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# SPACE SHUTTLE ORBITER TRIMMED CENTER-OF-GRAVITY EXTENSION STUDY: VOLUME VII - EFFECTS OF CONFIGURATION MODIFICATIONS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF THE 140 A/B ORBITER AT HIGH REYNOLDS NUMBERS

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# SPACE SHUTTLE ORBITER TRIMMED CENTER-OF-GRAVITY EXTENSION STUDY: VOLUME VII - EFFECTS OF CONFIGURATION MODIFICATIONS ON THE SUBSONIC AERODYNAMIC CHARACTERISTICS OF THE 140 A/B ORBITER AT HIGH REYNOLDS NUMBERS

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## SUMMARY

A subsonic aerodynamic investigation was conducted in the Langley Low Turbulence Pressure Tunnel to determine the effects of using planform fillet and canard modifications on the longitudinal and lateral-directional characteristics of a 140 A/B Space Shuttle Orbiter configuration.

The significant effect of the modifications was to destabilize pitching moments, thereby allowing increased trimmed lift coefficients at landing attitudes. The planform fillet modification also provided slight improvements in lateral-directional stability.

Each modification resulted in the possibility of moving the payload center-of-gravity forward relative to the baseline configuration and/or landing heavier payloads as a result of the higher trimmed lift capability.

## INTRODUCTION

The longitudinal center-of-gravity range of the Space Shuttle Orbiter for trimmed flight during entry, approach, and landing is quite limited. This puts a considerable constraint on the allowable mass distribution of Shuttle return payloads. In an effort to extend the orbiter center-of-gravity envelope, a study was undertaken at the Langley Research Center to determine the feasibility of developing simple, "bolt-on" modifications. Modifications which were studied included changes in fuselage nose shape and wing fillet planform and the addition of fixed canard surfaces. Systems design analyses were undertaken to determine the weight penalties (ref. 1), and aerodynamic heating tests and

analyses provided information on the impact of the modifications on thermal protection system requirements (ref. 2). Wind-tunnel force and moment tests were conducted across the speed range to assess the effectiveness of the modifications in extending the center-of-gravity envelope and the influence of the modifications on flight characteristics. Hypersonic aerodynamic characteristics of the modifications are presented in references 3 and 4, the transonic characteristics in reference 5, and the supersonic aerodynamics in reference 6.

The purpose of this paper is to present the effects of planform fillet and canard modifications on the subsonic aerodynamic characteristics of the 140 A/B orbiter configuration for a range of Reynolds numbers. The investigation was conducted in the Langley Low Turbulence Pressure Tunnel at Reynolds numbers from about $4.2 \times 10^6$ to $14.3 \times 10^6$, based on the fuselage reference length, and at Mach numbers of 0.22, 0.225, and 0.25. The angle-of-attack range extended from approximately -4° to 26° at sideslip angles of 0° and 5°.

## SYMBOLS

The longitudinal aerodynamic data are presented about the stability system of axes, and the lateral-directional data are presented about the body axes. All the aerodynamic data contained herein were nondimensionalized using the baseline model values for wing reference area, span, and mean aerodynamic chord. The moment reference point is located at 65 percent of the fuselage reference length [i.e., 21.38 cm (8.42 in.) aft of the model nose]. Values are given in both SI and US Customary Units. When two symbols are listed for an aerodynamic coefficient, the second symbol applies to the computerized tabulation of coefficients in the appendix.

| | |
|---|---|
| A | aspect ratio |
| b | wing span, 23.79 cm (9.37 in.) |
| c | mean aerodynamic chord, 12.06 cm (4.75 in.) |
| $C_A$, CA | axial-force coefficient, $\frac{\text{Axial force}}{q_\infty S}$ |
| $C_D$, CD | drag coefficient, $\frac{\text{Drag force}}{q_\infty S}$ |
| $C_L$, CL | lift coefficient, $\frac{\text{Lift force}}{q_\infty S}$ |
| $C_\ell$, CBL | rolling-moment coefficient, $\frac{\text{Rolling moment}}{q_\infty Sb}$ |
| $C_{\ell_\beta}$ | $\left(\frac{\Delta C_\ell}{\Delta \beta}\right)_{\beta=0°,\ 5°}$, per degree |
| $C_m$, CLM | pitching-moment coefficient, $\frac{\text{Pitching moment}}{q_\infty Sc}$ |
| $C_N$, CN | normal-force coefficient, $\frac{\text{Normal force}}{q_\infty S}$ |
| $C_n$, CYN | yawing-moment coefficient, $\frac{\text{Yawing moment}}{q_\infty Sb}$ |

$C_{n_\beta}$ $\left(\frac{\Delta C_n}{\Delta \beta}\right)_{\beta=0°,5°}$, per degree

$C_{Y_\beta}$ $\left(\frac{\Delta C_Y}{\Delta \beta}\right)_{\beta=0°,5}$, per degree

L/D lift-drag ratio

$\ell$ fuselage reference length, 32.77 cm (12.90 in.)

M Mach number

$q_\infty$ free-stream dynamic pressure, Newtons per meter$^2$ (lb/ft$^2$)

$R_\ell$ free-stream Reynolds number based on $\ell$

S wing reference area, 0.025 m$^2$ (0.269 ft$^2$)

$x_o$, $y_o$ model stations, cm (in.)

$\alpha$ angle of attack, deg

$\beta$ sideslip angle, deg

$\delta_{BF}$ body-flap deflection angle (positive for trailing edge down), deg.

$\delta_e$ elevon deflection angle (positive for trailing edge down), deg.

$\delta_{SB}$ split-rudder flare angle (positive for trailing edges deflected outboard), deg.

Model Configuration Components:

$B_1WVS_0EF$ baseline 140 A/B orbiter configuration

$B_1$ baseline fuselage forebody

$C_3$ small canard with flat-plate airfoil sections

E baseline elevon

F baseline body flap

$S_0$ baseline planform fillet

$S_2$ fillet modification having planform geometry similar to a strake

V baseline vertical tail

W baseline wing (outboard panel) having a leading-edge sweep of 45°

## APPARATUS AND TESTS

### Model

Geometric details of the model used in the wind-tunnel investigation are shown in figure 1 and table 1, and photographs of the model are shown in

figure 2. The baseline configuration (fig. 1(a)) was an 0.01-scale model of the Rockwell International 140 A/B Space Shuttle Orbiter configuration described in reference 3. The model had a removable forebody and removable components in the wing planform fillet region which allowed geometry modifications. The modifications shown in figures 1(b) and 1(c) consisted of one wing planform fillet configuration, $S_2$, and one canard configuration, $C_3$. All configurations of the present investigation incorporated a split-rudder flare angle of 0°.

The leading edge of the $S_2$ fillet modification produced a planform shape very similar to a strake (fig. 1(b)). Fillet $S_2$ had a leading-edge sweep angle of 67.4° extending outboard to $y_o$ = 3.584 cm at $x_o$ = 12.929 cm. At this point the fillet leading-edge sweep increased to 85°, and the effective fillet intersection with the outboard wing panel was the same as for the baseline fillet ($S_0$) intersection. The streamwise sections of this modified fillet were faired with the outboard wing panel and had leading-edge radii identical to those of the baseline fillet, $S_0$.

Canard $C_3$ (fig. 1(c)) had a flat-plate section with a rounded leading edge and a sharp trailing edge. The leading-edge sweep angle for canard $C_3$ was 55.0°, and the trailing edge was formed by a circular arc segment having a radius of 5.245 cm.

## WIND TUNNEL AND TESTS

The investigation was conducted in the Langley Low Turbulence Pressure Tunnel which is a variable-pressure, single-return facility with a closed test section 0.914 meter (3.0 feet) wide and 2.29 meters (7.5 feet) high. The tunnel is a low subsonic facility (M=0.4) with a unit Reynolds number capability of up to about 49.2 X $10^6$ per meter (15.0 X $10^6$ per foot). Reynolds numbers for the

present investigation were varied from about $4.2 \times 10^6$ to $14.3 \times 10^6$, based on the fuselage reference length at Mach numbers of 0.22, 0.225, and 0.25. The angle-of-attack range of the tests extended from approximately -4° to 26° at sideslip angles of 0° and 5°.

An internally mounted six-component strain-gauge balance was used to measure aerodynamic forces and moments acting on the model. Corrections have been applied to the angles of attack and sideslip to account for sting and balance deflections produced by aerodynamic loads on the model. Corrections to these data for blockage and lift interference effects have also been made in accordance with the techniques outlined in references 7 and 8.

## RESULTS AND DISCUSSION

The aerodynamic data resulting from the present study are tabulated by run number in the appendix which also contains a Data Set/Run Number Collation Summary (table II) to expedite the location of data for a particular configuration and test condition.

### Longitudinal Aerodynamic Characteristics

The effects of varying Reynolds number on the longitudinal aerodynamic characteristics of the study configurations are shown in figure 3. Incremental Reynolds number increases produced only slight changes in longitudinal aerodynamics for either of the three configurations. The most observable of these effects is an increase in L/D at moderate-to-high angles of attack as the Reynolds number (based on fuselage reference length) is increased from about $4.3 \times 10^6$ to $14.1 \times 10^6$.

The effects of modifying the baseline configuration $B_1WVS_0EF$ by changing the wing planform fillet $S_0$ to $S_2$ or by adding the canard $C_3$ are shown

in figure 4 over the Reynolds number range of the investigation. For comparison purposes, the longitudinal control positions were held fixed for this study.

Modifying the wing planform fillet to $S_2$, which resembles a strake (fig. 1(b)), produced destabilizing pitching moments, some increased lift at high angles of attack, and reduced L/D values in the moderate-to-high angle-of-attack range. The most notable incremental effect of the $S_2$ fillet modification (fig. 4(f)) was the reduction in longitudinal stability level from $C_m/C_L \approx -0.010$, based on $\bar{c}$ of the baseline configuration, to an unstable condition ($C_m/C_L \approx 0.039$). This fillet modification would allow the forward movement of the vehicle center of gravity by about 1.8 percent of the body reference length from the "most forward" c.g. (0.65 $\ell$ station) while providing acceptable subsonic trimmed longitudinal aerodynamic characteristics. This increment in forward center-of-gravity movement for the $S_2$ fillet modification at subsonic speeds is compatible with supersonic effects found for the same modifications in reference 6. In the supersonic study, the $S_2$ planform fillet modification allowed at least a 2.0-percent forward shift in the orbiter's most forward center-of-gravity location.

The addition of the canard $C_3$ to the baseline configuration (fig. 4(f)) resulted in a large destabilizing pitching moment over the test angle-of-attack range, a reduction in lift coefficient at high angles of attack, and reduced lift-to-drag ratio at moderate-to-high $\alpha$'s. The reduction in longitudinal stability increment attributable to the $C_3$ canard addition was approximately 4.2-percent fuselage reference length. The resulting unstable static margin ($C_m/C_L$) found for configuration $B_1WVS_0C_3EF$ was 3.2 percent of the fuselage reference length or 8.7-percent $\bar{c}$. The supersonic aerodynamic study of reference 6 indicated at least a 1.8-percent fuselage length destabilizing increment attributable to the $C_3$ canard modification.

Either of these modifications would provide less stringent payload center-of-gravity and weight requirements as a result of their destabilizing effect on the configuration's pitching moments. This destabilizing effect provides longitudinal trim at higher lift coefficients, since the elevon deflections required for trimming the modified configurations are more positive than for the baseline. The higher trimmed lift capability at landing attitudes can result in either lower landing speeds, higher payload capability, or more forward payload loadings which would transfer the configurational center of gravity forward and increase longitudinal stability. In either of the latter cases, trimmed $C_L$, $Cm/C_L$, and W/S would be balanced to hold landing speeds and/or brake energy levels at the baseline values for the operational orbiter.

## LATERAL-DIRECTIONAL CHARACTERISTICS

The effects of configuration modifications $S_2$ and $C_3$ on the subsonic lateral-directional aerodynamic characteristics are shown in figure 5. Lateral-directional effects, because of increasing Reynolds number for the two modified configurations and the baseline configuration, are presented in figure 6.

The effect of planform fillet modification $S_2$ at $R_N \approx 14.1 \times 10^6$ is shown in figure 5(f). The directional stability level, $C_{n_\beta}$, of configuration $B_1WVS_2EF$ is slightly more stable (positive) than the baseline configuration $B_1WVS_0EF$ at angles of attack greater than 16°. Also noted on the figure is a slightly higher positive effective dihedral level ($-C_{\ell_\beta}$) over the test angle-of-attack range for the $S_2$ modified fillet configuration. The directional stability comparison indicates that subsonic $C_{n_\beta}$ levels would be at least as stable for an orbiter configuration incorporating the $S_2$ wing planform fillet as the baseline orbiter.

The lateral-directional data for the $C_3$ canard modification are also shown in figure 5(f) at the highest test Reynolds number. The directional stability data show a loss in $C_{n_\beta}$ at angles of attack near 16°. This effect is attributed to impingement of the trailing vortices from the canard on the orbiter's vertical tail. Stable directional stability levels are again achieved at higher angles of attack. Positive effective dihedral levels were equal to or greater for the $C_3$ canard modified configuration than for the baseline configuration over the angle-of-attack range investigated.

## SUMMARY OF RESULTS

Subsonic high Reynolds number tests were conducted in the Langley Low Turbulence Pressure Tunnel to determine the effects of a wing planform fillet and a canard modification on the longitudinal and lateral-directional characteristics of a 140 A/B Space Shuttle Orbiter configuration. The results are summarized as follows:

1. The most significant effect of both the $S_2$ wing fillet modification and the $C_3$ canard modification was to destabilize pitching moments. Also noted for the $S_2$ fillet modification were slight increases in directional stability and positive effective dihedral.

2. The destabilizing pitching moments produced by the planform fillet modification and the canard modification would provide higher trimmed lift capability and allow relaxed forward payload loading distributions and/or increased maximum landed payloads.

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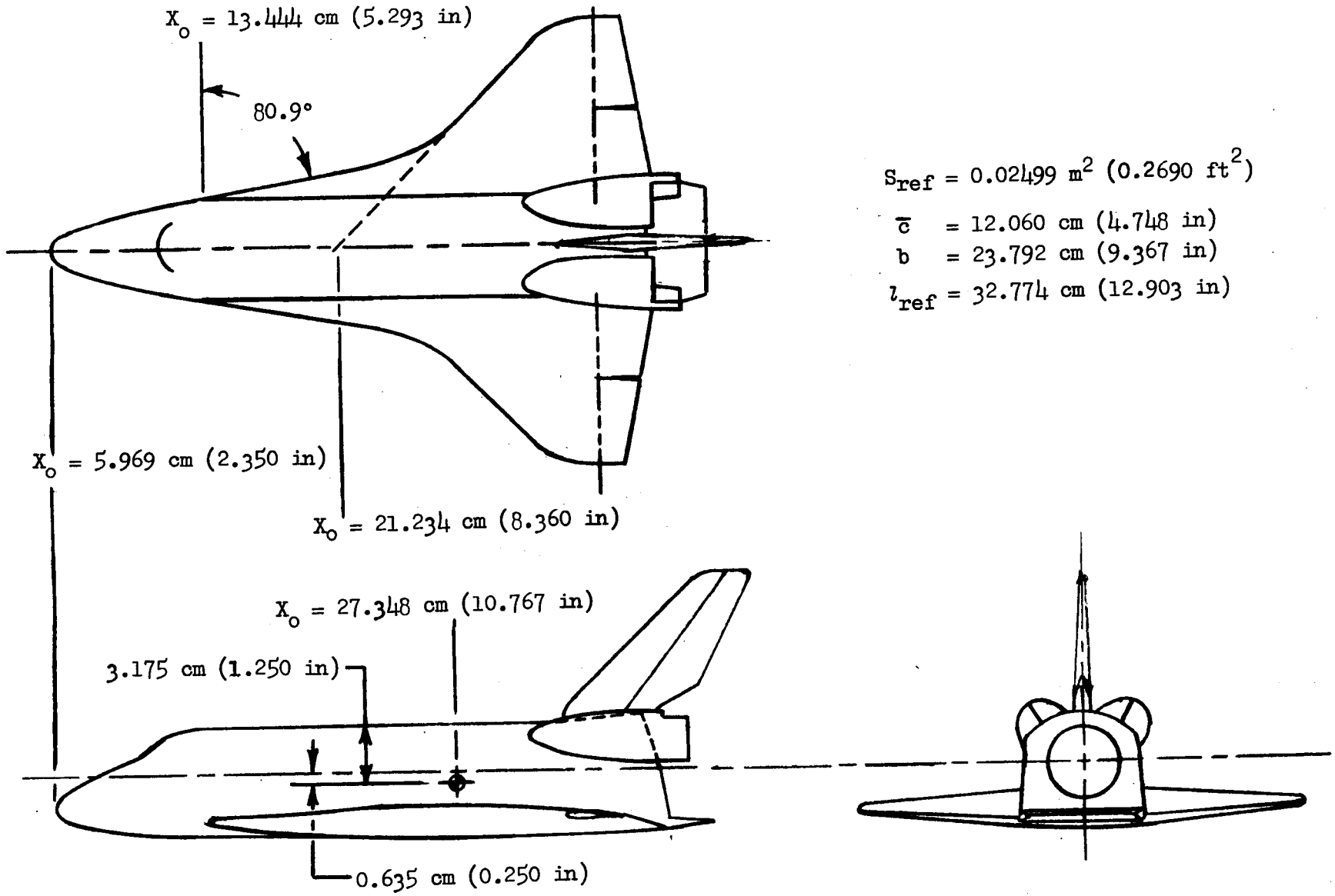
TABLE I. - MODEL GEOMETRY

| | |
|---|---|
| **Theoretical wing:** | |
| Area, planform, $m^2$ ($ft^2$) | 0.02499 (0.2690) |
| Area, elevon, $m^2$ ($ft^2$) | 0.001951 (.0210) |
| Span, cm (in.) | 23.792 (9.367) |
| Chord, centerline root, cm (in.) | 17.507 (6.892) |
| Chord, tip, cm (in.) | 3.501 (1.378) |
| Taper ratio | 0.20 |
| Aspect ratio | 2.265 |
| Leading-edge sweep angle, deg | 45.0 |
| Trailing-edge sweep angle, deg | -10.0 |
| Dihedral angle, deg | 3.5 |
| Incidence angle, deg ($y_o$ = 5.056 cm) | 0.5 |
| Twist angle, deg | 3.0 |
| Airfoil section, tip | 0012-74 modified |
| $x_o$, wing leading edge, plane of symmetry | 21.234 (8.360) |
| **Wing planform fillet $S_0$, baseline:** | |
| Leading-edge sweep angle, deg | 80.9 |
| $x_o$, wing leading-edge (theoretical) intersection cm (in.) | 25.984 (10.230) |
| **Wing planform fillet $S_2$:** | |
| Leading-edge sweep angle (forward portion), deg | 67.4 |
| Leading-edge sweep angle (aft portion), deg | 85.0 |
| $x_o$, intersection of forward and aft fillet leading edges, cm (in.) | 12.929 (5.090) |
| $x_o$, intersection of aft fillet and theoretical wing, cm (in.) | 25.984 (10.230) |

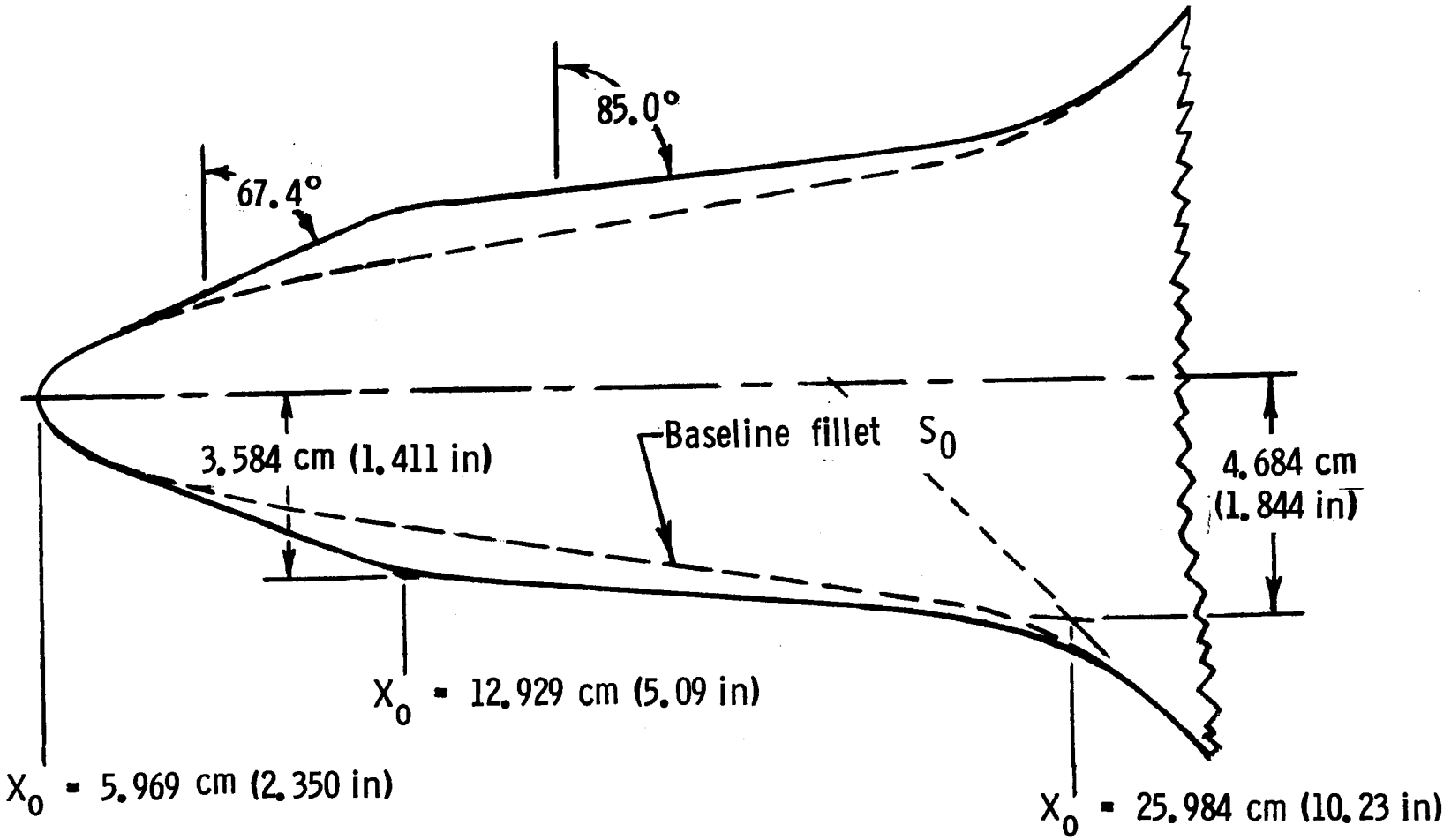
TABLE I. - CONCLUDED

| | |
|---|---|
| Canard $C_3$: | |
| Exposed area, $m^2$ ($ft^2$) | 0.001241 (0.013363) |
| Leading-edge sweep angle, deg | 54.7 |
| Vertical tail: | |
| Area (theoretical), $m^2$ ($ft^2$) | 0.003839 (0.041325) |
| Leading-edge sweep angle, deg | 45.0 |
| Root chord (theoretical), cm (in.) | 6.820 (2.685) |
| Tip chord (theoretical), cm (in.) | 2.755 (1.085) |
| Span, cm (in.) | 8.019 (3.157) |
| Fuselage: | |
| Maximum cross-sectional area, $m^2$ ($ft^2$) | 0.003595 (.0387) |
| Length, cm (in.) | 32.774 (12.903) |
| Maximum width, cm (in.) | 6.797 (2.676) |



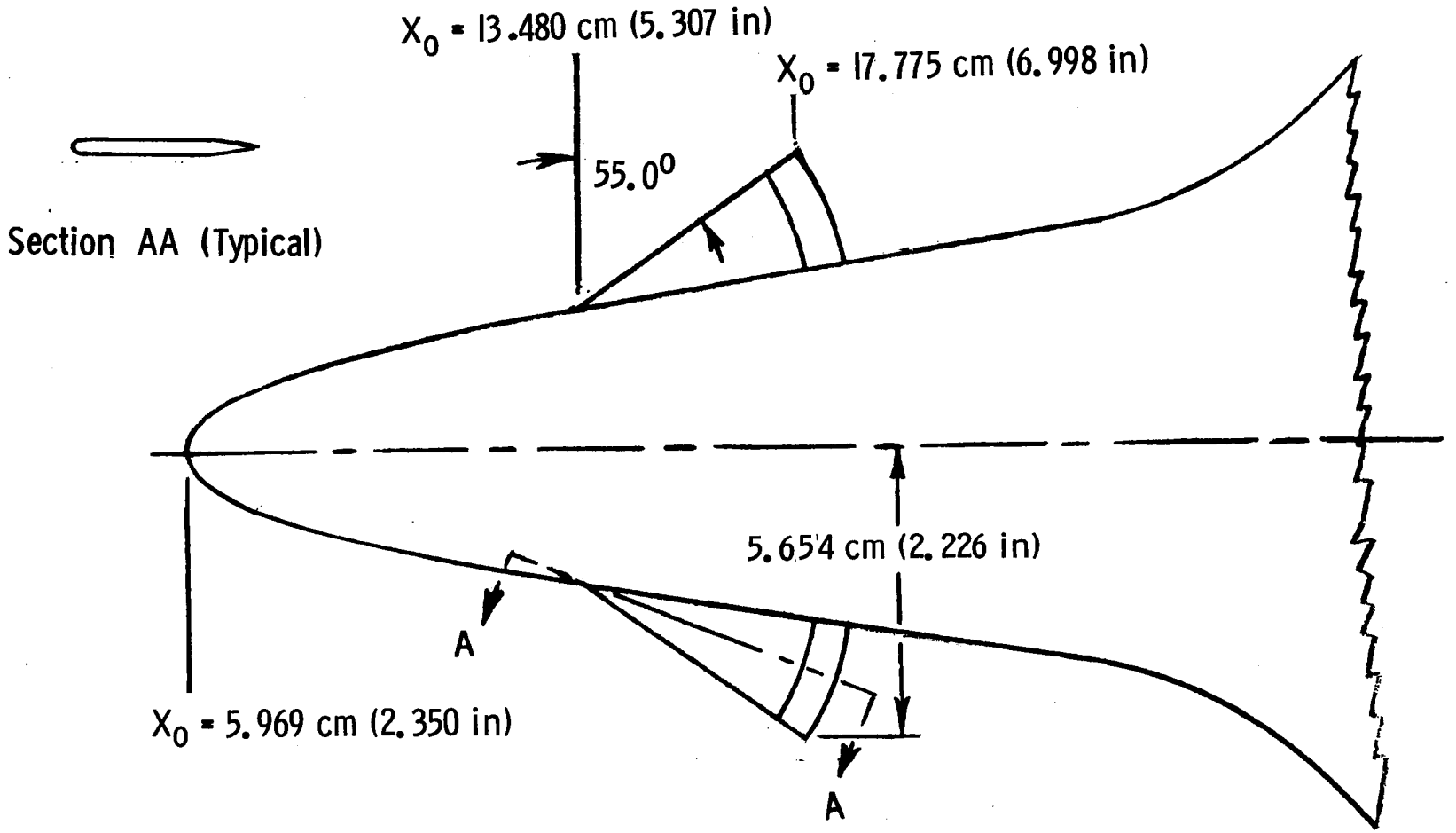

(a) Three-view of baseline orbiter model (Configuration $B_1WVS_0EF$)

Figure 1.- Model drawings.




(b) Fillet $S_2$ (Configuration $B_1WVS_2EF$)

Figure 1.- Continued.




(c) Canard $C_3$

Figure 1. - Concluded.

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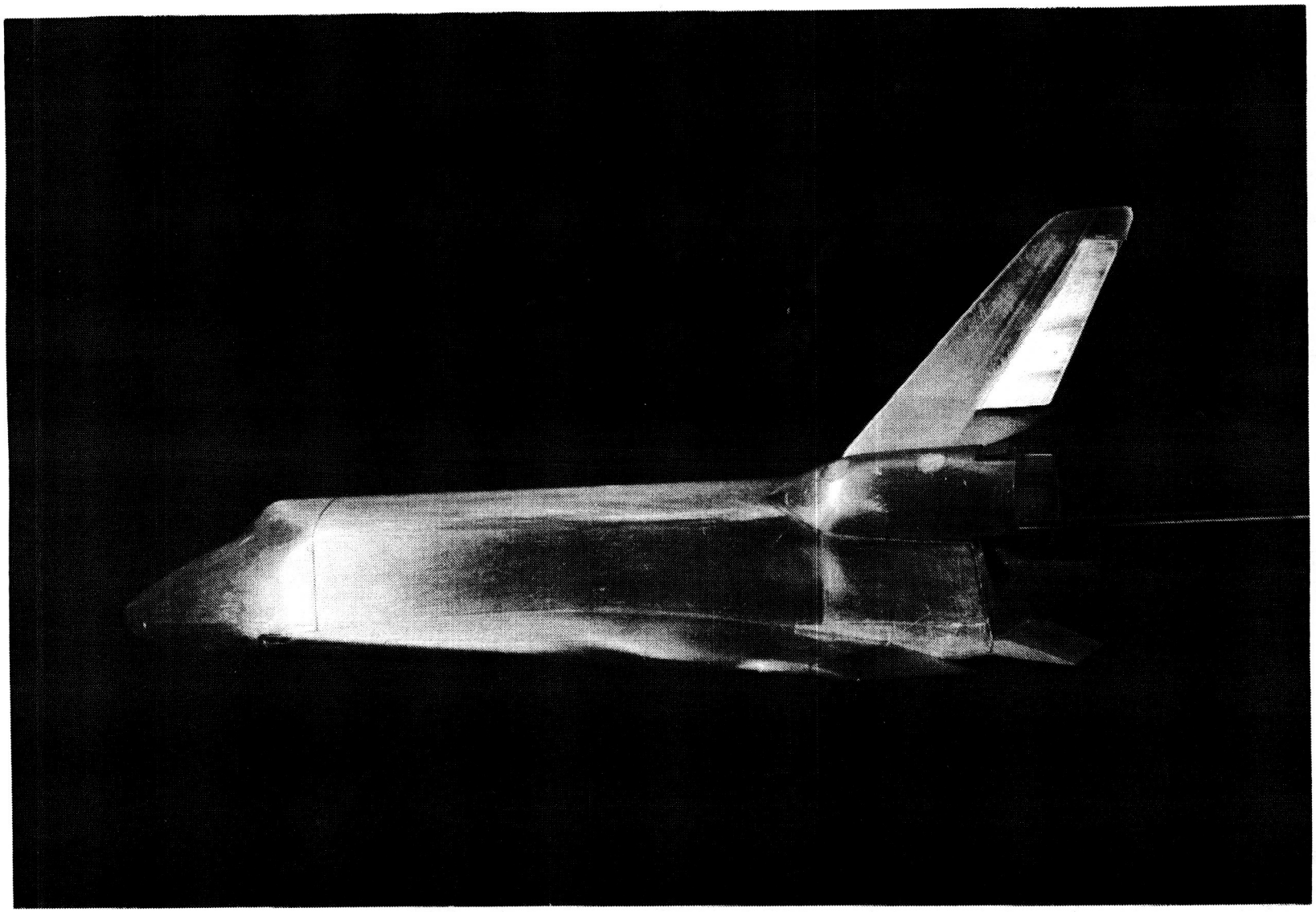

(a) Baseline 140A/B Orbiter Model (Configuration $B_1WVS_0EF$)

Figure 2.- Photographs of several test configurations.

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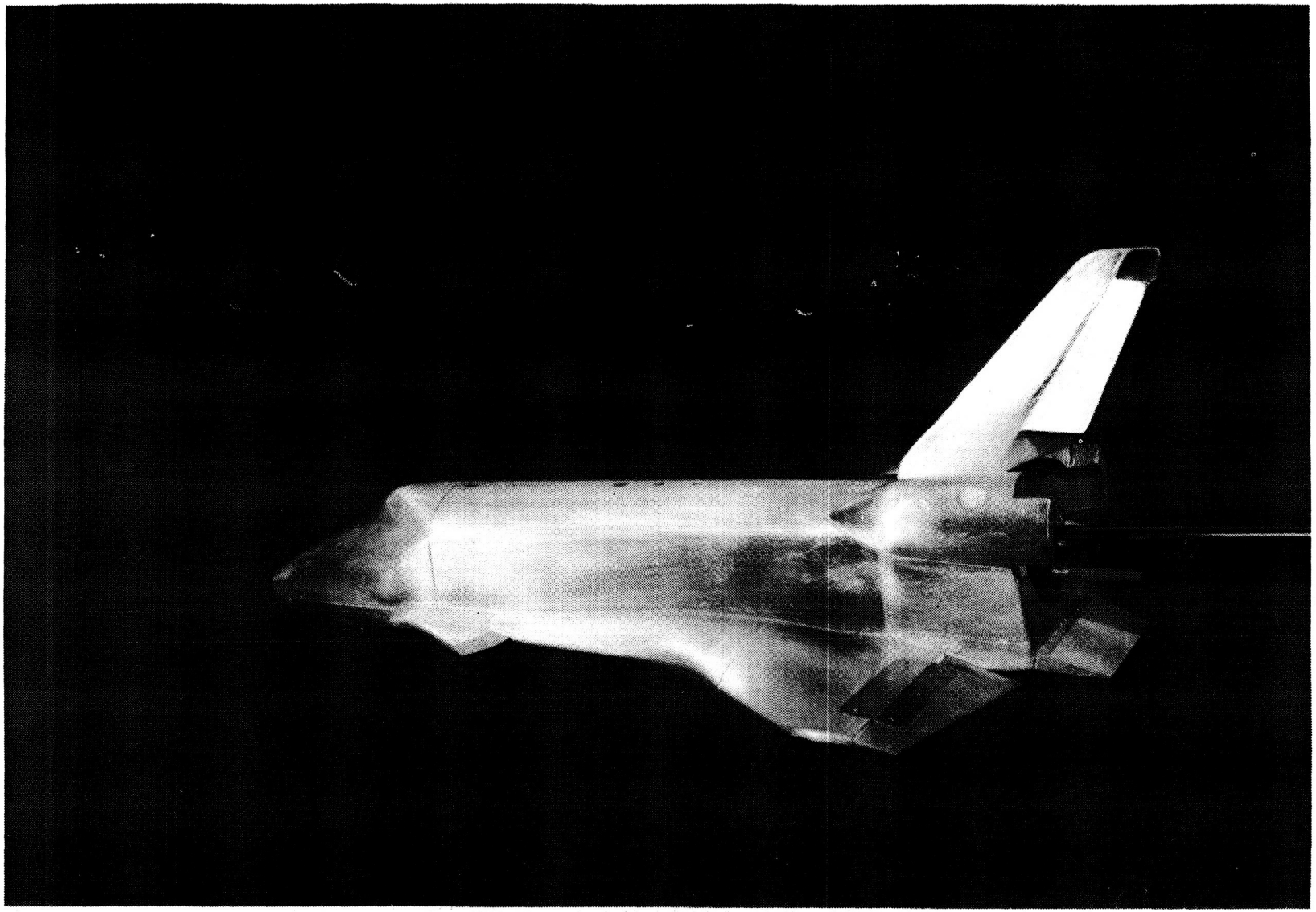

(b) Modified model with $C_3$ canard
(Configuration $B_1WVS_0C_3EF$)

Figure 2.- Continued.

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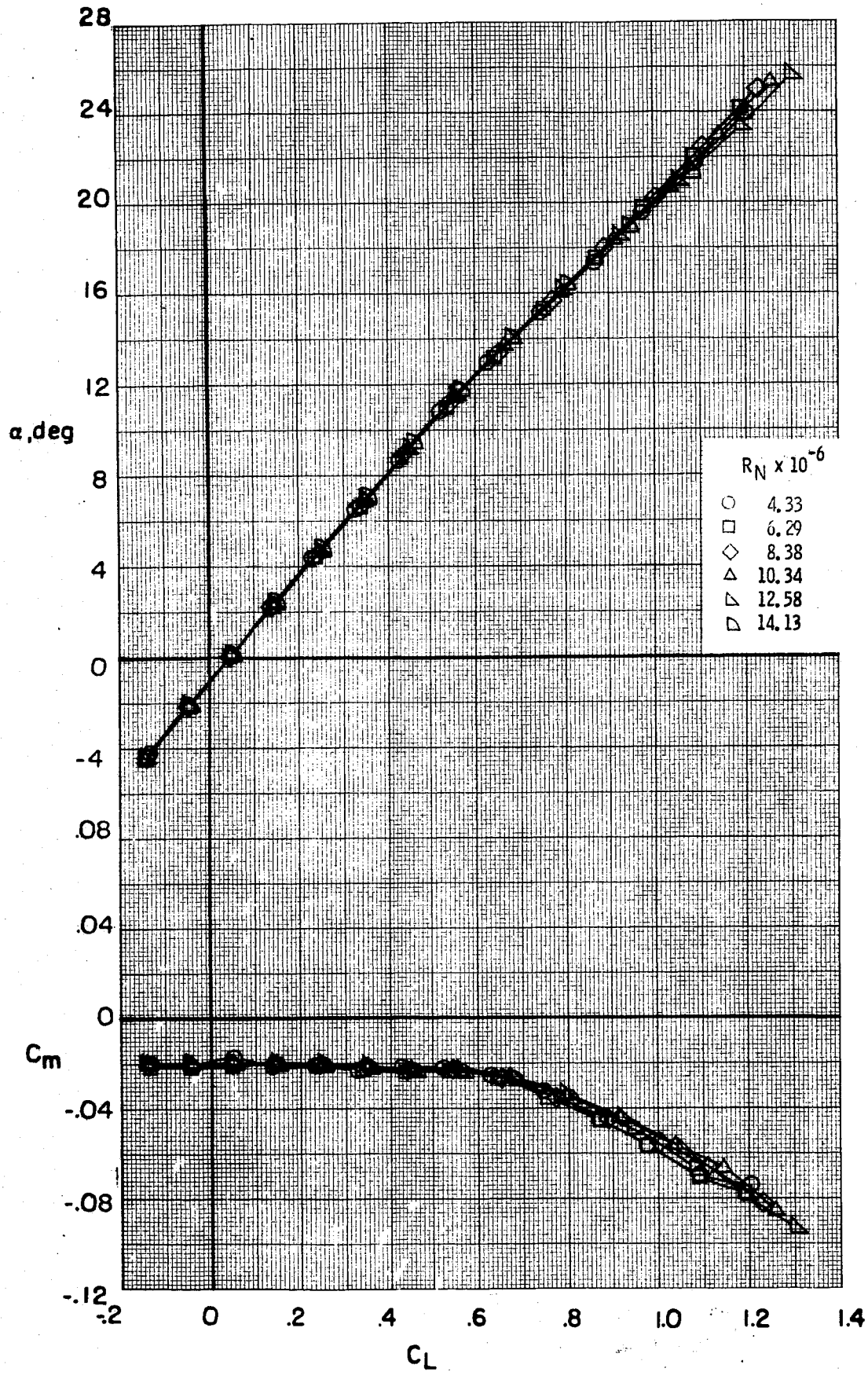
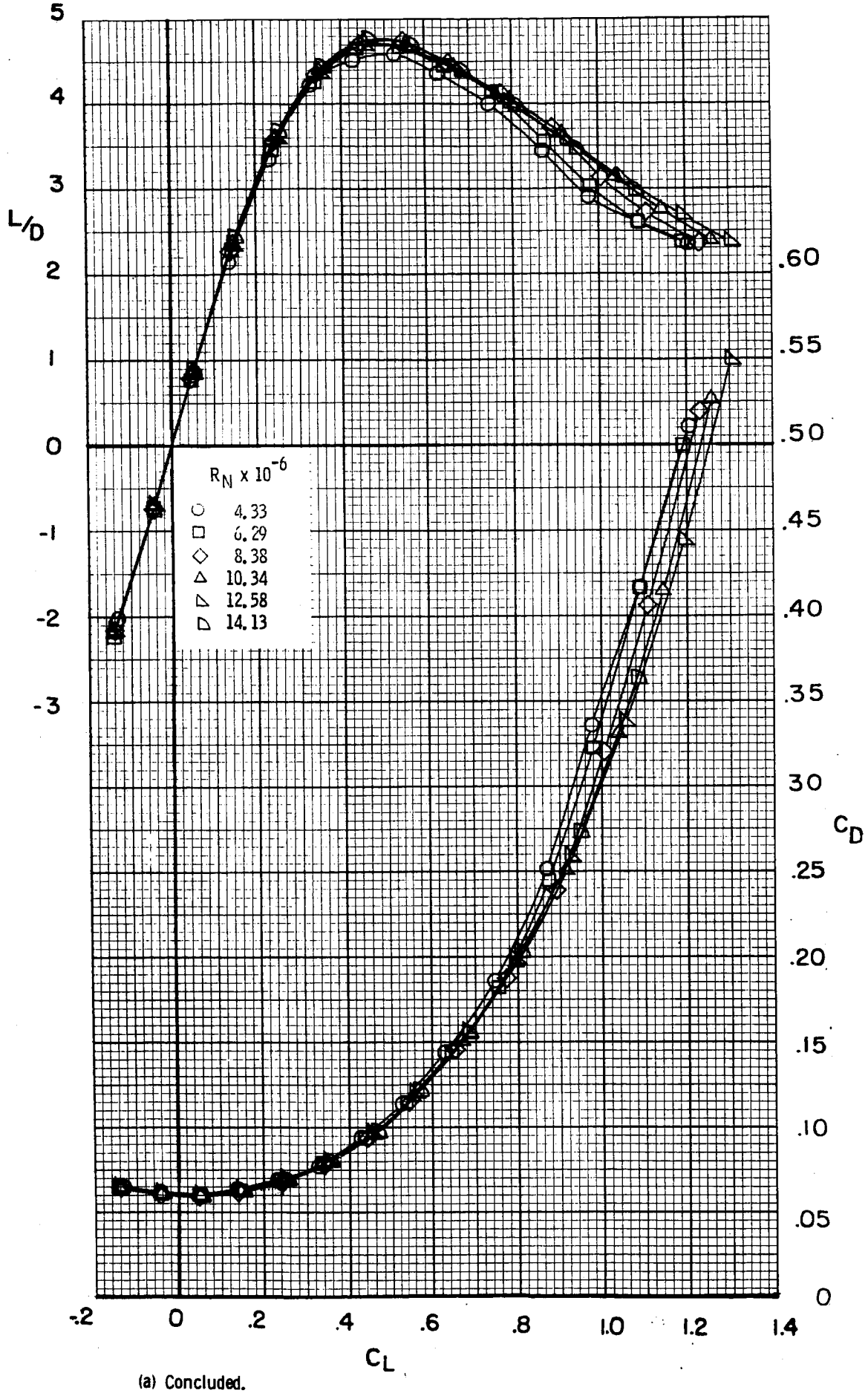
(c) Modified model with $S_2$ fillet
(Configuration $B_1WVS_2EF$)

Figure 2.- Concluded.

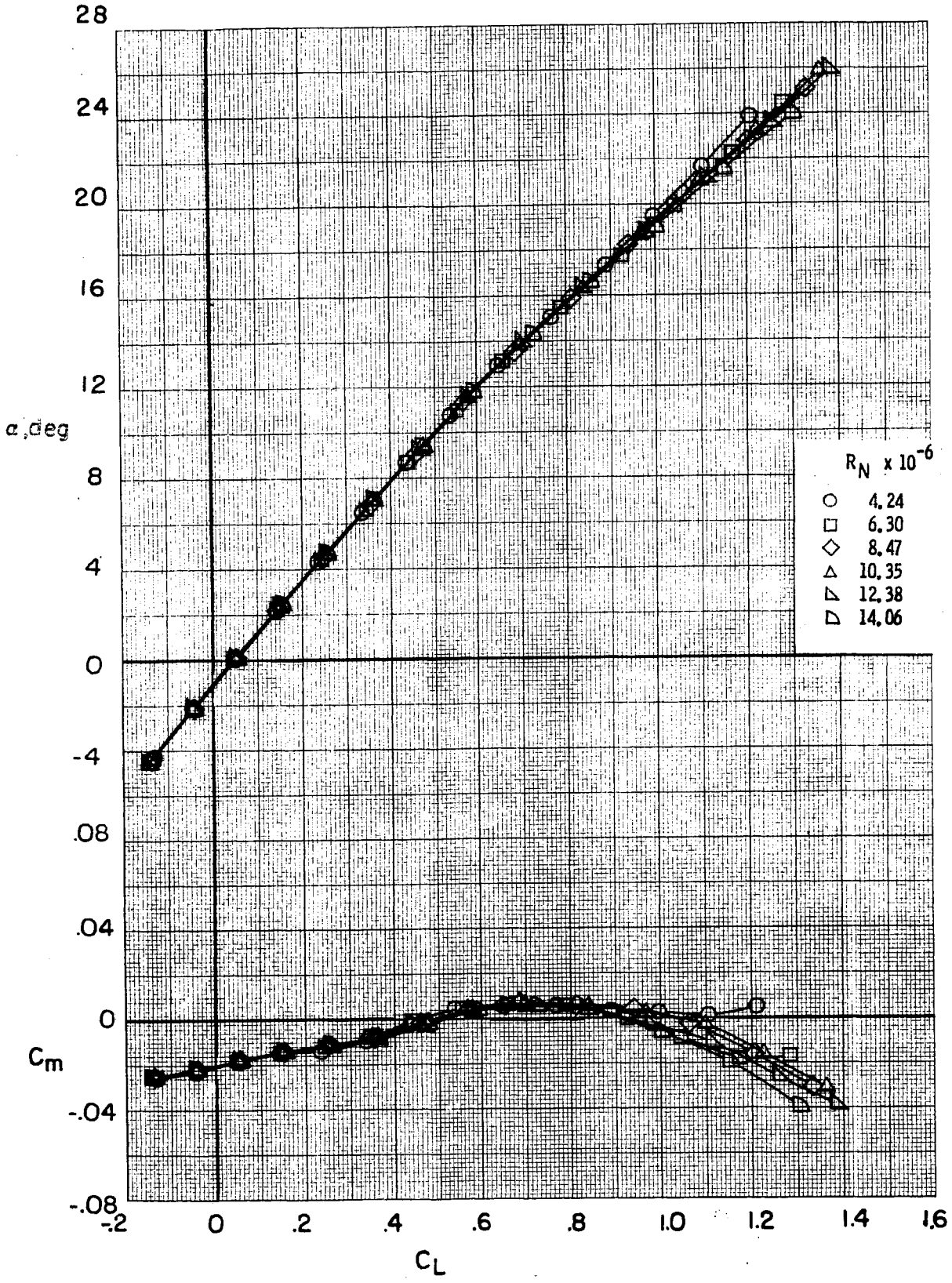



(a) Baseline configuration $B_1WVS_0$ EF.

Figure 3. - Effect of Reynolds number on the longitudinal aerodynamic characteristics of the study configurations. $\delta e=5°$ $\delta_{BF} = -11.7°$; $\delta_{SB} = 0°$.




(a) Concluded.
Figure 3. - Continued.




(b) Configuration $B_1WVS_2EF$.
Figure 3. - Continued.

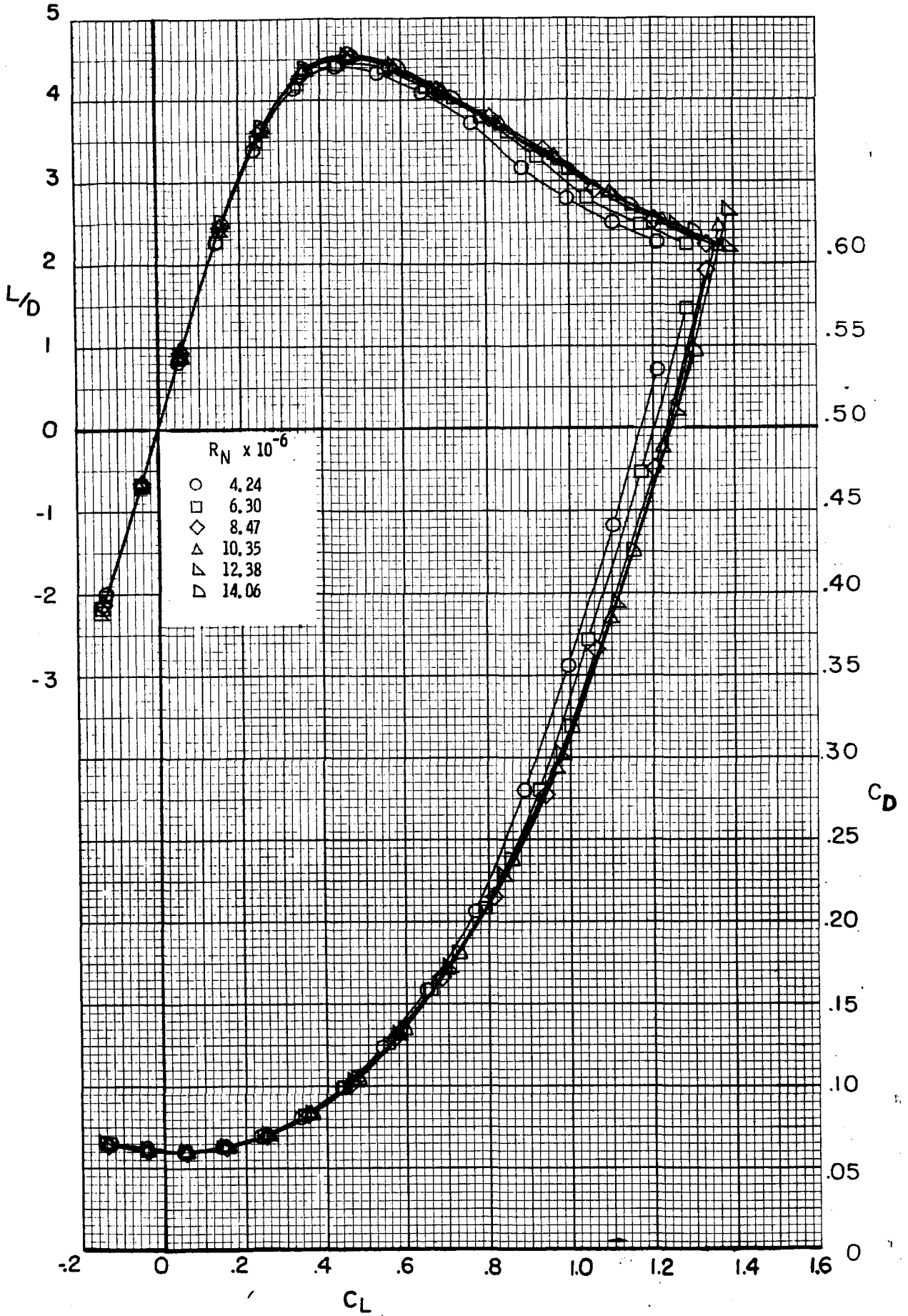



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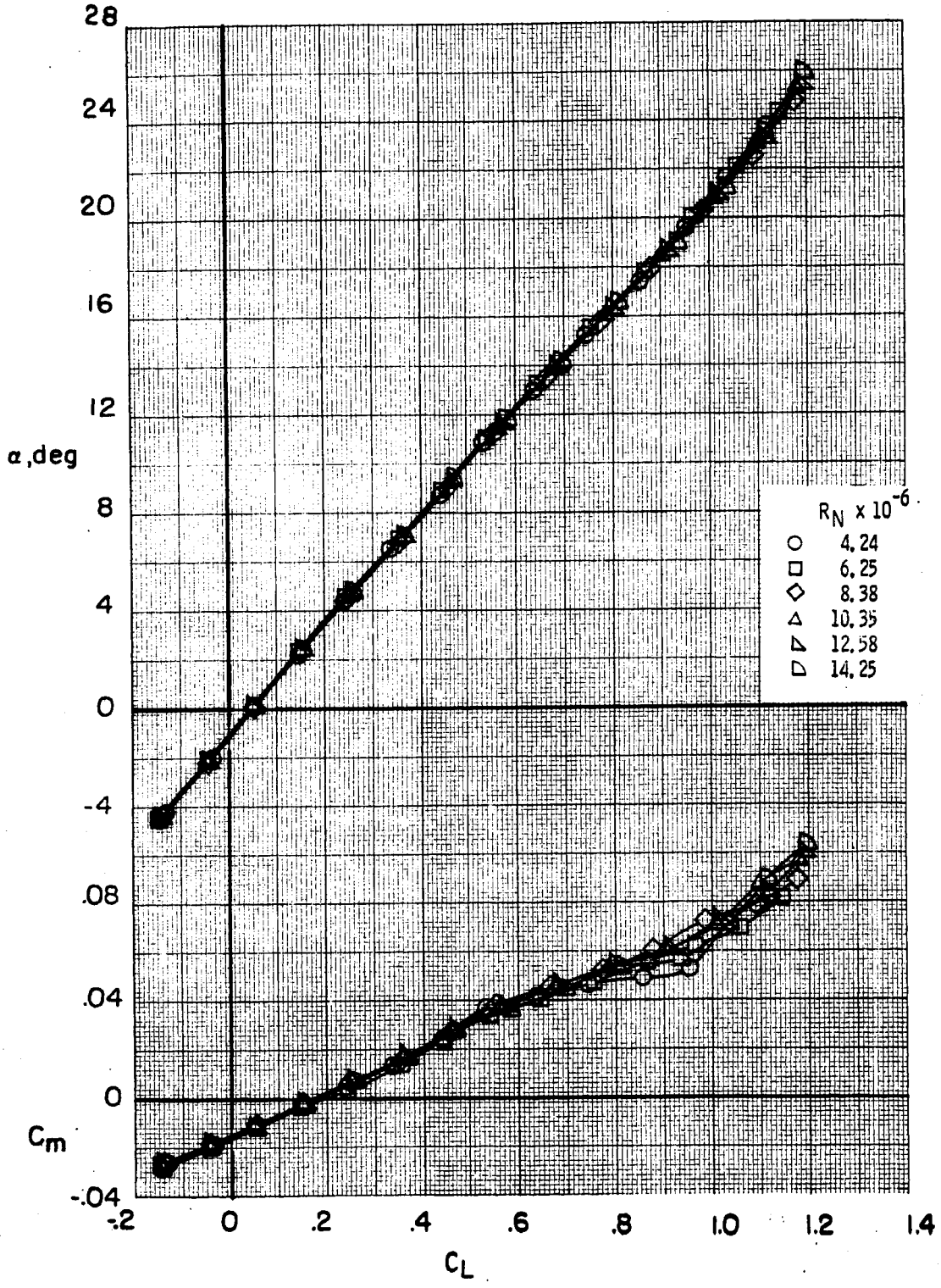
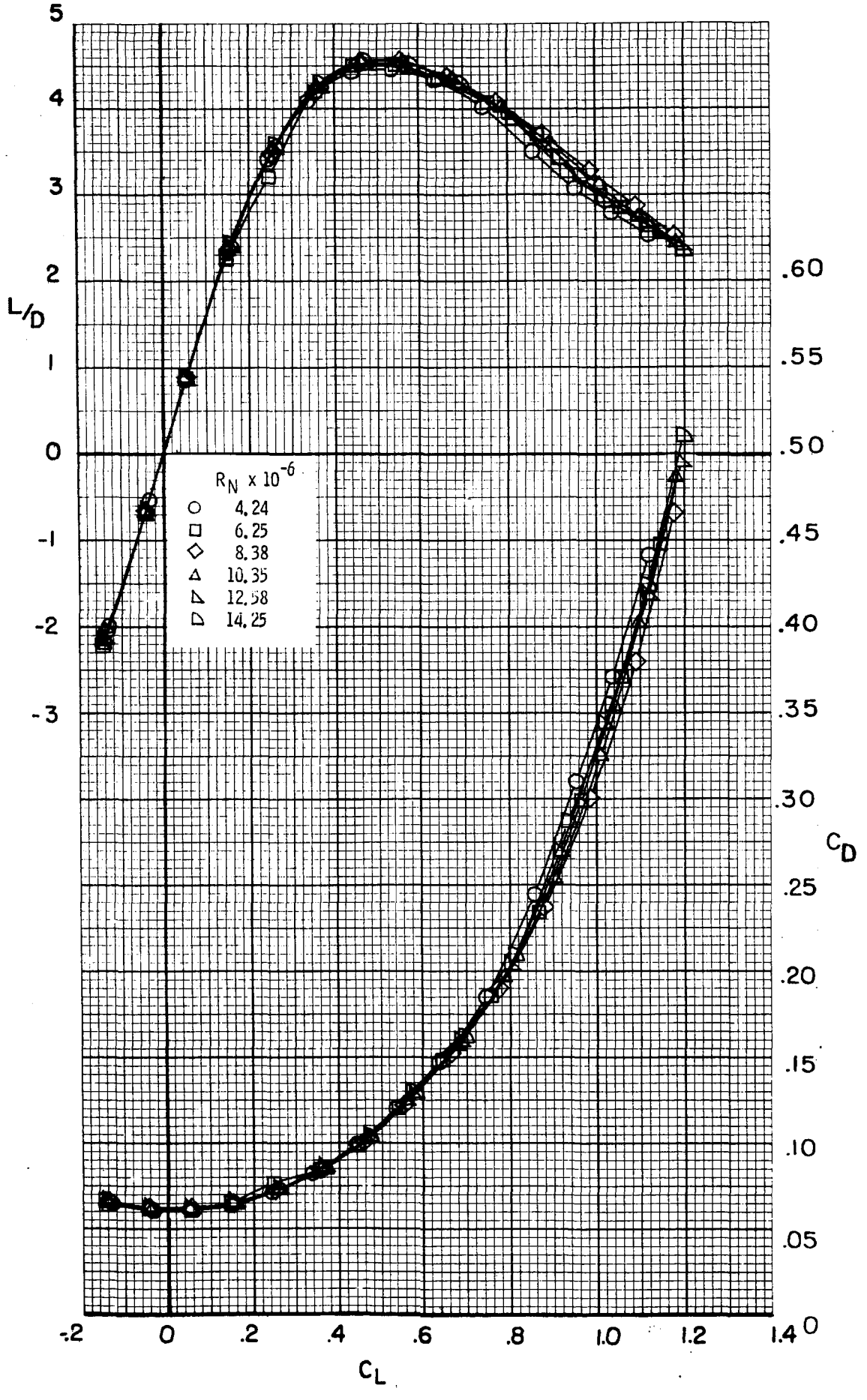
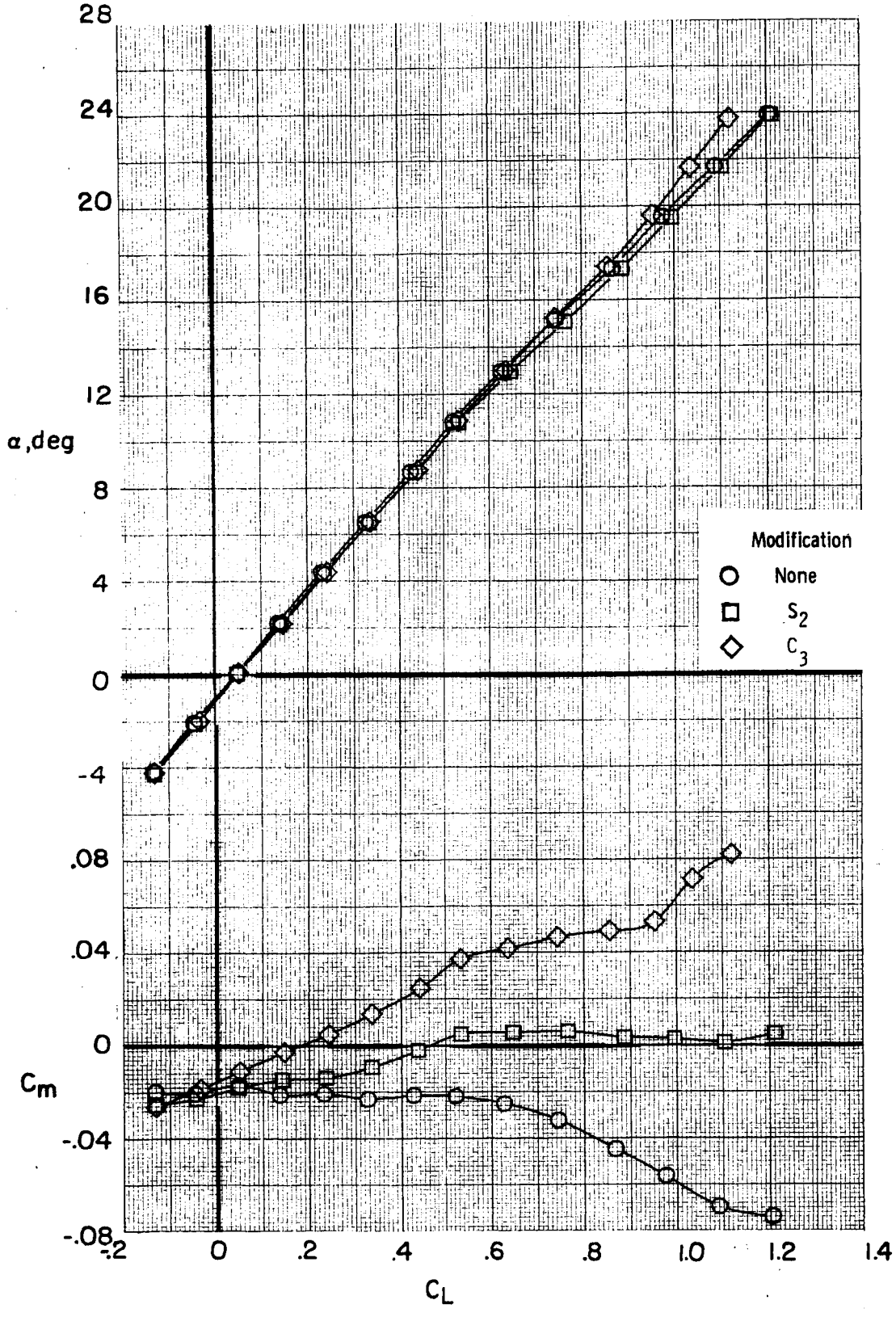
Figure 3. - Continued.




(c) Configuration $B_1WVC_3S_0EF$.
Figure 3. - Contined.

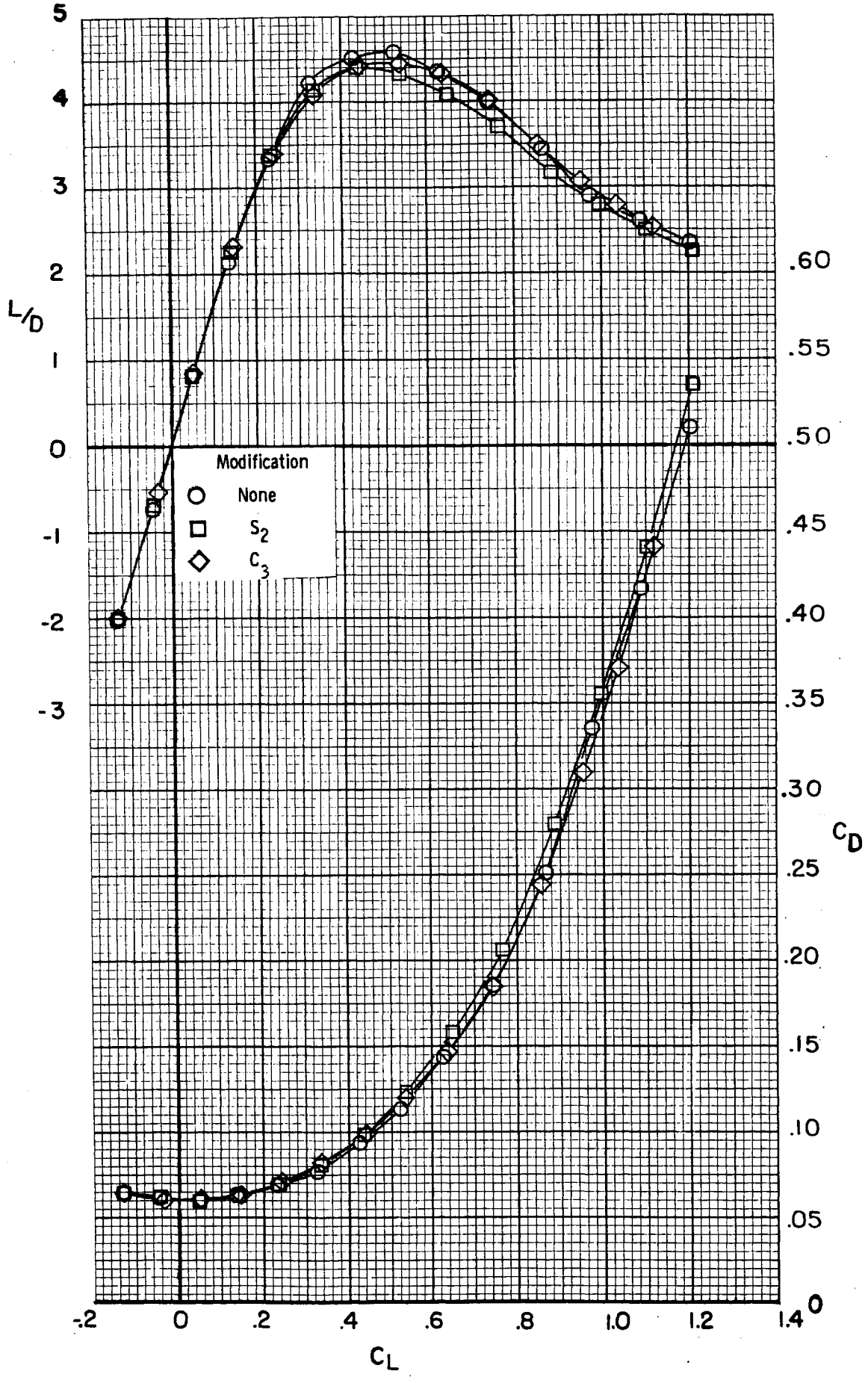



(c) Concluded.
Figure 3. - Concluded.

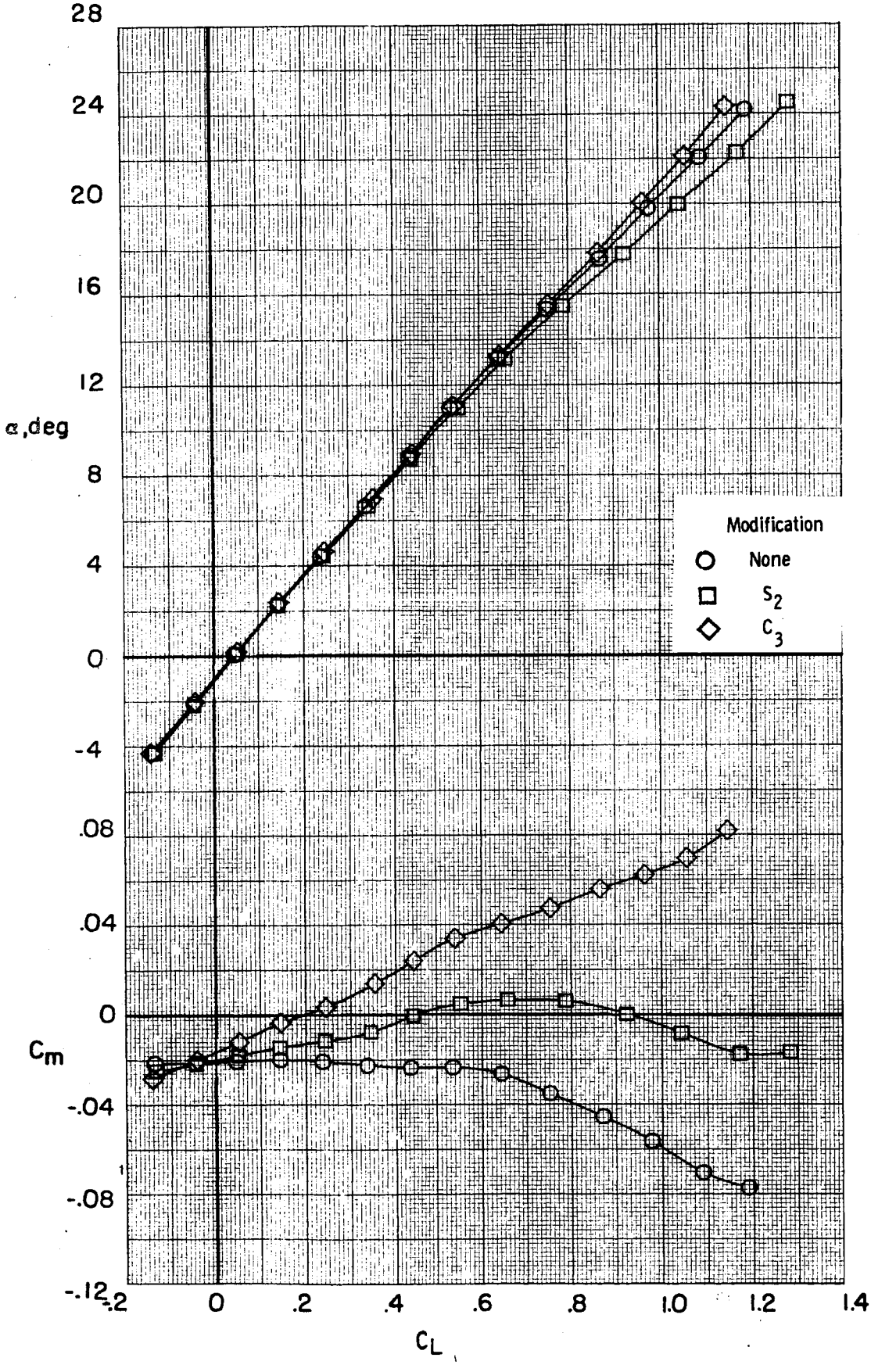



(a) $R_N \approx 4.3 \times 10^6$

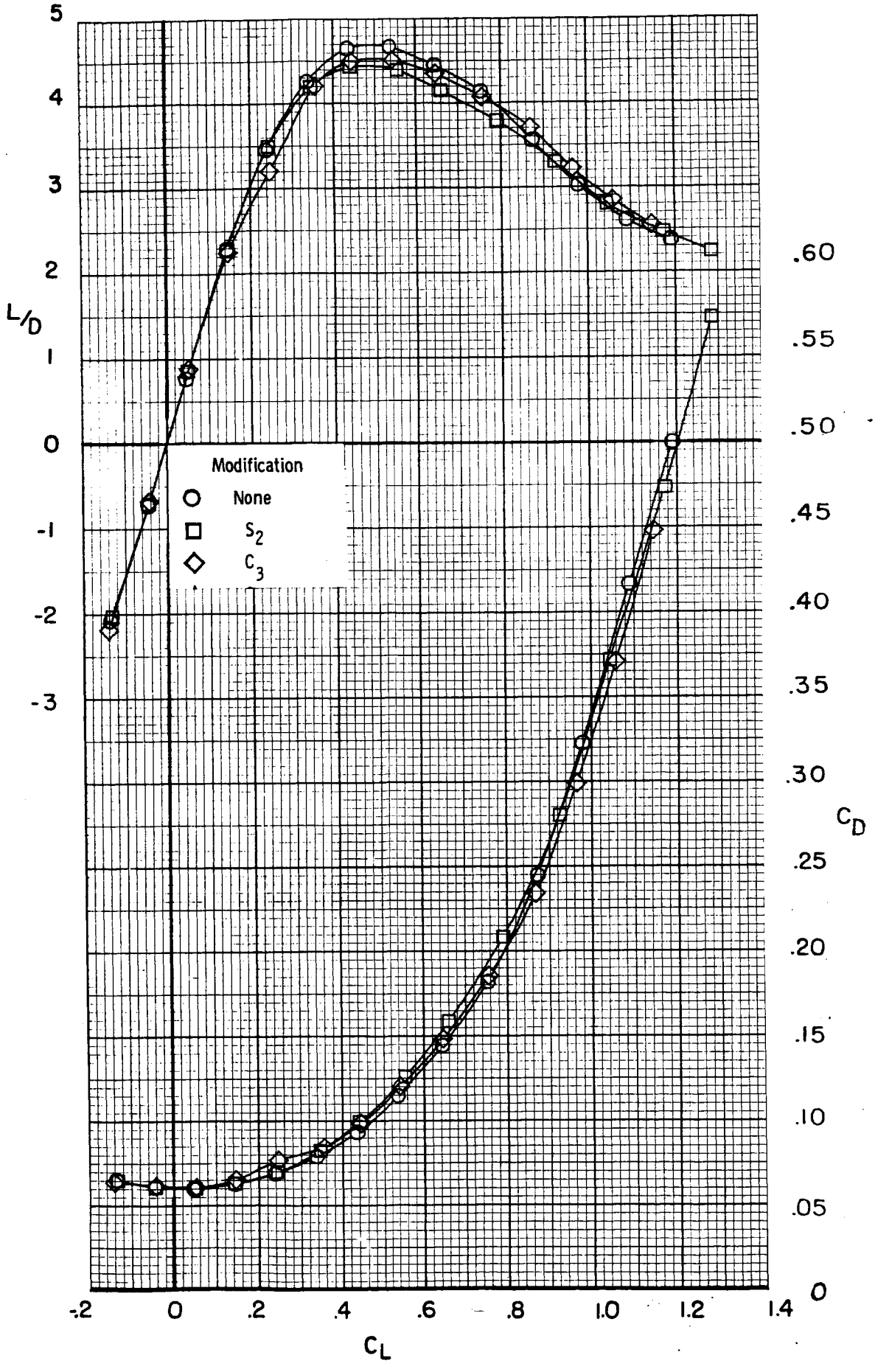
Figure 4. - Effects of the $S_2$ fillet and the $C_3$ canard modifications on the longitudinal aerodynamic characteristics for configuration $B_1WVS_0EF$. $\delta e$=5°; $\delta BF$=-11.7°; $\delta SB$= 0°.



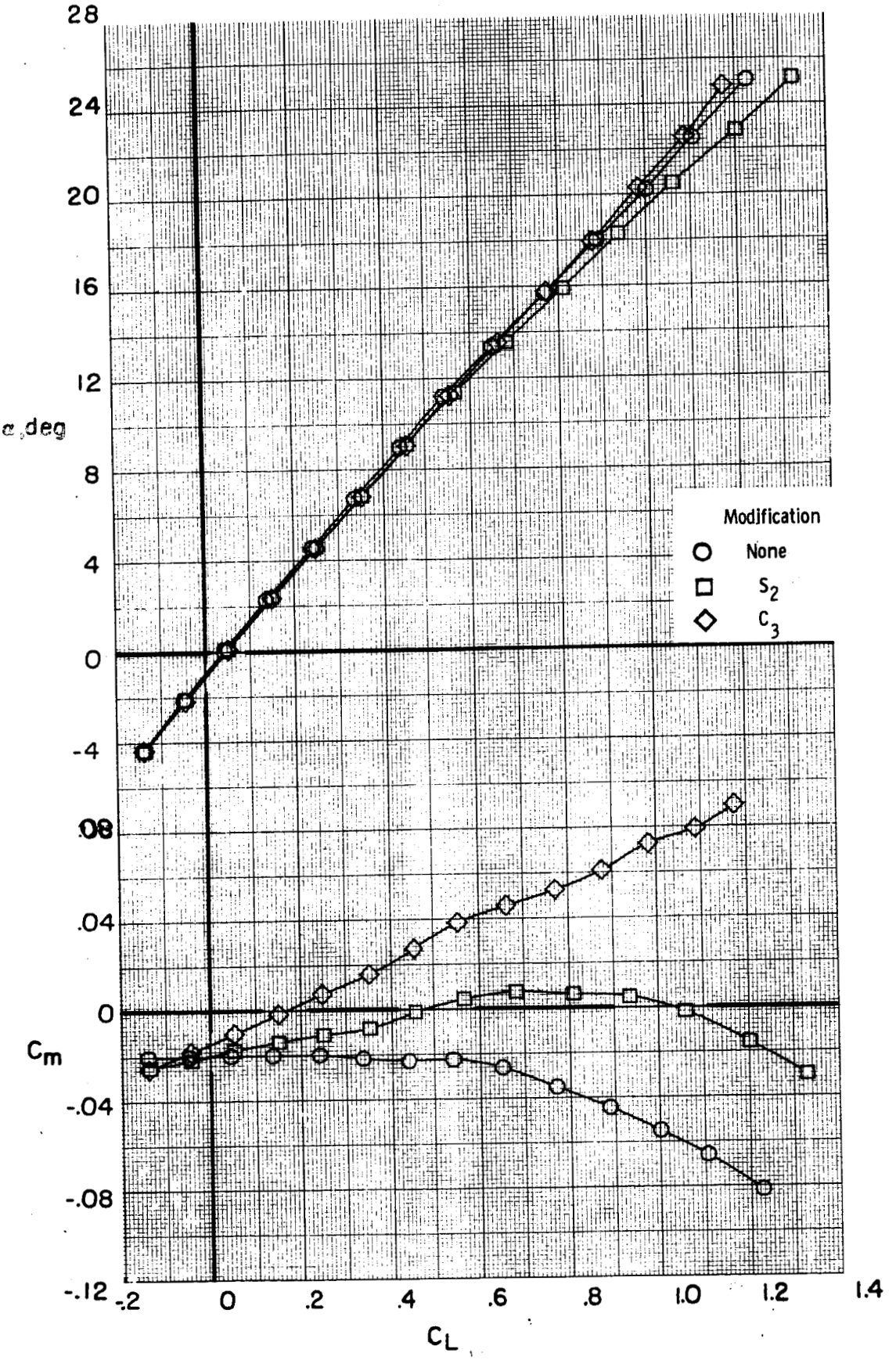

(a) Concluded.
Figure 4. - Continued.




(b) $R_N \approx 6.3 \times 10^6$
Figure 4. - Continued.

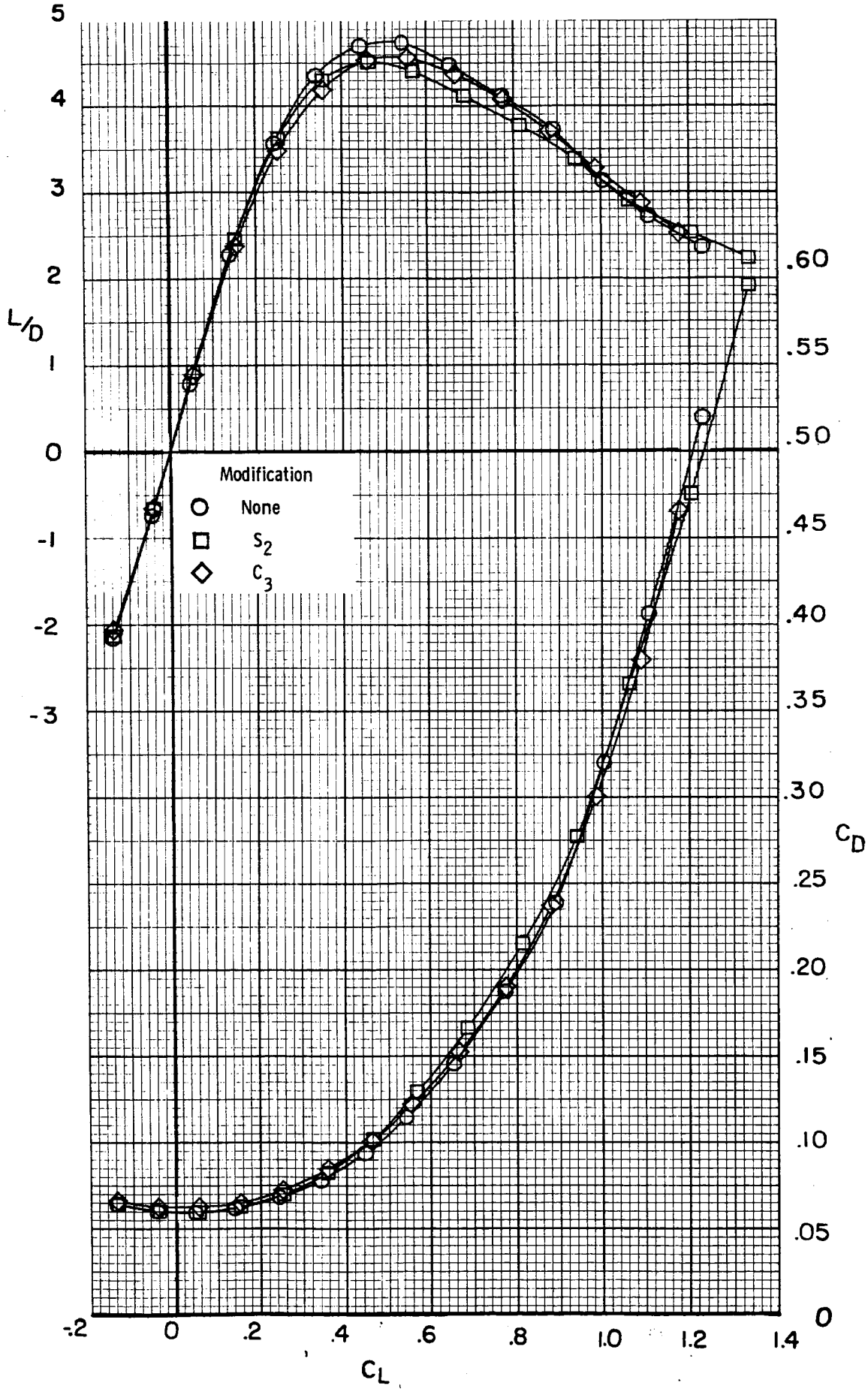



(b) Concluded.
Figure 4. - Continued.

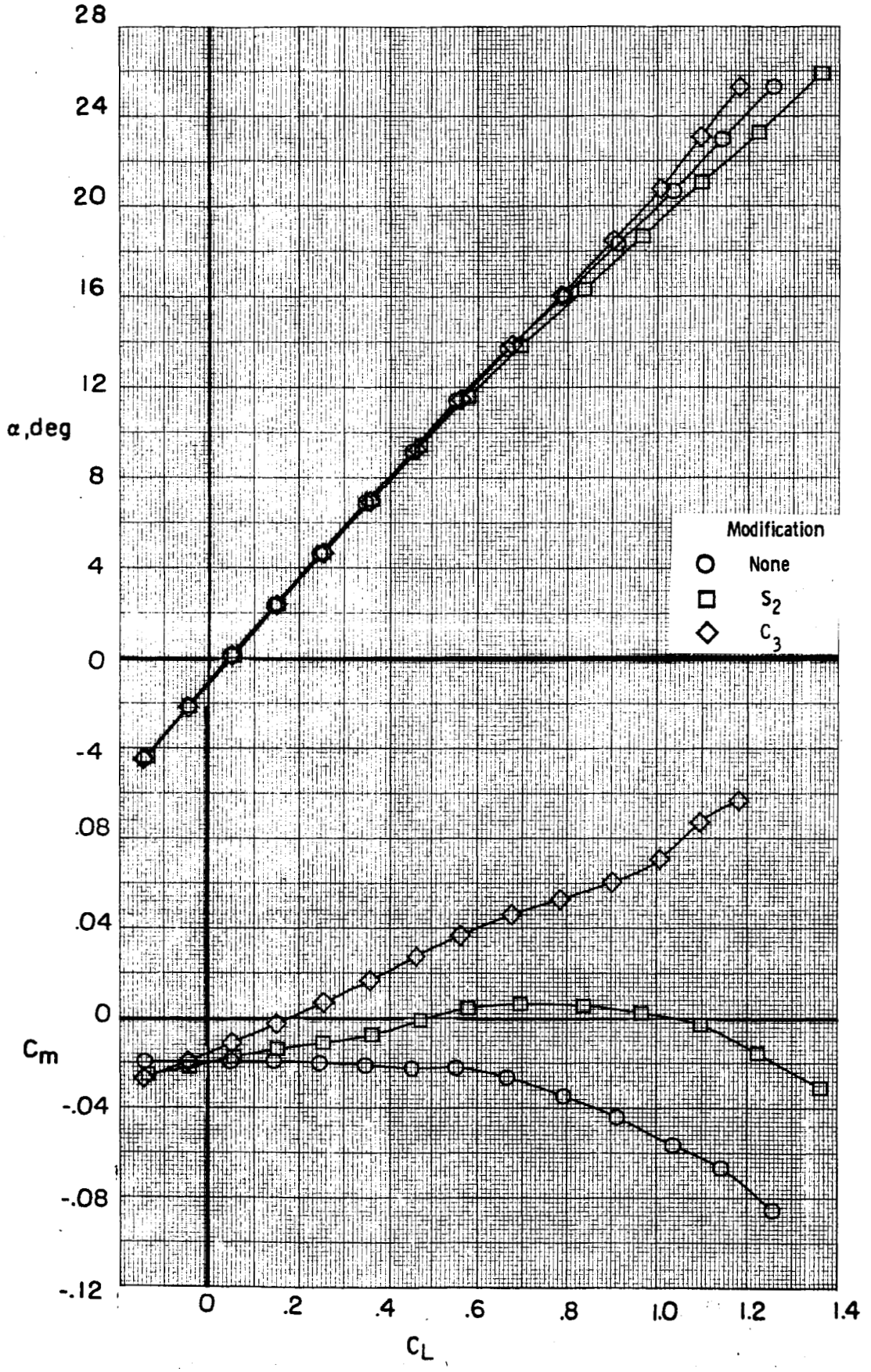



(c) $R_N \approx 8.4 \times 10^6$

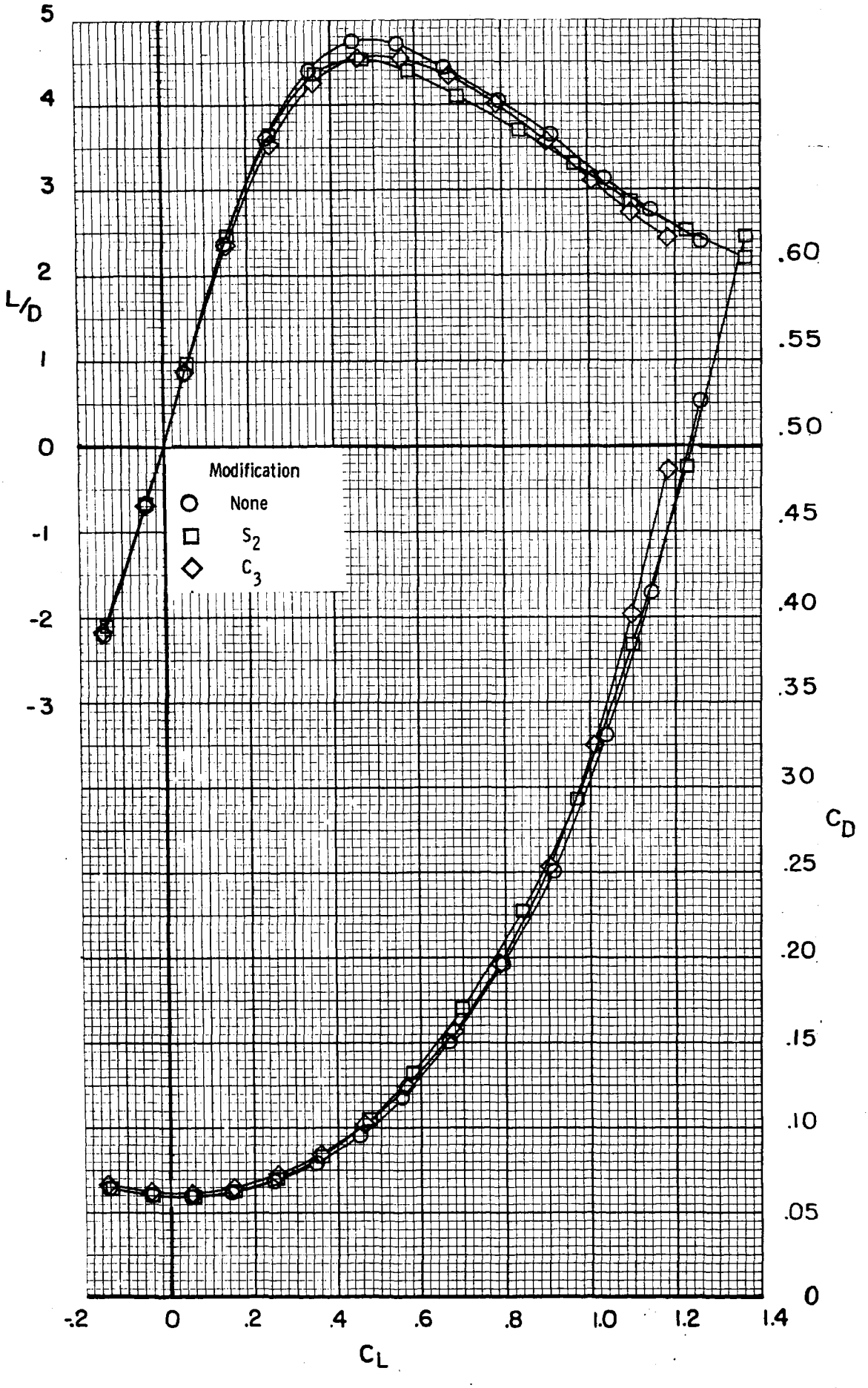
Figure 4. - Continued.



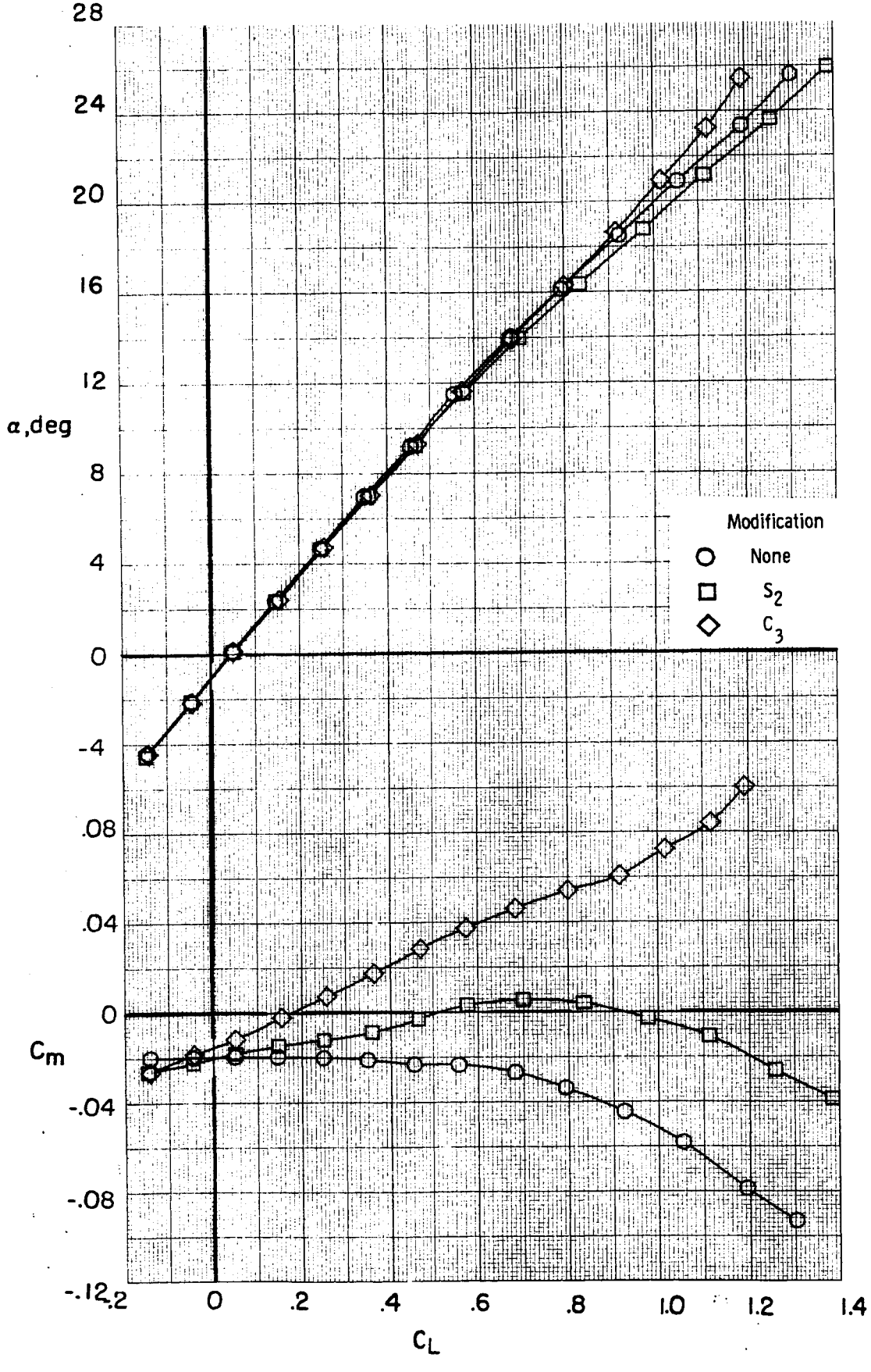

(c) Concluded.
Figure 4. - Continued.



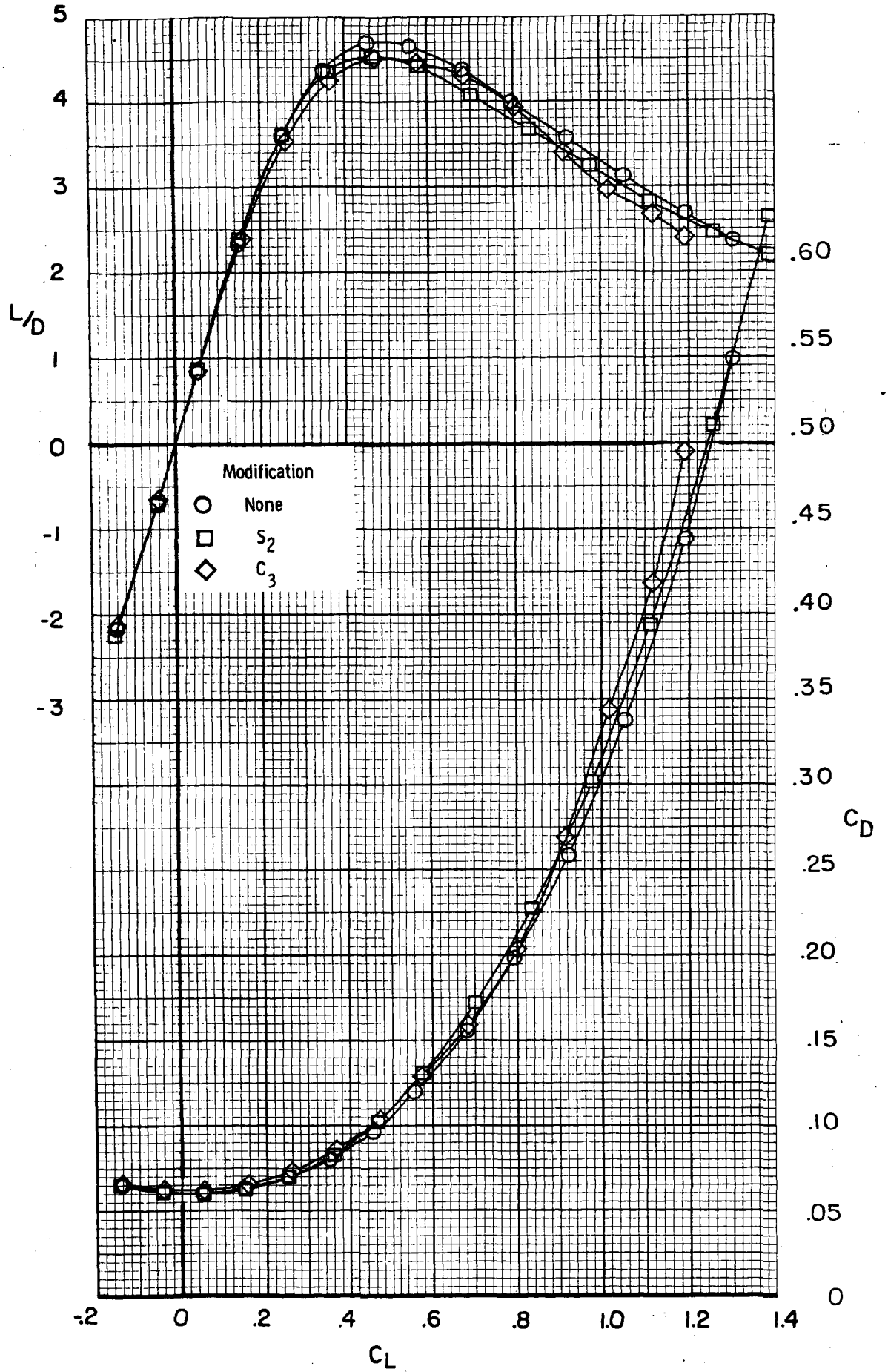

(d) $R_N \approx 10.3 \times 10^6$
Figure 4. - Continued



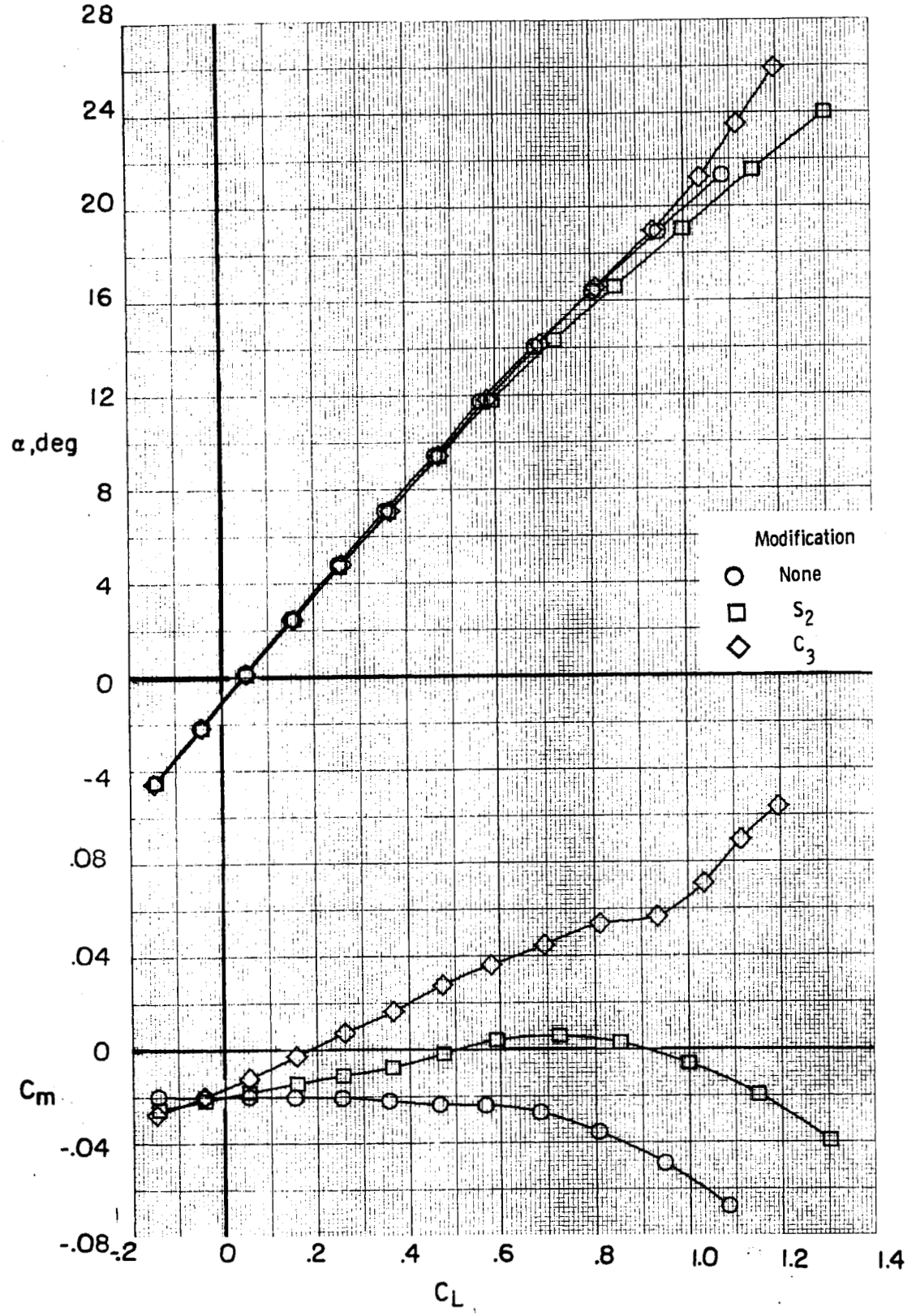

(d) Concluded.
Figure 4. - Continued.



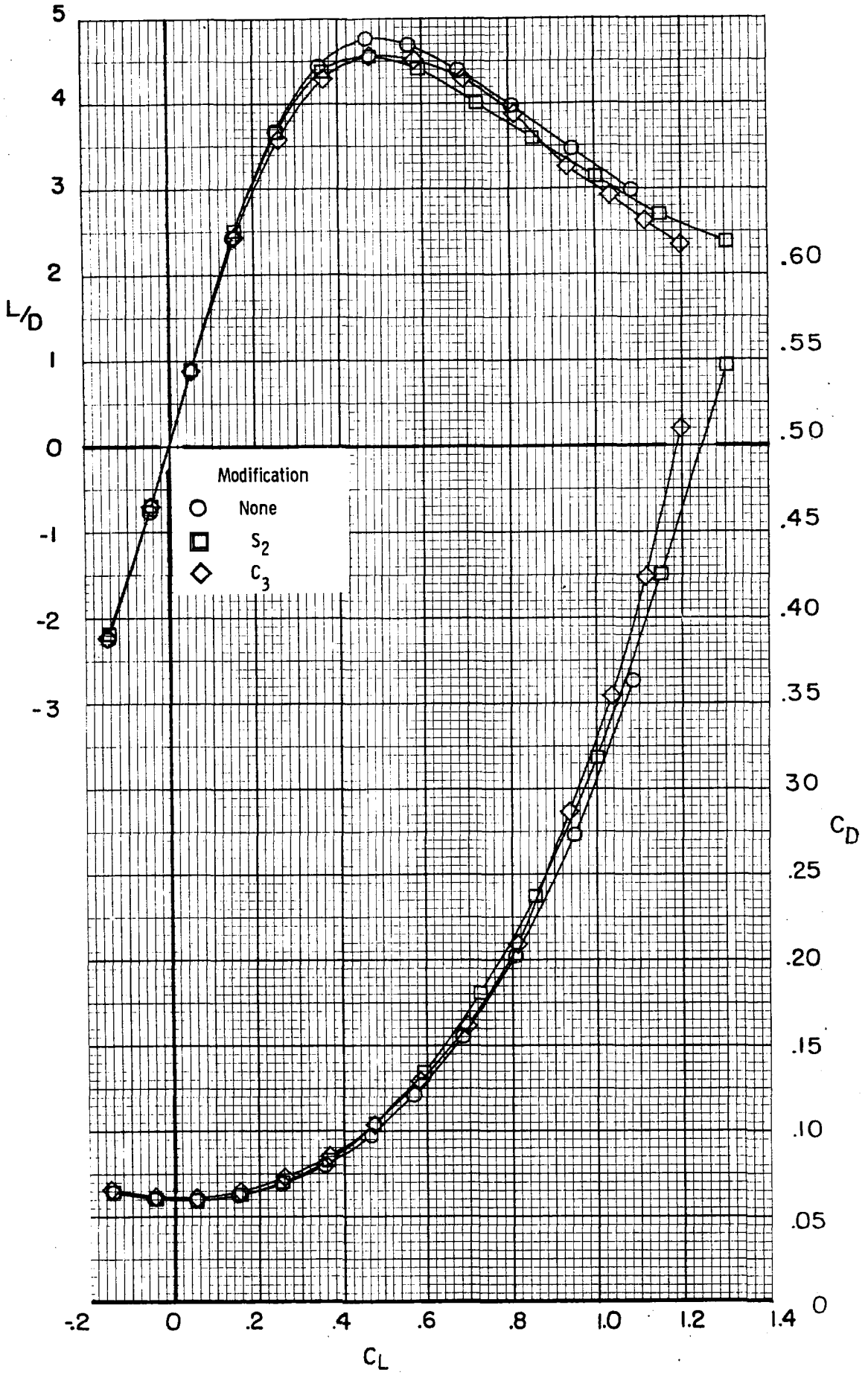

(e) $R_N \approx 12.6 \times 10^6$
Figure 4. - Continued.



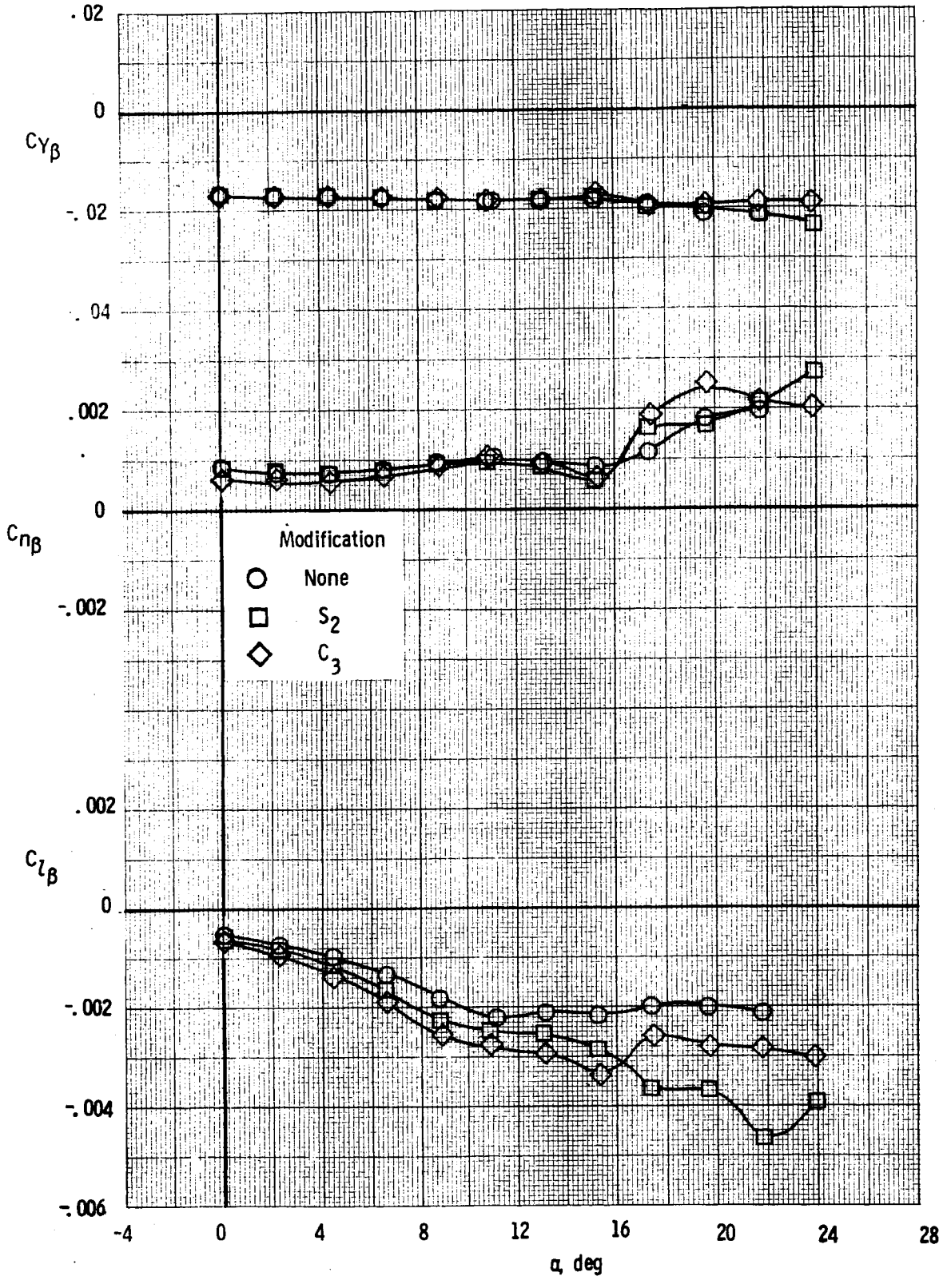

(e) Concluded.
Figure 4. - Continued.




(f) $R_N \approx 14.2 \times 10^6$
Figure 4. - Continued.

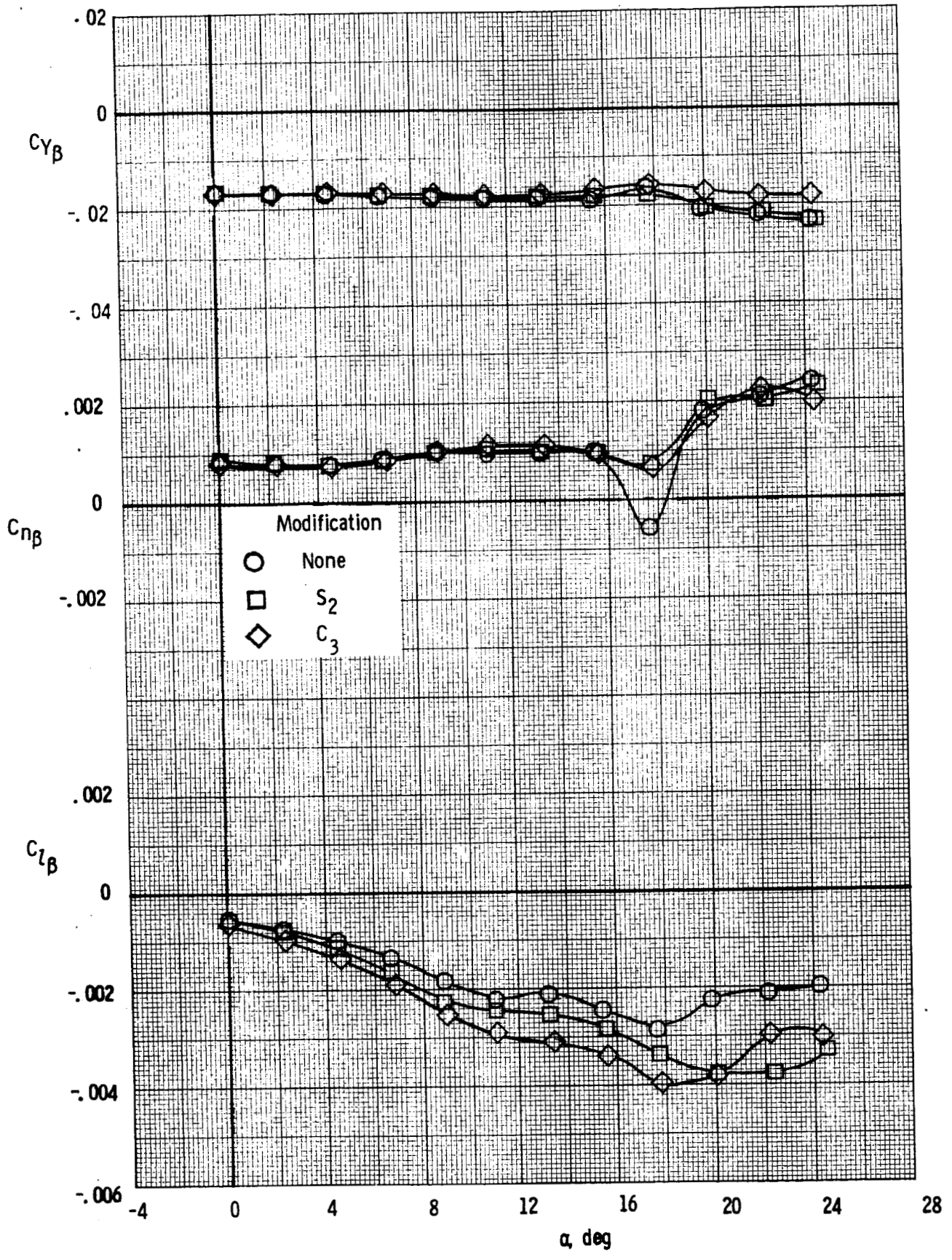



(f) Concluded.
Figure 4. - Concluded.

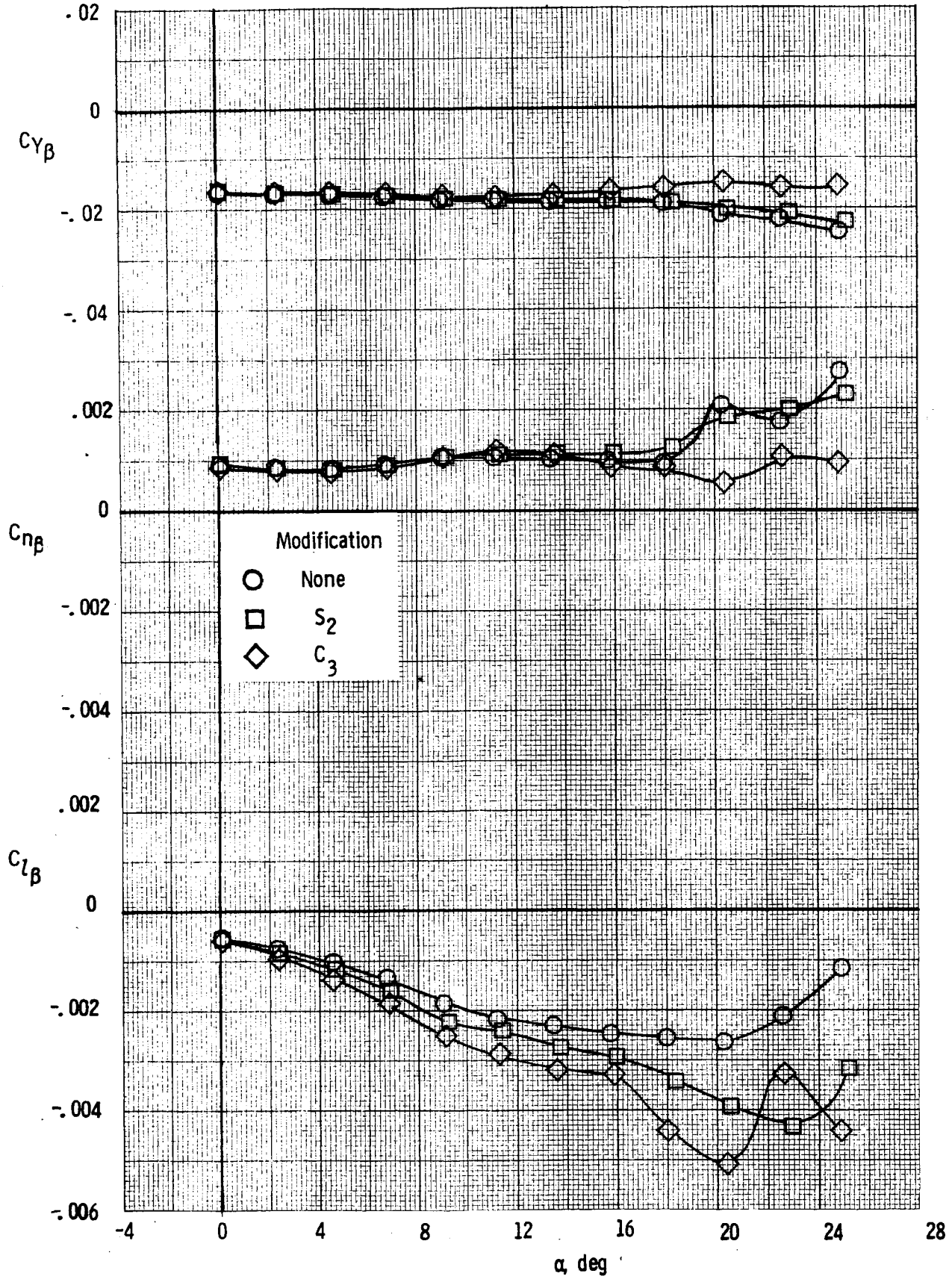



(a) $R_N \approx 4.3 \times 10^6$

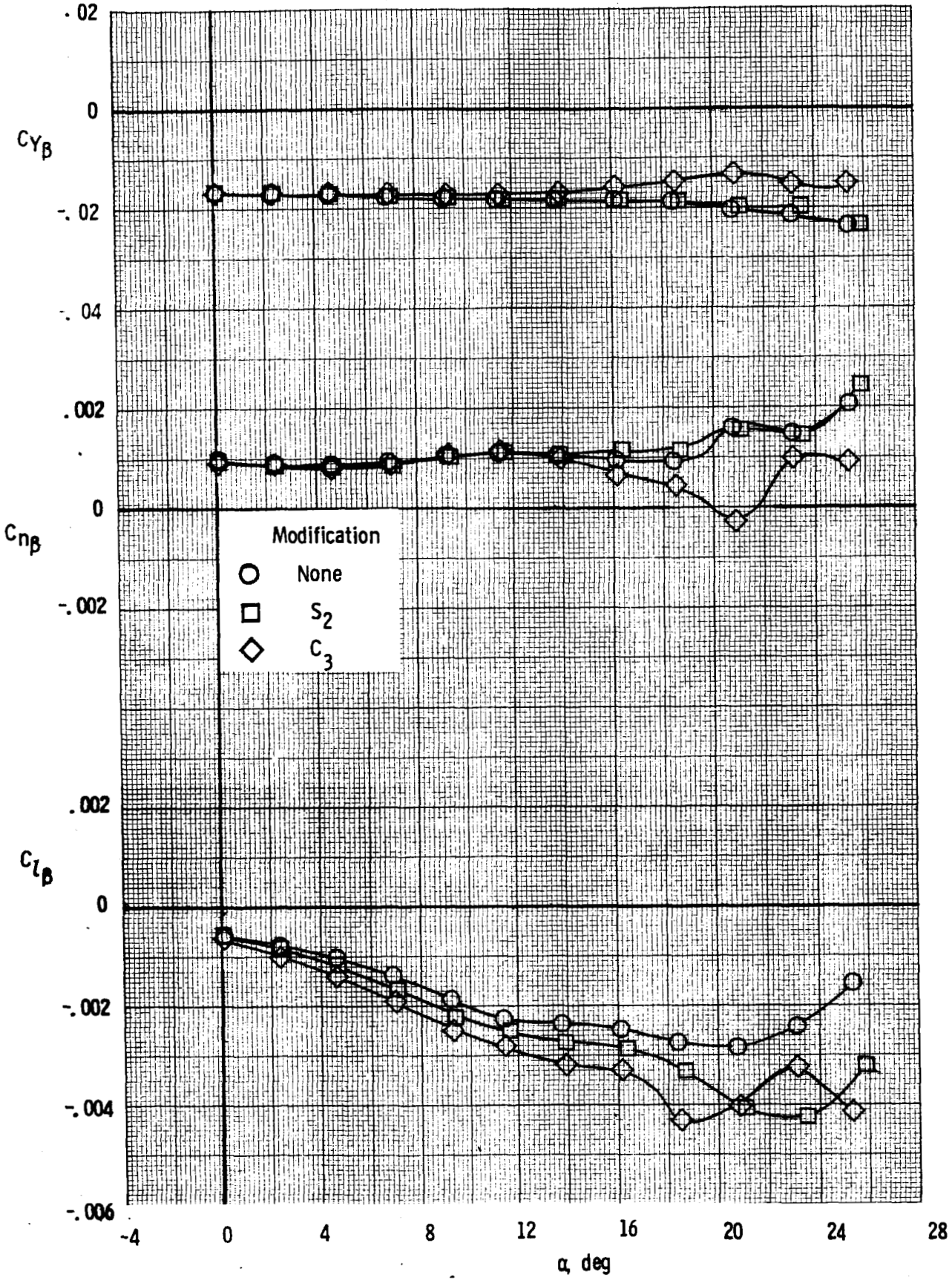
Figure 5. - Effects of the $S_2$ fillet and the $C_3$ conard modifications on the lateral-directional aerodynamic characteristics for configuration $B_1WVS_0EF$. $\delta_e$=5°; $\delta_{BF}$ = -11.7°; $\delta_{SB}$ = 0°.




(b) $R_N \approx 6.3 \times 10^6$
Figure 5. - Continued.

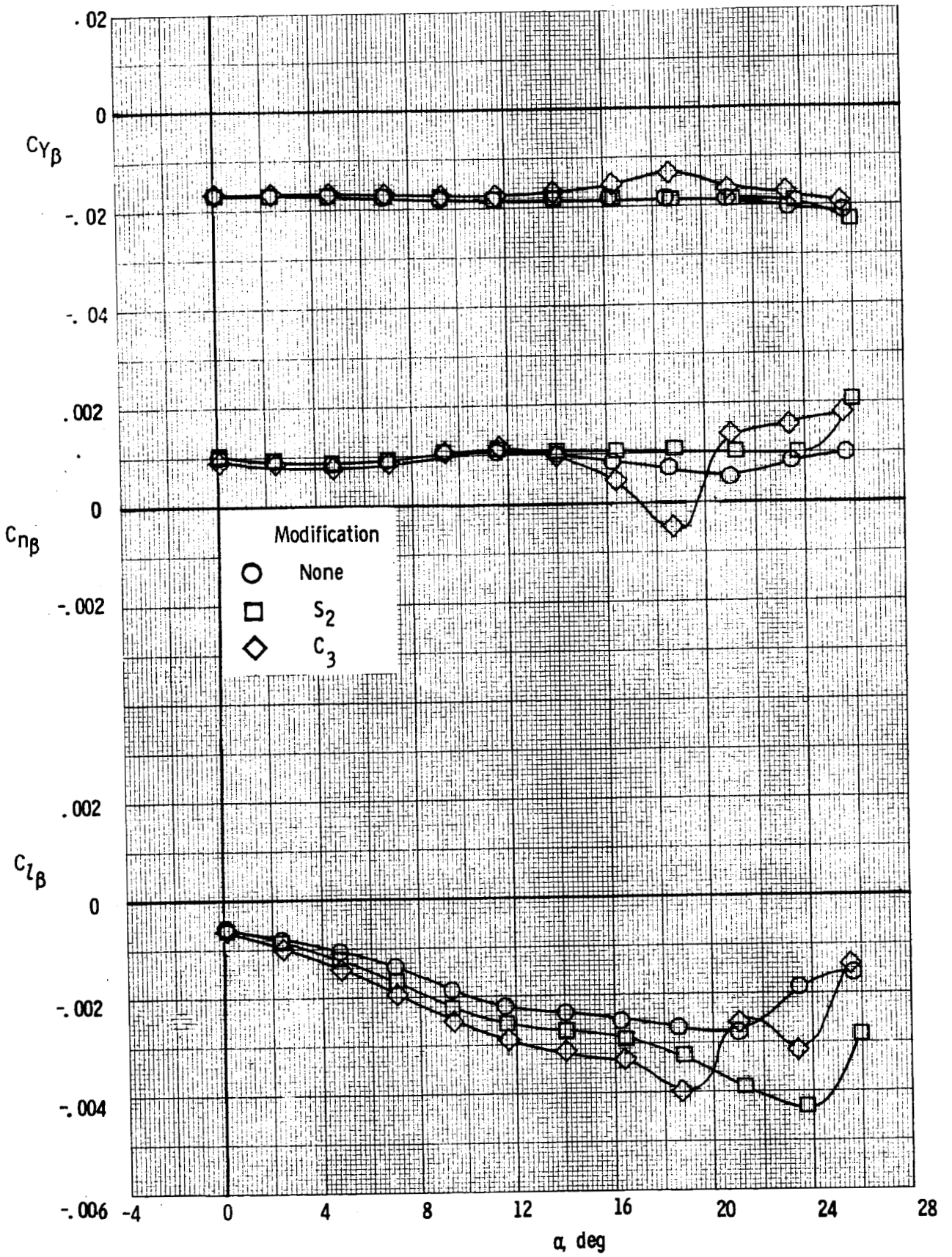



(c) $R_N \approx 8.4 \times 10^6$
Figure 5. - Continued.

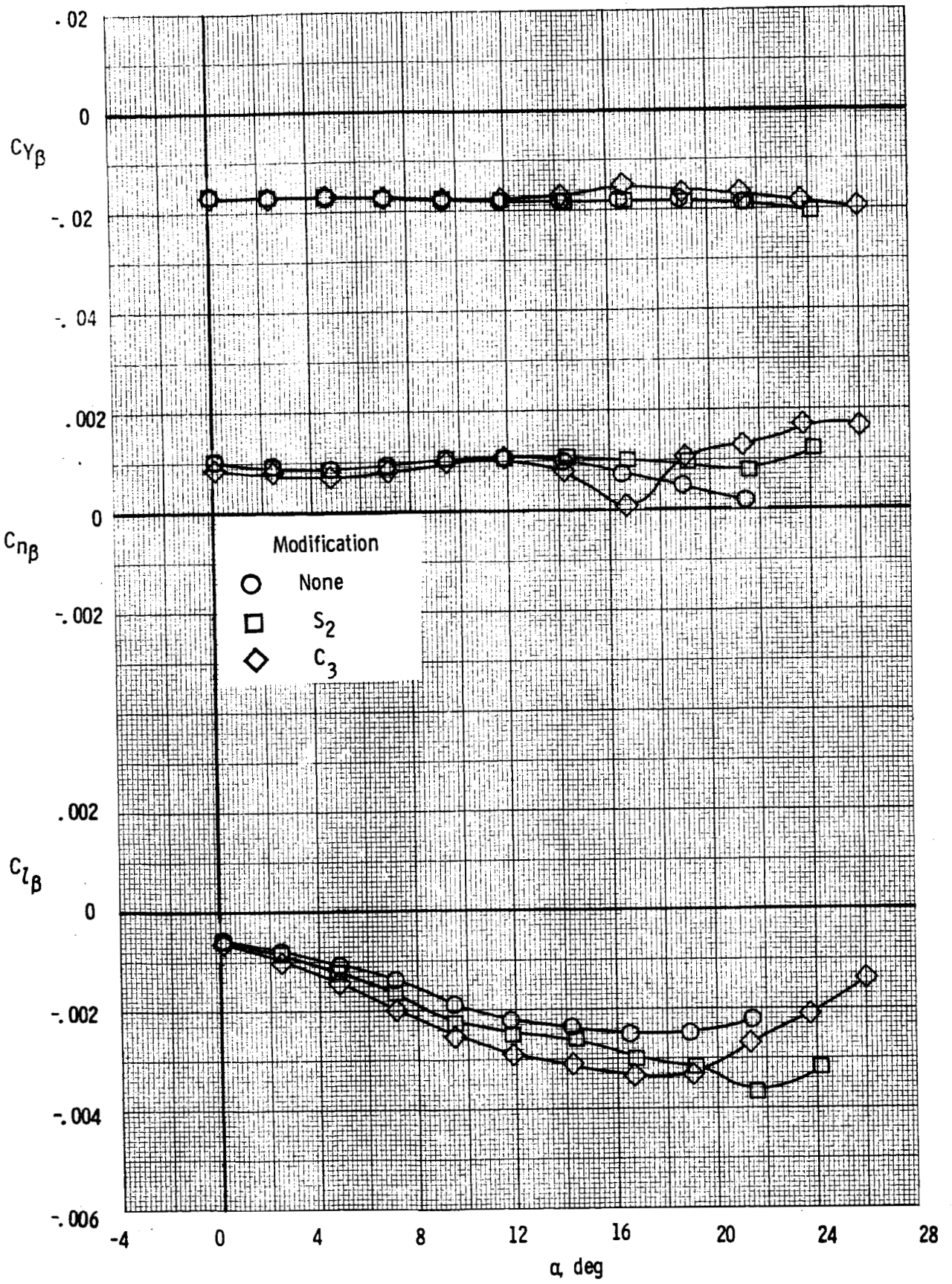



(d) $R_N \approx 10.3 \times 10^6$

Figure 5. - Continued.

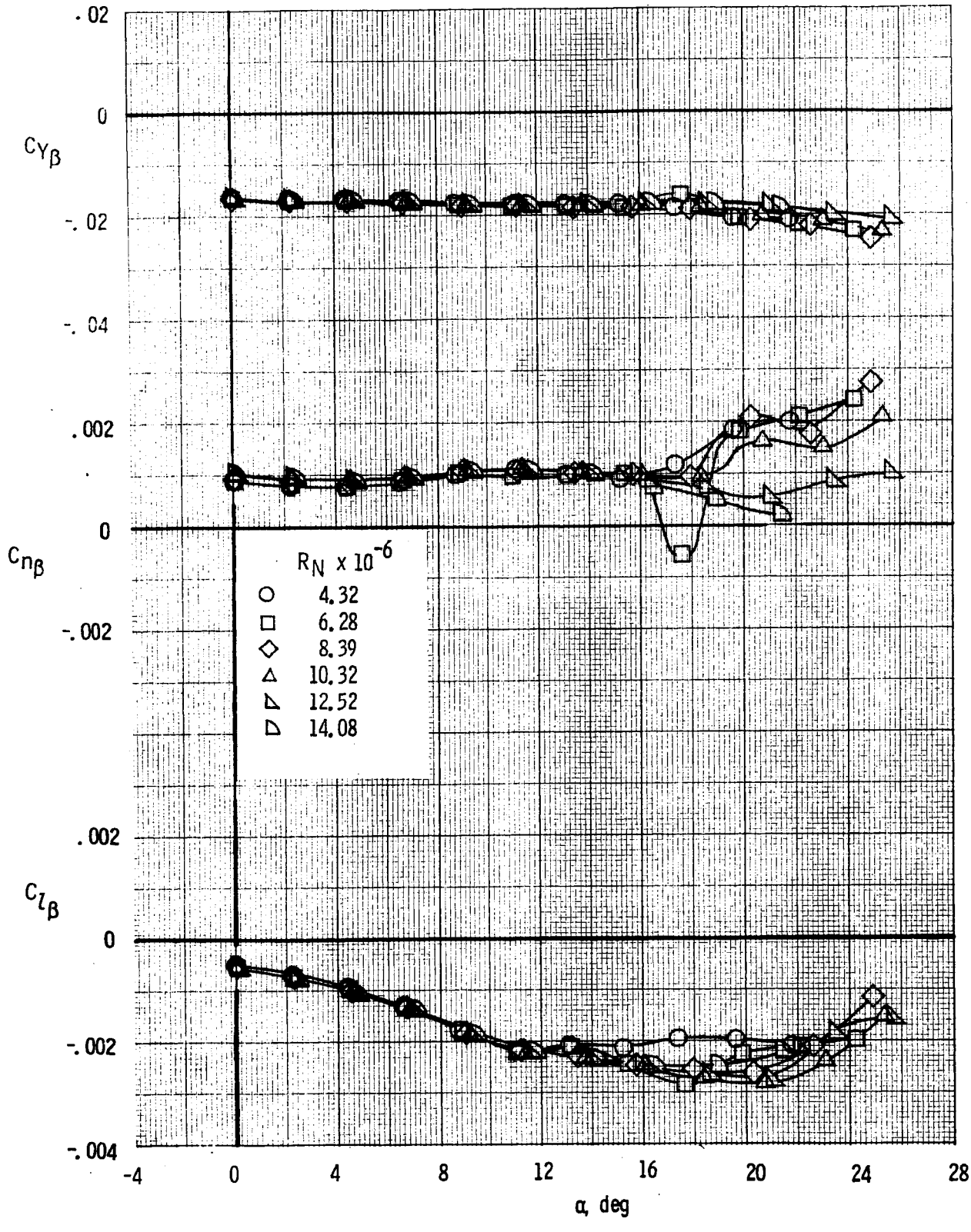



(e) $R_N \approx 12.6 \times 10^6$
Figure 5. - Continued.



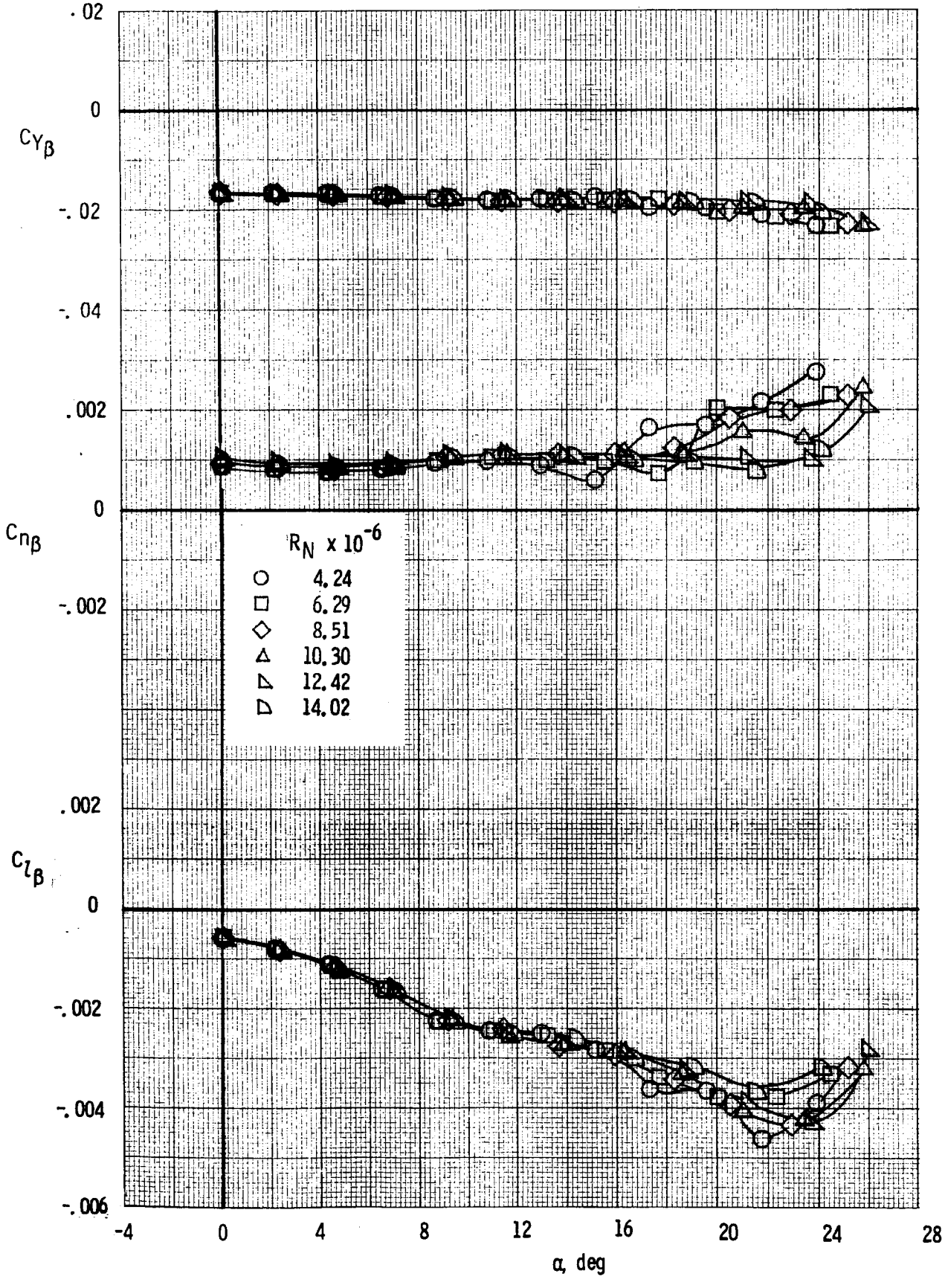

(f) $R_N \approx 14.1 \times 10^6$

Figure 5. - Concluded.

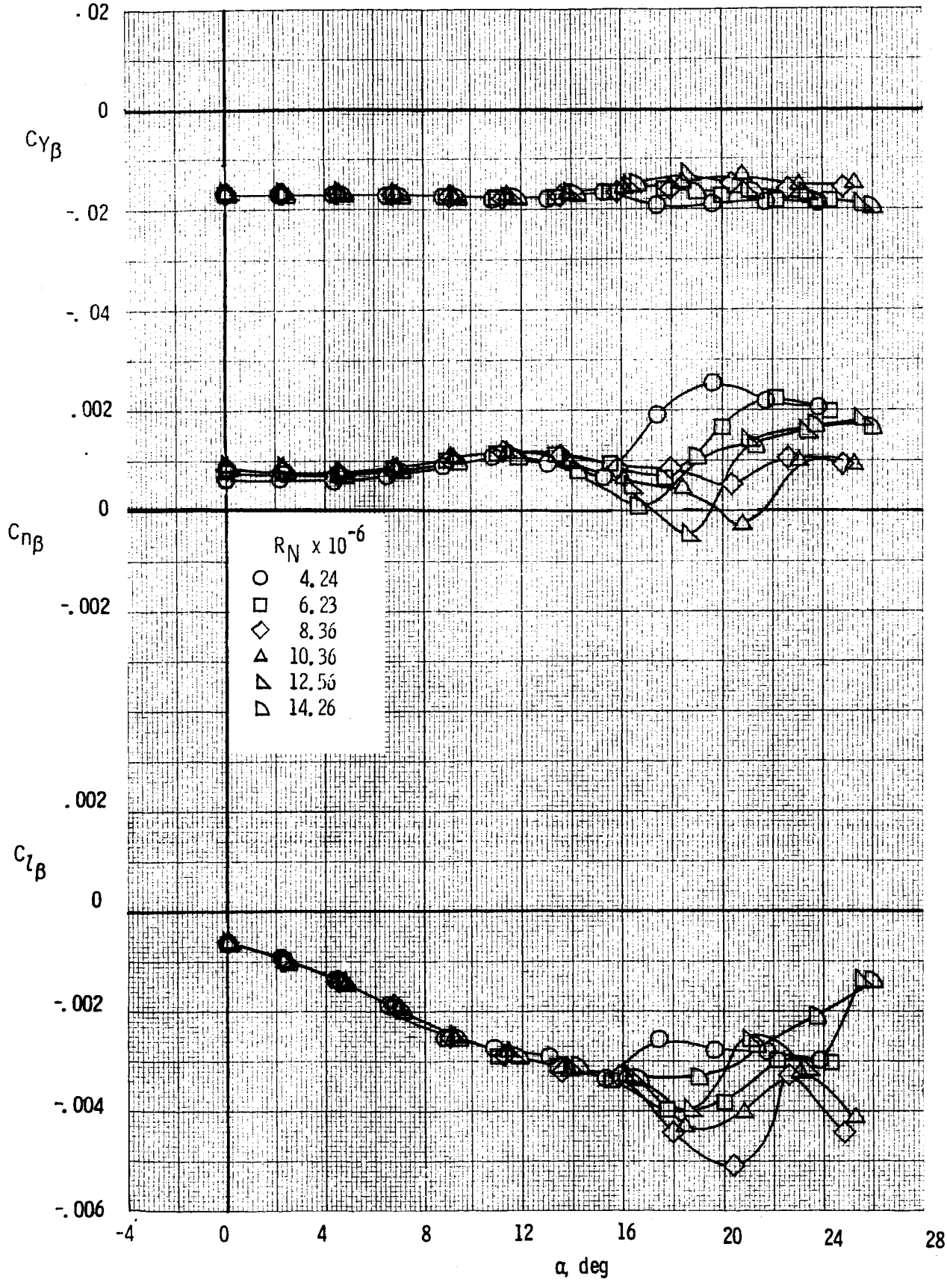



(a) Baseline configuration $B_1WVS_0EF$.

Figure 6. - Effect of Reynolds number on the lateral-directional aerodynamic characteristics of the study configurations. $\delta_e=5°$; $\delta_{BF}=-11.7°$; $\delta_{SB}=0°$.




(b) Configuration $B_1WVS_2$ EF.
Figure 6. - Continued.




(c) Configuration $B_1WVC_3S_0EF$.
Figure 6. - Concluded.

# APPENDIX

## Tabulated Data

The data presented herein are identified in table II (Data Set/Run Number Collation Summary) by configuration and run number. These data are also stored on tape in the Space Shuttle Data Management System (DATAMAN) and are identified by shuttle test number LA-36B and data set identifier letters PH. Access to the data may be obtained by writing to the following address:

Chrysler Corporation, Space Division
Dept. 2910, P.O. Box 29200
New Orleans, LA 70189

TABLE II.

TEST: LTPT 214 (LA-36B) | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE: 1-13-76

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | PARAMETERS/VALUES δe | δBF | δSB | MACH | NO. OF RUNS | RN/L NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 2.0 | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 13.5 | | | | TEST RUN NUMBERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RJS001 | $B_1$ $WVS_0EF$ | A | 5° | -10 | -11.7 | off | .35 | | 1 | | | | | | | | | | |
| 02 | | | 5° | | | | | | 3 | | | | | | | | | | |
| 03 | | | 0 | | | | | | 2 | | | | | | | | | | |
| 04 | | | 0 | 5° | | | .25 | | | 4 | 14 | 13 | 10 | | | | | | |
| 05 | | | 5° | | | | .25 | | | 5 | 15 | 12 | 11 | | | | | | |
| 06 | | | 0 | | | | .225 | | | | | | | 6 | | | | | |
| 07 | | | 5 | | | | .225 | | | | | | | 7 | | | | | |
| 08 | | | 0° | | | | .22 | | | | | | | | 8 | | | | |
| 09 | | | 5 | | | | .22 | | | | | | | | 9 | | | | |
| 10 | $B_1$ $WVS_2$ EF | | 0° | | | | .25 | | | 18 | 19 | 22 | 23 | | | | | | |
| 11 | | | 5° | | | | .25 | | | 17 | 20 | 21 | 24 | | | | | | |
| 12 | | | 0 | | | | .225 | | | | | | | 26 | | | | | |
| 13 | | | 5 | | | | .225 | | | | | | | 25 | | | | | |
| 14 | | | 0 | 5° | | | .22 | | | | | | | | 27 | | | | |
| 15 | | | 5 | | | | .22 | | | | | | | | 28 | | | | |
| 16 | $B_1$ $WVS_0C_3EF$ | | 5 | | | | .25 | | | 29 | 32 | 25 | 40 | | | | | | |
| 17 | | | 0 | | | | .25 | | | 30 | 31 | 34 | 41 | | | | | | |

BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | RN/L | ALPHA | 10

CPC | CPB1 | CPB2 | CPB3 | CPB4 | RN/L | ALPHA | 5

TYPE OF DATA α OR β SCHEDULES

COEFFICIENT SCHEDULES

A) α = -4 to 22

IDVAR (1) IDVAR (2) NDV

TABLE II. (Concluded)

TEST : LTPT 214 (LA-36B) | DATA SET/RUN NUMBER COLLATION SUMMARY | DATE : 1-13-76

| DATA SET IDENTIFIER | CONFIGURATION | SCHD. α | SCHD. β | PARAMETERS/VALUES δe | δBF | δSB | MACH | NO. OF RUNS | RN/L NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE) 2.0 | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 13.5 | | | | TEST RUN NUMBERS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RJS0018 | $B_1$ $WVS_0C_3EF$ | A | 0 | 5° | -11? | off | .225 | | | | | | | 38 | | | | | |
| 19 | ↓ | ↓ | 5 | ↓ | ↓ | ↓ | .225 | | | | | | | 39 | | | | | |
| 20 | ↓ | ↓ | 5 | ↓ | ↓ | ↓ | .22 | | | | | | | | 36 | | | | |
| 21 | ↓ | ↓ | 0 | ↓ | ↓ | ↓ | .22 | | | | | | | | 37 | | | | |

| BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D | RN/L | ALPHA | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CPC | CPB1 | CPB2 | CPB3 | CPB4 | | | | | | RN/L | ALPHA | 5 |

TYPE OF DATA α OR β SCHEDULES: A) α = -4 to 22

COEFFICIENT SCHEDULES

IDVAR (1) IDVAR (2) NDV

LARC LTPT 214 (LA36B) B1WVSOEF (RJS001)

PARAMETRIC DATA

BETA = 5.000 ELEVON = -10.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .350 RUDDER = .000

RUN NO. 1/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.277 | -4.657 | 5.04047 | -.40430 | .04779 | .12129 | .00294 | .00580 | -.08694 | -.39909 | .08046 | -4.95985 |
| 2.276 | -2.632 | 5.04317 | -.35405 | .05394 | .11835 | .00173 | .00850 | -.08438 | -.35120 | .07014 | -5.00706 |
| 2.274 | -.482 | 5.04608 | -.25744 | .05772 | .11864 | -.00039 | .00481 | -.08603 | -.25694 | .05989 | -4.29055 |
| 2.270 | 1.712 | 5.03968 | -.17345 | .05730 | .12116 | -.00066 | .00328 | -.08290 | -.17508 | .05209 | -3.36117 |
| 2.272 | 3.834 | 5.03196 | -.08348 | .05413 | .12394 | -.00229 | .00308 | -.08659 | -.08692 | .04843 | -1.79471 |
| 2.273 | 6.016 | 5.01733 | .01387 | .04698 | .12395 | -.00442 | .00332 | -.08495 | .00887 | .04817 | .18403 |
| 2.271 | 8.068 | 4.93837 | .10472 | .03694 | .12078 | -.00599 | .00402 | -.08249 | .09850 | .05127 | 1.92138 |
| 2.270 | 10.202 | 4.99730 | .20990 | .02468 | .11859 | -.00811 | .00467 | -.09102 | .20221 | .06147 | 3.28965 |
| 2.273 | 12.446 | 4.94655 | .33053 | .01320 | .11591 | -.00771 | .00380 | -.08672 | .31992 | .08412 | 3.80313 |
| 2.275 | 14.645 | 4.91103 | .45848 | .01068 | .10425 | -.00778 | .00525 | -.09021 | .44089 | .12625 | 3.49220 |
| 2.271 | 16.836 | 4.87263 | .58238 | .00884 | .09534 | -.00899 | .00511 | -.09285 | .55486 | .17713 | 3.13240 |
| 2.270 | 18.862 | 4.82387 | .68885 | .00116 | .09034 | -.00773 | .00469 | -.09492 | .65148 | .22380 | 2.91107 |
| 2.267 | 21.114 | 4.75843 | .83950 | -.00832 | .07818 | -.00801 | .00599 | -.10090 | .78614 | .29465 | 2.66808 |
| 2.271 | 23.243 | 4.68871 | .98178 | -.01361 | .06604 | -.00908 | .00930 | -.10438 | .90747 | .37494 | 2.42034 |

LARC LTPT 214 (LA36B) B1WVSOEF (RJS002)

PARAMETRIC DATA

BETA = 5.000 ELEVON = -10.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .350 RUDDER = .000

RUN NO. 3/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.235 | -.346 | 4.97093 | -.26393 | .05803 | .11989 | -.00026 | .00108 | -.07813 | -.26358 | .05963 | -4.42052 |
| 2.236 | 1.808 | 4.97615 | -.18302 | .05637 | .11969 | -.00087 | .00047 | -.08001 | -.18471 | .05057 | -3.65282 |
| 2.233 | 3.969 | 4.97004 | -.08971 | .05460 | .12275 | -.00228 | .00008 | -.08594 | -.09327 | .04826 | -1.93247 |
| 2.236 | 6.072 | 4.91617 | -.00373 | .04739 | .12167 | -.00404 | .00005 | -.08752 | -.00873 | .04673 | -.18673 |
| 2.230 | 8.220 | 4.87056 | .09189 | .03741 | .12180 | -.00596 | .00104 | -.09035 | .08560 | .05017 | 1.70624 |
| 2.234 | 10.345 | 4.83907 | .19591 | .02517 | .11924 | -.00785 | .00134 | -.09161 | .18821 | .05994 | 3.14006 |
| 2.230 | 12.519 | 4.81918 | .31032 | .01400 | .11457 | -.00800 | .00093 | -.09466 | .29991 | .08093 | 3.70582 |
| 2.232 | 14.816 | 4.79096 | .44306 | .01150 | .10297 | -.00831 | .00246 | -.09725 | .42539 | .12442 | 3.41896 |
| 2.232 | 16.820 | 4.68340 | .56073 | .01032 | .09638 | -.01010 | .00190 | -.10045 | .53376 | .17214 | 3.10077 |
| 2.232 | 19.057 | 4.69006 | .68462 | .00292 | .08801 | -.01035 | .00257 | -.10314 | .64615 | .22629 | 2.85539 |
| 2.231 | 21.270 | 4.68311 | .83124 | -.00736 | .07941 | -.00987 | .00327 | -.10879 | .77729 | .29469 | 2.63769 |
| 2.233 | 23.382 | 4.54659 | .96238 | -.01244 | .06886 | -.01029 | .00676 | -.11910 | .88829 | .37051 | 2.39746 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVSOEF (RJS003)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .350 | RUDDER = | .000 |

RUN NO. 2/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.244 | -4.707 | .01237 | -.45196 | .05092 | .12609 | .00094 | .00017 | -.00729 | -.44625 | .08784 | -5.08022 |
| 2.244 | -2.521 | .01063 | -.35235 | .05765 | .12390 | .00107 | .00027 | -.00880 | -.34947 | .07309 | -4.78148 |
| 2.242 | -.400 | .00659 | -.26396 | .06040 | .12372 | .00041 | .00034 | -.01194 | -.26353 | .06224 | -4.23430 |
| 2.245 | 1.738 | .00196 | -.17758 | .05999 | .12467 | .00052 | .00095 | -.01066 | -.17932 | .05458 | -3.28563 |
| 2.242 | 3.815 | -.00579 | -.08639 | .05716 | .12810 | .00021 | -.00201 | -.01029 | -.09000 | .05128 | -1.75493 |
| 2.241 | 6.000 | -.01843 | .01195 | .04881 | .12103 | -.00007 | .00118 | -.01051 | .00678 | .04979 | .13618 |
| 2.242 | 8.185 | -.03226 | .10925 | .03921 | .12684 | .00001 | .00161 | -.01081 | .10255 | .05437 | 1.88624 |
| 2.239 | 10.283 | -.03477 | .20865 | .02721 | .12562 | -.00020 | .00076 | -.01288 | .20044 | .06402 | 3.13080 |
| 2.238 | 12.469 | -.04856 | .32228 | .01685 | .12319 | -.00090 | .00091 | -.01476 | .31104 | .08603 | 3.61536 |
| 2.241 | 14.603 | -.03109 | .45227 | .01474 | .10838 | .00073 | .00085 | -.01365 | .43394 | .12829 | 3.38255 |
| 2.236 | 16.755 | -.02545 | .58262 | .01045 | .09717 | .00051 | .00182 | -.01906 | .55488 | .17796 | 3.11796 |
| 2.240 | 18.932 | .12815 | .70941 | .00580 | .08747 | .00003 | .00060 | -.01502 | .66915 | .23566 | 2.83951 |
| 2.240 | 21.114 | .06352 | .84193 | .00053 | .07839 | -.00757 | -.00008 | -.01482 | .78522 | .30378 | 2.58479 |
| 2.239 | 23.290 | .06300 | .97173 | -.00726 | .07490 | -.00261 | .00007 | -.02224 | .89542 | .37754 | 2.37171 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVSOEF

(RJS004)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 47 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.031 | -4.210 | .00988 | -.13530 | .05509 | -.02049 | .00161 | -.00004 | -.00455 | -.13089 | .06487 | -2.01768 |
| 4.038 | -2.097 | -.00142 | -.04717 | .06032 | -.02147 | .00166 | -.00001 | -.00502 | -.04493 | .06201 | -.72459 |
| 4.042 | -.025 | .00299 | .04473 | .06088 | -.01955 | .00166 | .00009 | -.00482 | .04476 | .06086 | .73538 |
| 4.021 | 2.198 | .00006 | .13950 | .05964 | -.02189 | .00182 | .00030 | -.00581 | .13715 | .06394 | 2.14480 |
| 4.038 | 4.369 | .00376 | .23719 | .05147 | -.02151 | .00182 | .00048 | -.00587 | .23258 | .06939 | 3.35196 |
| 4.032 | 6.507 | -.00186 | .33447 | .03979 | -.02391 | .00210 | .00069 | -.00570 | .32781 | .07743 | 4.23337 |
| 4.030 | 8.664 | .00465 | .43638 | .02894 | -.02227 | .00206 | .00070 | -.00641 | .42704 | .09435 | 4.52625 |
| 4.028 | 10.816 | -.00050 | .53572 | .01366 | -.02273 | .00203 | .00070 | -.00663 | .52363 | .11395 | 4.59532 |
| 4.037 | 12.964 | .00628 | .64584 | -.00072 | -.02593 | .00164 | .00078 | -.00689 | .62954 | .14419 | 4.35599 |
| 4.029 | 15.166 | .00454 | .76848 | -.01556 | -.03306 | .00138 | .00141 | -.00804 | .74578 | .18603 | 4.00902 |
| 4.019 | 17.358 | .02215 | .90447 | -.01920 | -.04545 | .00567 | .00744 | -.01871 | .86900 | .25152 | 3.45500 |
| 4.034 | 19.571 | .04364 | 1.03277 | -.01050 | -.05716 | .00542 | .00177 | -.00881 | .97662 | .33607 | 2.90602 |
| 4.032 | 21.729 | .03914 | 1.16843 | -.01640 | -.07037 | .00602 | .00139 | -.01044 | 1.09148 | .41733 | 2.61537 |
| 4.039 | 23.960 | .02103 | 1.30976 | -.02286 | -.07464 | .00471 | -.00075 | -.00323 | 1.20618 | .51100 | 2.36042 |

RUN NO. 147 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.868 | -4.343 | .00254 | -.14017 | .05500 | -.02228 | .00171 | .00019 | -.00441 | -.13560 | .06546 | -2.07167 |
| 5.869 | -2.138 | .00404 | -.04645 | .05964 | -.02236 | .00172 | .00027 | -.00444 | -.04420 | .06133 | -.72062 |
| 5.859 | .027 | .00338 | .04686 | .06044 | -.02151 | .00166 | .00043 | -.00495 | .04683 | .06047 | .77452 |
| 5.867 | 2.225 | .00313 | .14672 | .05732 | -.02080 | .00191 | .00058 | -.00564 | .14438 | .06297 | 2.29268 |
| 5.861 | 4.396 | .00112 | .24348 | .05050 | -.02170 | .00202 | .00073 | -.00559 | .23889 | .06902 | 3.46130 |
| 5.849 | 6.604 | .00341 | .34514 | .03990 | -.02334 | .00211 | .00084 | -.00577 | .33826 | .07933 | 4.26381 |
| 5.851 | 8.782 | .00259 | .44536 | .02588 | -.02453 | .00184 | .00090 | -.00607 | .43619 | .09358 | 4.66128 |
| 5.856 | 10.979 | .00197 | .54949 | .01042 | -.02438 | .00180 | .00099 | -.00630 | .53745 | .11488 | 4.67832 |
| 5.847 | 13.174 | .01026 | .66079 | -.00618 | -.02719 | .00110 | .00131 | -.00735 | .64481 | .14458 | 4.45995 |
| 5.832 | 15.338 | .00599 | .77587 | -.02407 | -.03600 | .00113 | .00143 | -.00786 | .75460 | .18202 | 4.14575 |
| 5.834 | 17.568 | -.00674 | .90633 | -.03013 | -.04639 | .00330 | .00859 | -.01933 | .87315 | .24484 | 3.56622 |
| 5.848 | 19.818 | -.00613 | 1.03148 | -.02840 | -.05729 | .00438 | .00553 | -.01449 | .98002 | .32298 | 3.03429 |
| 5.833 | 22.081 | .00368 | 1.16816 | -.02392 | -.07132 | .00362 | .00142 | -.00789 | 1.09147 | .41697 | 2.61764 |
| 5.842 | 24.208 | -.00111 | 1.29233 | -.03255 | -.07807 | .00534 | .00176 | -.00996 | 1.19203 | .50023 | 2.38295 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVSOEF (RJS004)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 13/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.799 | -4.426 | .00048 | -.14333 | .05351 | -.02123 | .00166 | .00017 | -.00466 | -.13879 | .06441 | -2.15452 |
| 7.792 | -2.171 | .00347 | -.04604 | .05865 | -.02102 | .00165 | .00031 | -.00496 | -.04458 | .06038 | -.73838 |
| 7.787 | .019 | .00438 | .04713 | .05930 | -.02079 | .00160 | .00048 | -.00503 | .04711 | .05931 | .79421 |
| 7.787 | 2.222 | .00684 | .14278 | .05638 | -.02088 | .00172 | .00057 | -.00567 | .14049 | .06187 | 2.27078 |
| 7.808 | 4.500 | .00879 | .24826 | .04895 | -.02082 | .00180 | .00076 | -.00617 | .24365 | .06828 | 3.56843 |
| 7.793 | 6.679 | .00680 | .34746 | .03796 | -.02260 | .00172 | .00089 | -.00656 | .34069 | .07812 | 4.36126 |
| 7.799 | 8.954 | .01364 | .45241 | .02397 | -.02397 | .00138 | .00099 | -.00672 | .44316 | .09409 | 4.70984 |
| 7.792 | 11.177 | .01596 | .55647 | .00696 | -.02340 | .00112 | .00127 | -.00764 | .54456 | .11470 | 4.74790 |
| 7.777 | 13.374 | .01568 | .66997 | -.00949 | -.02731 | .00126 | .00143 | -.00785 | .65399 | .14574 | 4.48744 |
| 7.785 | 15.688 | .01225 | .79566 | -.02872 | -.03616 | .00115 | .00149 | -.00823 | .77378 | .18750 | 4.12691 |
| 7.791 | 18.000 | .01328 | .92195 | -.04830 | -.04558 | .00112 | .00160 | -.00793 | .89175 | .23897 | 3.73163 |
| 7.779 | 20.211 | .00759 | 1.05464 | -.04677 | -.05592 | .00537 | .00555 | -.01542 | 1.00585 | .32047 | 3.13868 |
| 7.809 | 22.501 | .00759 | 1.18136 | -.04906 | -.06696 | .00096 | .00534 | -.01246 | 1.11019 | .40679 | 2.72918 |
| 7.780 | 25.044 | .01796 | 1.33594 | -.05017 | -.08260 | -.00128 | .00050 | -.00403 | 1.23157 | .52007 | 2.36809 |

RUN NO. 10/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.654 | -4.518 | -.00518 | -.14629 | .05312 | -.02036 | .00163 | .00007 | -.00464 | -.14165 | .06448 | -2.19702 |
| 9.634 | -2.165 | .00126 | -.04404 | .05875 | -.02050 | .00162 | .00022 | -.00520 | -.04179 | .06037 | -.69225 |
| 9.642 | .092 | .00735 | .05168 | .05930 | -.02029 | .00160 | .00028 | -.00561 | .05159 | .05938 | .86878 |
| 9.645 | 2.284 | .01188 | .14929 | .05621 | -.02016 | .00165 | .00048 | -.00598 | .14693 | .06212 | 2.36548 |
| 9.632 | 4.591 | .01832 | .25339 | .04864 | -.02112 | .00164 | .00073 | -.00634 | .24869 | .06877 | 3.61634 |
| 9.613 | 6.857 | .02965 | .35730 | .03707 | -.02200 | .00158 | .00087 | -.00684 | .35032 | .07946 | 4.40868 |
| 9.610 | 9.131 | .02942 | .46382 | .02228 | -.02339 | .00117 | .00108 | -.00758 | .45441 | .09560 | 4.75299 |
| 9.641 | 11.400 | .03633 | .56900 | .00555 | -.02294 | .00128 | .00117 | -.00751 | .55668 | .11790 | 4.72147 |
| 9.629 | 13.686 | .03943 | .68606 | -.01201 | -.02723 | .00116 | .00139 | -.00839 | .66942 | .15066 | 4.44335 |
| 9.612 | 16.026 | .04418 | .81907 | -.03097 | -.03552 | .00093 | .00152 | -.00877 | .79578 | .19635 | 4.05282 |
| 9.582 | 18.336 | .04129 | .94848 | -.05038 | -.04482 | .00113 | .00143 | -.00822 | .91617 | .25056 | 3.65656 |
| 9.612 | 20.677 | .05658 | 1.09005 | -.05754 | -.05738 | .00276 | .00240 | -.01010 | 1.04016 | .33106 | 3.14190 |
| 9.627 | 22.987 | .04935 | 1.21694 | -.06569 | -.06761 | .00219 | .00208 | -.00871 | 1.14596 | .41477 | 2.76286 |
| 9.608 | 25.305 | .06641 | 1.36455 | -.06284 | -.08628 | -.00176 | -.00162 | -.00043 | 1.26047 | .52646 | 2.39422 |

LARC LTPT 214 (LA368) B1WVSOEF (RJS005)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 5/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.020 | .021 | 4.96507 | .03833 | .05691 | -.02557 | -.00082 | .00459 | -.08525 | .03831 | .05693 | .67302 |
| 4.014 | 2.216 | 4.99804 | .12922 | .05470 | -.02820 | -.00169 | .00424 | -.08941 | .12700 | .05965 | 2.12906 |
| 4.019 | 4.409 | 5.00879 | .23166 | .04878 | -.02809 | -.00291 | .00430 | -.08867 | .22723 | .06644 | 3.41987 |
| 4.023 | 6.563 | 4.97096 | .32730 | .03844 | -.02961 | -.00445 | .00493 | -.09032 | .32076 | .07559 | 4.24334 |
| 4.009 | 8.722 | 4.92507 | .43295 | .02570 | -.03034 | -.00676 | .00565 | -.09250 | .42405 | .09105 | 4.65706 |
| 4.010 | 11.388 | 5.17205 | .55741 | .00747 | -.03361 | -.00927 | .00642 | -.09805 | .54496 | .11738 | 4.64259 |
| 4.004 | 13.218 | 4.94995 | .65393 | -.00587 | -.03572 | -.00865 | .00573 | -.09458 | .63795 | .14381 | 4.43609 |
| 4.024 | 15.256 | 4.84039 | .76702 | -.01982 | -.04373 | -.00898 | .00580 | -.09368 | .74520 | .18270 | 4.07873 |
| 4.016 | 17.340 | 4.82521 | .88869 | -.01178 | -.05741 | -.00375 | .01314 | -.10747 | .85181 | .25363 | 3.35849 |
| 4.024 | 19.603 | 4.77534 | 1.01375 | -.00816 | -.06584 | -.00395 | .01057 | -.10563 | .95773 | .33242 | 2.88114 |
| 4.006 | 21.806 | 4.78515 | 1.15477 | -.01651 | -.07420 | -.00393 | .01095 | -.10892 | 1.07827 | .41363 | 2.60687 |
| 4.004 | 22.933 | 4.48673 | 1.24023 | -.02137 | -.08027 | -.00223 | .00968 | -.10416 | 1.15053 | .46357 | 2.48190 |

RUN NO. 15/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.855 | .047 | 4.98750 | .03867 | .05692 | -.02562 | -.00105 | .00486 | -.08701 | .03863 | .05696 | .67815 |
| 5.859 | 2.266 | 4.99864 | .13471 | .05449 | -.02548 | -.00186 | .00465 | -.08909 | .13245 | .05977 | 2.21587 |
| 5.861 | 4.488 | 4.97170 | .23780 | .04860 | -.02603 | -.00294 | .00461 | -.08959 | .23327 | .06706 | 3.47844 |
| 5.852 | 6.649 | 4.94254 | .33660 | .03803 | -.02809 | -.00460 | .00525 | -.09169 | .32994 | .07675 | 4.29889 |
| 5.833 | 8.860 | 4.89542 | .44020 | .02366 | -.02905 | -.00713 | .00601 | -.09362 | .43130 | .09118 | 4.73030 |
| 5.834 | 11.034 | 4.86502 | .54320 | .00728 | -.03147 | -.00901 | .00574 | -.09415 | .53177 | .11111 | 4.78601 |
| 5.837 | 13.199 | 4.84143 | .65544 | -.00915 | -.03305 | -.00914 | .00609 | -.09512 | .64022 | .14075 | 4.54860 |
| 5.818 | 15.461 | 4.76072 | .77842 | -.02774 | -.04066 | -.01053 | .00624 | -.09602 | .75765 | .18078 | 4.19107 |
| 5.808 | 17.664 | 4.75878 | .90306 | -.04455 | -.04959 | -.01036 | .00592 | -.09505 | .87400 | .23157 | 3.77423 |
| 5.786 | 19.844 | 4.71332 | 1.02126 | -.02708 | -.06262 | -.00626 | .01415 | -.11147 | .96981 | .32121 | 3.01925 |
| 5.760 | 22.168 | 4.70659 | 1.16297 | -.02849 | -.07578 | -.00635 | .01138 | -.11017 | 1.08775 | .41243 | 2.63744 |
| 5.743 | 24.237 | 4.62043 | 1.28609 | -.03064 | -.08478 | -.00384 | .01295 | -.11603 | 1.18531 | .50001 | 2.37054 |

LARC LTPT 214 (LA368) BIWVSOEF (RJS005)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 12/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.839 | .059 | 5.01102 | .04069 | .05699 | -.02493 | -.00114 | .00516 | -.08802 | .04063 | .05703 | .71247 |
| 7.836 | 2.323 | 5.00840 | .13777 | .05454 | -.02439 | -.00209 | .00492 | -.08956 | .13545 | .06008 | 2.25451 |
| 7.813 | 4.557 | 4.97157 | .24182 | .04797 | -.02544 | -.00330 | .00495 | -.09064 | .23725 | .06703 | 3.53941 |
| 7.803 | 6.724 | 4.90698 | .34415 | .03713 | -.02633 | -.00488 | .00542 | -.09176 | .33743 | .07717 | 4.37252 |
| 7.807 | 9.001 | 4.91415 | .44848 | .02157 | -.02777 | -.00776 | .00627 | -.09505 | .43958 | .09146 | 4.80600 |
| 7.808 | 11.226 | 4.87742 | .55638 | .00497 | -.02963 | -.00947 | .00648 | -.09533 | .54477 | .11320 | 4.81258 |
| 7.849 | 13.499 | 4.83586 | .67299 | -.01265 | -.03378 | -.00985 | .00641 | -.09626 | .65735 | .14479 | 4.53992 |
| 7.823 | 15.763 | 4.78339 | .79613 | -.03117 | -.04015 | -.01066 | .00626 | -.09584 | .77466 | .18627 | 4.15878 |
| 7.801 | 17.939 | 4.76873 | .91967 | -.04968 | -.04665 | -.01105 | .00613 | -.09721 | .89026 | .23600 | 3.77226 |
| 7.819 | 20.357 | 4.71372 | 1.06044 | -.04011 | -.06445 | -.00703 | .01544 | -.11394 | 1.00816 | .33130 | 3.04307 |
| 7.808 | 22.656 | 4.66284 | 1.19849 | -.03956 | -.07820 | -.00886 | .01359 | -.11424 | 1.12124 | .42514 | 2.63732 |
| 7.823 | 24.760 | 4.63854 | 1.31547 | -.04611 | -.08805 | -.00666 | .01327 | -.11714 | 1.21385 | .50908 | 2.38441 |

RUN NO. 11/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.631 | .075 | 5.02251 | .04257 | .05747 | -.02478 | -.00122 | .00533 | -.08784 | .04249 | .05753 | .73867 |
| 9.613 | 2.372 | 5.04354 | .14249 | .05479 | -.02490 | -.00228 | .00515 | -.09012 | .14010 | .06064 | 2.31037 |
| 9.595 | 4.641 | 5.02064 | .24518 | .04817 | -.02604 | -.00347 | .00521 | -.09073 | .24047 | .06785 | 3.54424 |
| 9.586 | 6.861 | 4.93364 | .34917 | .03694 | -.02658 | -.00521 | .00553 | -.09205 | .34226 | .07839 | 4.36617 |
| 9.602 | 9.222 | 4.95534 | .46113 | .02067 | -.02841 | -.00804 | .00640 | -.09505 | .45185 | .09431 | 4.79141 |
| 9.590 | 11.411 | 4.91361 | .56624 | .00418 | -.03010 | -.00978 | .00667 | -.09545 | .55422 | .11613 | 4.77253 |
| 9.598 | 13.785 | 4.88921 | .68567 | -.01458 | -.03335 | -.01033 | .00649 | -.09646 | .67036 | .14946 | 4.48522 |
| 9.588 | 16.168 | 4.84872 | .81799 | -.03327 | -.04029 | -.01101 | .00618 | -.09602 | .79490 | .19582 | 4.05925 |
| 9.567 | 18.418 | 4.80898 | .94851 | -.05144 | -.04983 | -.01197 | .00587 | -.09647 | .91618 | .25087 | 3.65200 |
| 9.578 | 20.820 | 4.78159 | 1.08873 | -.05494 | -.06289 | -.01069 | .01003 | -.10552 | 1.03716 | .33562 | 3.09026 |
| 9.560 | 23.167 | 4.77799 | 1.23060 | -.05426 | -.07892 | -.00925 | .00916 | -.10882 | 1.15271 | .43426 | 2.65446 |
| 9.586 | 25.383 | 4.67077 | 1.36866 | -.06493 | -.09352 | -.00891 | .00798 | -.10743 | 1.26437 | .52803 | 2.39450 |

LARC LTPT 214 (LA36B) BIWVSOEF (RJS006)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 6/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.776 | -4.452 | .00549 | -.14534 | .05388 | -.02077 | .00151 | -.00006 | -.00494 | -.14072 | .06500 | -2.16501 |
| 11.755 | -2.158 | .00452 | -.04491 | .05943 | -.02059 | .00152 | .00019 | -.00539 | -.04264 | .06108 | -.69813 |
| 11.732 | .085 | .00767 | .05083 | .06002 | -.02022 | .00159 | .00030 | -.00544 | .05074 | .06010 | .84425 |
| 11.736 | 2.316 | .01479 | .14992 | .05722 | -.02025 | .00167 | .00056 | -.00628 | .14748 | .06323 | 2.33230 |
| 11.738 | 4.678 | .01274 | .25630 | .04917 | -.02083 | .00167 | .00079 | -.00669 | .25143 | .06991 | 3.59671 |
| 11.735 | 6.948 | .01304 | .35843 | .03725 | -.02181 | .00149 | .00088 | -.00682 | .35129 | .08033 | 4.37281 |
| 11.703 | 9.191 | .02135 | .46385 | .02279 | -.02383 | .00131 | .00094 | -.00727 | .45426 | .09659 | 4.70311 |
| 11.701 | 11.500 | .03933 | .57205 | .00607 | -.02413 | .00134 | .00111 | -.00773 | .55935 | .12000 | 4.66145 |
| 11.707 | 14.021 | .02159 | .70052 | -.01430 | -.02746 | .00137 | .00133 | -.00842 | .68311 | .15585 | 4.38325 |
| 11.700 | 16.155 | .03596 | .81919 | -.03064 | -.03451 | .00110 | .00175 | -.00972 | .79537 | .19851 | 4.00678 |
| 11.678 | 18.519 | .03276 | .95972 | -.04869 | -.04517 | .00105 | .00217 | -.01047 | .92549 | .25866 | 3.57807 |
| 11.669 | 20.937 | .04120 | 1.10755 | -.06191 | -.05894 | .00103 | .00252 | -.01037 | 1.05654 | .33795 | 3.12629 |
| 11.665 | 23.396 | .00517 | 1.27316 | -.06680 | -.07951 | -.00013 | .00254 | -.01002 | 1.19501 | .44425 | 2.68994 |
| 11.679 | 25.651 | .03682 | 1.41380 | -.06952 | -.09392 | -.00057 | .00207 | -.01047 | 1.30456 | .54935 | 2.37474 |

LARC LTPT 214 (LA36B) BIWVSOEF (RJS007)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 7/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.569 | .060 | 5.08533 | .04646 | .05741 | -.02435 | -.00145 | .00552 | -.09038 | .04640 | .05745 | .80753 |
| 11.613 | 2.355 | 4.98225 | .14334 | .05436 | -.02433 | -.00238 | .00519 | -.08974 | .14099 | .06021 | 2.34156 |
| 11.623 | 4.715 | 5.07753 | .25416 | .04658 | -.02470 | -.00372 | .00518 | -.09239 | .24947 | .06732 | 3.70576 |
| 11.613 | 6.963 | 5.02373 | .35663 | .03546 | -.02669 | -.00544 | .00556 | -.09375 | .34970 | .07843 | 4.45867 |
| 11.598 | 9.353 | 5.01688 | .46994 | .01892 | -.02854 | -.00810 | .00635 | -.09642 | .46061 | .09505 | 4.84616 |
| 11.567 | 11.602 | 4.97973 | .57813 | .00104 | -.03032 | -.00960 | .00641 | -.09667 | .56611 | .11728 | 4.82695 |
| 11.605 | 13.966 | 4.97207 | .69668 | -.01721 | -.03374 | -.01030 | .00638 | -.09761 | .68024 | .15144 | 4.49187 |
| 11.613 | 16.317 | 4.90422 | .82747 | -.03531 | -.04019 | -.01122 | .00591 | -.09679 | .80406 | .19860 | 4.04868 |
| 11.572 | 18.582 | 4.90992 | .96234 | -.05172 | -.05072 | -.01202 | .00569 | -.09839 | .92866 | .25764 | 3.60453 |
| 11.581 | 21.068 | 4.93793 | 1.11816 | -.06522 | -.06582 | -.01265 | .00508 | -.09982 | 1.06686 | .34108 | 3.12784 |
| 11.589 | 23.509 | 4.85785 | 1.28193 | -.06961 | -.08730 | -.00923 | .00663 | -.10728 | 1.20330 | .44752 | 2.68885 |
| 11.561 | 25.667 | 4.79394 | 1.41955 | -.07397 | -.10140 | -.00813 | .00684 | -.10935 | 1.31152 | .54818 | 2.39250 |

LARC LTPT 214 (LA36B) B1WVSOEF (RJS008)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 8/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.170 | -4.541 | .00695 | -.14862 | .05266 | -.02059 | .00154 | .00015 | -.00513 | -.14399 | .06426 | -2.24056 |
| 13.179 | -2.204 | .00779 | -.04840 | .05875 | -.02112 | .00153 | .00019 | -.00534 | -.04610 | .06057 | -.76122 |
| 13.166 | .149 | .00887 | .05308 | .05946 | -.02081 | .00157 | .00038 | -.00578 | .05293 | .05960 | .88810 |
| 13.158 | 2.451 | .00892 | .15426 | .05589 | -.02106 | .00151 | .00062 | -.00590 | .15173 | .06244 | 2.43008 |
| 13.147 | 4.786 | .00856 | .25981 | .04778 | -.02126 | .00160 | .00088 | -.00663 | .25492 | .06929 | 3.67926 |
| 13.140 | 7.065 | .01329 | .36375 | .03572 | -.02266 | .00143 | .00093 | -.00692 | .35660 | .08019 | 4.44720 |
| 13.143 | 9.437 | .00747 | .47515 | .01991 | -.02437 | .00141 | .00103 | -.00677 | .46545 | .09754 | 4.77172 |
| 13.133 | 11.739 | .01519 | .58375 | .00277 | -.02469 | .00147 | .00114 | -.00759 | .57098 | .12147 | 4.70040 |
| 13.125 | 14.049 | .01636 | .70237 | -.01542 | -.02777 | .00157 | .00124 | -.00807 | .68510 | .15555 | 4.40433 |
| 13.123 | 16.394 | .00613 | .83264 | -.03365 | -.03634 | .00117 | .00179 | -.00918 | .80828 | .20272 | 3.98714 |
| 13.101 | 18.940 | .02243 | .98593 | -.04954 | -.04964 | .00095 | .00251 | -.01033 | .94863 | .27315 | 3.47290 |
| 13.080 | 21.334 | .00882 | 1.14417 | -.05656 | -.06820 | .00084 | .00376 | -.01201 | 1.08634 | .36356 | 2.98804 |

LARC LTPT 214 (LA36B) B1WVSOEF (RJS009)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 9/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.109 | .090 | 5.05824 | .04473 | .05704 | -.02515 | -.00133 | .00557 | -.08882 | .04464 | .05711 | .78172 |
| 13.088 | 2.432 | 5.08931 | .14484 | .05386 | -.02529 | -.00256 | .00541 | -.09093 | .14243 | .05996 | 2.37525 |
| 13.071 | 4.833 | 5.13112 | .25385 | .04622 | -.02595 | -.00400 | .00534 | -.09321 | .24906 | .06744 | 3.69280 |
| 13.083 | 7.110 | 5.03554 | .36057 | .03447 | -.02792 | -.00557 | .00564 | -.09369 | .35353 | .07884 | 4.48426 |
| 13.054 | 9.493 | 5.03342 | .47334 | .01786 | -.02940 | -.00809 | .00640 | -.09643 | .46392 | .09569 | 4.84830 |
| 13.058 | 11.809 | 4.99353 | .58671 | -.00041 | -.03131 | -.00957 | .00649 | -.09699 | .57438 | .11967 | 4.79985 |
| 13.059 | 14.331 | 5.02324 | .71543 | -.01979 | -.03513 | -.01024 | .00625 | -.09868 | .69807 | .15791 | 4.42077 |
| 13.052 | 16.565 | 4.93854 | .83913 | -.03659 | -.04105 | -.01120 | .00543 | -.09648 | .81474 | .20417 | 3.99053 |
| 13.001 | 18.845 | 4.91156 | .97915 | -.05106 | -.05448 | -.01124 | .00497 | -.09720 | .94316 | .26794 | 3.52000 |
| 13.011 | 21.486 | 4.87745 | 1.15273 | -.05965 | -.07483 | -.00999 | .00470 | -.10197 | 1.09448 | .36671 | 2.98460 |

LARC LTPT 214 (LA36B) B1WVS2EF (RJS010)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 18/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.939 | -4.311 | .01014 | -.13373 | .05494 | -.02624 | .00170 | -.00039 | -.00539 | -.12922 | .06483 | -1.99308 |
| 3.933 | -2.153 | .00756 | -.04463 | .06094 | -.02364 | .00167 | .00016 | -.00564 | -.04231 | .06258 | -.67616 |
| 3.921 | .012 | .00336 | .04930 | .06008 | -.01898 | .00190 | .00014 | -.00574 | .04929 | .06009 | .82030 |
| 3.936 | 2.130 | .00069 | .14489 | .05769 | -.01540 | .00174 | .00013 | -.00651 | .14265 | .06303 | 2.26308 |
| 3.935 | 4.309 | .00463 | .24156 | .05180 | -.01455 | .00159 | .00031 | -.00603 | .23698 | .06980 | 3.39533 |
| 3.927 | 6.477 | -.00645 | .34381 | .04268 | -.01012 | .00174 | .00028 | -.00644 | .33680 | .08118 | 4.14864 |
| 3.948 | 8.672 | -.01196 | .44742 | .03204 | -.00290 | .00188 | .00025 | -.00627 | .43748 | .09913 | 4.41302 |
| 3.928 | 10.770 | -.01181 | .55105 | .02124 | .00419 | .00167 | .00036 | -.00580 | .53737 | .12384 | 4.33928 |
| 3.931 | 12.951 | -.01050 | .66936 | .00884 | .00498 | .00104 | .00024 | -.00634 | .65035 | .15863 | 4.09976 |
| 3.910 | 15.074 | -.01716 | .79527 | -.00029 | .00533 | .00062 | .00019 | -.00601 | .76798 | .20655 | 3.71816 |
| 3.927 | 17.359 | -.02460 | .93287 | .00193 | .00272 | .00227 | .00082 | -.00751 | .88981 | .28017 | 3.17598 |
| 3.928 | 19.520 | -.06840 | 1.05892 | .00240 | .00204 | .00290 | .00010 | -.00596 | .99726 | .35608 | 2.80065 |
| 3.946 | 21.713 | -.08091 | 1.19051 | .00099 | .00059 | .00197 | -.00290 | .00088 | 1.10568 | .44136 | 2.50520 |
| 3.948 | 23.925 | -.03842 | 1.32547 | -.00192 | .00438 | .00024 | -.00406 | .00391 | 1.21237 | .53577 | 2.26284 |

RUN NO. 19/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.887 | -4.360 | .00065 | -.13629 | .05498 | -.02576 | .00170 | .00033 | -.00494 | -.13172 | .06518 | -2.02089 |
| 5.867 | -2.227 | .00396 | -.04537 | .05953 | -.02276 | .00169 | .00040 | -.00511 | -.04303 | .06124 | -.70255 |
| 5.865 | .049 | .00438 | .05203 | .06034 | -.01887 | .00166 | .00043 | -.00607 | .05197 | .06039 | .86069 |
| 5.862 | 2.209 | .00579 | .14648 | .05778 | -.01535 | .00190 | .00046 | -.00601 | .14415 | .06338 | 2.27436 |
| 5.853 | 4.413 | .00567 | .24904 | .05074 | -.01256 | .00181 | .00058 | -.00663 | .24440 | .06976 | 3.50368 |
| 5.860 | 6.614 | .00735 | .35415 | .04209 | -.00856 | .00177 | .00070 | -.00646 | .34695 | .08260 | 4.20050 |
| 5.865 | 8.715 | .00465 | .45228 | .03142 | -.00126 | .00181 | .00061 | -.00667 | .44230 | .09958 | 4.44156 |
| 5.858 | 10.977 | .01428 | .56922 | .01811 | .00404 | .00165 | .00051 | -.00630 | .55536 | .12617 | 4.40157 |
| 5.854 | 13.144 | .01091 | .67906 | .00450 | .00586 | .00099 | .00074 | -.00697 | .66025 | .15879 | 4.15796 |
| 5.871 | 15.497 | .00628 | .81827 | -.01060 | .00538 | .00060 | .00061 | -.00698 | .79135 | .20842 | 3.79695 |
| 5.865 | 17.783 | .02189 | .96774 | -.01606 | -.00060 | .00183 | .00082 | -.00761 | .92641 | .28026 | 3.30558 |
| 5.857 | 19.988 | .01919 | 1.10950 | -.00771 | -.00903 | .00095 | -.00046 | -.00643 | 1.04531 | .37200 | 2.80995 |
| 5.871 | 22.284 | .02199 | 1.26589 | -.00698 | -.01842 | .00201 | .00202 | -.01165 | 1.17339 | .47357 | 2.47905 |
| 5.852 | 24.522 | .00594 | 1.40722 | -.01185 | -.01748 | .00510 | .00118 | -.01195 | 1.28521 | .57328 | 2.24187 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS2EF

(RJS010)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPOBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 22/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.888 | -4.455 | .01060 | -.14079 | .05333 | -.02586 | .00162 | .00032 | -.00460 | -.13623 | .06410 | -2.12519 |
| 7.901 | -2.151 | .00904 | -.04155 | .05865 | -.02270 | .00165 | .00041 | -.00519 | -.03932 | .06016 | -.65353 |
| 7.872 | .080 | .00520 | .05573 | .05958 | -.01847 | .00162 | .00044 | -.00547 | .05564 | .05965 | .93273 |
| 7.884 | 2.359 | -.00059 | .15637 | .05640 | -.01480 | .00176 | .00051 | -.00587 | .15392 | .06279 | 2.45130 |
| 7.890 | 4.541 | -.00002 | .25809 | .04961 | -.01187 | .00173 | .00071 | -.00630 | .25335 | .06989 | 3.62508 |
| 7.881 | 6.799 | .00049 | .36352 | .03995 | -.00908 | .00148 | .00068 | -.00641 | .35623 | .08271 | 4.30727 |
| 7.888 | 9.080 | -.00333 | .47175 | .02790 | -.00218 | .00134 | .00065 | -.00629 | .46144 | .10200 | 4.52408 |
| 7.894 | 11.341 | .00304 | .58484 | .01464 | .00353 | .00108 | .00067 | -.00680 | .57054 | .12936 | 4.41066 |
| 7.869 | 13.549 | .01222 | .70645 | .00090 | .00659 | .00110 | .00055 | -.00666 | .68657 | .16638 | 4.12658 |
| 7.865 | 15.899 | -.00005 | .84204 | -.01603 | .00528 | .00082 | .00069 | -.00633 | .81422 | .21525 | 3.78266 |
| 7.888 | 18.261 | .01793 | .98102 | -.03172 | .00379 | .00168 | -.00004 | -.00622 | .94156 | .27728 | 3.39572 |
| 7.884 | 20.485 | .00318 | 1.12593 | -.02987 | -.00293 | .00132 | -.00058 | -.00449 | 1.06519 | .36605 | 2.90992 |
| 7.878 | 22.834 | -.00276 | 1.29694 | -.02975 | -.01670 | .00240 | -.00174 | -.00456 | 1.20684 | .47588 | 2.53605 |
| 7.975 | 25.142 | -.01104 | 1.46156 | -.02738 | -.03133 | .00168 | .00063 | -.00914 | 1.33472 | .59619 | 2.23875 |

RUN NO. 23/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.631 | -4.437 | .00822 | -.13916 | .05364 | -.02607 | .00164 | .00022 | -.00488 | -.13459 | .06425 | -2.09499 |
| 9.632 | -2.184 | .00826 | -.04252 | .05880 | -.02289 | .00160 | .00020 | -.00544 | -.04025 | .06037 | -.66666 |
| 9.575 | -.031 | .00695 | .05006 | .05965 | -.01892 | .00160 | .00033 | -.00550 | .05009 | .05962 | .84018 |
| 9.625 | 2.347 | .00685 | .15705 | .05639 | -.01471 | .00164 | .00045 | -.00608 | .15461 | .06278 | 2.46288 |
| 9.622 | 4.633 | .01150 | .26088 | .04918 | -.01198 | .00163 | .00065 | -.00680 | .25606 | .07009 | 3.65304 |
| 9.652 | 7.000 | .01403 | .37183 | .03842 | -.00833 | .00130 | .00076 | -.00655 | .36437 | .08345 | 4.36637 |
| 9.631 | 9.406 | .01499 | .48764 | .02570 | -.00172 | .00116 | .00063 | -.00680 | .47689 | .10505 | 4.53975 |
| 9.622 | 11.574 | .01571 | .59823 | .01276 | .00370 | .00119 | .00057 | -.00657 | .58351 | .13252 | 4.40316 |
| 9.621 | 13.806 | .01850 | .72016 | -.00162 | .00577 | .00119 | .00020 | -.00596 | .69974 | .17028 | 4.10934 |
| 9.630 | 16.318 | .01837 | .87163 | -.01840 | .00493 | .00010 | .00018 | -.00589 | .84169 | .22725 | 3.70379 |
| 9.616 | 18.664 | .03424 | 1.01344 | -.03291 | .00159 | .00110 | .00071 | -.00683 | .97067 | .29314 | 3.31128 |
| 9.604 | 21.055 | .02527 | 1.16599 | -.03697 | -.00378 | .00185 | .00036 | -.00662 | 1.10143 | .38440 | 2.86532 |
| 9.614 | 23.290 | .04168 | 1.32101 | -.03713 | -.01656 | .00275 | -.00042 | -.00841 | 1.22805 | .48819 | 2.51553 |
| 9.634 | 25.901 | .03520 | 1.50118 | -.03696 | -.03185 | .00509 | -.00032 | -.00963 | 1.36651 | .62249 | 2.19524 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS2EF (RJS011)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 17/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.951 | .057 | 4.96579 | .04904 | .05659 | -.02145 | -.00109 | .00455 | -.08631 | .04899 | .05664 | .86498 |
| 3.953 | 2.209 | 4.93077 | .13521 | .05406 | -.02082 | -.00218 | .00430 | -.08720 | .13403 | .05927 | 2.26129 |
| 3.944 | 4.387 | 4.94241 | .23443 | .04856 | -.02020 | -.00392 | .00415 | -.08793 | .23003 | .06635 | 3.46705 |
| 3.938 | 6.528 | 4.93140 | .33856 | .03984 | -.01585 | -.00625 | .00444 | -.08945 | .33183 | .07807 | 4.25067 |
| 3.947 | 8.736 | 4.89017 | .44328 | .02949 | -.01041 | -.00909 | .00498 | -.09208 | .43366 | .09648 | 4.49475 |
| 3.936 | 10.872 | 4.87363 | .55324 | .01906 | -.00177 | -.01028 | .00527 | -.09222 | .53990 | .12208 | 4.42243 |
| 3.939 | 13.033 | 4.83466 | .66871 | .00581 | -.00303 | -.01104 | .00467 | -.09069 | .65018 | .15646 | 4.15559 |
| 3.924 | 15.286 | 4.82377 | .80374 | -.00279 | -.00290 | -.01305 | .00320 | -.08832 | .77604 | .20921 | 3.70944 |
| 3.897 | 17.315 | 4.73879 | .92599 | .00078 | -.00878 | -.01493 | .00880 | -.09873 | .88379 | .27634 | 3.19819 |
| 3.952 | 19.702 | 4.76972 | 1.07420 | .00058 | -.01093 | -.01471 | .00847 | -.09924 | 1.01113 | .36268 | 2.78794 |
| 3.938 | 21.859 | 4.68160 | 1.18737 | -.00037 | -.00496 | -.02000 | .00754 | -.09732 | 1.10214 | .44175 | 2.49495 |
| 3.931 | 23.943 | 4.61174 | 1.32679 | -.00609 | -.00768 | -.01783 | .00889 | -.10233 | 1.21509 | .53288 | 2.28025 |

RUN NO. 20/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.867 | .054 | 4.98792 | .04096 | .05673 | -.02253 | -.00115 | .00492 | -.08718 | .04091 | .05677 | .72058 |
| 5.850 | 2.219 | 4.88485 | .13089 | .05539 | -.02090 | -.00204 | .00452 | -.08687 | .12865 | .06042 | 2.12935 |
| 5.854 | 4.455 | 4.99020 | .23653 | .04905 | -.01818 | -.00380 | .00445 | -.08981 | .23201 | .06727 | 3.44886 |
| 5.838 | 6.665 | 4.91400 | .34218 | .03935 | -.01618 | -.00619 | .00491 | -.09055 | .33530 | .07890 | 4.25519 |
| 5.853 | 8.882 | 4.90155 | .45015 | .02777 | -.01090 | -.00928 | .00558 | -.09216 | .44047 | .09694 | 4.54382 |
| 5.855 | 10.995 | 4.82270 | .55781 | .01468 | -.00496 | -.01008 | .00572 | -.09227 | .54477 | .12080 | 4.50987 |
| 5.837 | 13.301 | 4.82665 | .68292 | .00113 | -.00150 | -.01121 | .00562 | -.09255 | .66434 | .15821 | 4.19897 |
| 5.841 | 15.591 | 4.83766 | .81516 | -.01643 | -.00309 | -.01311 | .00543 | -.09266 | .78959 | .20327 | 3.88448 |
| 5.844 | 17.653 | 4.74097 | .93930 | -.02089 | -.00594 | -.01410 | .00438 | -.09043 | .90140 | .26494 | 3.40231 |
| 5.838 | 20.097 | 4.73857 | 1.11084 | -.00954 | -.01792 | -.01685 | .00927 | -.10133 | 1.04648 | .37274 | 2.80753 |
| 5.862 | 22.395 | 4.74066 | 1.25854 | -.01006 | -.02449 | -.01576 | .01156 | -.11150 | 1.16745 | .47020 | 2.48289 |
| 5.823 | 24.464 | 4.71171 | 1.37968 | -.01215 | -.01918 | -.01040 | .01217 | -.11972 | 1.26085 | .56030 | 2.25031 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS2EF (RJS011)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 21/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.970 | .079 | 5.00883 | .04730 | .05696 | -.02194 | -.00124 | .00516 | -.08670 | .04722 | .05703 | .82807 |
| 7.968 | 2.391 | 5.17690 | .14705 | .05463 | -.01826 | -.00260 | .00501 | -.09163 | .14464 | .06072 | 2.38210 |
| 7.963 | 4.738 | 5.16645 | .25383 | .04770 | -.01615 | -.00434 | .00496 | -.09317 | .24902 | .06851 | 3.63492 |
| 7.984 | 6.847 | 5.01471 | .35488 | .03825 | -.01349 | -.00657 | .00528 | -.09225 | .34778 | .08029 | 4.33182 |
| 7.958 | 9.281 | 5.05397 | .47589 | .02460 | -.00814 | -.00993 | .00613 | -.09584 | .46569 | .10103 | 4.60962 |
| 7.977 | 11.482 | 4.96982 | .58840 | .01219 | -.00330 | -.01087 | .00628 | -.09609 | .57419 | .12907 | 4.44853 |
| 7.937 | 13.870 | 4.97539 | .71970 | -.00340 | -.00038 | -.01254 | .00622 | -.09644 | .69953 | .16922 | 4.13379 |
| 7.951 | 16.033 | 4.87171 | .84455 | -.01837 | -.00062 | -.01347 | .00626 | -.09477 | .81677 | .21561 | 3.78826 |
| 7.943 | 18.408 | 4.82382 | .98938 | -.03184 | -.00380 | -.01476 | .00605 | -.09585 | .94881 | .28223 | 3.36188 |
| 7.926 | 20.612 | 4.79386 | 1.13121 | -.03040 | -.01055 | -.01749 | .00839 | -.10010 | 1.06950 | .35977 | 2.89239 |
| 7.941 | 23.056 | 4.78440 | 1.30173 | -.02986 | -.02488 | -.01834 | .00791 | -.10347 | 1.20945 | .48233 | 2.50751 |
| 7.931 | 25.222 | 4.69791 | 1.44539 | -.03257 | -.03207 | -.01323 | .01154 | -.11494 | 1.32148 | .58645 | 2.25335 |

RUN NO. 24/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.534 | .075 | 5.02277 | .04488 | .05742 | -.02223 | -.00123 | .00509 | -.08779 | .04480 | .05748 | .77942 |
| 9.539 | 2.429 | 5.14760 | .14505 | .05443 | -.01901 | -.00261 | .00494 | -.09129 | .14261 | .06053 | 2.35604 |
| 9.537 | 4.720 | 5.08603 | .25063 | .04787 | -.01625 | -.00432 | .00490 | -.09199 | .24584 | .06833 | 3.59809 |
| 9.540 | 7.043 | 5.12657 | .36125 | .03732 | -.01361 | -.00727 | .00519 | -.09455 | .35394 | .08133 | 4.35187 |
| 9.526 | 9.314 | 4.98930 | .47336 | .02465 | -.00964 | -.00990 | .00583 | -.09454 | .46313 | .10094 | 4.58811 |
| 9.516 | 11.756 | 5.02759 | .60087 | .00992 | -.00412 | -.01135 | .00627 | -.09705 | .58625 | .13213 | 4.43694 |
| 9.532 | 13.973 | 4.94312 | .72049 | -.00432 | -.00190 | -.01235 | .00553 | -.09381 | .70022 | .16978 | 4.12433 |
| 9.508 | 16.408 | 4.95709 | .86557 | -.02029 | -.00289 | -.01408 | .00598 | -.09544 | .83605 | .22504 | 3.71513 |
| 9.528 | 18.675 | 4.87497 | 1.00041 | -.03421 | -.00484 | -.01501 | .00632 | -.09606 | .95869 | .28792 | 3.32977 |
| 9.528 | 21.101 | 4.84998 | 1.15961 | -.03594 | -.01018 | -.01780 | .00793 | -.10096 | 1.09479 | .38394 | 2.85146 |
| 9.518 | 23.632 | 4.84624 | 1.34129 | -.03490 | -.02727 | -.01765 | .00655 | -.10257 | 1.24280 | .50570 | 2.45758 |
| 9.519 | 25.768 | 4.75374 | 1.47088 | -.03767 | -.03203 | -.01006 | .01128 | -.11897 | 1.34099 | .60552 | 2.21461 |

LARC LTPT 214 (LA36B) B1WVS2EF (RJS012)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 26/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.512 | -4.606 | .01081 | -.15113 | .05312 | -.02702 | .00162 | .00016 | -.00434 | -.14638 | .06509 | -2.24891 |
| 11.527 | -2.162 | .01490 | -.04530 | .05897 | -.02307 | .00160 | .00019 | -.00508 | -.04305 | .06064 | -.70986 |
| 11.494 | .042 | .00809 | .05295 | .05995 | -.01883 | .00161 | .00034 | -.00574 | .05291 | .05998 | .88205 |
| 11.505 | 2.309 | .00693 | .15212 | .05641 | -.01536 | .00167 | .00044 | -.00635 | .14972 | .06249 | 2.39591 |
| 11.515 | 4.623 | .00249 | .25775 | .04940 | -.01231 | .00160 | .00059 | -.00650 | .25293 | .07001 | 3.61251 |
| 11.493 | 7.000 | .00051 | .36852 | .03823 | -.00958 | .00114 | .00053 | -.00657 | .36112 | .08286 | 4.35836 |
| 11.515 | 9.235 | -.00179 | .47552 | .02653 | -.00371 | .00108 | .00061 | -.00594 | .46510 | .10249 | 4.53788 |
| 11.516 | 11.549 | -.00381 | .59394 | .01233 | .00252 | .00114 | .00065 | -.00715 | .57944 | .13099 | 4.42364 |
| 11.523 | 13.979 | -.00731 | .72345 | -.00271 | .00490 | .00093 | -.00101 | -.00557 | .70268 | .17212 | 4.08246 |
| 11.529 | 16.350 | -.00190 | .86717 | -.01737 | .00324 | -.00002 | -.00010 | -.00542 | .83699 | .22744 | 3.68008 |
| 11.500 | 18.788 | -.00641 | 1.02464 | -.03006 | -.00357 | .00032 | .00045 | -.00667 | .97972 | .30156 | 3.24889 |
| 11.502 | 21.196 | -.03839 | 1.18132 | -.03540 | -.01151 | .00178 | .00177 | -.01057 | 1.11421 | .39411 | 2.82716 |
| 11.506 | 23.644 | -.00680 | 1.35850 | -.03740 | -.02680 | .00374 | .00253 | -.01396 | 1.25946 | .51057 | 2.46676 |
| 11.493 | 25.991 | -.00359 | 1.52427 | -.03984 | -.03951 | .00509 | .00085 | -.01325 | 1.38757 | .63217 | 2.19492 |

LARC LTPT 214 (LA36B) B1WVS2EF (RJS013)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 25/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.621 | .095 | 5.04457 | .04543 | .05627 | -.02249 | -.00155 | .00538 | -.08973 | .04534 | .05634 | .80470 |
| 11.620 | 2.392 | 5.00596 | .14502 | .05366 | -.01891 | -.00266 | .00521 | -.09057 | .14266 | .05967 | 2.39078 |
| 11.617 | 4.765 | 5.07305 | .25446 | .04666 | -.01625 | -.00456 | .00514 | -.09273 | .24970 | .06764 | 3.69161 |
| 11.621 | 6.963 | 4.95019 | .36108 | .03674 | -.01345 | -.00714 | .00519 | -.09151 | .35396 | .08025 | 4.41096 |
| 11.608 | 9.348 | 4.96852 | .47734 | .02307 | -.00970 | -.01001 | .00505 | -.09429 | .46726 | .10030 | 4.65873 |
| 11.570 | 11.622 | 4.90460 | .59721 | .00943 | -.00428 | -.01147 | .00520 | -.09551 | .58307 | .12955 | 4.50061 |
| 11.601 | 14.033 | 4.87863 | .72730 | -.00587 | -.00140 | -.01236 | .00528 | -.09261 | .70702 | .17066 | 4.14285 |
| 11.575 | 16.461 | 4.80640 | .87384 | -.02144 | -.00421 | -.01397 | .00505 | -.09164 | .84410 | .22705 | 3.71763 |
| 11.581 | 18.771 | 4.82790 | 1.01392 | -.03382 | -.00827 | -.01536 | .00580 | -.09539 | .97088 | .29425 | 3.29947 |
| 11.586 | 21.263 | 4.78603 | 1.17983 | -.03961 | -.01726 | -.01702 | .00583 | -.09914 | 1.11388 | .39095 | 2.84914 |
| 11.587 | 23.830 | 4.77406 | 1.36659 | -.04000 | -.03503 | -.01685 | .00737 | -.10369 | 1.26625 | .51554 | 2.45619 |
| 11.589 | 25.966 | 4.73544 | 1.49369 | -.04010 | -.03557 | -.00832 | .01071 | -.12048 | 1.36046 | .61793 | 2.20163 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS2EF (RJS014)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 27/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.099 | -4.552 | .00620 | -.14584 | .05324 | -.02622 | .00150 | .00019 | -.00522 | -.14115 | .06465 | -2.18351 |
| 13.105 | -2.223 | .00718 | -.04407 | .05880 | -.02243 | .00154 | .00029 | -.00576 | -.04175 | .06046 | -.69065 |
| 13.104 | .054 | .00963 | .05370 | .05947 | -.01896 | .00157 | .00040 | -.00628 | .05364 | .05952 | .90114 |
| 13.101 | 2.437 | .01084 | .15988 | .05602 | -.01504 | .00151 | .00055 | -.00671 | .15736 | .06277 | 2.50702 |
| 13.083 | 4.689 | .01401 | .26275 | .04900 | -.01151 | .00154 | .00064 | -.00725 | .25787 | .07031 | 3.66741 |
| 13.079 | 7.020 | .01492 | .37163 | .03787 | -.00829 | .00103 | .00057 | -.00700 | .36421 | .08300 | 4.38820 |
| 13.111 | 9.387 | .01356 | .48634 | .02529 | -.00246 | .00120 | .00059 | -.00732 | .47570 | .10427 | 4.56210 |
| 13.074 | 11.779 | .01761 | .60952 | .01039 | .00336 | .00111 | .00062 | -.00759 | .59456 | .13460 | 4.41729 |
| 13.089 | 14.322 | .01881 | .74924 | -.00460 | .00505 | .00058 | -.00018 | -.00535 | .72709 | .18089 | 4.01951 |
| 13.080 | 16.597 | .02748 | .88812 | -.01692 | .00201 | .00051 | -.00057 | -.00428 | .85595 | .23746 | 3.60462 |
| 13.063 | 19.047 | .02030 | 1.05127 | -.02585 | -.00699 | .00042 | .00086 | -.00731 | 1.00215 | .31865 | 3.14500 |
| 12.999 | 21.575 | .01548 | 1.22868 | -.02813 | -.02024 | .00205 | .00325 | -.01245 | 1.15294 | .42565 | 2.70862 |
| 12.968 | 24.024 | .03185 | 1.41547 | -.03204 | -.04019 | .00228 | .00287 | -.01407 | 1.30590 | .54700 | 2.38739 |

LARC LTPT 214 (LA36B) B1WVS2EF (RJS015)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 28/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.027 | .088 | 5.07050 | .04812 | .05614 | -.02324 | -.00154 | .00553 | -.09000 | .04804 | .05622 | .85450 |
| 13.019 | 2.442 | 5.04283 | .15014 | .05404 | -.01967 | -.00278 | .00518 | -.09081 | .14770 | .06039 | 2.44581 |
| 13.031 | 4.806 | 5.06224 | .25809 | .04667 | -.01652 | -.00464 | .00501 | -.09207 | .25327 | .06813 | 3.71743 |
| 13.008 | 7.135 | 5.01413 | .36907 | .03617 | -.01405 | -.00724 | .00502 | -.09256 | .36172 | .08173 | 4.42558 |
| 13.010 | 9.578 | 5.01946 | .49154 | .02181 | -.00936 | -.01017 | .00591 | -.09482 | .48106 | .10329 | 4.65717 |
| 12.981 | 11.866 | 4.97465 | .60922 | .00767 | -.00469 | -.01132 | .00593 | -.09560 | .59463 | .13278 | 4.47838 |
| 13.011 | 14.416 | 4.99292 | .75084 | -.00778 | -.00183 | -.01239 | .00520 | -.09459 | .72914 | .17939 | 4.06457 |
| 12.985 | 16.815 | 4.90662 | .89997 | -.02150 | -.00699 | -.01416 | .00440 | -.09180 | .86771 | .23977 | 3.61890 |
| 13.006 | 19.165 | 4.88147 | 1.05059 | -.03113 | -.01400 | -.01502 | .00561 | -.09635 | 1.00259 | .31549 | 3.17787 |
| 12.884 | 21.549 | 4.83824 | 1.21842 | -.03356 | -.02725 | -.01571 | .00708 | -.10167 | 1.14558 | .41632 | 2.75169 |
| 12.859 | 24.232 | 4.84417 | 1.40840 | -.03424 | -.04065 | -.01306 | .00876 | -.11177 | 1.29836 | .54683 | 2.37433 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS016)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 29/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.963 | .032 | 4.96794 | .03512 | .05817 | -.01819 | -.00129 | .00349 | -.08679 | .03509 | .05819 | .60305 |
| 3.956 | 2.276 | 5.10851 | .12829 | .05569 | -.01216 | -.00307 | .00356 | -.09058 | .12598 | .06074 | 2.07415 |
| 3.956 | 4.425 | 5.00155 | .22828 | .05162 | -.00429 | -.00530 | .00331 | -.08867 | .22361 | .06908 | 3.23692 |
| 3.965 | 6.589 | 4.96943 | .33198 | .04211 | .00559 | -.00769 | .00398 | -.08922 | .32496 | .07992 | 4.06575 |
| 3.967 | 8.882 | 4.96479 | .43752 | .02961 | .01507 | -.01059 | .00483 | -.09055 | .42770 | .09681 | 4.41791 |
| 3.948 | 10.909 | 4.90092 | .53613 | .01557 | .02156 | -.01173 | .00551 | -.09141 | .52349 | .11675 | 4.48395 |
| 3.948 | 13.155 | 4.82460 | .64589 | -.00082 | .02851 | -.01258 | .00541 | -.08953 | .62913 | .14620 | 4.30317 |
| 3.962 | 15.355 | 4.80807 | .75942 | -.01935 | .03459 | -.01484 | .00486 | -.08072 | .73744 | .18244 | 4.04218 |
| 3.958 | 17.462 | 4.73256 | .86583 | -.01466 | .03798 | -.00849 | .01446 | -.10251 | .83033 | .24582 | 3.37775 |
| 3.956 | 19.689 | 4.70725 | .98277 | -.02559 | .04608 | -.00873 | .01419 | -.09636 | .93394 | .30701 | 3.04203 |
| 3.953 | 21.825 | 4.75204 | 1.09749 | -.03461 | .05221 | -.00950 | .01177 | -.09407 | 1.03169 | .37590 | 2.74460 |
| 3.955 | 23.925 | 4.62977 | 1.21066 | -.04107 | .06007 | -.00908 | .01099 | -.09234 | 1.12330 | .45342 | 2.47738 |

RUN NO. 32/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.801 | .053 | 4.99020 | .03787 | .05825 | -.01694 | -.00150 | .00432 | -.08814 | .03782 | .05828 | .64892 |
| 5.805 | 2.290 | 4.99625 | .13550 | .05718 | -.00956 | -.00299 | .00419 | -.08934 | .13311 | .06255 | 2.12813 |
| 5.792 | 4.526 | 5.06736 | .24267 | .05103 | -.00136 | -.00508 | .00430 | -.08986 | .23788 | .07002 | 3.39716 |
| 5.798 | 6.677 | 4.90191 | .34105 | .04149 | .00648 | -.00757 | .00475 | -.08790 | .33392 | .08086 | 4.12965 |
| 5.792 | 8.913 | 4.92108 | .45076 | .02836 | .01781 | -.01085 | .00566 | -.08994 | .44092 | .09786 | 4.50554 |
| 5.794 | 11.041 | 4.86073 | .55519 | .01264 | .02824 | -.01265 | .00644 | -.09052 | .54249 | .11872 | 4.56930 |
| 5.781 | 13.486 | 4.91526 | .67618 | -.00658 | .03634 | -.01397 | .00661 | -.09165 | .65907 | .15130 | 4.35621 |
| 5.804 | 15.580 | 4.84136 | .78332 | -.02532 | .04115 | -.01536 | .00584 | -.08641 | .76135 | .18599 | 4.09351 |
| 5.778 | 17.696 | 4.78202 | .89026 | -.04338 | .04432 | -.01668 | .00484 | -.08265 | .86894 | .23172 | 3.74995 |
| 5.805 | 19.978 | 4.72805 | 1.00997 | -.04146 | .04900 | -.01306 | .01234 | -.09337 | .96336 | .30610 | 3.14718 |
| 5.788 | 22.211 | 4.71031 | 1.11950 | -.05079 | .05942 | -.01196 | .01153 | -.09187 | 1.05564 | .37617 | 2.80628 |
| 5.765 | 24.276 | 4.65904 | 1.22749 | -.05654 | .07010 | -.01183 | .01087 | -.09293 | 1.14219 | .45312 | 2.52071 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS016)

PARAMETRIC DATA

BETA = 5.000 ELEVON = 5.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .250 RUDDER = .000

RUN NO. 35/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.780 | .078 | 5.01302 | .04502 | .05889 | -.01620 | -.00141 | .00447 | -.08771 | .04494 | .05896 | .76234 |
| 7.764 | 2.360 | 5.04909 | .14368 | .05720 | -.00876 | -.00327 | .00442 | -.08924 | .14120 | .06306 | 2.23896 |
| 7.755 | 4.609 | 5.02662 | .24887 | .05140 | .00054 | -.00517 | .00428 | -.08875 | .24393 | .07123 | 3.42464 |
| 7.762 | 6.843 | 4.94534 | .35464 | .04098 | .00939 | -.00779 | .00476 | -.08881 | .34723 | .08294 | 4.18640 |
| 7.758 | 9.131 | 4.92895 | .46427 | .02667 | .01925 | -.01099 | .00585 | -.09047 | .45416 | .10001 | 4.54102 |
| 7.766 | 11.367 | 4.89383 | .57244 | .01024 | .02759 | -.01299 | .00671 | -.09175 | .55919 | .12286 | 4.55139 |
| 7.759 | 13.653 | 4.88104 | .68926 | -.00840 | .03730 | -.01434 | .00637 | -.08993 | .67177 | .15452 | 4.34731 |
| 7.743 | 15.956 | 4.82355 | .80906 | -.02916 | .04216 | -.01490 | .00522 | -.08470 | .78590 | .19436 | 4.04347 |
| 7.764 | 18.067 | 4.75496 | .91673 | -.04782 | .04856 | -.01815 | .00465 | -.08100 | .88636 | .23884 | 3.71105 |
| 7.740 | 20.495 | 4.76165 | 1.04169 | -.06768 | .06169 | -.02193 | .00297 | -.07624 | .99945 | .30132 | 3.31684 |
| 7.733 | 22.708 | 4.69770 | 1.16121 | -.06140 | .06355 | -.01502 | .00908 | -.08726 | 1.09490 | .39163 | 2.79573 |
| 7.744 | 24.908 | 4.68678 | 1.26746 | -.06518 | .07268 | -.01538 | .00731 | -.08813 | 1.17702 | .47469 | 2.47957 |

RUN NO. 40/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.724 | .086 | 5.03654 | .04573 | .05776 | -.01523 | -.00164 | .00475 | -.08912 | .04564 | .05783 | .78924 |
| 9.726 | 2.405 | 5.05002 | .15028 | .05567 | -.00710 | -.00357 | .00474 | -.09024 | .14781 | .06193 | 2.38676 |
| 9.683 | 4.657 | 4.96124 | .25333 | .04981 | .00203 | -.00544 | .00443 | -.08801 | .24845 | .07021 | 3.53875 |
| 9.676 | 7.001 | 4.98082 | .36546 | .03871 | .01227 | -.00822 | .00495 | -.08958 | .35801 | .08297 | 4.31494 |
| 9.705 | 9.312 | 4.95113 | .47628 | .02430 | .02090 | -.01121 | .00599 | -.09062 | .46608 | .10105 | 4.61215 |
| 9.698 | 11.529 | 4.91255 | .58297 | .00769 | .02950 | -.01286 | .00641 | -.09066 | .56967 | .12405 | 4.59208 |
| 9.708 | 13.930 | 4.90351 | .70424 | -.01217 | .03906 | -.01456 | .00579 | -.08975 | .68646 | .15773 | 4.35217 |
| 9.692 | 16.219 | 4.82710 | .82386 | -.03147 | .04261 | -.01487 | .00423 | -.08242 | .79986 | .19989 | 4.00145 |
| 9.661 | 18.507 | 4.81569 | .94043 | -.05011 | .05215 | -.01890 | .00287 | -.07778 | .90770 | .25100 | 3.61640 |
| 9.617 | 20.919 | 4.78057 | 1.08078 | -.06269 | .05938 | -.01956 | .00158 | -.07331 | 1.03192 | .32734 | 3.15248 |
| 9.558 | 23.139 | 4.68736 | 1.19541 | -.06058 | .06707 | -.01410 | .00714 | -.08341 | 1.12305 | .41404 | 2.71242 |
| 9.505 | 25.346 | 4.67602 | 1.29452 | -.06697 | .07843 | -.01145 | .00704 | -.08907 | 1.19857 | .49364 | 2.42805 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS017)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 30/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.953 | -4.252 | .00430 | -.13372 | .05531 | -.02694 | .00176 | -.00004 | -.00409 | -.12925 | .06507 | -1.98641 |
| 3.940 | -2.025 | .00059 | -.03417 | .05962 | -.01934 | .00167 | .00007 | -.00423 | -.03205 | .06079 | -.52719 |
| 3.929 | -.066 | .00253 | .05012 | .06062 | -.00746 | .00184 | .00028 | -.00468 | .05018 | .06056 | .82856 |
| 3.942 | 2.165 | .00461 | .15052 | .05808 | -.00338 | .00160 | .00015 | -.00558 | .14822 | .06373 | 2.32571 |
| 3.938 | 4.359 | .00527 | .24834 | .05269 | .00416 | .00151 | .00026 | -.00541 | .24362 | .07141 | 3.41153 |
| 3.941 | 6.523 | .00577 | .34555 | .04375 | .01294 | .00156 | .00037 | -.00546 | .33834 | .08272 | 4.09017 |
| 3.938 | 8.732 | .00835 | .45272 | .03141 | .02395 | .00181 | .00022 | -.00578 | .44271 | .09978 | 4.43704 |
| 3.932 | 10.866 | .00974 | .55007 | .01699 | .03656 | .00157 | .00005 | -.00549 | .53701 | .12038 | 4.46087 |
| 3.936 | 12.992 | .01107 | .65589 | -.00030 | .04112 | .00136 | .00074 | -.00512 | .63917 | .14715 | 4.34355 |
| 3.948 | 15.239 | .01145 | .76846 | -.01746 | .04596 | .00116 | .00154 | -.00860 | .74603 | .18513 | 4.02967 |
| 3.944 | 17.434 | .01245 | .89241 | -.02381 | .04866 | .00356 | .00530 | -.01366 | .85855 | .24465 | 3.50929 |
| 3.944 | 19.628 | .01539 | 1.00427 | -.02868 | .05258 | .00427 | .00214 | -.00887 | .95555 | .31034 | 3.07908 |
| 3.944 | 21.700 | .02116 | 1.10218 | -.03900 | .07104 | .00374 | .00130 | -.00781 | 1.03849 | .37129 | 2.79700 |
| 3.945 | 23.791 | .00524 | 1.20459 | -.04817 | .08155 | .00469 | .00135 | -.00711 | 1.12166 | .44186 | 2.53849 |

RUN NO. 31/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.820 | -4.336 | .00247 | -.14403 | .05325 | -.02916 | .00168 | .00005 | -.00489 | -.13959 | .06399 | -2.18143 |
| 5.821 | -2.062 | .00312 | -.04358 | .06042 | -.02085 | .00171 | .00003 | -.00530 | -.04138 | .06194 | -.66799 |
| 5.820 | .000 | .00416 | .04526 | .06068 | -.01341 | .00168 | .00026 | -.00536 | .04526 | .06068 | .74583 |
| 5.812 | 2.353 | .00535 | .14982 | .05932 | -.00423 | .00187 | .00025 | -.00568 | .14726 | .06542 | 2.25087 |
| 5.813 | 4.590 | .00472 | .25232 | .05697 | .00256 | .00181 | .00051 | -.00594 | .24695 | .07698 | 3.20791 |
| 5.810 | 6.950 | .01112 | .36466 | .04101 | .01318 | .00174 | .00049 | -.00581 | .35702 | .08484 | 4.20824 |
| 5.818 | 8.929 | .00645 | .45524 | .02842 | .02318 | .00160 | .00057 | -.00614 | .44531 | .09873 | 4.51030 |
| 5.811 | 11.068 | .01152 | .55746 | .01369 | .03330 | .00139 | .00076 | -.00687 | .54446 | .12046 | 4.51981 |
| 5.816 | 13.295 | .00998 | .66394 | -.00435 | .03986 | .00117 | .00099 | -.00719 | .64715 | .14844 | 4.35960 |
| 5.813 | 15.566 | .01405 | .77952 | -.02446 | .04670 | .00099 | .00117 | -.00768 | .75749 | .18562 | 4.08086 |
| 5.815 | 17.846 | .01749 | .89915 | -.04352 | .05540 | .00220 | .00162 | -.00811 | .86923 | .23413 | 3.71261 |
| 5.812 | 20.063 | .01954 | 1.01103 | -.05059 | .06165 | .00488 | .00442 | -.01329 | .96703 | .29931 | 3.23083 |
| 5.810 | 22.145 | .01071 | 1.12168 | -.05571 | .06910 | .00201 | .00088 | -.00730 | 1.05993 | .37122 | 2.85529 |
| 5.811 | 24.367 | .02119 | 1.23065 | -.06533 | .08145 | .00217 | .00158 | -.00977 | 1.14798 | .44823 | 2.56117 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS017)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 34/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.810 | -4.427 | .00361 | -.14121 | .05548 | -.02654 | .00177 | .00000 | -.00535 | -.13651 | .06621 | -2.06167 |
| 7.794 | -2.241 | .00716 | -.04331 | .06107 | -.01900 | .00171 | .00007 | -.00542 | -.04089 | .06272 | -.65192 |
| 7.813 | .049 | .00681 | .05614 | .06277 | -.01105 | .00163 | .00016 | -.00591 | .05608 | .06282 | .89282 |
| 7.801 | 2.302 | .00578 | .15666 | .05879 | -.00246 | .00162 | .00030 | -.00627 | .15417 | .06504 | 2.37053 |
| 7.794 | 4.476 | .00874 | .25722 | .05262 | .00631 | .00180 | .00042 | -.00614 | .25232 | .07253 | 3.47891 |
| 7.793 | 6.764 | .00951 | .36438 | .04241 | .01497 | .00140 | .00057 | -.00629 | .35685 | .08504 | 4.19637 |
| 7.785 | 9.009 | .01012 | .46903 | .02782 | .02611 | .00135 | .00059 | -.00641 | .45889 | .10093 | 4.54676 |
| 7.779 | 11.220 | .00068 | .57160 | .01125 | .03762 | .00104 | .00078 | -.00663 | .55849 | .12225 | 4.56822 |
| 7.783 | 13.510 | -.00165 | .68451 | -.00768 | .04492 | .00127 | .00084 | -.00699 | .66736 | .15245 | 4.37759 |
| 7.788 | 15.754 | .00589 | .79875 | -.02777 | .05175 | .00097 | .00100 | -.00656 | .77629 | .19014 | 4.08263 |
| 7.776 | 17.949 | .02053 | .91167 | -.04597 | .06014 | .00278 | .00055 | -.00681 | .88147 | .23722 | 3.71583 |
| 7.792 | 20.301 | .02806 | 1.03118 | -.06076 | .07196 | .00214 | .00038 | -.00717 | .98821 | .30078 | 3.28553 |
| 7.781 | 22.559 | -.01123 | 1.15554 | -.06848 | .07846 | .00036 | .00401 | -.01392 | 1.09339 | .38007 | 2.87684 |
| 7.785 | 24.803 | -.00104 | 1.26593 | -.07141 | .08883 | .00532 | .00286 | -.01627 | 1.17911 | .46622 | 2.52907 |

RUN NO. 41/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.660 | -4.546 | .00678 | -.14915 | .05496 | -.02787 | .00165 | -.00007 | -.00529 | -.14433 | .06661 | -2.16676 |
| 9.647 | -2.228 | .00924 | -.04509 | .06081 | -.02015 | .00162 | .00003 | -.00542 | -.04269 | .06252 | -.68290 |
| 9.645 | .069 | .00869 | .05431 | .06149 | -.01192 | .00155 | .00013 | -.00597 | .05424 | .06156 | .88107 |
| 9.644 | 2.310 | .00769 | .15520 | .05884 | -.00349 | .00154 | .00025 | -.00584 | .15270 | .06505 | 2.34755 |
| 9.635 | 4.620 | .01410 | .26256 | .05181 | .00593 | .00154 | .00043 | -.00649 | .25754 | .07279 | 3.53796 |
| 9.648 | 6.909 | .01590 | .36840 | .04068 | .01591 | .00128 | .00050 | -.00639 | .36083 | .08470 | 4.26006 |
| 9.662 | 9.225 | -.00379 | .47608 | .02622 | .02662 | .00115 | .00060 | -.00652 | .46572 | .10220 | 4.55679 |
| 9.671 | 11.431 | .02047 | .58046 | .00981 | .03611 | .00087 | .00072 | -.00761 | .56700 | .12465 | 4.54854 |
| 9.667 | 13.861 | .02749 | .69901 | -.01110 | .04552 | .00101 | .00088 | -.00761 | .68131 | .15668 | 4.34886 |
| 9.628 | 16.042 | .02334 | .81237 | -.02926 | .05230 | .00100 | .00106 | -.00789 | .78882 | .19638 | 4.01687 |
| 9.604 | 18.480 | .02209 | .93382 | -.04677 | .05991 | .00178 | .00070 | -.00817 | .90618 | .25354 | 3.57418 |
| 9.592 | 20.782 | .03366 | 1.06150 | -.05524 | .07018 | -.00043 | .00284 | -.01133 | 1.01204 | .32498 | 3.11415 |
| 9.612 | 23.080 | .03870 | 1.16971 | -.06131 | .08653 | .00098 | .00247 | -.01331 | 1.10012 | .40215 | 2.73559 |
| 9.644 | 25.306 | .02285 | 1.27886 | -.06667 | .09623 | .00780 | .00272 | -.02029 | 1.18463 | .48639 | 2.43557 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS018)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 38/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.763 | -4.493 | .00090 | -.14578 | .05495 | -.02715 | .00159 | .00003 | -.00579 | -.14102 | .06620 | -2.13031 |
| 11.726 | -2.190 | .00653 | -.04311 | .06099 | -.01914 | .00154 | .00011 | -.00597 | -.04074 | .06260 | -.65089 |
| 11.713 | .082 | .00951 | .05314 | .06204 | -.01244 | .00148 | .00021 | -.00632 | .05305 | .06212 | .85397 |
| 11.696 | 2.375 | .01061 | .15942 | .05899 | -.00263 | .00142 | .00043 | -.00566 | .15684 | .06555 | 2.39274 |
| 11.711 | 4.707 | .01643 | .26485 | .05192 | .00659 | .00134 | .00065 | -.00704 | .25969 | .07348 | 3.53405 |
| 11.688 | 7.019 | .01920 | .37436 | .04078 | .01685 | .00123 | .00067 | -.00691 | .36657 | .08621 | 4.25186 |
| 11.697 | 9.299 | .02672 | .48124 | .02668 | .02775 | .00110 | .00065 | -.00686 | .47061 | .10409 | 4.52124 |
| 11.686 | 11.620 | .02435 | .59091 | .01024 | .03676 | .00099 | .00078 | -.00759 | .57673 | .12904 | 4.46930 |
| 11.717 | 13.950 | .03242 | .70423 | -.01098 | .04563 | .00104 | .00099 | -.00769 | .68611 | .15911 | 4.31209 |
| 11.694 | 16.303 | .03439 | .82779 | -.02991 | .05365 | .00087 | .00155 | -.00892 | .80290 | .20367 | 3.94211 |
| 11.709 | 18.662 | .04790 | .95612 | -.03874 | .06022 | .00132 | .00326 | -.01226 | .91824 | .26924 | 3.41047 |
| 11.701 | 20.972 | .04699 | 1.07516 | -.04386 | .07206 | .00081 | .00145 | -.00935 | 1.01964 | .34385 | 2.96538 |
| 11.649 | 23.274 | .05033 | 1.19472 | -.05836 | .08361 | .00456 | .00005 | -.00746 | 1.12056 | .41845 | 2.67789 |
| 11.658 | 25.489 | .04831 | 1.29131 | -.06688 | .09983 | .00009 | -.00139 | -.00389 | 1.19441 | .49534 | 2.41130 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS019)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 39/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11.699 | .098 | 5.03702 | .04576 | .05808 | -.01597 | -.00170 | .00480 | -.08934 | .04566 | .05816 | .78510 |
| 11.697 | 2.410 | 4.97343 | .14713 | .05619 | -.00792 | -.00356 | .00478 | -.08876 | .14464 | .06233 | 2.32060 |
| 11.698 | 4.758 | 5.03557 | .25633 | .04994 | .00213 | -.00588 | .00459 | -.08969 | .25130 | .07103 | 3.53797 |
| 11.670 | 7.019 | 4.95588 | .36426 | .03938 | .01147 | -.00840 | .00500 | -.08943 | .35672 | .08360 | 4.26723 |
| 11.657 | 9.392 | 4.95768 | .47933 | .02433 | .02141 | -.01129 | .00597 | -.09110 | .46894 | .10222 | 4.58731 |
| 11.643 | 11.718 | 4.90441 | .59394 | .00662 | .02918 | -.01314 | .00654 | -.09172 | .58022 | .12711 | 4.56478 |
| 11.664 | 14.041 | 4.86207 | .70888 | -.01257 | .03716 | -.01411 | .00573 | -.08810 | .69075 | .15979 | 4.32292 |
| 11.666 | 16.475 | 4.81321 | .83760 | -.03194 | .04340 | -.01501 | .00381 | -.08165 | .81227 | .20692 | 3.92563 |
| 11.647 | 18.699 | 4.80094 | .95863 | -.04603 | .05086 | -.01762 | .00098 | -.07393 | .92278 | .26374 | 3.49885 |
| 11.625 | 21.111 | 4.74813 | 1.09407 | -.04577 | .05593 | -.01137 | .00804 | -.08606 | 1.03713 | .35135 | 2.95183 |
| 11.642 | 23.480 | 4.71189 | 1.20944 | -.05688 | .06836 | -.01019 | .00739 | -.08629 | 1.13196 | .42971 | 2.63426 |
| 11.626 | 25.642 | 4.65045 | 1.29770 | -.06133 | .08427 | -.00638 | .00698 | -.09161 | 1.19644 | .50629 | 2.36315 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS020)

PARAMETRIC DATA

BETA = 5.000 ELEVON = 5.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .220 RUDDER = .000

RUN NO. 36/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.311 | .105 | 5.07097 | .04834 | .05753 | -.01545 | -.00178 | .00499 | -.08920 | .04823 | .05761 | .83715 |
| 13.349 | 2.503 | 5.09686 | .15422 | .05529 | -.00760 | -.00382 | .00497 | -.09092 | .15166 | .06197 | 2.44722 |
| 13.356 | 4.795 | 5.00595 | .26008 | .04892 | .00260 | -.00595 | .00460 | -.08868 | .25508 | .07049 | 3.61874 |
| 13.312 | 7.200 | 5.02685 | .37715 | .03787 | .01342 | -.00869 | .00508 | -.09039 | .36943 | .08484 | 4.35452 |
| 13.278 | 9.540 | 4.97605 | .48827 | .02267 | .02209 | -.01139 | .00596 | -.09112 | .47776 | .10328 | 4.62571 |
| 13.288 | 11.914 | 4.94452 | .60656 | .00455 | .03010 | -.01312 | .00643 | -.09150 | .59255 | .12967 | 4.56961 |
| 13.282 | 14.298 | 4.88781 | .72415 | -.01461 | .03809 | -.01391 | .00530 | -.08728 | .70533 | .16468 | 4.28303 |
| 13.262 | 16.730 | 4.86303 | .85694 | -.03234 | .04324 | -.01474 | .00283 | -.07970 | .82998 | .21570 | 3.84778 |
| 13.213 | 19.032 | 4.80874 | .98639 | -.03455 | .04889 | -.01391 | .00768 | -.08585 | .94374 | .28899 | 3.26567 |
| 13.184 | 21.403 | 4.75168 | 1.11232 | -.04475 | .05853 | -.00901 | .00817 | -.08627 | 1.05194 | .36425 | 2.88800 |
| 13.174 | 23.883 | 4.75208 | 1.23371 | -.05676 | .07198 | -.01000 | .00718 | -.08583 | 1.15106 | .44759 | 2.57168 |
| 13.140 | 26.021 | 4.62962 | 1.31906 | -.06226 | .08669 | -.00828 | .00518 | -.08748 | 1.21267 | .52271 | 2.31996 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (RJS021)

PARAMETRIC DATA

BETA = .000 ELEVON = 5.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .220 RUDDER = .000

RUN NO. 37/ 0

| RN/L | ALPHA | BETA | CN | CA | CLM | CBL | CYN | CY | CL | CD | L/D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13.287 | -4.605 | -.00143 | -.15195 | .05395 | -.02836 | .00158 | .00041 | -.00362 | -.14713 | .06597 | -2.23007 |
| 13.262 | -2.195 | .00256 | -.04555 | .06006 | -.02079 | .00154 | .00048 | -.00404 | -.04322 | .06176 | -.69979 |
| 13.272 | .095 | .00455 | .05415 | .06101 | -.01292 | .00152 | .00052 | -.00429 | .05405 | .06110 | .88465 |
| 13.255 | 2.415 | .00676 | .15973 | .05802 | -.00342 | .00142 | .00033 | -.00458 | .15714 | .06470 | 2.42864 |
| 13.228 | 4.781 | .01047 | .26758 | .05112 | .00661 | .00132 | .00104 | -.00505 | .26239 | .07325 | 3.58231 |
| 13.271 | 7.054 | .01469 | .37586 | .03970 | .01577 | .00134 | .00100 | -.00485 | .36814 | .08557 | 4.30248 |
| 13.259 | 9.428 | .01932 | .48449 | .02473 | .02695 | .00122 | .00106 | -.00494 | .47390 | .10375 | 4.56748 |
| 13.273 | 11.820 | .02804 | .59948 | .00585 | .03567 | .00118 | .00111 | -.00589 | .58536 | .12950 | 4.52007 |
| 13.250 | 14.157 | .02532 | .71545 | -.01352 | .04408 | .00118 | .00140 | -.00575 | .69703 | .16187 | 4.30613 |
| 13.265 | 16.566 | .03489 | .83950 | -.03137 | .05311 | .00141 | .00238 | -.00819 | .81360 | .20929 | 3.88742 |
| 13.223 | 18.976 | .03867 | .97906 | -.03341 | .05628 | .00198 | .00252 | -.00777 | .93671 | .28677 | 3.26640 |
| 13.181 | 21.242 | -.00419 | 1.09492 | -.04506 | .07037 | .00377 | .00189 | -.00831 | 1.03686 | .35469 | 2.92328 |
| 13.136 | 23.538 | .05753 | 1.19438 | -.05753 | .08891 | -.00008 | -.00094 | -.00093 | 1.11798 | .42425 | 2.63521 |
| 13.085 | 25.958 | .04972 | 1.30149 | -.06601 | .10320 | -.00189 | -.00169 | .00103 | 1.19908 | .51032 | 2.34968 |

LARC LTPT 214 (LA36B) B1WVSOEF (AJS001)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .350 | RUDDER = | .000 |

RUN NO. 1/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 |
|---|---|---|---|---|
| 2.277 | -4.657 | 165.30506 | -.19054 | -.19134 |
| 2.276 | -2.632 | 165.30505 | -.18977 | -.19376 |
| 2.274 | -.482 | 165.25042 | -.18847 | -.19725 |
| 2.270 | 1.712 | 164.81340 | -.18691 | -.19786 |
| 2.272 | 3.834 | 165.32976 | -.18238 | -.19705 |
| 2.273 | 6.016 | 165.46897 | -.18308 | -.19772 |
| 2.271 | 8.068 | 165.33236 | -.18491 | -.19659 |
| 2.270 | 10.202 | 165.38697 | -.18072 | -.19406 |
| 2.273 | 12.446 | 165.93314 | -.17595 | -.19609 |
| 2.275 | 14.645 | 166.39727 | -.17375 | -.20205 |
| 2.271 | 16.836 | 165.90583 | -.18278 | -.21539 |
| 2.270 | 18.862 | 165.82391 | -.19457 | -.23590 |
| 2.267 | 21.114 | 165.36224 | -.22339 | -.24774 |
| 2.271 | 23.243 | 166.15155 | -.24398 | -.26447 |

LARC LTPT 214 (LA36B) B1WVSOEF (AJS002)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .350 | RUDDER = | .000 |

RUN NO. 3/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 |
|---|---|---|---|---|
| 2.235 | -.346 | 165.38056 | -.16730 | -.18271 |
| 2.236 | 1.808 | 165.68094 | -.16903 | -.18285 |
| 2.233 | 3.969 | 165.48977 | -.16870 | -.17833 |
| 2.236 | 6.072 | 166.17237 | -.16827 | -.17882 |
| 2.230 | 8.220 | 165.32595 | -.16465 | -.17911 |
| 2.234 | 10.345 | 165.89937 | -.16306 | -.17854 |
| 2.230 | 12.519 | 165.43513 | -.16663 | -.17174 |
| 2.232 | 14.816 | 165.76279 | -.17516 | -.16678 |
| 2.232 | 16.820 | 165.87336 | -.18516 | -.18638 |
| 2.232 | 19.057 | 165.87205 | -.20150 | -.21153 |
| 2.231 | 21.270 | 165.84797 | -.21781 | -.22497 |
| 2.233 | 23.382 | 166.20291 | -.23233 | -.24035 |

LARC LTPT 214 (LA36B) BIWVSOEF (AJS003)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .350 | RUDDER = | .000 |

RUN NO. 2/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPBI |
|---|---|---|---|---|
| 2.244 | -4.707 | 165.62955 | -.16444 | -.17139 |
| 2.244 | -2.521 | 165.54762 | -.16228 | -.17061 |
| 2.242 | -.400 | 165.38378 | -.16010 | -.17280 |
| 2.245 | 1.738 | 166.09372 | -.15673 | -.17280 |
| 2.242 | 3.815 | 165.57493 | -.15556 | -.17267 |
| 2.241 | 6.000 | 165.68417 | -.15372 | -.17197 |
| 2.242 | 8.185 | 165.76608 | -.15338 | -.16927 |
| 2.239 | 10.283 | 165.49237 | -.15605 | -.16868 |
| 2.238 | 12.469 | 165.32916 | -.15309 | -.16801 |
| 2.241 | 14.603 | 165.90259 | -.17714 | -.17372 |
| 2.235 | 16.755 | 165.16720 | -.19071 | -.19790 |
| 2.240 | 18.932 | 165.92990 | -.21640 | -.21536 |
| 2.240 | 21.114 | 165.95720 | -.23747 | -.24358 |
| 2.239 | 23.290 | 165.95721 | -.25883 | -.25802 |

LARC LTPT 214 (LA36B) BIWVSOEF (AJS004)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 47 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 4.031 | -4.210 | 218.01007 | -.24458 | -.21235 | -.19056 | -.25097 | -.25753 |
| 4.038 | -2.097 | 218.99381 | -.24489 | -.21215 | -.18893 | -.24949 | -.25408 |
| 4.042 | -.025 | 219.90675 | -.24417 | -.21011 | -.18714 | -.24618 | -.25142 |
| 4.021 | 2.198 | 217.39594 | -.24509 | -.21246 | -.18693 | -.24777 | -.25201 |
| 4.038 | 4.369 | 219.53107 | -.24192 | -.21216 | -.18449 | -.24387 | -.24555 |
| 4.032 | 6.507 | 218.94236 | -.24226 | -.21446 | -.18084 | -.24214 | -.24308 |
| 4.030 | 8.664 | 218.94330 | -.23661 | -.21393 | -.17987 | -.24074 | -.24081 |
| 4.028 | 10.816 | 218.77501 | -.23740 | -.21399 | -.18053 | -.24404 | -.24400 |
| 4.037 | 12.964 | 219.73043 | -.23882 | -.21307 | -.18792 | -.24970 | -.25257 |
| 4.029 | 15.166 | 219.08596 | -.24236 | -.21862 | -.19758 | -.25736 | -.26449 |
| 4.019 | 17.358 | 218.04748 | -.24392 | -.23652 | -.21787 | -.26630 | -.27622 |
| 4.034 | 19.571 | 219.92982 | -.24890 | -.26577 | -.25301 | -.29203 | -.29455 |
| 4.032 | 21.729 | 219.56576 | -.26557 | -.29414 | -.28032 | -.32407 | -.31150 |
| 4.039 | 23.960 | 220.29577 | -.29490 | -.32366 | -.30830 | -.35197 | -.33823 |

RUN NO. 14/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 5.868 | -4.343 | 326.30910 | -.24638 | -.21853 | -.19629 | -.25719 | -.26764 |
| 5.869 | -2.138 | 326.73118 | -.24317 | -.21609 | -.19220 | -.25614 | -.26462 |
| 5.859 | .027 | 325.80466 | -.24459 | -.21554 | -.19302 | -.25472 | -.26406 |
| 5.867 | 2.225 | 326.59176 | -.24616 | -.21542 | -.19187 | -.25212 | -.26204 |
| 5.861 | 4.396 | 326.03023 | -.24349 | -.21348 | -.18907 | -.24999 | -.25443 |
| 5.849 | 6.604 | 324.90802 | -.24388 | -.21455 | -.18591 | -.24717 | -.25188 |
| 5.851 | 8.782 | 325.02034 | -.23814 | -.21192 | -.18328 | -.24657 | -.24990 |
| 5.856 | 10.979 | 325.75078 | -.23834 | -.21322 | -.18582 | -.24957 | -.25472 |
| 5.847 | 13.174 | 324.79663 | -.23915 | -.21494 | -.19083 | -.25673 | -.26339 |
| 5.832 | 15.338 | 323.30823 | -.23753 | -.22222 | -.20055 | -.26324 | -.27514 |
| 5.834 | 17.568 | 323.42150 | -.24327 | -.23535 | -.21698 | -.27285 | -.28667 |
| 5.848 | 19.818 | 325.02316 | -.25150 | -.26203 | -.24814 | -.29568 | -.30189 |
| 5.833 | 22.081 | 323.39523 | -.29730 | -.30348 | -.29843 | -.32954 | -.32890 |
| 5.842 | 24.208 | 324.51864 | -.33717 | -.32856 | -.32931 | -.35007 | -.33749 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVSOEF (AJS004)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 13/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 7.799 | -4.426 | 437.58280 | -.24962 | -.22279 | -.19982 | -.26212 | -.27211 |
| 7.792 | -2.171 | 436.93769 | -.24624 | -.21688 | -.19666 | -.25928 | -.26990 |
| 7.787 | .019 | 436.65732 | -.24636 | -.21705 | -.19540 | -.25494 | -.26717 |
| 7.787 | 2.222 | 436.79863 | -.24730 | -.21808 | -.19631 | -.25780 | -.26532 |
| 7.808 | 4.500 | 439.35482 | -.24877 | -.21590 | -.19196 | -.25481 | -.26092 |
| 7.793 | 6.679 | 437.83931 | -.24814 | -.21784 | -.19388 | -.25326 | -.25723 |
| 7.799 | 8.954 | 438.65431 | -.24585 | -.21873 | -.19425 | -.24784 | -.25405 |
| 7.792 | 11.177 | 438.09292 | -.24052 | -.21571 | -.19017 | -.25505 | -.25928 |
| 7.777 | 13.374 | 436.49356 | -.24313 | -.22042 | -.19583 | -.26021 | -.26712 |
| 7.785 | 15.688 | 437.72985 | -.24364 | -.22455 | -.20141 | -.26851 | -.27988 |
| 7.791 | 18.000 | 438.48920 | -.23906 | -.23591 | -.21532 | -.27471 | -.28579 |
| 7.779 | 20.211 | 437.19827 | -.24830 | -.26105 | -.24672 | -.29969 | -.30252 |
| 7.809 | 22.501 | 440.48568 | -.27673 | -.30228 | -.29205 | -.34107 | -.32485 |
| 7.780 | 25.044 | 437.34192 | -.34333 | -.34132 | -.34564 | -.35452 | -.35810 |

RUN NO. 10/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 9.654 | -4.518 | 546.67130 | -.25011 | -.22491 | -.19992 | -.26196 | -.27237 |
| 9.634 | -2.165 | 544.65228 | -.24698 | -.21896 | -.19590 | -.25755 | -.26795 |
| 9.642 | .092 | 545.77544 | -.24645 | -.21872 | -.19584 | -.25900 | -.26828 |
| 9.645 | 2.284 | 546.81786 | -.24891 | -.21895 | -.19663 | -.25737 | -.26851 |
| 9.632 | 4.591 | 545.80895 | -.25062 | -.21894 | -.19411 | -.25711 | -.26196 |
| 9.613 | 6.857 | 543.76150 | -.24955 | -.22245 | -.19157 | -.25442 | -.25979 |
| 9.610 | 9.131 | 543.78939 | -.24936 | -.22444 | -.19134 | -.25380 | -.25927 |
| 9.641 | 11.400 | 547.63752 | -.24547 | -.21881 | -.19078 | -.25446 | -.26039 |
| 9.629 | 13.686 | 546.99542 | -.24441 | -.22078 | -.19672 | -.26178 | -.27091 |
| 9.612 | 16.026 | 545.70604 | -.24125 | -.22958 | -.20714 | -.26912 | -.27996 |
| 9.582 | 18.336 | 542.53532 | -.23701 | -.23813 | -.22055 | -.27855 | -.29040 |
| 9.612 | 20.677 | 546.10361 | -.25615 | -.26454 | -.24786 | -.29191 | -.30415 |
| 9.627 | 22.987 | 548.15399 | -.29406 | -.30553 | -.29810 | -.33514 | -.32685 |
| 9.608 | 25.305 | 546.10728 | -.33776 | -.34180 | -.34762 | -.37575 | -.35978 |

LARC LTPT 214 (LA36B) B1WVSOEF (AJS005)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| 3DFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 5/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 4.020 | .021 | 219.42160 | -.23107 | -.22538 | -.20640 | -.25930 | -.26115 |
| 4.014 | 2.216 | 218.72033 | -.22660 | -.22653 | -.20731 | -.26354 | -.25691 |
| 4.019 | 4.409 | 219.42158 | -.22051 | -.22328 | -.20552 | -.25971 | -.25555 |
| 4.023 | 6.563 | 219.90081 | -.21970 | -.22092 | -.20464 | -.25986 | -.25237 |
| 4.009 | 8.722 | 218.60913 | -.21658 | -.21098 | -.20428 | -.25379 | -.24745 |
| 4.010 | 11.388 | 218.83473 | -.21641 | -.22046 | -.20711 | -.25777 | -.24981 |
| 4.004 | 13.218 | 218.27325 | -.21725 | -.22448 | -.21146 | -.26316 | -.25543 |
| 4.024 | 15.256 | 220.54749 | -.21666 | -.22926 | -.21890 | -.26595 | -.25931 |
| 4.016 | 17.340 | 219.73517 | -.22850 | -.25376 | -.24713 | -.27756 | -.27606 |
| 4.024 | 19.603 | 220.68974 | -.27835 | -.28320 | -.28651 | -.29066 | -.29675 |
| 4.006 | 21.806 | 218.75330 | -.30758 | -.30491 | -.30355 | -.29851 | -.30846 |
| 4.004 | 22.933 | 218.64205 | -.31484 | -.30950 | -.31719 | -.30493 | -.31344 |

RUN NO. 15/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 5.855 | .047 | 325.50971 | -.23538 | -.23221 | -.21224 | -.26768 | -.27204 |
| 5.859 | 2.266 | 326.32482 | -.23082 | -.23328 | -.21192 | -.26636 | -.26689 |
| 5.861 | 4.488 | 326.60651 | -.22573 | -.22904 | -.21187 | -.26603 | -.26092 |
| 5.852 | 6.649 | 325.79254 | -.22332 | -.22562 | -.21064 | -.26445 | -.26210 |
| 5.833 | 8.860 | 323.96821 | -.22131 | -.22135 | -.20761 | -.25931 | -.25428 |
| 5.834 | 11.034 | 324.27702 | -.21796 | -.21983 | -.20642 | -.25727 | -.25313 |
| 5.837 | 13.199 | 324.64289 | -.22083 | -.22567 | -.21055 | -.26164 | -.25988 |
| 5.818 | 15.461 | 322.56502 | -.21796 | -.23377 | -.22098 | -.26812 | -.26634 |
| 5.808 | 17.664 | 321.35742 | -.22834 | -.24362 | -.23330 | -.27744 | -.27644 |
| 5.786 | 19.844 | 318.82900 | -.25299 | -.27657 | -.27183 | -.28779 | -.29892 |
| 5.760 | 22.168 | 316.04801 | -.29851 | -.30934 | -.30552 | -.31064 | -.34227 |
| 5.743 | 24.237 | 314.08055 | -.30901 | -.33530 | -.32362 | -.33343 | -.37673 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WV50EF

(AJS005)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 12/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 7.839 | .059 | 439.53721 | -.23795 | -.23545 | -.21391 | -.26901 | -.27393 |
| 7.836 | 2.323 | 439.31439 | -.23495 | -.23415 | -.21401 | -.27136 | -.26869 |
| 7.813 | 4.557 | 437.04125 | -.22983 | -.23277 | -.21328 | -.26769 | -.26451 |
| 7.803 | 6.724 | 436.03210 | -.22706 | -.22871 | -.21269 | -.25466 | -.26243 |
| 7.807 | 9.001 | 437.01581 | -.22687 | -.22703 | -.21158 | -.26100 | -.26048 |
| 7.808 | 11.226 | 437.32580 | -.22065 | -.22372 | -.21085 | -.26160 | -.25783 |
| 7.849 | 13.493 | 442.32363 | -.22019 | -.22568 | -.21175 | -.26391 | -.26138 |
| 7.823 | 15.763 | 439.50275 | -.22272 | -.23664 | -.22337 | -.27105 | -.27160 |
| 7.801 | 17.939 | 437.44244 | -.22613 | -.24623 | -.23261 | -.27400 | -.27832 |
| 7.819 | 20.357 | 439.71829 | -.26047 | -.28078 | -.27438 | -.29366 | -.30192 |
| 7.808 | 22.656 | 438.76622 | -.30482 | -.32120 | -.31649 | -.31435 | -.34229 |
| 7.823 | 24.760 | 440.56486 | -.32241 | -.35024 | -.33974 | -.34937 | -.39884 |

RUN NO. 11/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 9.631 | .075 | 549.20628 | -.24358 | -.23724 | -.21585 | -.27171 | -.27528 |
| 9.613 | 2.372 | 548.00395 | -.23928 | -.23897 | -.21644 | -.27195 | -.26766 |
| 9.595 | 4.641 | 546.35041 | -.23200 | -.23218 | -.21549 | -.27373 | -.26826 |
| 9.586 | 6.861 | 545.98763 | -.23220 | -.23101 | -.21361 | -.27044 | -.27067 |
| 9.602 | 9.222 | 548.29144 | -.22751 | -.22753 | -.21117 | -.26202 | -.25916 |
| 9.590 | 11.411 | 547.33933 | -.22453 | -.22588 | -.21315 | -.26315 | -.26177 |
| 9.588 | 13.785 | 547.48160 | -.22395 | -.22857 | -.21415 | -.26554 | -.26606 |
| 9.588 | 16.168 | 548.26914 | -.22410 | -.23947 | -.22346 | -.27308 | -.27227 |
| 9.567 | 18.418 | 546.13874 | -.23154 | -.25164 | -.23997 | -.27610 | -.27891 |
| 9.578 | 20.820 | 547.79675 | -.26472 | -.27933 | -.27275 | -.28779 | -.29864 |
| 9.560 | 23.167 | 546.06046 | -.32552 | -.32341 | -.33112 | -.30580 | -.32034 |
| 9.586 | 25.383 | 549.54152 | -.33306 | -.35281 | -.35170 | -.33480 | -.37158 |

LARC LTPT 214 (LA36B) BIWVSCEF (AJS006)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 6/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 11.776 | -4.452 | 596.15872 | -.25639 | -.22441 | -.20101 | -.26310 | -.27289 |
| 11.755 | -2.158 | 596.39480 | -.25734 | -.22536 | -.19914 | -.26296 | -.27083 |
| 11.732 | .085 | 594.84431 | -.25638 | -.22194 | -.19961 | -.26163 | -.26852 |
| 11.736 | 2.316 | 595.92010 | -.25281 | -.22156 | -.19936 | -.25145 | -.26758 |
| 11.738 | 4.678 | 596.57164 | -.25720 | -.22488 | .19337 | -.26075 | -.26596 |
| 11.735 | 6.948 | 595.46064 | -.25660 | -.23185 | -.18973 | -.25767 | -.26113 |
| 11.703 | 9.191 | 593.83523 | -.25099 | -.22741 | -.19089 | -.25746 | -.25899 |
| 11.701 | 11.500 | 595.25455 | -.24981 | -.22487 | -.19336 | -.26136 | -.26674 |
| 11.707 | 14.021 | 596.33244 | -.24997 | -.22540 | -.19895 | -.26773 | -.27404 |
| 11.700 | 16.155 | 596.22368 | -.24278 | -.22695 | -.20961 | -.27098 | -.28213 |
| 11.678 | 18.519 | 595.06667 | -.24146 | -.24590 | -.22831 | -.28299 | -.29921 |
| 11.669 | 20.937 | 595.18419 | -.26470 | -.27345 | -.26060 | -.30085 | -.30864 |
| 11.665 | 23.396 | 595.10230 | -.30633 | -.31672 | -.31476 | -.33628 | -.32227 |
| 11.679 | 25.651 | 597.11155 | -.34086 | -.35206 | -.35631 | -.36416 | -.34906 |

LARC LTPT 214 (LA36B) BIWVSCEF (AJS007)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 7/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 11.569 | .060 | 596.34409 | -.24227 | -.23988 | -.21757 | -.27251 | -.27864 |
| 11.613 | 2.355 | 595.84998 | -.23830 | -.24027 | -.21790 | -.27761 | -.27436 |
| 11.623 | 4.715 | 597.46013 | -.23313 | -.23969 | -.21741 | -.27706 | -.27210 |
| 11.613 | 6.963 | 596.35996 | -.22916 | -.23523 | -.21632 | -.27127 | -.26925 |
| 11.598 | 9.353 | 595.42896 | -.23250 | -.22922 | -.21090 | -.26568 | -.26050 |
| 11.587 | 11.602 | 594.75098 | -.22714 | -.22713 | -.21133 | -.26291 | -.26291 |
| 11.605 | 13.966 | 597.12514 | -.22873 | -.23384 | -.21901 | -.27109 | -.26824 |
| 11.613 | 16.317 | 598.19917 | -.22175 | -.24497 | -.22706 | -.27663 | -.27662 |
| 11.572 | 18.582 | 594.64168 | -.23677 | -.25834 | -.24581 | -.27874 | -.28508 |
| 11.581 | 21.068 | 595.82929 | -.26601 | -.28141 | -.26941 | -.28790 | -.29976 |
| 11.589 | 23.509 | 597.13099 | -.30533 | -.31948 | -.31734 | -.31387 | -.31337 |
| 11.561 | 25.667 | 594.33519 | -.34337 | -.35449 | -.36182 | -.33477 | -.33630 |

LARC LTPT 214 (LA368) B1WVSOEF (AJS008)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 8/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 13.170 | -4.541 | 671.58420 | -.25685 | -.22887 | -.20151 | -.26771 | -.27557 |
| 13.179 | -2.204 | 673.00104 | -.25228 | -.22566 | -.19984 | -.26061 | -.27376 |
| 13.166 | .149 | 673.08811 | -.25475 | -.22328 | -.19978 | -.26630 | -.27815 |
| 13.158 | 2.451 | 672.75008 | -.25255 | -.22584 | -.19811 | -.25473 | -.27189 |
| 13.147 | 4.786 | 671.84713 | -.25140 | -.22434 | -.19620 | -.25710 | -.26451 |
| 13.140 | 7.065 | 671.70675 | -.25275 | -.22950 | -.19285 | -.25795 | -.26150 |
| 13.143 | 9.437 | 672.41492 | -.25616 | -.22779 | -.19161 | -.25941 | -.25970 |
| 13.133 | 11.739 | 671.76597 | -.24936 | -.22297 | -.19289 | -.26245 | -.26915 |
| 13.125 | 14.049 | 671.17332 | -.24499 | -.22693 | -.20054 | -.26765 | -.27546 |
| 13.123 | 16.394 | 671.37297 | -.24207 | -.23421 | -.21339 | -.27431 | -.28386 |
| 13.101 | 18.940 | 669.36719 | -.24610 | -.25649 | -.23447 | -.28518 | -.29864 |
| 13.080 | 21.334 | 667.19212 | -.27948 | -.28786 | -.28084 | -.30953 | -.31743 |

LARC LTPT 214 (LA368) B1WVSOEF (AJS009)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 9/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 13.109 | .090 | 673.25404 | -.24367 | -.24382 | -.21911 | -.27796 | -.27794 |
| 13.088 | 2.432 | 671.61690 | -.24042 | -.24125 | -.21996 | -.27521 | -.27286 |
| 13.071 | 4.833 | 671.02598 | -.23708 | -.24302 | -.22243 | -.27513 | -.27419 |
| 13.083 | 7.110 | 672.66620 | -.23773 | -.23648 | -.21851 | -.27533 | -.27356 |
| 13.054 | 9.493 | 670.29422 | -.23278 | -.23170 | -.21547 | -.26744 | -.26738 |
| 13.058 | 11.809 | 671.45396 | -.22710 | -.22892 | -.21511 | -.26627 | -.26384 |
| 13.059 | 14.331 | 671.99342 | -.22593 | -.23419 | -.21771 | -.27041 | -.27050 |
| 13.052 | 16.565 | 671.71191 | -.22470 | -.24611 | -.22732 | -.27763 | -.27706 |
| 13.001 | 18.845 | 666.96588 | -.24219 | -.26805 | -.24948 | -.28141 | -.29044 |
| 13.011 | 21.486 | 668.63501 | -.28063 | -.28929 | -.28378 | -.29945 | -.30970 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) BIWVS2EF (AJS010)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 18/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 3.939 | -4.311 | 218.69868 | -.23930 | -.21189 | -.19211 | -.25223 | -.26197 |
| 3.933 | -2.153 | 218.05167 | -.23658 | -.20831 | -.19027 | -.24974 | -.25815 |
| 3.921 | .012 | 216.64799 | -.23855 | -.20896 | -.18742 | -.24736 | -.25603 |
| 3.936 | 2.130 | 218.44464 | -.23848 | -.20807 | -.18632 | -.24618 | -.25318 |
| 3.935 | 4.309 | 218.52836 | -.24059 | -.21023 | -.18508 | -.24423 | -.25102 |
| 3.927 | 6.477 | 217.65864 | -.24039 | -.21044 | -.18361 | -.24468 | -.24838 |
| 3.948 | 8.672 | 219.93310 | -.23873 | -.21151 | -.18179 | -.24759 | -.25221 |
| 3.929 | 10.770 | 217.68788 | -.23539 | -.21021 | -.18461 | -.25180 | -.25755 |
| 3.931 | 12.951 | 218.08071 | -.23476 | -.21520 | -.19050 | -.25825 | -.26444 |
| 3.910 | 15.074 | 215.75003 | -.23697 | -.22468 | -.20332 | -.26116 | -.27223 |
| 3.927 | 17.359 | 217.60348 | -.24367 | -.24071 | -.22355 | -.27053 | -.28280 |
| 3.928 | 19.520 | 217.66020 | -.25089 | -.26182 | -.25281 | -.29703 | -.30036 |
| 3.946 | 21.713 | 219.54333 | -.28401 | -.29377 | -.28405 | -.33628 | -.32470 |
| 3.948 | 23.925 | 219.82278 | -.30095 | -.32466 | -.31427 | -.37264 | -.36432 |

RUN NO. 19/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 5.887 | -4.360 | 328.94979 | -.24315 | -.21683 | -.19554 | -.25756 | -.26637 |
| 5.887 | -2.227 | 329.09108 | -.24133 | -.21400 | -.19285 | -.25324 | -.26352 |
| 5.865 | .049 | 326.73443 | -.24221 | -.21455 | -.19219 | -.25403 | -.26378 |
| 5.862 | 2.209 | 326.48255 | -.24230 | -.21458 | -.19117 | -.25270 | -.26277 |
| 5.853 | 4.413 | 325.66826 | -.24547 | -.21434 | -.19045 | -.25226 | -.25964 |
| 5.860 | 6.614 | 326.45468 | -.24292 | -.21348 | -.18694 | -.25014 | -.25881 |
| 5.865 | 8.715 | 327.15738 | -.24287 | -.21630 | -.18732 | -.25456 | -.25933 |
| 5.858 | 10.977 | 326.48485 | -.24488 | -.21827 | -.18965 | -.25901 | -.26638 |
| 5.854 | 13.144 | 326.25009 | -.24289 | -.22008 | -.19421 | -.26114 | -.27337 |
| 5.871 | 15.497 | 328.28205 | -.23528 | -.22295 | -.20441 | -.26175 | -.27483 |
| 5.865 | 17.783 | 327.55383 | -.23554 | -.23743 | -.22242 | -.27133 | -.28664 |
| 5.857 | 19.988 | 326.79632 | -.26674 | -.27945 | -.26410 | -.30305 | -.31326 |
| 5.871 | 22.284 | 328.56619 | -.29648 | -.31574 | -.30724 | -.33930 | -.33543 |
| 5.852 | 24.522 | 326.40542 | -.32119 | -.34838 | -.34254 | -.37446 | -.35613 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WV52EF (AJS010)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 22/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 7.888 | -4.455 | 438.39744 | -.24913 | -.22295 | -.19983 | -.26495 | -.27358 |
| 7.901 | -2.151 | 440.14012 | -.24418 | -.21840 | -.19526 | -.26004 | -.27131 |
| 7.872 | .080 | 436.94025 | -.24450 | -.21538 | -.19510 | -.25739 | -.26900 |
| 7.884 | 2.359 | 438.62641 | -.24957 | -.21907 | -.19401 | -.25763 | -.26681 |
| 7.890 | 4.541 | 439.55325 | -.24610 | -.21548 | -.19164 | -.25691 | -.26434 |
| 7.881 | 6.799 | 438.34622 | -.24600 | -.21707 | -.19282 | -.25580 | -.26202 |
| 7.888 | 9.080 | 439.52653 | -.24627 | -.21827 | -.18868 | -.25608 | -.26515 |
| 7.894 | 11.341 | 440.28545 | -.24513 | -.21855 | -.19551 | -.26394 | -.27070 |
| 7.859 | 13.549 | 437.50748 | -.24747 | -.22634 | -.19873 | -.26748 | -.27966 |
| 7.865 | 15.899 | 437.45168 | -.23707 | -.22981 | -.20759 | -.26801 | -.28391 |
| 7.889 | 18.261 | 440.09240 | -.23974 | -.23992 | -.22187 | -.27256 | -.28906 |
| 7.884 | 20.485 | 439.78452 | -.26083 | -.27361 | -.26293 | -.30347 | -.30299 |
| 7.878 | 22.834 | 439.25300 | -.31612 | -.31939 | -.3228? | -.34135 | -.32986 |
| 7.875 | 25.142 | 438.91798 | -.33609 | -.35851 | -.35124 | -.38303 | -.36805 |

RUN NO. 23/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 9.631 | -4.437 | 546.28431 | -.25106 | -.22524 | -.20035 | -.26675 | -.27730 |
| 9.632 | -2.184 | 546.87620 | -.24852 | -.21996 | -.19919 | -.26172 | -.27457 |
| 9.575 | -.031 | 546.33777 | -.24570 | -.21995 | -.19833 | -.26216 | -.27508 |
| 9.625 | 2.347 | 546.76719 | -.25008 | -.21763 | -.19521 | -.25919 | -.26845 |
| 9.622 | 4.633 | 546.82566 | -.25036 | -.21841 | -.19475 | -.25782 | -.27003 |
| 9.652 | 7.000 | 550.89456 | -.24871 | -.21838 | -.19352 | -.25671 | -.26384 |
| 9.631 | 9.406 | 548.67992 | -.24895 | -.22015 | -.19148 | -.25964 | -.26931 |
| 9.622 | 11.574 | 547.75498 | -.24645 | -.22112 | -.19459 | -.26586 | -.27774 |
| 9.621 | 13.806 | 547.95479 | -.24740 | -.22634 | -.19955 | -.26893 | -.28230 |
| 9.630 | 16.318 | 549.52907 | -.23590 | -.23331 | -.21282 | -.27207 | -.28465 |
| 9.616 | 18.664 | 548.77450 | -.23913 | -.24270 | -.22636 | -.27431 | -.29118 |
| 9.604 | 21.055 | 547.42956 | -.27802 | -.28392 | -.27992 | -.30320 | -.31045 |
| 9.614 | 23.290 | 548.69452 | -.32670 | -.32651 | -.32985 | -.34836 | -.35166 |
| 9.634 | 25.901 | 551.44707 | -.35098 | -.36414 | -.35354 | -.38345 | -.38914 |

LA368 TABULATED SOURCE DATA

LARC LTPT 214 (LA368) B1WVS2EF (AJS011)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 17/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 3.951 | .057 | 219.13620 | -.22810 | -.22658 | -.20643 | -.25799 | -.26482 |
| 3.953 | 2.209 | 219.86831 | -.22455 | -.22708 | -.20719 | -.26001 | -.26014 |
| 3.944 | 4.387 | 218.91507 | -.22108 | -.22539 | -.20587 | -.25935 | -.25611 |
| 3.938 | 6.528 | 218.74644 | -.21927 | -.22193 | -.20524 | -.25901 | -.25671 |
| 3.947 | 8.735 | 219.92735 | -.21385 | -.22327 | -.20781 | -.25950 | -.25990 |
| 3.935 | 10.872 | 218.94582 | -.21169 | -.22492 | -.21203 | -.26427 | -.26148 |
| 3.939 | 13.033 | 219.22674 | -.21188 | -.22863 | -.21772 | -.26575 | -.26600 |
| 3.924 | 15.286 | 218.04931 | -.22092 | -.23993 | -.22911 | -.27145 | -.26784 |
| 3.897 | 17.315 | 214.90387 | -.24022 | -.25708 | -.24672 | -.29457 | -.29722 |
| 3.952 | 19.702 | 221.13803 | -.26563 | -.28247 | -.27593 | -.31266 | -.34361 |
| 3.938 | 21.859 | 219.53916 | -.28879 | -.30565 | -.29927 | -.32542 | -.36935 |
| 3.931 | 23.943 | 218.94868 | -.30724 | -.32498 | -.31730 | -.34329 | -.40187 |

RUN NO. 20/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 5.867 | .054 | 327.70327 | -.23180 | -.23245 | -.21102 | -.26485 | -.27046 |
| 5.850 | 2.219 | 326.16149 | -.22909 | -.23298 | -.21056 | -.26441 | -.26615 |
| 5.854 | 4.455 | 326.89321 | -.22935 | -.23224 | -.21116 | -.26508 | -.26517 |
| 5.838 | 6.665 | 325.37742 | -.22433 | -.22855 | -.21106 | -.26381 | -.26404 |
| 5.853 | 8.882 | 327.14680 | -.22068 | -.22940 | -.21235 | -.26517 | -.26542 |
| 5.855 | 10.995 | 327.68103 | -.21933 | -.23055 | -.21396 | -.26785 | -.26906 |
| 5.837 | 13.301 | 325.74522 | -.21879 | -.23346 | -.22097 | -.27162 | -.27104 |
| 5.841 | 15.591 | 326.36279 | -.21905 | -.24068 | -.22820 | -.26839 | -.27118 |
| 5.844 | 17.653 | 326.72924 | -.22974 | -.25368 | -.24100 | -.28126 | -.28538 |
| 5.838 | 20.097 | 326.16918 | -.26117 | -.28959 | -.28043 | -.30703 | -.34466 |
| 5.862 | 22.395 | 329.06127 | -.28489 | -.31304 | -.30247 | -.32113 | -.37364 |
| 5.823 | 24.464 | 324.60141 | -.31375 | -.33861 | -.32256 | -.34007 | -.40535 |

LA38B TABULATED SOURCE DATA

LARC LTPT 214 (LA38B) B1WVS2EF (AJS011)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | -10.000 |
| BDFLAP = | -11.700 | SPOBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 21/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 7.970 | .079 | 436.84510 | -.23794 | -.23731 | -.21362 | -.26914 | -.27752 |
| 7.968 | 2.391 | 437.38155 | -.23378 | -.23800 | -.21465 | -.26861 | -.27034 |
| 7.963 | 4.738 | 437.35748 | -.23156 | -.23629 | -.21469 | -.27230 | -.27243 |
| 7.934 | 6.847 | 440.19634 | -.22922 | -.23046 | -.21298 | -.25763 | -.26729 |
| 7.958 | 9.281 | 438.06579 | -.22743 | -.23291 | -.21451 | -.26670 | -.27192 |
| 7.977 | 11.482 | 440.70832 | -.22040 | -.23423 | -.21789 | -.27095 | -.27579 |
| 7.937 | 13.870 | 436.78079 | -.22032 | -.23925 | -.22467 | -.27532 | -.27641 |
| 7.951 | 16.033 | 438.63582 | -.22356 | -.24592 | -.23221 | -.27209 | -.27462 |
| 7.943 | 18.408 | 439.04972 | -.22861 | -.25651 | -.24341 | -.28241 | -.28810 |
| 7.926 | 20.612 | 437.52421 | -.25057 | -.28127 | -.27132 | -.30040 | -.34054 |
| 7.941 | 23.055 | 440.16975 | -.27675 | -.31597 | -.30341 | -.33022 | -.38060 |
| 7.931 | 25.222 | 439.44345 | -.30118 | -.34418 | -.32379 | -.33615 | -.39600 |

RUN NO. 24/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 9.534 | .075 | 545.47843 | -.23715 | -.23717 | -.21461 | -.26959 | -.27530 |
| 9.539 | 2.429 | 547.02486 | -.23757 | -.23865 | -.21730 | -.27351 | -.27709 |
| 9.537 | 4.720 | 547.41990 | -.23567 | -.23676 | -.21371 | -.27098 | -.26841 |
| 9.540 | 7.043 | 548.15369 | -.23427 | -.23611 | -.21780 | -.27019 | -.26909 |
| 9.526 | 9.314 | 547.17011 | -.22757 | -.23177 | -.21302 | -.26642 | -.27440 |
| 9.516 | 11.756 | 546.22038 | -.22389 | -.23740 | -.22216 | -.27295 | -.27781 |
| 9.532 | 13.973 | 548.35472 | -.22514 | -.24029 | -.22575 | -.27486 | -.27534 |
| 9.508 | 16.408 | 545.96690 | -.22497 | -.24670 | -.22827 | -.27595 | -.27741 |
| 9.528 | 18.675 | 548.91714 | -.23297 | -.26073 | -.24592 | -.28614 | -.29885 |
| 9.528 | 21.101 | 549.05802 | -.25840 | -.29172 | -.27975 | -.30363 | -.34749 |
| 9.518 | 23.632 | 548.08077 | -.27877 | -.32058 | -.30489 | -.33920 | -.39094 |
| 9.519 | 25.768 | 548.47370 | -.30539 | -.35402 | -.33160 | -.33687 | -.39775 |

LARC L1PT 214 (LA36B) B1WVS2EF (AJS012)

PARAMETRIC DATA

BETA = .000 ELEVON = -10.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .225 RUDDER = .000

RUN NO. 26/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 11.512 | -4.606 | 595.30763 | -.25359 | -.22863 | -.20281 | -.26707 | -.28921 |
| 11.527 | -2.162 | 597.08762 | -.24769 | -.22213 | -.19800 | -.26558 | -.27836 |
| 11.494 | .042 | 593.78342 | -.24750 | -.22392 | -.19878 | -.26443 | -.27400 |
| 11.505 | 2.309 | 595.13989 | -.24984 | -.22089 | -.19600 | -.25194 | -.27548 |
| 11.515 | 4.623 | 596.32553 | -.24727 | -.22095 | -.19622 | -.25967 | -.27035 |
| 11.493 | 7.000 | 594.37758 | -.24652 | -.22098 | -.19115 | -.25892 | -.26669 |
| 11.515 | 9.235 | 596.63691 | -.23975 | -.21727 | -.19251 | -.26007 | -.27035 |
| 11.516 | 11.549 | 596.80539 | -.24422 | -.22186 | -.19730 | -.26540 | -.27669 |
| 11.523 | 13.979 | 597.65425 | -.24340 | -.23145 | -.20141 | -.27247 | -.28118 |
| 11.529 | 16.350 | 598.24858 | -.23567 | -.23326 | -.21328 | -.27583 | -.28851 |
| 11.500 | 18.788 | 595.67919 | -.24497 | -.25801 | -.23513 | -.28260 | -.29755 |
| 11.502 | 21.195 | 596.01824 | -.27518 | -.29666 | -.29147 | -.32218 | -.31526 |
| 11.506 | 23.644 | 596.72583 | -.31932 | -.33655 | -.33774 | -.36385 | -.35391 |
| 11.493 | 25.991 | 595.37188 | -.34870 | -.36569 | -.36621 | -.38870 | -.38096 |

LARC L1PT 214 (LA36B) B1WVS2EF (AJS013)

PARAMETRIC DATA

BETA = 5.000 ELEVON = -10.000
BDFLAP = -11.700 SPDBRK = .000
MACH = .225 RUDDER = .000

RUN NO. 25/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 11.621 | .095 | 594.17479 | -.24297 | -.23882 | -.21750 | -.26919 | -.27939 |
| 11.620 | 2.392 | 596.11115 | -.23968 | -.24010 | -.21901 | -.27493 | -.27487 |
| 11.617 | 4.765 | 596.25287 | -.23937 | -.24275 | -.21665 | -.27564 | -.27450 |
| 11.621 | 6.963 | 598.06380 | -.23474 | -.23549 | -.21627 | -.27020 | -.27534 |
| 11.608 | 9.348 | 597.38752 | -.22457 | -.23506 | -.21551 | -.26913 | -.27443 |
| 11.570 | 11.622 | 594.08549 | -.22448 | -.23960 | -.22003 | -.27545 | -.28142 |
| 11.601 | 14.033 | 598.09750 | -.22235 | -.24323 | -.22653 | -.27531 | -.27860 |
| 11.575 | 16.461 | 595.72621 | -.22644 | -.25035 | -.22896 | -.28431 | -.28409 |
| 11.581 | 18.771 | 596.63275 | -.23493 | -.26419 | -.25241 | -.28110 | -.29789 |
| 11.586 | 21.263 | 597.79313 | -.26238 | -.29955 | -.28272 | -.30406 | -.34897 |
| 11.587 | 23.830 | 598.47410 | -.28230 | -.32336 | -.30776 | -.34186 | -.39300 |
| 11.589 | 25.986 | 599.29640 | -.30761 | -.35295 | -.33291 | -.33885 | -.39669 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS2EF (AJS014)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 27/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 13.099 | -4.552 | 671.84538 | -.25279 | -.22517 | -.20294 | -.26557 | -.27650 |
| 13.105 | -2.223 | 672.60884 | -.25020 | -.22465 | -.20102 | -.26421 | -.27744 |
| 13.104 | .054 | 672.49653 | -.25072 | -.22367 | -.19797 | -.26387 | -.27609 |
| 13.101 | 2.437 | 672.32747 | -.25117 | -.22410 | -.19835 | -.26307 | -.27548 |
| 13.083 | 4.689 | 670.83093 | -.24998 | -.22186 | -.19665 | -.25673 | -.26820 |
| 13.079 | 7.020 | 671.08659 | -.24517 | -.22229 | -.19567 | -.25885 | -.26665 |
| 13.111 | 9.387 | 674.61979 | -.24637 | -.22329 | -.19422 | -.26320 | -.27269 |
| 13.074 | 11.779 | 671.34273 | -.24589 | -.22359 | -.20113 | -.27050 | -.28318 |
| 13.089 | 14.322 | 673.40876 | -.23987 | -.22888 | -.20383 | -.27335 | -.28519 |
| 13.080 | 16.597 | 672.50823 | -.24351 | -.23858 | -.21757 | -.27864 | -.29381 |
| 13.063 | 19.047 | 671.18099 | -.25955 | -.26941 | -.25131 | -.29523 | -.31062 |
| 12.999 | 21.575 | 664.70691 | -.28045 | -.30717 | -.30576 | -.34151 | -.32837 |
| 12.968 | 24.024 | 661.71016 | -.29911 | -.33413 | -.33240 | -.36891 | -.34798 |

LARC LTPT 214 (LA36B) B1WVS2EF (AJS015)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 28/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 13.027 | .088 | 672.33209 | -.24135 | -.24251 | -.21949 | -.27348 | -.28304 |
| 13.019 | 2.442 | 672.10711 | -.23726 | -.24623 | -.21894 | -.27665 | -.27502 |
| 13.031 | 4.806 | 674.11609 | -.23823 | -.24004 | -.21943 | -.27822 | -.27439 |
| 13.008 | 7.135 | 671.85768 | -.23752 | -.24078 | -.21874 | -.27622 | -.27848 |
| 13.010 | 9.578 | 672.51420 | -.23064 | -.23852 | -.21735 | -.27329 | -.27753 |
| 12.981 | 11.866 | 670.13366 | -.22282 | -.24356 | -.22513 | -.27761 | -.28069 |
| 13.011 | 14.416 | 674.34346 | -.22531 | -.24906 | -.22977 | -.27716 | -.27861 |
| 12.985 | 16.815 | 671.99797 | -.23035 | -.25615 | -.23861 | -.29106 | -.29834 |
| 13.006 | 19.165 | 674.71235 | -.25266 | -.27519 | -.26128 | -.29841 | -.32618 |
| 12.884 | 21.549 | 662.41823 | -.27098 | -.29690 | -.28838 | -.31348 | -.36713 |
| 12.859 | 24.232 | 659.76126 | -.28497 | -.32929 | -.31074 | -.33237 | -.38503 |

# LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJS016)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 29/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 3.983 | .032 | 218.57212 | -.22564 | -.22328 | -.20355 | -.25565 | -.25673 |
| 3.956 | 2.276 | 218.08869 | -.22060 | -.22954 | -.20654 | -.25741 | -.25539 |
| 3.955 | 4.425 | 218.28582 | -.21908 | -.23115 | -.20738 | -.25914 | -.25322 |
| 3.965 | 6.589 | 219.49351 | -.21676 | -.22832 | -.20745 | -.25644 | -.25355 |
| 3.967 | 8.882 | 219.71811 | -.21536 | -.22892 | -.20924 | -.25603 | -.25564 |
| 3.948 | 10.909 | 217.78184 | -.21555 | -.22740 | -.21002 | -.25817 | -.25736 |
| 3.948 | 13.155 | 217.85592 | -.21945 | -.22934 | -.21205 | -.25974 | -.26397 |
| 3.962 | 15.355 | 219.55157 | -.22201 | -.23131 | -.21246 | -.26707 | -.26596 |
| 3.958 | 17.462 | 219.18753 | -.23243 | -.23648 | -.21278 | -.28267 | -.27414 |
| 3.956 | 19.689 | 219.16059 | -.26388 | -.25647 | -.21173 | -.30335 | -.28784 |
| 3.953 | 21.825 | 218.62877 | -.28839 | -.27897 | -.22221 | -.30487 | -.29572 |
| 3.955 | 23.925 | 219.21749 | -.29250 | -.29409 | -.23559 | -.31372 | -.30836 |

RUN NO. 32/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 5.801 | .053 | 326.21062 | -.23253 | -.23301 | -.21162 | -.26426 | -.27088 |
| 5.805 | 2.290 | 327.16795 | -.22834 | -.23701 | -.21365 | -.26480 | -.26486 |
| 5.792 | 4.526 | 325.90465 | -.22385 | -.23755 | -.21238 | -.26485 | -.26463 |
| 5.798 | 6.677 | 326.74878 | -.22130 | -.23582 | -.21243 | -.26362 | -.26292 |
| 5.792 | 8.913 | 326.32863 | -.21831 | -.23192 | -.21420 | -.25934 | -.26848 |
| 5.794 | 11.041 | 326.77877 | -.21886 | -.23214 | -.21436 | -.26197 | -.26908 |
| 5.781 | 13.486 | 325.54461 | -.22682 | -.23511 | -.21983 | -.26270 | -.26912 |
| 5.804 | 15.580 | 328.21251 | -.22565 | -.23644 | -.21766 | -.26919 | -.27106 |
| 5.778 | 17.695 | 325.35108 | -.23344 | -.23420 | -.20836 | -.28146 | -.28137 |
| 5.805 | 19.978 | 328.60856 | -.27086 | -.26061 | -.21039 | -.70711 | -.29693 |
| 5.788 | 22.211 | 326.75735 | -.28775 | -.28150 | -.23076 | -.30815 | -.30634 |
| 5.765 | 24.276 | 324.28660 | -.29100 | -.30637 | -.25298 | -.32439 | -.32275 |

LARC LTPT 214 (LA368) B1WVS0C3EF (AJS016)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 35/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 7.780 | .078 | 438.47752 | -.23765 | -.23358 | -.21348 | -.26826 | -.27333 |
| 7.764 | 2.360 | 437.10366 | -.22971 | -.24050 | -.21516 | -.26722 | -.26957 |
| 7.755 | 4.609 | 436.03827 | -.22805 | -.24132 | -.21698 | -.26738 | -.27012 |
| 7.762 | 6.843 | 437.58413 | -.22411 | -.23756 | -.21275 | -.26712 | -.26891 |
| 7.758 | 9.131 | 437.52912 | -.22231 | -.23368 | -.21633 | -.26228 | -.26983 |
| 7.766 | 11.367 | 438.62558 | -.22293 | -.23160 | -.21655 | -.26132 | -.26920 |
| 7.759 | 13.653 | 438.26165 | -.22404 | -.23693 | -.22127 | -.26622 | -.27329 |
| 7.743 | 15.956 | 436.71869 | -.22648 | -.23720 | -.21845 | -.27623 | -.27815 |
| 7.764 | 18.067 | 439.86308 | -.23607 | -.23676 | -.21036 | -.28757 | -.28559 |
| 7.740 | 20.495 | 437.31357 | -.27406 | -.26208 | -.20972 | -.29629 | -.28548 |
| 7.733 | 22.708 | 437.14552 | -.29433 | -.29020 | -.23738 | -.30932 | -.31162 |
| 7.744 | 24.908 | 438.72229 | -.29094 | -.31094 | -.26117 | -.32739 | -.33441 |

RUN NO. 40/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 9.724 | .086 | 545.89553 | -.23919 | -.23581 | -.21482 | -.26782 | -.27257 |
| 9.726 | 2.405 | 548.12439 | -.23333 | -.23927 | -.21670 | -.26914 | -.27193 |
| 9.683 | 4.657 | 544.39594 | -.23122 | -.24095 | -.21872 | -.27170 | -.27011 |
| 9.676 | 7.001 | 544.56760 | -.22542 | -.24020 | -.21580 | -.26713 | -.27058 |
| 9.705 | 9.312 | 548.97895 | -.22814 | -.23735 | -.21825 | -.26308 | -.27396 |
| 9.698 | 11.529 | 548.33617 | -.22496 | -.23358 | -.21804 | -.26287 | -.27299 |
| 9.708 | 13.930 | 550.02220 | -.22879 | -.23823 | -.22126 | -.26477 | -.27360 |
| 9.692 | 16.219 | 548.90139 | -.22993 | -.24132 | -.21883 | -.27887 | -.28278 |
| 9.661 | 18.507 | 545.53663 | -.23860 | -.24163 | -.21007 | -.29530 | -.28824 |
| 9.617 | 20.919 | 540.73573 | -.27615 | -.27054 | -.22135 | -.30543 | -.29629 |
| 9.558 | 23.139 | 534.30548 | -.30173 | -.29703 | -.24367 | -.31856 | -.32187 |
| 9.505 | 25.346 | 528.23817 | -.29929 | -.32243 | -.27171 | -.33512 | -.34220 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJS017)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPD3RK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 30/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 3.953 | -4.252 | 220.25244 | -.23838 | -.20984 | -.19029 | -.24983 | -.25945 |
| 3.940 | -2.025 | 218.96102 | -.23727 | -.20900 | -.18871 | -.24821 | -.25809 |
| 3.929 | -.066 | 218.59883 | -.23643 | -.20724 | -.18563 | -.24546 | -.25372 |
| 3.942 | 2.165 | 219.15848 | -.23660 | -.20518 | -.18600 | -.24481 | -.25272 |
| 3.938 | 4.359 | 218.87773 | -.23252 | -.20454 | -.18618 | -.24385 | -.25372 |
| 3.941 | 6.523 | 219.24273 | -.23003 | -.20356 | -.18456 | -.24448 | -.25177 |
| 3.938 | 8.732 | 218.90580 | -.22751 | -.20331 | -.18082 | -.24477 | -.25002 |
| 3.932 | 10.866 | 218.20333 | -.23113 | -.20812 | -.17948 | -.24642 | -.25133 |
| 3.936 | 12.992 | 218.59789 | -.23731 | -.21607 | -.18218 | -.25227 | -.25555 |
| 3.948 | 15.239 | 220.09590 | -.25020 | -.22745 | -.18563 | -.25702 | -.26260 |
| 3.944 | 17.434 | 219.69327 | -.27197 | -.24798 | -.19666 | -.27133 | -.28140 |
| 3.944 | 19.628 | 219.47151 | -.23655 | -.26440 | -.21916 | -.29473 | -.28572 |
| 3.944 | 21.700 | 219.74396 | -.25307 | -.27798 | -.22955 | -.29489 | -.29213 |
| 3.945 | 23.791 | 219.89032 | -.25625 | -.27304 | -.24489 | -.32215 | -.26242 |

RUN NO. 31/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 5.820 | -4.336 | 326.61033 | -.24354 | -.21345 | -.19474 | -.25312 | -.26489 |
| 5.821 | -2.062 | 326.97623 | -.23952 | -.21133 | -.19137 | -.25320 | -.26257 |
| 5.820 | .000 | 326.46389 | -.24144 | -.21143 | -.19277 | -.25394 | -.26420 |
| 5.812 | 2.353 | 326.19263 | -.23876 | -.21111 | -.18973 | -.24863 | -.25931 |
| 5.813 | 4.590 | 326.55779 | -.23549 | -.20949 | -.19070 | -.25149 | -.26162 |
| 5.810 | 6.950 | 326.24878 | -.23265 | -.20798 | -.18618 | -.24875 | -.25706 |
| 5.818 | 8.929 | 327.14773 | -.23287 | -.20914 | -.18427 | -.24914 | -.25753 |
| 5.811 | 11.069 | 326.58605 | -.23630 | -.21161 | -.18264 | -.25079 | -.25895 |
| 5.816 | 13.295 | 327.12041 | -.24415 | -.21969 | -.18451 | -.25261 | -.26103 |
| 5.813 | 15.566 | 327.01003 | -.25393 | -.22923 | -.18814 | -.25732 | -.26655 |
| 5.815 | 17.846 | 327.29056 | -.27214 | -.24864 | -.19687 | -.27554 | -.27819 |
| 5.812 | 20.063 | 326.98212 | -.27705 | -.26122 | -.21075 | -.28691 | -.30014 |
| 5.810 | 22.145 | 326.75812 | -.27027 | -.27390 | -.22795 | -.29598 | -.29782 |
| 5.811 | 24.367 | 326.90324 | -.28073 | -.27939 | -.23664 | -.31098 | -.30238 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJ5017)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .250 | RUDDER = | .000 |

RUN NO. 34/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 7.810 | -4.427 | 438.43332 | -.24312 | -.22092 | -.19917 | -.26102 | -.27352 |
| 7.794 | -2.241 | 436.60883 | -.24382 | -.21842 | -.19692 | -.25995 | -.27349 |
| 7.813 | .049 | 439.53108 | -.24436 | -.21364 | -.19281 | -.25850 | -.26605 |
| 7.801 | 2.302 | 438.52024 | -.24375 | -.21334 | -.19387 | -.25592 | -.26666 |
| 7.794 | 4.476 | 437.84655 | -.23858 | -.21228 | -.19266 | -.25428 | -.26535 |
| 7.793 | 6.764 | 437.62311 | -.23706 | -.21217 | -.19032 | -.25346 | -.26359 |
| 7.785 | 9.009 | 437.17455 | -.23434 | -.21078 | -.18692 | -.25182 | -.26064 |
| 7.779 | 11.220 | 436.75380 | -.23780 | -.21506 | -.18833 | -.25444 | -.26125 |
| 7.783 | 13.510 | 437.09147 | -.24401 | -.22119 | -.18832 | -.25497 | -.26182 |
| 7.788 | 15.754 | 437.82230 | -.25161 | -.23376 | -.19194 | -.26340 | -.26768 |
| 7.776 | 17.949 | 435.64439 | -.27420 | -.24961 | -.20115 | -.27898 | -.28245 |
| 7.792 | 20.301 | 439.52657 | -.28001 | -.26383 | -.21273 | -.28879 | -.30002 |
| 7.781 | 22.559 | 437.68553 | -.27426 | -.26873 | -.22841 | -.29671 | -.30430 |
| 7.785 | 24.803 | 438.10837 | -.28696 | -.29228 | -.25122 | -.31504 | -.32064 |

RUN NO. 41/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 9.660 | -4.546 | 548.44732 | -.24857 | -.22283 | -.20093 | -.26386 | -.27242 |
| 9.647 | -2.228 | 546.90634 | -.24827 | -.22056 | -.19642 | -.26007 | -.26788 |
| 9.645 | .069 | 547.30059 | -.24791 | -.21845 | -.19736 | -.25762 | -.26950 |
| 9.644 | 2.310 | 547.27332 | -.24589 | -.21636 | -.19551 | -.25750 | -.26769 |
| 9.635 | 4.620 | 546.57243 | -.24626 | -.21762 | -.19511 | -.25591 | -.26494 |
| 9.648 | 6.909 | 548.51028 | -.23857 | -.21474 | -.19163 | -.25546 | -.26232 |
| 9.662 | 9.225 | 550.15689 | -.23912 | -.21373 | -.18846 | -.25407 | -.26483 |
| 9.671 | 11.431 | 551.43229 | -.24142 | -.21727 | -.18895 | -.25739 | -.26868 |
| 9.667 | 13.861 | 551.01182 | -.24605 | -.22474 | -.18901 | -.25964 | -.26918 |
| 9.628 | 16.042 | 546.83144 | -.26079 | -.23663 | -.19376 | -.26865 | -.27486 |
| 9.604 | 18.480 | 544.22104 | -.28311 | -.25740 | -.20275 | -.27794 | -.28829 |
| 9.592 | 20.782 | 542.95912 | -.28081 | -.26740 | -.22013 | -.29236 | -.30703 |
| 9.612 | 23.080 | 545.34904 | -.28582 | -.27562 | -.23375 | -.31092 | -.31908 |
| 9.644 | 25.306 | 549.39268 | -.29414 | -.30813 | -.27423 | -.31476 | -.33133 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJS018)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 38/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 11.763 | -4.493 | 598.14443 | -.25276 | -.22704 | -.20187 | -.26325 | -.27476 |
| 11.726 | -2.190 | 594.72702 | -.24990 | -.22057 | -.19962 | -.26387 | -.27678 |
| 11.713 | .082 | 593.85186 | -.25101 | -.22101 | -.20086 | -.26196 | -.27267 |
| 11.696 | 2.375 | 592.52519 | -.24631 | -.22071 | -.19994 | -.25656 | -.27471 |
| 11.711 | 4.707 | 594.02296 | -.24082 | -.21690 | -.19806 | -.26062 | -.25920 |
| 11.698 | 7.019 | 591.70678 | -.24450 | -.21773 | -.19521 | -.25872 | -.26306 |
| 11.697 | 9.239 | 593.40300 | -.23395 | -.21460 | -.19186 | -.25887 | -.26735 |
| 11.686 | 11.620 | 592.41606 | -.24948 | -.22115 | -.19200 | -.26224 | -.27469 |
| 11.717 | 13.950 | 595.56343 | -.25104 | -.22750 | -.19940 | -.26314 | -.27269 |
| 11.694 | 16.303 | 593.60480 | -.26153 | -.24140 | -.19933 | -.27271 | -.27882 |
| 11.709 | 18.662 | 595.24359 | -.28762 | -.26472 | -.21015 | -.29103 | -.29491 |
| 11.701 | 20.972 | 594.36937 | -.29239 | -.27803 | -.22528 | -.30355 | -.31789 |
| 11.649 | 23.274 | 589.08574 | -.29184 | -.28319 | -.23548 | -.31219 | -.32220 |
| 11.658 | 25.489 | 590.04775 | -.30454 | -.30124 | -.25133 | -.33376 | -.33537 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJS019)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .225 | RUDDER = | .000 |

RUN NO. 39/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 11.699 | .098 | 594.89259 | -.24276 | -.23781 | -.21627 | -.27124 | -.27613 |
| 11.697 | 2.410 | 595.54429 | -.23610 | -.24086 | -.21804 | -.27189 | -.27522 |
| 11.698 | 4.758 | 595.75047 | -.23174 | -.24559 | -.21987 | -.27216 | -.27110 |
| 11.670 | 7.019 | 593.65704 | -.23057 | -.24464 | -.21908 | -.27139 | -.27355 |
| 11.657 | 9.392 | 592.66647 | -.22525 | -.24035 | -.21945 | -.26613 | -.27415 |
| 11.643 | 11.718 | 591.65358 | -.22577 | -.24123 | -.22064 | -.26578 | -.27802 |
| 11.664 | 14.041 | 594.05371 | -.23235 | -.24338 | -.22343 | -.27084 | -.27745 |
| 11.666 | 16.475 | 594.78768 | -.23545 | -.24465 | -.22277 | -.27570 | -.28714 |
| 11.647 | 18.699 | 593.00955 | -.24544 | -.24508 | -.21813 | -.31201 | -.30256 |
| 11.625 | 21.111 | 590.74954 | -.28239 | -.27822 | -.23128 | -.31850 | -.31066 |
| 11.642 | 23.480 | 593.21037 | -.30831 | -.30506 | -.25069 | -.33122 | -.32998 |
| 11.626 | 25.642 | 591.65738 | -.30674 | -.33492 | -.28939 | -.35178 | -.36569 |

LA36B TABULATED SOURCE DATA

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJS020)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | 5.000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 36/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 13.311 | .105 | 667.00517 | -.24064 | -.24061 | -.21660 | -.27261 | -.27752 |
| 13.349 | 2.503 | 672.40997 | -.23854 | -.24738 | -.22014 | -.27473 | -.27561 |
| 13.356 | 4.795 | 674.96360 | -.23216 | -.24605 | -.22081 | -.27268 | -.27147 |
| 13.312 | 7.200 | 670.83985 | -.23151 | -.24410 | -.22094 | -.27141 | -.27615 |
| 13.278 | 9.540 | 669.51135 | -.22766 | -.23994 | -.22101 | -.26786 | -.27905 |
| 13.288 | 11.914 | 671.24374 | -.22747 | -.23786 | -.22339 | -.26946 | -.27988 |
| 13.282 | 14.238 | 670.84992 | -.23229 | -.24515 | -.22560 | -.27298 | -.28392 |
| 13.262 | 16.730 | 668.49331 | -.23964 | -.24789 | -.23110 | -.28730 | -.28778 |
| 13.213 | 19.032 | 664.85951 | -.24655 | -.25841 | -.22472 | -.31490 | -.30471 |
| 13.184 | 21.403 | 663.38653 | -.28442 | -.28311 | -.23501 | -.32114 | -.31660 |
| 13.174 | 23.883 | 663.16450 | -.31384 | -.31227 | -.25958 | -.33717 | -.33456 |
| 13.140 | 26.021 | 659.91431 | -.30985 | -.33731 | -.29049 | -.35554 | -.37469 |

LARC LTPT 214 (LA36B) B1WVS0C3EF (AJS021)

PARAMETRIC DATA

| | | | |
|---|---|---|---|
| BETA = | .000 | ELEVON = | 5.000 |
| BDFLAP = | -11.700 | SPDBRK = | .000 |
| MACH = | .220 | RUDDER = | .000 |

RUN NO. 37/ 0

| RN/L | ALPHA | Q(PSF) | CPC | CPB1 | CPB2 | CPB3 | CPB4 |
|---|---|---|---|---|---|---|---|
| 13.287 | -4.605 | 675.24195 | -.25558 | -.22494 | -.20230 | -.26471 | -.27743 |
| 13.262 | -2.195 | 672.98133 | -.25180 | -.22109 | -.20132 | -.26309 | -.27342 |
| 13.272 | .095 | 674.31014 | -.25203 | -.22024 | -.19838 | -.26571 | -.27682 |
| 13.255 | 2.415 | 672.84171 | -.25164 | -.21873 | -.19801 | -.26305 | -.27214 |
| 13.228 | 4.781 | 670.63881 | -.24690 | -.21604 | -.19743 | -.26122 | -.27305 |
| 13.271 | 7.054 | 675.10669 | -.24756 | -.21887 | -.19710 | -.26049 | -.27142 |
| 13.259 | 9.428 | 674.53717 | -.23677 | -.21548 | -.19003 | -.26066 | -.27089 |
| 13.273 | 11.820 | 676.28941 | -.24519 | -.22287 | -.19075 | -.26414 | -.27321 |
| 13.250 | 14.157 | 674.08587 | -.25049 | -.22883 | -.19236 | -.26551 | -.27883 |
| 13.265 | 16.566 | 675.98028 | -.26855 | -.24612 | -.19881 | -.27896 | -.28348 |
| 13.223 | 18.976 | 671.54431 | -.29400 | -.27324 | -.21708 | -.29968 | -.30552 |
| 13.181 | 21.242 | 667.61646 | -.29370 | -.28253 | -.22548 | -.30816 | -.31962 |
| 13.136 | 23.539 | 663.15109 | -.30041 | -.29320 | -.23804 | -.31993 | -.32579 |
| 13.085 | 25.958 | 657.77903 | -.31260 | -.30914 | -.25713 | -.34656 | -.33377 |

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15. Supplementary Notes

16. Abstract

Subsonic longitudinal and lateral-directional characteristics were obtained for several modified configurations of the Rockwell International 140 A/B orbiter (0.010 scale). These modifications, designed to extend longitudinal trim capability forward of the 65 percent fuselage length station, consisted of a modified wing planform fillet and a canard. Tests were performed in the Langley Low Turbulence Pressure Tunnel at Reynolds numbers from about $4.2 \times 10^6$ to $14.3 \times 10^6$, based on the fuselage reference length.

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