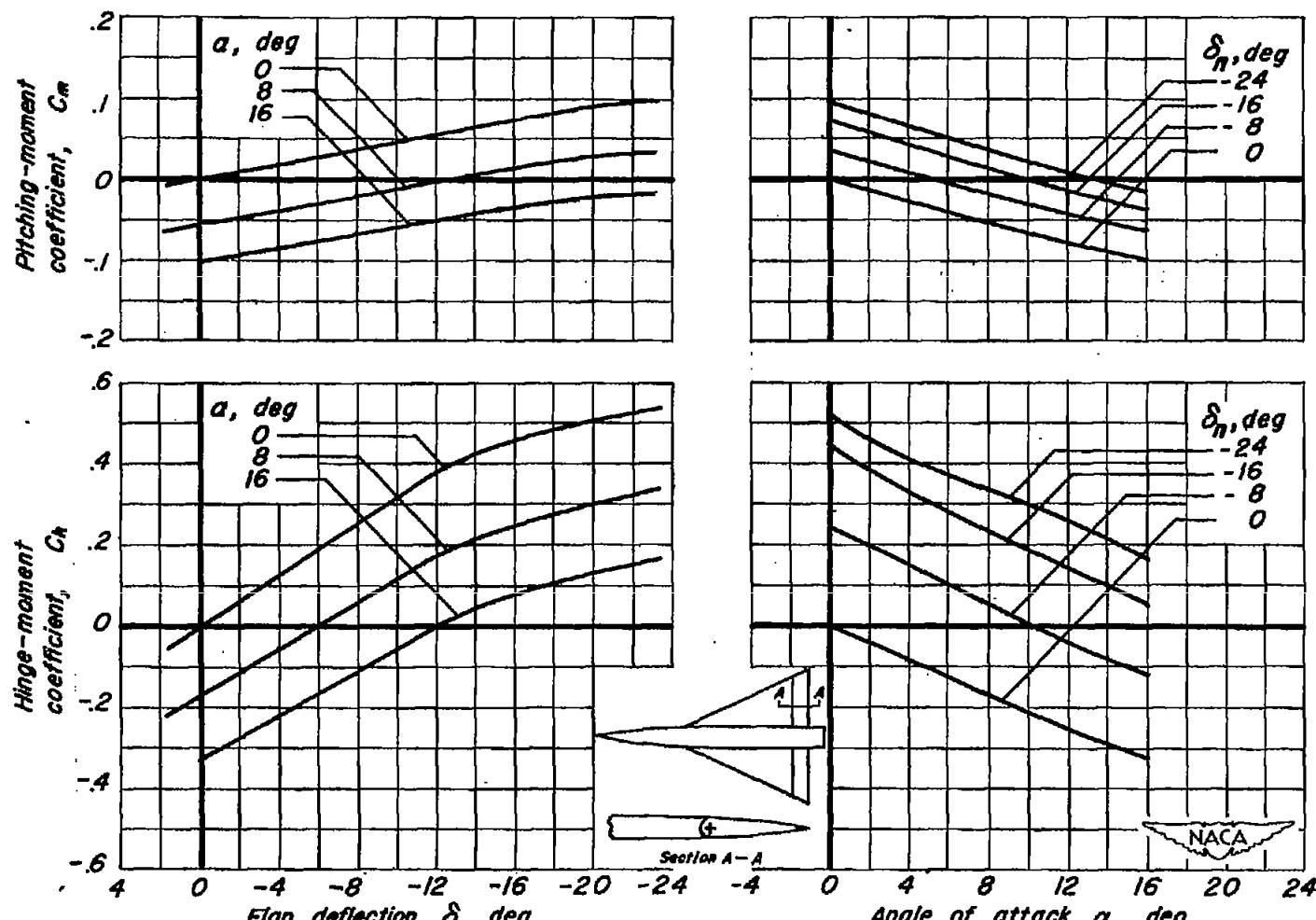
(c)  $M = 1.3$ 

Figure 3.—Continued.

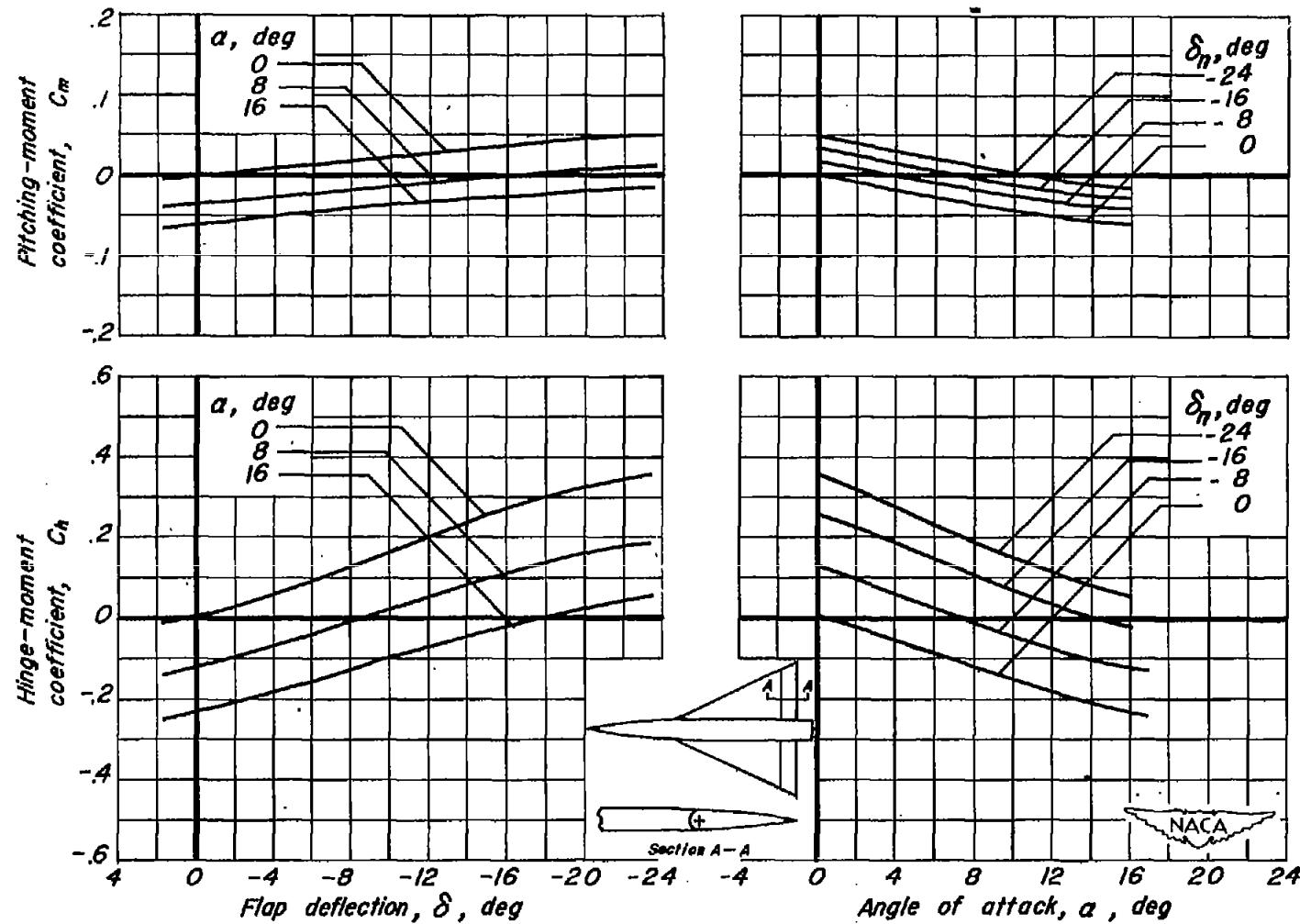
(d)  $M = 1.9$ 

Figure 3.—Concluded.

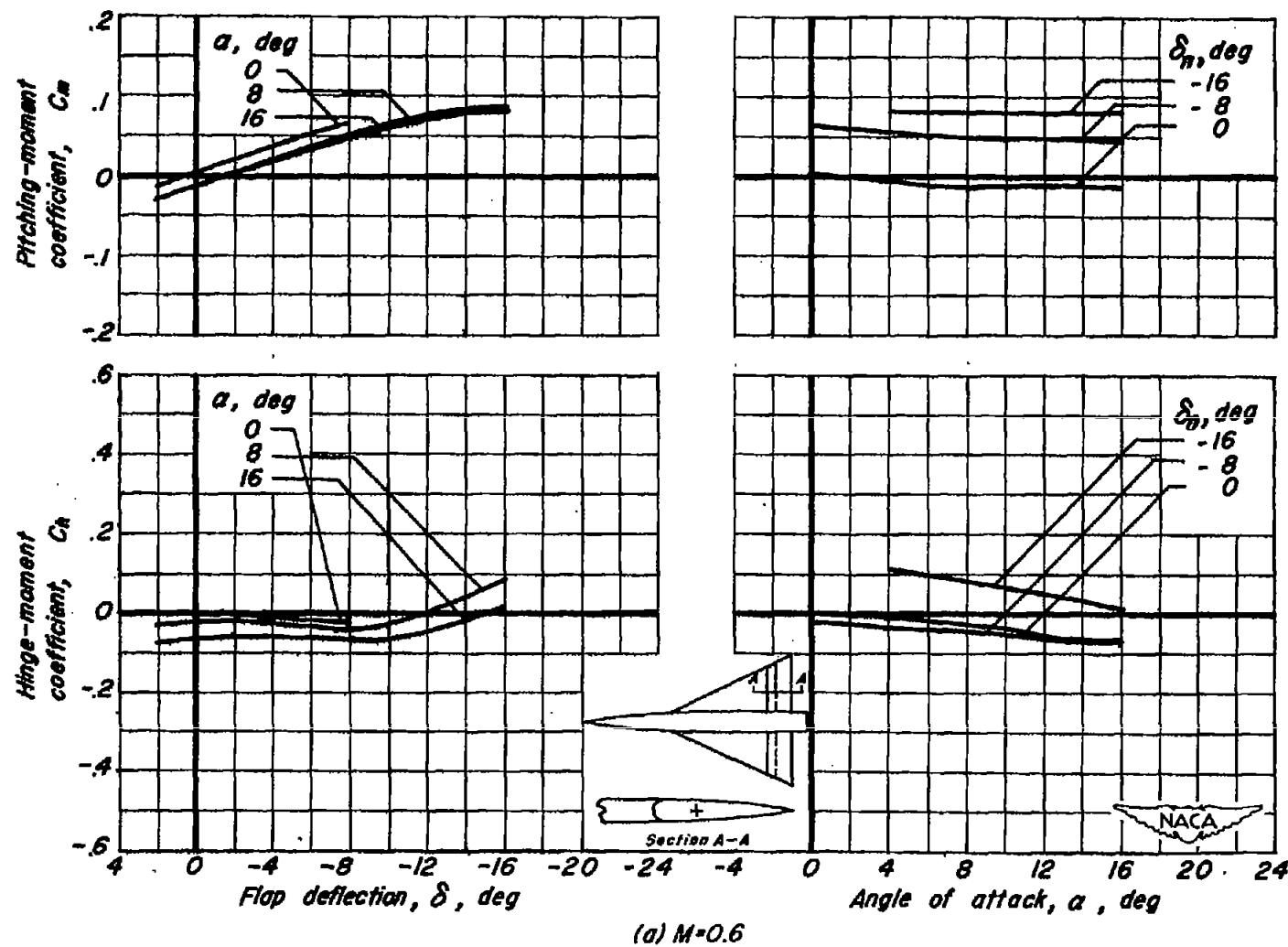


Figure 4. -- The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 50-percent balance flap (true-contour wing profile; round nose flap). Data for two flaps.  $R = 4.4 \times 10^6$

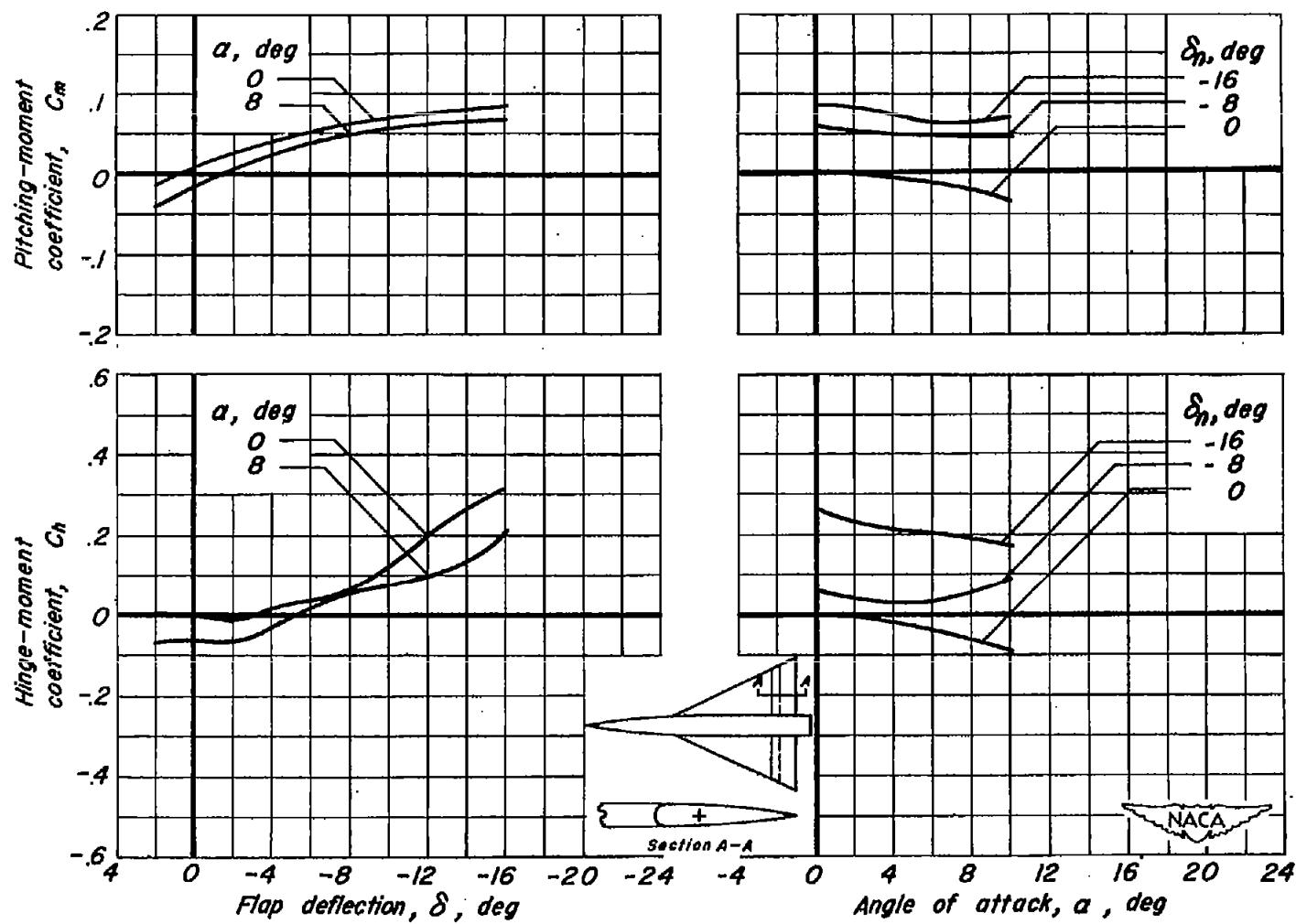
(b)  $M=0.9$ 

Figure 4.-Continued.

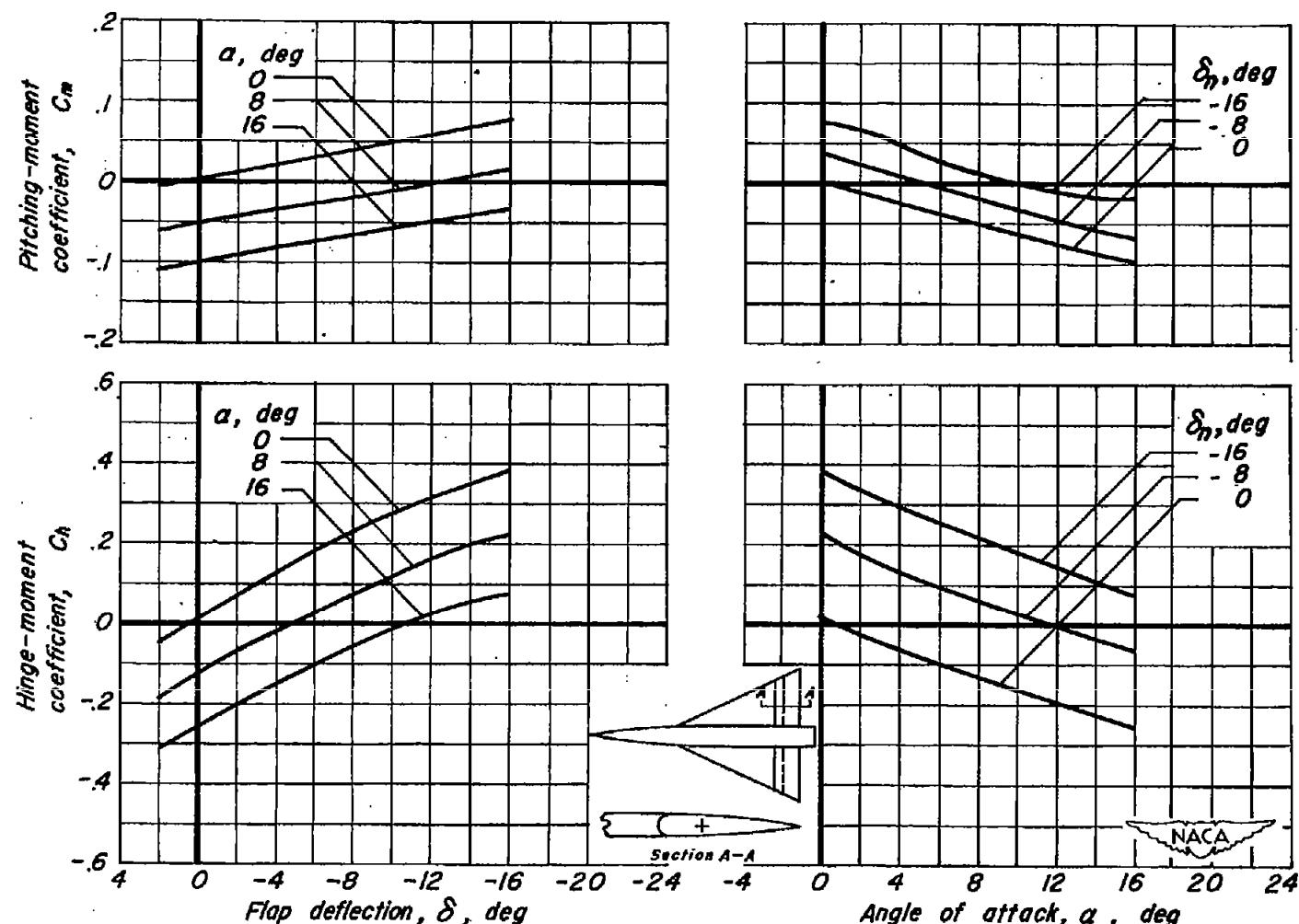
(c)  $M = 1.3$ 

Figure 4.-Continued.

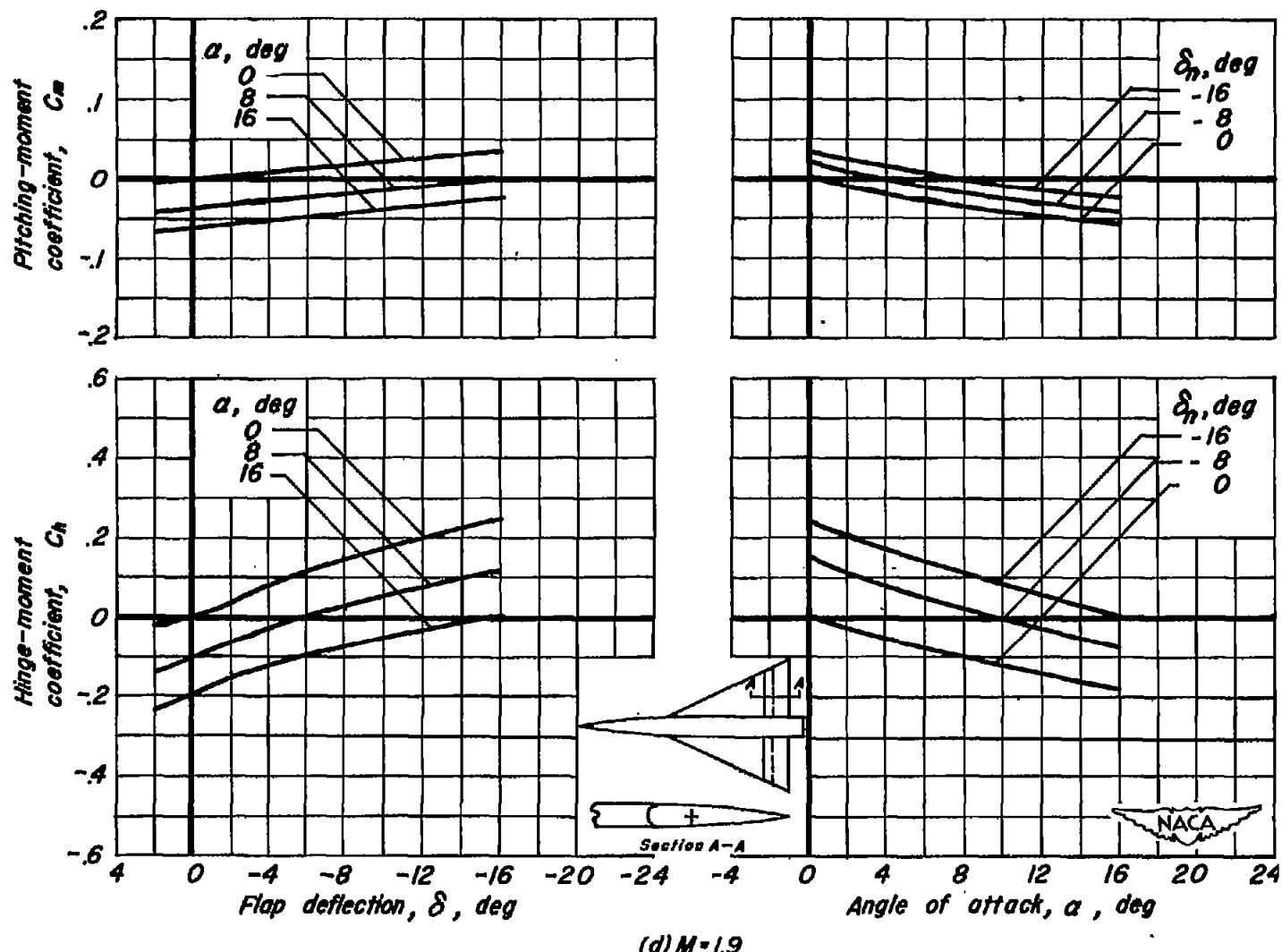


Figure 4.—Concluded.

~~CONFIDENTIAL~~

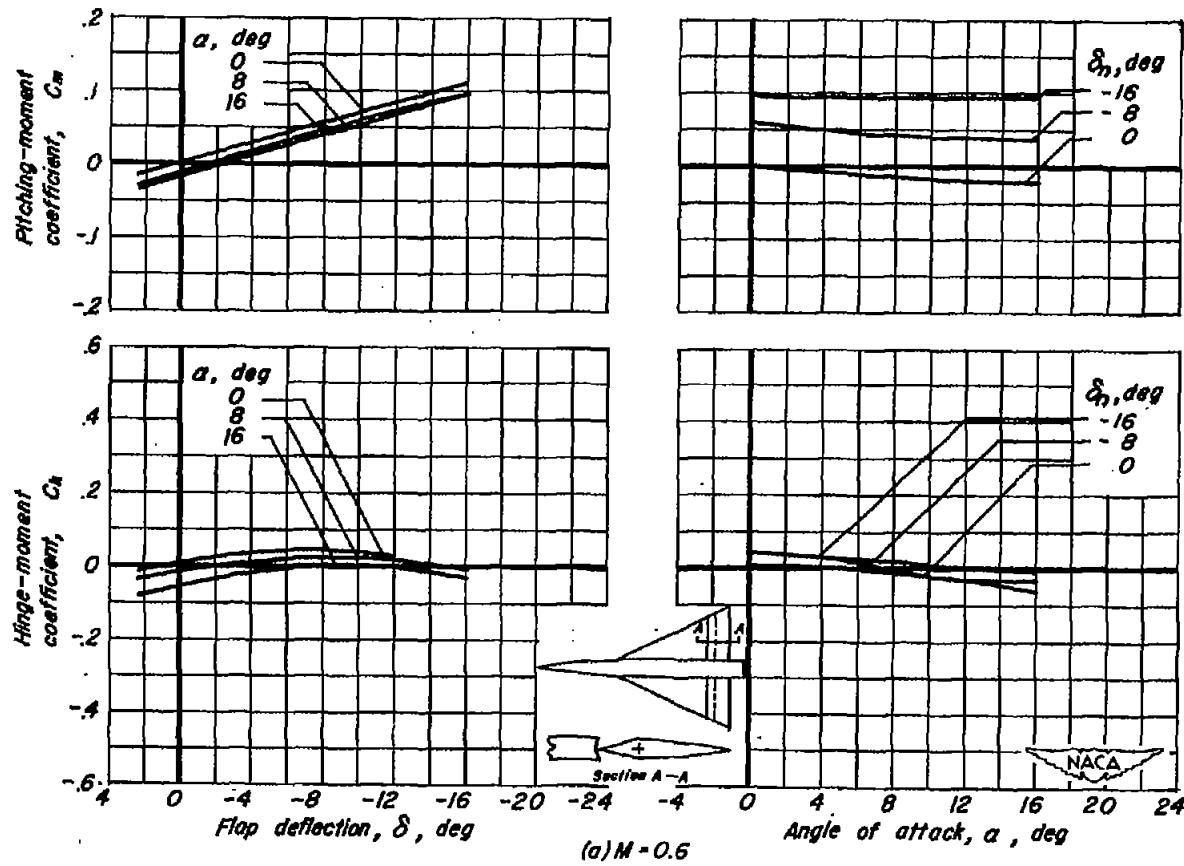


Figure 5.—The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 50-percent balance flap (true-contour wing profile; sharp nose flap). Data for two flaps.  $R = 4.4 \times 10^6$ .

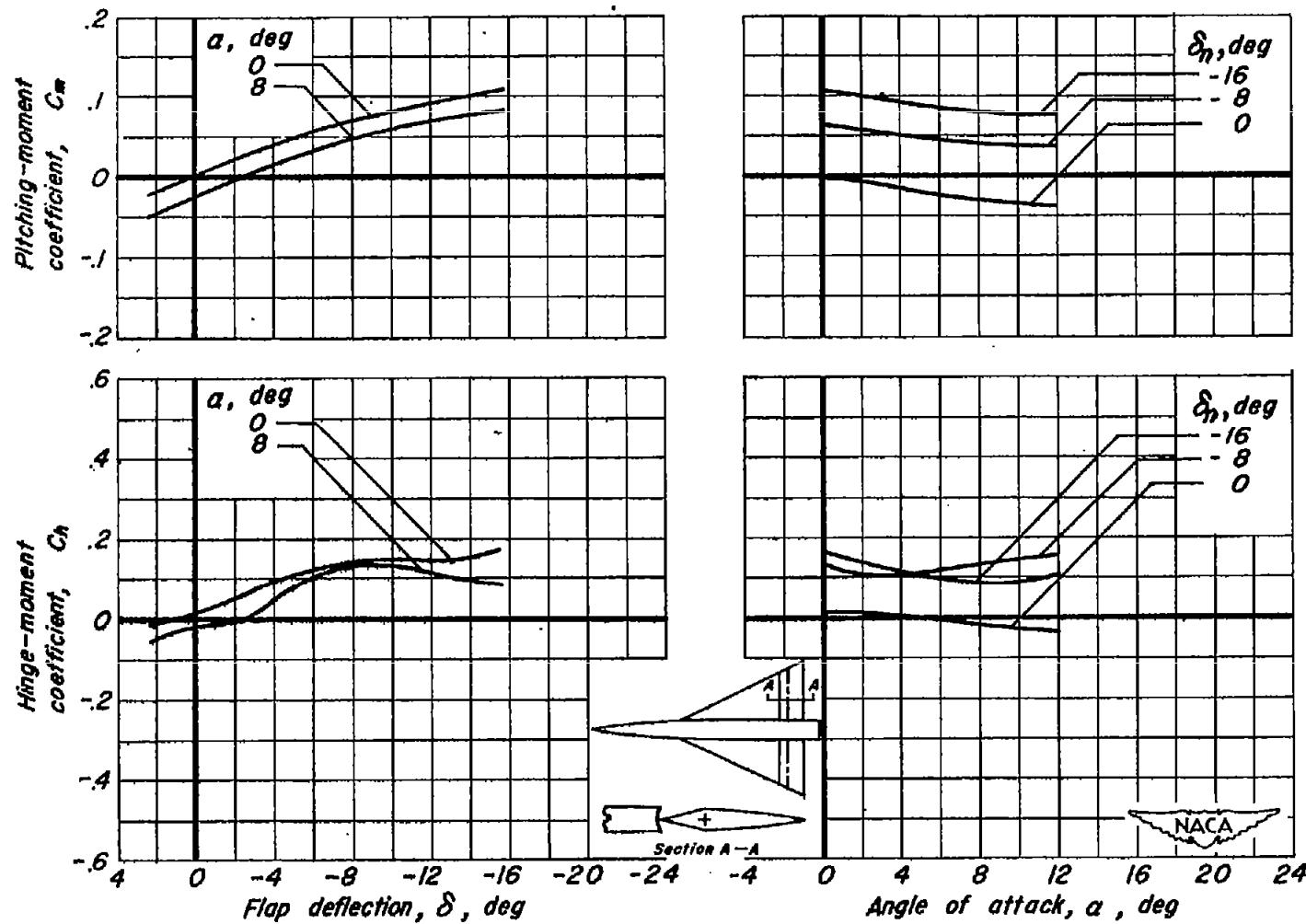
(b)  $M = 0.9$ 

Figure 5. -Continued.

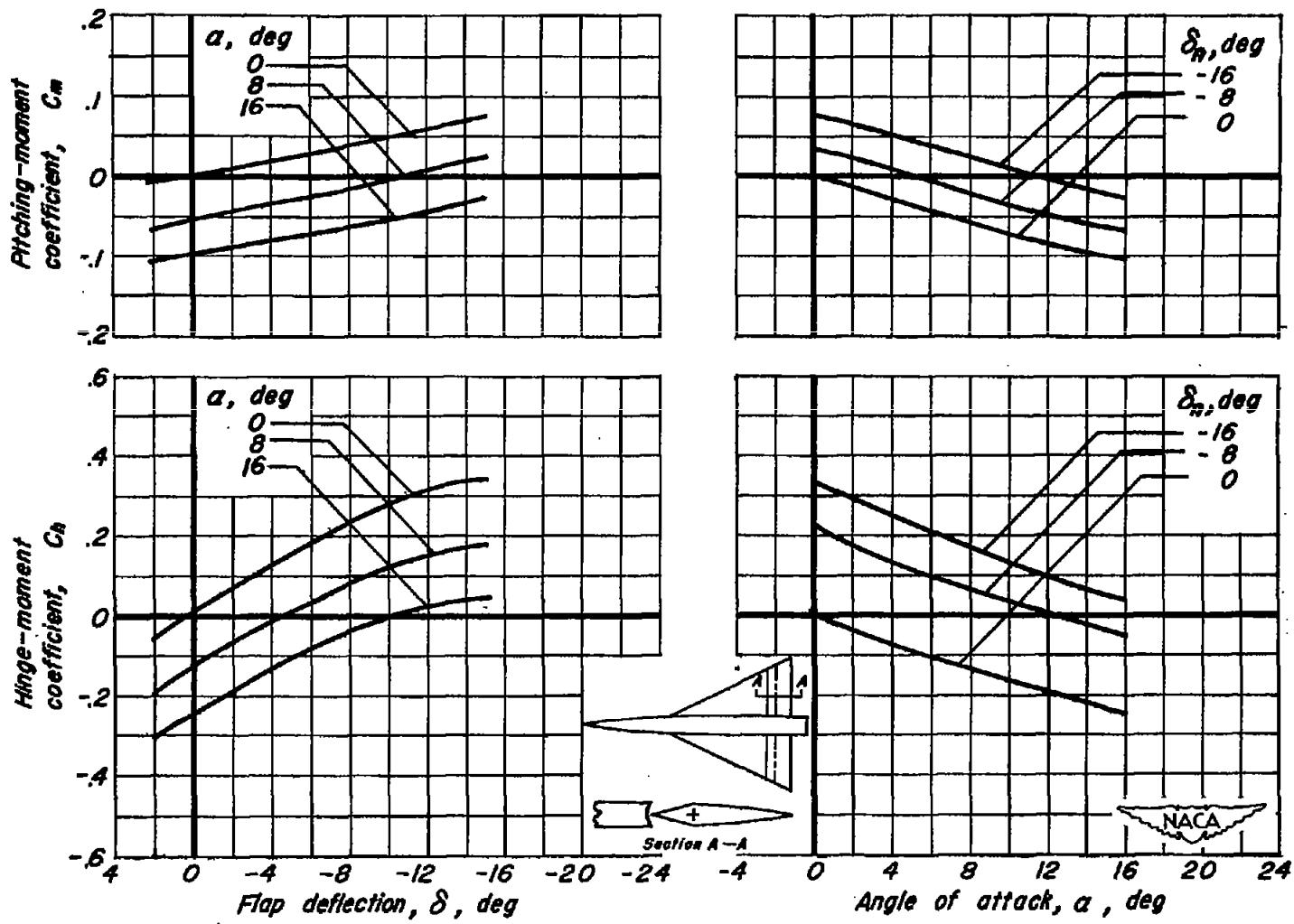
(c)  $M = 1.3$ 

Figure 5.—Continued.

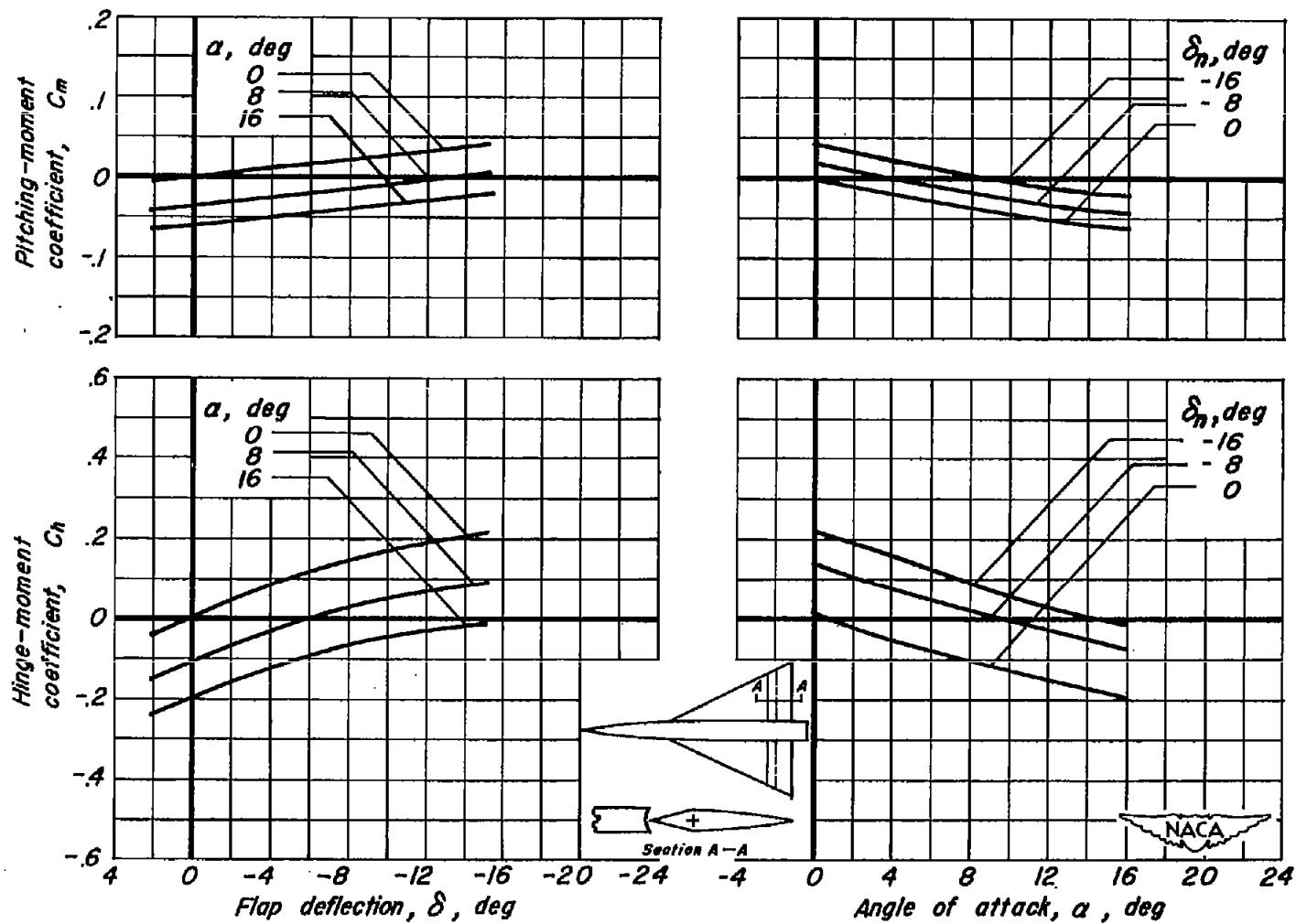
(d)  $M = 1.9$ 

Figure 5.—Concluded.

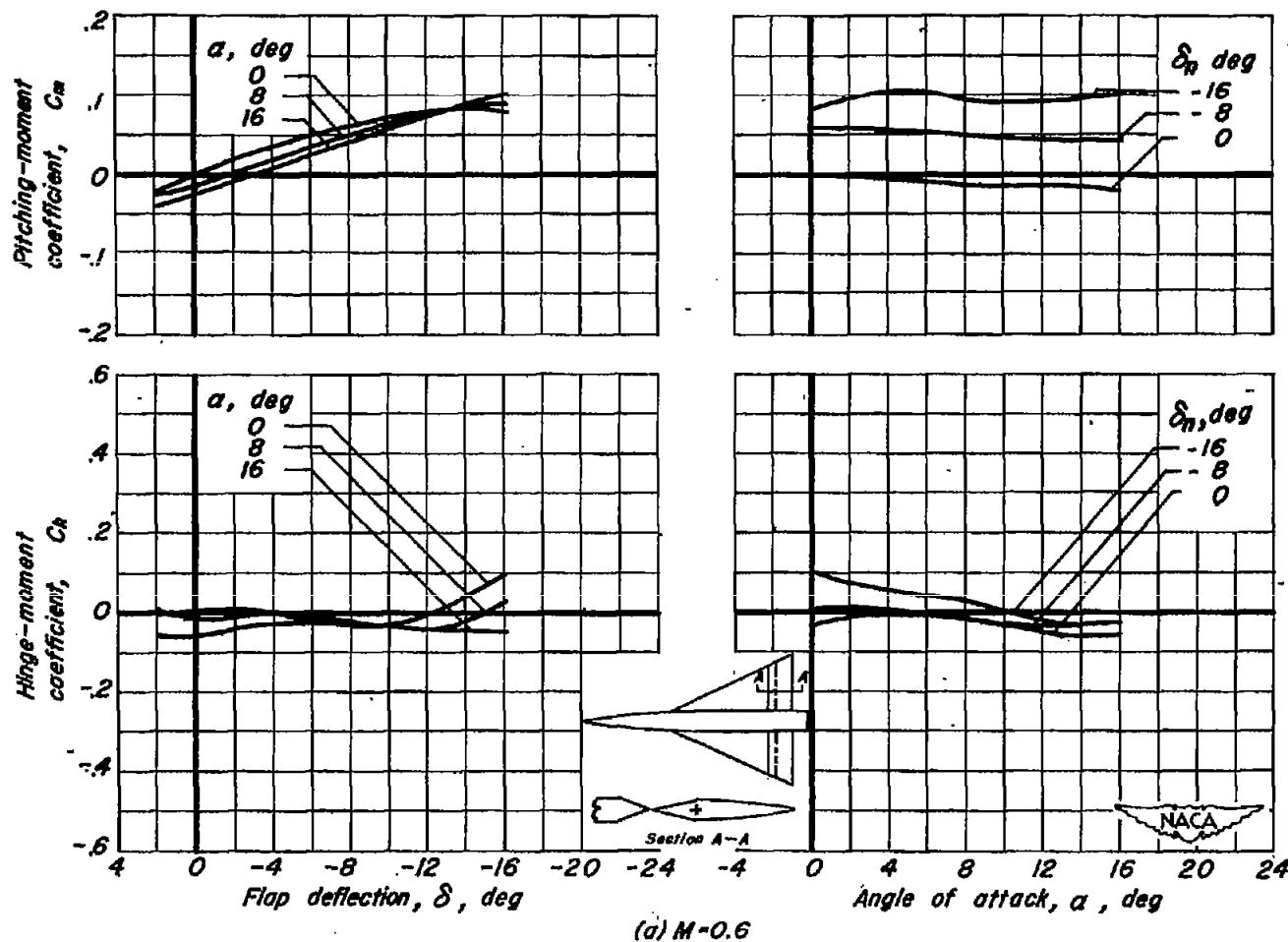


Figure 6. - The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 50-percent balance flap. (modified wing profile; sharp nose flap). Data for two flaps.  $R = 4.4 \times 10^6$ .

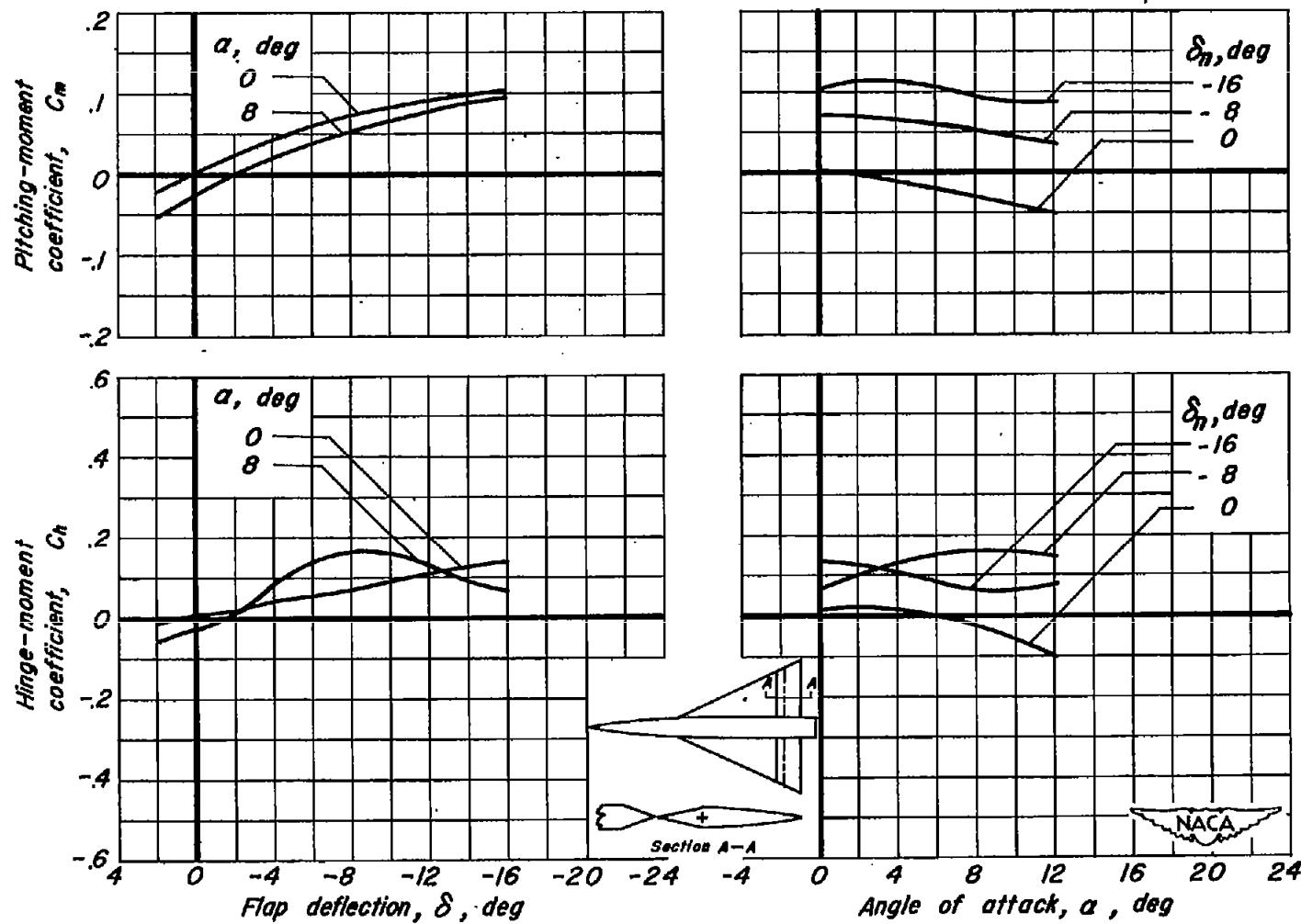
(b)  $M=0.9$ 

Figure 6. - Continued.

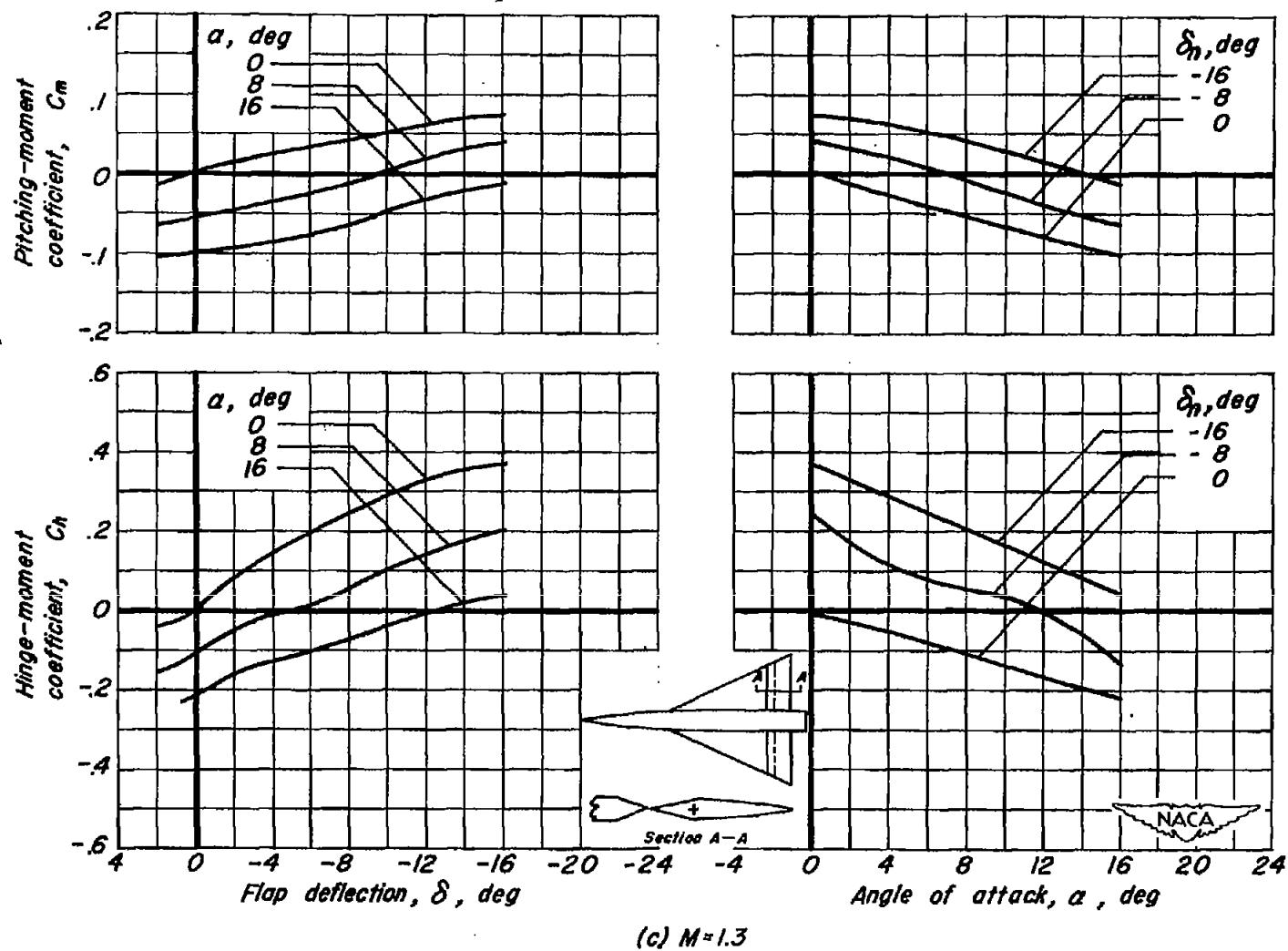
(c)  $M = 1.3$ 

Figure 6. - Continued.

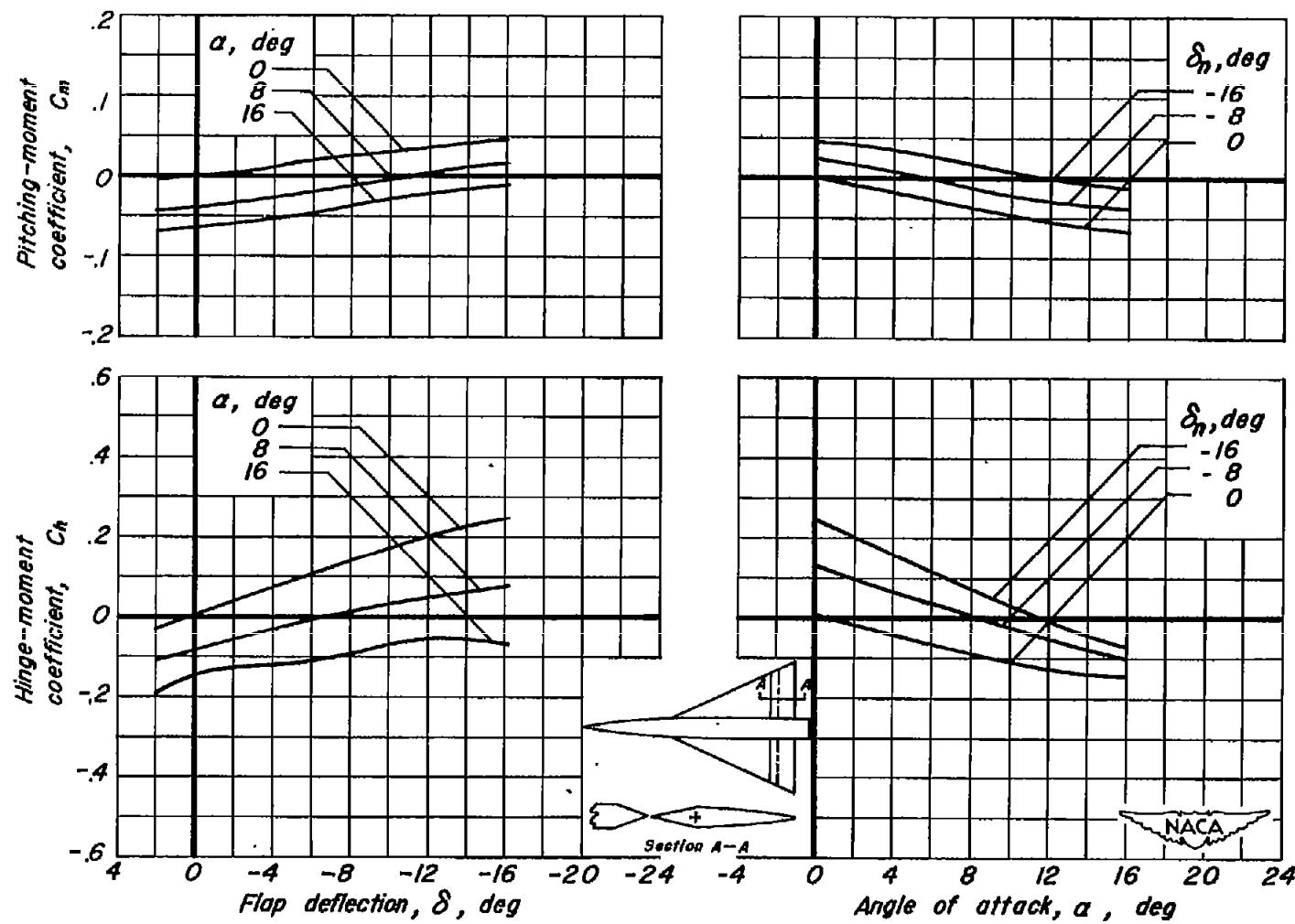
(d)  $M = 1.9$ 

Figure 6. - Concluded.

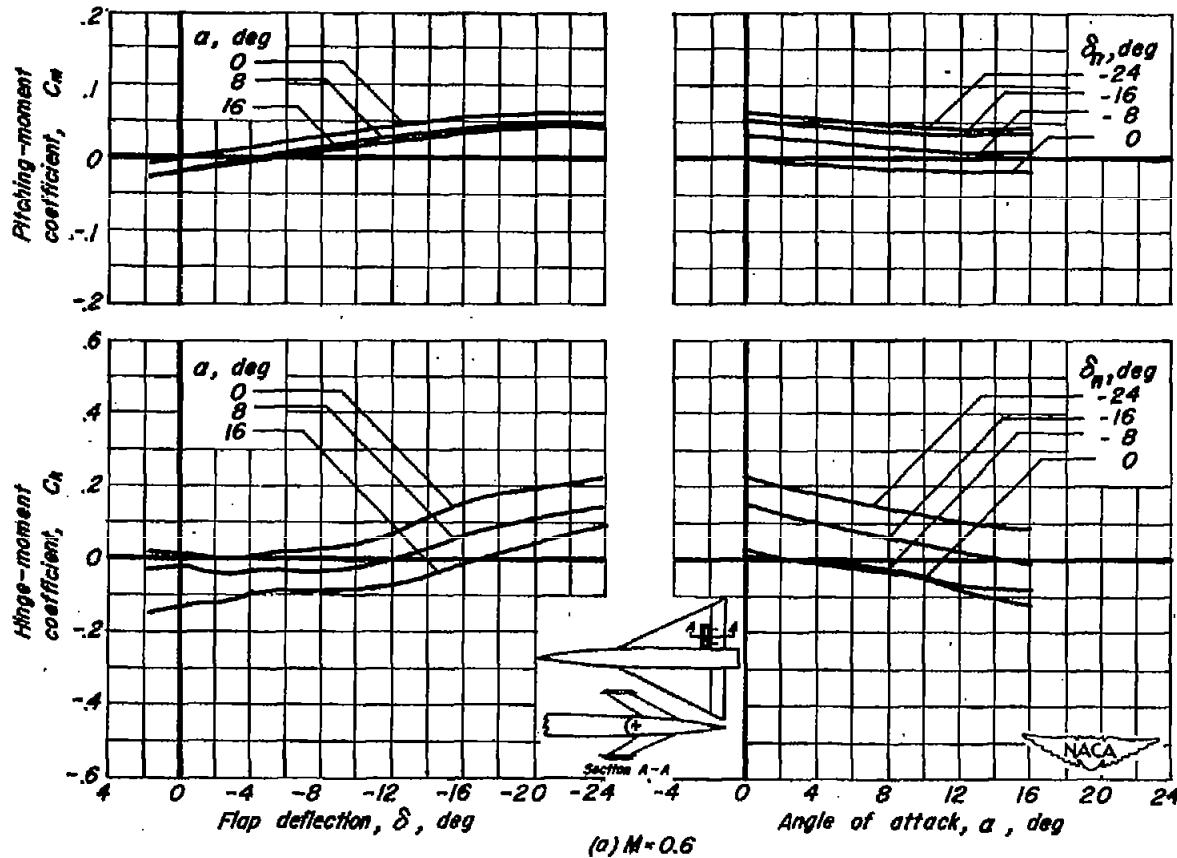


Figure 7.- The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 38-percent-span paddle balance on the upper and lower surfaces of the flap. Data for one flap.  $R = 4.4 \times 10^6$ .

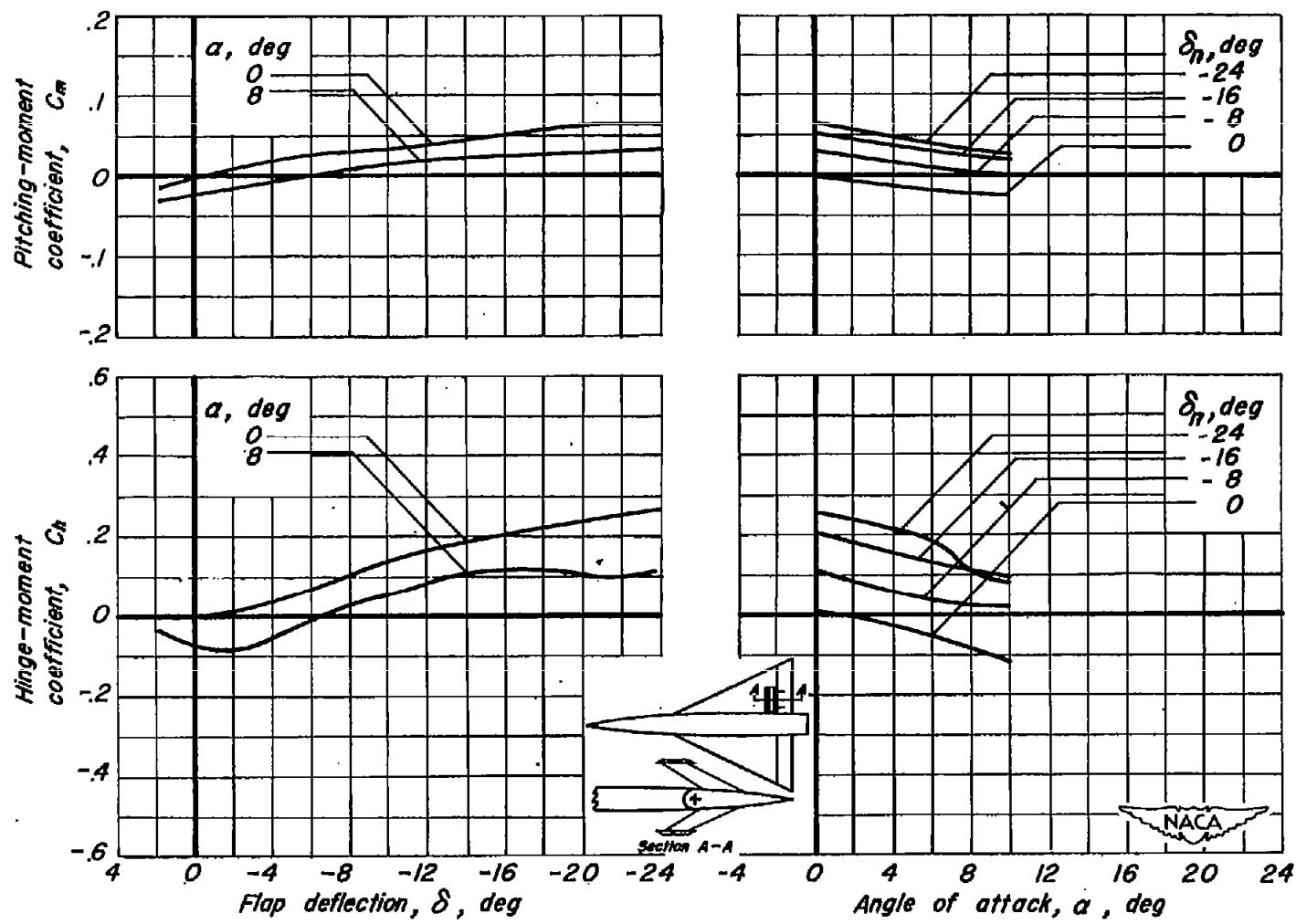
(b)  $M = 0.9$ 

Figure 7.-Continued.

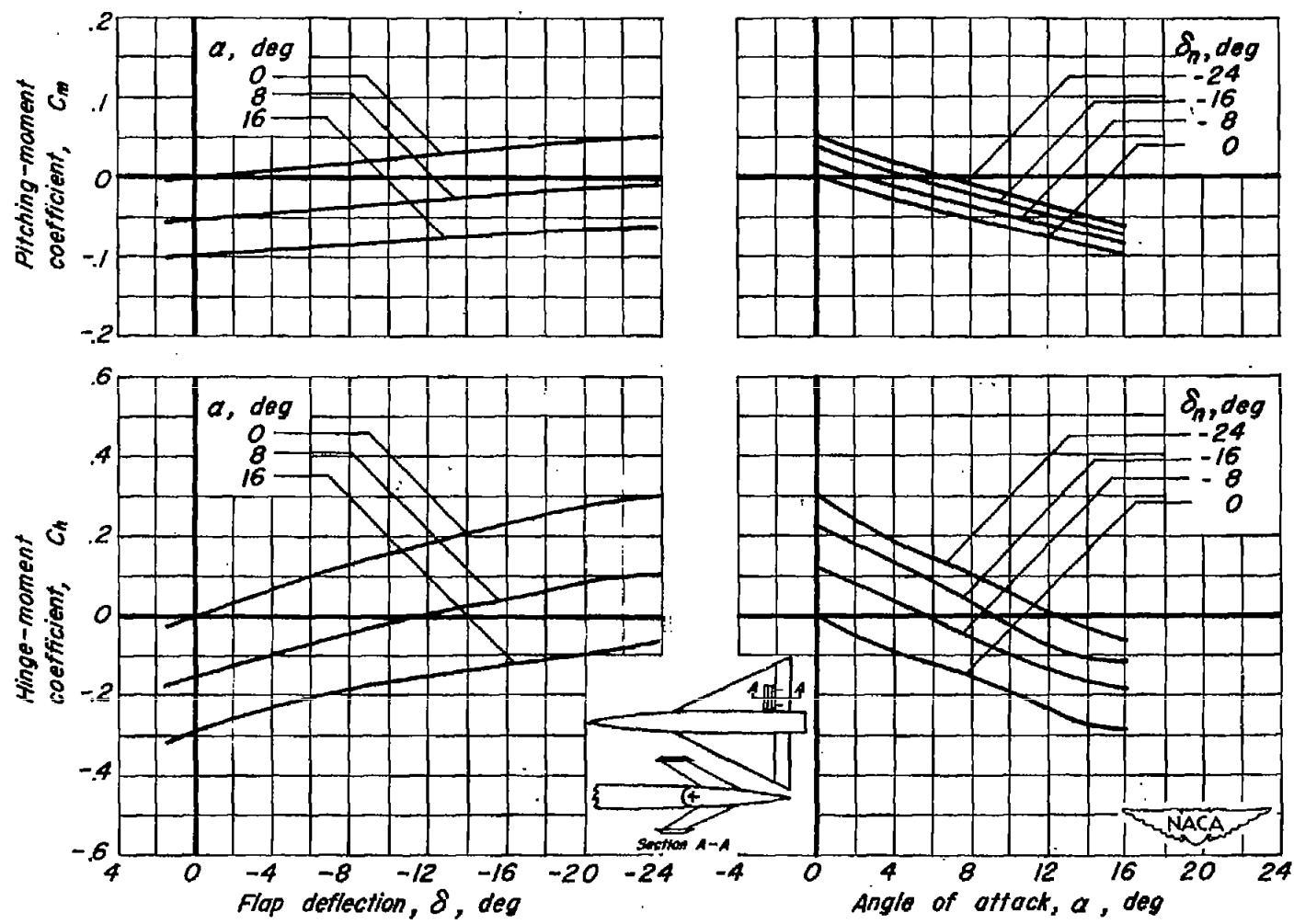
(c)  $M=1.3$ 

Figure 7. -Continued.

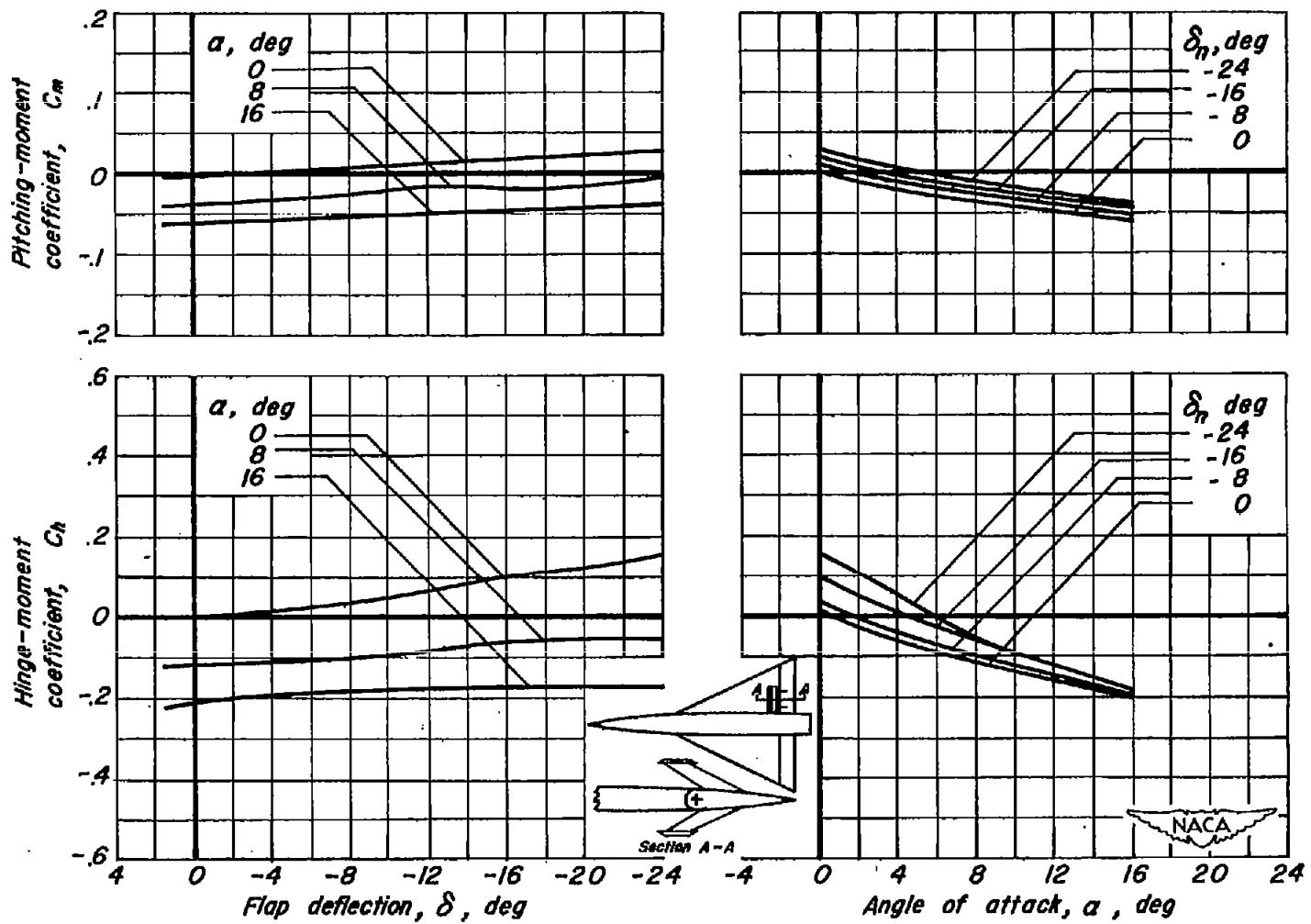
(d)  $M = 1.9$ 

Figure 7.—Concluded.

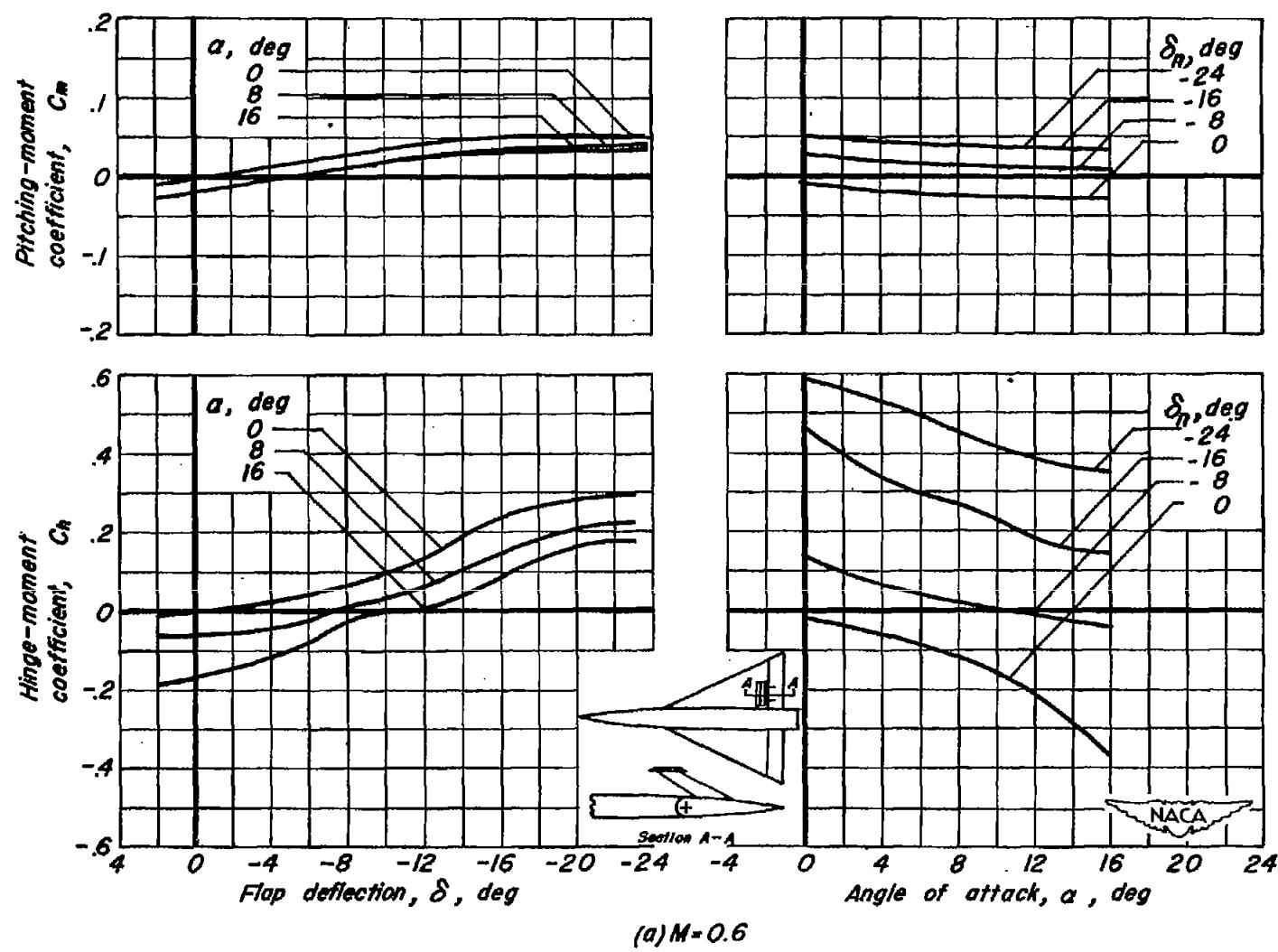


Figure 8.—The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 38-percent-span paddle balance on the upper surface of the flap. Data for one flap.  $R = 4.4 \times 10^6$

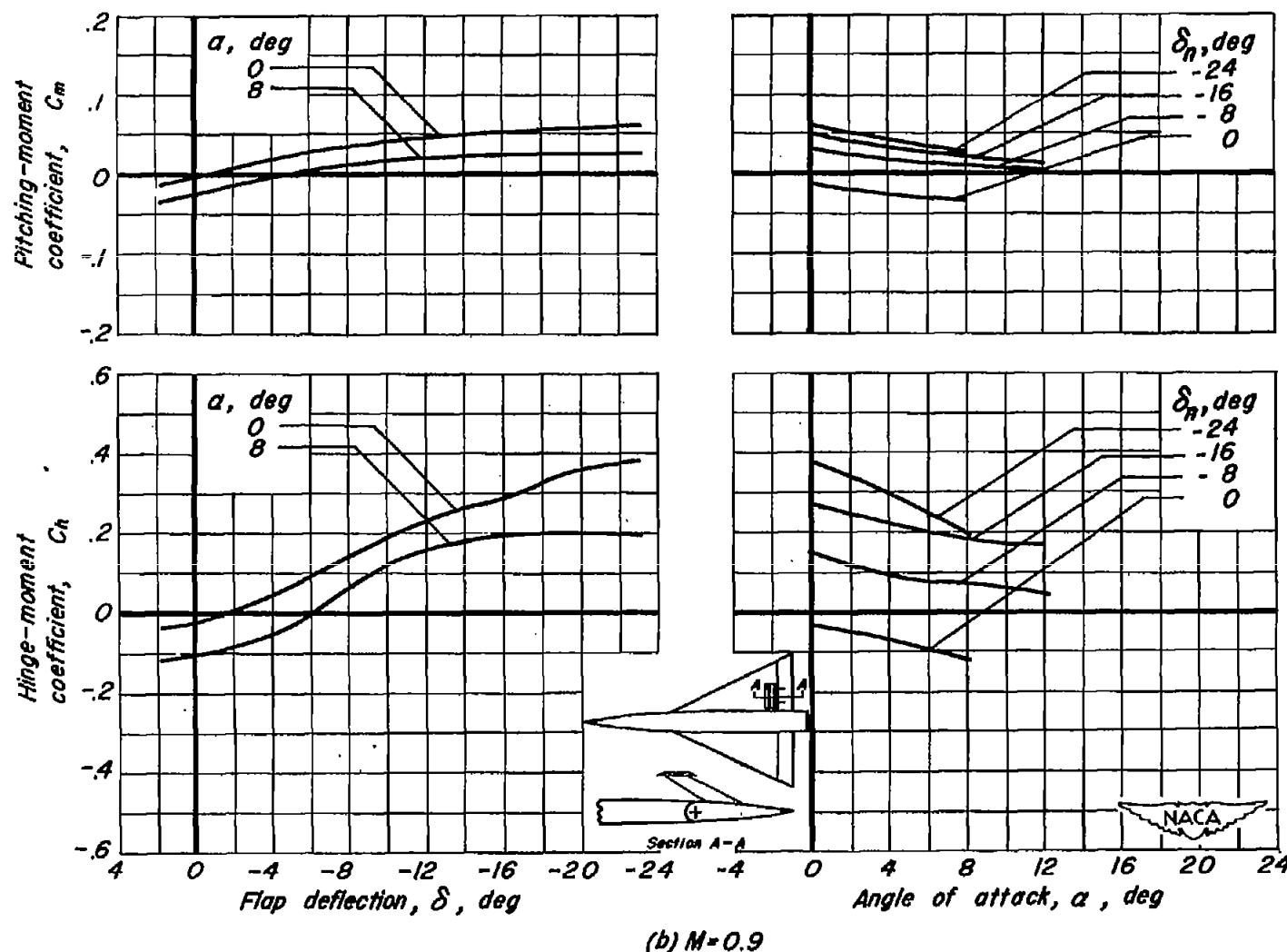


Figure 8.—Continued.

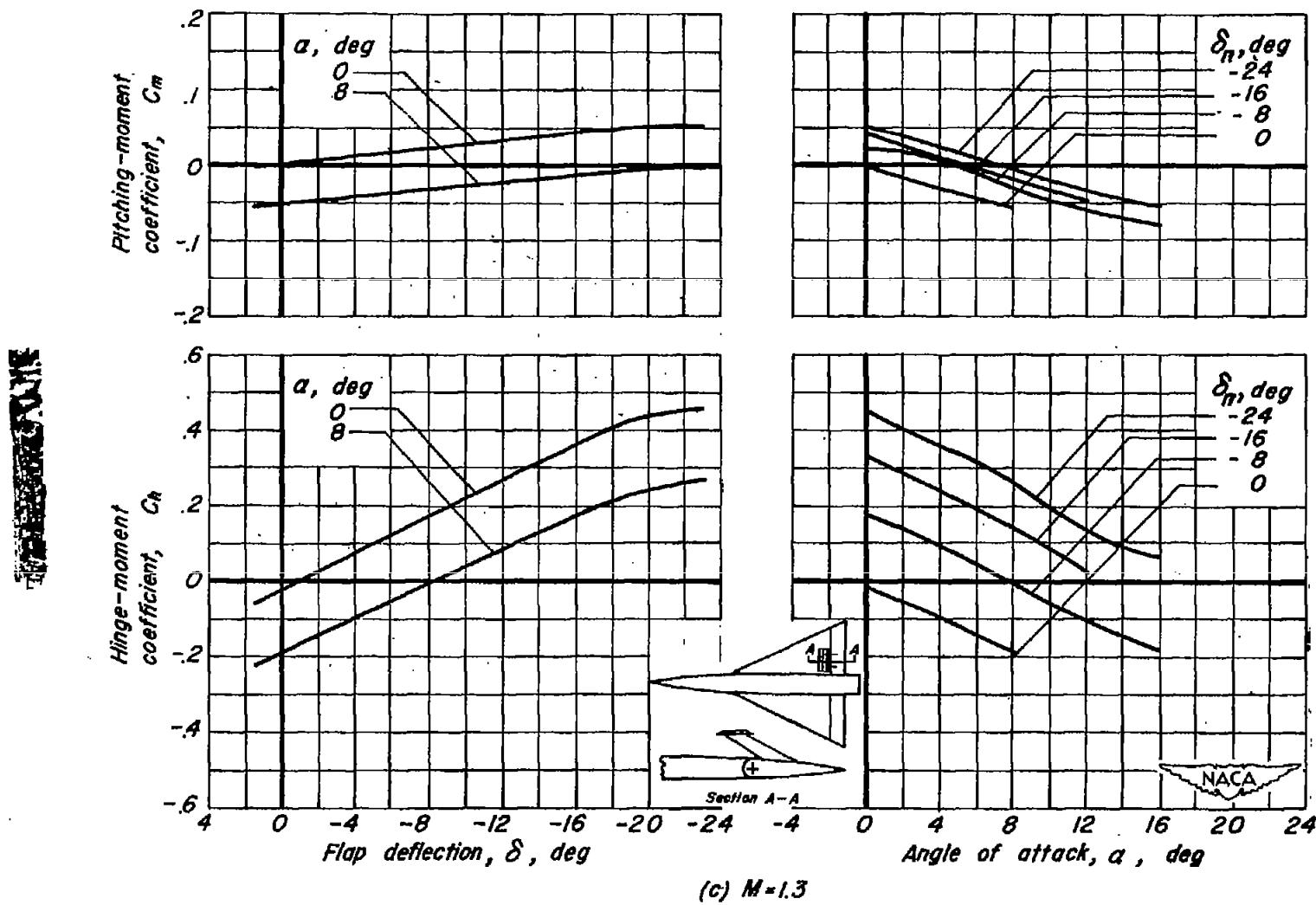
(c)  $M = 1.3$ 

Figure 8.—Continued.

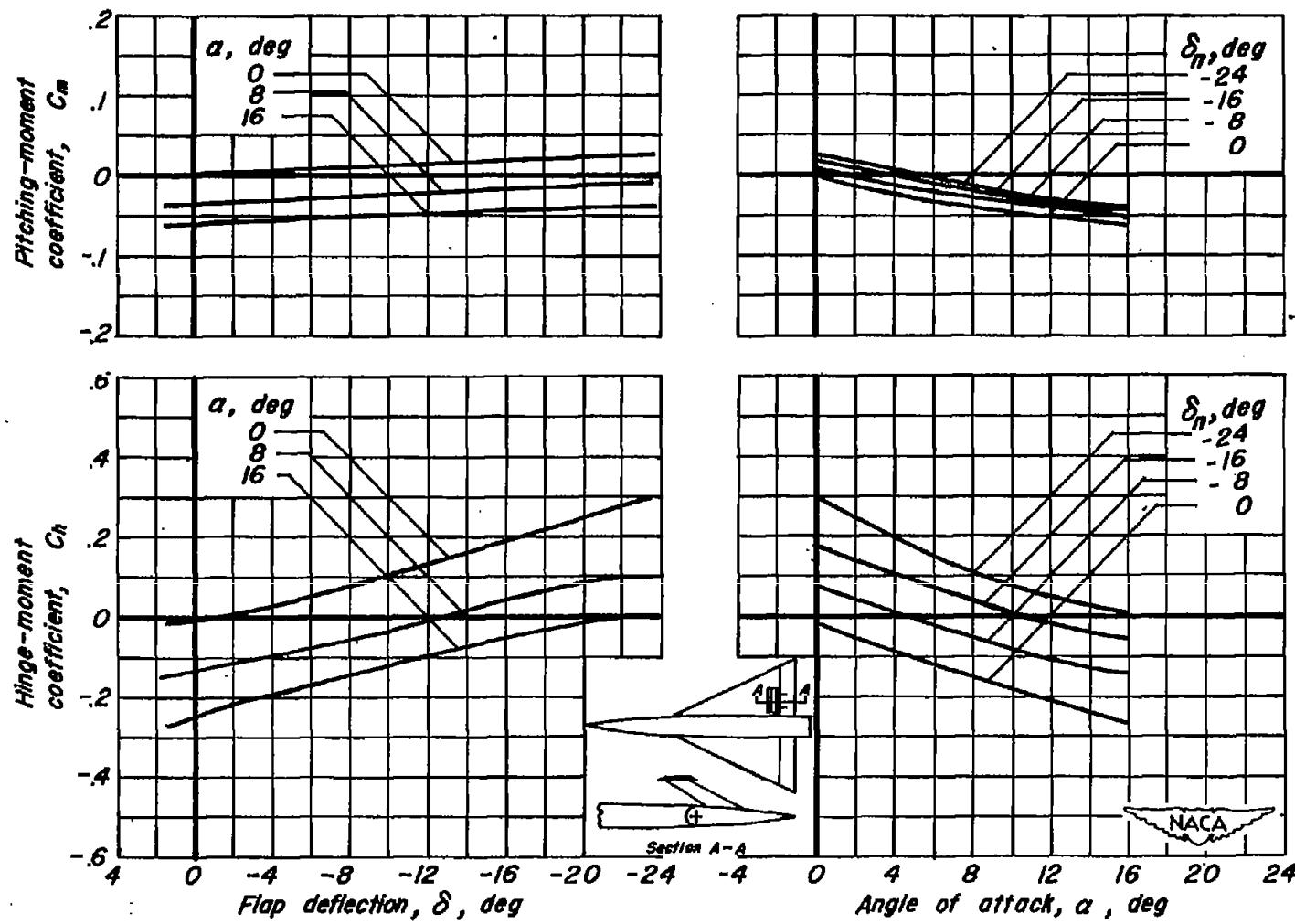
(d)  $M = 1.9$ 

Figure 8. - Concluded.

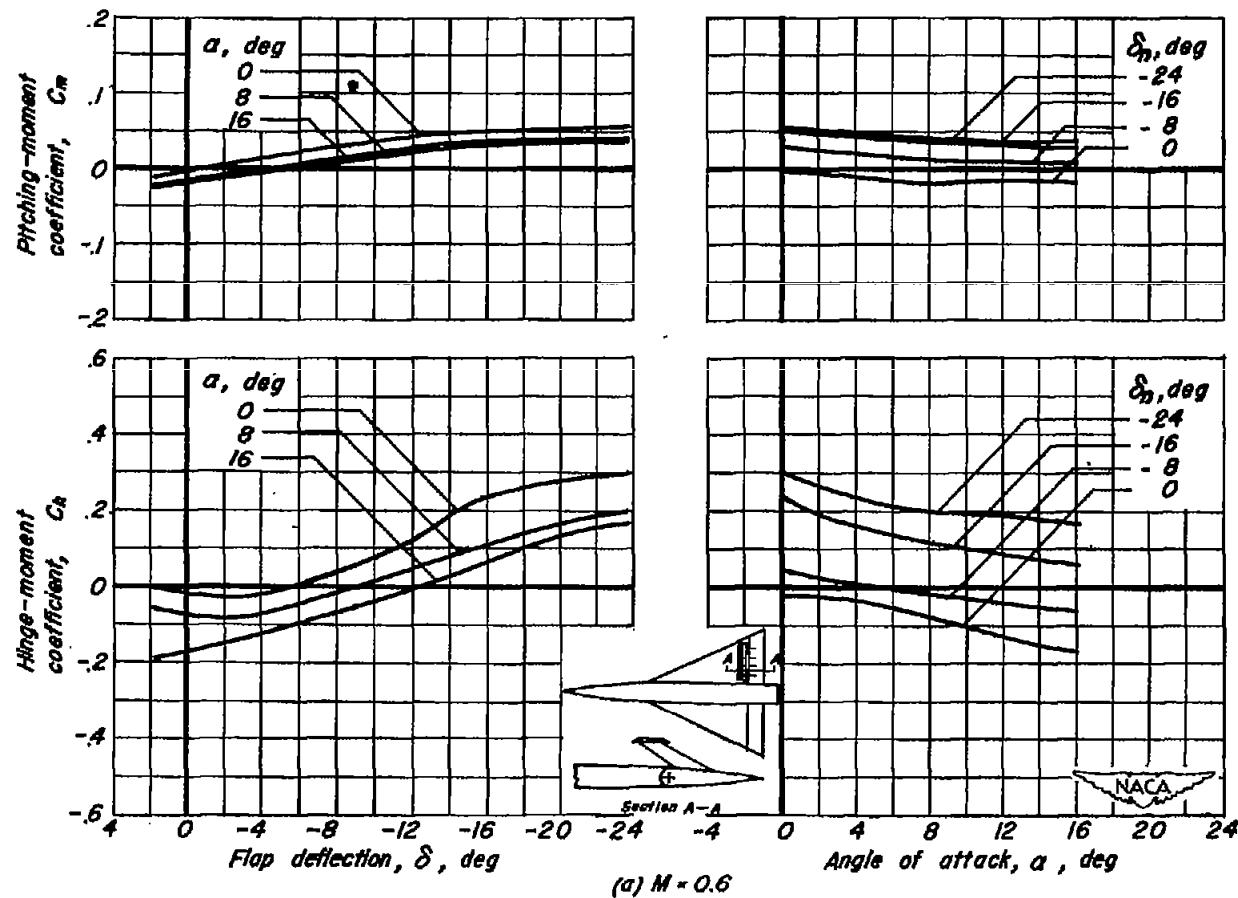


Figure 9. - The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 67-percent-span paddle balance on the upper surface of the flap forward of the hinge line. Data for one flap.  $R = 4.4 \times 10^6$ .

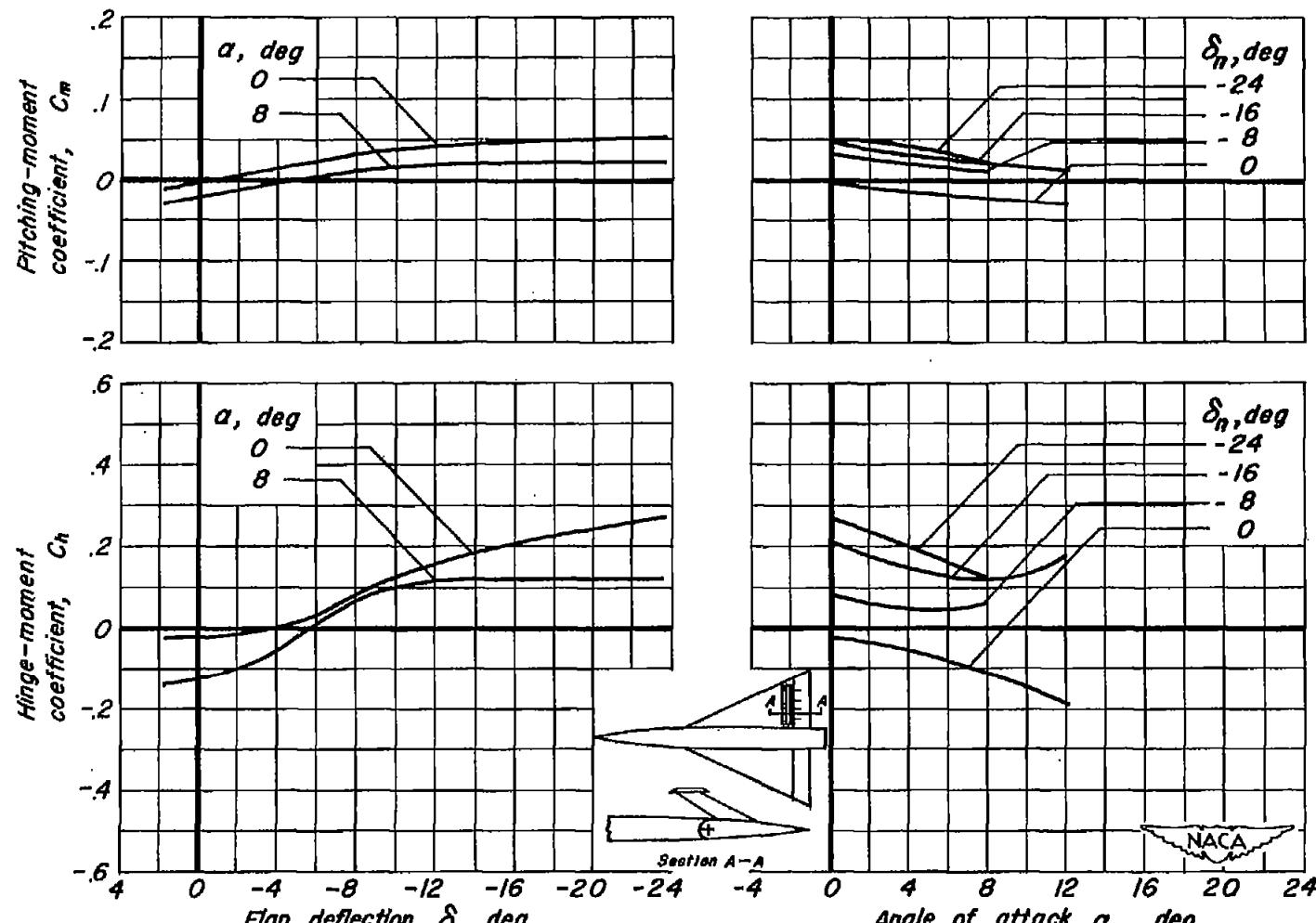
(b)  $M = 0.9$ 

Figure 9.-Continued.

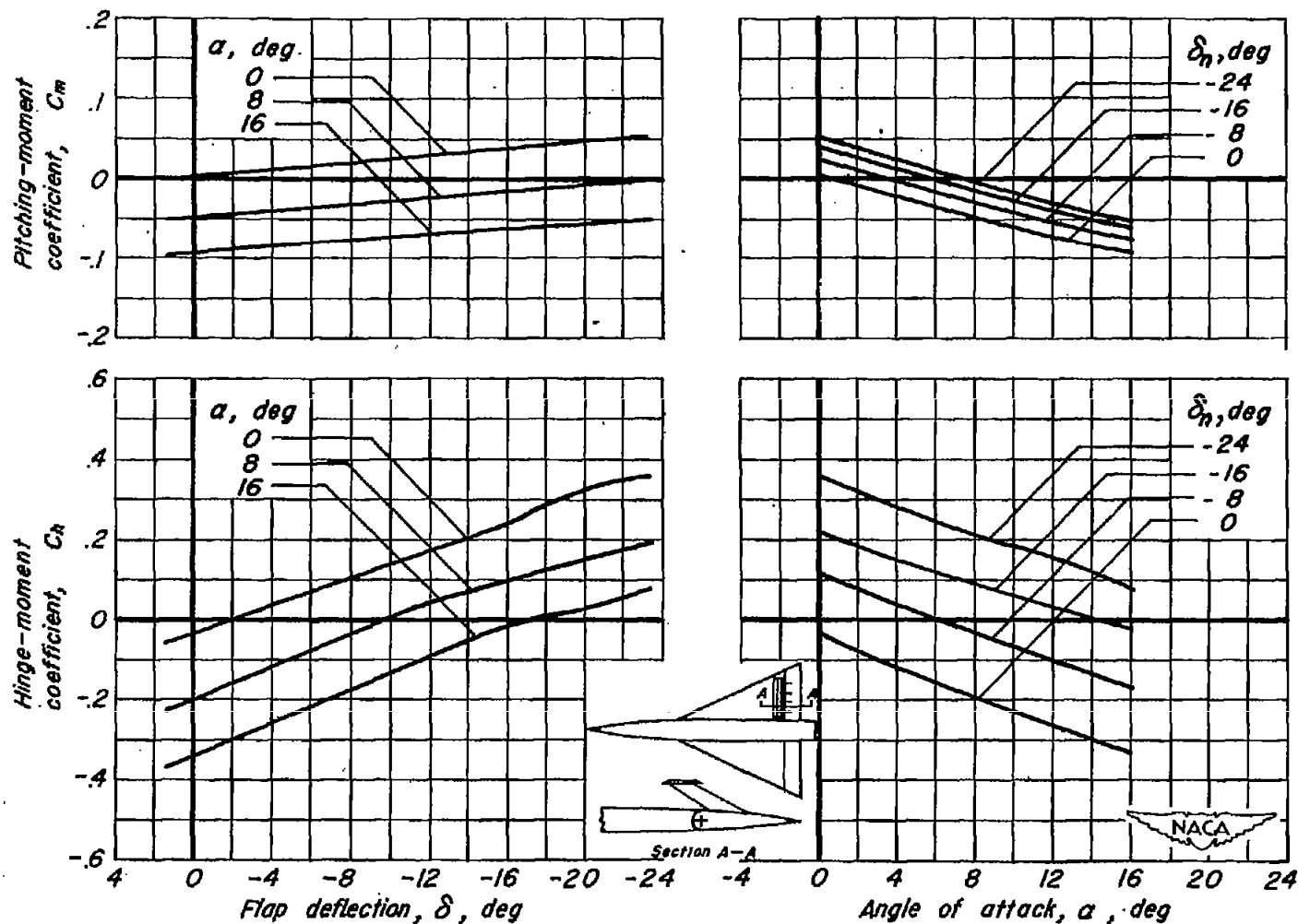
(c)  $M=1.3$ 

Figure 9.—Continued.

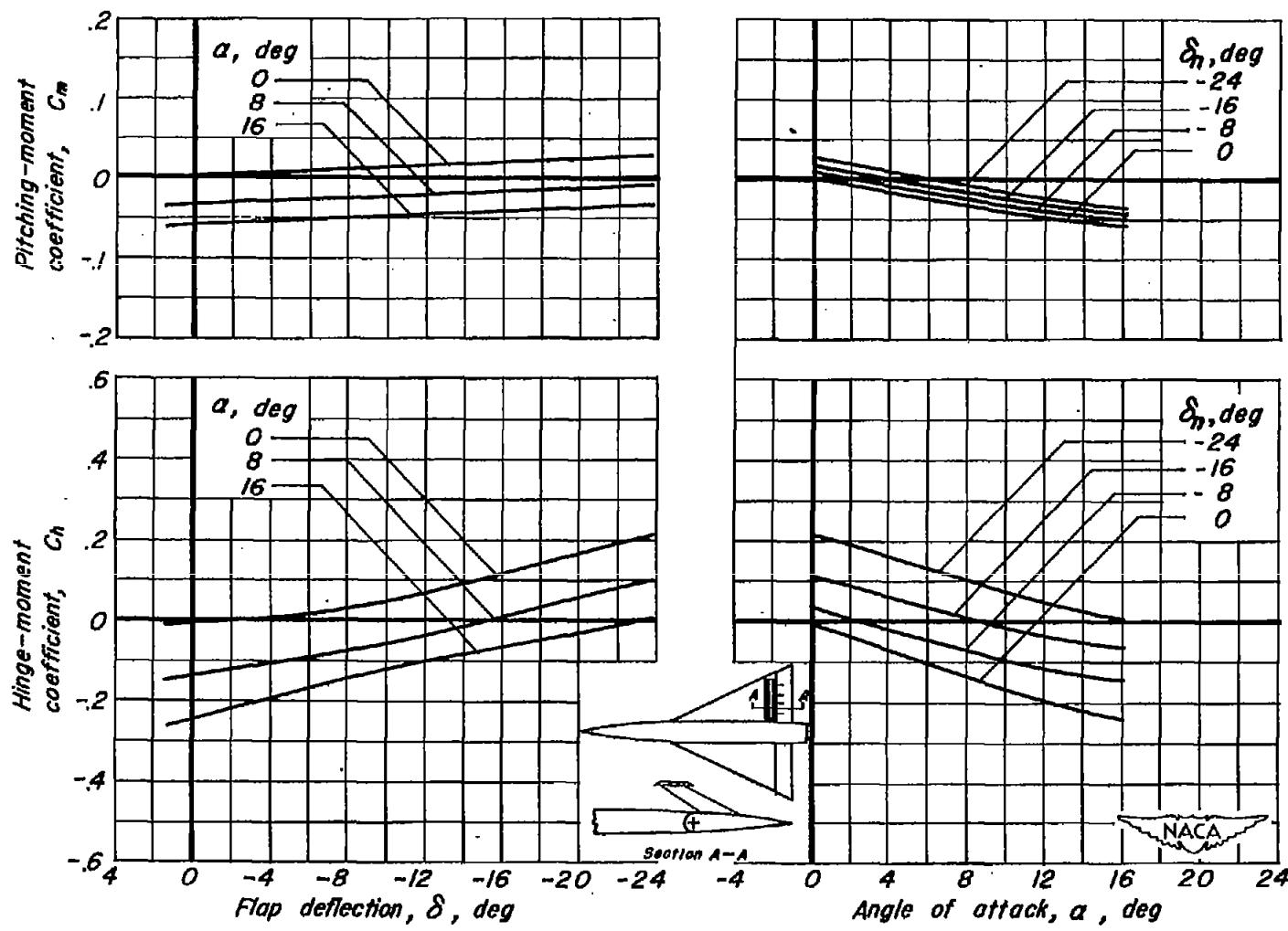
(d)  $M = 1.9$ 

Figure 9.-Concluded.

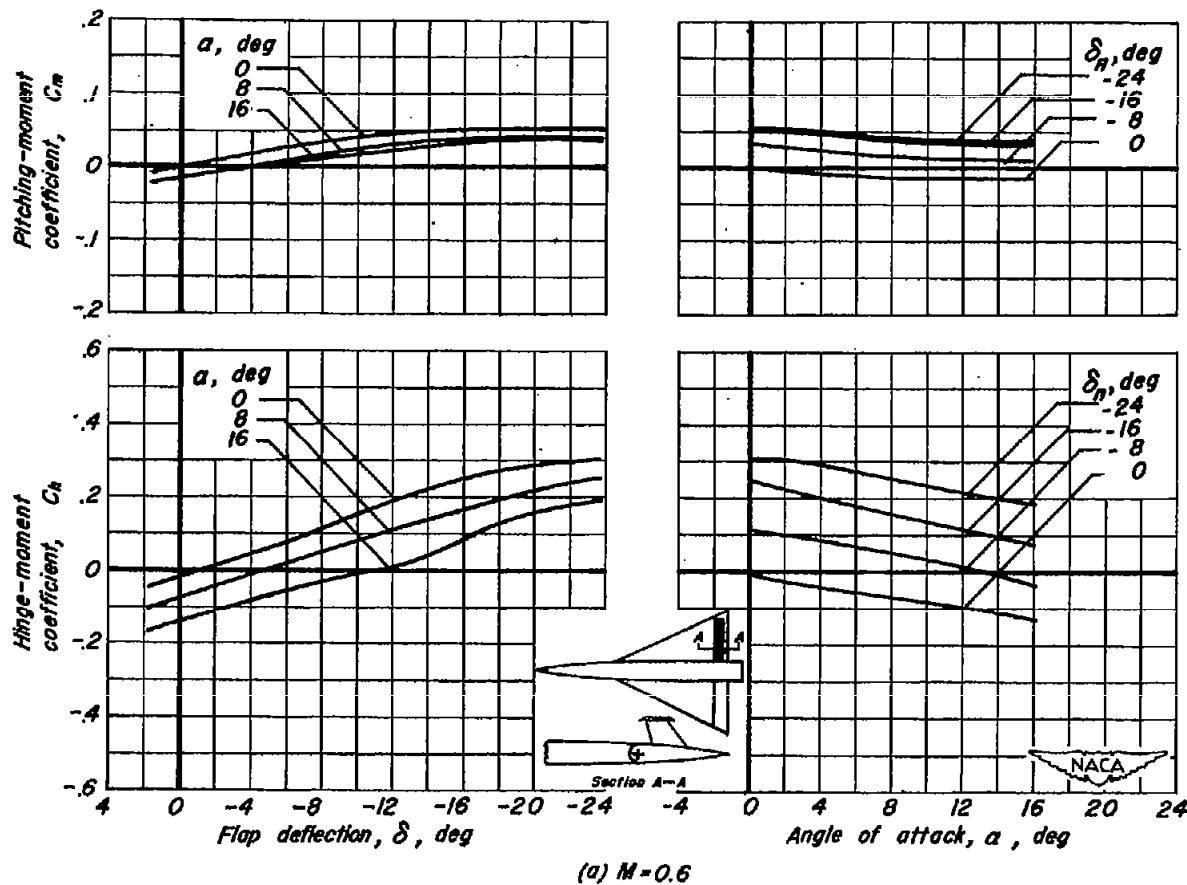
(a)  $M = 0.6$ 

Figure 10. - The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 67-percent-span paddle balance on the upper surface of the flap aft of the hinge line. Data for one flap.  $R = 4.4 \times 10^6$ .

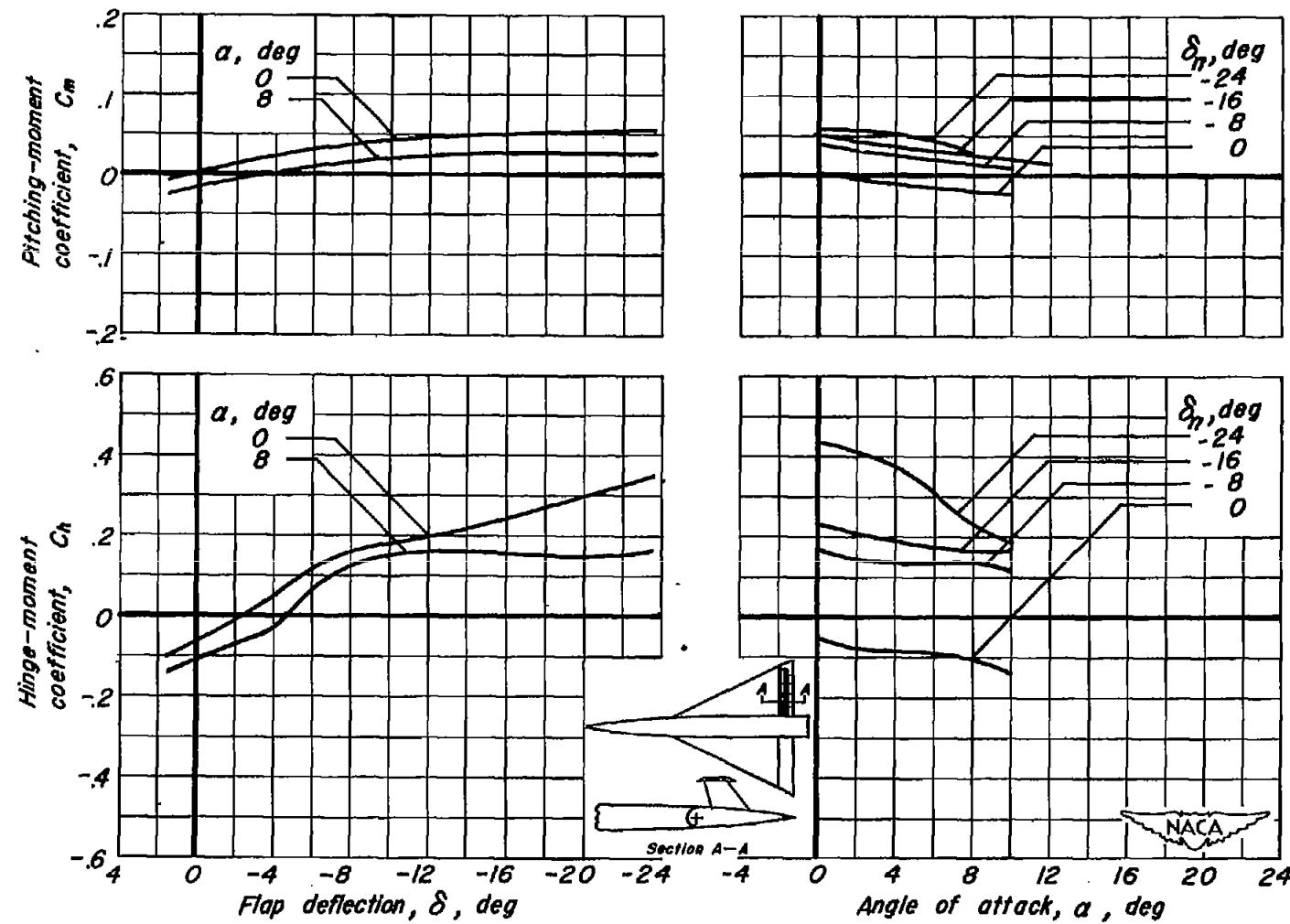
(b)  $M = 0.9$ 

Figure 10.-Continued.

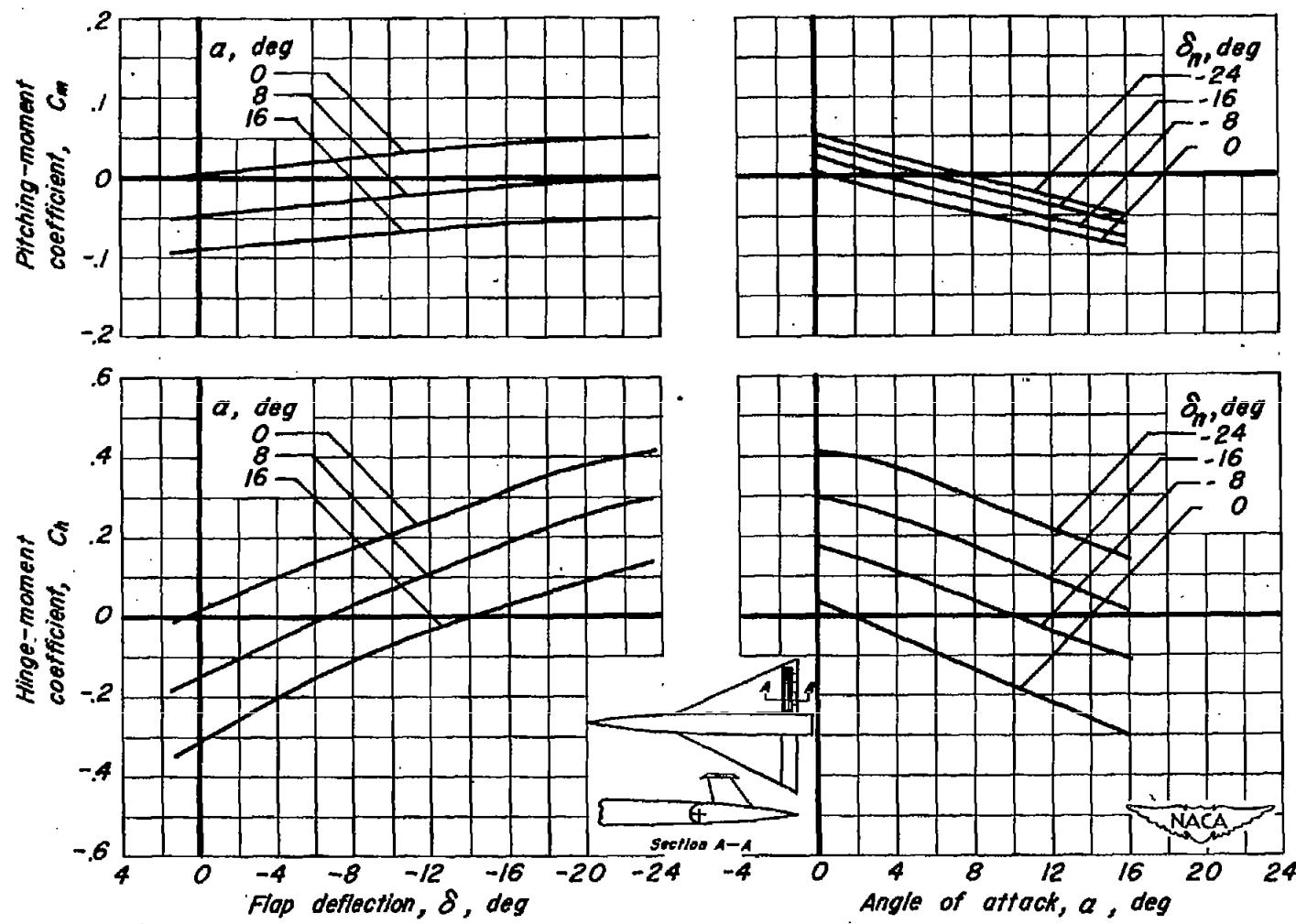
(c)  $M = 1.3$ 

Figure 10. - Continued.

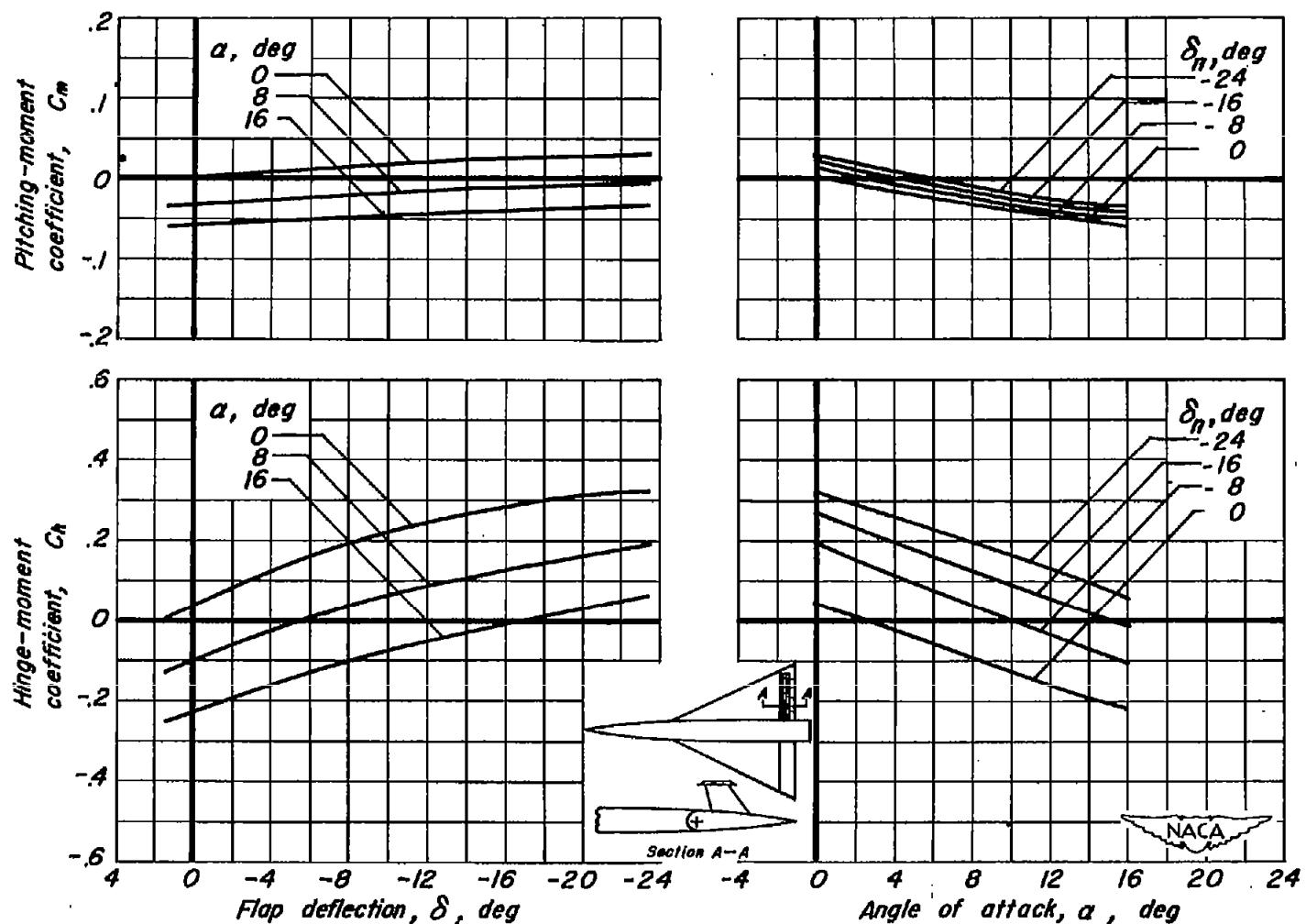
(d)  $M = 1.9$ 

Figure 10.-Concluded.

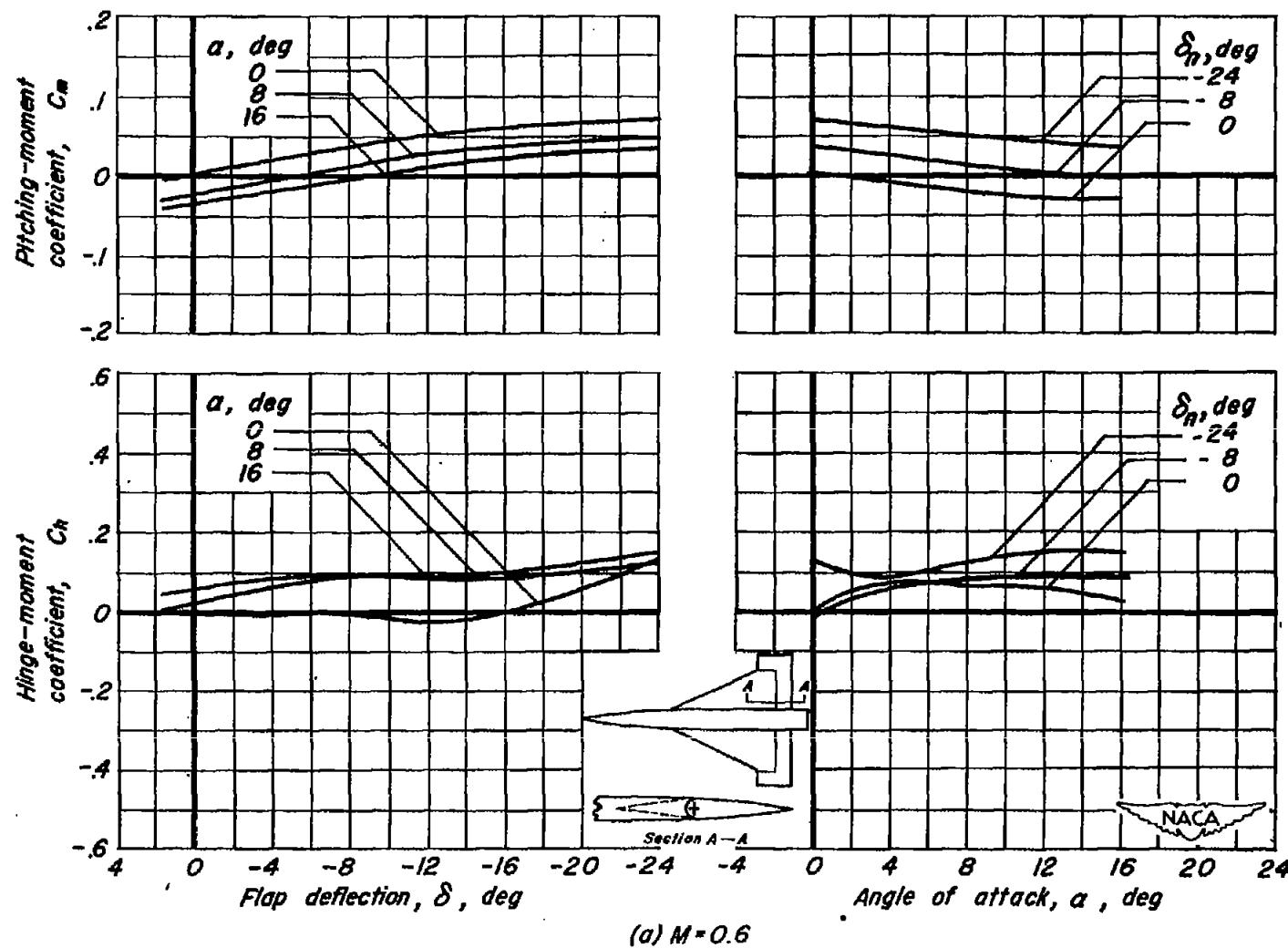


Figure 11.— The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 20.3-percent-area rectangular horn balance flap. Data for one flap.  $R = 4.4 \times 10^6$ .

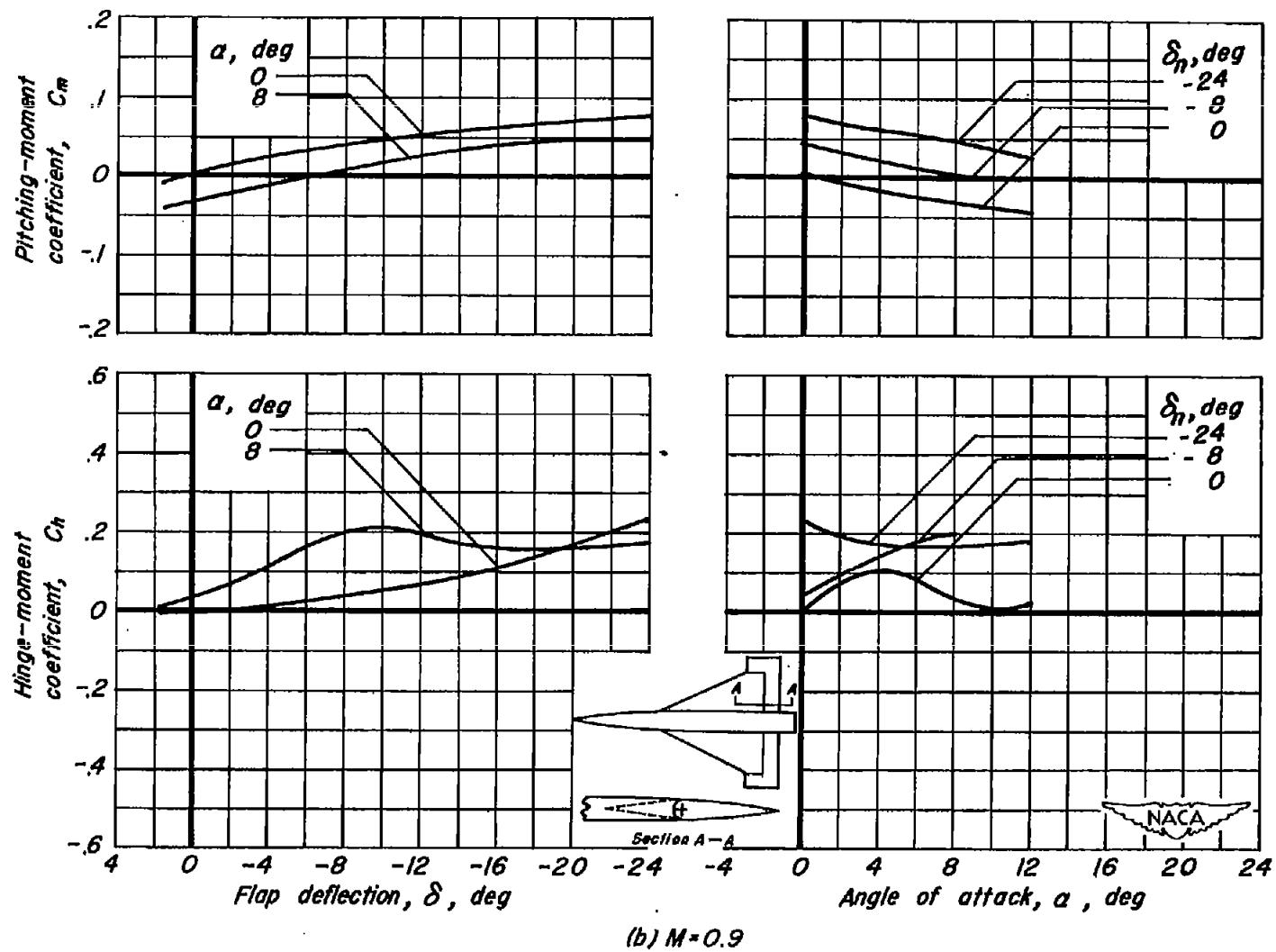


Figure II.-Continued.

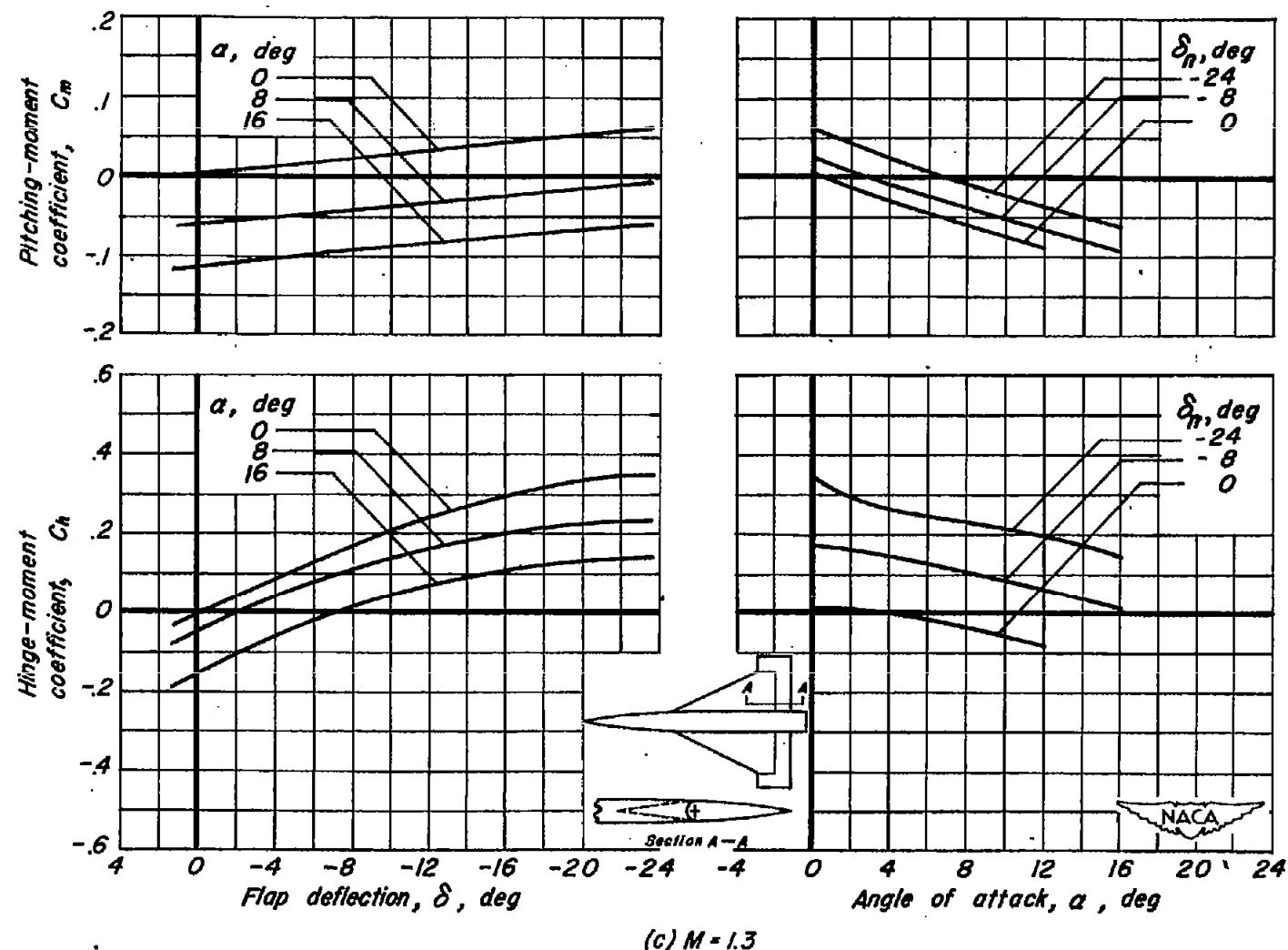
(c)  $M = 1.3$ 

Figure II.-Continued.

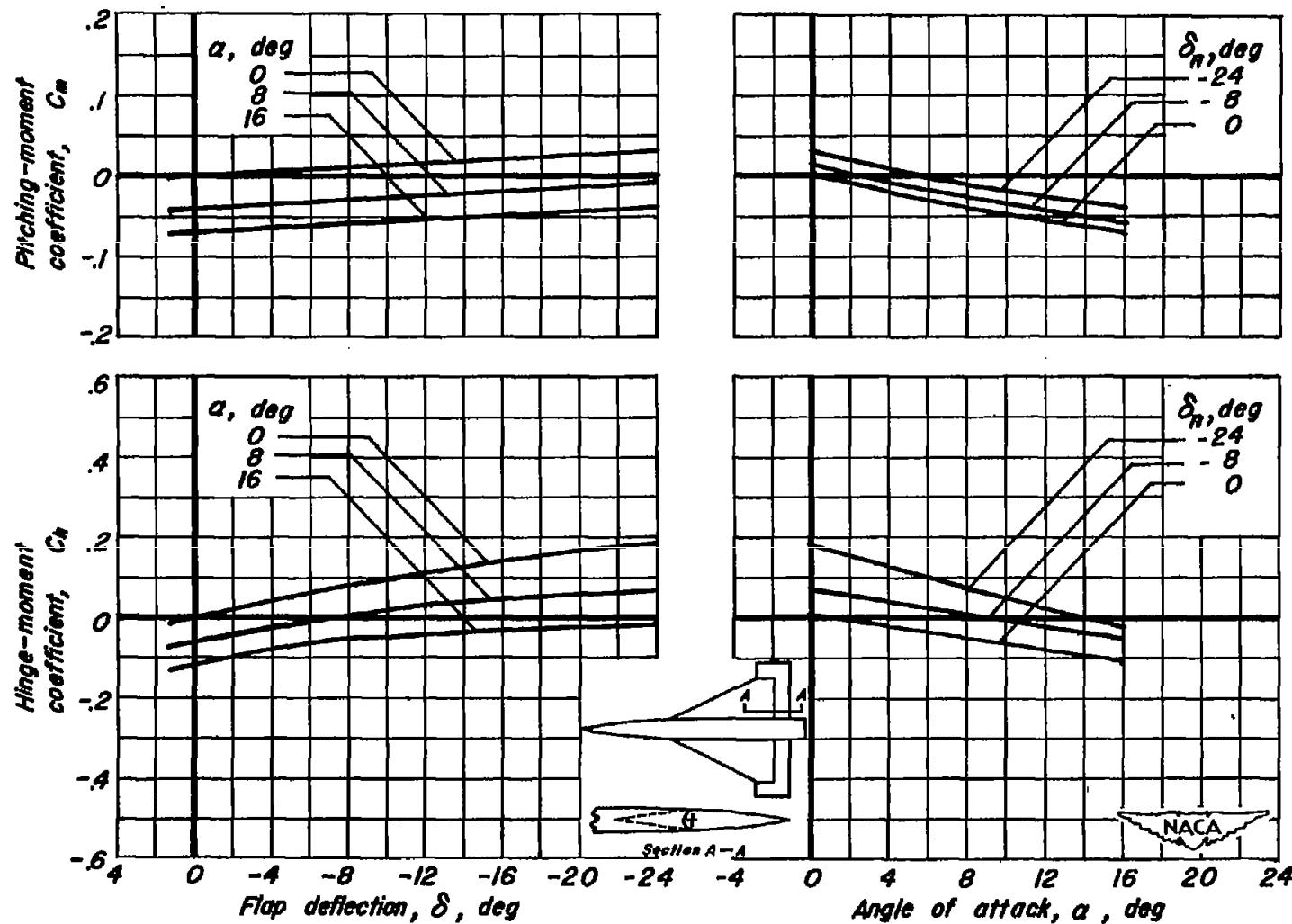


Figure ii. - Concluded.

CONFIDENTIAL

NACA RM 52014

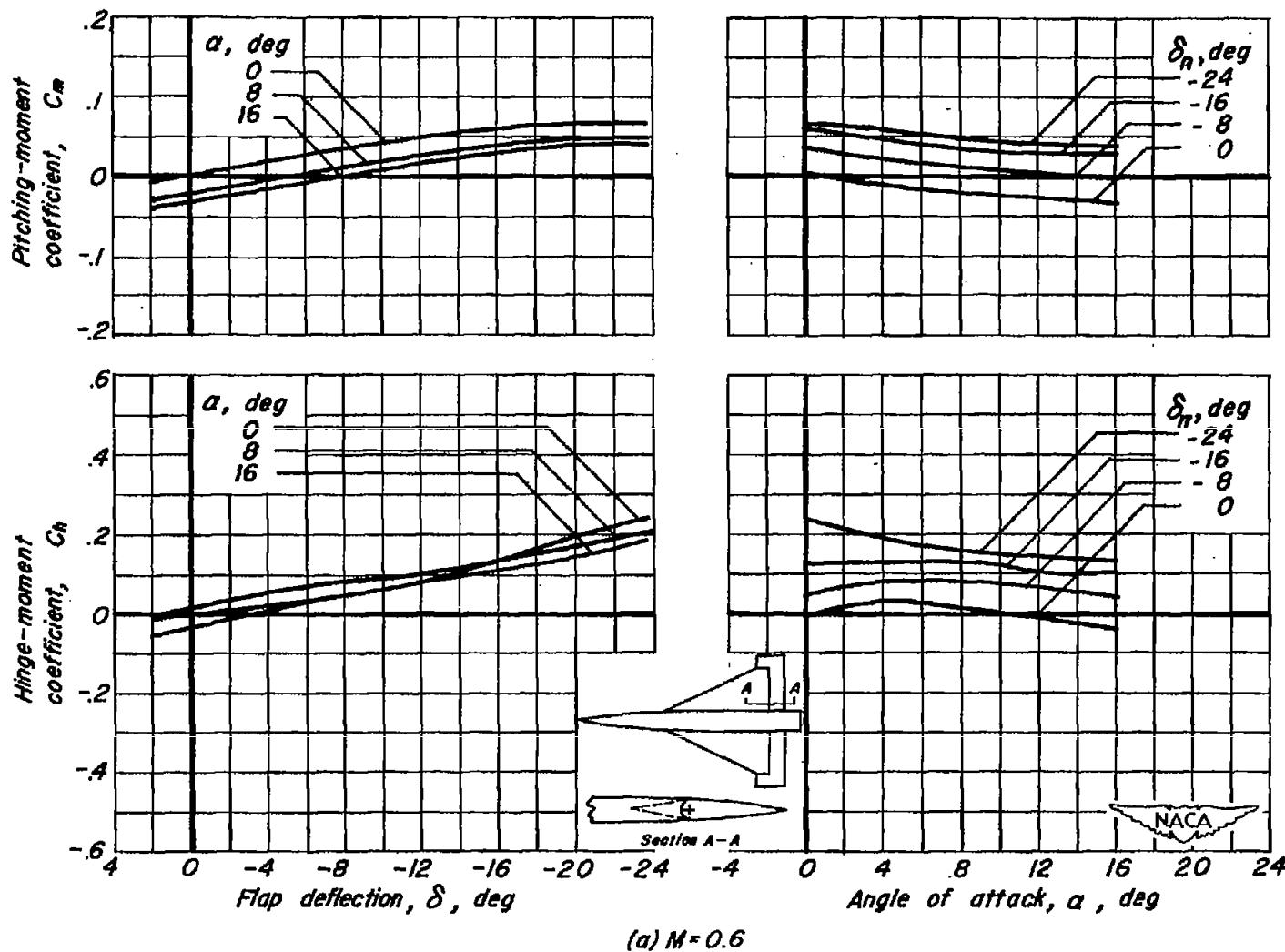


Figure 12. - The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 13.1-percent-area rectangular horn balance flap. Data for one flap.  $R = 4.4 \times 10^6$ .

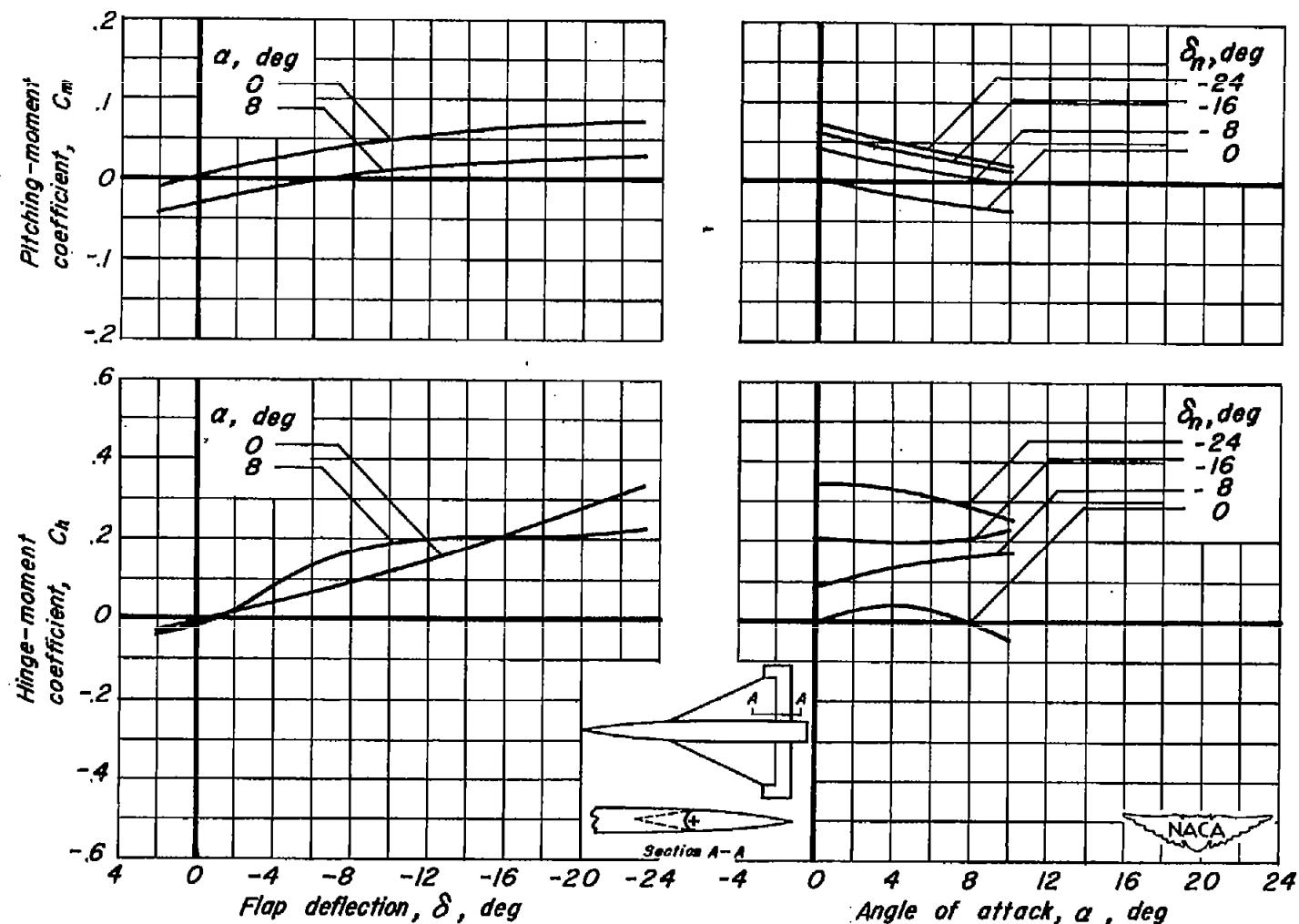
(b)  $M = 0.9$ 

Figure 12 - Continued.

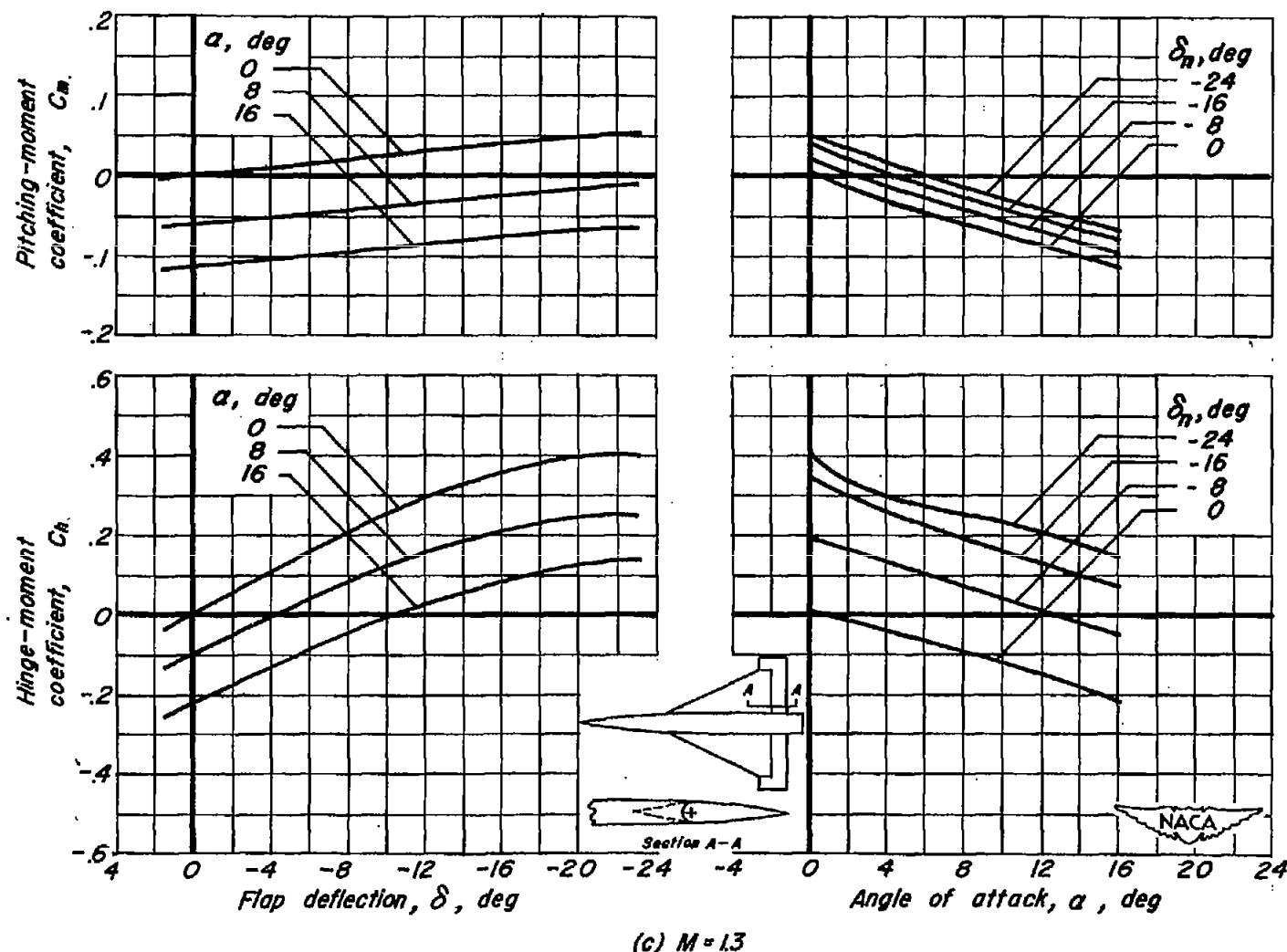
(c)  $M = 1.3$ 

Figure 12. - Continued.

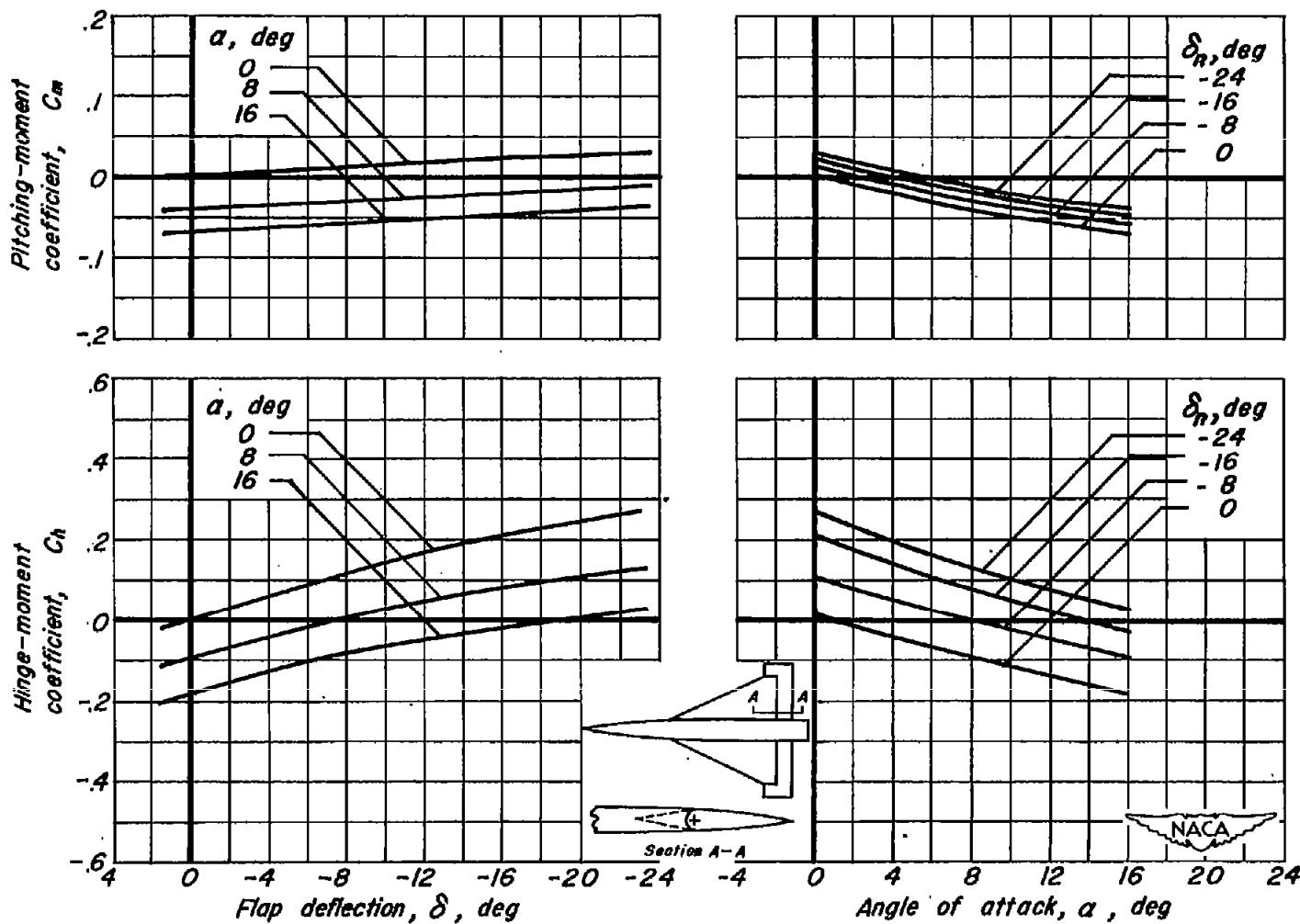
(d)  $M=1.9$ 

Figure 12.-Concluded.

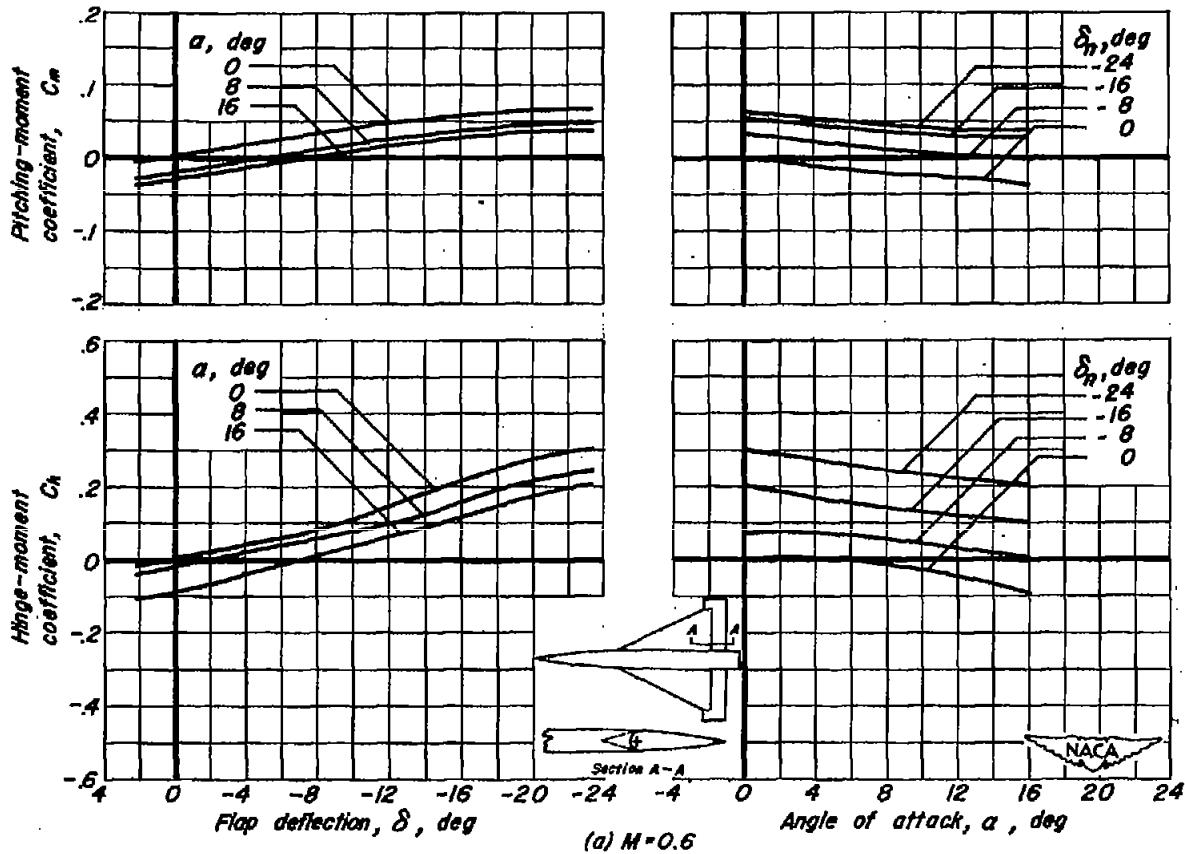


Figure 13.— The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 6.4-percent-area rectangular horn balance flap. Data for one flap.  $R = 4.4 \times 10^6$

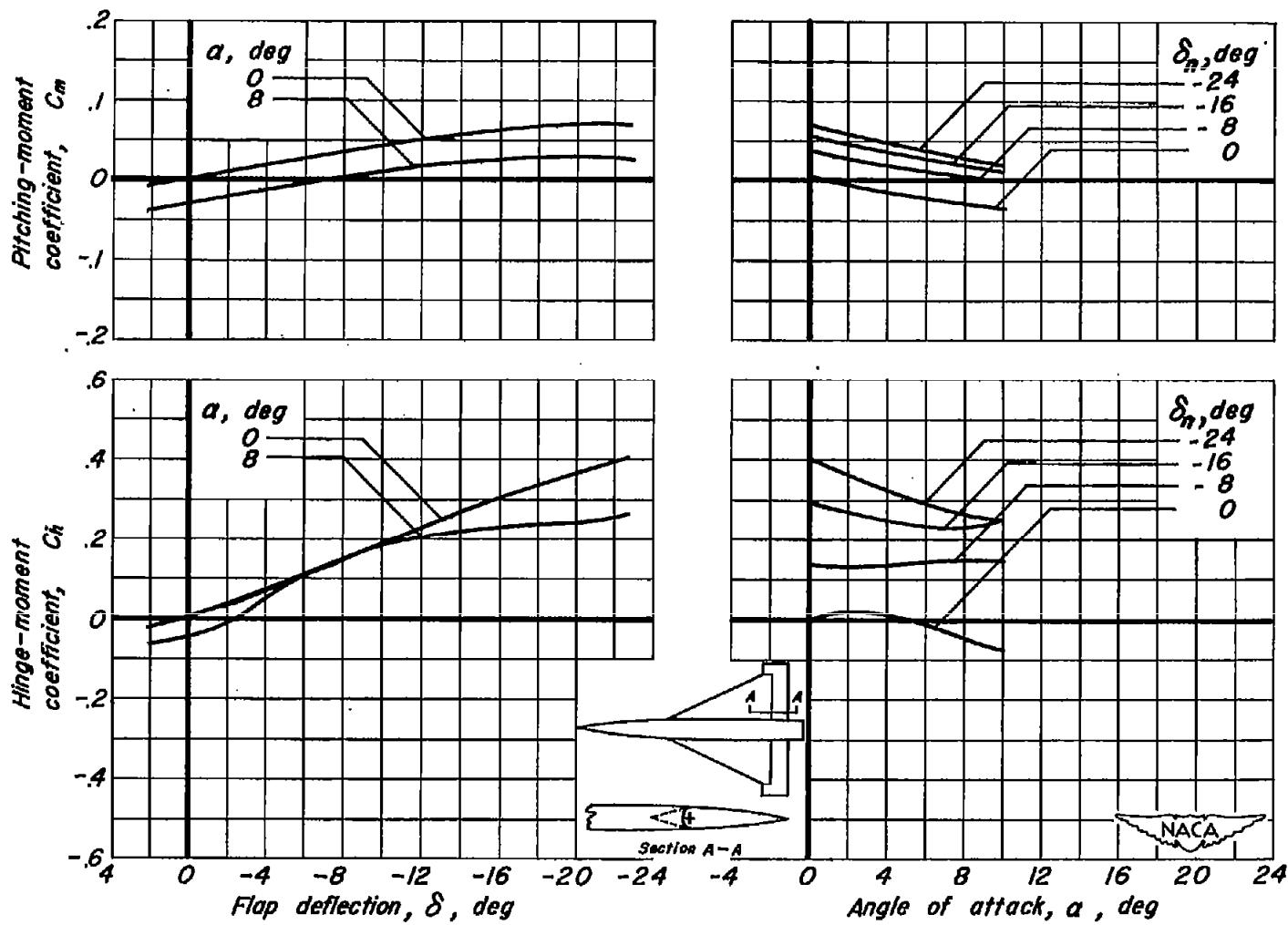
(b)  $M = 0.9$ 

Figure 15.—Continued.

CONFIDENTIAL

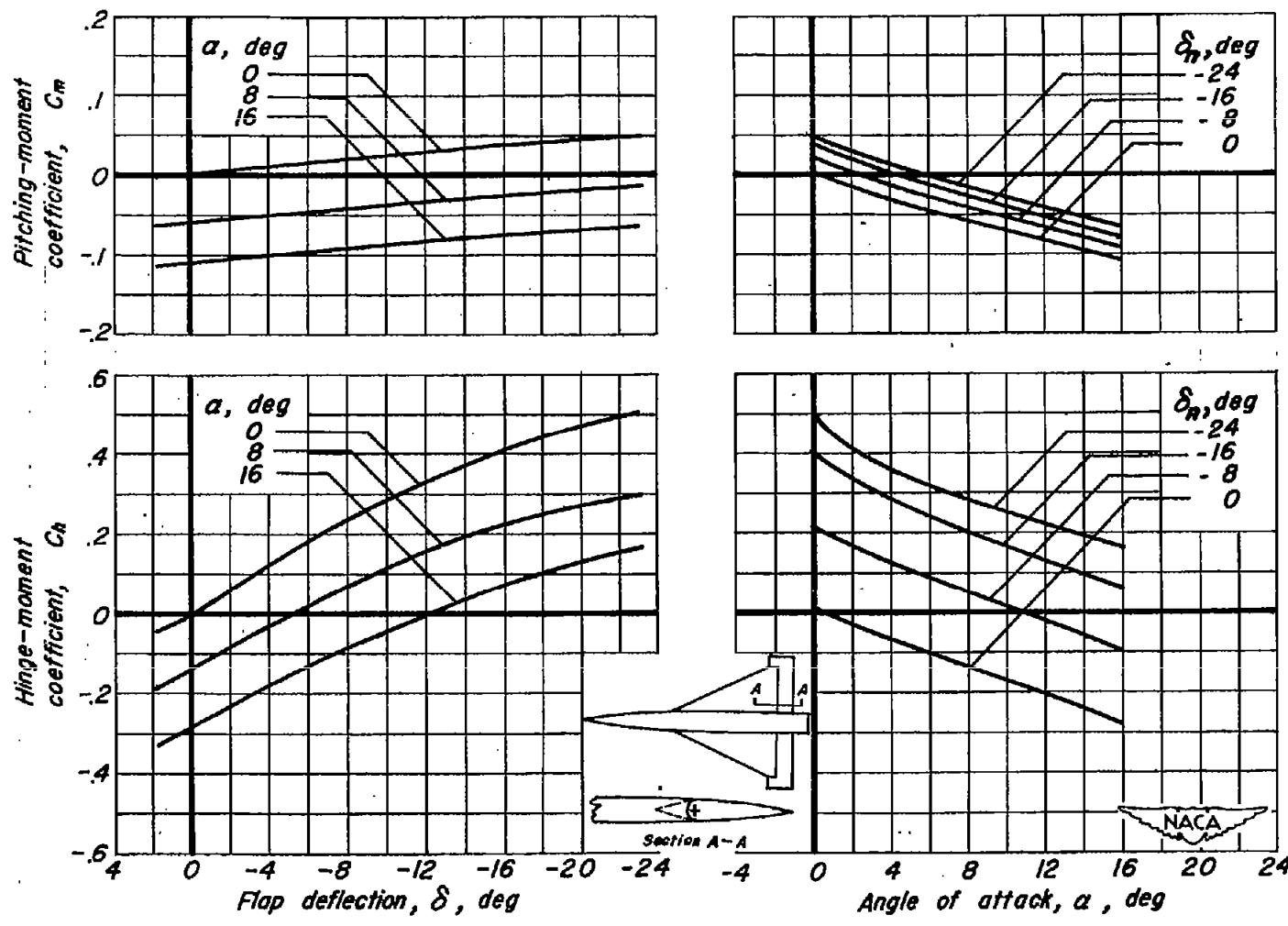
(c)  $M = 1.3$ 

Figure 13.—Continued.

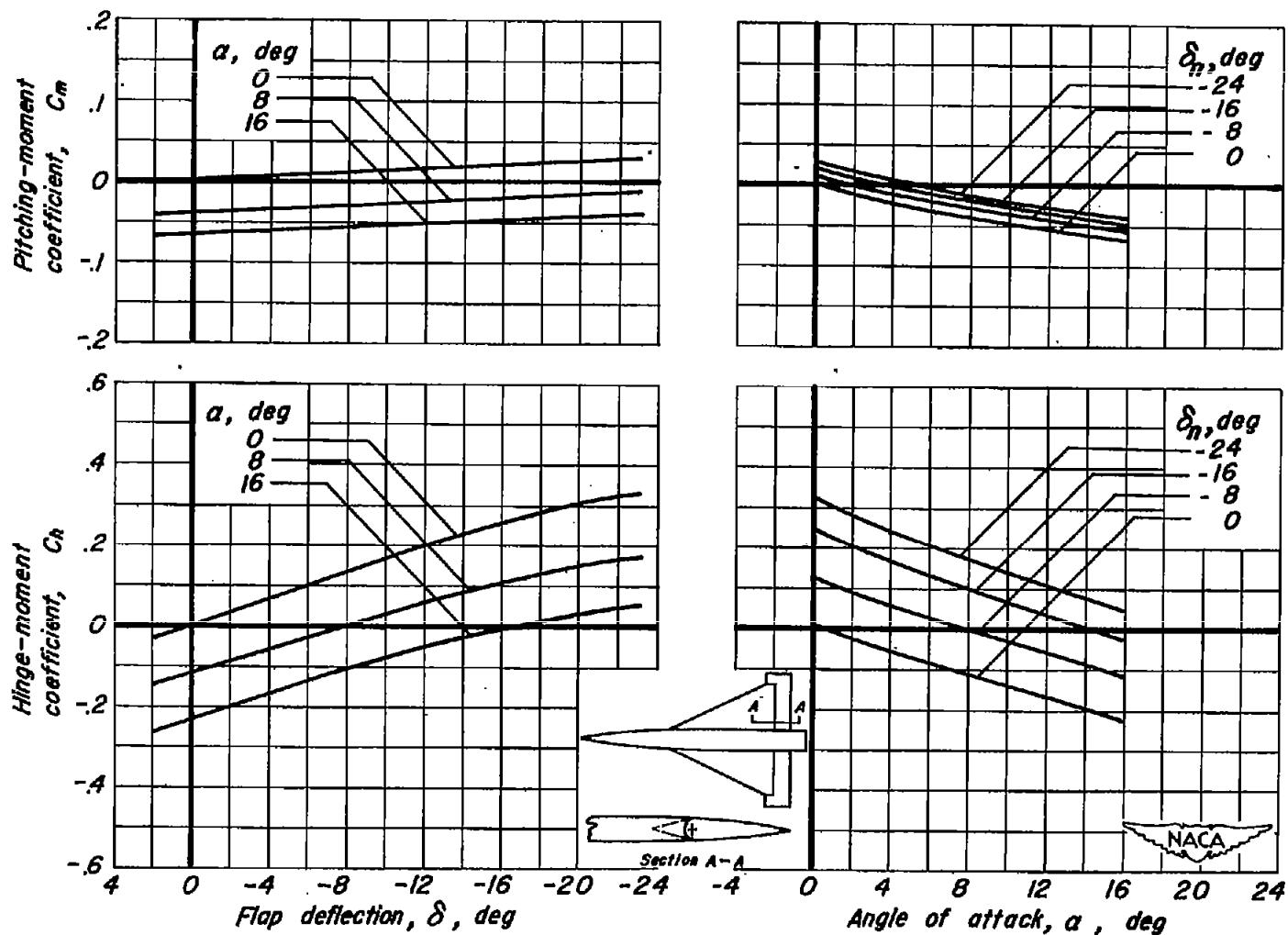
(d)  $M = 1.9$ 

Figure 13.—Concluded.

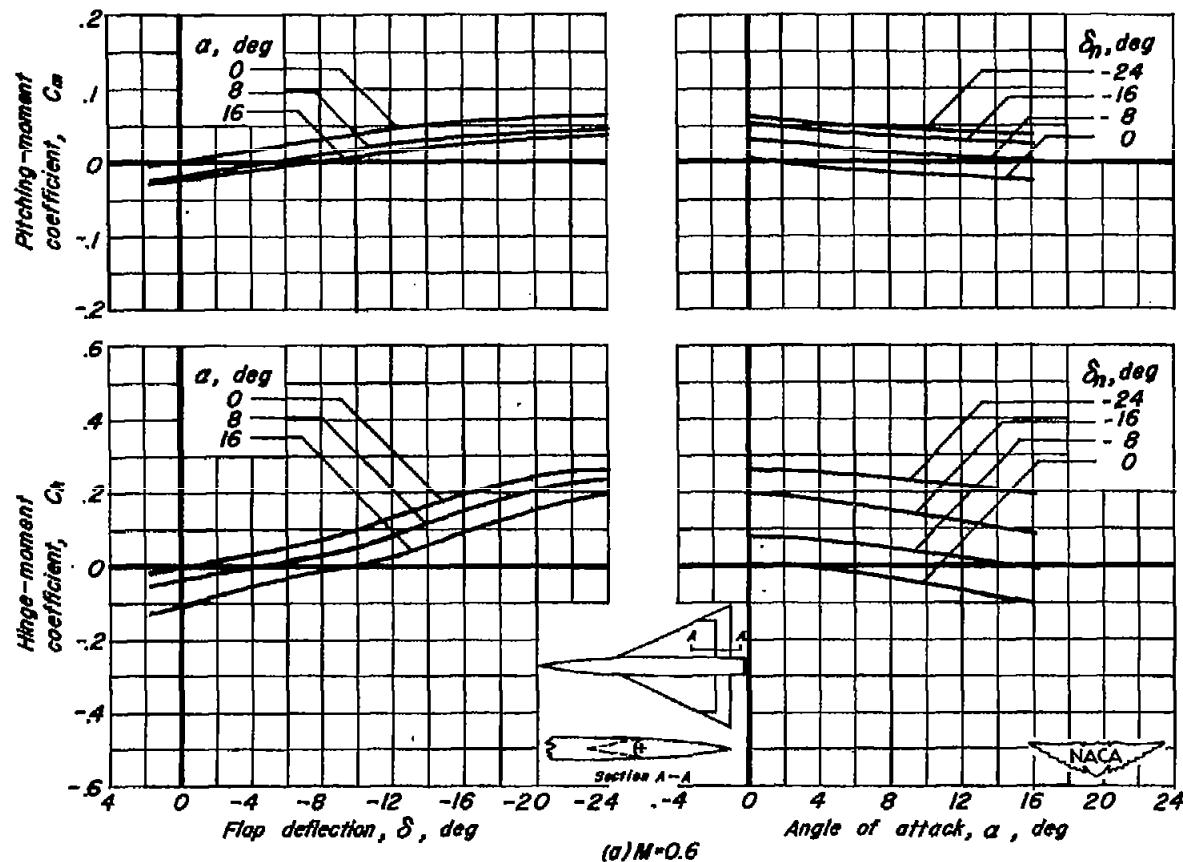


Figure 14. - The variation of the pitching-moment and the hinge-moment coefficients with flap deflection and with angle of attack for the 5.5-percent-area triangular horn balance flap. Data for one flap.  $R = 4.4 \times 10^6$

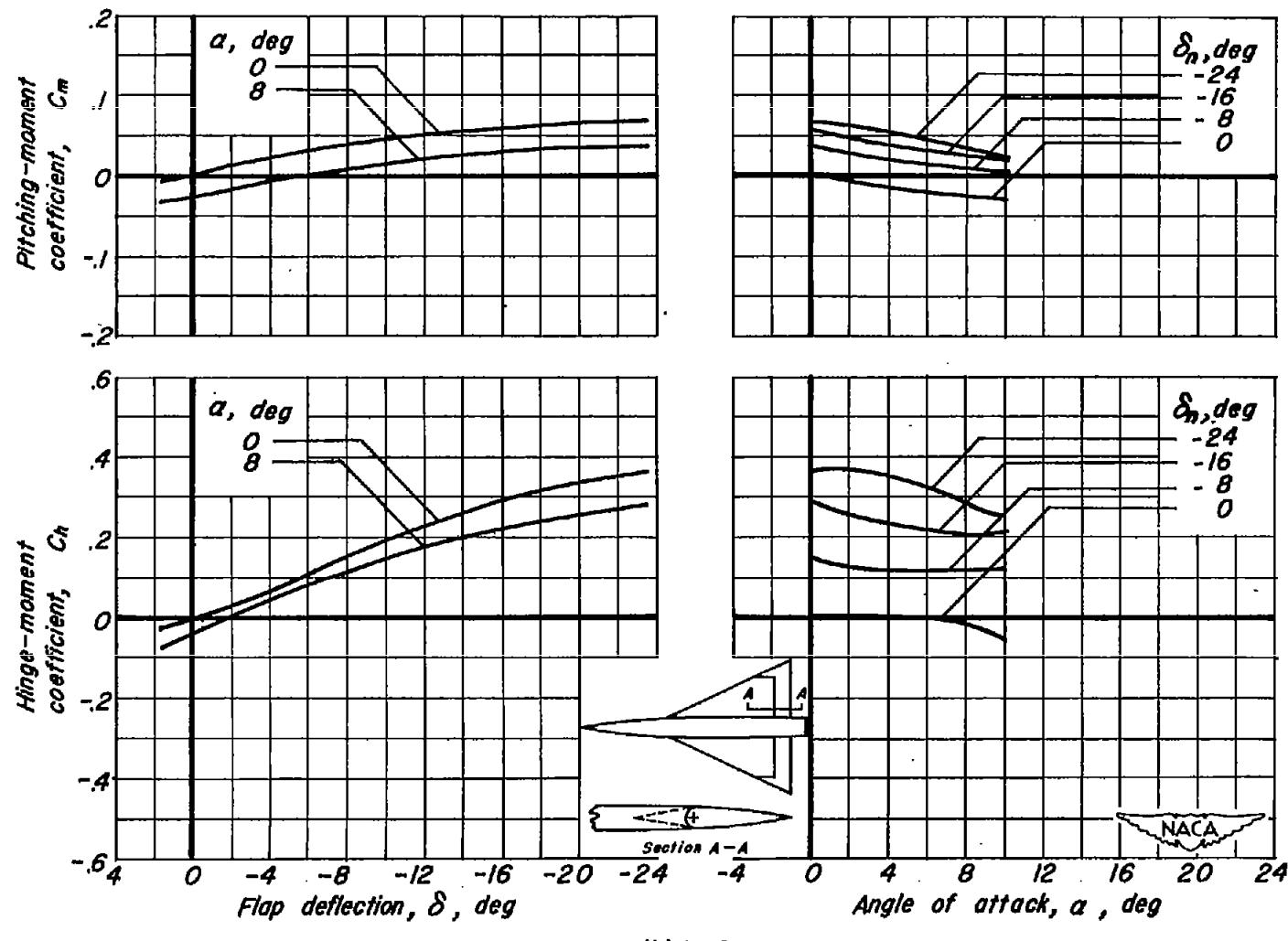
(b)  $M=0.9$ 

Figure 14. —Continued.

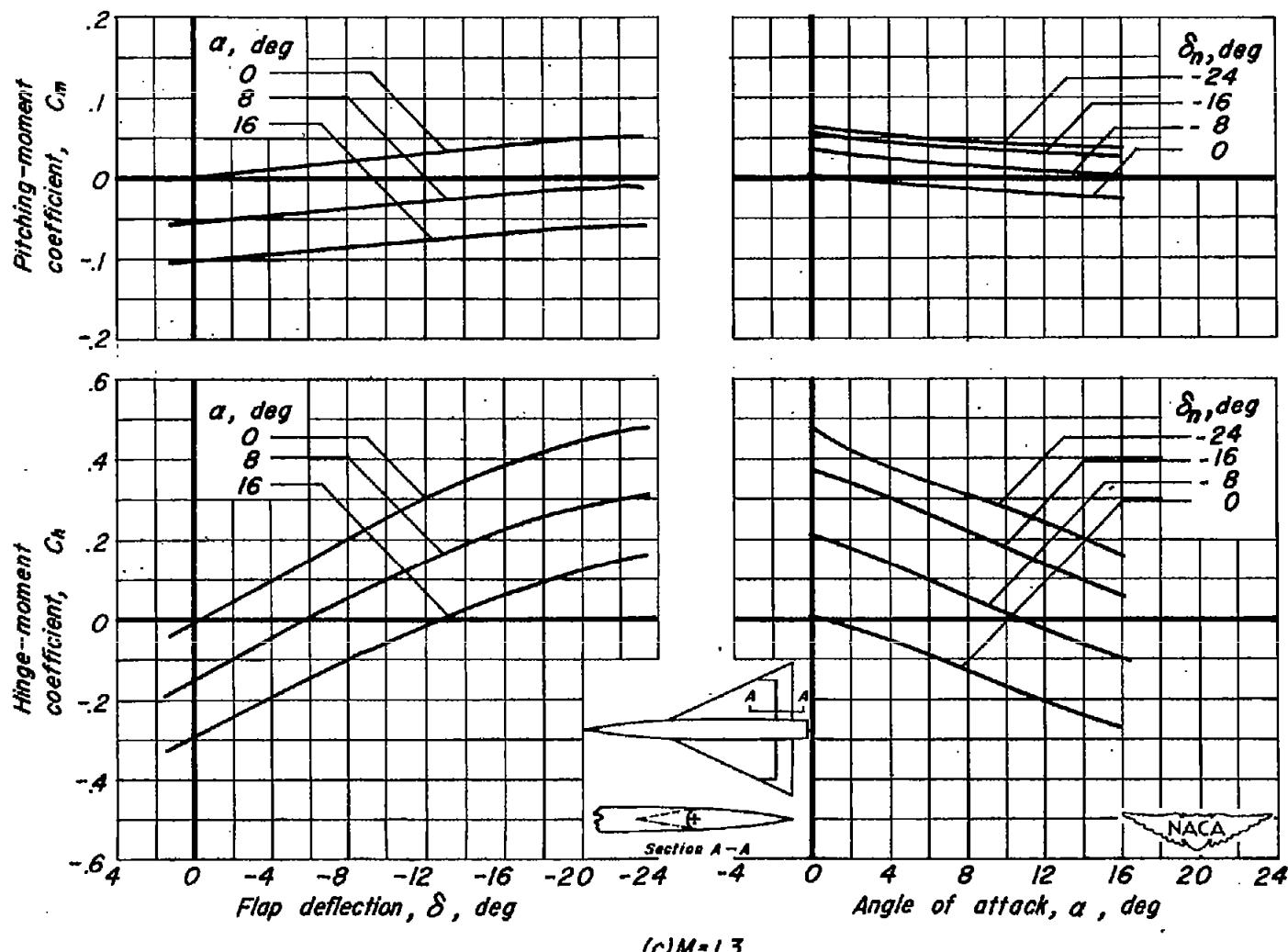
(c)  $M = 1.3$ 

Figure 14.-Continued.

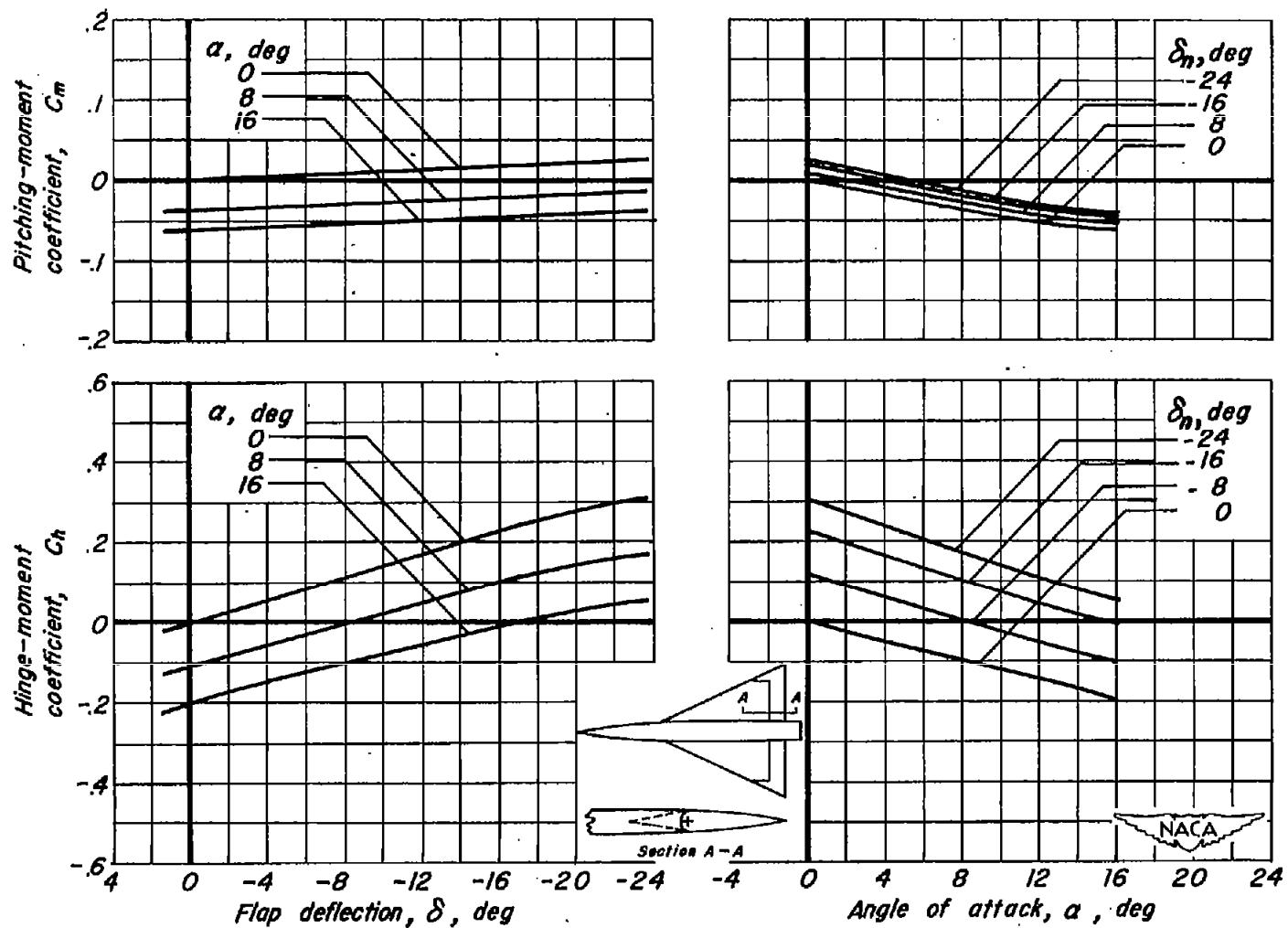
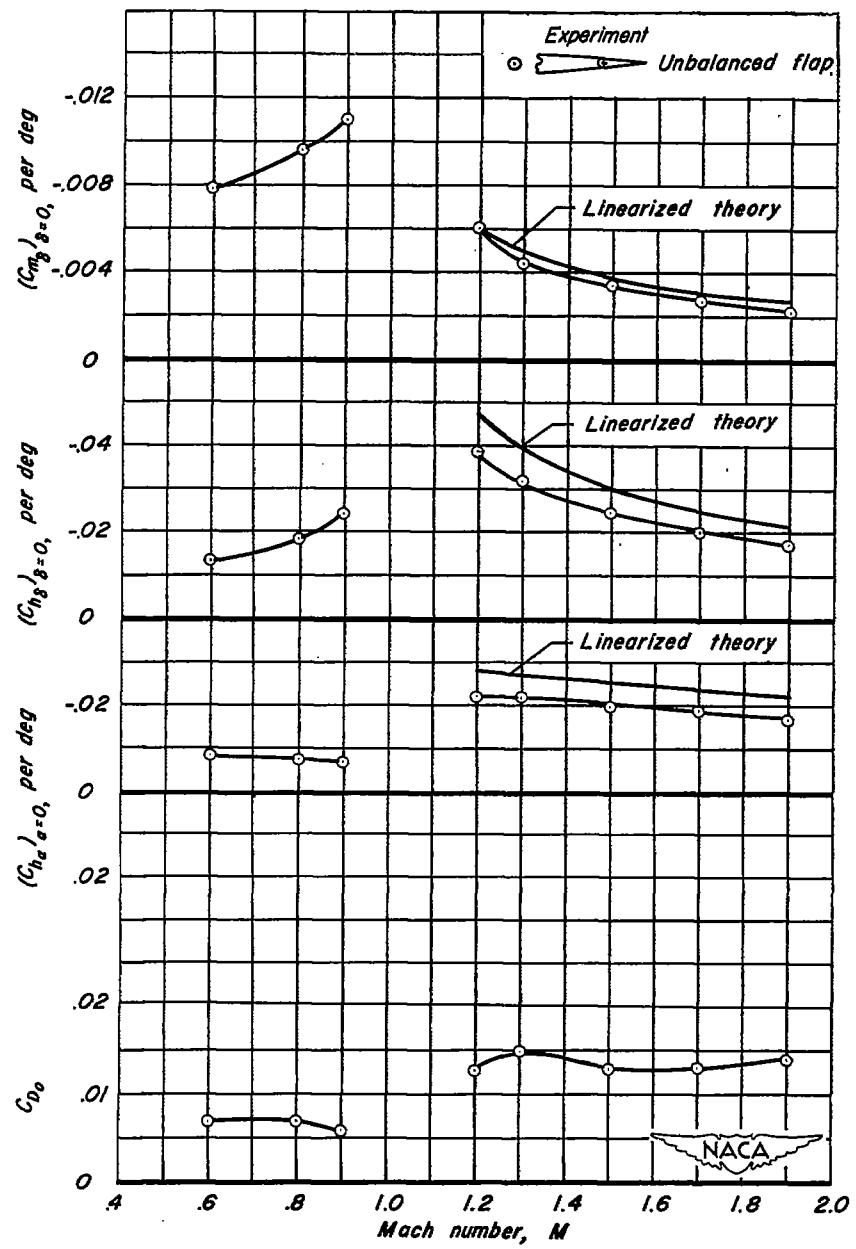
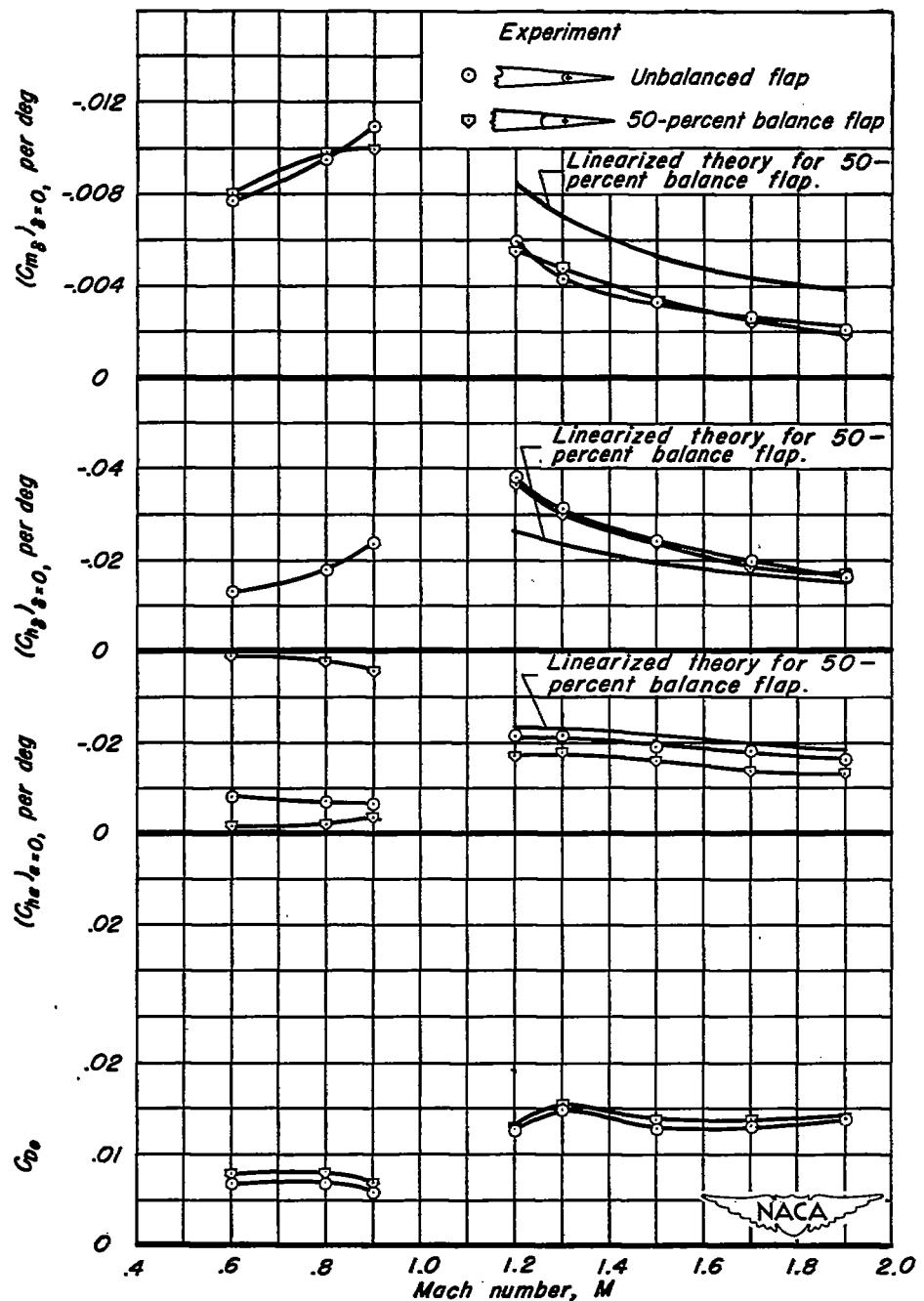
(d)  $M = 1.9$ 

Figure 14. — Concluded.



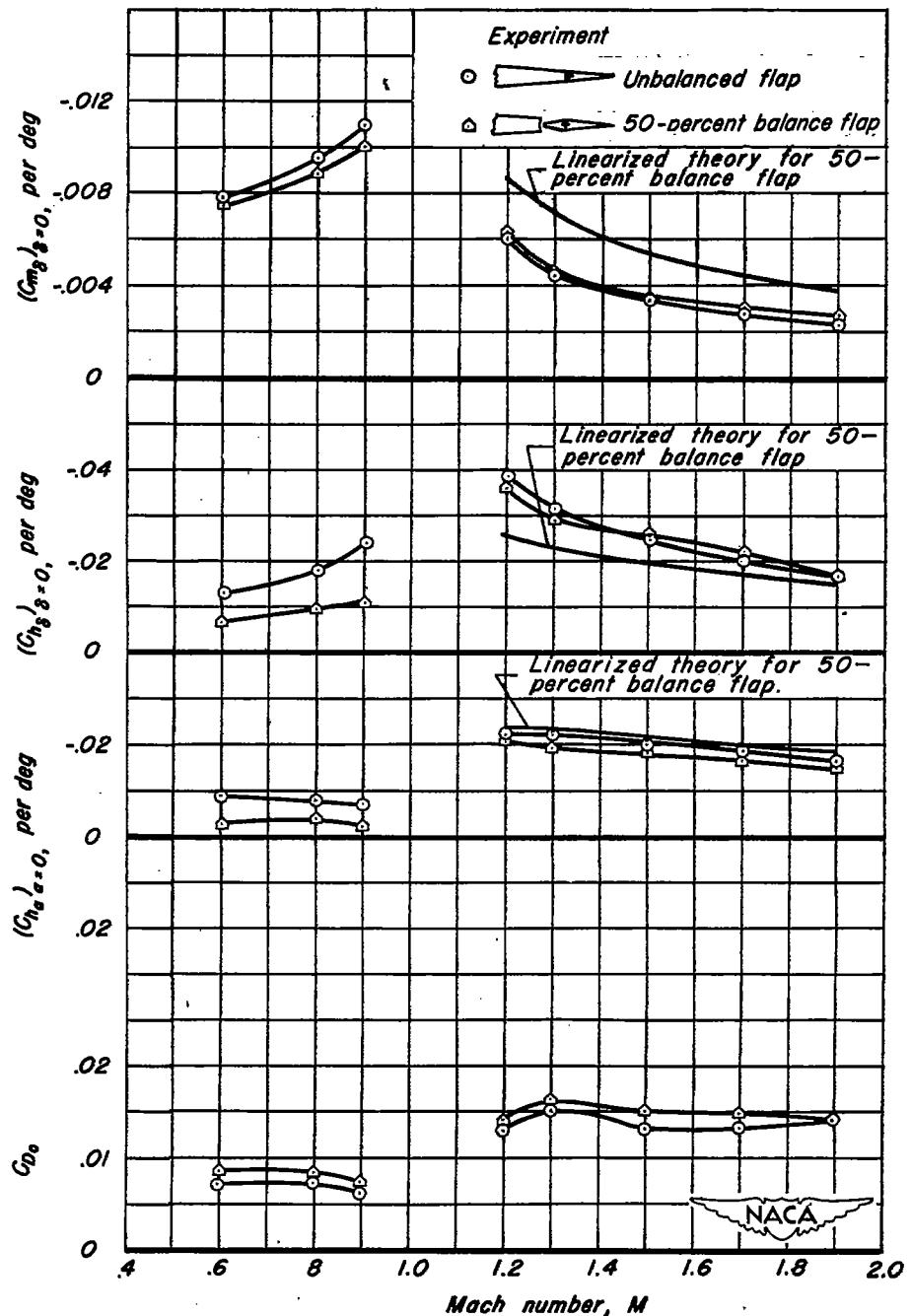
(a) Unbalanced flap.

Figure 15—Variation with Mach number of the pitching-moment-effectiveness parameter,  $C_{m_B}$ , the hinge-moment parameters,  $C_{n_B}$ , and  $C_{h_B}$ , and the minimum drag coefficient,  $C_{D_0}$ , for various flap configurations. Data for two flaps.



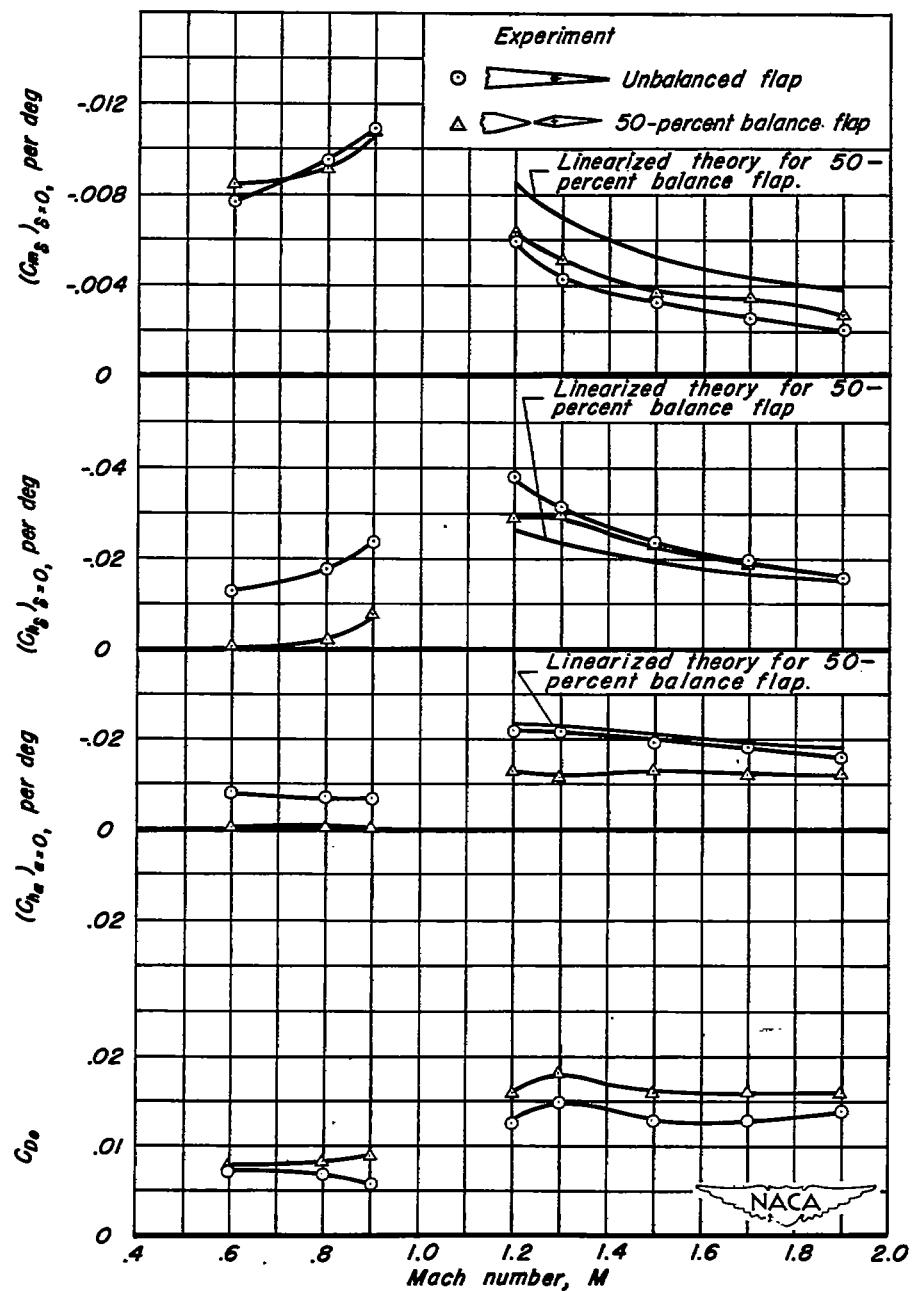
(b) 50-percent balance flap (true-contour wing profile; round nose flap).

Figure 15.-Continued.



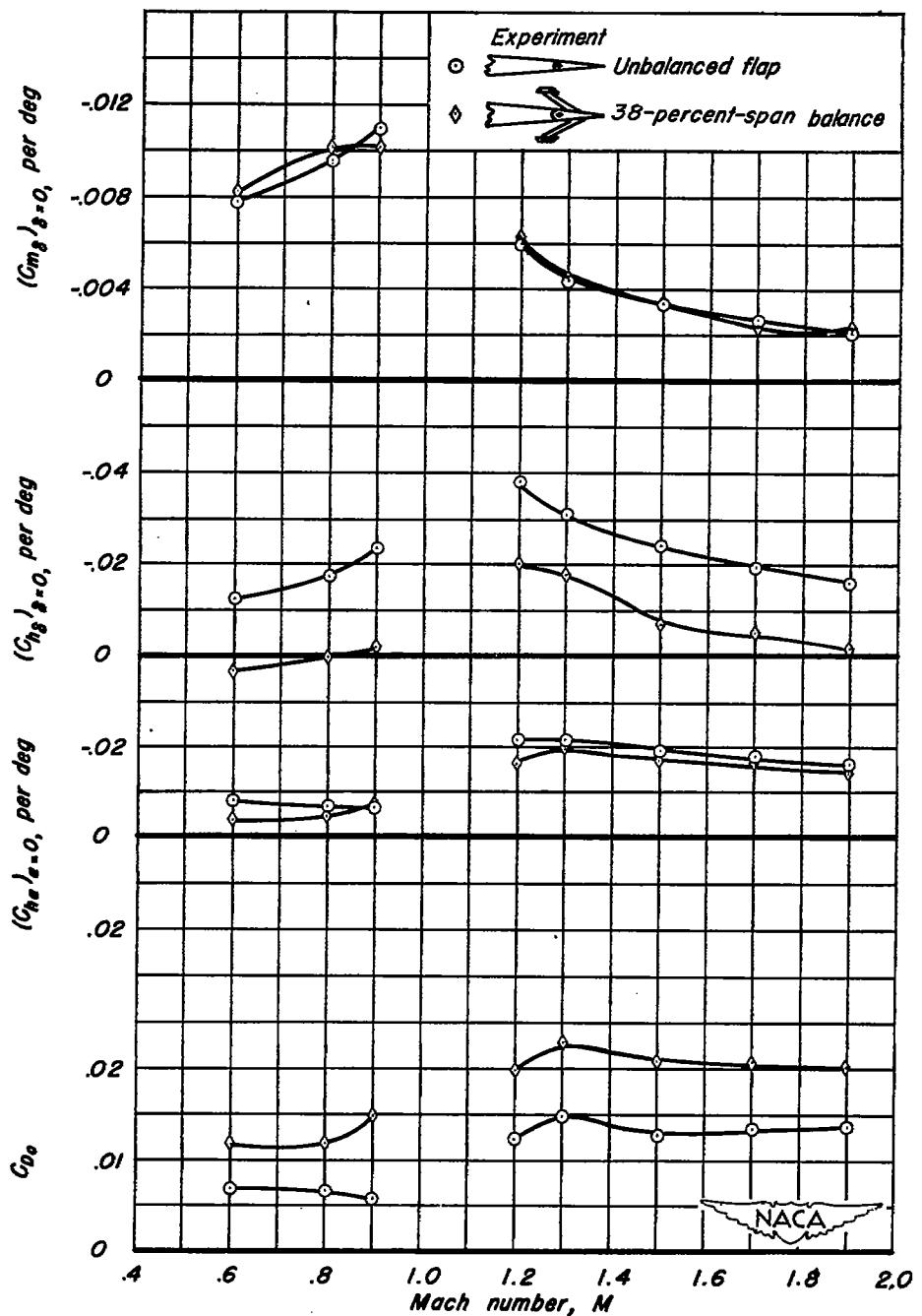
(c) 50 - percent balance flap (true-contour wing profile; sharp nose flap).

Figure 15.-Continued.



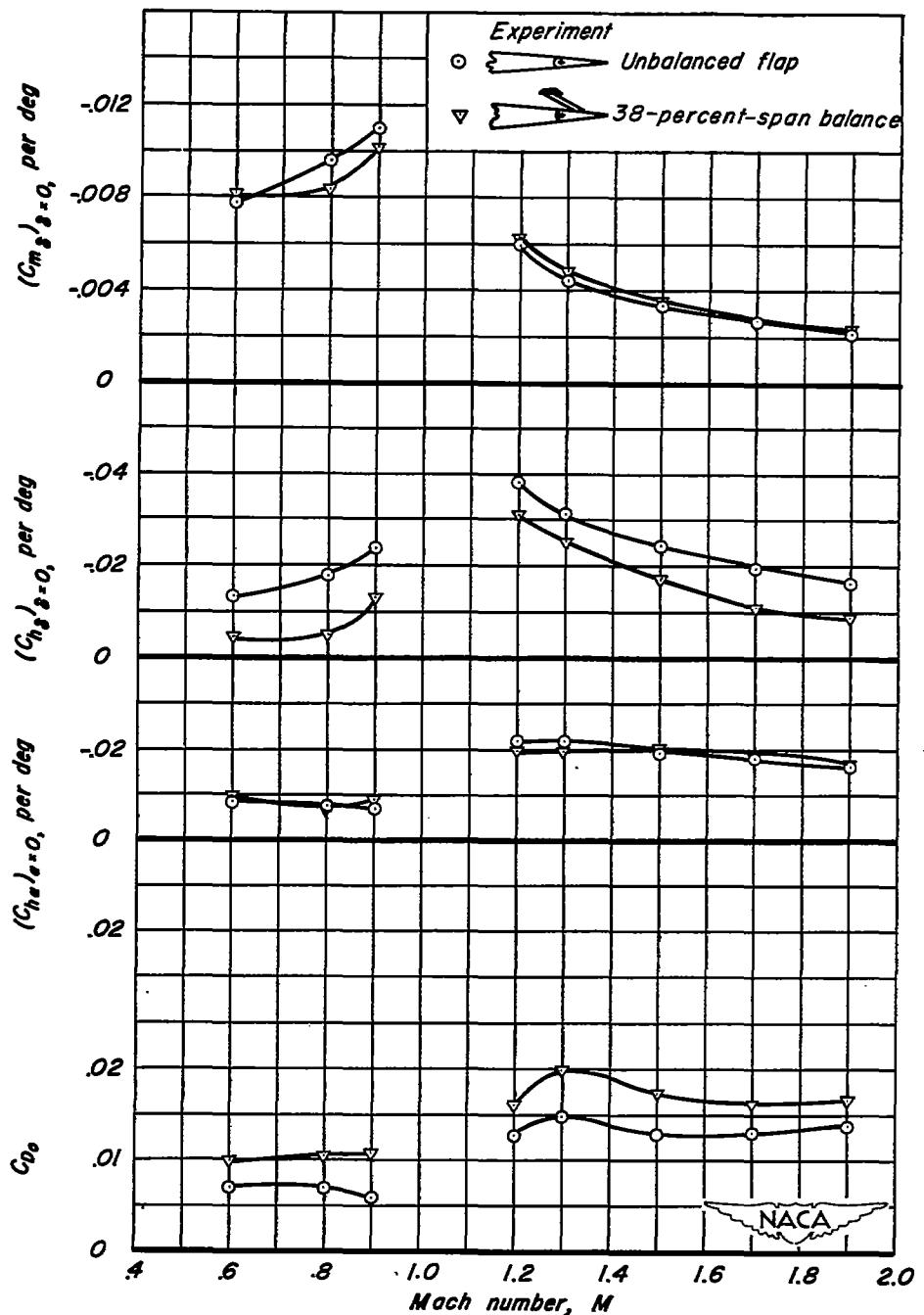
(d) 50 - percent balance flap. (modified wing profile; sharp nose flap).

Figure 15.-Continued.



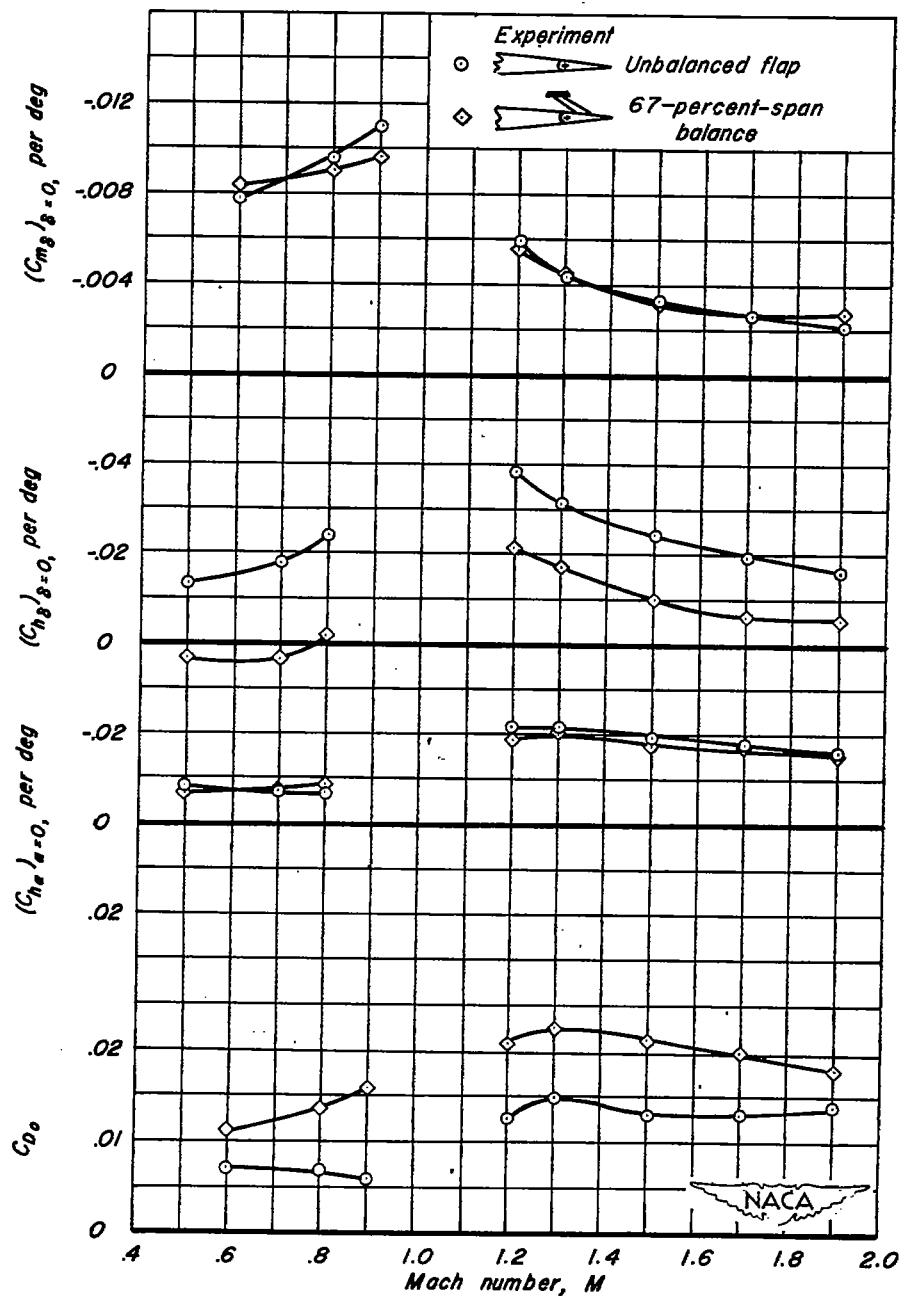
(e) 38-percent-span paddle balance on the upper and lower surfaces.

Figure 15.-Continued.



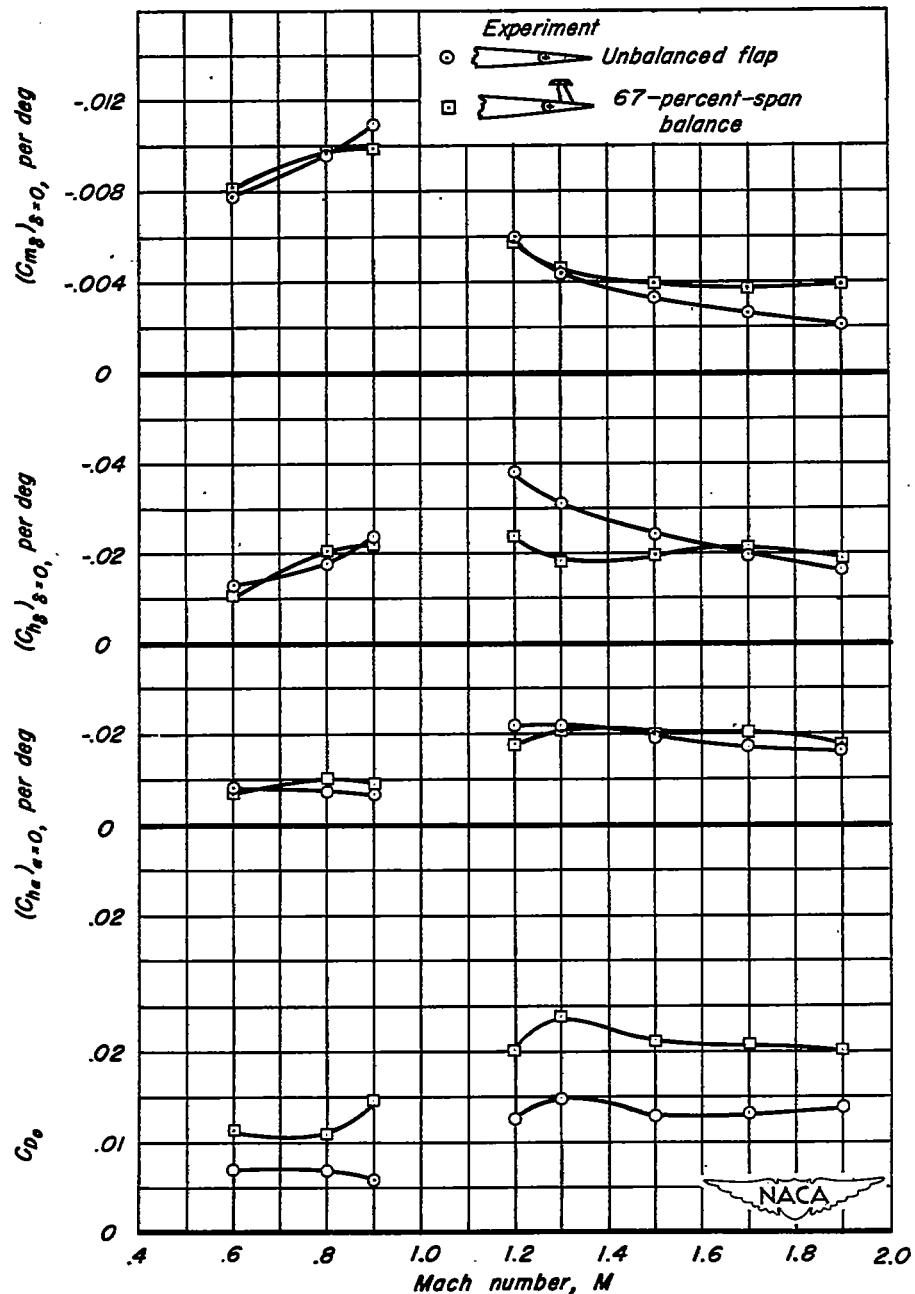
(f) 38-percent-span paddle balance on the upper surface.

Figure 15.-Continued.



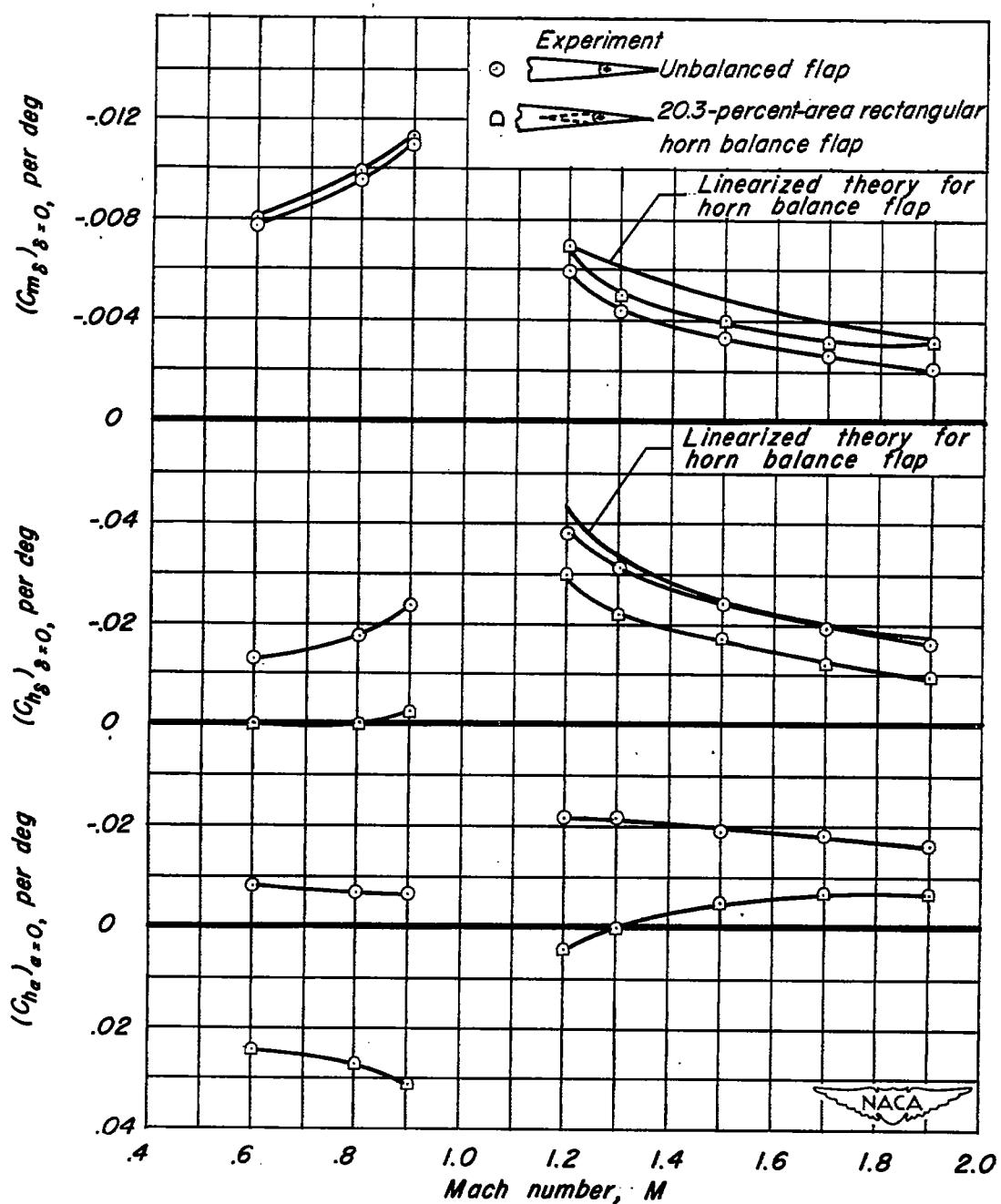
(g) 67-percent-span paddle balance on the upper surface forward of the hinge line.

Figure 15.-Continued.



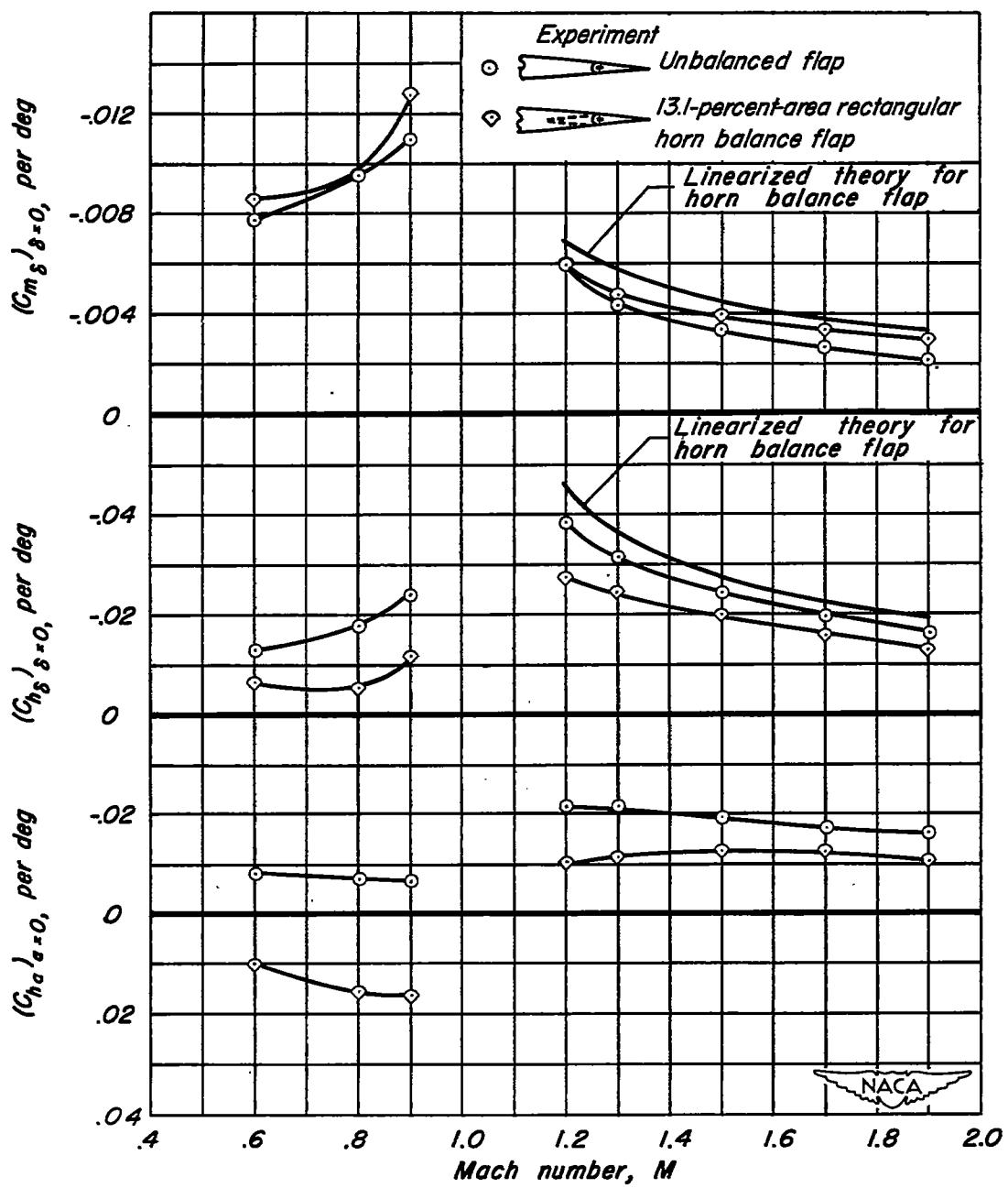
(h) 67-percent-span paddle balance on the upper surface aft of the hinge line.

Figure 15.-Continued.



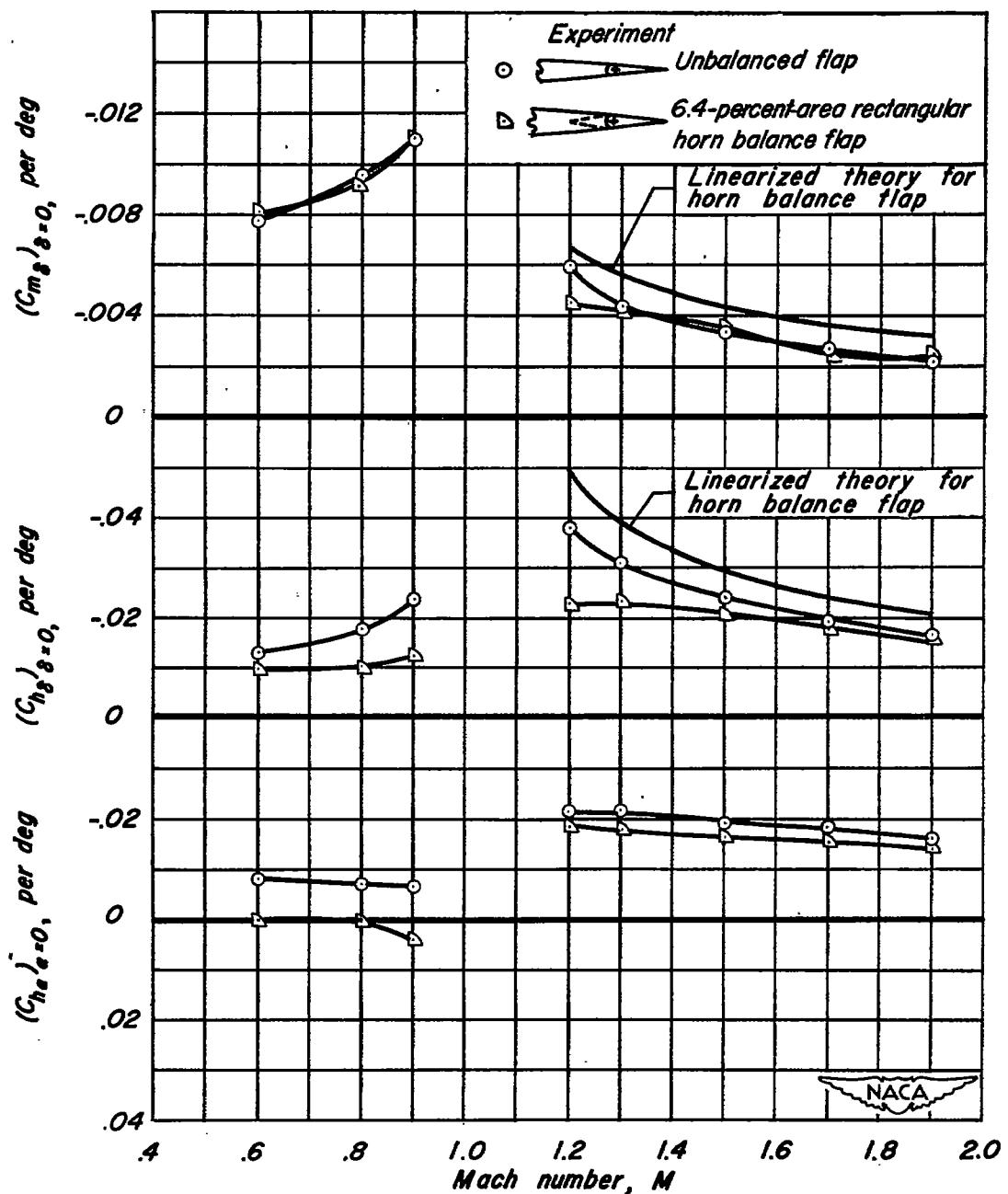
(i) 20.3 - percent-area rectangular horn balance flap.

Figure 15.-Continued.



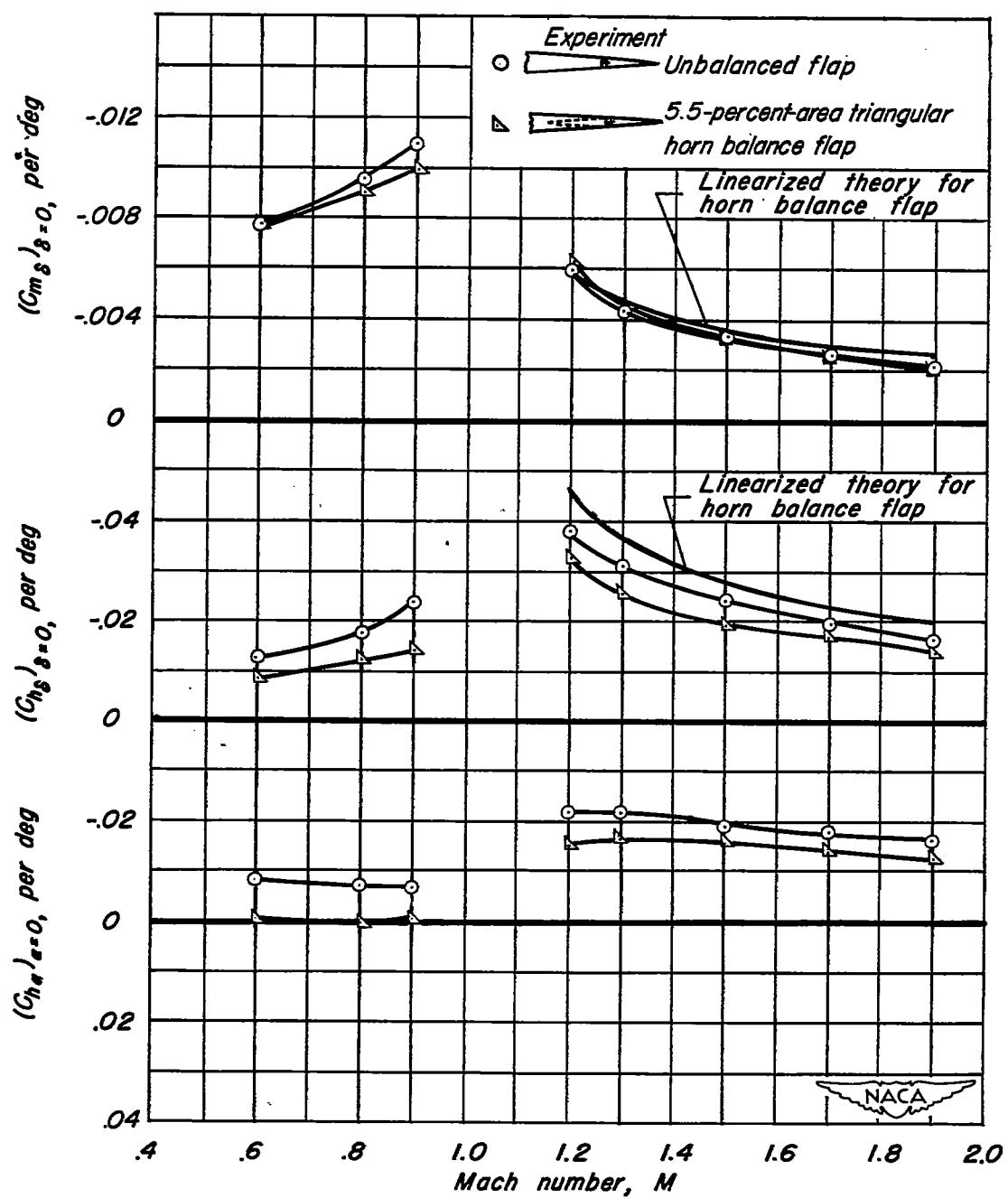
(j) 13.1 - percent-area rectangular horn balance flap.

Figure 15.-Continued.



(K) 6.4 - percent-area rectangular horn balance flap.

Figure 15.-Continued.



(1) 5.5 - percent-area triangular horn balance flap.

Figure 15.-Concluded.

CONFIDENTIAL

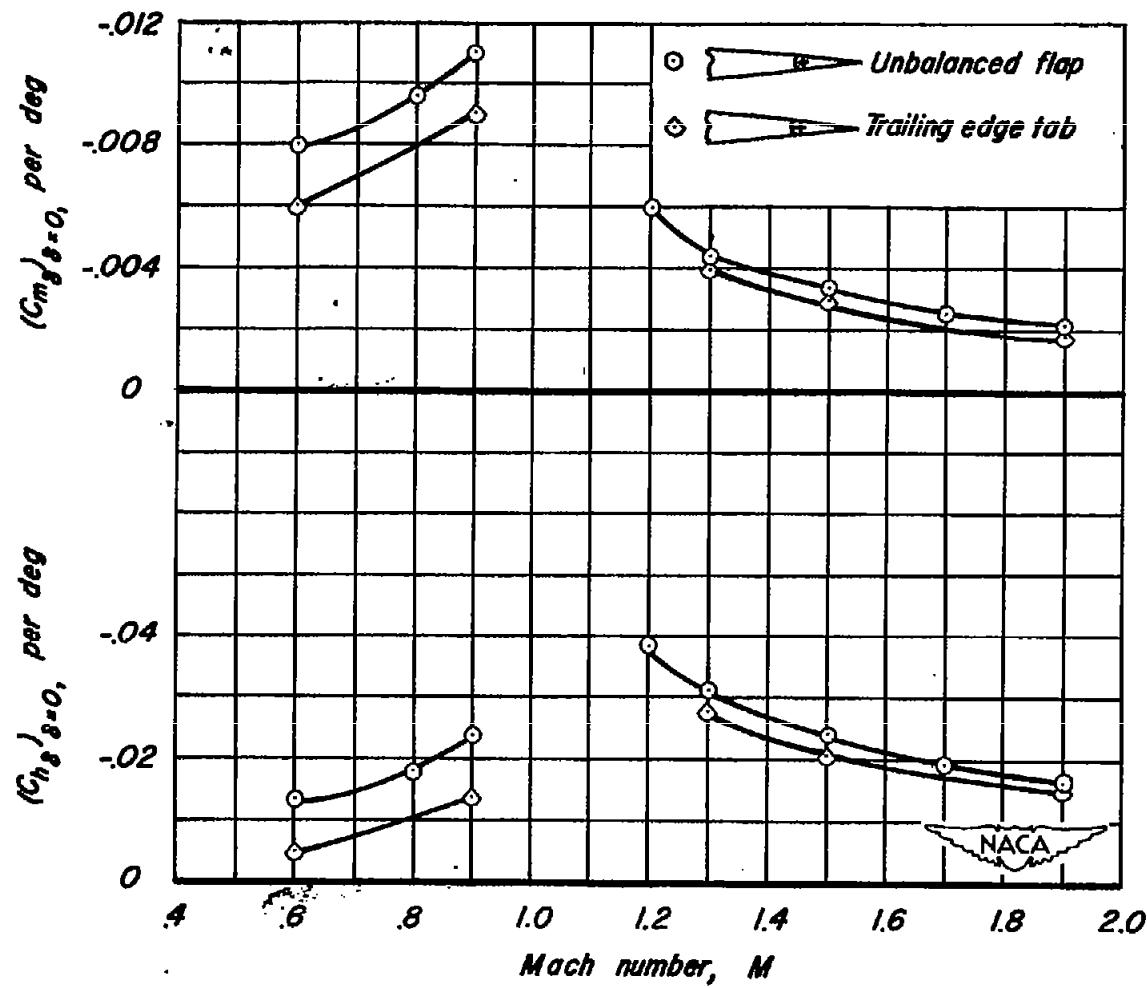


Figure 16.—Variation with Mach number of the pitching-moment-effectiveness parameter,  $C_{m_g}$ , and the hinge-moment parameter,  $C_{h_g}$ , for the unbalanced flap and a trailing-edge tab geared for equal and opposite deflection to that of the unbalanced flap. Data for two flaps.