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Low Speed Rotary Aerodynamics of F-18 Configuration for 0° to 90° Angle of Attack— Test Results and Analysis

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SUMMARY

The aerodynamic characteristics of a 1/10-scale F-18 airplane model in a rotational flow environment were obtained utilizing a rotary balance located in the Langley Spin Tunnel. The study established the rotational aerodynamics for the basic model, through 90° angle of attack, as well as the influence of each model component and of control deflections. The influence of moving the twin vertical tails aft was also determined. These results are discussed herein.

In general, the model exhibited good rotational aerodynamics in pitch, roll, and yaw throughout the angle-of-attack range, mainly due to the contribution of the horizontal tail, wing, and body, respectively. Except for the leading-edge flaps, the control deflections, in general, did not significantly influence these rotational aerodynamic characteristics.

The configuration was very well damped in roll at low angles of attack and was autorotative in roll only near 30° angle of attack. Although the body was responsible for the high level of yaw damping, it produced a yawing moment at zero rotation rate and zero sideslip angle between 50° and 70° angle of attack, which was responsible for a moderately flat, slow spin mode with neutral controls. Pro-spin lateral control deflections produced a flatter, faster spin that was relatively insensitive to rudder and longitudinal control inputs. The predicted spin equilibrium conditions were in good agreement with spin model and full-scale flight results.

For this configuration, the vertical tails generally did not contribute significantly to damping in yaw above 30° angle of attack. Neither horizontal tail interference nor the forward location of the vertical tails was responsible for this loss of tail damping.

INTRODUCTION

The NASA Langley Research Center has conducted extensive tests to determine the spin and recovery characteristics of the Navy/McDonnell Douglas F-18 airplane configuration. Included in this effort were force tests conducted with a 1/10-scale model installed on the Langley Spin Tunnel rotary balance. The forces and moments acting on the model, while subjected to steady rotational flow conditions, were measured during this investigation. The resulting data were utilized for the analysis of free-spinning model and full-scale flight test results.

Data were obtained for the basic airplane model with various control settings and for a build-up of airplane components. This report presents representative plots of the data obtained for these configurations, an analysis of the data, and the steady spins calculated with this data. Spin model (reference 1) and unpublished full-scale flight test results are also compared with the predicted spins. All the data measured during these tests are tabulated in the Appendix.

SYMBOLS

The units for physical quantities used herein are presented in U.S. Customary Units. Forces and moments are presented along and about the body

axis system.

b	wing span, ft
c	mean aerodynamic chord, ft
C_A	axial-force coefficient, $\frac{\text{Axial force}}{qS}$
C_N	normal-force coefficient, $\frac{\text{Normal force}}{qS}$
C_Y	side-force coefficient, $\frac{\text{Side force}}{qS}$
C_l	rolling-moment coefficient, $\frac{\text{Rolling moment}}{qSb}$
C_m	pitching-moment coefficient, $\frac{\text{Pitching moment}}{qSc}$
C_n	yawing-moment coefficient, $\frac{\text{Yawing moment}}{qSb}$
C_{n_o}	yawing-moment coefficient at zero rotation rate and zero sideslip angle
I_X, I_Y, I_Z	moment of inertia about the X,Y,Z body axis, respectively, slug ft^2
q	free-stream dynamic pressure, lb/ft^2
S	wing area, ft^2
V	free-stream velocity, ft/sec
α	angle of attack, deg
β	angle of sideslip, deg
Ω	angular velocity about spin axis, rad/sec
$\Omega b/2V$	spin coefficient, positive for clockwise spin
δ_a	aileron deflection, positive when right aileron is down, $(\delta_{a_{right}} - \delta_{a_{left}})/2$, deg

δ_d differential horizontal tail deflection, positive when right surface trailing edge is down, $(\delta_{d_{right}} - \delta_{d_{left}})/2$, deg

δ_H symmetrical horizontal tail deflection, positive when trailing edge is down, deg

δ_f leading-edge flap deflection down, deg

δ_r rudder deflection, positive when trailing edge is to the left, deg

Abbreviations:

cg	center of gravity
FS	fuselage station
LE	leading edge
LEX	leading-edge extension
rpm	revolutions per minute
TE	trailing edge

TEST EQUIPMENT

A rotary balance measures the forces and moments acting on a model while it is subjected to rotational flow conditions. The historical background for this apparatus is discussed in reference 2. A photograph and sketch of the rotary balance apparatus installed in the Langley Spin Tunnel are shown in figures 1 and 2, respectively. The system's rotary arm, which rotates about a vertical axis at the tunnel center, is supported by a horizontal boom and is driven by a motor mounted externally to the test section.

The test model is mounted on a strain gauge balance affixed to the

bottom of the rotary balance apparatus. Controls located outside of the tunnel are used to activate motors on the rig, which position the model to the desired attitude. The angle-of-attack range of the rig is 0 to 90 degrees, and the sideslip angle range is $\pm$15 degrees. Spin radius and lateral displacement motors are used to position the moment center of the balance on, or at a specific distance from, the spin axis. (This is done for each combination of angle of attack and sideslip angle.) It is customary to mount the balance to the model such that its moment center is at the location about which the aerodynamic moments are desired. Electrical current from the balance and to the motors on the rig is conducted through slip-rings located in the rig head. Figure 2 shows how the rig is positioned in angle of attack and sideslip.

The rig is capable of rotating up to 90 rpm in either direction. A range of $\Omega b/2V$ values can be obtained by adjusting rotational speed and/or tunnel air flow velocity. (Static aerodynamic forces and moments are obtained when $\Omega=0$.)

A NASA six-component strain gauge balance, mounted inside the model, is used to measure the normal, lateral, and longitudinal forces, and the yawing, rolling, and pitching moments acting about the model body axis.

The data acquisition, reduction, and presentation system is composed of a 12-channel scanner/voltmeter, a mini-computer, a plotter, and a CRT display. This equipment permits data to be presented via on-line digital print-outs and/or graphical plots.

TEST PROCEDURES

Rotary aerodynamic data are obtained in two steps. First, the inertial forces and moments (tares) acting on the model at different attitudes and rotational speeds must be determined. Ideally, these inertial terms would be obtained by rotating the model in a vacuum, thus eliminating all aerodynamic forces and moments. As a practical approach, this is approximated closely by enclosing the model in a sealed spherical structure, which rotates with the model without touching it, such that the air immediately surrounding the model is rotated with it. As the rig is rotated at the desired attitude and rate, the inertial forces and moments generated by the model are measured and stored on magnetic tape for later use.

The second step is to remove the enclosure and record force and moment data with the air on. The tares, measured in step one, are then subtracted from these data, leaving only the aerodynamic forces and moments, which are converted to coefficient form and stored on magnetic disc.

MODEL

A 1/10-scale model of the Navy/McDonnell Douglas F-18 fighter airplane was constructed of balsa and plywood. A three-view drawing of the model is shown in figure 3, dimensional characteristics of the basic model are listed in Table I, and a photograph of the model installed on the rotary balance located in the Langley Spin Tunnel is presented in figure 1.

The model was constructed such that the various model components were removable for component build-up tests. The vertical tails could

low angles of attack, extending up to almost 20° angle of attack (e.g. figure 6a). From approximately 25° through 40° angle of attack (figures 6b and 6c), the body-wing configuration is propelling in roll, which results in the total airplane configuration's propelling rolling moment at 30° angle of attack. The body-wing then provides a small amount of damping from 50° to almost 70° angle of attack (figures 6d and 6e). The rolling moment contribution of the body-wing is essentially neutral at 70° angle of attack (figure 6e) and propelling at 80° to 90° angle of attack (figure 6f), as is common for many airplane configurations. The addition of the LEX adds a small damping increment through approximately 50° angle of attack (e.g. figure 6a through 6c), but is insignificant in roll at larger angles of attack (e.g. figure 6d through 6f).

The addition of the horizontal tail does not influence the rolling moment for angles of attack below 40°. From 40° through 50° angle of attack (e.g. figure 6c), the addition of the horizontal tail adds a small propelling rolling-moment increment. Between 60° and 80° angle of attack, however, the addition of the horizontal tail provides a damping increment that is sufficient to make the total airplane configuration damped at 70° angle of attack (figure 6e). The horizontal tail's influence on rolling moment is evidently a characteristic of wide afterbodied airplanes (also observed for the F-15, ref. 3) that results in a significant horizontal tail span. The vertical tails provide no significant contribution to the roll damping characteristics.

Yawing Moment:

Figure 7 shows that the total airplane configuration is well damped in yaw at all angles of attack, but exhibits a C_{n_o} from 50^o to 70^o angle of attack. The peak value of C_{n_o} is approximately .04 at 60^o angle of attack. Therefore, even though the slope is well damped at 60^o angle of attack, propelling moments are experienced at low clockwise (for the model) $\Omega b/2V$'s due to the C_{n_o} value.

Component build-up plots of the yawing-moment coefficient are presented in figure 7 at selected angles of attack. The body produces the bulk of the excellent damping slope over most of the angle-of-attack range, but it is also responsible for C_{n_o}. Addition of the wing, generally, results in the body-wing configuration being somewhat better damped than the body, and also decreases the magnitude of the C_{n_o} produced by the body. The addition of the vertical tails adds damping through 30^o angle of attack where the body-wing damping is lowest (figures 7a and 7b). Above 30^o angle of attack, however, the vertical tails, generally, do not contribute greatly to the excellent damping characteristics, except above 80^o angle of attack (figure 7d) where, again, the body-wing damping is lower. At these angles of attack, the vertical tails contribute some damping for $\Omega b/2V$ magnitudes greater than 0.2. Removing the horizontal tail did not increase the effectiveness of the vertical tails, as shown in figure 7, which demonstrates that horizontal tail interference was not responsible for the ineffectiveness of the vertical tails. Also, as shown in figure 8, moving the vertical tails aft 5.75 inches, model scale, demonstrated that the unique forward

location of the vertical tails was not a contributor to this phenomenon.

The ineffectiveness of the vertical tails in the absence of the horizontal tail indicates an adverse interference effect on the vertical tails from some component other than the horizontal tail. The possible sources of such interference include the wing, LEX, and interactions of the flow fields emanating from the forebody and LEX/wing.

Influence of Sideslip Angle

Generally, sideslip angle produces essentially a static shift in the rolling and yawing-moment coefficients, with only insignificant variations in their rotational characteristics. However, near 20° angle of attack, where the static change in yawing and rolling moments due to sideslip are both near zero at this Reynolds number, sideslip produces a more significant change in the rotational characteristics, as seen in figures 9 and 10.

The variation of pitching moment with sideslip and $\Omega b/2V$ is presented in figure 11. Sideslip produces a change in the pitching-moment coefficient for this configuration that is similar to that observed for many models tested previously. Statically, a small change in pitching moment is produced whose sign is independent of the sign of the sideslip angle. However, with rotation, both the magnitude and sign of the incremental pitching moment due to sideslip are functions of the rotation rate and of the sign of the sideslip. Positive rotation rate and positive sideslip angle produce essentially the same incremental change as negative rotation rate and negative sideslip. Conversely, positive

rotation and negative sideslip produce the same effect as negative rotation and positive sideslip. Furthermore, these increments can assume significant proportions. For example, at 30° angle of attack (figure 11), 10° of sideslip angle can produce roughly a 100 percent variation in the pitching-moment coefficient at large rotation rates.

Influence of Control Deflections

To a large degree, the control deflections for this airplane, produce essentially static shifts in the moment coefficients, without significantly affecting the rotational characteristics, except as discussed in this section.

Horizontal Tail:

As shown in figure 12, the effectiveness of the horizontal tail diminishes rapidly above 30° angle of attack, and it is relatively ineffective above 50° angle of attack. Between 55° and 70° angle of attack, negative symmetrical horizontal tail deflections adversely influence the damping of the rotational rolling moment coefficient (e.g. figure 13).

Rudder:

The rudder produces a static shift in the yawing moment coefficient for all angles of attack below approximately 50° (e.g. figure 14 demonstrates this at 40° angle of attack). Above 50° angle of attack, however, the rudder is ineffective (figure 15).

Lateral Controls:

Figure 16 presents the incremental rolling-moment coefficients produced by a 25 degree aileron deflection and by a 10 degree differential tail deflection, applied both independently and simultaneously (differential tail applied about neutral symmetrical horizontal tail). It can be seen that the full aileron deflection produces a larger incremental rolling moment than the full differential tail deflection throughout the tested angle-of-attack range when they are applied independently. When both lateral controls are deflected simultaneously (as mechanized on the airplane), their individual effects are not additive, especially below 60° angle of attack, as shown in figure 16. Deflecting the symmetrical horizontal tail trailing-edge up, however, increases the rolling moment produced by the simultaneous aileron and differential tail deflections over most of the tested angle-of-attack range, as shown in figure 17.

Differential tail deflection, produces adverse yaw throughout most of the tested angle-of-attack range, as shown in figure 18 for neutral symmetrical tail deflection. The ailerons, however, produce adverse yaw only above 50° angle of attack and provide virtually no yawing moment at lower angles of attack (figure 18).

Leading Edge Flaps:

At 30° angle of attack, where the basic airplane exhibits propelling rolling moments, deflecting the leading-edge flaps reduces the propelling moments (figure 19a). However, from 40° to 70° angle of attack, leading edge flap deflection adversely influences roll damping to

some extent (e.g.figure 19b). Above 70°, the leading-edge flaps have no influence on the roll characteristics (e.g. figure 19c).

The leading-edge flaps do not influence the yawing moment characteristics above 40° angle of attack (e.g. figure 20b). At 30° angle of attack, however, the yawing moment is slightly less damped with the flaps extended, but the configuration is still well-damped in yaw.

Predicted Spin Modes

Steady-state spins were calculated in the manner discussed in reference 2, using the rotary balance data presented herein. These equilibrium calculations were performed for the altitudes and mass characterisitics identified in Table III. The resulting predicted steady-state spin modes are compared with spin model and full-scale flight results in Table IV. Another flight-test determined spin is discussed in the latter part of this section.

A moderately flat spin (for the model, the spin was to the right) having a relatively slow spin rate (approximately 5.3 sec/turn) is predicted for neutral controls. This spin mode is a consequence of the displacement of the yawing moment vs Ωb/2V curves due to the non-zero yawing moment that exists between approximately 50° and 70° angle of attack at zero sideslip and zero rotation rate.

A flatter, faster spin is predicted (alpha = 83°, 2.5 sec/turn) when the lateral controls are deflected in a pro-spin direction, i.e. for a spin to the pilot's right the stick is deflected to his left. This spin is produced by the pro-spin yawing moments generated by the lateral

controls. The rudder deflection does not significantly alter these predicted spin modes, because the rudders are virtually ineffective above 55° angle of attack. The pitching moments associated with longitudinal control deflections do not significantly influence the spin modes, as shown in Table IV. While aft stick longitudinal controls remain somewhat effective in pitch in the flat spin angle-of-attack region, it has been observed for many statically stable airplanes that predicted flat spin modes are not particularly sensitive to small pitching moment changes, as long as sufficient nose-down aerodynamic moment exists to balance the nose-up inertial moment. It should be noted, however, that for airplanes whose yaw damping characteristics are greatly affected by the presence of the horizontal tail, which is not the case for this airplane, deflection of the longitudinal control can appreciably alter the spin and recovery characteristics.

Generally good correlation was obtained between the predicted steady spins and the spin model and full-scale flight results. It has been noted over the past few years that for each predicted steady spin mode, three possibilities exist in flight: a steady spin is encountered as predicted, the spin is oscillatory about the predicted steady spin values, or the oscillations are so violent that no spinning motion is maintained. These three situations reflect progressively lower levels of the stability of the underlying spin mode. In this instance, the stability of the spin was such that all the predicted spin modes were shown to exist by flight or spin tunnel results.

A moderate spin having a slow spin rate (alpha = 58°, 12 sec/turn)

was also obtained in flight, but was not predicted using on-line rotary balance data. However, by applying a possible Reynolds number correction to the rotary balance data, as described herein, a similar moderate spin can be predicted.

Propelling yawing moments, a necessary condition for spinning, are observed in the angle-of-attack region of the slow moderate flight-test spin mode. These propelling moments result from a yawing moment at zero sideslip and zero rotation rate in the 50° to 70° angle-of-attack range (see figure 7). Consequently, propelling yawing moments are generated for $\Omega b/2V$ values less than 0.15 even though the C_n vs $\Omega b/2V$ relationship is damped. As discussed in reference 4, the magnitude of such yawing moment offsets may be less at full-scale Reynolds number than those measured at low Reynolds number. For the following analysis, however, it was assumed that, except for these offsets, the rotary aerodynamic characteristics of the F-18 model are insignificantly affected by Reynolds number. That is, a damped or propelling characteristic determined at low Reynolds number is reflected in the full-scale airplane characteristics. It must be appreciated, however, that rotational aerodynamic characteristics have been observed to be Reynolds number dependent for some model geometries, as noted in reference 5.

By shifting the value of C_n at zero $\Omega b/2V$ to match the values obtained previously at a Reynolds number of 6.36×10^6/ft and retaining the low Reynolds number C_n variation with $\Omega b/2V$, it is possible to predict another spin mode for altitudes between approximately 35,000 and

23,000 ft. Above and below these altitudes, steady spin conditions, i.e., equilibrium between the inertial and aerodynamic moments, were non-existent. The spin characteristics predicted at 26,500 ft, shown below, are in excellent agreement with the spin obtained in flight at 19,000 ft for loading 4 (Table III).

	Altitude ft.	α deg	sec/turn	$\Omega b/2V$	V ft/sec
Flight test	19,000	58	12.1	.04	250
Predicted	26,500	57	12.2	.03	300

The discrepancy in altitude may be partially due to the fact that the spin radius for the predicted spin, and likewise the estimated spin radius for the flight test spin, were each approximately 40 feet, whereas the rotational aerodynamics used in the calculations were obtained for a zero spin radius (i.e., spin axis passed through the airplane center-of-gravity location). The design of the rotary balance apparatus would not permit testing at a comparable spin radius. As mentioned previously, this predicted moderate spin mode is not included in Table IV since those that are presented were calculated using on-line rotary balance data.

CONCLUDING REMARKS

The rotational aerodynamics of the F-18 have been established through 90^{o} angle of attack, and the contribution of the airplane components to the rotary aerodynamic characteristics has been identified. An analysis of the data and predicted steady-spin modes provided the following observations for this airplane configuration:

- The F-18 design, in general, exhibits good rotational aerodynamics in pitch, roll, and yaw, which are not generally influenced by control deflections.
- The damping in roll is good at low angles of attack and the airplane is only propelling in roll near 30^{o} angle of attack (leading-edge flap deflection reduces these propelling rolling moments). While the body-wing configuration generally provides most of the roll damping over most of the angle-of-attack range, the presence of the LEX and of the horizontal tail provides additional damping over portions of the tested angle-of-attack range.
- The yawing moment for the total airplane has a damped slope at all angles of attack, primarily due to the body's contribution alone. The yaw damping provided by the body is, generally, enhanced by the presence of the wing.
- The vertical tails produce yaw damping below 30^{o} angle of attack, but are relatively ineffective above 30^{o}, except at large $\Omega b/2V$ magnitudes for angles of attack above approximately 80^{o}. It was shown that horizontal tail interference was not responsible for this loss in tail damping. Repositioning the vertical tails farther aft did not improve their effectiveness at angles of attack above 30^{o}.
- Although the body provides most of the damping in yaw, it also produces a C_{n_o} between approximately 50^{o} and 70^{o} angle of attack. As a result, a moderately flat, slow spin is predicted for neutral controls.

- Pro-spin lateral control deflections (stick left in a right spin) produce a flatter, faster spin than that observed with neutral controls.
- Rudder deflection does not significantly influence the predicted spins because the rudder is ineffective above 55° angle of attack.
- The predicted spins also are not particularly sensitive to longitudinal control deflection.
- Good correlation was shown between the predicted steady-spin modes and spin model and flight results.

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TABLE I.- DIMENSIONAL CHARACTERISTICS OF THE F-18 MODEL

Overall length, ft	5.60
Wing:	
Area (ref.), ft^2	4.00
Aspect ratio	3.5
Taper ratio	0.35
Span (ref.), ft	3.74
Root chord, in.	19.03
Tip chord, in.	6.63
Mean aerodynamic chord, in.	13.82
Sweep at 25% chord, deg	20
Dihedral, deg	-3
Airfoil section and thickness:	
Wing station 56.876	NACA 65A with sharp L.E.; 5.0% thick
Wing station 145.390	NACA 65A with sharp L.E.; 3.5% thick
Tip chord	NACA 65A with sharp L.E.; 3.5% thick
Incidence, deg	0
Aileron area, ft^2	0.19
T.E. flap area, ft^2	0.62
L.E. flap area, ft^2	0.55
Stabilators:	
Area (theoretical exposed), ft^2	0.88
Aspect ratio	2.442
Taper ratio	0.46
Span (ref.), ft	1.47
Root chord, in.	9.87
Tip chord, in.	4.55
Sweep at 25% chord, deg	42.83
Dihedral, deg	-2
Airfoil section and thickness:	
Root chord	NACA 65A006 with sharp L.E.; 6.0% thick
Tip chord	NACA 65A002 with sharp L.E.; 2.0% thick
Vertical tail:	
Effective area (total of two tails), ft^2	1.04
Aspect ratio	1.2
Taper ratio	0.40
Height, in.	9.50
Root chord, in.	11.3
Tip chord, in.	4.50
Sweep at 25% chord, deg	35
Incidence, deg	1 toe out
Cant, deg	20 outboard
Airfoil section and thickness:	
Root chord	NACA 65A005 with sharp L.E.; 5.0% thick
Tip chord	NACA 65A003 with charp L.E.; 3.0% thick
Rudder area (total of two tails), ft^2	0.15

TABLE II.- F-18 ROTARY BALANCE DATA

APPENDIX PAGE NO.	CONFIGURATION	α Range deg	β deg	δ_H deg	δ_a deg	δ_r deg	δ_d deg	δ_f deg
A2-A6	Body	0-90	0	-	-	-	-	-
A7-A12	Body	0-90	10	-	-	-	-	-
A13-A17	Body, wing	0-90	0	-	0	-	-	0
A18-A22	Body, wing, LEX	0-90	0	-	↓	-	-	↓
A23-A27	Body, wing, LEX, horiz.	0-90	0	0	↓	-	0	↓
A28-A32	Body, wing, LEX, vert.	0-90	0	-	↓	0	-	↓
A33-A39	Basic F-18	0-90	0	0	0	0	0	0
A40-A46	↓	0-90	10	↓	↓	↓	↓	↓
A47-A52	↓	0-90	-10	↓	↓	↓	↓	↓
A53-A57	Basic minus LEX	0-90	0	↓	↓	↓	↓	↓
A58-A62	Basic minus LEX	0-90	10	↓	↓	↓	↓	↓
A63-A67	Basic with vert.aft 5.75"	0-90	0	↓	↓	↓	↓	↓
A68-A72	Basic with vert.aft 5.75"	0-90	10	↓	↓	↓	↓	↓
A73-A77	Basic F-18	0-90	0	0	0	0	0	30
A78-A81	↓	20-90	10	↓	↓	↓	↓	↓
A82-A84	↓	30-90	0	↓	↓	-30	↓	↓
A85-A87	↓	↓	10	↓	↓	↓	↓	↓
A88-A91	↓	20-90	0	↓	25	0	10	↓
A92-A95	↓	↓	10	↓	↓	↓	↓	↓
A96-A98	↓	30-90	0	↓	↓	-30	↓	↓
A99-A101	↓	↓	10	↓	↓	↓	↓	↓
A102-A104	↓	↓	0	-14	0	↓	0	↓
A105-A107	↓	↓	10	↓	↓	↓	↓	↓
A108-A110	↓	↓	0	↓	25	↓	10	↓
A111-A113	↓	↓	10	↓	↓	↓	↓	↓
A114-A116	↓	↓	0	↓	↓	↓	5	↓
A117-A119	↓	↓	10	↓	↓	↓	↓	↓
A120-A123	↓	20-90	0	10	0	0	0	↓
A124-A127	↓	↓	10	↓	↓	↓	↓	↓
A128-A130	↓	30-90	0	↓	↓	-30	↓	↓
A131-A133	↓	↓	10	↓	↓	↓	↓	↓
A134-A136	↓	↓	0	↓	25	↓	10	↓
A137-A139	↓	↓	10	↓	↓	↓	↓	↓
A140-A142	↓	↓	0	↓	↓	↓	5	↓
A143-A145	↓	↓	10	↓	↓	↓	↓	↓
A146-A149	Basic F-18	20-90	0	0	0	0	-10	0
A150-A153	↓	↓	10	↓	↓	↓	↓	↓
A154-A156	↓	30-90	0	↓	↓	↓	↓	30
A157-A159	↓	↓	10	↓	↓	↓	↓	↓
A160-A162	↓	↓	0	↓	↓	30	↓	↓
A163-A165	↓	↓	10	↓	↓	↓	↓	↓
A166-A168	↓	↓	0	↓	-25	↓	0	↓
A169-A171	↓	↓	10	↓	↓	↓	↓	↓
A172-A174	↓	↓	0	↓	↓	↓	-10	↓
A175-A177	↓	↓	10	↓	↓	↓	↓	↓
A178-A180	↓	↓	0	-14	↓	↓	↓	↓
A181-A183	↓	↓	10	↓	↓	↓	↓	↓
A184-A186	↓	↓	-10	↓	↓	↓	↓	↓

TABLE III.- ALTITUDE AND MASS PROPERTIES USED FOR SPIN CALCULATIONS

	LOADING	WEIGHT lbs.	cg $\%\bar{c}$	I_X slug ft^2	I_Y slug ft^2	I_Z slug ft^2	ALTITUDE ft.
Spin tunnel model	1	29397	26.4	20778	116882	132430	25000
Flight test aircraft	2	30120	26.7	25745	140900	156000	30000
	3	33060	26.9	24081	132016	150763	33000
	4	31390	26.7	17000	150000	163000	19000

TABLE IV.- ANALYTICALLY PREDICTED AND EXPERIMENTALLY DETERMINED SPIN MODES

CONTROLS*				LOAD-ING		SPIN MODE			
δ_H deg	δ_a deg	δ_r deg	δ_d deg			α deg	sec/turn	$\Omega b/2V$	V ft/sec
0	0	-30	0	1	Spin tunnel	$\frac{93}{46}$ (70)†	5.3	.07	300
					Predicted	69	5.1	.09	256
-14	0	-30	0	1	Spin tunnel	$\frac{80}{67}$ (74)†	5.0	.09	269
					Predicted	73	4.3	.11	257
10	0	-30	0	1	Spin tunnel	$\frac{80}{38}$ (59)†	6.7	.06	290
					Predicted	68	5.7	.08	263
0	25	-30	10	1	Spin tunnel	83	2.5	.18	261
					Predicted	82	2.6	.18	247
-14	25	-30	10	1	Spin tunnel	81	2.9	.15	261
					Predicted	84	2.3	.21	245
0	25	0	10	2	Flight test	85	2.7	.15	300
					Predicted	83	2.5	.16	301
0	0	0	0	3	Flight test	75	5.4	.06	375
					Predicted	69	5.2	.07	332

*δ_f set at 30°, 35°, and 34° for rotary balance, spin model, and full-scale airplane, respectively.

†Oscillatory spin, average values given in ( ).

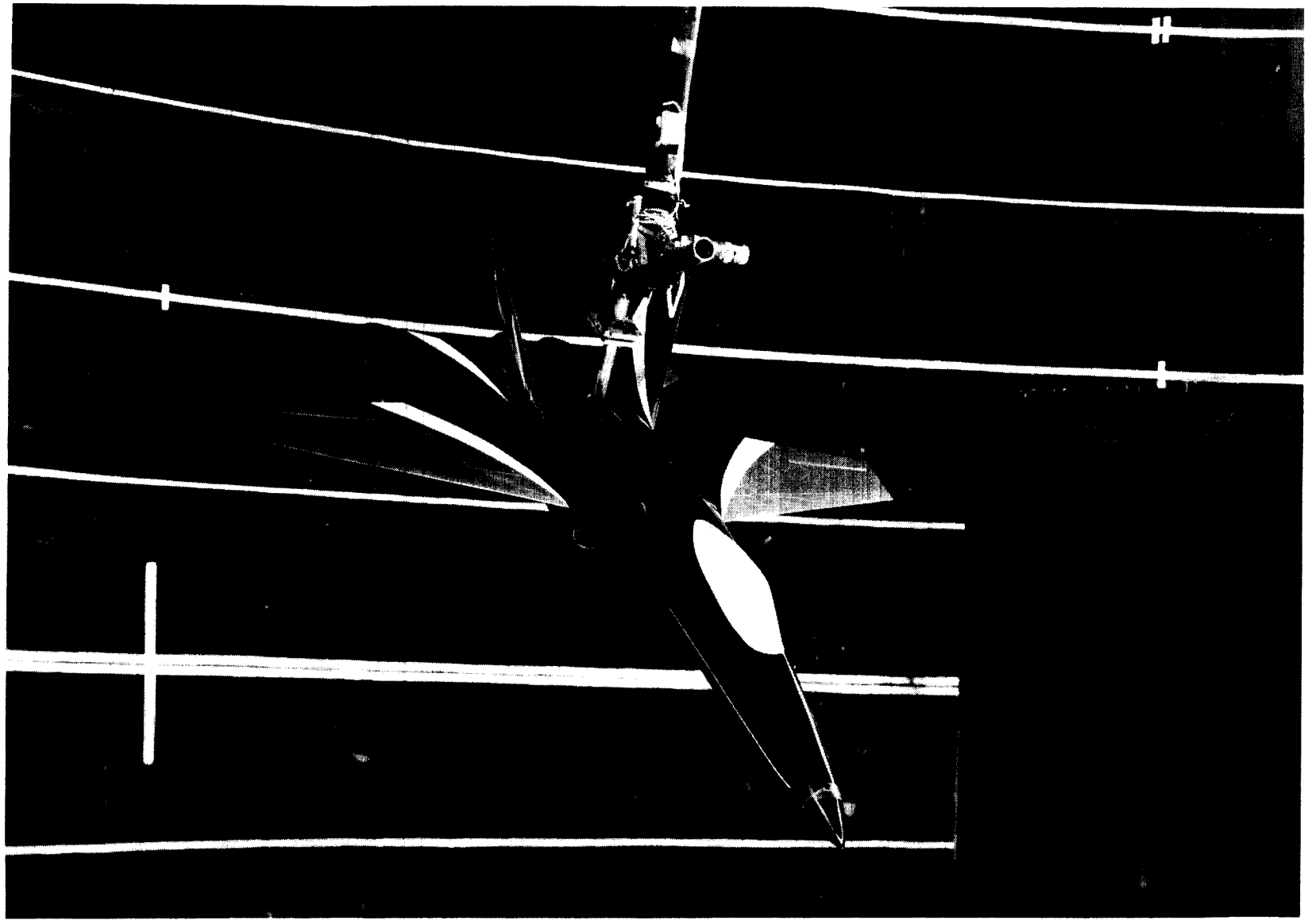
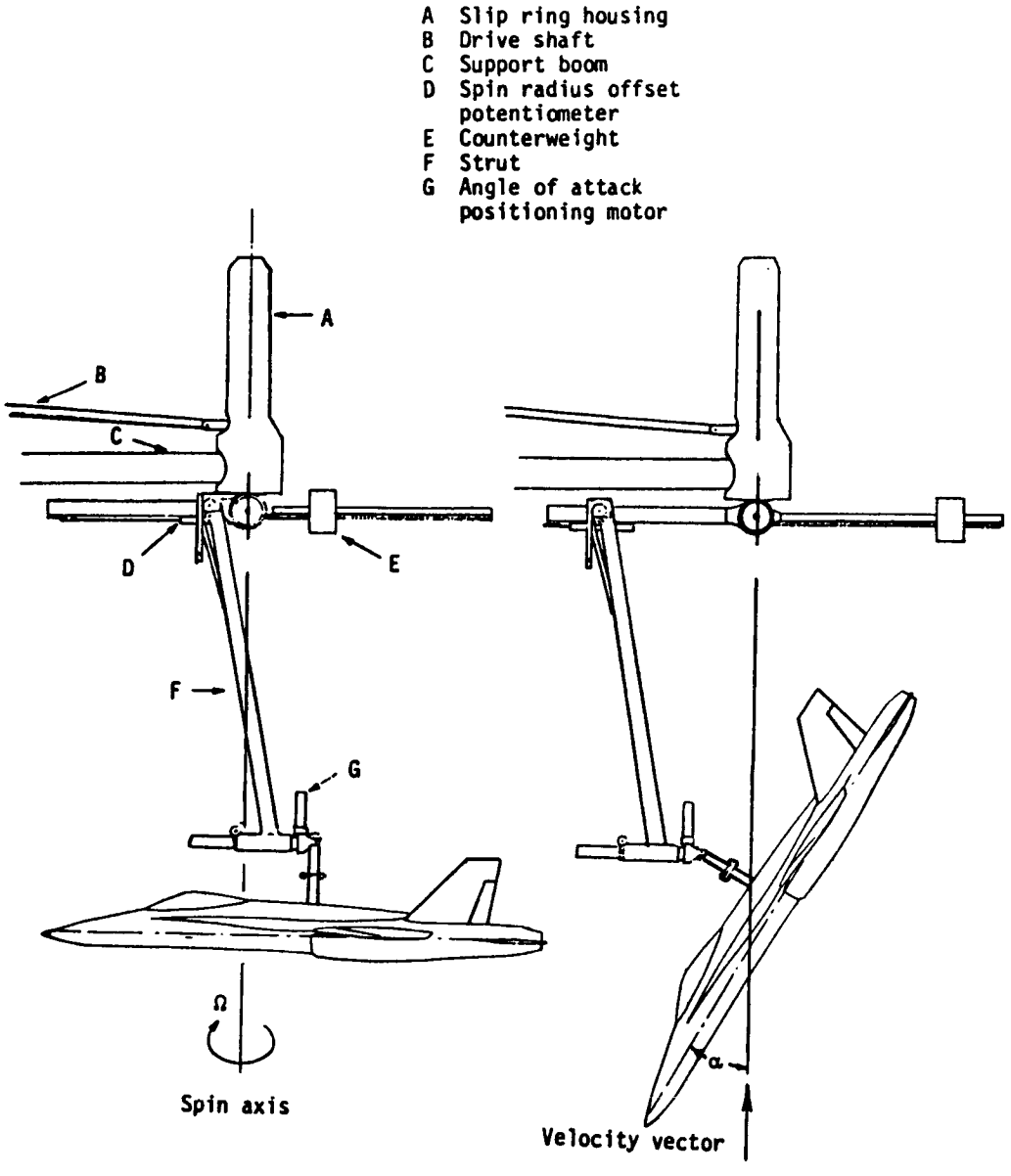
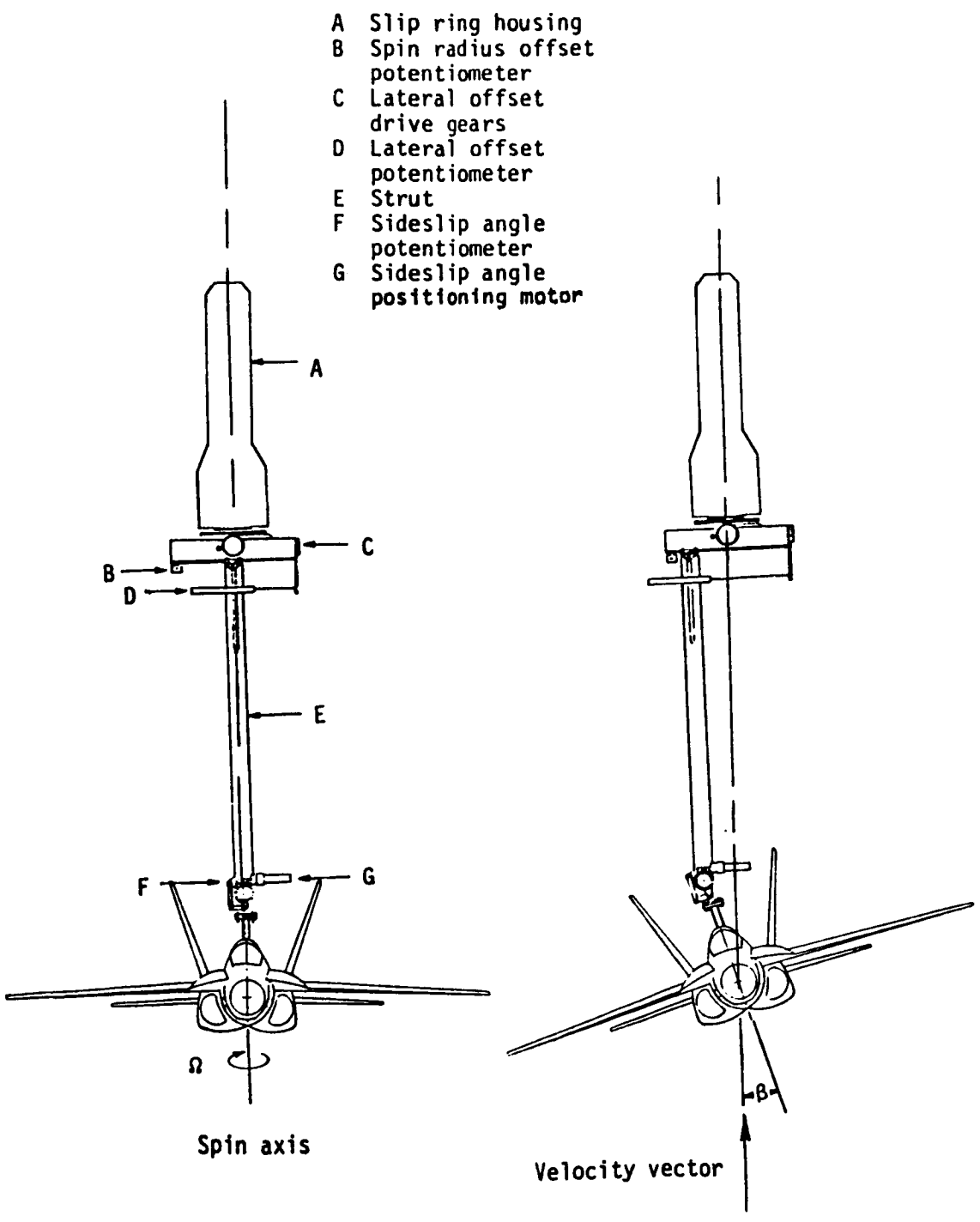


Figure 1.-Photograph of 1/10-scale F-18 model installed on rotary balance apparatus.



(a) Side view of model.

Figure 2.- Sketch of rotary balance apparatus.



(b) Front view of model.

Figure 2.- Concluded.

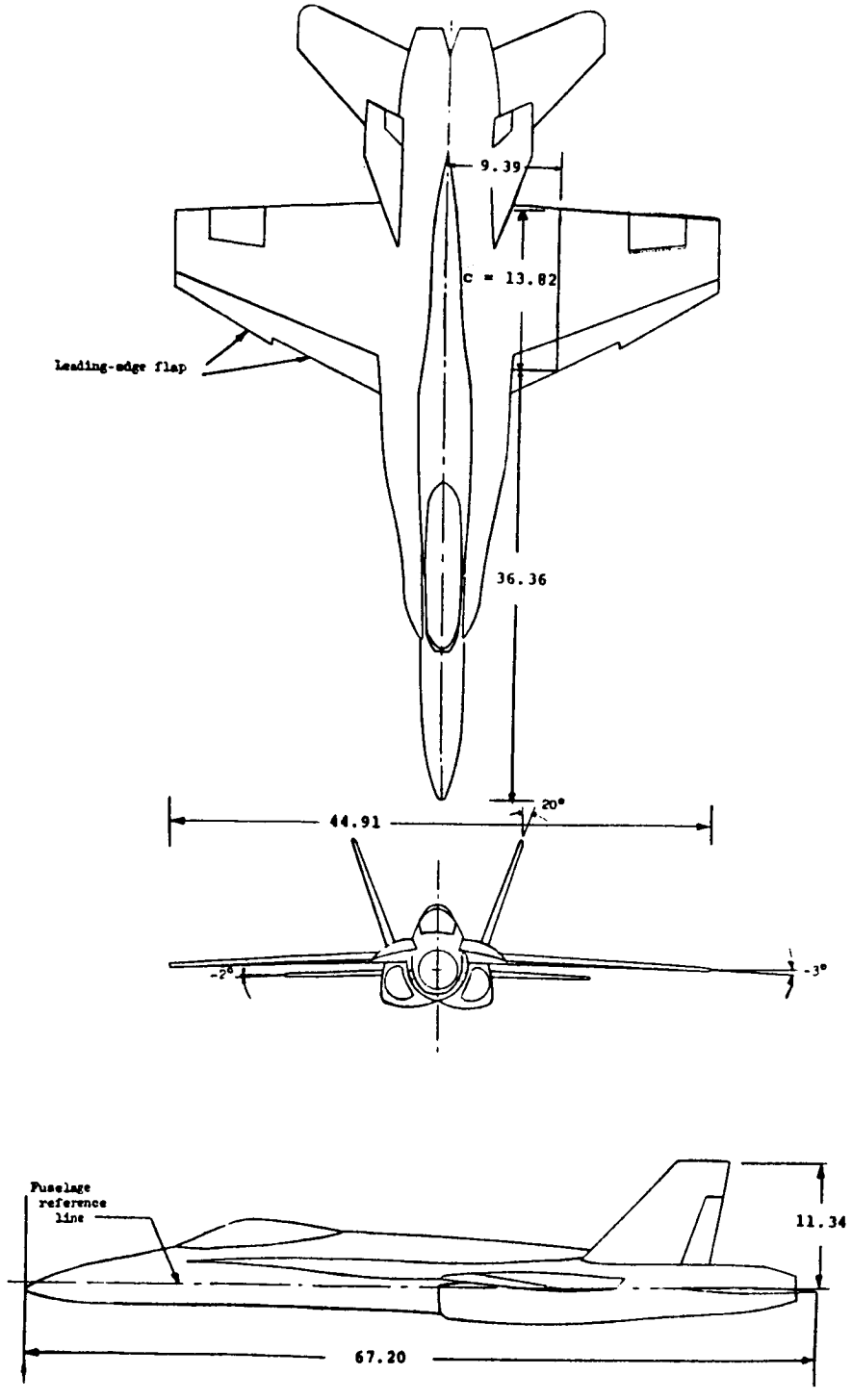


Figure 3.- Three-view drawing of 1/10-model of McDonnell Douglas F-18 airplane Dimensions are given in inches unless otherwise noted. Fuselage reference line corresponds to water line 100.0 on airplane.

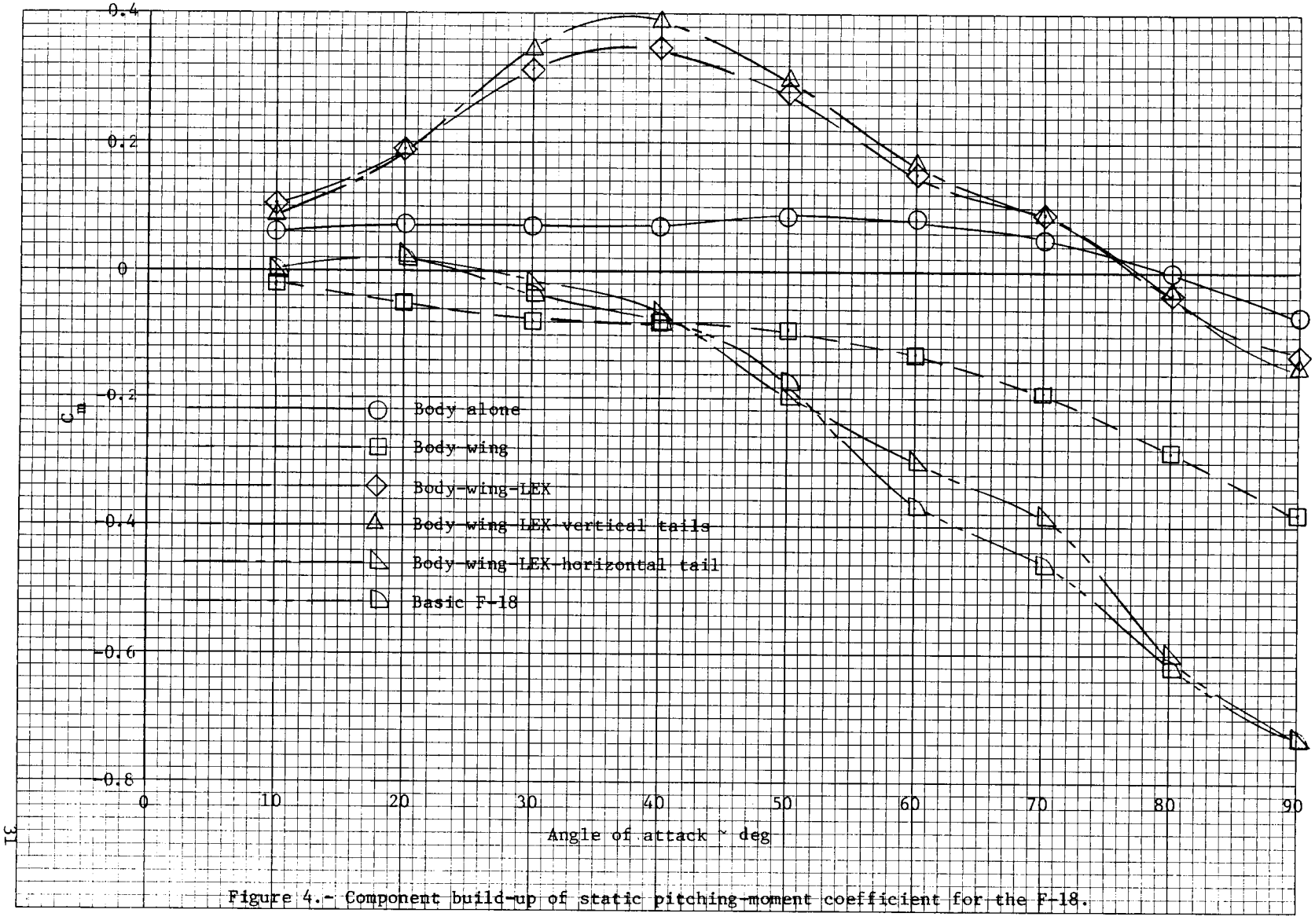
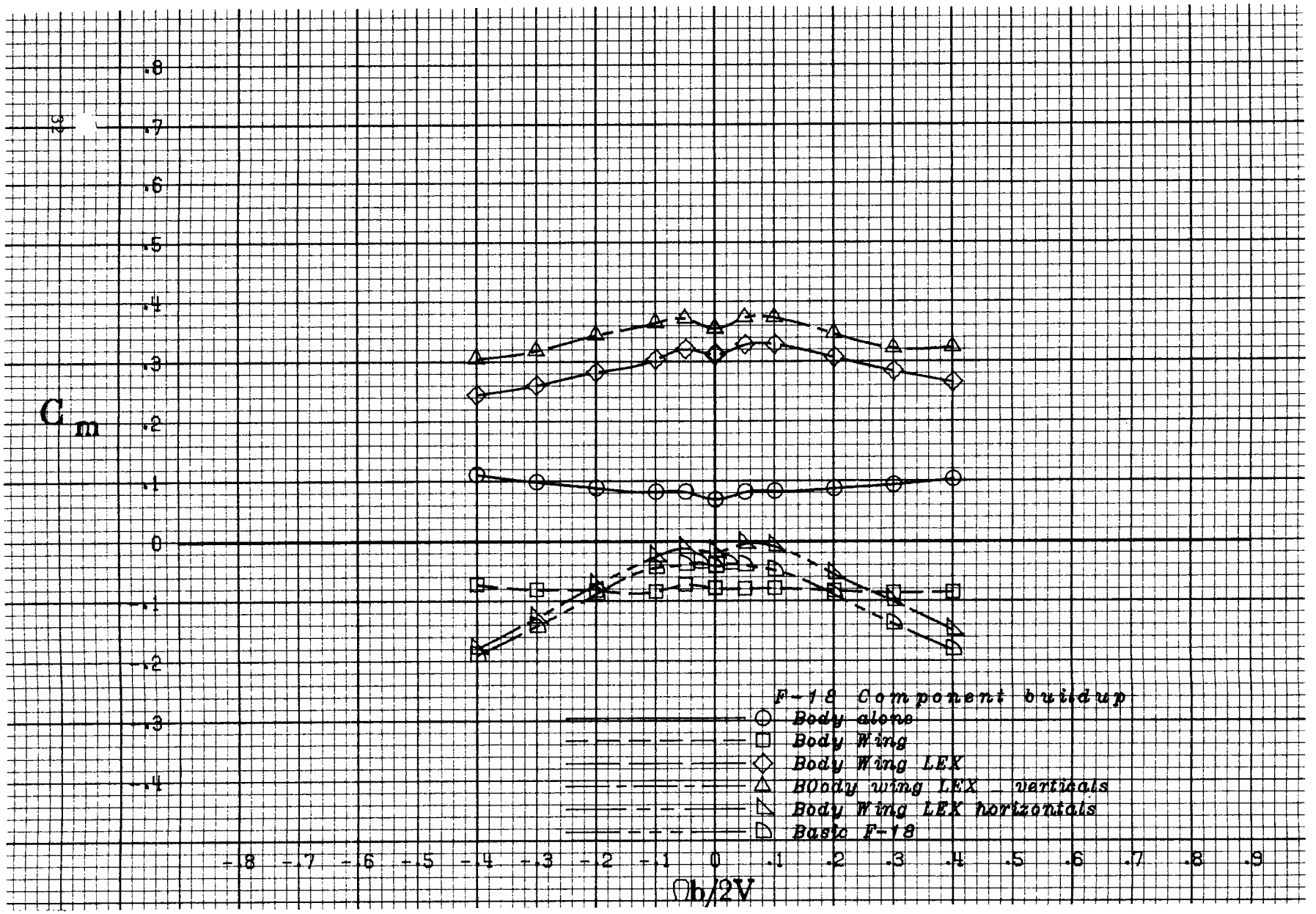
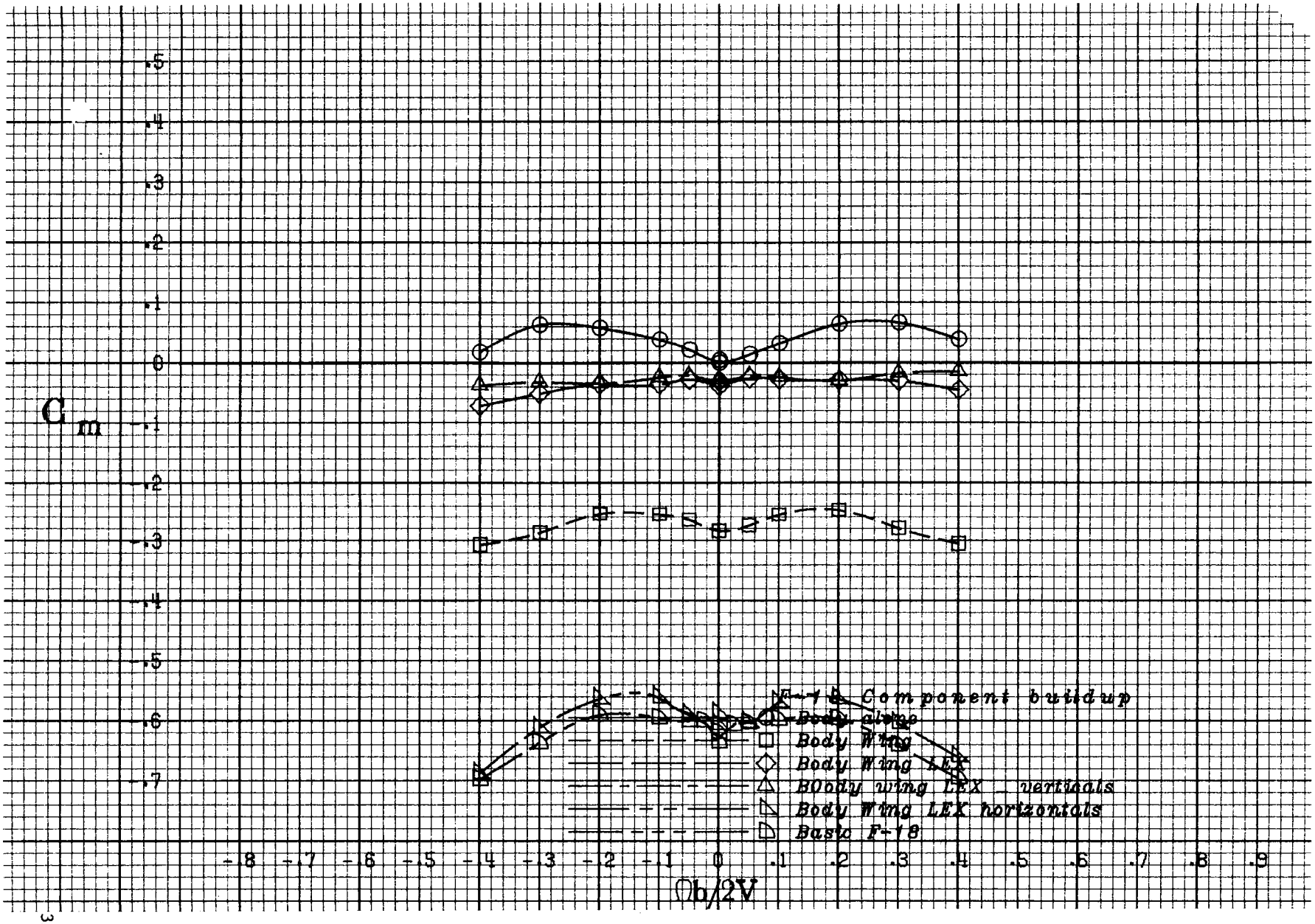


Figure 4.- Component build-up of static pitching-moment coefficient for the F-18.



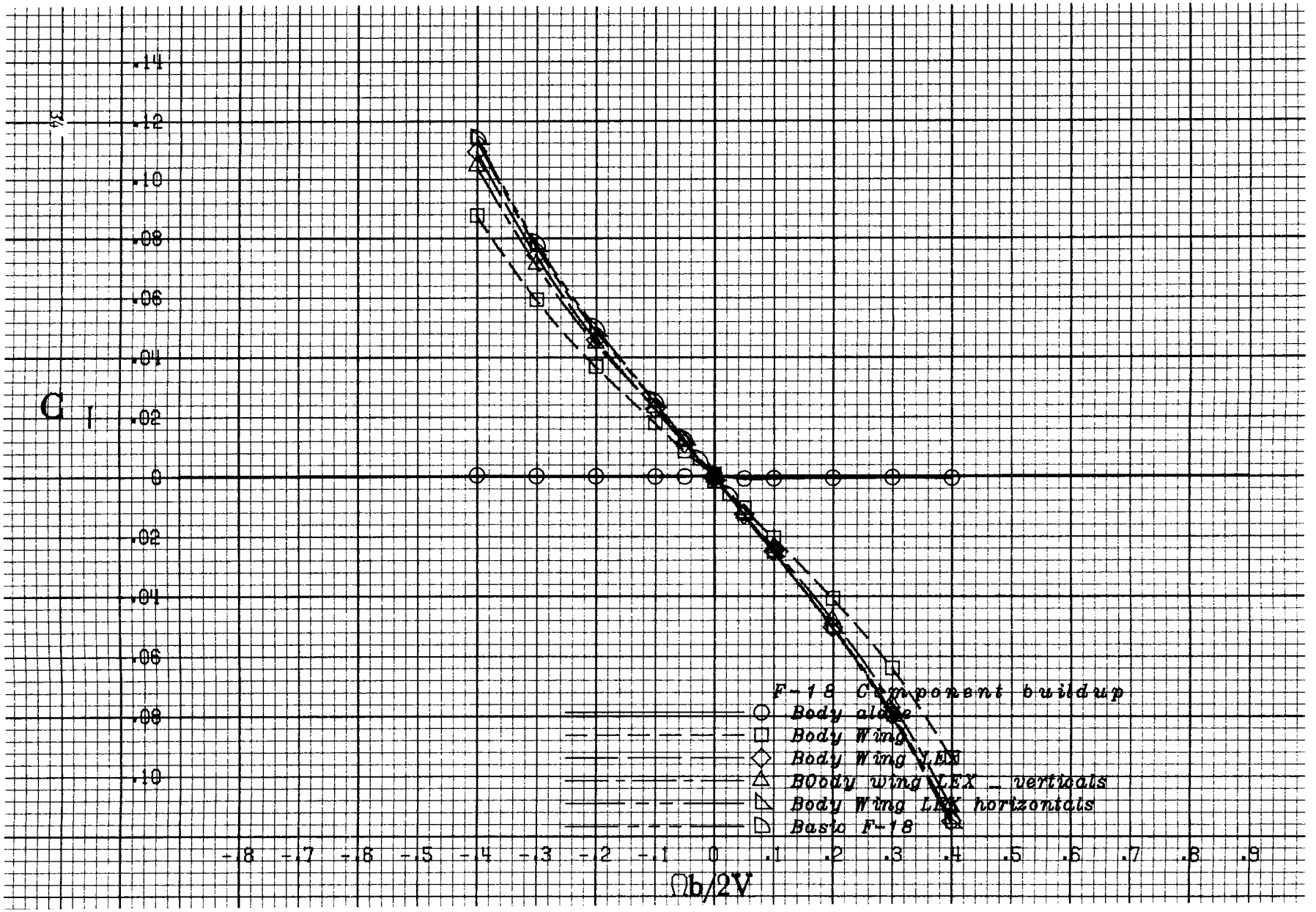
a) 30° angle of attack

Figure 5.- Component build-up of pitching-moment coefficient for the F-18.



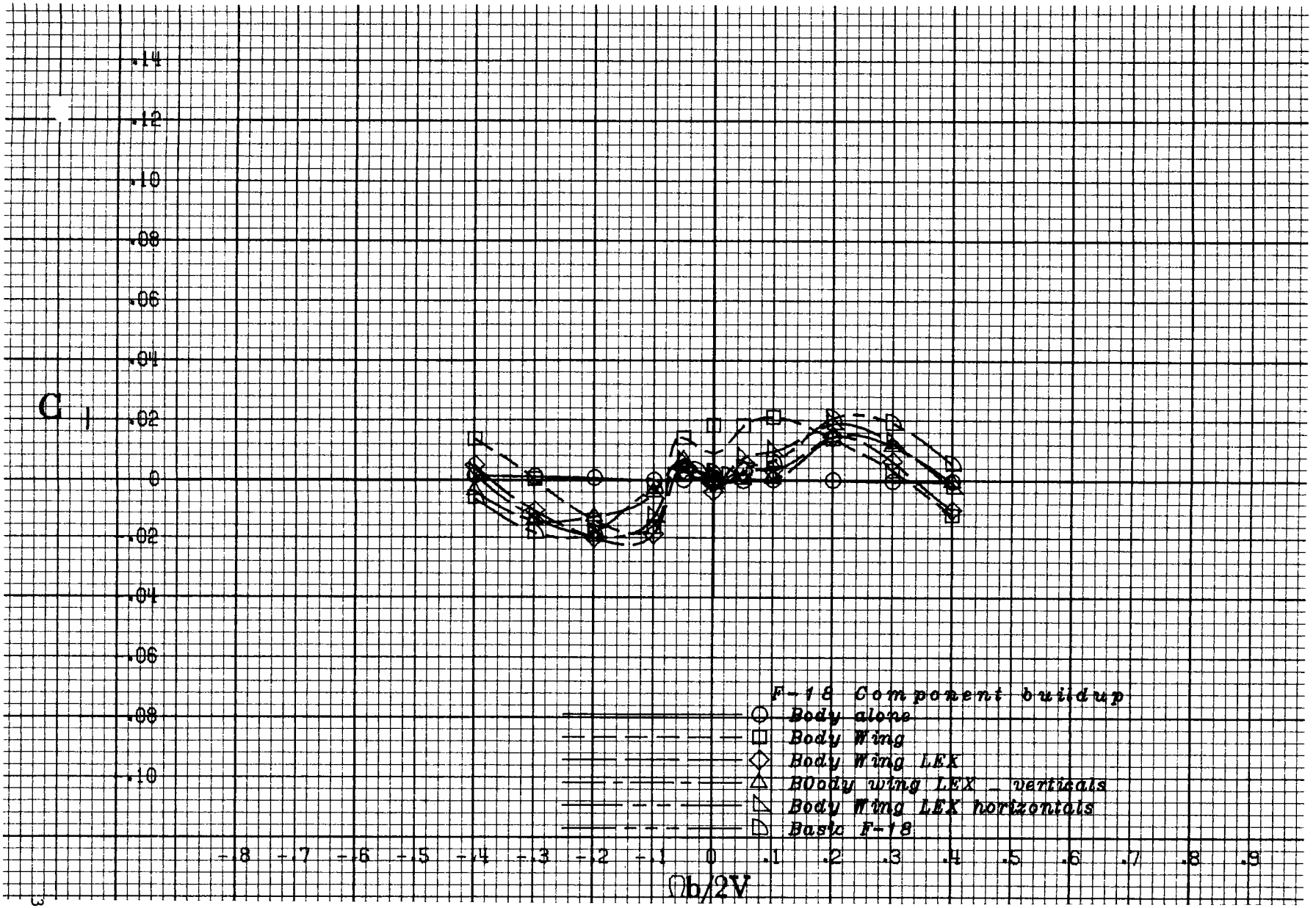
b) 80° angle of attack

Figure 5.- Concluded.



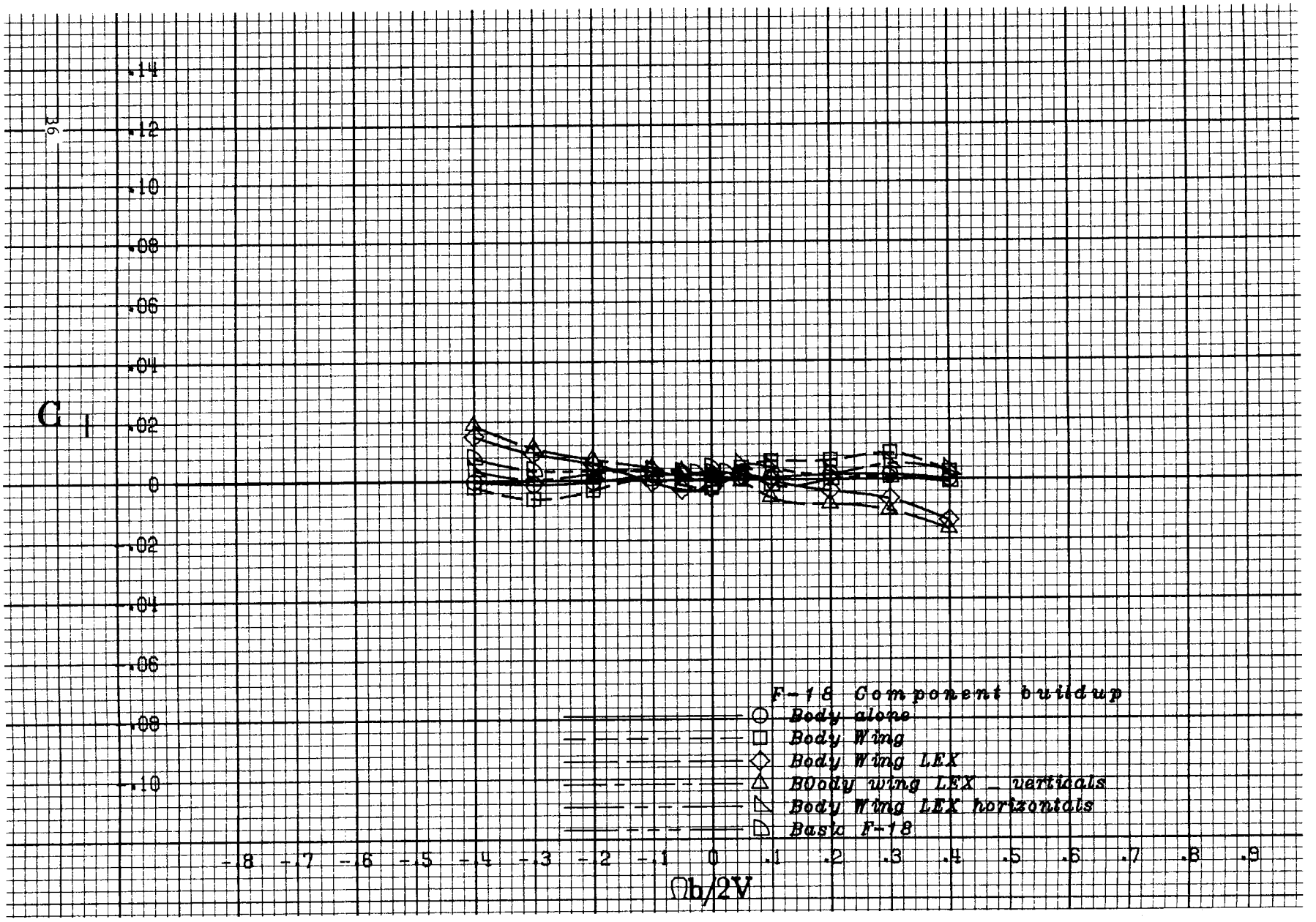
a) 10^{o} angle of attack

Figure 6.- Component build-up of rolling-moment coefficient for the F-18.



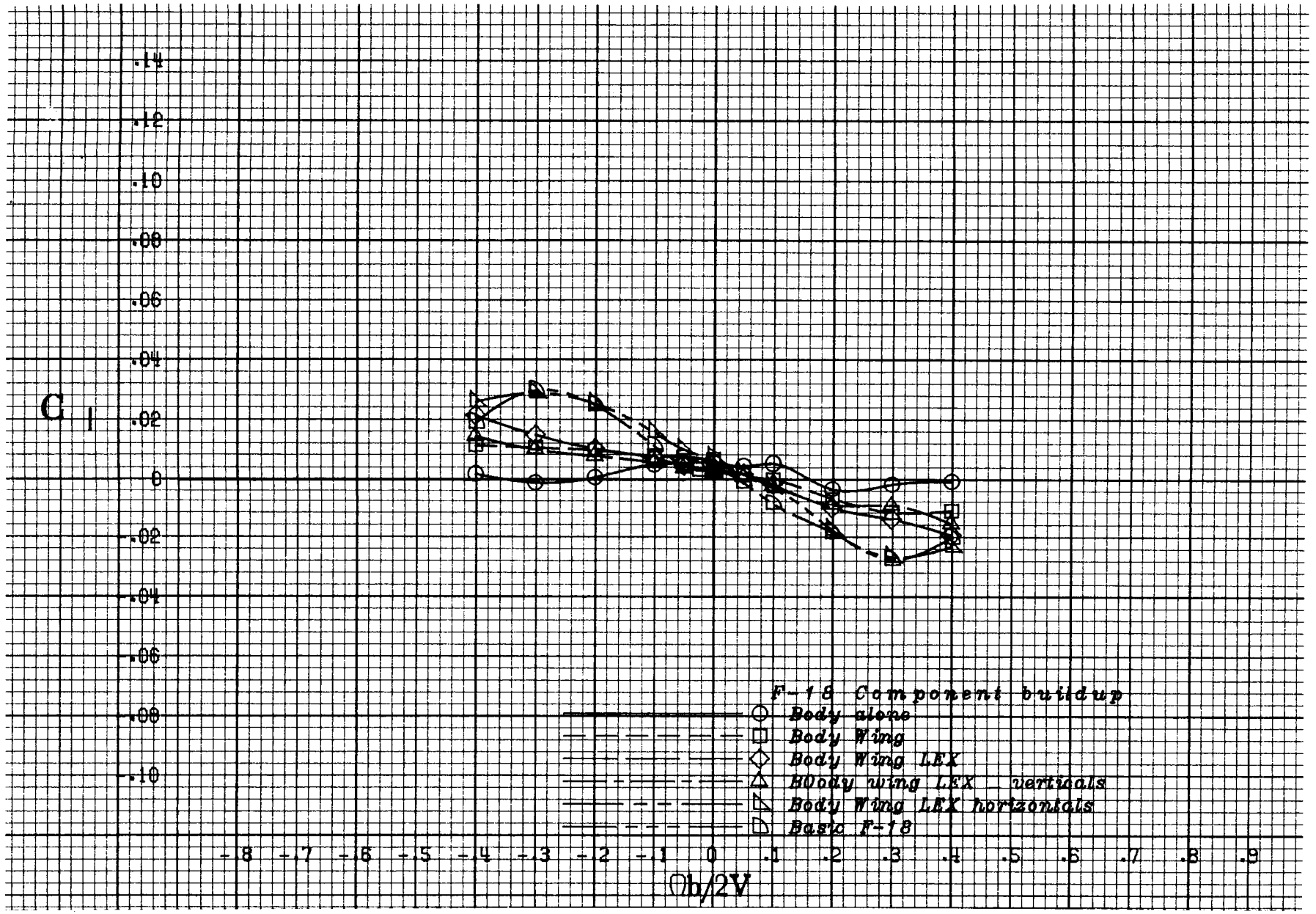
b) 30° angle of attack

Figure 6.- Continued.



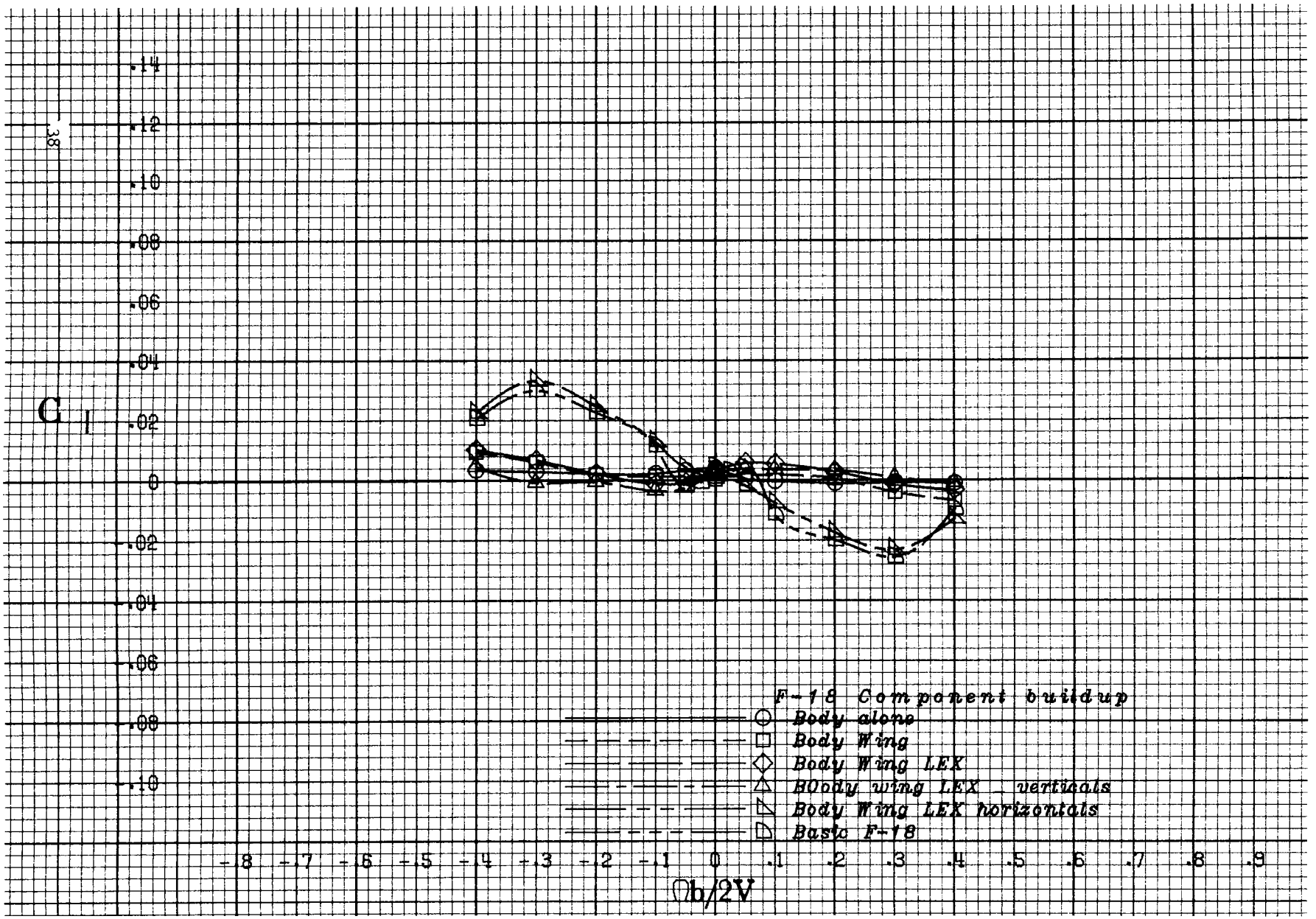
c) 40^{o} angle of attack

Figure 6.- Continued.



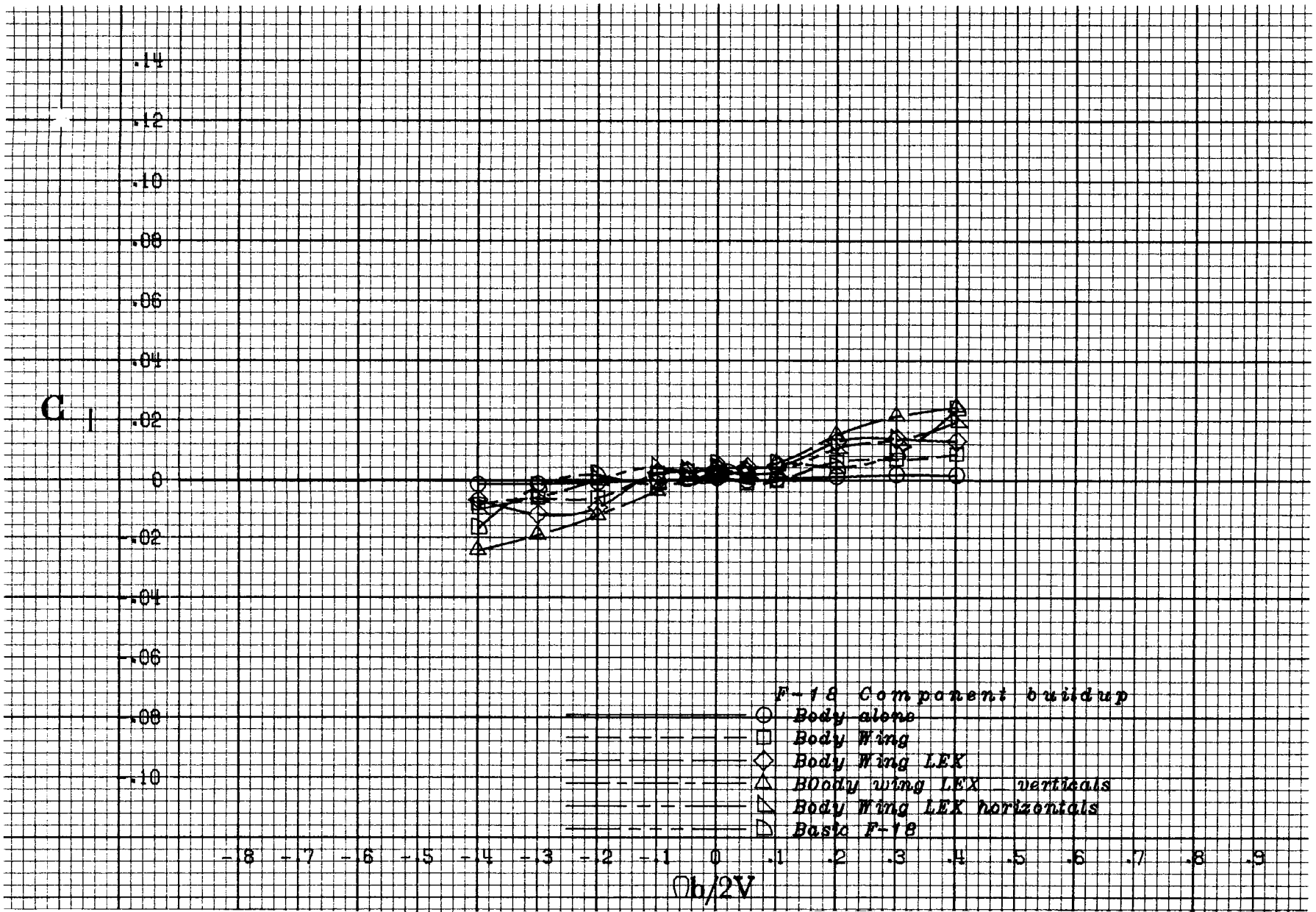
d) 60^{o} angle of attack

Figure 6.- Continued.



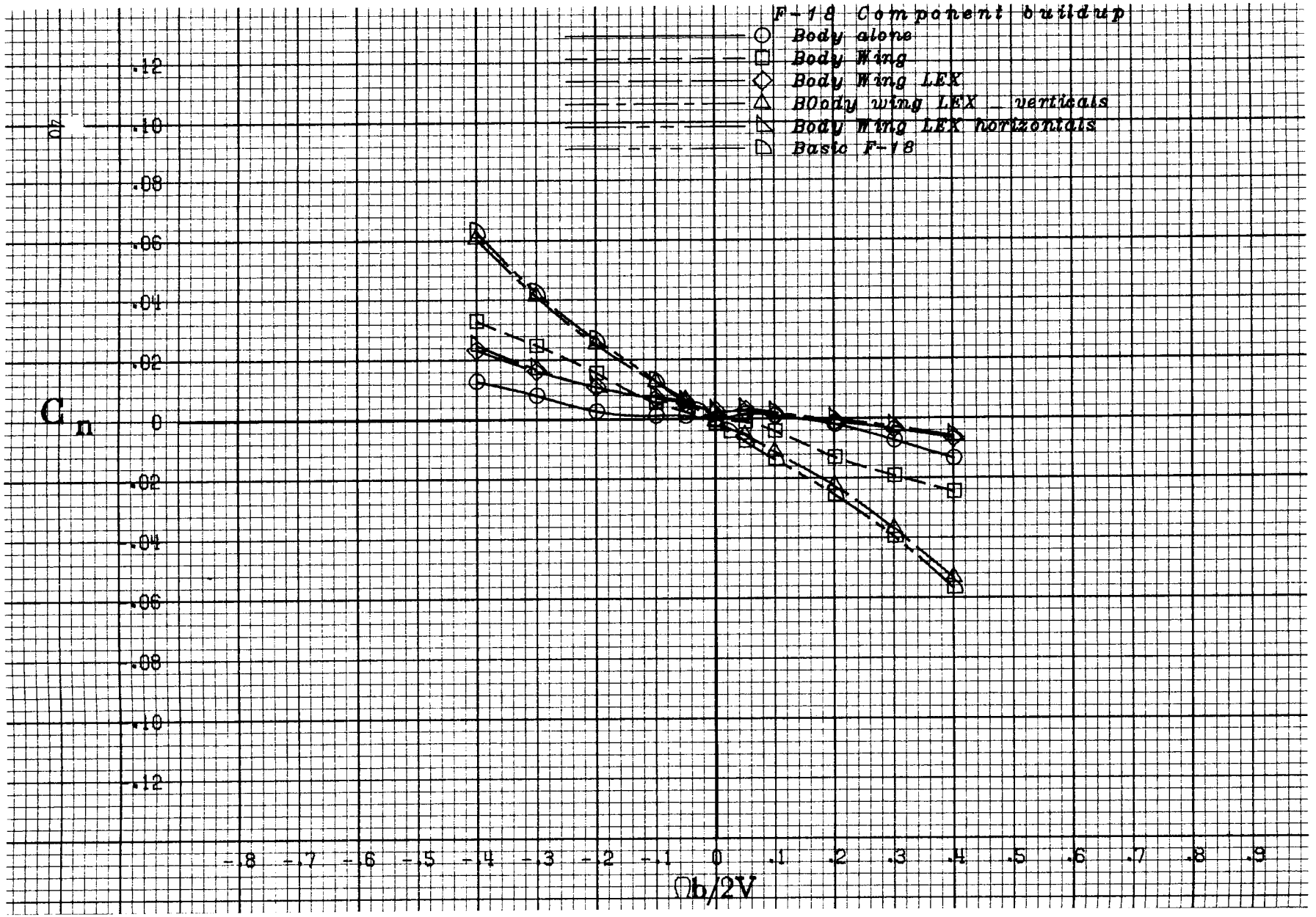
e) 70^{o} angle of attack

Figure 6.- Continued.



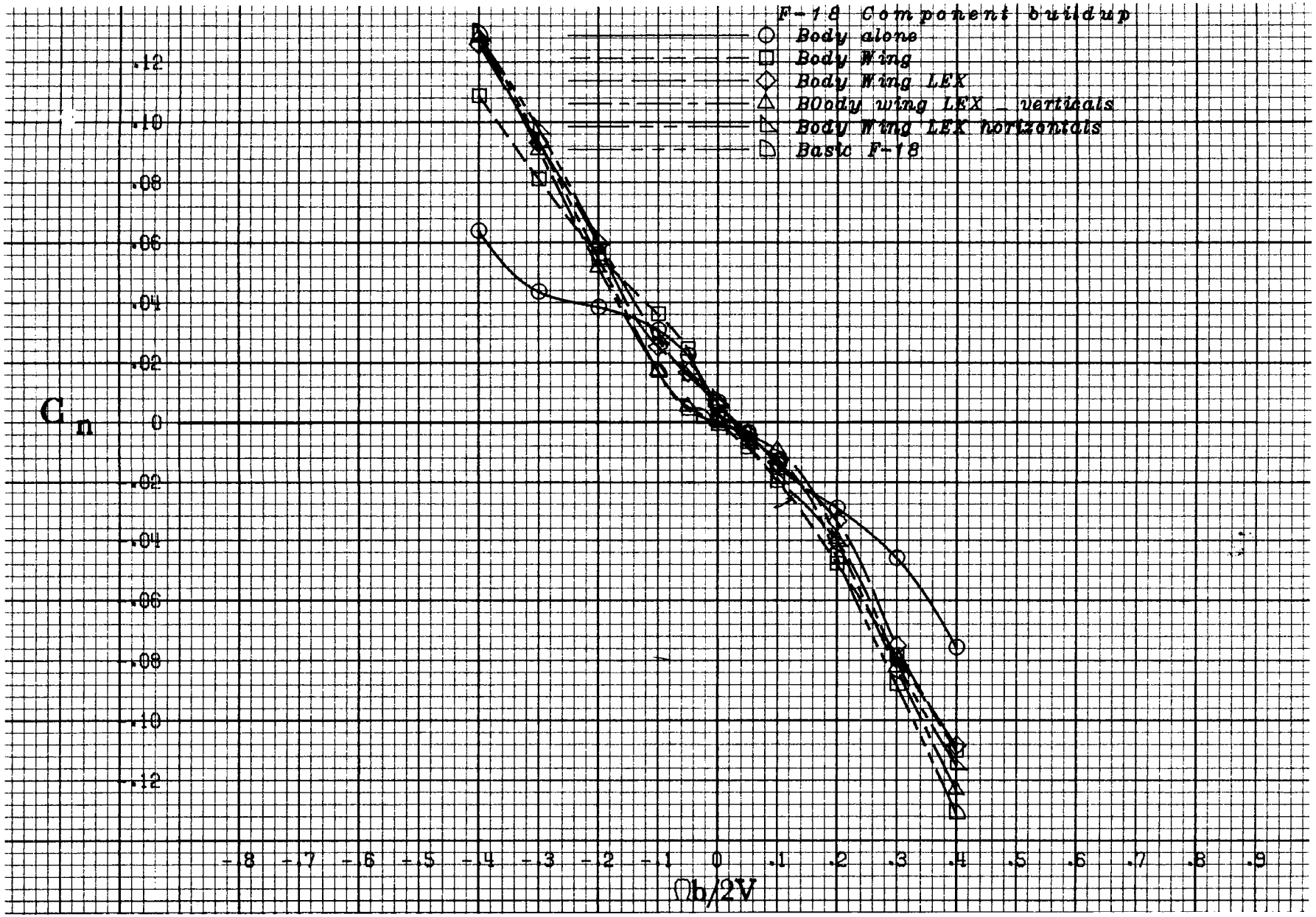
f) 90^{o} angle of attack

Figure 6.- Concluded.



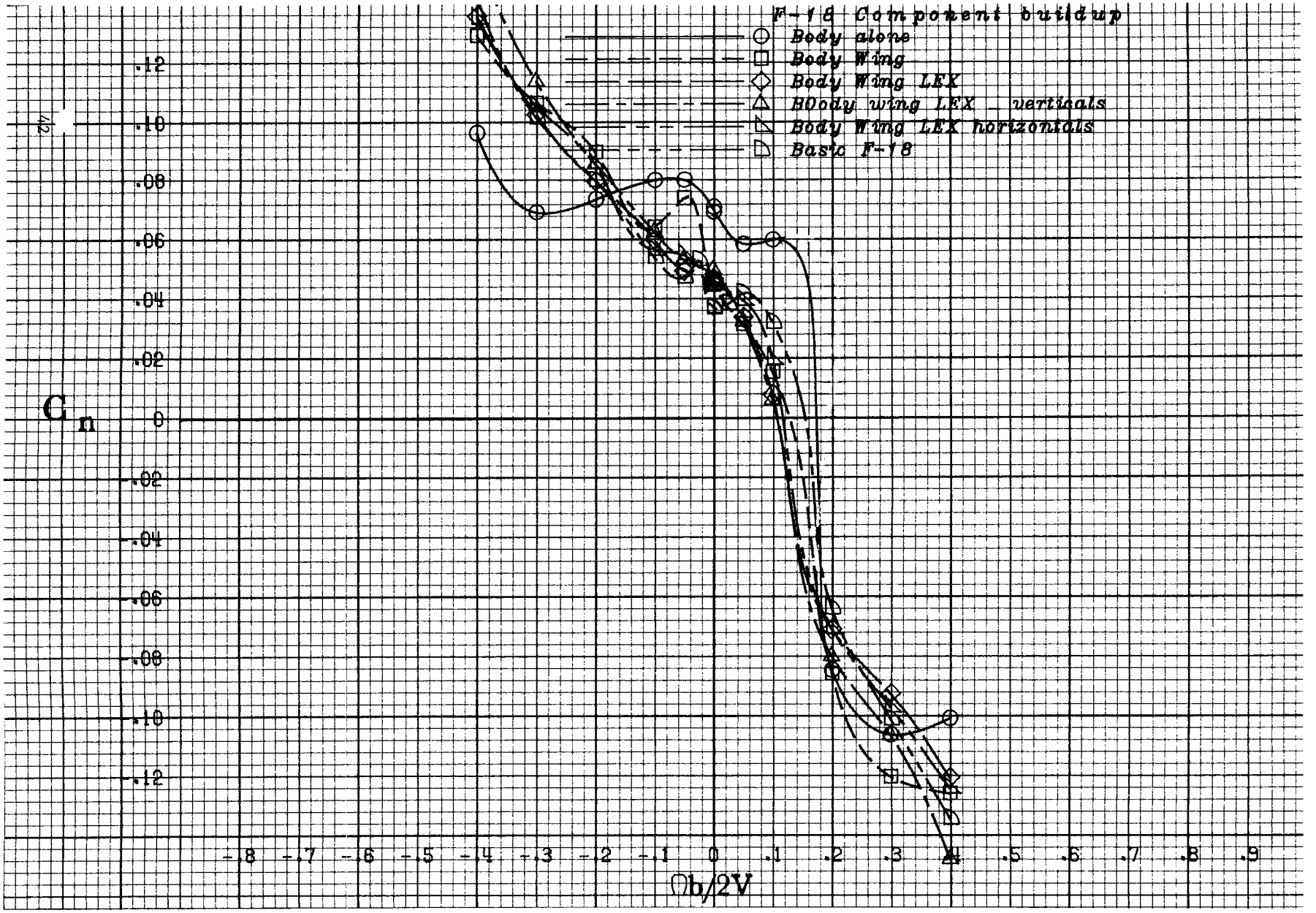
a) 20^{o} angle of attack

Figure 7.- Component build-up of yawing-moment coefficient for the F-18.



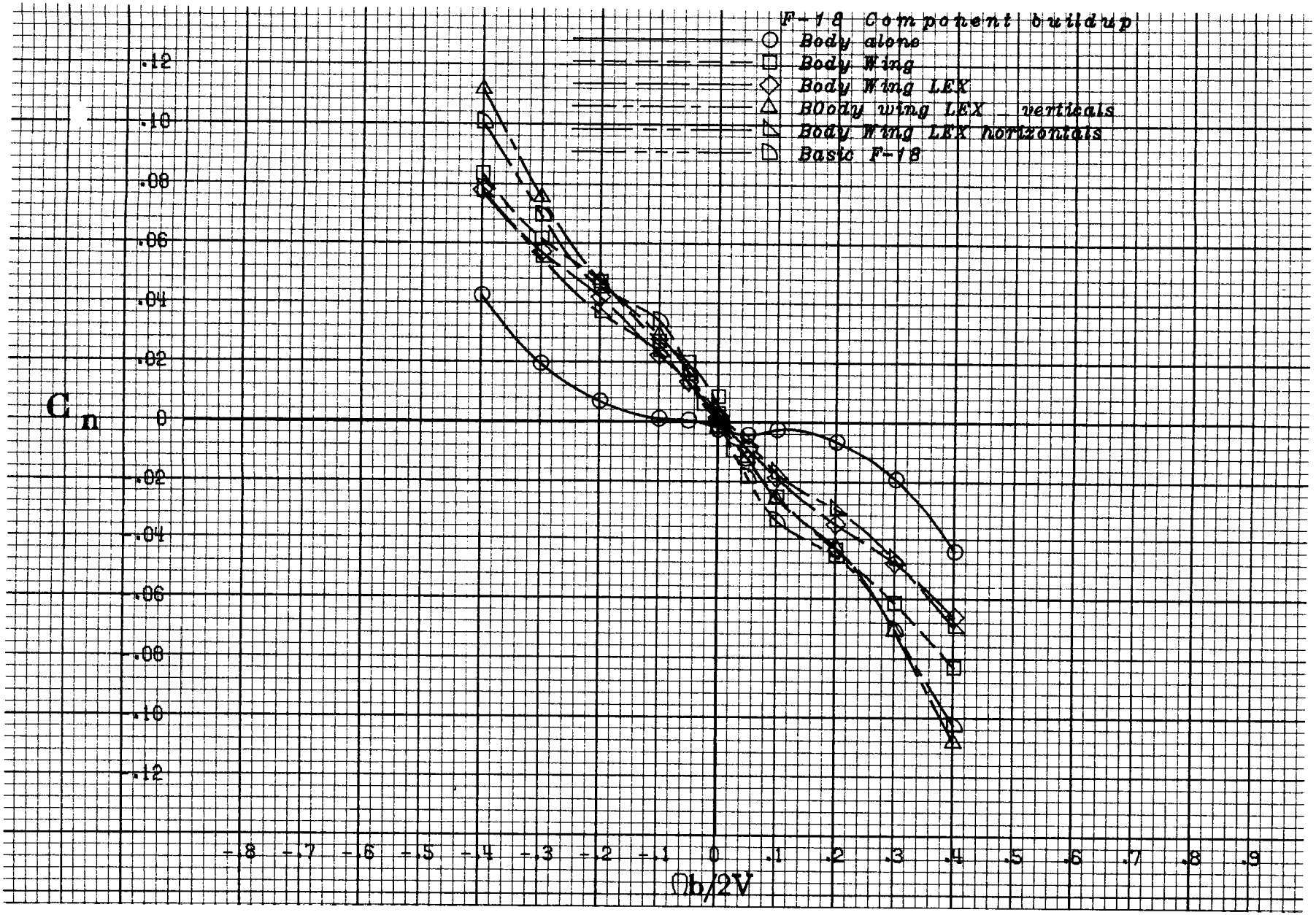
b) 30° angle of attack

Figure 7.- Continued.



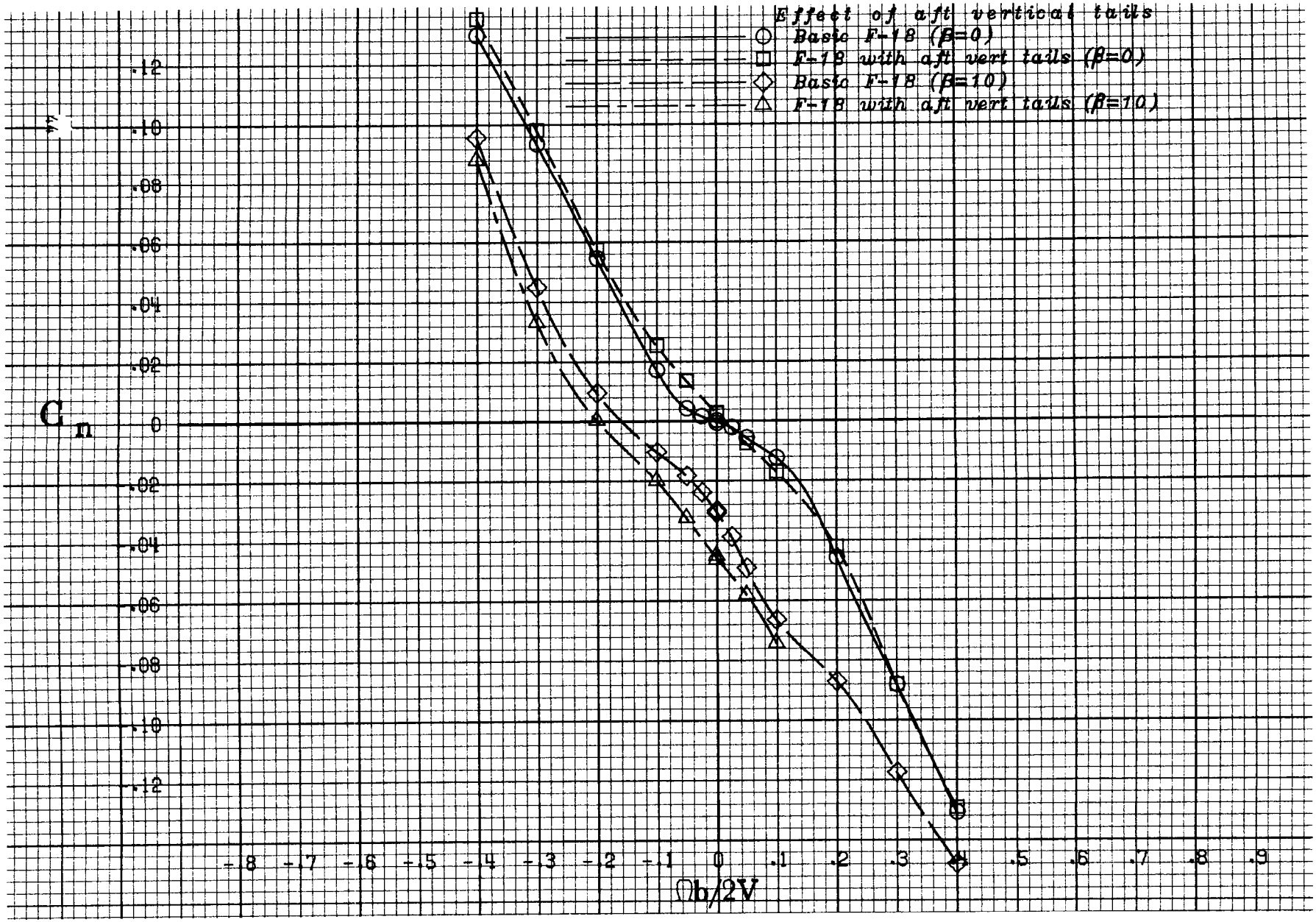
c) 60^{o} angle of attack

Figure 7.- Continued.



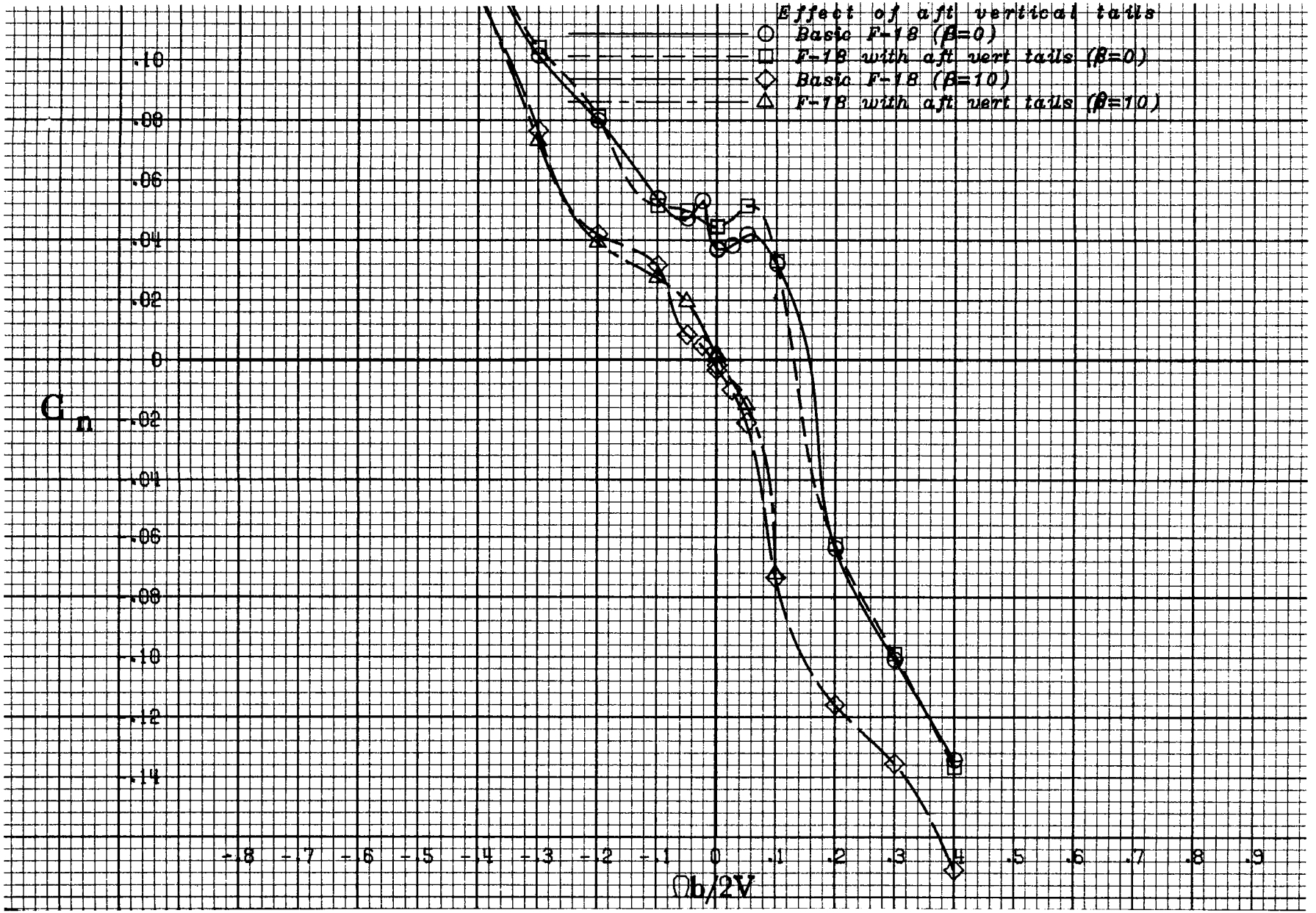
d) 90° angle of attack

Figure 7.- Concluded.



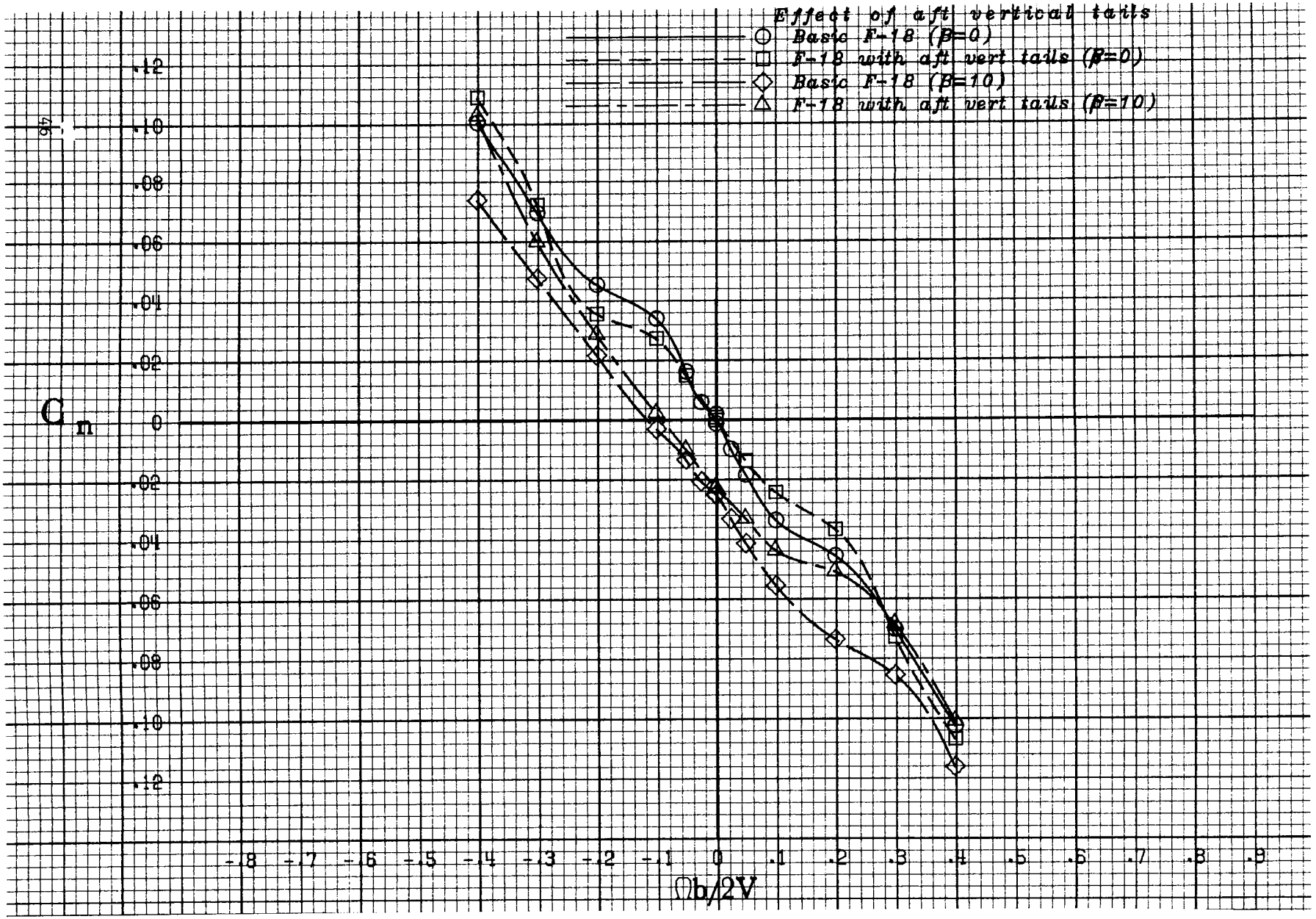
a) 40° angle of attack

Figure 8.- Influence of moving the vertical tails aft 5.75 inches, model scale, on yawing-moment coefficient.



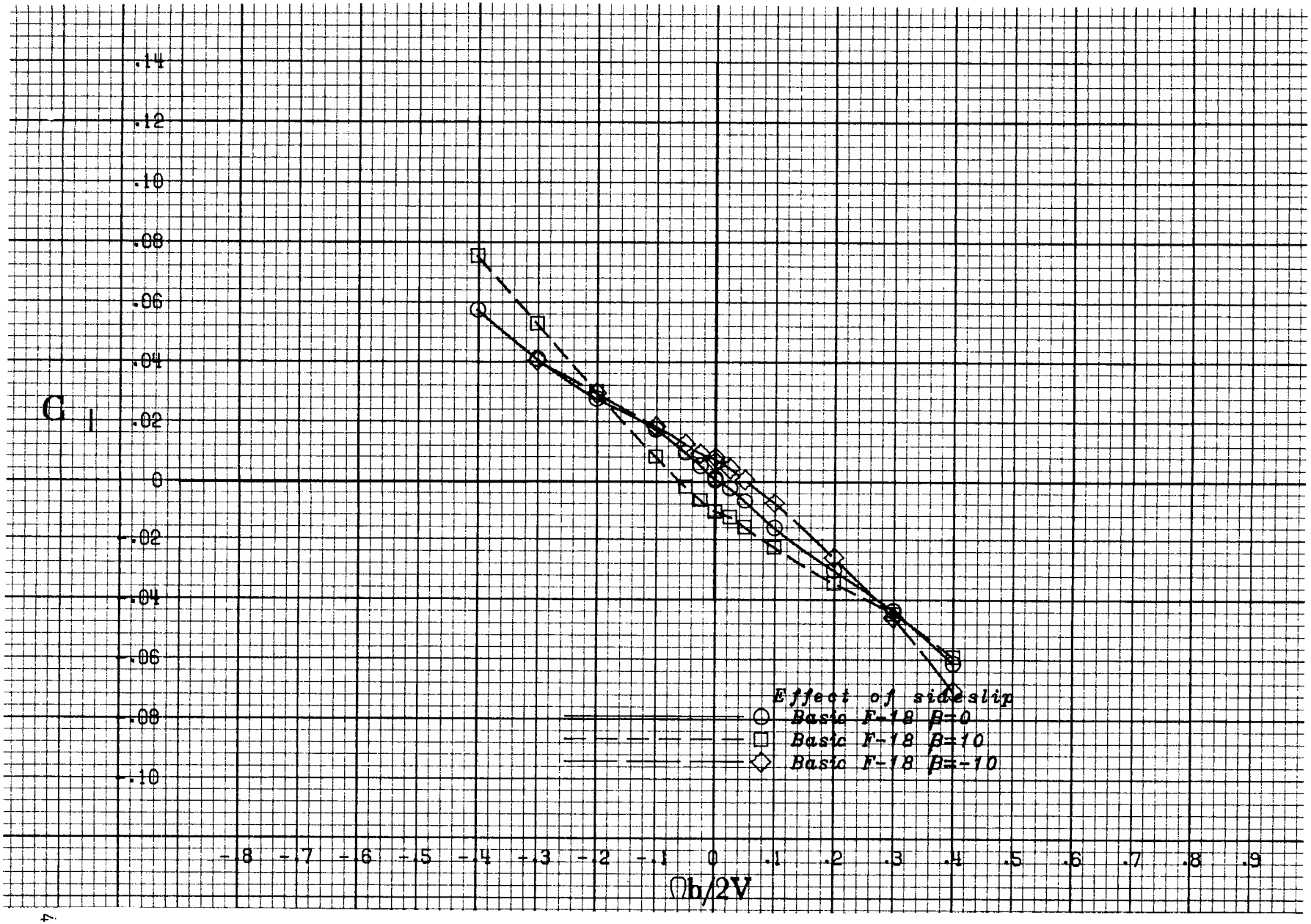
b) 60° angle of attack

Figure 8.- Continued.



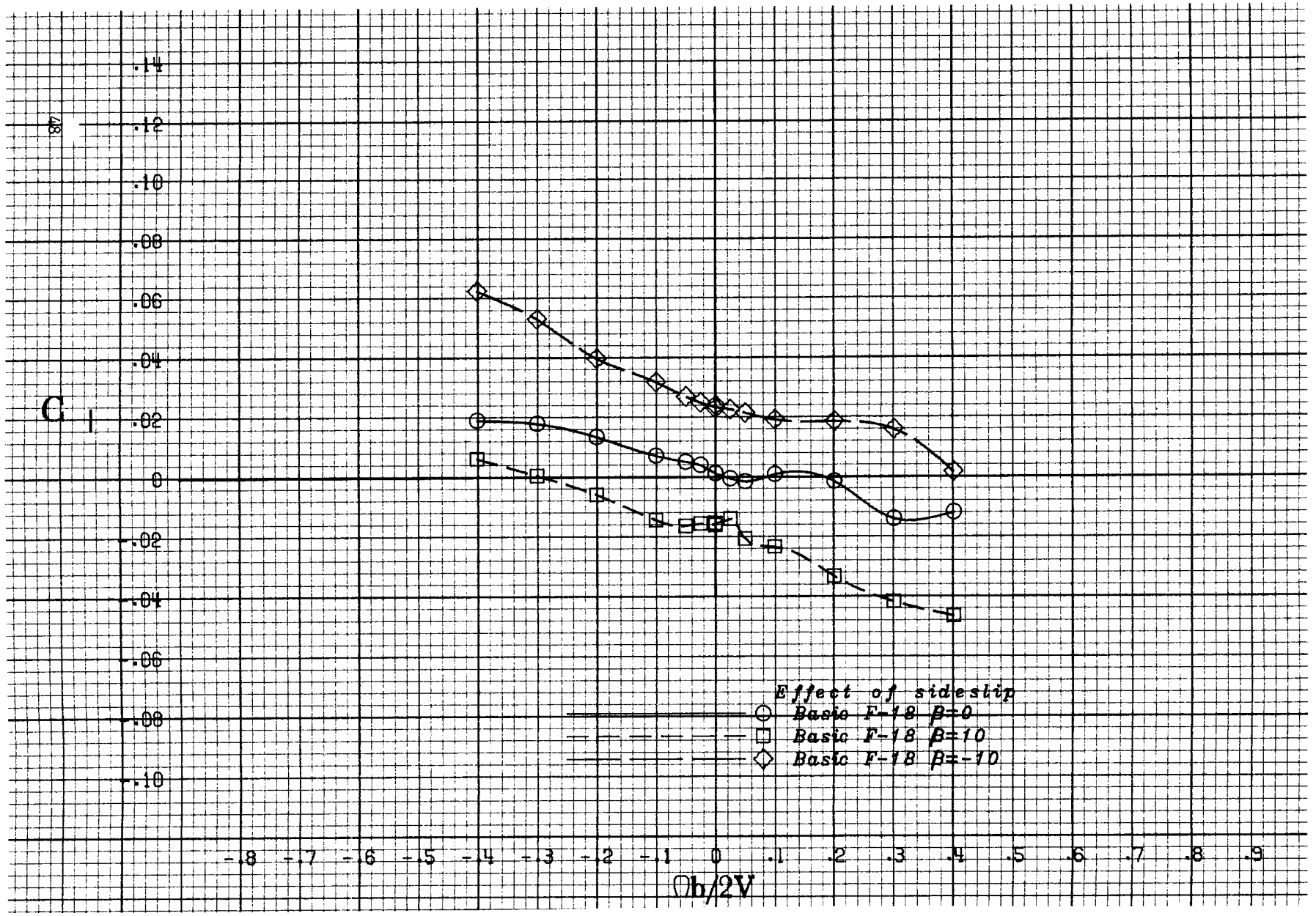
c) 90^{o} angle of attack

Figure 8.- Concluded.



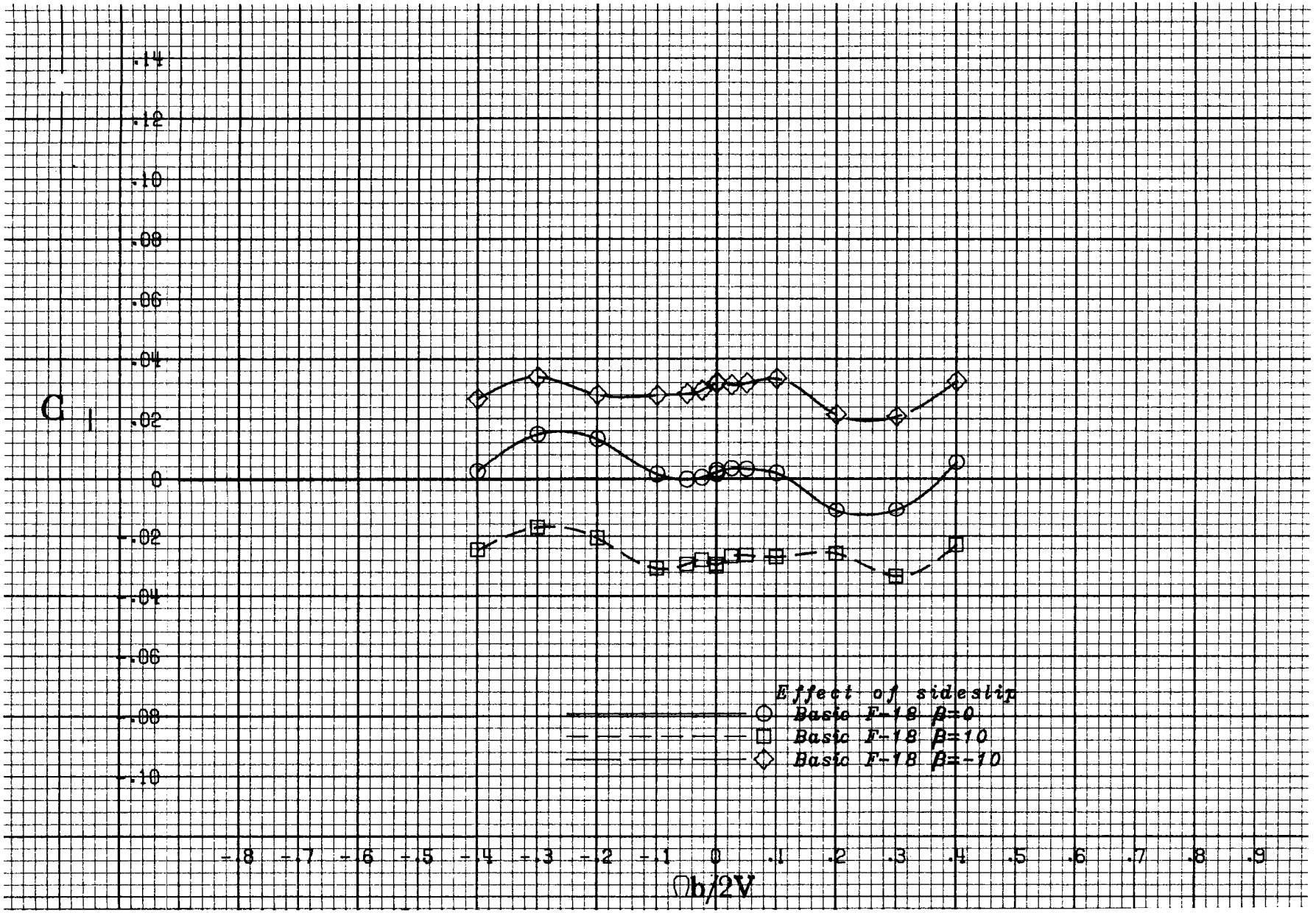
a) 20^{o} angle of attack

Figure 9.- Influence of sideslip angle on rolling-moment coefficient for the F-18.



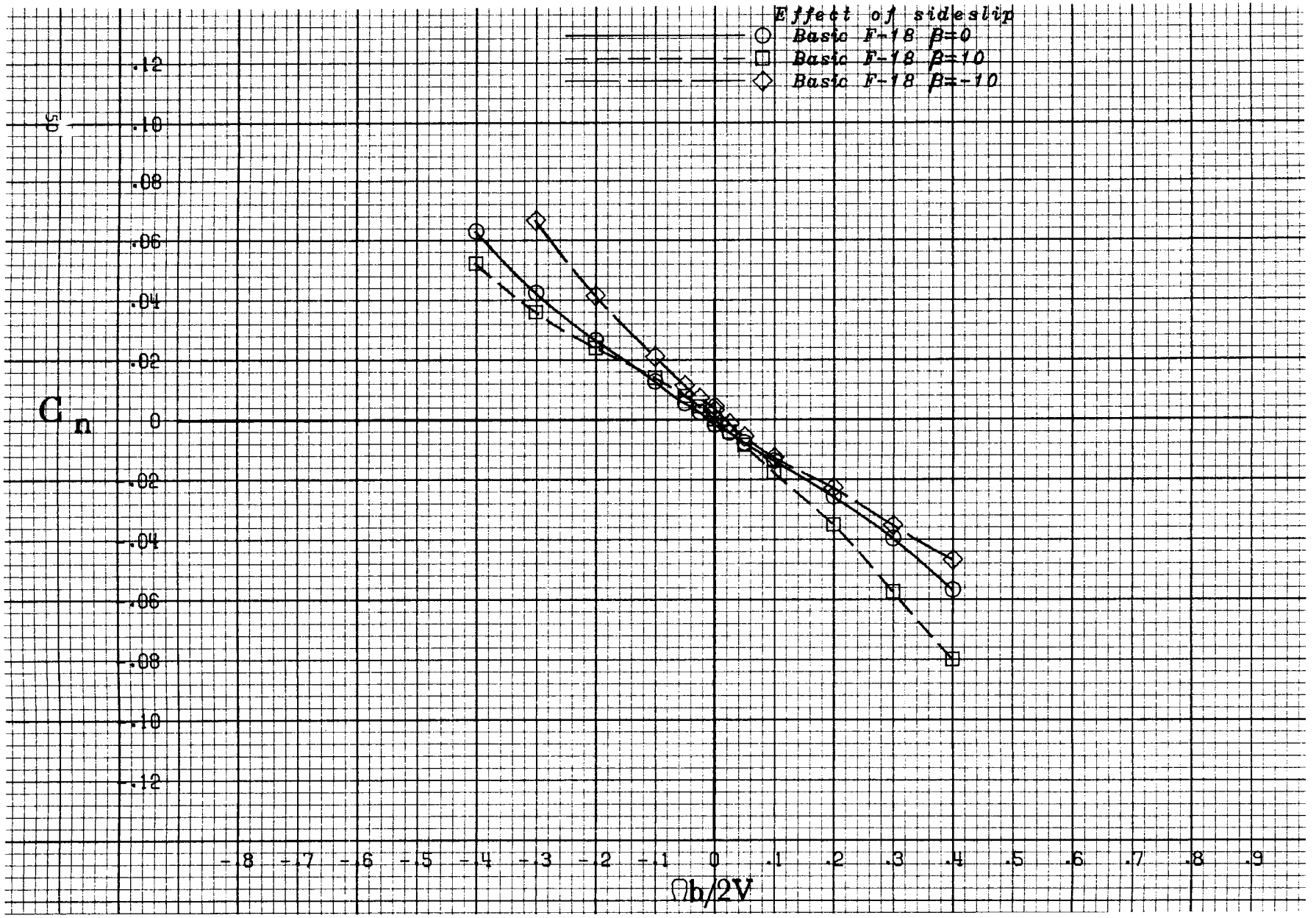
b) 50^{o} angle of attack

Figure 9.- Continued.



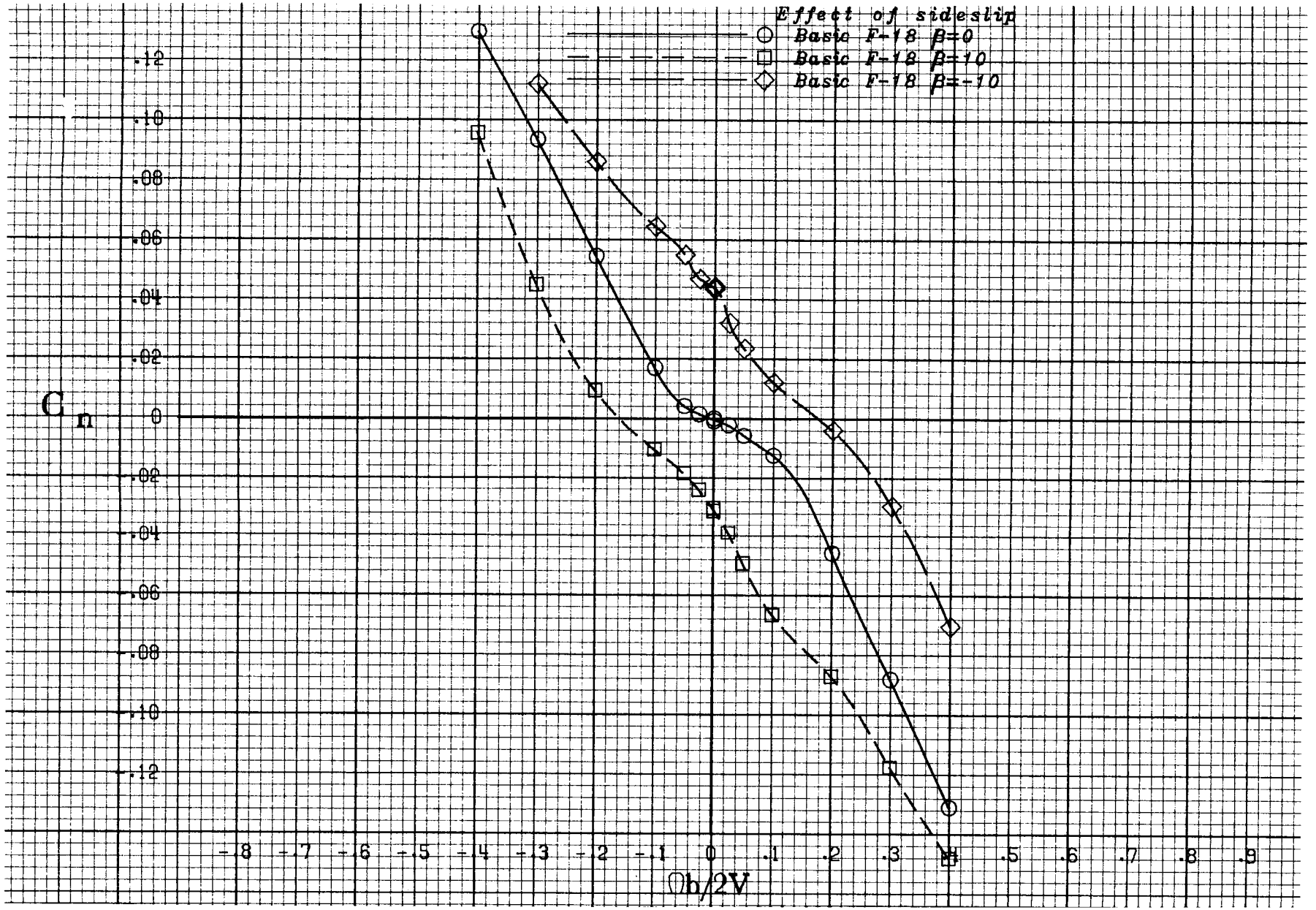
c) 80° angle of attack

Figure 9.- Concluded.



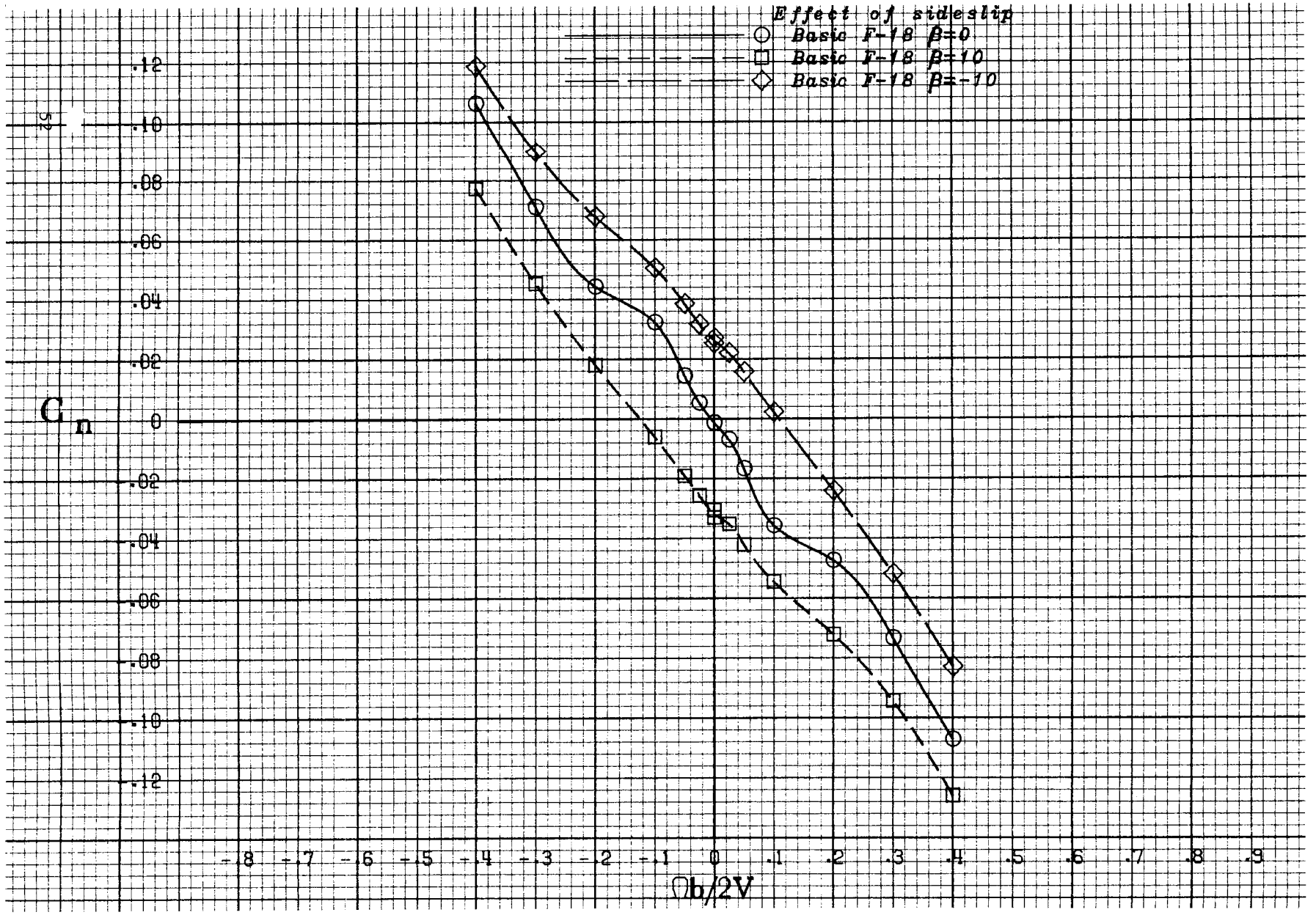
a) 20° angle of attack

Figure 10.- Influence of sideslip angle on yawing-moment coefficient for the F-18.



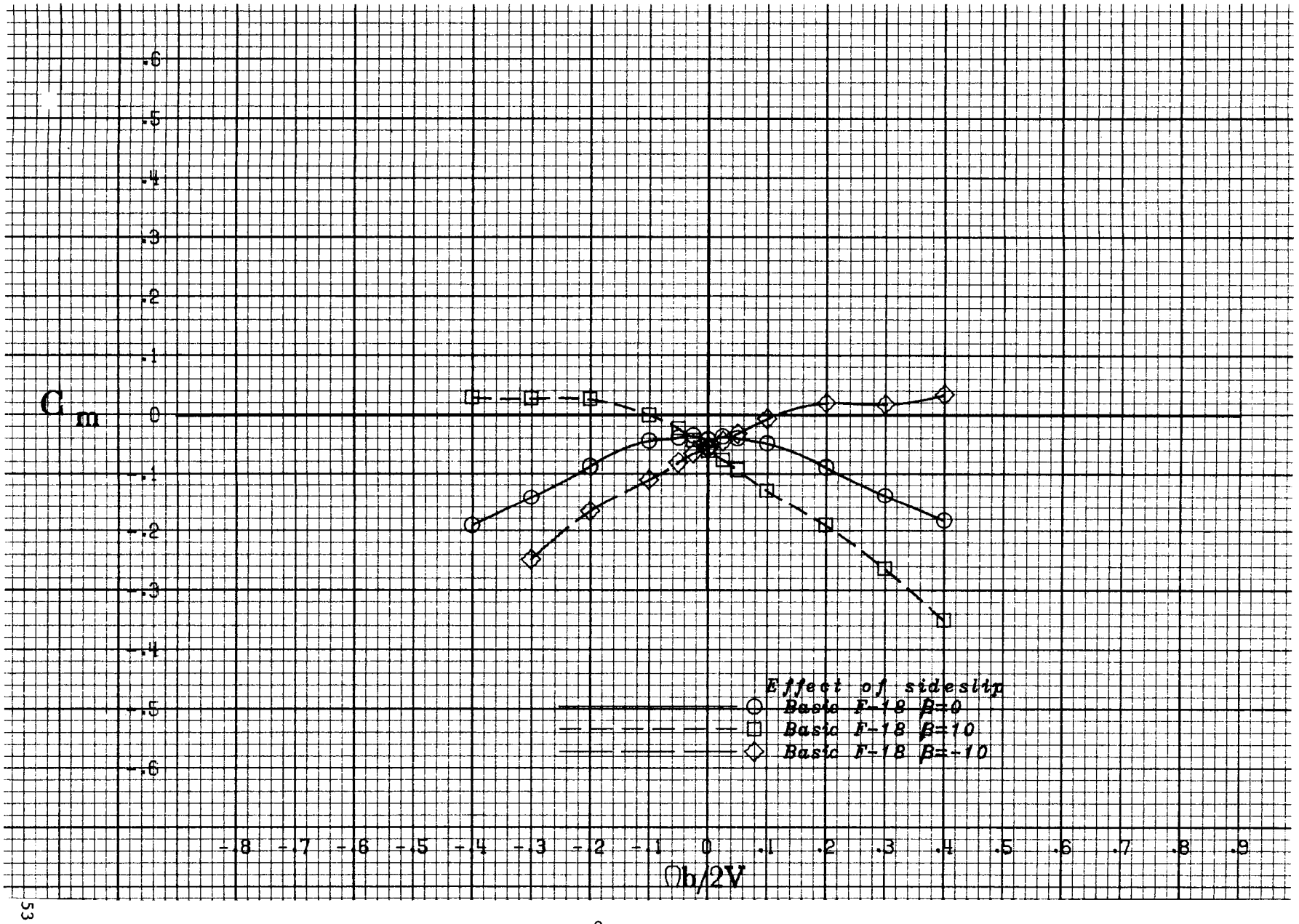
b) 40° angle of attack

Figure 10.- Continued.



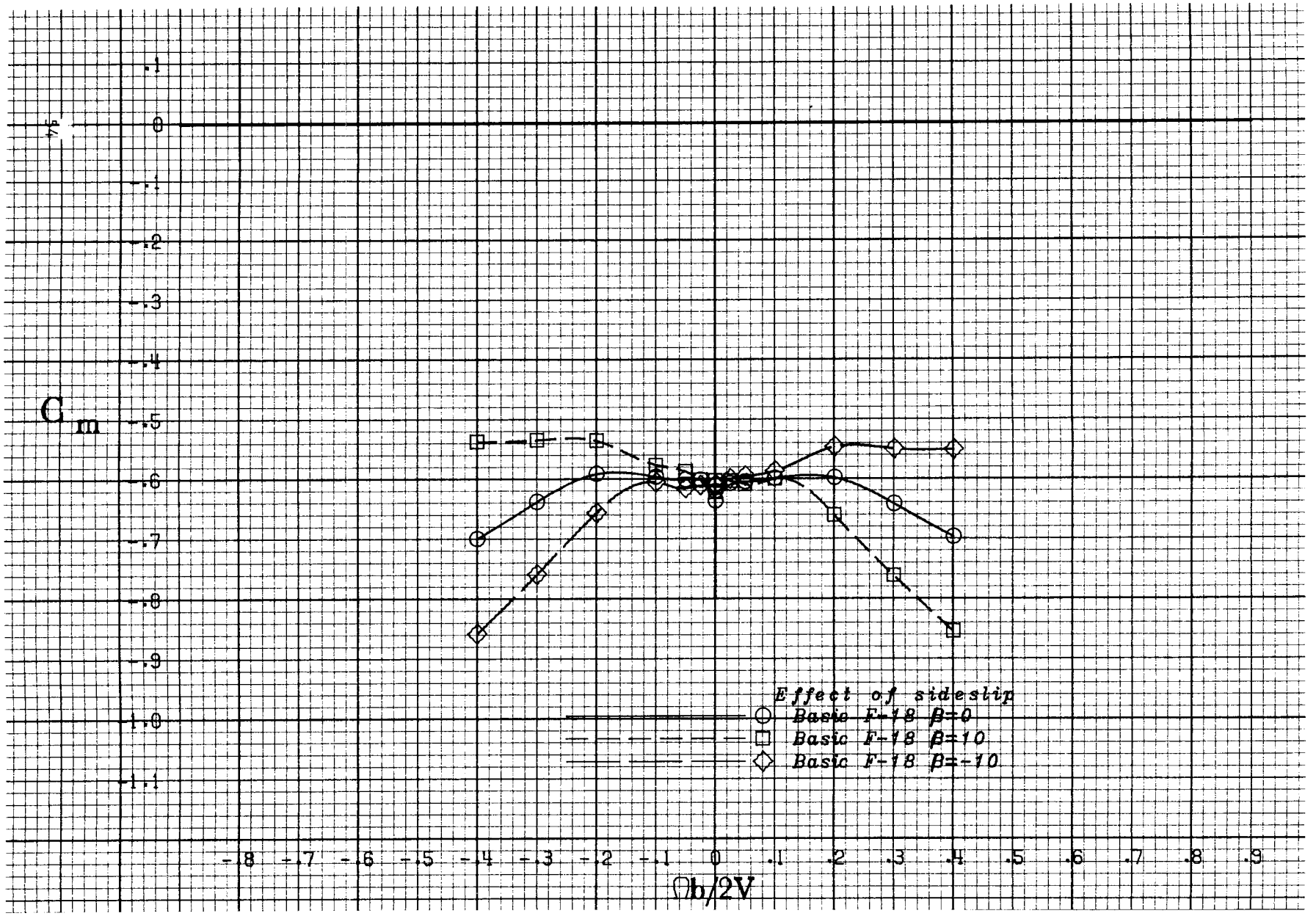
c) 80° angle of attack

Figure 10 .- Concluded.



a) 30° angle of attack

Figure 11.- Influence of sideslip angle on pitching-moment coefficient for the F-18.



b) 80° angle of attack

Figure 11.- Concluded.

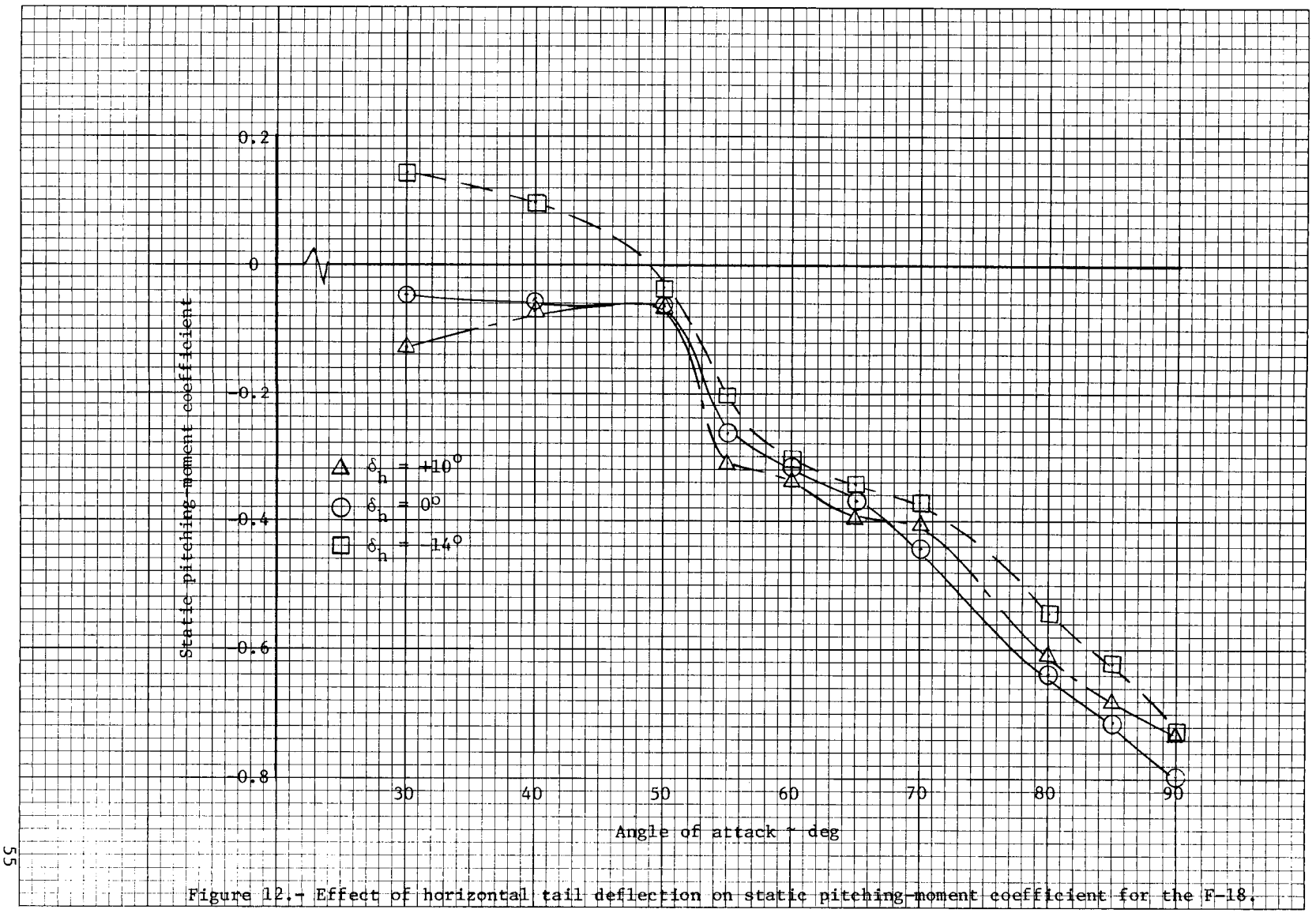


Figure 12.- Effect of horizontal tail deflection on static pitching-moment coefficient for the F-18.

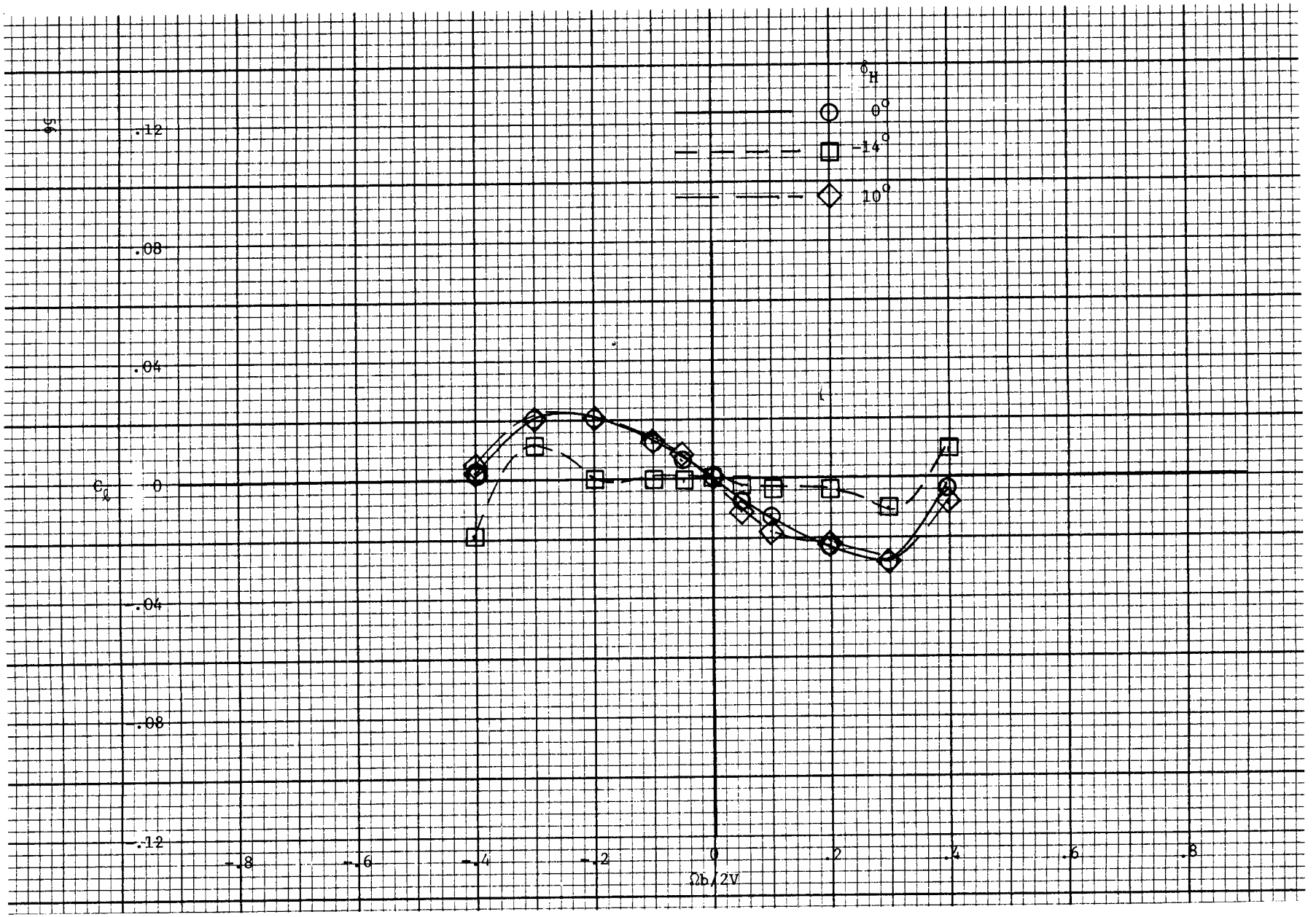


Figure 13.- Influence of symmetrical horizontal tail deflection on rolling-moment coefficient at 65° angle of attack.

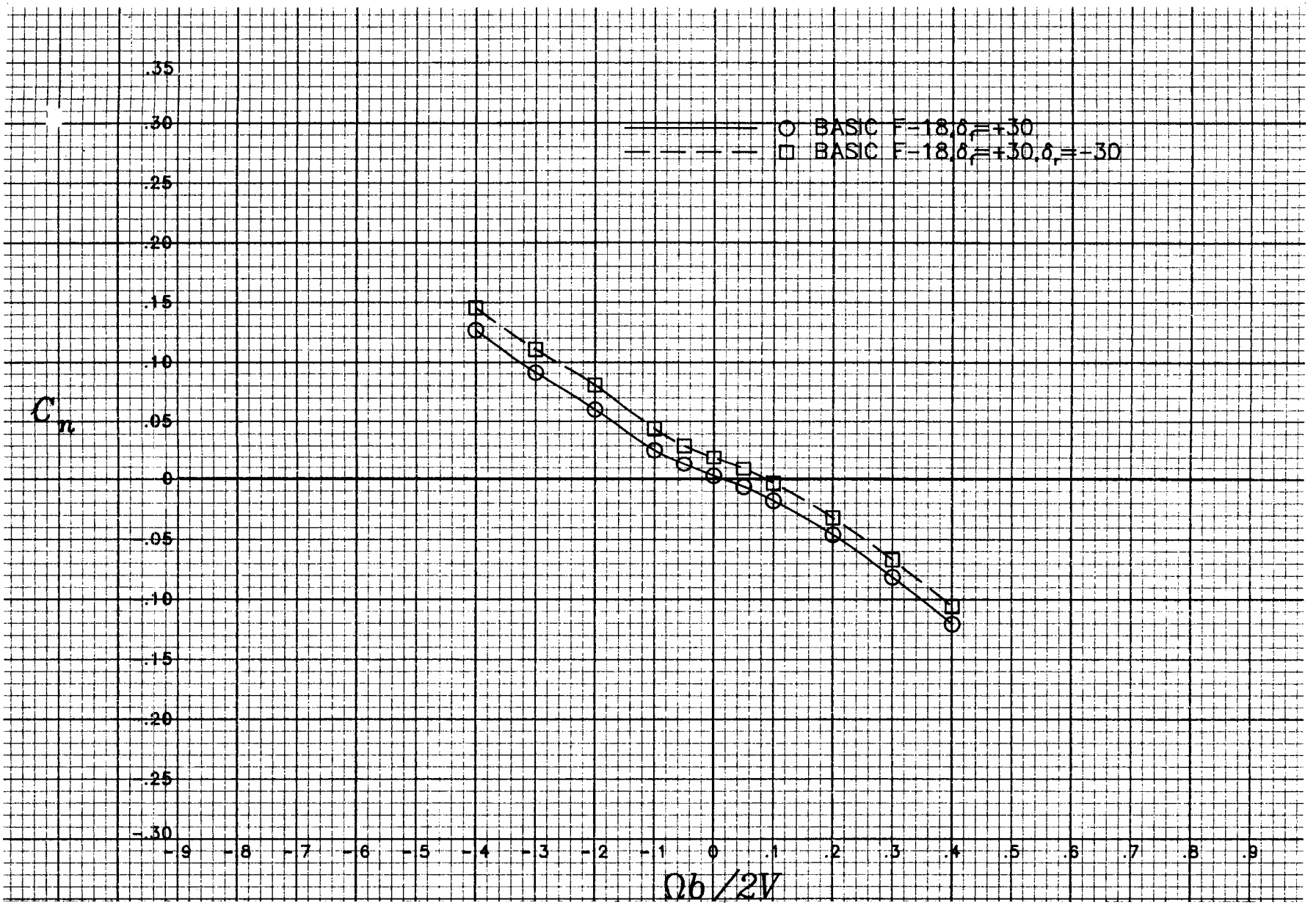


Figure 14.- Influence of rudder deflection on rotational yawing-moment coefficient at 40° angle of attack.

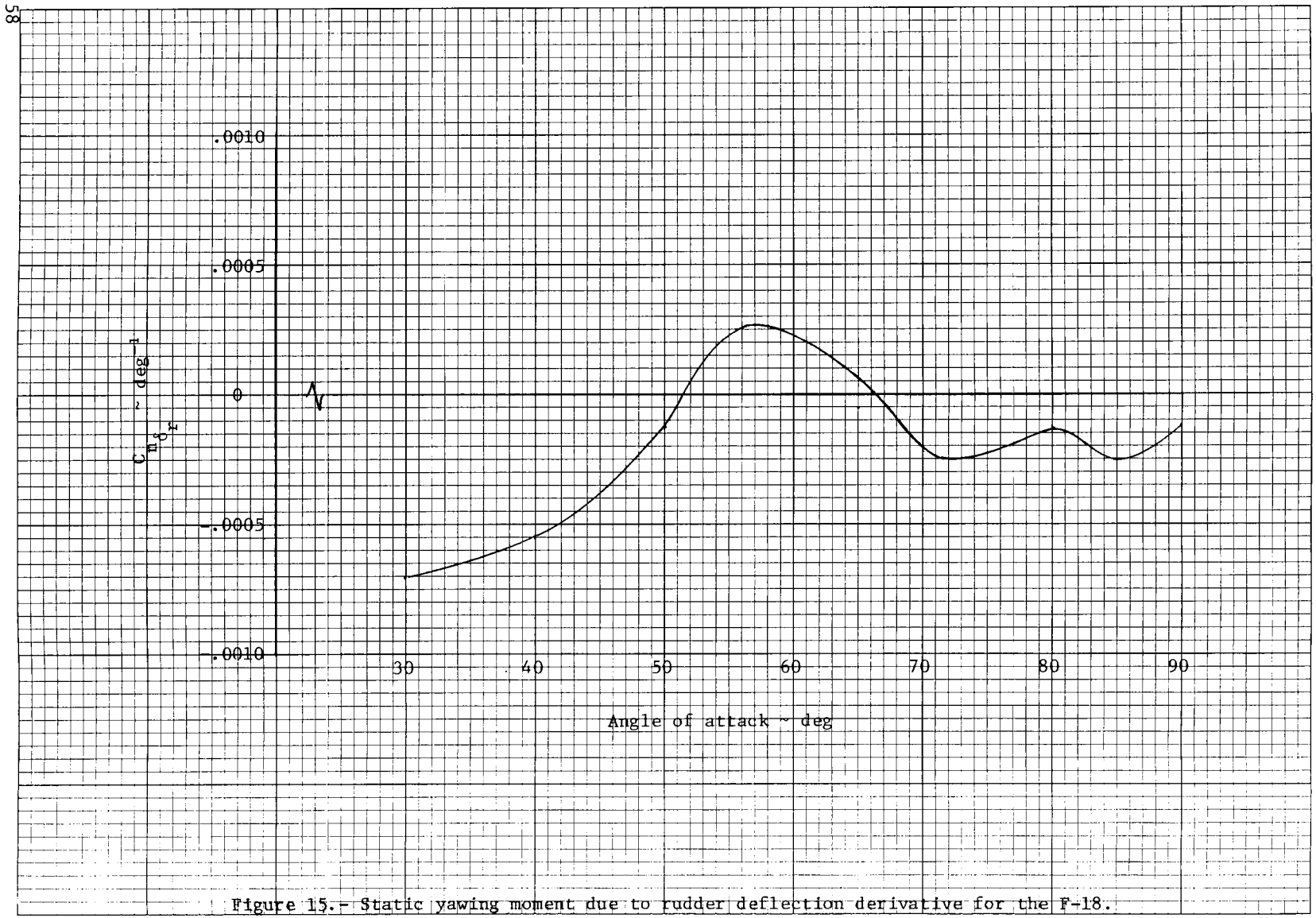


Figure 15.- Static yawing moment due to rudder deflection derivative for the F-18.

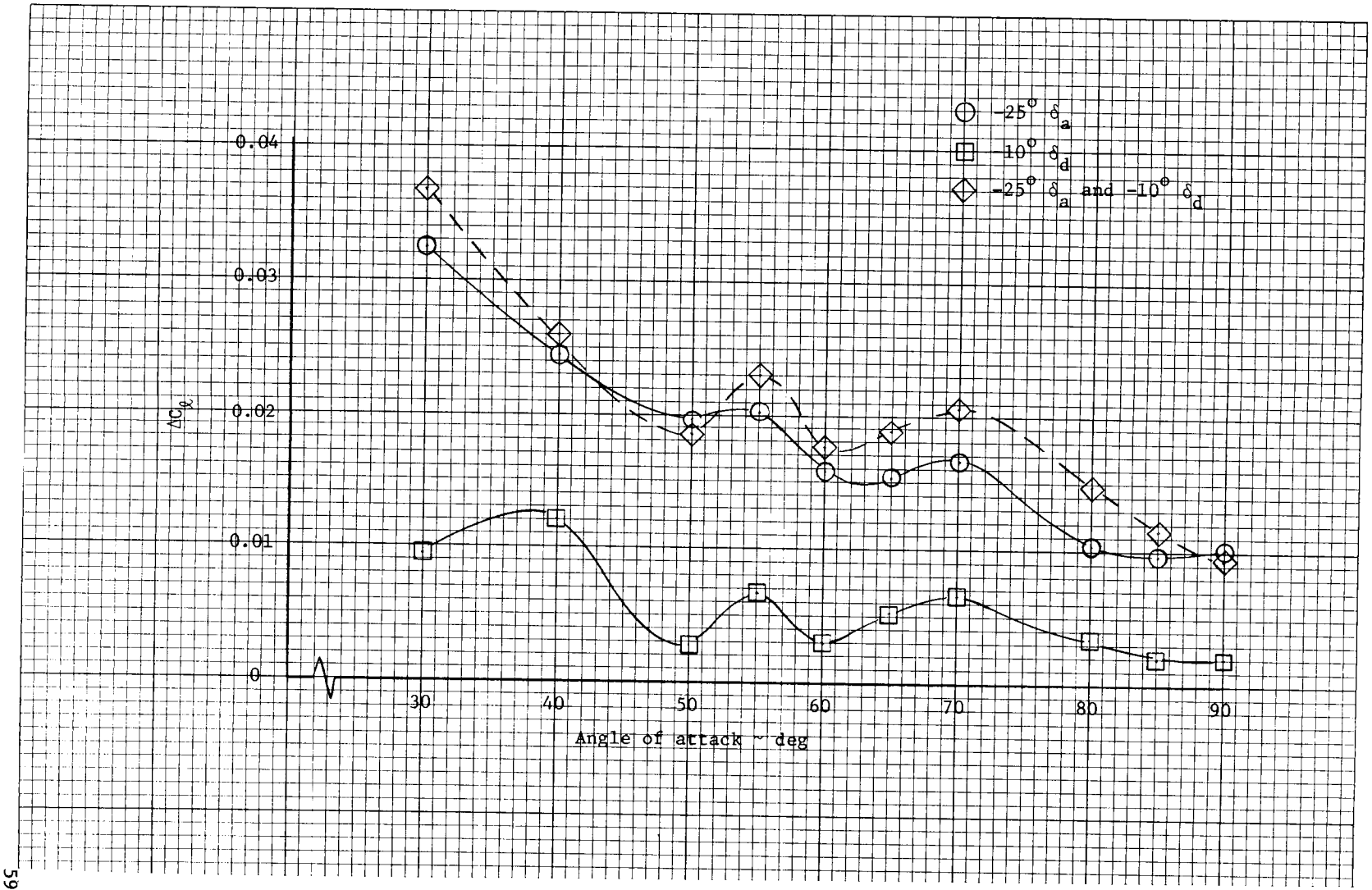


Figure 16.- Incremental rolling-moment coefficient due to lateral control displacements for the F-18 with neutral symmetrical horizontal tail deflection.

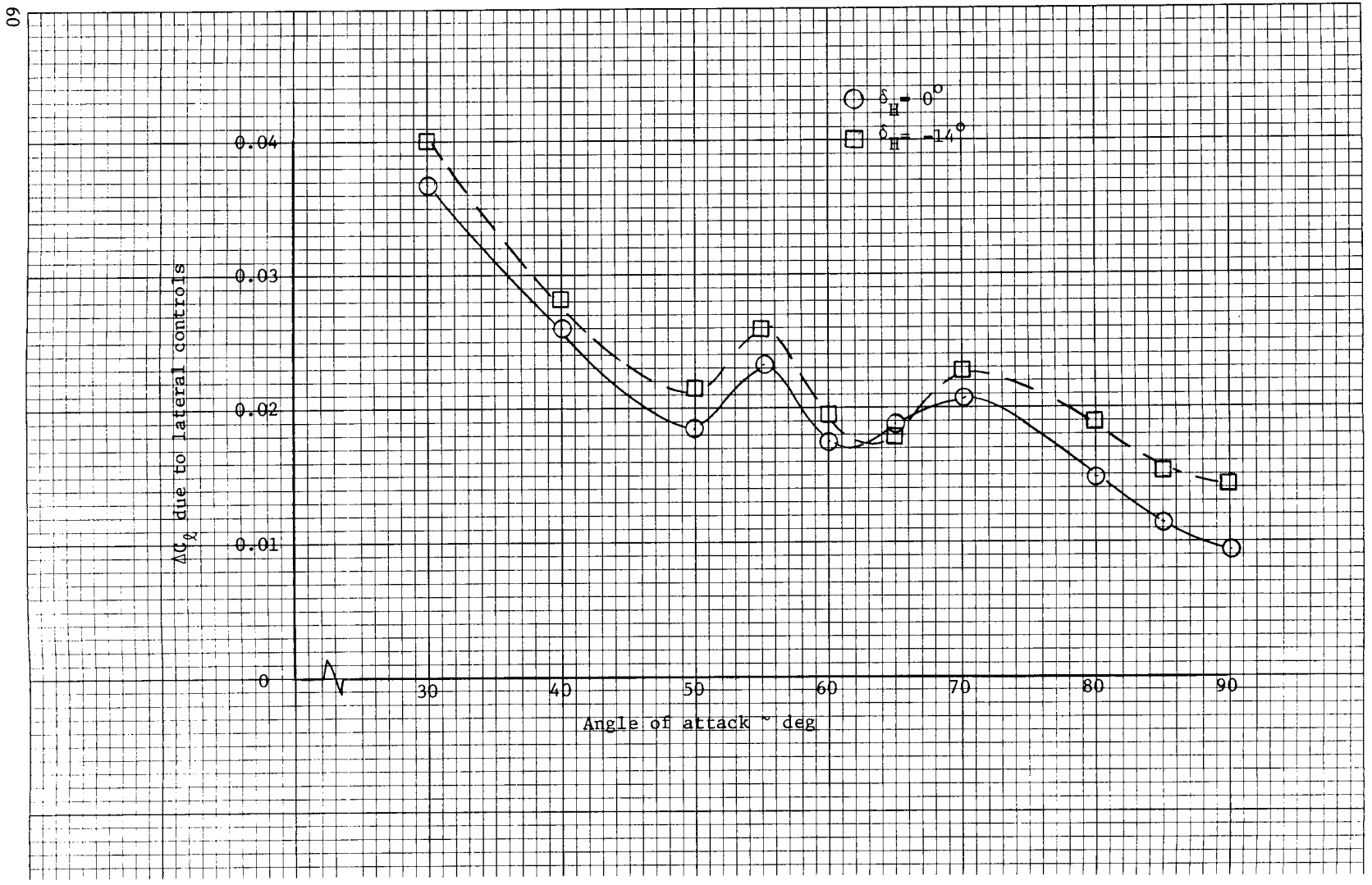


Figure 17.- Influence of horizontal tail deflection on lateral control power for $\delta_a = -25^o$, $\delta_d = -10^o$.

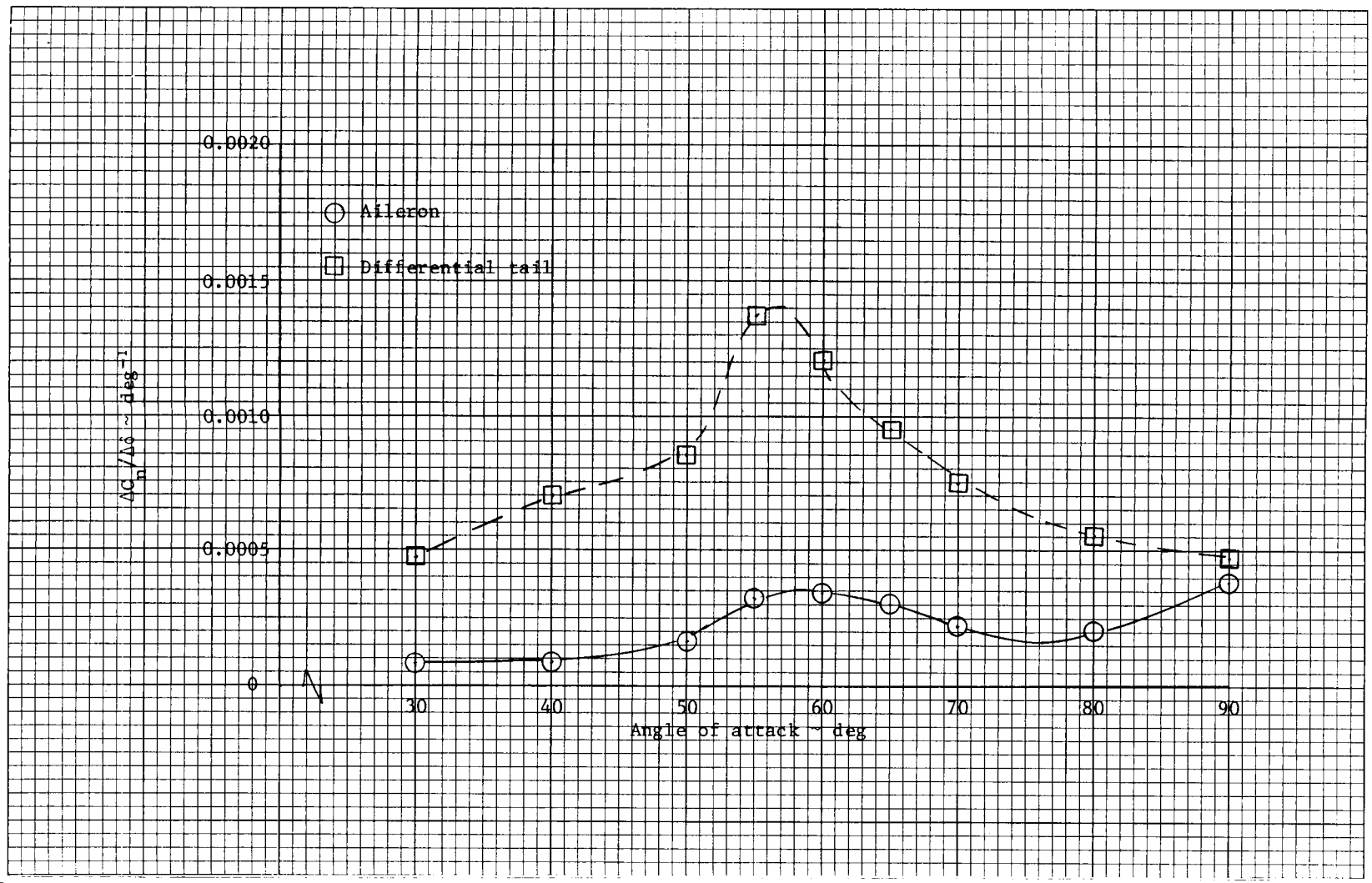
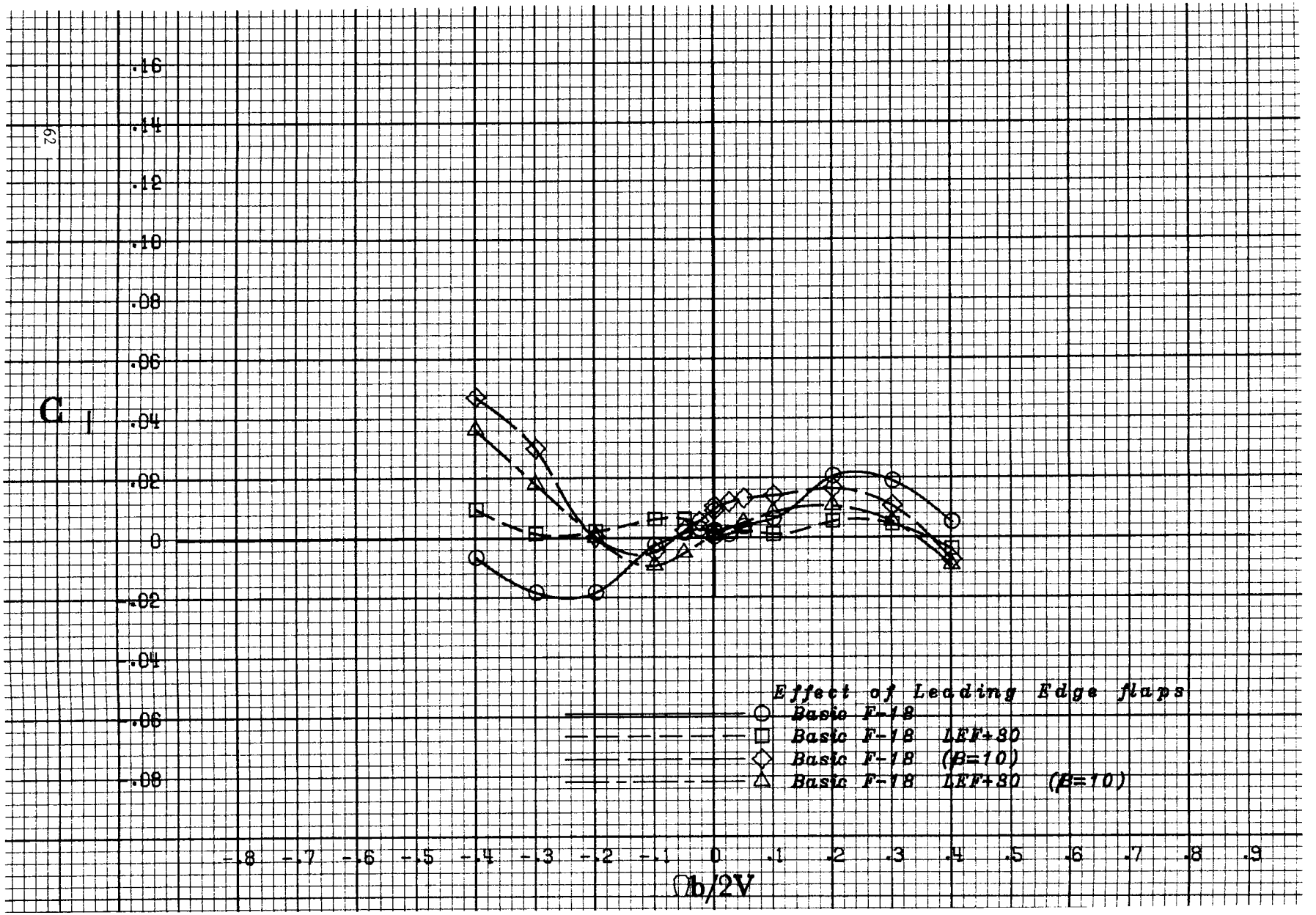
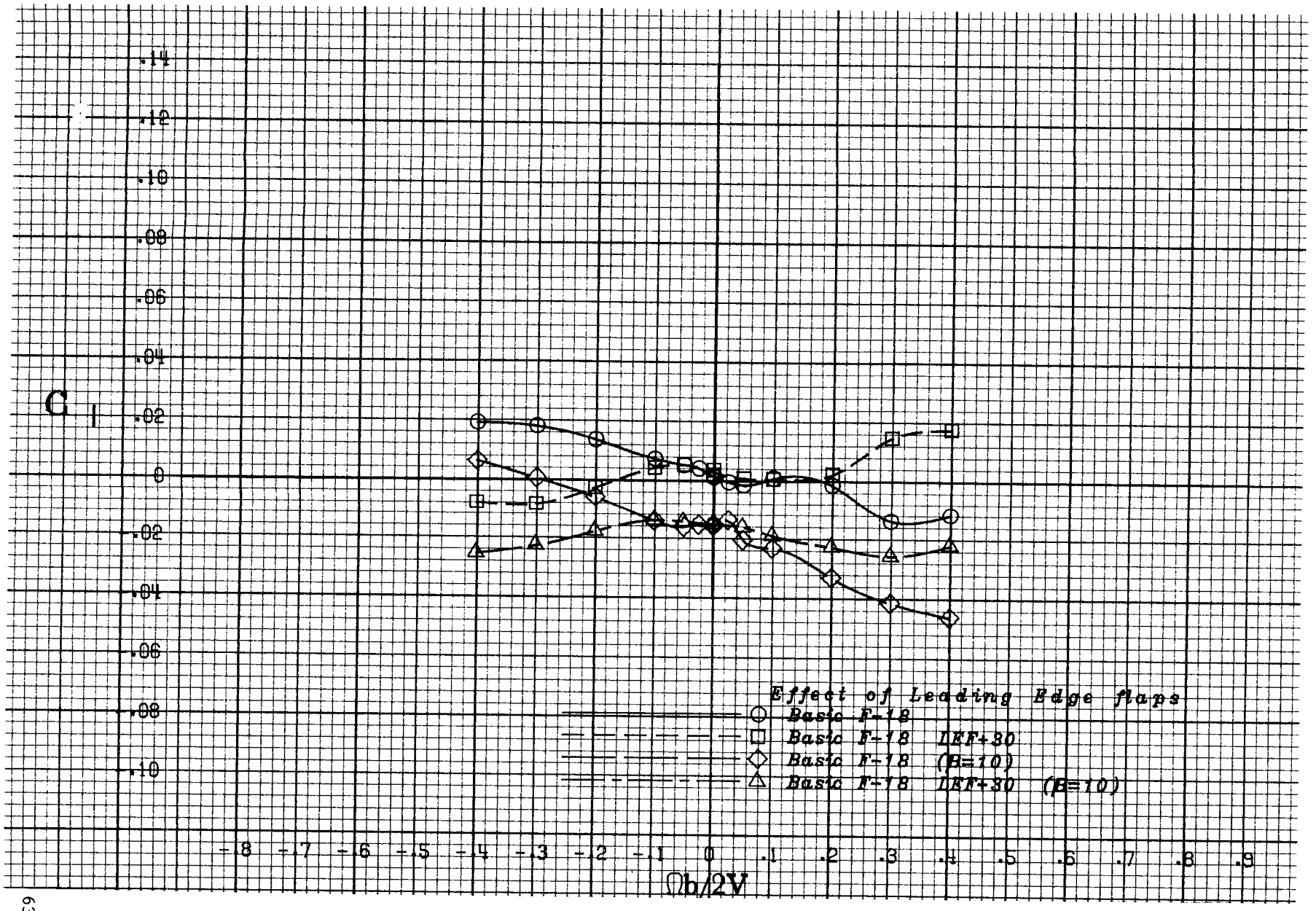


Figure 18.- Incremental yawing moment due to unit lateral control deflection for the F-18. Differential tail deflection about neutral horizontal tail position.



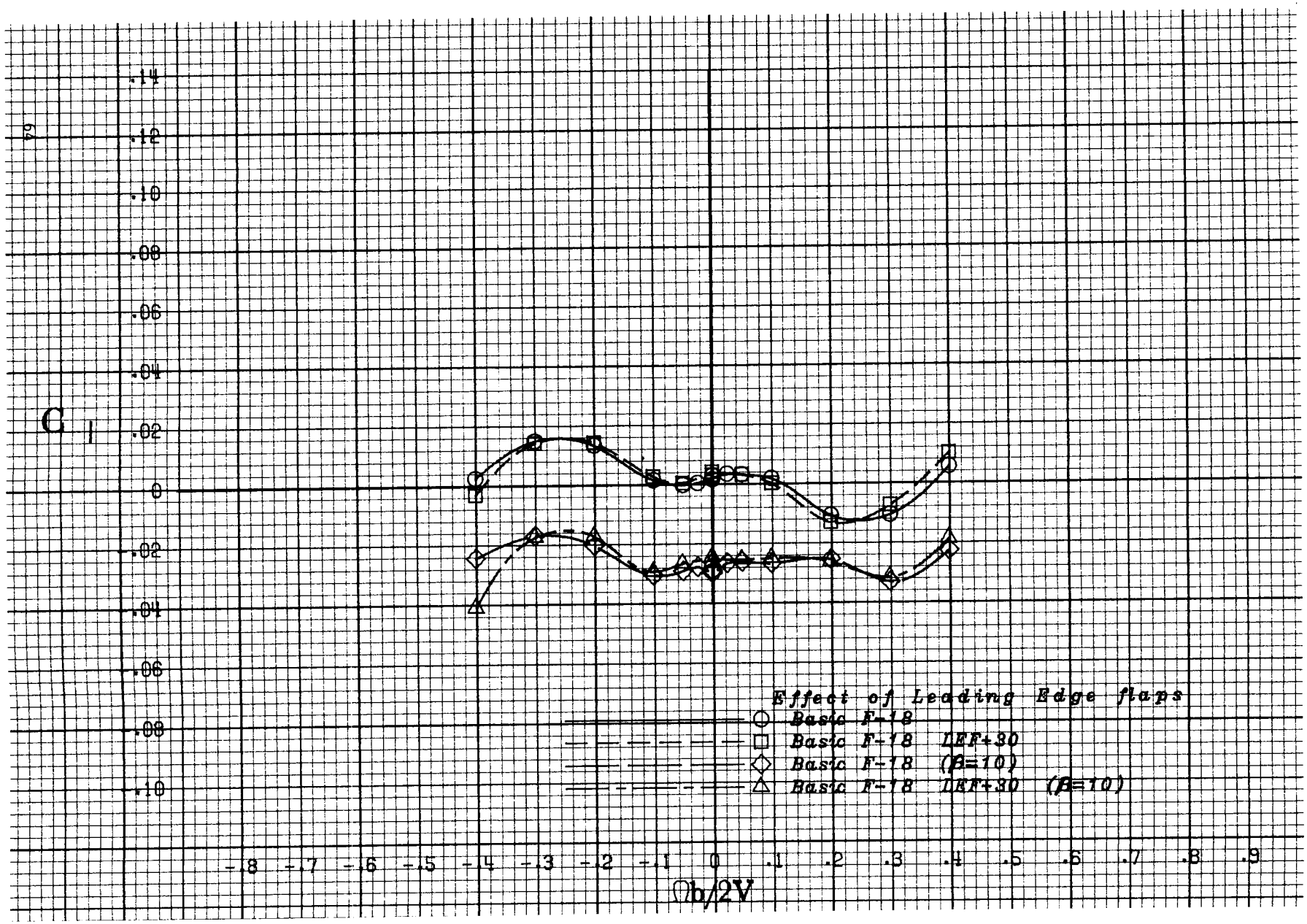
a) 30^{o} angle of attack

Figure 19.- Influence of leading-edge flaps on rolling-moment coefficient for the F-18.



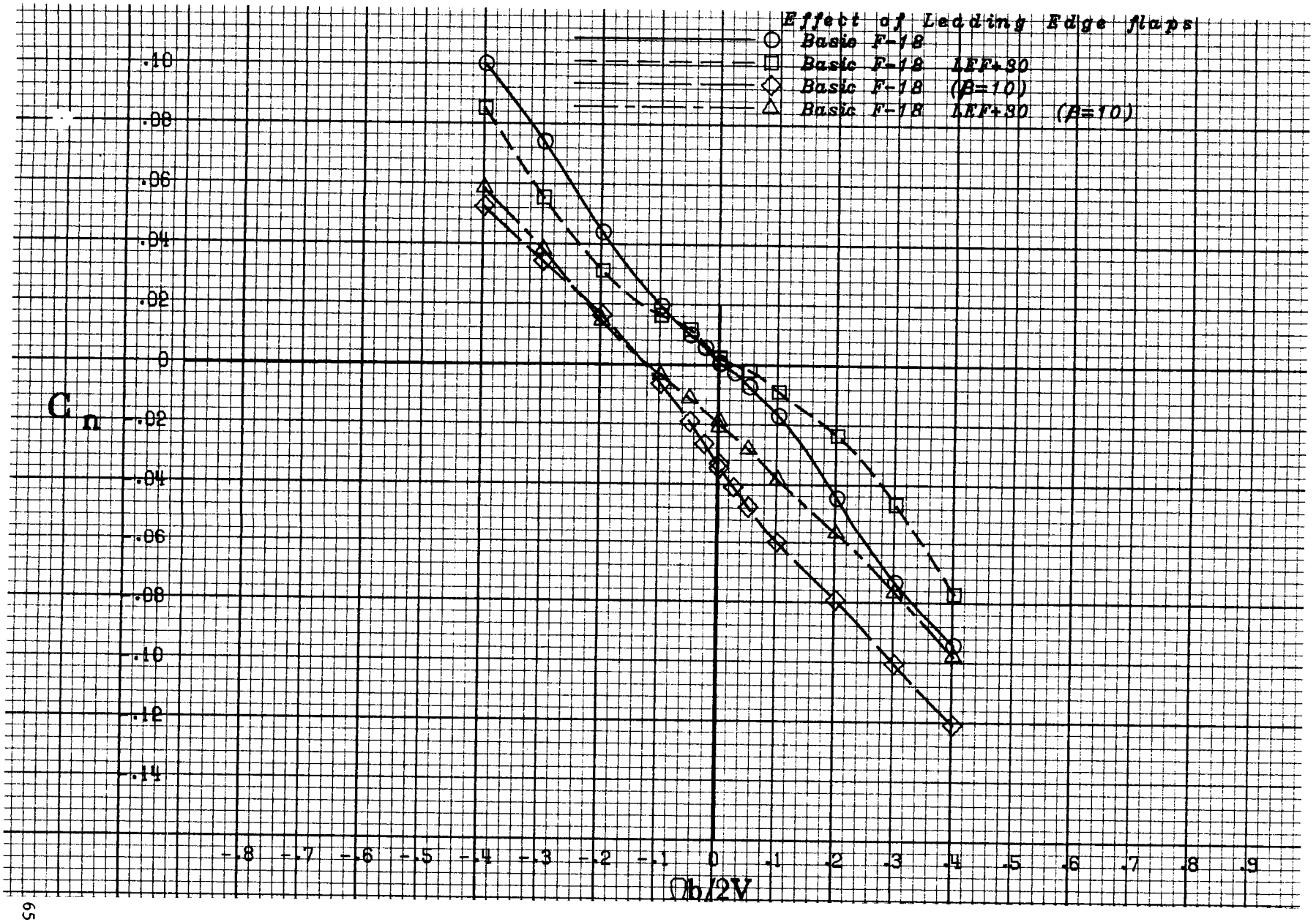
b) 50^{o} angle of attack

Figure 19.- Continued.



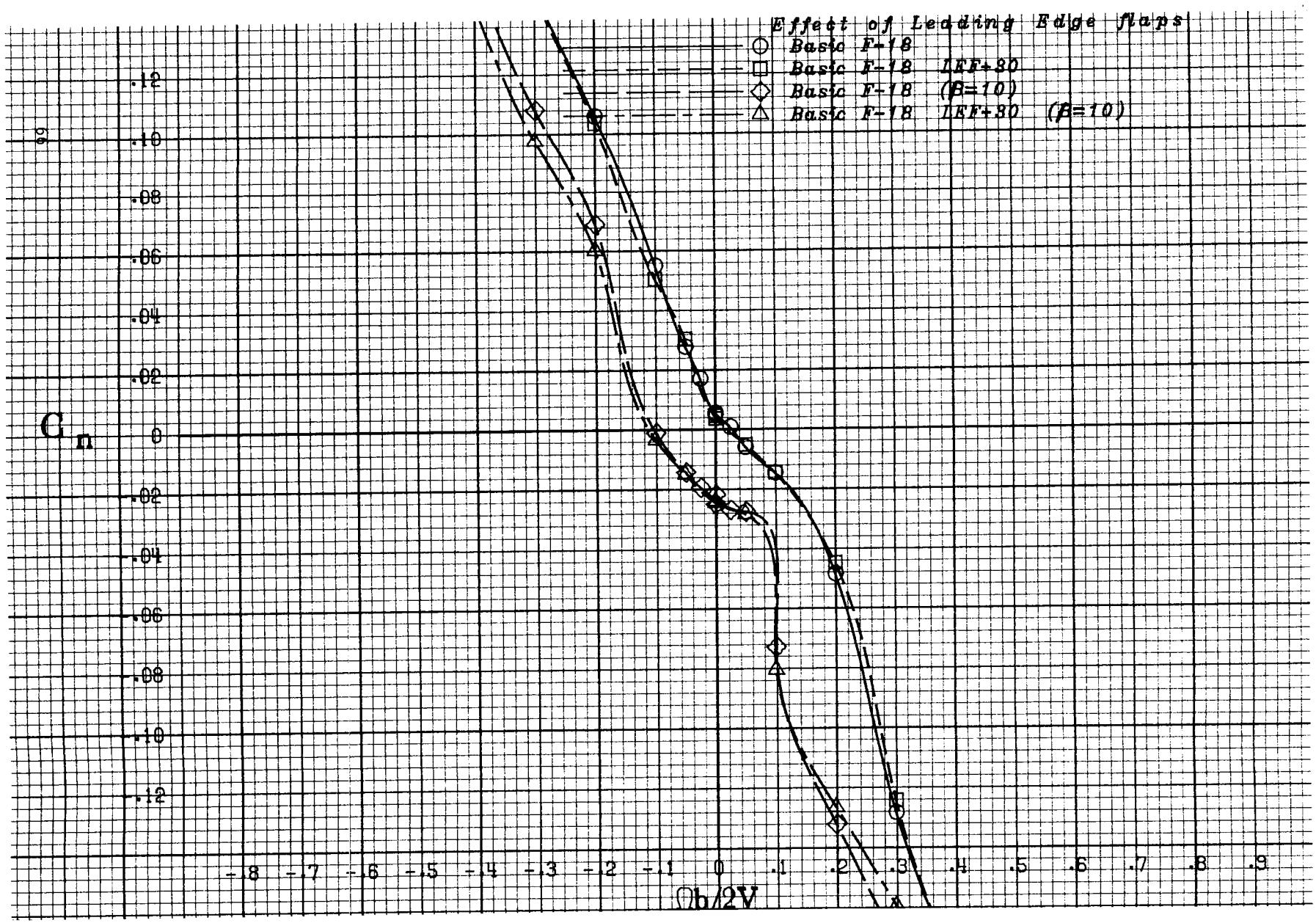
c) 80° angle of attack

Figure 19.- Concluded.



a) 30° angle of attack

Figure 20.- Influence of leading-edge flaps on yawing-moment coefficient for the F-18.



b) 50° angle of attack

Figure 20.- Concluded.

APPENDIX

***** F-18 ROTARY BALANCE DATA *****

F-18 Body

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.003	.19	.036	.020	-.0002	.0044	-.40
	-.30	.001	.18	.030	.023	-.0003	.0033	-.30
	-.20	-.000	.18	.028	.026	-.0004	.0024	-.20
	-.10	-.002	.19	.028	.027	-.0005	.0016	-.10
	-.05	-.001	.19	.028	.027	-.0006	.0012	-.05
	0.00	.009	.11	.015	.012	.0000	-.0005	0.00
	0.00	.008	.11	.016	.012	.0000	-.0004	0.00
	.05	.001	.18	.026	.030	-.0007	-.0002	.05
	.10	.002	.17	.026	.022	-.0007	-.0007	.10
	.20	.004	.16	.024	.019	-.0008	-.0019	.20
	.30	.007	.14	.023	.009	-.0008	-.0035	.30
	.40	.007	.14	.028	-.002	-.0011	-.0050	.40
5	-.40	.007	.23	.062	.026	.0001	.0067	-.40
	-.30	.005	.21	.054	.029	-.0001	.0050	-.30
	-.20	.002	.22	.052	.031	-.0004	.0034	-.20
	-.10	.000	.22	.051	.033	-.0005	.0020	-.10
	-.05	-.000	.22	.051	.033	-.0006	.0014	-.05
	0.00	.009	.13	.039	.012	-.0000	-.0003	0.00
	0.00	.008	.13	.039	.010	-.0000	-.0004	0.00
	.05	.000	.22	.056	.032	-.0010	.0002	.05
	.10	.002	.21	.054	.029	-.0010	-.0007	.10
	.20	.006	.21	.053	.027	-.0009	-.0024	.20
	.30	.008	.19	.054	.020	-.0009	-.0042	.30
	.40	.009	.21	.061	.009	-.0011	-.0063	.40
10	-.40	.013	.26	.076	.040	.0002	.0083	-.40
	-.30	.011	.25	.068	.036	-.0001	.0057	-.30
	-.20	.007	.24	.065	.034	-.0002	.0035	-.20
	-.10	.005	.24	.066	.033	-.0003	.0018	-.10
	-.05	.004	.24	.065	.031	-.0003	.0009	-.05
	0.00	.012	.18	.055	.012	.0001	-.0004	0.00
	0.00	.012	.18	.055	.013	.0000	-.0004	0.00
	.05	.000	.29	.073	.036	-.0010	.0005	.05
	.10	.002	.28	.071	.030	-.0009	-.0006	.10
	.20	.006	.26	.069	.017	-.0008	-.0028	.20
	.30	.010	.24	.069	-.005	-.0006	-.0055	.30
	.40	.009	.26	.076	-.024	-.0008	-.0085	.40
15	-.40	.018	.32	.085	.093	.0001	.0101	-.40
	-.30	.016	.30	.076	.076	-.0003	.0055	-.30
	-.20	.011	.29	.074	.062	-.0004	.0032	-.20
	-.10	.008	.29	.075	.045	-.0004	.0016	-.10
	-.05	.007	.28	.074	.034	-.0003	.0010	-.05
	0.00	.018	.21	.060	.012	.0003	-.0005	0.00
	0.00	.019	.22	.061	.012	.0003	-.0005	0.00
	.05	.006	.31	.079	.027	-.0007	.0006	.05
	.10	.008	.30	.078	.008	-.0006	.0000	.10
	.20	.015	.29	.073	-.022	-.0002	-.0024	.20
	.30	.021	.29	.075	-.050	-.0000	-.0056	.30
	.40	.022	.31	.082	-.078	-.0000	-.0102	.40

F-18 ROTARY BALANCE DATA

F-18 Body

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.021	.39	.123	.151	-.0004	.0128	-.40
	-.30	.031	.34	.103	.132	-.0004	.0080	-.30
	-.20	.036	.31	.090	.114	-.0006	.0026	-.20
	-.10	.035	.29	.086	.074	-.0004	.0011	-.10
	-.05	.035	.29	.085	.050	-.0003	.0010	-.05
	0.00	.048	.21	.071	.013	.0004	-.0001	0.00
	0.00	.048	.21	.072	.012	.0004	-.0003	0.00
	.05	.036	.30	.089	.015	-.0007	.0016	.05
	.10	.037	.29	.089	-.016	-.0004	.0010	.10
	.20	.041	.31	.089	-.064	.0001	-.0020	.20
	.30	.037	.30	.098	-.101	.0005	-.0075	.30
	.40	.025	.36	.118	-.128	.0008	-.0136	.40
25	-.40	.017	.47	.078	.193	-.0006	.0212	-.40
	-.30	.018	.45	.075	.168	-.0005	.0123	-.30
	-.20	.012	.43	.083	.111	-.0002	.0083	-.20
	-.10	.008	.42	.086	.069	-.0002	.0036	-.10
	-.05	.008	.42	.086	.052	-.0002	.0019	-.05
	0.00	.019	.35	.075	.004	.0003	.0003	0.00
	0.00	.020	.35	.075	.005	.0003	.0000	0.00
	.05	.011	.38	.088	-.016	-.0004	.0009	.05
	.10	.012	.37	.087	-.040	-.0003	-.0010	.10
	.20	.018	.37	.080	-.092	.0002	-.0057	.20
	.30	.025	.38	.071	-.148	.0006	-.0118	.30
	.40	.024	.41	.070	-.176	.0010	-.0206	.40
30	-.40	.008	.51	.112	.091	.0015	.0510	-.40
	-.30	.011	.49	.099	.094	.0011	.0369	-.30
	-.20	.008	.50	.089	.042	.0006	.0248	-.20
	-.10	.005	.48	.083	.062	-.0001	.0081	-.10
	-.05	.006	.48	.083	.055	-.0000	.0046	-.05
	0.00	.021	.41	.069	.010	.0005	-.0005	0.00
	0.00	.022	.41	.070	.011	.0005	-.0004	0.00
	.05	.012	.49	.082	-.019	-.0003	-.0018	.05
	.10	.014	.49	.084	-.014	-.0000	-.0069	.10
	.20	.018	.47	.088	-.010	-.0001	-.0230	.20
	.30	.018	.47	.094	-.068	-.0005	-.0365	.30
	.40	.013	.49	.103	-.085	-.0006	-.0513	.40
35	-.40	.013	.58	.108	.109	.0018	.0622	-.40
	-.30	.016	.56	.098	.080	.0005	.0445	-.30
	-.20	.015	.54	.093	.054	.0002	.0306	-.20
	-.10	.007	.55	.081	.030	.0006	.0154	-.10
	-.05	.007	.54	.079	.021	.0009	.0105	-.05
	0.00	.019	.49	.068	-.004	.0008	.0011	0.00
	0.00	.020	.49	.068	-.003	.0008	.0007	0.00
	.05	.010	.54	.077	-.025	.0004	-.0051	.05
	.10	.010	.53	.081	.000	.0004	-.0128	.10
	.20	.016	.52	.093	-.026	.0004	-.0319	.20
	.30	.018	.52	.094	-.061	-.0004	-.0522	.30
	.40	.009	.54	.095	-.091	-.0023	-.0778	.40

F-18 ROTARY BALANCE DATA

F-18 Body

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.017	.65	.054	.280	-.0004	.0638	-.40
	-.30	.016	.62	.074	.220	-.0013	.0435	-.30
	-.20	.006	.59	.092	.136	-.0005	.0383	-.20
	-.10	.002	.60	.081	.020	.0017	.0307	-.10
	-.05	.003	.59	.073	-.011	.0020	.0223	-.05
	0.00	.013	.55	.068	-.053	.0014	.0056	0.00
	0.00	.012	.55	.067	-.054	.0014	.0068	0.00
	.05	-.004	.64	.079	-.029	.0003	-.0035	.05
	.10	-.002	.62	.090	-.014	.0007	-.0144	.10
	.20	.011	.61	.092	-.109	.0016	-.0294	.20
	.30	.023	.62	.058	-.208	.0016	-.0460	.30
	.40	.025	.60	.043	-.270	-.0000	-.0757	.40
45	-.40	.012	.74	.060	.345	-.0001	.0954	-.40
	-.30	.011	.73	.072	.284	-.0013	.0684	-.30
	-.20	.006	.68	.092	.222	-.0001	.0520	-.20
	-.10	.003	.66	.094	.090	.0021	.0448	-.10
	-.05	.007	.66	.079	.048	.0017	.0316	-.05
	0.00	.018	.61	.072	-.005	-.0004	.0071	0.00
	0.00	.020	.59	.072	-.009	-.0003	.0081	0.00
	.05	.007	.68	.084	-.044	-.0002	-.0017	.05
	.10	.002	.71	.098	-.049	.0008	-.0154	.10
	.20	.014	.71	.095	-.154	.0014	-.0407	.20
	.30	.018	.70	.075	-.234	.0011	-.0726	.30
	.40	.019	.71	.045	-.334	-.0002	-.1071	.40
50	-.40	.005	.76	.077	.374	.0021	.1301	-.40
	-.30	.006	.74	.091	.290	.0010	.0913	-.30
	-.20	.003	.68	.088	.242	.0033	.0766	-.20
	-.10	.003	.66	.095	.185	.0043	.0616	-.10
	-.05	.005	.66	.096	.123	.0033	.0468	-.05
	0.00	.018	.62	.087	.044	-.0001	.0177	0.00
	0.00	.018	.62	.084	.043	.0000	.0184	0.00
	.05	.006	.71	.104	.040	-.0013	.0054	.05
	.10	.008	.69	.100	-.058	.0001	-.0102	.10
	.20	.012	.70	.101	-.183	-.0015	-.0614	.20
	.30	.014	.72	.096	-.245	-.0003	-.0910	.30
	.40	.009	.74	.082	-.349	-.0016	-.1352	.40
55	-.40	-.005	.77	.094	.379	.0029	.1423	-.40
	-.30	-.003	.74	.100	.296	.0021	.1099	-.30
	-.20	-.002	.68	.082	.239	.0036	.0881	-.20
	-.10	.003	.66	.080	.220	.0060	.0851	-.10
	-.05	.006	.66	.083	.174	.0055	.0690	-.05
	0.00	.007	.63	.093	.103	.0044	.0497	0.00
	0.00	.010	.62	.095	.106	.0048	.0517	0.00
	.05	-.001	.71	.123	.057	.0003	.0247	.05
	.10	-.001	.72	.128	.051	.0019	.0222	.10
	.20	.002	.70	.098	-.198	-.0031	-.0755	.20
	.30	.005	.73	.104	-.260	-.0010	-.1026	.30
	.40	.004	.75	.090	-.358	-.0023	-.1466	.40

F-18 ROTARY BALANCE DATA

F-18 Body

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.016	.81	.147	.281	.0019	.0965	-.40
	-.30	-.010	.76	.127	.204	-.0011	.0693	-.30
	-.20	-.006	.71	.086	.203	.0007	.0736	-.20
	-.10	.001	.66	.069	.199	.0050	.0800	-.10
	-.05	.001	.66	.069	.189	.0054	.0801	-.05
	0.00	.008	.64	.081	.145	.0055	.0693	0.00
	0.00	.008	.64	.081	.139	.0056	.0710	0.00
	.05	-.005	.72	.113	.124	.0043	.0584	.05
	.10	-.005	.74	.137	.109	.0052	.0598	.10
	.20	.000	.71	.092	-.186	-.0034	-.0846	.20
	.30	-.000	.75	.104	-.249	-.0017	-.1063	.30
	.40	-.005	.81	.148	-.275	-.0007	-.1008	.40
65	-.40	-.015	.83	.152	.310	.0033	.1013	-.40
	-.30	-.015	.80	.150	.225	.0024	.0742	-.30
	-.20	-.014	.75	.110	.181	.0028	.0618	-.20
	-.10	-.009	.73	.076	.167	.0033	.0524	-.10
	-.05	-.009	.72	.066	.154	.0036	.0541	-.05
	0.00	.001	.68	.070	.157	.0052	.0726	0.00
	0.00	.001	.67	.071	.156	.0053	.0743	0.00
	.05	-.012	.77	.097	.098	.0018	.0445	.05
	.10	-.011	.77	.112	.050	.0012	.0275	.10
	.20	-.006	.78	.103	-.090	-.0002	-.0466	.20
	.30	-.010	.78	.134	-.198	-.0019	-.0867	.30
	.40	-.011	.84	.154	-.274	-.0016	-.1046	.40
70	-.40	-.019	.81	.092	.303	.0033	.1025	-.40
	-.30	-.007	.77	.095	.227	.0028	.0786	-.30
	-.20	.003	.73	.094	.162	.0022	.0535	-.20
	-.10	.005	.71	.065	.122	.0022	.0404	-.10
	-.05	.002	.70	.049	.126	.0033	.0460	-.05
	0.00	.002	.67	.047	.099	.0034	.0407	0.00
	0.00	.005	.68	.045	.099	.0040	.0407	0.00
	.05	.005	.71	.069	.017	.0004	.0188	.05
	.10	.010	.71	.087	-.030	-.0004	.0035	.10
	.20	.006	.71	.077	-.134	-.0011	-.0603	.20
	.30	-.002	.74	.104	-.192	-.0008	-.0756	.30
	.40	-.013	.80	.104	-.281	-.0011	-.0960	.40
75	-.40	-.018	.83	.076	.240	.0021	.0775	-.40
	-.30	-.015	.80	.083	.198	.0018	.0604	-.30
	-.20	-.010	.76	.076	.148	.0014	.0459	-.20
	-.10	-.006	.74	.060	.103	.0013	.0241	-.10
	-.05	-.007	.72	.048	.081	.0013	.0114	-.05
	0.00	-.003	.69	.029	.022	.0010	-.0044	0.00
	0.00	-.004	.70	.032	.031	.0010	-.0053	0.00
	.05	-.011	.77	.043	-.009	-.0004	-.0131	.05
	.10	-.010	.75	.059	-.040	-.0005	-.0193	.10
	.20	-.013	.77	.090	-.099	-.0004	-.0349	.20
	.30	-.016	.77	.096	-.159	-.0007	-.0615	.30
	.40	-.014	.80	.088	-.237	-.0007	-.0836	.40

F-18 ROTARY BALANCE DATA

F-18 Body BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.002	.79	.017	.175	-.0006	.0417	-.40
	-.30	-.016	.76	.063	.167	.0005	.0439	-.30
	-.20	-.014	.72	.057	.113	.0005	.0257	-.20
	-.10	-.008	.69	.038	.079	.0006	.0093	-.10
	-.05	-.006	.67	.021	.056	.0005	.0036	-.05
	0.00	-.007	.63	.004	.010	.0007	-.0028	0.00
	0.00	-.005	.63	-.001	.009	.0008	-.0018	0.00
	.05	-.009	.69	.014	-.001	.0001	-.0067	.05
	.10	-.009	.70	.032	-.029	.0002	-.0092	.10
	.20	-.012	.71	.064	-.087	.0002	-.0262	.20
	.30	-.013	.74	.066	-.142	.0001	-.0452	.30
	.40	-.003	.75	.038	-.193	.0007	-.0593	.40
85	-.40	-.001	.79	-.002	.157	-.0015	.0391	-.40
	-.30	-.011	.70	.006	.111	-.0011	.0206	-.30
	-.20	-.011	.66	.020	.093	-.0004	.0131	-.20
	-.10	-.002	.63	.000	.072	.0002	.0035	-.10
	-.05	-.001	.62	-.012	.055	.0004	.0001	-.05
	0.00	-.007	.59	-.032	.009	.0006	-.0045	0.00
	0.00	-.006	.59	-.030	.006	.0007	-.0025	0.00
	.05	-.008	.65	-.013	-.004	-.0000	-.0070	.05
	.10	-.008	.64	.005	-.015	.0005	-.0036	.10
	.20	-.014	.66	.031	-.063	.0010	-.0128	.20
	.30	-.015	.69	.027	-.118	.0011	-.0303	.30
	.40	.001	.75	.007	-.177	.0017	-.0433	.40
90	-.40	-.011	.81	-.009	.182	-.0013	.0425	-.40
	-.30	-.023	.73	-.023	.123	-.0012	.0195	-.30
	-.20	-.007	.69	-.045	.099	-.0007	.0069	-.20
	-.10	-.001	.66	-.048	.073	-.0000	.0010	-.10
	-.05	-.001	.69	-.059	.066	.0004	.0005	-.05
	0.00	-.015	.67	-.075	.028	.0008	-.0025	0.00
	0.00	-.009	.60	-.069	.021	.0009	-.0012	0.00
	.05	-.002	.68	-.053	.015	-.0001	-.0043	.05
	.10	-.003	.70	-.045	-.002	.0004	-.0025	.10
	.20	-.009	.73	-.033	-.045	.0012	-.0066	.20
	.30	-.023	.76	-.012	-.088	.0018	-.0192	.30
	.40	-.008	.87	-.016	-.177	.0016	-.0441	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 Body

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.042	-.12	.013	-.041	.0008	-.0172	-.40
	-.30	.040	-.11	.011	-.035	.0006	-.0171	-.30
	-.20	.040	-.11	.010	-.035	.0003	-.0174	-.20
	-.10	.038	-.09	.013	-.030	-.0001	-.0177	-.10
	0.00	.035	-.07	.013	-.027	-.0008	-.0185	0.00
	0.00	.036	-.08	.012	-.030	-.0006	-.0184	0.00
	.10	.033	-.04	.020	-.021	-.0012	-.0189	.10
	.20	.035	-.05	.018	-.031	-.0015	-.0203	.20
	.30	.037	-.05	.017	-.046	-.0019	-.0225	.30
	.40	.038	-.04	.021	-.057	-.0023	-.0255	.40
5	-.40	.029	-.08	.018	-.035	.0005	-.0149	-.40
	-.30	.030	-.08	.015	-.029	.0004	-.0155	-.30
	-.20	.029	-.08	.018	-.031	.0002	-.0162	-.20
	-.10	.025	-.06	.025	-.030	-.0003	-.0168	-.10
	0.00	.024	-.04	.023	-.028	-.0009	-.0182	0.00
	0.00	.026	-.05	.022	-.032	-.0007	-.0185	0.00
	.10	.023	-.03	.030	-.033	-.0013	-.0196	.10
	.20	.026	-.04	.026	-.047	-.0016	-.0217	.20
	.30	.027	-.04	.027	-.062	-.0020	-.0241	.30
	.40	.027	-.02	.032	-.079	-.0028	-.0274	.40
10	-.40	.036	-.02	.030	-.037	.0001	-.0124	-.40
	-.30	.033	-.04	.028	-.046	.0001	-.0141	-.30
	-.20	.031	-.03	.031	-.041	.0001	-.0153	-.20
	-.10	.026	-.01	.039	-.041	-.0004	-.0165	-.10
	0.00	.026	-.01	.039	-.060	-.0009	-.0188	0.00
	0.00	.027	-.01	.039	-.061	-.0009	-.0189	0.00
	.10	.022	.02	.051	-.065	-.0017	-.0203	.10
	.20	.025	.01	.050	-.088	-.0022	-.0228	.20
	.30	.026	.01	.050	-.102	-.0028	-.0267	.30
	.40	.024	.02	.050	-.109	-.0038	-.0332	.40
15	-.40	.044	.06	.042	-.044	-.0014	-.0114	-.40
	-.30	.042	.04	.045	-.058	-.0012	-.0128	-.30
	-.20	.038	.04	.052	-.078	-.0012	-.0139	-.20
	-.10	.033	.04	.062	-.088	-.0014	-.0147	-.10
	0.00	.034	.05	.064	-.103	-.0018	-.0163	0.00
	0.00	.035	.05	.062	-.104	-.0017	-.0166	0.00
	.10	.029	.09	.078	-.113	-.0023	-.0181	.10
	.20	.033	.08	.078	-.145	-.0030	-.0228	.20
	.30	.032	.09	.073	-.157	-.0039	-.0319	.30
	.40	.029	.09	.070	-.152	-.0053	-.0444	.40
20	-.40	.041	.14	.016	-.005	-.0017	-.0094	-.40
	-.30	.036	.12	.023	-.043	-.0015	-.0122	-.30
	-.20	.032	.11	.031	-.075	-.0014	-.0137	-.20
	-.10	.026	.12	.047	-.105	-.0015	-.0142	-.10
	0.00	.029	.10	.049	-.133	-.0018	-.0164	0.00
	0.00	.030	.10	.048	-.134	-.0017	-.0163	0.00
	.10	.023	.13	.061	-.151	-.0023	-.0190	.10
	.20	.026	.13	.059	-.176	-.0025	-.0242	.20
	.30	.026	.13	.057	-.191	-.0034	-.0343	.30
	.40	.023	.14	.055	-.184	-.0053	-.0538	.40

F-18 ROTARY BALANCE DATA

F-18 Body BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
25	-.40	.037	.25	.029	.009	-.0026	-.0023	-.40
	-.30	.036	.21	.024	-.030	-.0025	-.0104	-.30
	-.20	.034	.17	.033	-.093	-.0021	-.0123	-.20
	-.10	.032	.19	.030	-.072	-.0025	-.0208	-.10
	0.00	.033	.15	.043	-.164	-.0024	-.0218	0.00
	0.00	.030	.17	.045	-.155	-.0027	-.0215	0.00
	.10	.025	.19	.054	-.183	-.0025	-.0248	.10
	.20	.026	.19	.049	-.182	-.0030	-.0371	.20
	.30	.025	.20	.049	-.192	-.0039	-.0506	.30
	.40	.022	.21	.051	-.217	-.0053	-.0665	.40
30	-.40	.021	.25	.045	-.037	-.0019	.0123	-.40
	-.30	.028	.24	.038	-.064	-.0022	-.0015	-.30
	-.20	.030	.23	.039	-.112	-.0025	-.0129	-.20
	-.10	.033	.26	.036	-.060	-.0027	-.0226	-.10
	0.00	.032	.28	.022	-.062	-.0038	-.0380	0.00
	0.00	.030	.28	.023	-.062	-.0039	-.0373	0.00
	.10	.021	.27	.051	-.175	-.0039	-.0427	.10
	.20	.021	.26	.044	-.188	-.0039	-.0533	.20
	.30	.017	.26	.031	-.197	-.0064	-.0800	.30
35	-.40	.029	.37	.059	.039	-.0026	.0288	-.40
	-.30	.027	.33	.070	-.060	-.0021	.0135	-.30
	-.20	.025	.32	.062	-.117	-.0030	-.0062	-.20
	-.10	.024	.33	.056	-.069	-.0024	-.0217	-.10
	0.00	.037	.34	.056	-.040	-.0041	-.0425	0.00
	0.00	.036	.35	.059	-.039	-.0042	-.0418	0.00
	.10	.030	.37	.039	-.066	-.0060	-.0679	.10
	.20	.027	.34	.032	-.138	-.0065	-.0832	.20
	.30	.025	.32	.018	-.207	-.0089	-.1088	.30
40	-.40	.028	.41	.043	.122	-.0027	.0475	-.40
	-.30	.020	.34	.076	-.039	-.0015	.0288	-.30
	-.20	.022	.34	.058	-.058	-.0048	-.0059	-.20
	-.10	.016	.32	.071	-.112	-.0014	-.0140	-.10
	0.00	.022	.35	.083	-.086	-.0028	-.0388	0.00
	0.00	.023	.35	.083	-.089	-.0027	-.0388	0.00
	.10	.021	.33	.079	-.160	-.0051	-.0643	.10
	.20	.022	.32	.055	-.203	-.0074	-.0935	.20
45	-.40	.024	.47	.045	.208	-.0017	.0727	-.40
	-.30	.018	.41	.066	.104	-.0002	.0500	-.30
	-.20	.024	.45	.039	.027	-.0071	-.0033	-.20
	-.10	.014	.38	.080	-.059	-.0025	-.0028	-.10
	0.00	.019	.40	.089	-.138	-.0024	-.0375	0.00
	0.00	.017	.40	.088	-.138	-.0025	-.0378	0.00
	.10	.017	.39	.075	-.221	-.0053	-.0782	.10
	.20	.023	.36	.050	-.287	-.0066	-.1057	.20
50	-.40	.004	.53	.056	.239	-.0004	.1019	-.40
	-.30	.004	.49	.081	.137	.0019	.0807	-.30
	-.20	.006	.46	.082	.029	-.0022	.0324	-.20
	-.10	.008	.49	.099	.018	-.0031	.0083	-.10
	0.00	.015	.46	.103	-.126	-.0036	-.0402	0.00
	0.00	.016	.46	.099	-.125	-.0033	-.0379	0.00
	.10	.016	.47	.089	-.229	-.0067	-.0928	.10
	.20	.019	.44	.062	-.305	-.0082	-.1305	.20

F-18 ROTARY BALANCE DATA

F-18 Body BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
55	-.40	-.001	.55	.052	.198	-.0014	.1035	-.40
	-.30	-.000	.49	.068	.163	.0028	.1039	-.30
	-.20	.002	.48	.078	.073	.0005	.0595	-.20
	-.10	.000	.50	.105	.056	.0012	.0454	-.10
	0.00	.007	.51	.128	-.035	-.0006	.0012	0.00
	0.00	.007	.50	.127	-.038	-.0008	-.0010	0.00
	.10	.006	.50	.092	-.233	-.0072	-.0997	.10
	.20	.008	.49	.069	-.326	-.0092	-.1404	.20
60	-.40	-.013	.59	.092	.132	-.0020	.0816	-.40
	-.30	-.005	.53	.044	.138	.0007	.0927	-.30
	-.20	-.005	.51	.056	.103	.0003	.0717	-.20
	-.10	-.008	.53	.104	.075	-.0009	.0452	-.10
	0.00	-.001	.55	.145	.046	.0011	.0335	0.00
	0.00	-.001	.54	.148	.042	.0011	.0330	0.00
	.10	.001	.54	.093	-.211	-.0068	-.1022	.10
	.20	.000	.53	.079	-.294	-.0082	-.1381	.20
65	-.40	-.017	.61	.099	.088	-.0029	.0678	-.40
	-.30	-.013	.56	.075	.044	-.0032	.0467	-.30
	-.20	-.010	.52	.050	.033	-.0030	.0332	-.20
	-.10	-.009	.53	.072	-.062	-.0062	-.0027	-.10
	0.00	-.006	.53	.099	-.024	-.0027	.0023	0.00
	0.00	-.007	.53	.101	-.027	-.0027	.0014	0.00
	.10	.001	.54	.080	-.182	-.0066	-.0982	.10
	.20	-.010	.55	.115	-.221	-.0066	-.1047	.20
70	-.40	-.030	.61	.067	.070	-.0037	.0617	-.40
	-.30	-.022	.57	.051	.035	-.0039	.0433	-.30
	-.20	-.016	.54	.035	.016	-.0039	.0261	-.20
	-.10	-.014	.53	.051	-.052	-.0059	-.0075	-.10
	0.00	-.017	.53	.079	-.141	-.0071	-.0441	0.00
	0.00	-.017	.52	.076	-.127	-.0070	-.0422	0.00
	.10	-.007	.57	.100	-.151	-.0068	-.0871	.10
	.20	-.019	.58	.109	-.207	-.0073	-.1036	.20
75	-.40	-.035	.62	.044	.044	-.0049	.0407	-.40
	-.30	-.029	.58	.043	.014	-.0049	.0235	-.30
	-.20	-.020	.54	.025	-.024	-.0055	-.0032	-.20
	-.10	-.014	.53	.027	-.054	-.0060	-.0241	-.10
	0.00	-.021	.52	.056	-.092	-.0058	-.0420	0.00
	0.00	-.018	.51	.055	-.092	-.0056	-.0389	0.00
	.10	-.020	.56	.084	-.109	-.0063	-.0669	.10
	.20	-.024	.56	.081	-.182	-.0069	-.0920	.20
	.30	-.033	.57	.080	-.257	-.0074	-.1065	.30
	.40	-.039	.58	.062	-.350	-.0082	-.1164	.40
80	-.40	-.027	.61	-.005	.011	-.0060	.0202	-.40
	-.30	-.035	.57	.007	-.007	-.0058	.0104	-.30
	-.20	-.025	.54	-.001	-.041	-.0063	-.0143	-.20
	-.10	-.020	.53	-.003	-.059	-.0063	-.0299	-.10
	0.00	-.031	.53	.046	-.064	-.0051	-.0363	0.00
	0.00	-.027	.52	.037	-.059	-.0050	-.0361	0.00
	.10	-.026	.57	.068	-.080	-.0059	-.0540	.10
	.20	-.032	.57	.056	-.163	-.0066	-.0710	.20
	.30	-.040	.58	.041	-.211	-.0071	-.0820	.30
	.40	-.023	.60	-.008	-.280	-.0068	-.0755	.40

F-18 ROTARY BALANCE DATA

F-18 Body

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.036	.60	-.025	.026	-.0057	.0240	-.40
	-.30	-.032	.55	-.034	-.013	-.0063	.0025	-.30
	-.20	-.022	.52	-.037	-.045	-.0069	-.0194	-.20
	-.10	-.012	.51	-.037	-.051	-.0064	-.0309	-.10
	0.00	-.026	.51	.002	-.039	-.0045	-.0276	0.00
	0.00	-.027	.52	.003	-.034	-.0046	-.0270	0.00
	.10	-.016	.55	.031	-.058	-.0051	-.0428	.10
	.20	-.029	.54	.027	-.139	-.0057	-.0567	.20
	.30	-.036	.55	-.009	-.202	-.0061	-.0652	.30
	.40	-.017	.62	-.026	-.273	-.0059	-.0656	.40
90	-.40	.024	.37	-.084	-.013	.0040	.0272	-.40
	-.30	.020	.31	-.101	-.068	.0038	.0061	-.30
	-.20	.035	.27	-.114	-.113	.0034	-.0162	-.20
	-.10	.048	.26	-.127	-.122	.0035	-.0291	-.10
	0.00	.027	.27	-.087	-.104	.0055	-.0201	0.00
	0.00	.029	.27	-.090	-.095	.0056	-.0194	0.00
	.10	.047	.28	-.071	-.120	.0057	-.0326	.10
	.20	.041	.29	-.084	-.174	.0055	-.0435	.20
	.30	.028	.31	-.084	-.267	.0052	-.0537	.30
	.40	.038	.37	-.095	-.363	.0035	-.0710	.40
45	-.40	.024	.47	.045	.208	-.0017	.0727	-.40
	-.30	.018	.41	.066	.104	-.0002	.0500	-.30
	-.20	.024	.45	.039	.027	-.0071	-.0033	-.20
	-.10	.014	.38	.080	-.059	-.0025	-.0028	-.10
	0.00	.019	.40	.089	-.138	-.0024	-.0375	0.00
	0.00	.017	.40	.088	-.138	-.0025	-.0378	0.00
	.10	.017	.39	.075	-.221	-.0053	-.0782	.10
	.20	.023	.36	.050	-.287	-.0066	-.1057	.20
50	-.40	.004	.53	.056	.239	-.0004	.1019	-.40
	-.30	.004	.49	.081	.137	.0019	.0807	-.30
	-.20	.006	.46	.082	.029	-.0022	.0324	-.20
	-.10	.008	.49	.099	.018	-.0031	.0083	-.10
	0.00	.015	.46	.103	-.126	-.0036	-.0402	0.00
	0.00	.016	.46	.099	-.125	-.0033	-.0379	0.00
	.10	.016	.47	.089	-.229	-.0067	-.0928	.10
	.20	.019	.44	.062	-.305	-.0082	-.1305	.20
55	-.40	-.001	.55	.052	.198	-.0014	.1035	-.40
	-.30	-.000	.49	.068	.163	.0028	.1039	-.30
	-.20	.002	.48	.078	.073	.0005	.0595	-.20
	-.10	.000	.50	.105	.056	.0012	.0454	-.10
	0.00	.007	.51	.128	-.035	-.0006	.0012	0.00
	0.00	.007	.50	.127	-.038	-.0008	-.0010	0.00
	.10	.006	.50	.092	-.233	-.0072	-.0997	.10
	.20	.008	.49	.069	-.326	-.0092	-.1404	.20
60	-.40	-.013	.59	.092	.132	-.0020	.0816	-.40
	-.30	-.005	.53	.044	.138	.0007	.0927	-.30
	-.20	-.005	.51	.056	.103	.0003	.0717	-.20
	-.10	-.008	.53	.104	.075	-.0009	.0452	-.10
	0.00	-.001	.55	.145	.046	.0011	.0335	0.00
	0.00	-.001	.54	.148	.042	.0011	.0330	0.00
	.10	.001	.54	.093	-.211	-.0068	-.1022	.10
	.20	.000	.53	.079	-.294	-.0082	-.1381	.20

F-18 ROTARY BALANCE DATA

F-18 Body

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
65	-.40	-.017	.61	.099	.088	-.0029	.0678	-.40
	-.30	-.013	.56	.075	.044	-.0032	.0467	-.30
	-.20	-.010	.52	.050	.033	-.0030	.0332	-.20
	-.10	-.009	.53	.072	-.062	-.0062	-.0027	-.10
	0.00	-.006	.53	.099	-.024	-.0027	.0023	0.00
	0.00	-.007	.53	.101	-.027	-.0027	.0014	0.00
	.10	.001	.54	.080	-.182	-.0066	-.0982	.10
	.20	-.010	.55	.115	-.221	-.0066	-.1047	.20
70	-.40	-.030	.61	.067	.070	-.0037	.0617	-.40
	-.30	-.022	.57	.051	.035	-.0039	.0433	-.30
	-.20	-.016	.54	.035	.016	-.0039	.0261	-.20
	-.10	-.014	.53	.051	-.052	-.0059	-.0075	-.10
	0.00	-.017	.53	.079	-.141	-.0071	-.0441	0.00
	0.00	-.017	.52	.076	-.127	-.0070	-.0422	0.00
	.10	-.007	.57	.100	-.151	-.0068	-.0871	.10
	.20	-.019	.58	.109	-.207	-.0073	-.1036	.20
75	-.40	-.035	.62	.044	.044	-.0049	.0407	-.40
	-.30	-.029	.58	.043	.014	-.0049	.0235	-.30
	-.20	-.020	.54	.025	-.024	-.0055	-.0032	-.20
	-.10	-.014	.53	.027	-.054	-.0060	-.0241	-.10
	0.00	-.021	.52	.056	-.092	-.0058	-.0420	0.00
	0.00	-.018	.51	.055	-.092	-.0056	-.0389	0.00
	.10	-.020	.56	.084	-.109	-.0063	-.0669	.10
	.20	-.024	.56	.081	-.182	-.0069	-.0920	.20
	.30	-.033	.57	.080	-.257	-.0074	-.1065	.30
	.40	-.039	.58	.062	-.350	-.0082	-.1164	.40
80	-.40	-.027	.61	-.005	.011	-.0060	.0202	-.40
	-.30	-.035	.57	.007	-.007	-.0058	.0104	-.30
	-.20	-.025	.54	-.001	-.041	-.0063	-.0143	-.20
	-.10	-.020	.53	-.003	-.059	-.0063	-.0299	-.10
	0.00	-.031	.53	.046	-.064	-.0051	-.0363	0.00
	0.00	-.027	.52	.037	-.059	-.0050	-.0361	0.00
	.10	-.026	.57	.068	-.080	-.0059	-.0540	.10
	.20	-.032	.57	.056	-.163	-.0066	-.0710	.20
	.30	-.040	.58	.041	-.211	-.0071	-.0820	.30
	.40	-.023	.60	-.008	-.280	-.0068	-.0755	.40
85	-.40	-.036	.60	-.025	.026	-.0057	.0240	-.40
	-.30	-.032	.55	-.034	-.013	-.0063	.0025	-.30
	-.20	-.022	.52	-.037	-.045	-.0069	-.0194	-.20
	-.10	-.012	.51	-.037	-.051	-.0064	-.0309	-.10
	0.00	-.026	.51	.002	-.039	-.0045	-.0276	0.00
	0.00	-.027	.52	.003	-.034	-.0046	-.0270	0.00
	.10	-.016	.55	.031	-.058	-.0051	-.0428	.10
	.20	-.029	.54	.027	-.139	-.0057	-.0567	.20
	.30	-.036	.55	-.009	-.202	-.0061	-.0652	.30
	.40	-.017	.62	-.026	-.273	-.0059	-.0656	.40

F-18 ROTARY BALANCE DATA

F-18 Body

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
90	-.40	.024	.37	-.084	-.013	.0040	.0272	-.40
	-.30	.020	.31	-.101	-.068	.0038	.0061	-.30
	-.20	.035	.27	-.114	-.113	.0034	-.0162	-.20
	-.10	.048	.26	-.127	-.122	.0035	-.0291	-.10
	0.00	.027	.27	-.087	-.104	.0055	-.0201	0.00
	0.00	.029	.27	-.090	-.095	.0056	-.0194	0.00
	.10	.047	.28	-.071	-.120	.0057	-.0326	.10
	.20	.041	.29	-.084	-.174	.0055	-.0435	.20
	.30	.028	.31	-.084	-.267	.0052	-.0537	.30
	.40	.038	.37	-.095	-.363	.0035	-.0710	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 Body, Wing

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.006	.27	.032	-.006	.1360	.0127	-.40
	-.30	.002	.25	.029	-.005	.1061	.0100	-.30
	-.20	.001	.23	.030	.001	.0670	.0068	-.20
	-.10	.002	.24	.026	.007	.0293	.0033	-.10
	-.05	.003	.24	.025	.008	.0120	.0019	-.05
	0.00	.020	.07	.016	-.009	-.0036	.0003	0.00
	0.00	.019	.10	.015	-.004	-.0036	.0003	0.00
	.05	.001	.31	.021	.028	-.0202	-.0005	.05
	.10	.000	.30	.020	.027	-.0376	-.0017	.10
	.20	.003	.25	.022	.022	-.0756	-.0038	.20
	.30	.006	.21	.021	.010	-.1132	-.0049	.30
	.40	.009	.23	.025	.008	-.1414	-.0052	.40
5	-.40	.011	.53	.025	-.006	.1202	.0125	-.40
	-.30	.006	.54	.014	.002	.0905	.0091	-.30
	-.20	-.000	.57	.011	.006	.0644	.0069	-.20
	-.10	-.006	.56	.020	.011	.0307	.0048	-.10
	-.05	-.008	.56	.022	.014	.0132	.0029	-.05
	0.00	.001	.48	.010	.001	-.0028	-.0004	0.00
	0.00	.000	.48	.010	-.000	-.0025	-.0002	0.00
	.05	-.007	.58	.024	.022	-.0205	-.0010	.05
	.10	-.004	.57	.021	.023	-.0379	-.0023	.10
	.20	.002	.56	.010	.021	-.0708	-.0038	.20
	.30	.008	.52	.012	.010	-.1000	-.0048	.30
	.40	.013	.50	.019	.002	-.1285	-.0057	.40
10	-.40	.010	.87	.006	.033	.0873	.0171	-.40
	-.30	.005	.85	.003	.031	.0590	.0114	-.30
	-.20	-.004	.85	.003	.029	.0365	.0064	-.20
	-.10	-.009	.89	-.005	.029	.0177	.0031	-.10
	-.05	-.009	.89	-.010	.027	.0083	.0020	-.05
	0.00	-.001	.81	-.022	.002	.0005	.0001	0.00
	0.00	-.003	.81	-.022	.006	-.0007	-.0001	0.00
	.05	-.012	.86	-.002	.020	-.0109	.0004	.05
	.10	-.009	.83	.005	.013	-.0208	-.0004	.10
	.20	.000	.78	.005	.004	-.0411	-.0030	.20
	.30	.009	.78	.001	-.006	-.0644	-.0066	.30
	.40	.016	.82	-.002	-.018	-.0943	-.0100	.40
15	-.40	.011	1.10	-.025	.093	.0587	.0246	-.40
	-.30	.008	1.07	-.031	.078	.0325	.0169	-.30
	-.20	.004	1.08	-.039	.066	.0144	.0111	-.20
	-.10	-.003	1.09	-.033	.048	.0056	.0057	-.10
	-.05	-.005	1.11	-.035	.041	.0025	.0032	-.05
	0.00	.008	1.02	-.048	.015	.0030	-.0000	0.00
	0.00	.009	1.01	-.046	.017	.0035	-.0005	0.00
	.05	.002	1.07	-.035	.019	-.0003	-.0015	.05
	.10	.003	1.05	-.035	.011	-.0036	-.0036	.10
	.20	.008	1.05	-.038	-.018	-.0156	-.0080	.20
	.30	.013	1.04	-.033	-.038	-.0371	-.0122	.30
	.40	.018	1.08	-.036	-.062	-.0634	-.0170	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.009	1.32	-.063	.151	.0343	.0329	-.40
	-.30	.012	1.25	-.069	.138	.0148	.0247	-.30
	-.20	.013	1.20	-.074	.107	.0060	.0155	-.20
	-.10	.011	1.15	-.062	.064	.0063	.0054	-.10
	-.05	.009	1.14	-.050	.035	.0096	.0023	-.05
	0.00	.015	1.10	-.052	.013	.0028	-.0002	0.00
	0.00	.016	1.09	-.052	.009	.0049	-.0005	0.00
	.05	.008	1.15	-.048	.010	-.0045	-.0011	.05
	.10	.011	1.16	-.062	-.009	-.0042	-.0042	.10
	.20	.014	1.17	-.070	-.056	-.0019	-.0131	.20
	.30	.014	1.19	-.065	-.082	-.0143	-.0194	.30
	.40	.015	1.23	-.065	-.112	-.0347	-.0248	.40
25	-.40	.023	1.31	-.074	.164	.0311	.0414	-.40
	-.30	.028	1.21	-.075	.138	.0189	.0314	-.30
	-.20	.031	1.13	-.077	.090	.0128	.0201	-.20
	-.10	.032	1.09	-.071	.051	.0133	.0065	-.10
	-.05	.032	1.07	-.068	.021	.0183	.0015	-.05
	0.00	.036	1.08	-.071	.012	.0039	-.0022	0.00
	0.00	.037	1.07	-.072	.013	.0034	-.0020	0.00
	.05	.032	1.12	-.066	.003	-.0081	-.0020	.05
	.10	.032	1.13	-.069	-.021	-.0065	-.0076	.10
	.20	.031	1.19	-.080	-.063	-.0062	-.0194	.20
	.30	.029	1.23	-.078	-.107	-.0105	-.0294	.30
	.40	.022	1.29	-.080	-.137	-.0233	-.0384	.40
30	-.40	.017	1.40	-.072	.180	.0137	.0652	-.40
	-.30	.029	1.29	-.081	.154	.0003	.0519	-.30
	-.20	.037	1.22	-.082	.119	-.0143	.0345	-.20
	-.10	.038	1.17	-.084	.098	-.0165	.0162	-.10
	-.05	.040	1.12	-.072	.024	.0141	.0064	-.05
	0.00	.048	1.06	-.077	-.038	.0182	-.0017	0.00
	0.00	.048	1.05	-.078	.005	-.0005	.0005	0.00
	.05	.041	1.17	-.079	-.042	.0181	-.0089	.05
	.10	.039	1.17	-.078	-.059	.0209	-.0170	.10
	.20	.039	1.20	-.082	-.084	.0137	-.0335	.20
	.30	.036	1.26	-.086	-.129	.0031	-.0504	.30
	.40	.025	1.36	-.085	-.166	-.0125	-.0633	.40
35	-.40	.022	1.49	-.099	.209	.0043	.0833	-.40
	-.30	.036	1.36	-.091	.162	-.0096	.0613	-.30
	-.20	.044	1.23	-.076	.121	-.0147	.0434	-.20
	-.10	.048	1.09	-.065	.078	-.0031	.0211	-.10
	-.05	.049	1.07	-.065	.041	-.0022	.0146	-.05
	0.00	.056	1.07	-.082	-.010	.0031	.0017	0.00
	0.00	.057	1.07	-.083	-.015	.0033	.0025	0.00
	.05	.046	1.15	-.079	-.057	.0119	-.0086	.05
	.10	.046	1.17	-.074	-.072	.0095	-.0160	.10
	.20	.046	1.22	-.075	-.116	.0132	-.0395	.20
	.30	.040	1.30	-.095	-.155	.0087	-.0606	.30
	.40	.029	1.38	-.109	-.228	-.0052	-.0885	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.022	1.54	-.113	.263	-.0021	.1087	-.40
	-.30	.036	1.43	-.093	.201	-.0062	.0810	-.30
	-.20	.045	1.30	-.079	.155	-.0033	.0560	-.20
	-.10	.045	1.19	-.064	.097	.0004	.0360	-.10
	-.05	.047	1.17	-.074	.061	-.0016	.0245	-.05
	0.00	.056	1.16	-.084	-.002	-.0016	.0018	0.00
	0.00	.056	1.16	-.086	-.003	-.0027	.0011	0.00
	.05	.055	1.24	-.089	-.038	.0041	-.0087	.05
	.10	.056	1.24	-.080	-.071	.0063	-.0197	.10
	.20	.055	1.32	-.079	-.128	.0065	-.0478	.20
	.30	.048	1.42	-.105	-.184	.0088	-.0782	.30
	.40	.035	1.52	-.140	-.257	.0024	-.1102	.40
45	-.40	.019	1.69	-.130	.334	-.0016	.1331	-.40
	-.30	.029	1.55	-.103	.261	.0017	.0959	-.30
	-.20	.033	1.43	-.091	.207	.0043	.0711	-.20
	-.10	.030	1.34	-.080	.158	.0038	.0514	-.10
	-.05	.032	1.32	-.085	.103	.0014	.0342	-.05
	0.00	.046	1.27	-.087	.010	-.0062	.0045	0.00
	0.00	.047	1.25	-.083	.010	-.0040	.0060	0.00
	.05	.038	1.32	-.078	-.013	-.0067	-.0089	.05
	.10	.041	1.36	-.086	-.070	.0035	-.0236	.10
	.20	.044	1.39	-.082	-.141	-.0053	-.0590	.20
	.30	.038	1.54	-.106	-.207	.0047	-.0937	.30
	.40	.028	1.64	-.138	-.280	.0033	-.1322	.40
50	-.40	.013	1.77	-.147	.372	.0018	.1598	-.40
	-.30	.025	1.61	-.111	.277	.0078	.1167	-.30
	-.20	.027	1.45	-.108	.236	.0111	.0931	-.20
	-.10	.027	1.39	-.099	.203	.0117	.0763	-.10
	-.05	.029	1.38	-.100	.147	.0097	.0574	-.05
	0.00	.041	1.33	-.086	.038	-.0007	.0195	0.00
	0.00	.039	1.34	-.085	.045	-.0017	.0215	0.00
	.05	.032	1.37	-.072	.012	-.0033	.0072	.05
	.10	.032	1.37	-.079	-.030	-.0032	-.0150	.10
	.20	.036	1.45	-.094	-.162	-.0081	-.0785	.20
	.30	.034	1.58	-.111	-.230	-.0030	-.1089	.30
	.40	.025	1.70	-.142	-.337	-.0034	-.1585	.40
55	-.40	.011	1.75	-.107	.320	.0185	.1394	-.40
	-.30	.017	1.63	-.129	.287	.0122	.1348	-.30
	-.20	.020	1.52	-.128	.222	.0069	.0968	-.20
	-.10	.020	1.43	-.124	.206	.0108	.0895	-.10
	-.05	.022	1.44	-.117	.164	.0091	.0704	-.05
	0.00	.030	1.38	-.107	.091	.0087	.0489	0.00
	0.00	.029	1.37	-.117	.093	.0092	.0518	0.00
	.05	.023	1.45	-.079	.052	-.0005	.0294	.05
	.10	.023	1.46	-.065	.020	.0001	.0166	.10
	.20	.028	1.47	-.106	-.156	-.0094	-.0875	.20
	.30	.029	1.60	-.119	-.227	-.0094	-.1254	.30
	.40	.022	1.70	-.131	-.297	-.0162	-.1600	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.003	1.82	-.109	.297	.0114	.1292	-.40
	-.30	.007	1.66	-.103	.236	.0105	.1066	-.30
	-.20	.014	1.55	-.122	.185	.0096	.0901	-.20
	-.10	.018	1.51	-.131	.141	.0077	.0642	-.10
	-.05	.020	1.49	-.146	.156	.0073	.0740	-.05
	0.00	.029	1.44	-.131	.089	.0052	.0452	0.00
	0.00	.029	1.42	-.128	.078	.0065	.0446	0.00
	.05	.027	1.50	-.100	.061	.0015	.0315	.05
	.10	.026	1.50	-.081	.026	-.0001	.0154	.10
	.20	.028	1.54	-.123	-.125	-.0069	-.0857	.20
	.30	.019	1.64	-.126	-.191	-.0118	-.1204	.30
	.40	.006	1.81	-.094	-.214	-.0113	-.1260	.40
65	-.40	-.003	1.82	-.140	.287	.0118	.1390	-.40
	-.30	-.002	1.70	-.113	.196	.0094	.0992	-.30
	-.20	.001	1.61	-.121	.131	.0056	.0688	-.20
	-.10	.004	1.56	-.153	.113	.0045	.0542	-.10
	-.05	.008	1.53	-.170	.111	.0040	.0503	-.05
	0.00	.018	1.46	-.160	.073	.0044	.0348	0.00
	0.00	.020	1.47	-.165	.062	.0033	.0355	0.00
	.05	.013	1.55	-.143	.033	.0021	.0143	.05
	.10	.012	1.55	-.122	.009	-.0001	-.0015	.10
	.20	.016	1.58	-.147	-.092	-.0035	-.0747	.20
	.30	.014	1.66	-.129	-.146	-.0075	-.1020	.30
	.40	.005	1.80	-.136	-.221	-.0084	-.1341	.40
70	-.40	-.010	1.89	-.182	.249	.0094	.1229	-.40
	-.30	-.006	1.75	-.172	.179	.0061	.0957	-.30
	-.20	-.004	1.66	-.170	.124	.0019	.0712	-.20
	-.10	.000	1.59	-.175	.095	.0012	.0467	-.10
	-.05	.002	1.57	-.182	.073	.0012	.0292	-.05
	0.00	.008	1.52	-.194	.019	.0026	.0036	0.00
	0.00	.009	1.51	-.194	.012	.0002	.0048	0.00
	.05	.006	1.59	-.180	.025	.0017	-.0026	.05
	.10	.005	1.60	-.168	-.008	.0017	-.0228	.10
	.20	.004	1.63	-.155	-.047	.0005	-.0564	.20
	.30	-.000	1.67	-.156	-.112	-.0041	-.0829	.30
	.40	.000	1.81	-.169	-.155	-.0068	-.1112	.40
75	-.40	-.008	1.89	-.242	.202	.0038	.0982	-.40
	-.30	-.005	1.76	-.207	.133	-.0002	.0717	-.30
	-.20	-.003	1.67	-.200	.082	-.0029	.0494	-.20
	-.10	-.001	1.61	-.203	.067	-.0018	.0272	-.10
	-.05	.001	1.59	-.216	.055	-.0020	.0156	-.05
	0.00	.003	1.54	-.238	.017	.0026	-.0013	0.00
	0.00	.001	1.51	-.233	.011	.0042	-.0016	0.00
	.05	.006	1.57	-.226	.005	.0017	-.0123	.05
	.10	.003	1.57	-.211	-.007	.0040	-.0238	.10
	.20	.003	1.63	-.199	-.033	.0046	-.0478	.20
	.30	.003	1.72	-.207	-.070	.0010	-.0659	.30
	.40	.003	1.85	-.228	-.132	-.0008	-.0933	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.002	1.92	-.307	.157	-.0049	.0759	-.40
	-.30	-.001	1.79	-.287	.109	-.0049	.0516	-.30
	-.20	-.007	1.70	-.255	.081	-.0086	.0411	-.20
	-.10	-.008	1.64	-.255	.067	-.0033	.0228	-.10
	-.05	-.006	1.61	-.265	.058	-.0014	.0146	-.05
	0.00	-.003	1.54	-.284	.023	.0003	.0014	0.00
	0.00	.003	1.47	-.285	.000	.0026	.0010	0.00
	.05	.007	1.51	-.275	-.012	.0020	-.0122	.05
	.10	.004	1.52	-.256	-.016	.0045	-.0184	.10
	.20	.006	1.59	-.247	-.031	.0093	-.0379	.20
	.30	.009	1.70	-.280	-.063	.0067	-.0517	.30
	.40	.011	1.90	-.305	-.102	.0041	-.0748	.40
85	-.40	-.003	1.93	-.350	.163	-.0063	.0773	-.40
	-.30	-.009	1.79	-.334	.127	-.0068	.0571	-.30
	-.20	.001	1.68	-.314	.095	-.0087	.0437	-.20
	-.10	.004	1.61	-.314	.079	-.0011	.0247	-.10
	-.05	.008	1.60	-.323	.058	.0012	.0138	-.05
	0.00	-.003	1.56	-.336	.023	.0025	.0021	0.00
	0.00	.000	1.56	-.339	.027	.0014	.0006	0.00
	.05	.009	1.58	-.329	.016	-.0000	-.0106	.05
	.10	.006	1.59	-.323	.002	.0018	-.0196	.10
	.20	.004	1.65	-.313	-.033	.0103	-.0441	.20
	.30	-.002	1.73	-.330	-.080	.0095	-.0562	.30
	.40	-.002	1.88	-.333	-.125	.0108	-.0796	.40
90	-.40	.002	1.81	-.380	.153	-.0083	.0836	-.40
	-.30	-.008	1.67	-.381	.119	-.0062	.0616	-.30
	-.20	.007	1.54	-.360	.091	-.0059	.0471	-.20
	-.10	.021	1.48	-.366	.068	.0021	.0271	-.10
	-.05	.027	1.47	-.367	.049	.0029	.0200	-.05
	0.00	.007	1.47	-.380	.002	.0025	.0028	0.00
	0.00	.010	1.44	-.382	.002	.0015	.0085	0.00
	.05	.023	1.49	-.369	-.020	-.0010	-.0125	.05
	.10	.020	1.47	-.371	-.051	-.0002	-.0252	.10
	.20	.010	1.52	-.357	-.077	.0062	-.0436	.20
	.30	-.004	1.59	-.370	-.116	.0068	-.0615	.30
	.40	.012	1.72	-.375	-.172	.0087	-.0830	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 Body, Wing, LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.023	.19	.062	-.054	.1307	.0141	-.40
	-.30	.020	.17	.052	-.041	.1025	.0110	-.30
	-.20	.017	.17	.052	-.026	.0652	.0078	-.20
	-.10	.018	.18	.047	-.013	.0286	.0044	-.10
	-.05	.020	.18	.045	-.009	.0118	.0031	-.05
	0.00	.027	.10	.038	-.025	-.0032	.0017	0.00
	0.00	.028	.10	.037	-.025	-.0034	.0017	0.00
	.05	.019	.18	.049	-.007	-.0200	.0020	.05
	.10	.019	.17	.049	-.005	-.0372	.0010	.10
	.20	.019	.15	.049	-.006	-.0745	-.0008	.20
	.30	.020	.16	.048	-.010	-.1104	-.0013	.30
	.40	.025	.16	.053	-.017	-.1381	-.0010	.40
5	-.40	.023	.49	.090	-.033	.1203	.0141	-.40
	-.30	.021	.46	.077	-.029	.0879	.0104	-.30
	-.20	.017	.47	.071	-.026	.0602	.0078	-.20
	-.10	.013	.46	.075	-.024	.0295	.0056	-.10
	-.05	.011	.45	.077	-.020	.0129	.0040	-.05
	0.00	.020	.38	.066	-.028	-.0022	.0016	0.00
	0.00	.020	.37	.066	-.030	-.0028	.0016	0.00
	.05	.007	.49	.079	.000	-.0190	.0015	.05
	.10	.010	.49	.076	0.000	-.0354	.0006	.10
	.20	.016	.47	.070	-.001	-.0640	-.0002	.20
	.30	.021	.46	.074	-.002	-.0950	-.0003	.30
	.40	.025	.45	.082	-.009	-.1297	-.0004	.40
10	-.40	.022	.83	.118	-.041	.1088	.0147	-.40
	-.30	.021	.77	.115	-.032	.0738	.0102	-.30
	-.20	.017	.75	.116	-.027	.0456	.0067	-.20
	-.10	.011	.76	.117	-.022	.0224	.0044	-.10
	-.05	.010	.76	.115	-.020	.0109	.0034	-.05
	0.00	.020	.70	.103	-.028	-.0003	.0019	0.00
	0.00	.021	.70	.104	-.035	-.0009	.0020	0.00
	.05	.013	.78	.118	-.011	-.0130	.0025	.05
	.10	.014	.77	.120	-.007	-.0253	.0020	.10
	.20	.021	.75	.114	-.007	-.0507	.0005	.20
	.30	.027	.75	.110	-.011	-.0799	-.0006	.30
	.40	.028	.77	.111	-.015	-.1154	-.0012	.40
15	-.40	.015	1.16	.163	-.046	.1052	.0155	-.40
	-.30	.016	1.09	.162	-.037	.0750	.0101	-.30
	-.20	.015	1.06	.160	-.027	.0478	.0064	-.20
	-.10	.013	1.05	.159	-.021	.0221	.0043	-.10
	-.05	.013	1.05	.159	-.018	.0092	.0037	-.05
	0.00	.025	.98	.141	-.024	-.0015	.0021	0.00
	0.00	.026	.99	.142	-.026	-.0021	.0021	0.00
	.05	.014	1.07	.157	-.007	-.0134	.0028	.05
	.10	.014	1.08	.158	-.002	-.0262	.0023	.10
	.20	.016	1.09	.156	.001	-.0531	.0015	.20
	.30	.018	1.11	.155	.006	-.0804	.0003	.30
	.40	.018	1.15	.157	.003	-.1121	-.0010	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.019	1.30	.208	-.030	.0614	.0232	-.40
	-.30	.020	1.26	.210	-.029	.0402	.0162	-.30
	-.20	.015	1.28	.209	-.028	.0240	.0108	-.20
	-.10	.010	1.34	.210	-.018	.0122	.0069	-.10
	-.05	.009	1.36	.208	-.013	.0048	.0053	-.05
	0.00	.022	1.28	.193	-.026	-.0031	.0025	0.00
	0.00	.022	1.28	.192	-.029	-.0033	.0024	0.00
	.05	.009	1.39	.215	.006	-.0115	.0027	.05
	.10	.010	1.39	.218	.010	-.0199	.0011	.10
	.20	.015	1.34	.216	.013	-.0335	-.0012	.20
	.30	.020	1.29	.216	.007	-.0488	-.0036	.30
	.40	.020	1.32	.213	-.006	-.0720	-.0068	.40
25	-.40	.032	1.41	.221	.050	.0223	.0346	-.40
	-.30	.031	1.36	.222	.027	.0016	.0271	-.30
	-.20	.028	1.38	.234	.017	-.0151	.0210	-.20
	-.10	.020	1.45	.260	.000	-.0133	.0134	-.10
	-.05	.017	1.47	.272	-.005	-.0076	.0095	-.05
	0.00	.028	1.45	.272	-.025	-.0044	.0034	0.00
	0.00	.028	1.45	.269	-.025	-.0036	.0036	0.00
	.05	.013	1.52	.283	-.007	-.0008	.0009	.05
	.10	.015	1.50	.278	-.012	.0021	-.0030	.10
	.20	.023	1.44	.258	-.027	.0037	-.0091	.20
	.30	.027	1.42	.248	-.043	-.0099	-.0138	.30
	.40	.029	1.45	.240	-.068	-.0301	-.0171	.40
30	-.40	.032	1.63	.245	.165	.0047	.0573	-.40
	-.30	.036	1.57	.261	.132	-.0110	.0456	-.30
	-.20	.036	1.51	.283	.089	-.0201	.0340	-.20
	-.10	.033	1.49	.304	.040	-.0189	.0211	-.10
	-.05	.032	1.52	.321	.006	.0034	.0126	-.05
	0.00	.046	1.45	.311	-.027	-.0040	.0057	0.00
	0.00	.047	1.46	.314	-.028	-.0011	.0057	0.00
	.05	.035	1.55	.329	-.018	.0028	-.0009	.05
	.10	.034	1.57	.329	-.043	.0033	-.0078	.10
	.20	.036	1.56	.307	-.097	.0144	-.0198	.20
	.30	.038	1.59	.284	-.139	.0060	-.0289	.30
	.40	.035	1.63	.265	-.173	-.0108	-.0380	.40
35	-.40	.033	1.75	.286	.227	.0021	.0892	-.40
	-.30	.041	1.62	.308	.180	.0019	.0691	-.30
	-.20	.046	1.56	.326	.119	.0088	.0428	-.20
	-.10	.045	1.54	.341	.058	.0066	.0215	-.10
	-.05	.044	1.56	.346	.025	.0070	.0132	-.05
	0.00	.056	1.50	.349	-.021	.0058	.0043	0.00
	0.00	.058	1.48	.337	-.022	.0038	.0061	0.00
	.05	.043	1.58	.361	-.017	-.0036	-.0009	.05
	.10	.044	1.58	.358	-.044	-.0092	-.0084	.10
	.20	.050	1.57	.335	-.124	-.0093	-.0272	.20
	.30	.049	1.62	.322	-.201	-.0075	-.0516	.30
	.40	.043	1.74	.303	-.267	-.0084	-.0727	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.044	1.73	.271	.301	.0148	.1258	-.40
	-.30	.054	1.62	.293	.212	.0090	.0931	-.30
	-.20	.059	1.60	.320	.127	.0055	.0592	-.20
	-.10	.058	1.59	.332	.047	-.0007	.0253	-.10
	-.05	.058	1.59	.339	.016	-.0032	.0166	-.05
	0.00	.073	1.51	.341	-.026	-.0025	.0059	0.00
	0.00	.070	1.51	.351	-.036	-.0027	.0053	0.00
	.05	.056	1.62	.369	-.033	.0015	-.0043	.05
	.10	.056	1.63	.364	-.060	-.0002	-.0135	.10
	.20	.059	1.63	.331	-.124	-.0038	-.0338	.20
	.30	.056	1.66	.319	-.223	-.0066	-.0752	.30
	.40	.045	1.77	.295	-.304	-.0138	-.1086	.40
45	-.40	.045	1.74	.221	.369	.0268	.1646	-.40
	-.30	.060	1.68	.268	.268	.0177	.1235	-.30
	-.20	.066	1.64	.301	.149	.0089	.0763	-.20
	-.10	.066	1.62	.312	.044	-.0015	.0256	-.10
	-.05	.067	1.63	.316	.022	-.0043	.0143	-.05
	0.00	.082	1.52	.305	-.037	-.0039	.0035	0.00
	0.00	.084	1.55	.318	-.034	-.0036	.0043	0.00
	.05	.065	1.66	.361	-.027	-.0013	-.0041	.05
	.10	.067	1.67	.358	-.051	.0021	-.0136	.10
	.20	.066	1.66	.318	-.105	-.0037	-.0360	.20
	.30	.065	1.66	.289	-.246	-.0169	-.1004	.30
	.40	.050	1.73	.244	-.357	-.0286	-.1507	.40
50	-.40	.050	1.78	.115	.275	.0324	.1613	-.40
	-.30	.058	1.70	.201	.261	.0251	.1383	-.30
	-.20	.060	1.66	.254	.193	.0198	.1051	-.20
	-.10	.062	1.69	.304	.103	.0127	.0644	-.10
	-.05	.063	1.69	.313	.057	.0070	.0368	-.05
	0.00	.079	1.58	.287	-.016	-.0011	.0084	0.00
	0.00	.080	1.56	.276	-.027	.0005	.0053	0.00
	.05	.069	1.67	.308	-.012	-.0027	-.0030	.05
	.10	.069	1.70	.329	-.043	.0003	-.0142	.10
	.20	.069	1.69	.291	-.120	-.0106	-.0540	.20
	.30	.062	1.68	.240	-.259	-.0249	-.1181	.30
55	-.40	.049	1.84	.081	.236	.0259	.1374	-.40
	-.30	.066	1.69	.096	.176	.0205	.1138	-.30
	-.20	.070	1.60	.126	.148	.0150	.1005	-.20
	-.10	.073	1.61	.164	.110	.0091	.0774	-.10
	-.05	.076	1.61	.162	.071	.0055	.0548	-.05
	0.00	.084	1.57	.167	.033	.0036	.0397	0.00
	0.00	.084	1.58	.162	.033	.0039	.0386	0.00
	.05	.077	1.62	.202	.018	.0012	.0262	.05
	.10	.076	1.67	.246	-.037	-.0010	-.0023	.10
	.20	.071	1.63	.212	-.138	-.0140	-.0663	.20
	.30	.065	1.70	.135	-.199	-.0200	-.1077	.30
	.40	.050	1.84	.099	-.219	-.0248	-.1229	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.049	1.91	.082	.227	.0215	.1357	-.40
	-.30	.056	1.78	.107	.155	.0149	.1026	-.30
	-.20	.057	1.71	.111	.112	.0102	.0797	-.20
	-.10	.055	1.69	.124	.081	.0069	.0599	-.10
	-.05	.055	1.68	.135	.059	.0047	.0493	-.05
	0.00	.068	1.60	.146	.032	.0030	.0455	0.00
	0.00	.067	1.59	.149	.026	.0035	.0466	0.00
	.05	.055	1.66	.173	.026	.0017	.0337	.05
	.10	.055	1.68	.177	-.003	-.0017	.0078	.10
	.20	.054	1.71	.154	-.126	-.0103	-.0709	.20
	.30	.055	1.79	.120	-.151	-.0141	-.0926	.30
	.40	.051	1.93	.102	-.210	-.0194	-.1207	.40
65	-.40	.046	1.99	.082	.209	.0151	.1181	-.40
	-.30	.054	1.80	.085	.140	.0114	.0983	-.30
	-.20	.058	1.66	.081	.095	.0070	.0744	-.20
	-.10	.059	1.63	.085	.057	.0044	.0565	-.10
	-.05	.058	1.63	.093	.039	.0031	.0452	-.05
	0.00	.063	1.61	.109	.015	.0015	.0300	0.00
	0.00	.067	1.58	.109	.017	.0041	.0308	0.00
	.05	.064	1.64	.112	.005	.0030	.0187	.05
	.10	.061	1.68	.125	-.003	.0013	.0049	.10
	.20	.057	1.71	.134	-.062	-.0035	-.0345	.20
	.30	.055	1.81	.119	-.108	-.0068	-.0768	.30
	.40	.047	1.94	.121	-.163	-.0113	-.1018	.40
70	-.40	.062	2.00	.022	.161	.0102	.0929	-.40
	-.30	.054	1.89	.036	.110	.0068	.0766	-.30
	-.20	.045	1.79	.057	.078	.0022	.0601	-.20
	-.10	.043	1.75	.070	.048	-.0012	.0393	-.10
	-.05	.042	1.73	.079	.011	-.0008	.0233	-.05
	0.00	.045	1.70	.085	-.009	.0030	.0039	0.00
	0.00	.048	1.68	.082	-.009	.0032	.0046	0.00
	.05	.047	1.68	.079	-.027	.0058	-.0065	.05
	.10	.051	1.69	.075	-.043	.0055	-.0205	.10
	.20	.051	1.75	.072	-.072	.0028	-.0510	.20
	.30	.054	1.88	.066	-.095	-.0014	-.0699	.30
	.40	.065	2.01	.035	-.130	-.0034	-.0847	.40
75	-.40	.053	2.03	-.038	.162	.0044	.0918	-.40
	-.30	.066	1.91	-.020	.094	.0017	.0682	-.30
	-.20	.069	1.76	.003	.035	-.0052	.0508	-.20
	-.10	.066	1.71	.022	.024	-.0032	.0291	-.10
	-.05	.062	1.73	.027	.019	-.0014	.0156	-.05
	0.00	.064	1.71	.028	-.006	.0067	.0019	0.00
	0.00	.065	1.68	.028	-.013	.0002	.0021	0.00
	.05	.060	1.71	.023	-.013	.0056	-.0098	.05
	.10	.059	1.72	.016	-.021	.0074	-.0223	.10
	.20	.064	1.80	.009	-.038	.0086	-.0444	.20
	.30	.055	1.96	-.002	-.076	.0038	-.0605	.30
	.40	.040	2.07	-.017	-.114	-.0001	-.0822	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.054	2.01	-.072	.134	.0004	.0860	-.40
	-.30	.059	1.92	-.052	.078	-.0041	.0655	-.30
	-.20	.058	1.79	-.037	.029	-.0099	.0490	-.20
	-.10	.059	1.69	-.037	.019	-.0033	.0272	-.10
	-.05	.058	1.68	-.028	.003	-.0002	.0154	-.05
	0.00	.059	1.67	-.039	-.007	.0031	.0014	0.00
	0.00	.056	1.65	-.032	-.012	.0004	.0035	0.00
	.05	.055	1.72	-.026	.002	.0046	-.0107	.05
	.10	.055	1.72	-.028	-.013	.0069	-.0226	.10
	.20	.056	1.82	-.030	-.025	.0112	-.0446	.20
	.30	.054	1.94	-.031	-.066	.0086	-.0564	.30
	.40	.051	2.04	-.046	-.107	.0051	-.0771	.40
85	-.40	.049	2.02	-.117	.102	-.0055	.0808	-.40
	-.30	.054	1.91	-.098	.069	-.0098	.0614	-.30
	-.20	.063	1.78	-.078	.022	-.0110	.0465	-.20
	-.10	.067	1.71	-.076	.024	0.0000	.0257	-.10
	-.05	.068	1.71	-.069	.013	.0020	.0142	-.05
	0.00	.052	1.70	-.077	-.005	.0018	.0027	0.00
	0.00	.051	1.69	-.070	-.006	.0036	.0021	0.00
	.05	.060	1.80	-.062	.018	.0031	-.0098	.05
	.10	.061	1.78	-.071	-.003	.0080	-.0221	.10
	.20	.052	1.88	-.067	-.011	.0148	-.0416	.20
	.30	.038	1.97	-.072	-.058	.0127	-.0541	.30
	.40	.027	2.09	-.083	-.081	.0080	-.0739	.40
90	-.40	.044	2.05	-.145	.104	-.0067	.0781	-.40
	-.30	.038	1.93	-.139	.064	-.0120	.0571	-.30
	-.20	.054	1.82	-.133	.040	-.0096	.0419	-.20
	-.10	.062	1.75	-.124	.038	.0024	.0224	-.10
	-.05	.064	1.75	-.115	.029	.0029	.0135	-.05
	0.00	.047	1.71	-.128	.000	.0039	.0014	0.00
	0.00	.050	1.71	-.133	.004	.0037	.0009	0.00
	.05	.072	1.76	-.119	.004	.0042	-.0092	.05
	.10	.063	1.79	-.117	.001	.0045	-.0187	.10
	.20	.047	1.88	-.115	-.009	.0129	-.0350	.20
	.30	.025	2.01	-.117	-.039	.0139	-.0480	.30
	.40	.029	2.12	-.136	-.044	.0130	-.0662	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 Body, Wing, LEX, Horizontal BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.024	.16	.015	-.043	.1361	.0155	-.40
	-.30	.021	.13	.014	-.049	.1058	.0119	-.30
	-.20	.015	.16	.023	-.033	.0668	.0087	-.20
	-.10	.014	.19	.024	-.025	.0294	.0053	-.10
	-.05	.017	.18	.021	-.030	.0125	.0037	-.05
	0.00	.025	.10	.013	-.040	-.0028	.0020	0.00
	0.00	.024	.09	.013	-.046	-.0029	.0020	0.00
	.05	.022	.14	.020	-.030	-.0192	.0016	.05
	.10	.021	.14	.019	-.028	-.0365	.0005	.10
	.20	.019	.11	.018	-.023	-.0739	-.0012	.20
	.30	.019	.12	.014	-.014	-.1099	-.0015	.30
	.40	.018	.13	.016	-.009	-.1391	-.0008	.40
5	-.40	.025	.49	.009	-.021	.1253	.0161	-.40
	-.30	.025	.45	.000	-.035	.0931	.0114	-.30
	-.20	.011	.49	.007	-.033	.0630	.0088	-.20
	-.10	.003	.52	.019	-.025	.0307	.0066	-.10
	-.05	.003	.50	.021	-.028	.0137	.0048	-.05
	0.00	.014	.38	.008	-.049	-.0013	.0015	0.00
	0.00	.016	.38	.007	-.053	-.0018	.0013	0.00
	.05	.033	.48	.021	-.024	-.0185	.0014	.05
	.10	.031	.50	.019	-.018	-.0354	.0007	.10
	.20	.033	.49	.011	-.009	-.0647	.0001	.20
	.30	.035	.46	.009	-.005	-.0964	0.0000	.30
	.40	.028	.45	.010	.004	-.1309	.0004	.40
10	-.40	.027	.87	-.005	-.019	.1129	.0171	-.40
	-.30	.018	.80	.007	-.031	.0768	.0117	-.30
	-.20	.013	.79	.019	-.035	.0486	.0078	-.20
	-.10	.005	.82	.024	-.031	.0246	.0054	-.10
	-.05	.004	.82	.025	-.033	.0120	.0043	-.05
	0.00	.011	.75	.010	-.049	.0002	.0024	0.00
	0.00	.011	.75	.011	-.045	-.0001	.0022	0.00
	.05	.028	.85	.026	-.021	-.0129	.0030	.05
	.10	.028	.85	.029	-.015	-.0255	.0025	.10
	.20	.033	.83	.024	-.007	-.0510	.0017	.20
	.30	.037	.83	.011	.002	-.0805	.0009	.30
	.40	.036	.85	-.004	.013	-.1160	.0004	.40
15	-.40	.030	1.21	-.007	-.022	.1093	.0174	-.40
	-.30	.014	1.16	.012	-.033	.0789	.0114	-.30
	-.20	.009	1.09	.021	-.045	.0500	.0066	-.20
	-.10	.001	1.10	.037	-.034	.0229	.0049	-.10
	-.05	.001	1.08	.040	-.042	.0103	.0042	-.05
	0.00	.015	1.00	.026	-.053	.0001	.0027	0.00
	0.00	.016	1.02	.028	-.050	.0002	.0025	0.00
	.05	-.002	1.13	.043	-.023	-.0120	.0039	.05
	.10	-.002	1.13	.041	-.019	-.0249	.0036	.10
	.20	.003	1.14	.031	-.010	-.0521	.0030	.20
	.30	.012	1.16	.016	.003	-.0808	.0016	.30
	.40	.020	1.22	-.003	.017	-.1129	.0003	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Horizontal — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.013	1.48	-.047	-.008	.0683	.0247	-.40
	-.30	.008	1.43	-.014	-.023	.0483	.0168	-.30
	-.20	.008	1.45	.019	-.039	.0334	.0108	-.20
	-.10	.001	1.51	.040	-.026	.0181	.0074	-.10
	-.05	.002	1.50	.041	-.029	.0088	.0057	-.05
	0.00	.016	1.40	.029	-.049	-.0006	.0027	0.00
	0.00	.018	1.39	.028	-.047	.0011	.0020	0.00
	.05	-.001	1.54	.047	-.010	-.0108	.0031	.05
	.10	-.001	1.54	.046	.001	-.0206	.0020	.10
	.20	.003	1.51	.034	.010	-.0361	-.0004	.20
	.30	.009	1.49	.000	.017	-.0510	-.0028	.30
	.40	.010	1.52	-.035	.024	-.0712	-.0061	.40
25	-.40	.023	1.75	-.140	.076	.0241	.0364	-.40
	-.30	.014	1.70	-.091	.043	.0057	.0268	-.30
	-.20	.008	1.71	-.042	.021	-.0066	.0190	-.20
	-.10	.001	1.78	.006	.005	-.0045	.0118	-.10
	-.05	.000	1.76	.019	-.012	-.0011	.0081	-.05
	0.00	.011	1.69	.016	-.041	.0002	.0026	0.00
	0.00	.012	1.68	.012	-.029	-.0010	.0027	0.00
	.05	.002	1.77	.017	-.023	.0016	.0002	.05
	.10	-.001	1.77	.009	-.024	.0025	-.0028	.10
	.20	.005	1.72	-.029	-.027	.0034	-.0080	.20
	.30	.009	1.71	-.073	-.032	-.0069	-.0139	.30
	.40	.009	1.77	-.120	-.036	-.0251	-.0184	.40
30	-.40	.023	1.94	-.179	.191	.0019	.0590	-.40
	-.30	.018	1.86	-.128	.134	-.0134	.0453	-.30
	-.20	.017	1.80	-.072	.079	-.0196	.0325	-.20
	-.10	.015	1.79	-.025	.018	-.0132	.0189	-.10
	-.05	.017	1.77	-.011	-.025	.0060	.0123	-.05
	0.00	.027	1.74	-.018	-.048	-.0011	.0039	0.00
	0.00	.030	1.73	-.017	-.057	.0011	.0035	0.00
	.05	.007	1.84	-.003	-.041	.0072	-.0018	.05
	.10	.006	1.85	-.008	-.063	.0095	-.0086	.10
	.20	.012	1.84	-.055	-.101	.0187	-.0199	.20
	.30	.015	1.87	-.100	-.136	.0123	-.0301	.30
	.40	.015	1.93	-.149	-.162	-.0026	-.0407	.40
35	-.40	.020	2.21	-.197	.309	-.0059	.0911	-.40
	-.30	.022	2.08	-.132	.222	-.0096	.0714	-.30
	-.20	.026	1.99	-.078	.133	-.0013	.0472	-.20
	-.10	.025	1.97	-.045	.050	.0049	.0238	-.10
	-.05	.027	1.96	-.040	.006	.0070	.0146	-.05
	0.00	.037	1.87	-.041	-.047	.0066	.0045	0.00
	0.00	.037	1.88	-.039	-.047	.0081	.0049	0.00
	.05	.026	1.99	-.032	-.046	.0024	-.0047	.05
	.10	.028	1.98	-.035	-.079	-.0006	-.0139	.10
	.20	.029	2.01	-.064	-.140	.0024	-.0318	.20
	.30	.027	2.08	-.110	-.211	.0099	-.0557	.30
	.40	.019	2.18	-.173	-.244	.0072	-.0746	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Horizontal — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.035	2.22	-.257	.365	.0034	.1288	-.40
	-.30	.038	2.11	-.186	.267	.0004	.0976	-.30
	-.20	.042	2.05	-.130	.140	.0023	.0609	-.20
	-.10	.044	2.02	-.093	.041	.0029	.0279	-.10
	-.05	.046	2.00	-.089	.002	.0012	.0157	-.05
	0.00	.050	1.97	-.073	-.031	.0008	.0063	0.00
	0.00	.046	2.00	-.063	-.017	-.0004	.0073	0.00
	.05	.035	2.04	-.058	-.045	.0050	-.0074	.05
	.10	.036	2.07	-.062	-.081	.0041	-.0189	.10
	.20	.038	2.10	-.112	-.148	.0018	-.0404	.20
	.30	.033	2.17	-.159	-.243	.0052	-.0802	.30
	.40	.023	2.29	-.234	-.324	.0029	-.1149	.40
45	-.40	.046	2.24	-.295	.432	.0137	.1669	-.40
	-.30	.050	2.12	-.205	.295	.0076	.1242	-.30
	-.20	.052	2.06	-.169	.153	.0051	.0771	-.20
	-.10	.046	2.07	-.167	.031	.0011	.0245	-.10
	-.05	.052	2.01	-.164	-.004	-.0017	.0136	-.05
	0.00	.056	2.00	-.144	-.043	-.0033	.0045	0.00
	0.00	.057	2.01	-.144	-.045	-.0023	.0044	0.00
	.05	.047	2.08	-.118	-.055	.0012	-.0033	.05
	.10	.045	2.08	-.127	-.075	.0038	-.0137	.10
	.20	.044	2.11	-.182	-.131	.0017	-.0384	.20
	.30	.041	2.16	-.203	-.257	-.0052	-.1024	.30
	.40	.022	2.27	-.297	-.372	-.0109	-.1552	.40
50	-.40	.027	2.29	-.368	.452	.0213	.1816	-.40
	-.30	.028	2.19	-.262	.349	.0150	.1495	-.30
	-.20	.034	2.12	-.188	.222	.0119	.1069	-.20
	-.10	.033	2.10	-.165	.091	.0080	.0641	-.10
	-.05	.035	2.06	-.179	.025	.0064	.0415	-.05
	0.00	.041	2.00	-.200	-.033	.0034	.0071	0.00
	0.00	.038	1.97	-.194	-.038	.0016	.0088	0.00
	.05	.026	2.07	-.195	-.046	-.0019	.0019	.05
	.10	.026	2.11	-.186	-.070	.0019	-.0078	.10
	.20	.032	2.15	-.191	-.135	.0003	-.0431	.20
	.30	.024	2.20	-.240	-.300	-.0118	-.1190	.30
55	-.40	.022	2.41	-.474	.337	.0303	.1421	-.40
	-.30	.029	2.27	-.394	.283	.0285	.1312	-.30
	-.20	.036	2.17	-.300	.205	.0220	.1013	-.20
	-.10	.038	2.09	-.228	.133	.0123	.0729	-.10
	-.05	.038	2.06	-.226	.094	.0084	.0511	-.05
	0.00	.043	1.99	-.257	.040	.0032	.0341	0.00
	0.00	.044	2.00	-.224	.039	.0054	.0330	0.00
	.05	.035	2.03	-.176	-.015	.0043	.0307	.05
	.10	.035	2.03	-.209	-.071	.0012	-.0021	.10
	.20	.039	2.06	-.238	-.179	-.0096	-.0640	.20
	.30	.039	2.19	-.335	-.246	-.0191	-.1049	.30
	.40	.036	2.31	-.418	-.279	-.0220	-.1281	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Horizontal — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.020	2.48	-.475	.315	.0260	.1349	-.40
	-.30	.031	2.35	-.437	.214	.0290	.1053	-.30
	-.20	.039	2.18	-.384	.151	.0253	.0857	-.20
	-.10	.043	2.10	-.352	.082	.0158	.0564	-.10
	-.05	.043	2.06	-.335	.076	.0099	.0548	-.05
	0.00	.040	2.09	-.285	.046	.0072	.0463	0.00
	0.00	.035	2.04	-.324	.038	.0053	.0447	0.00
	.05	.031	2.16	-.239	.031	.0018	.0394	.05
	.10	.033	2.22	-.202	.003	-.0028	.0195	.10
	.20	.030	2.25	-.298	-.165	-.0176	-.0708	.20
	.30	.025	2.39	-.408	-.180	-.0267	-.0971	.30
	.40	.014	2.53	-.442	-.224	-.0231	-.1242	.40
65	-.40	.025	2.52	-.484	.292	.0254	.1380	-.40
	-.30	.032	2.35	-.452	.189	.0331	.1052	-.30
	-.20	.036	2.18	-.418	.123	.0267	.0790	-.20
	-.10	.038	2.12	-.395	.074	.0152	.0510	-.10
	-.05	.038	2.10	-.379	.049	.0092	.0375	-.05
	0.00	.049	2.02	-.373	.012	-.0002	.0323	0.00
	0.00	.044	2.09	-.368	.026	.0054	.0263	0.00
	.05	.036	2.18	-.326	.006	-.0007	.0246	.05
	.10	.037	2.18	-.341	-.024	-.0083	.0177	.10
	.20	.031	2.32	-.308	-.085	-.0128	-.0219	.20
	.30	.028	2.43	-.422	-.154	-.0244	-.0830	.30
	.40	.018	2.58	-.435	-.216	-.0120	-.1161	.40
70	-.40	.019	2.60	-.517	.246	.0226	.1191	-.40
	-.30	.026	2.42	-.496	.141	.0333	.0849	-.30
	-.20	.031	2.20	-.463	.090	.0247	.0610	-.20
	-.10	.032	2.10	-.417	.048	.0128	.0361	-.10
	-.05	.029	2.04	-.416	.002	.0044	.0174	-.05
	0.00	.026	2.14	-.361	-.034	.0016	.0027	0.00
	0.00	.023	2.06	-.415	-.027	.0025	.0070	0.00
	.05	.043	2.09	-.397	-.050	-.0018	.0032	.05
	.10	.042	2.14	-.394	-.059	-.0076	-.0050	.10
	.20	.036	2.26	-.436	-.106	-.0174	-.0451	.20
	.30	.030	2.44	-.469	-.121	-.0231	-.0705	.30
	.40	.024	2.66	-.497	-.161	-.0127	-.1016	.40
75	-.40	.041	2.63	-.660	.189	.0197	.0913	-.40
	-.30	.050	2.38	-.581	.104	.0260	.0649	-.30
	-.20	.048	2.22	-.519	.067	.0180	.0512	-.20
	-.10	.054	2.06	-.497	.016	.0046	.0240	-.10
	-.05	.049	2.02	-.522	-.004	.0015	.0132	-.05
	0.00	.042	2.00	-.523	-.023	.0033	.0019	0.00
	0.00	.042	2.00	-.535	-.030	.0052	.0019	0.00
	.05	.071	1.96	-.523	-.054	.0036	-.0083	.05
	.10	.067	1.99	-.497	-.071	.0002	-.0186	.10
	.20	.060	2.16	-.505	-.103	-.0112	-.0403	.20
	.30	.056	2.39	-.562	-.104	-.0166	-.0585	.30
	.40	.048	2.63	-.626	-.127	-.0052	-.0823	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Horizontal — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.026	2.63	-.689	.167	.0062	.0884	-.40
	-.30	.040	2.36	-.613	.087	.0137	.0615	-.30
	-.20	.048	2.13	-.564	.048	.0087	.0402	-.20
	-.10	.054	2.00	-.562	.001	.0040	.0242	-.10
	-.05	.055	1.97	-.590	-.018	.0016	.0136	-.05
	0.00	.044	1.98	-.588	-.030	.0036	.0024	0.00
	0.00	.043	1.99	-.607	-.030	.0037	.0022	0.00
	.05	.066	2.03	-.604	-.037	.0036	-.0090	.05
	.10	.061	2.05	-.569	-.050	.0040	-.0198	.10
	.20	.056	2.20	-.564	-.078	-.0036	-.0364	.20
	.30	.047	2.38	-.605	-.089	-.0050	-.0557	.30
	.40	.043	2.58	-.661	-.125	.0043	-.0808	.40
85	-.40	.030	2.60	-.708	.132	-.0026	.0852	-.40
	-.30	.020	2.38	-.647	.085	.0018	.0582	-.30
	-.20	.033	2.21	-.605	.062	.0028	.0384	-.20
	-.10	.045	2.10	-.626	.026	.0036	.0248	-.10
	-.05	.049	2.08	-.656	.009	.0021	.0135	-.05
	0.00	.033	2.05	-.648	-.015	.0035	.0020	0.00
	0.00	.032	2.05	-.644	-.031	.0038	.0030	0.00
	.05	.063	2.12	-.656	-.009	.0028	-.0084	.05
	.10	.060	2.10	-.638	-.030	.0022	-.0200	.10
	.20	.047	2.25	-.607	-.058	.0038	-.0339	.20
	.30	.031	2.39	-.638	-.067	.0050	-.0516	.30
	.40	.032	2.63	-.673	-.105	.0127	-.0756	.40
90	-.40	.022	2.56	-.719	.107	-.0103	.0773	-.40
	-.30	.016	2.30	-.690	.063	-.0057	.0551	-.30
	-.20	.026	2.16	-.649	.043	.0001	.0364	-.20
	-.10	.042	2.09	-.690	.014	.0041	.0235	-.10
	-.05	.047	2.09	-.716	.002	.0029	.0130	-.05
	0.00	.019	2.06	-.739	-.023	.0036	.0021	0.00
	0.00	.019	2.06	-.727	-.027	.0030	.0034	0.00
	.05	.041	2.10	-.707	-.024	.0023	-.0066	.05
	.10	.037	2.09	-.688	-.038	.0027	-.0173	.10
	.20	.024	2.18	-.644	-.060	.0108	-.0298	.20
	.30	.012	2.33	-.674	-.066	.0135	-.0469	.30
	.40	.026	2.60	-.679	-.087	.0196	-.0695	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 Body, Wing, LEX, Vertical — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.020	.23	.055	-.026	.1341	.0080	-.40
	-.30	.022	.19	.044	-.019	.1048	.0062	-.30
	-.20	.026	.14	.044	-.015	.0672	.0038	-.20
	-.10	.029	.15	.039	-.005	.0303	.0012	-.10
	-.05	.029	.15	.036	-.004	.0131	.0002	-.05
	0.00	.032	.10	.031	-.010	-.0026	-.0007	0.00
	0.00	.031	.12	.031	-.007	-.0028	-.0010	0.00
	.05	.036	.17	.042	.002	-.0197	-.0002	.05
	.10	.035	.15	.042	.002	-.0371	-.0011	.10
	.20	.034	.14	.043	.003	-.0747	-.0030	.20
	.30	.034	.14	.041	-.006	-.1113	-.0037	.30
	.40	.037	.14	.046	-.015	-.1395	-.0035	.40
5	-.40	.015	.53	.076	-.060	.1190	.0172	-.40
	-.30	.016	.50	.065	-.033	.0881	.0121	-.30
	-.20	.015	.51	.061	-.016	.0602	.0081	-.20
	-.10	.012	.50	.063	-.002	.0294	.0044	-.10
	-.05	.011	.49	.064	.004	.0129	.0023	-.05
	0.00	.022	.41	.050	-.006	-.0020	-.0014	0.00
	0.00	.022	.40	.051	-.009	-.0016	-.0014	0.00
	.05	.017	.49	.060	.014	-.0180	-.0026	.05
	.10	.019	.50	.057	.021	-.0343	-.0044	.10
	.20	.022	.49	.053	.026	-.0637	-.0070	.20
	.30	.025	.47	.056	.029	-.0942	-.0098	.30
	.40	.026	.48	.061	.030	-.1271	-.0131	.40
10	-.40	.018	.85	.101	-.093	.1039	.0267	-.40
	-.30	.018	.80	.098	-.059	.0707	.0180	-.30
	-.20	.014	.78	.100	-.033	.0442	.0110	-.20
	-.10	.009	.79	.100	-.010	.0227	.0050	-.10
	-.05	.006	.80	.098	.002	.0112	.0023	-.05
	0.00	.017	.73	.084	-.005	.0003	-.0012	0.00
	0.00	.017	.72	.084	-.005	-.0007	-.0013	0.00
	.05	.014	.81	.098	.023	-.0128	-.0026	.05
	.10	.016	.80	.098	.030	-.0243	-.0052	.10
	.20	.022	.78	.094	.042	-.0482	-.0104	.20
	.30	.027	.78	.089	.053	-.0762	-.0153	.30
	.40	.028	.82	.088	.059	-.1104	-.0212	.40
15	-.40	.010	1.17	.149	-.126	.0968	.0363	-.40
	-.30	.013	1.11	.148	-.081	.0693	.0237	-.30
	-.20	.012	1.07	.148	-.042	.0438	.0134	-.20
	-.10	.010	1.05	.148	-.012	.0197	.0061	-.10
	-.05	.011	1.05	.147	-.001	.0084	.0030	-.05
	0.00	.025	.95	.130	-.015	-.0012	-.0011	0.00
	0.00	.025	.95	.131	-.016	0.0000	-.0009	0.00
	.05	.013	1.07	.148	.023	-.0109	-.0020	.05
	.10	.014	1.06	.146	.031	-.0227	-.0051	.10
	.20	.018	1.06	.142	.052	-.0475	-.0118	.20
	.30	.022	1.08	.137	.076	-.0739	-.0202	.30
	.40	.022	1.14	.139	.098	-.1045	-.0303	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Vertical

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.016	1.28	.228	-.159	.0420	.0605	-.40
	-.30	.019	1.26	.227	-.108	.0279	.0411	-.30
	-.20	.016	1.27	.221	-.067	.0152	.0250	-.20
	-.10	.011	1.33	.213	-.027	.0081	.0124	-.10
	-.05	.009	1.34	.210	-.007	.0036	.0064	-.05
	0.00	.022	1.29	.193	-.004	0.0000	-.0009	0.00
	0.00	.025	1.24	.192	-.007	-.0010	-.0010	0.00
	.05	.029	1.35	.208	.035	-.0056	-.0056	.05
	.10	.030	1.32	.213	.048	-.0109	-.0113	.10
	.20	.033	1.27	.219	.074	-.0204	-.0227	.20
	.30	.032	1.25	.223	.104	-.0349	-.0371	.30
	.40	.023	1.25	.223	.130	-.0514	-.0535	.40
25	-.40	.013	1.44	.271	-.133	.0113	.0801	-.40
	-.30	.019	1.41	.265	-.094	-.0044	.0597	-.30
	-.20	.024	1.39	.277	-.064	-.0132	.0414	-.20
	-.10	.023	1.37	.301	-.030	-.0102	.0233	-.10
	-.05	.023	1.37	.312	-.014	-.0053	.0128	-.05
	0.00	.036	1.28	.301	-.017	-.0007	-.0001	0.00
	0.00	.035	1.30	.303	-.019	-.0034	-.0002	0.00
	.05	.034	1.40	.316	.029	.0033	-.0089	.05
	.10	.035	1.39	.306	.044	.0062	-.0189	.10
	.20	.035	1.38	.283	.074	.0076	-.0369	.20
	.30	.032	1.35	.276	.098	-.0025	-.0540	.30
	.40	.023	1.36	.274	.122	-.0180	-.0720	.40
30	-.40	.026	1.54	.306	-.025	-.0038	.0955	-.40
	-.30	.034	1.50	.318	-.001	-.0145	.0714	-.30
	-.20	.035	1.44	.345	.029	-.0131	.0419	-.20
	-.10	.036	1.44	.365	.024	-.0042	.0194	-.10
	-.05	.036	1.45	.372	.011	.0067	.0118	-.05
	0.00	.047	1.35	.356	-.007	-.0007	.0004	0.00
	0.00	.044	1.40	.355	-.001	-.0004	.0007	0.00
	.05	.030	1.54	.374	.027	.0001	-.0064	.05
	.10	.031	1.53	.374	.016	.0004	-.0158	.10
	.20	.037	1.52	.347	.003	.0143	-.0372	.20
	.30	.042	1.56	.322	.020	.0112	-.0629	.30
	.40	.047	1.59	.323	.015	-.0008	-.0855	.40
35	-.40	.029	1.65	.368	.109	.0050	.1074	-.40
	-.30	.042	1.53	.375	.104	.0064	.0762	-.30
	-.20	.047	1.49	.380	.059	.0082	.0493	-.20
	-.10	.046	1.48	.395	.026	.0096	.0208	-.10
	-.05	.044	1.49	.397	.011	.0095	.0110	-.05
	0.00	.058	1.41	.388	-.014	.0029	.0010	0.00
	0.00	.054	1.45	.385	-.006	.0050	.0018	0.00
	.05	.056	1.53	.403	.006	-.0047	-.0062	.05
	.10	.058	1.52	.401	-.007	-.0106	-.0155	.10
	.20	.058	1.51	.384	-.060	-.0064	-.0438	.20
	.30	.049	1.53	.377	-.104	-.0065	-.0722	.30
	.40	.032	1.62	.373	-.120	-.0088	-.1037	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Vertical — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.038	1.71	.336	.233	.0186	.1281	-.40
	-.30	.049	1.63	.351	.197	.0109	.0907	-.30
	-.20	.055	1.57	.362	.124	.0071	.0515	-.20
	-.10	.053	1.57	.387	.077	.0042	.0170	-.10
	-.05	.053	1.57	.389	.050	.0030	.0050	-.05
	0.00	.062	1.49	.389	-.001	.0016	.0002	0.00
	0.00	.062	1.52	.395	.005	.0014	.0004	0.00
	.05	.063	1.59	.408	-.020	-.0007	-.0041	.05
	.10	.064	1.60	.404	-.045	-.0060	-.0095	.10
	.20	.067	1.61	.378	-.080	-.0083	-.0398	.20
	.30	.065	1.64	.367	-.169	-.0104	-.0826	.30
	.40	.054	1.72	.352	-.211	-.0167	-.1234	.40
45	-.40	.045	1.73	.282	.311	.0248	.1700	-.40
	-.30	.056	1.70	.318	.251	.0163	.1228	-.30
	-.20	.060	1.66	.335	.151	.0095	.0713	-.20
	-.10	.059	1.65	.354	.082	.0013	.0196	-.10
	-.05	.060	1.66	.360	.057	-.0005	.0088	-.05
	0.00	.076	1.60	.360	.006	.0002	-.0034	0.00
	0.00	.078	1.59	.357	.005	-.0007	-.0022	0.00
	.05	.070	1.70	.392	-.027	-.0001	-.0078	.05
	.10	.072	1.70	.386	-.068	-.0002	-.0140	.10
	.20	.071	1.68	.351	-.113	-.0064	-.0390	.20
	.30	.065	1.71	.316	-.226	-.0164	-.1086	.30
50	-.40	.048	1.75	.159	.241	.0274	.1819	-.40
	-.30	.061	1.67	.225	.225	.0217	.1467	-.30
	-.20	.063	1.62	.280	.166	.0190	.1074	-.20
	-.10	.070	1.68	.326	.068	.0110	.0618	-.10
	-.05	.070	1.66	.336	.020	.0051	.0377	-.05
	0.00	.079	1.58	.311	-.022	.0003	.0061	0.00
	0.00	.076	1.64	.302	-.023	.0014	.0042	0.00
	.05	.085	1.71	.338	-.036	-.0024	-.0066	.05
	.10	.086	1.70	.347	-.074	-.0014	-.0174	.10
	.20	.081	1.68	.306	-.140	-.0151	-.0665	.20
	.30	.071	1.67	.246	-.237	-.0226	-.1281	.30
55	-.40	.052	1.87	.133	.181	.0195	.1548	-.40
	-.30	.057	1.73	.133	.161	.0149	.1232	-.30
	-.20	.052	1.65	.149	.152	.0122	.1051	-.20
	-.10	.048	1.66	.178	.115	.0073	.0780	-.10
	-.05	.050	1.65	.169	.079	.0046	.0539	-.05
	0.00	.067	1.54	.180	.025	.0033	.0392	0.00
	0.00	.059	1.56	.171	.027	.0030	.0380	0.00
	.05	.051	1.73	.248	.034	.0007	.0208	.05
	.10	.050	1.81	.260	-.001	-.0023	-.0079	.10
	.20	.048	1.77	.236	-.100	-.0142	-.0732	.20
	.30	.051	1.81	.167	-.140	-.0160	-.1197	.30
	.40	.045	1.94	.151	-.145	-.0205	-.1467	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Vertical

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.049	1.90	.131	.169	.0144	.1541	-.40
	-.30	.059	1.76	.136	.121	.0098	.1137	-.30
	-.20	.059	1.68	.128	.098	.0076	.0858	-.20
	-.10	.058	1.66	.138	.066	.0054	.0624	-.10
	-.05	.058	1.65	.145	.058	.0037	.0531	-.05
	0.00	.066	1.63	.160	.047	.0021	.0467	0.00
	0.00	.063	1.61	.167	.044	.0033	.0496	0.00
	.05	.075	1.73	.193	.048	.0007	.0322	.05
	.10	.076	1.73	.193	.018	-.0023	.0059	.10
	.20	.069	1.71	.168	-.101	-.0093	-.0801	.20
	.30	.067	1.79	.140	-.106	-.0095	-.1066	.30
	.40	.050	1.95	.143	-.151	-.0156	-.1481	.40
65	-.40	.048	2.05	.143	.160	.0059	.1442	-.40
	-.30	.055	1.87	.122	.118	.0045	.1073	-.30
	-.20	.054	1.75	.107	.098	.0036	.0819	-.20
	-.10	.055	1.70	.108	.067	.0026	.0605	-.10
	-.05	.057	1.68	.116	.044	.0015	.0469	-.05
	0.00	.068	1.63	.123	.018	.0012	.0300	0.00
	0.00	.070	1.62	.123	.011	.0036	.0317	0.00
	.05	.057	1.75	.137	.038	.0019	.0202	.05
	.10	.058	1.75	.150	.012	.0010	.0037	.10
	.20	.060	1.78	.148	-.041	-.0028	-.0461	.20
	.30	.063	1.85	.147	-.080	-.0041	-.0898	.30
	.40	.059	1.99	.168	-.124	-.0062	-.1349	.40
70	-.40	.061	2.09	.058	.093	.0045	.1159	-.40
	-.30	.059	1.97	.071	.085	-.0008	.0920	-.30
	-.20	.053	1.86	.080	.091	-.0006	.0669	-.20
	-.10	.053	1.81	.089	.066	-.0036	.0398	-.10
	-.05	.053	1.79	.095	.038	-.0026	.0223	-.05
	0.00	.068	1.64	.093	-.025	.0013	.0067	0.00
	0.00	.065	1.65	.091	-.018	.0032	.0058	0.00
	.05	.064	1.76	.104	-.011	.0037	-.0051	.05
	.10	.066	1.76	.098	-.023	.0035	-.0219	.10
	.20	.065	1.83	.087	-.058	.0033	-.0535	.20
	.30	.065	1.91	.082	-.051	.0008	-.0819	.30
	.40	.054	2.06	.099	-.091	-.0010	-.1215	.40
75	-.40	.066	2.06	.012	.057	-.0039	.1156	-.40
	-.30	.073	1.97	.007	.055	-.0070	.0807	-.30
	-.20	.070	1.85	.011	.052	-.0080	.0524	-.20
	-.10	.063	1.79	.038	.046	-.0050	.0272	-.10
	-.05	.066	1.77	.034	.029	-.0020	.0135	-.05
	0.00	.079	1.67	.021	-.018	.0010	.0016	0.00
	0.00	.080	1.72	.026	-.013	.0052	.0017	0.00
	.05	.069	1.83	.035	.008	.0038	-.0073	.05
	.10	.069	1.83	.029	-.004	.0053	-.0216	.10
	.20	.074	1.92	.009	-.021	.0087	-.0420	.20
	.30	.070	2.04	.015	-.023	.0066	-.0761	.30
	.40	.063	2.10	.037	-.055	.0070	-.1151	.40

F-18 ROTARY BALANCE DATA

F-18 Body, Wing, LEX, Vertical — BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.062	2.09	-.038	.041	-.0127	.1128	-.40
	-.30	.067	1.97	-.033	.049	-.0115	.0768	-.30
	-.20	.066	1.85	-.034	.052	-.0130	.0453	-.20
	-.10	.062	1.75	-.025	.034	-.0035	.0270	-.10
	-.05	.062	1.74	-.022	.023	-.0020	.0141	-.05
	0.00	.072	1.69	-.029	-.010	.0020	.0011	0.00
	0.00	.072	1.68	-.033	-.004	.0029	.0004	0.00
	.05	.055	1.82	-.022	.014	.0028	-.0085	.05
	.10	.059	1.78	-.025	-.016	.0057	-.0213	.10
	.20	.063	1.88	-.031	-.028	.0119	-.0422	.20
	.30	.062	1.99	-.018	-.030	.0123	-.0737	.30
	.40	.059	2.08	-.016	-.039	.0132	-.1117	.40
85	-.40	.030	2.18	-.076	.049	-.0198	.1130	-.40
	-.30	.027	2.07	-.082	.061	-.0154	.0775	-.30
	-.20	.033	1.99	-.089	.069	-.0125	.0472	-.20
	-.10	.036	1.91	-.082	.061	-.0041	.0285	-.10
	-.05	.039	1.88	-.079	.045	0.0000	.0168	-.05
	0.00	.038	1.80	-.101	.011	.0019	-.0022	0.00
	0.00	.036	1.74	-.095	-.007	.0041	.0023	0.00
	.05	.037	1.86	-.081	.016	.0039	-.0099	.05
	.10	.037	1.85	-.084	-.000	.0058	-.0239	.10
	.20	.035	1.94	-.085	-.013	.0144	-.0429	.20
	.30	.029	2.05	-.078	-.023	.0190	-.0723	.30
	.40	.030	2.12	-.066	.005	.0188	-.1086	.40
90	-.40	.024	2.18	-.128	.031	-.0241	.1115	-.40
	-.30	.017	2.06	-.137	.042	-.0190	.0755	-.30
	-.20	.035	1.95	-.148	.057	-.0123	.0474	-.20
	-.10	.044	1.87	-.135	.052	-.0035	.0290	-.10
	-.05	.049	1.86	-.139	.044	.0001	.0166	-.05
	0.00	.040	1.79	-.157	-.004	.0021	.0022	0.00
	0.00	.037	1.78	-.148	.010	.0009	-.0019	0.00
	.05	.036	1.89	-.137	.038	.0033	-.0123	.05
	.10	.035	1.88	-.135	.030	.0057	-.0261	.10
	.20	.027	1.98	-.137	.017	.0152	-.0427	.20
	.30	.010	2.08	-.129	.021	.0214	-.0709	.30
	.40	.018	2.15	-.122	.064	.0245	-.1084	.40

***** F-18 ROTARY BALANCE DATA *****

F-18

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.055	.15	-.003	-.031	.1421	.0111	-.40
	-.30	.057	.13	-.002	-.027	.1099	.0083	-.30
	-.20	.058	.11	.005	-.021	.0704	.0053	-.20
	-.10	.061	.14	.006	-.014	.0320	.0024	-.10
	-.05	.059	.15	.008	-.009	.0140	.0018	-.05
	-.03	.059	.16	.007	-.001	.0052	.0013	-.03
	0.00	.060	.10	.006	-.006	-.0032	-.0003	0.00
	0.00	.064	.09	.004	-.011	-.0033	-.0007	0.00
	.03	.061	.15	.004	-.005	-.0103	.0000	.03
	.05	.059	.14	.004	-.005	-.0192	-.0003	.05
	.10	.061	.12	.004	-.005	-.0374	-.0011	.10
	.20	.060	.08	.004	-.011	-.0762	-.0030	.20
	.30	.062	.07	-.002	-.012	-.1147	-.0033	.30
	.40	.064	.08	-.002	-.010	-.1454	-.0020	.40
5	-.40	.054	.48	-.010	-.049	.1284	.0214	-.40
	-.30	.056	.46	-.015	-.041	.0959	.0146	-.30
	-.20	.054	.47	-.012	-.037	.0658	.0094	-.20
	-.10	.050	.47	-.003	-.019	.0325	.0050	-.10
	-.05	.047	.47	-.000	-.021	.0151	.0029	-.05
	-.03	.047	.47	-.001	-.013	.0063	.0015	-.03
	0.00	.050	.45	-.009	.006	-.0011	-.0012	0.00
	0.00	.051	.44	-.011	-.003	-.0023	-.0009	0.00
	.03	.044	.48	-.000	-.000	-.0094	-.0013	.03
	.05	.045	.47	-.002	.001	-.0178	-.0025	.05
	.10	.047	.47	-.005	.010	-.0351	-.0044	.10
	.20	.053	.45	-.013	.015	-.0675	-.0072	.20
	.30	.059	.41	-.016	.022	-.0979	-.0095	.30
	.40	.065	.40	-.016	.038	-.1327	-.0123	.40
10	-.40	.061	.90	-.006	-.084	.1136	.0297	-.40
	-.30	.061	.84	.001	-.062	.0780	.0196	-.30
	-.20	.055	.84	.012	-.040	.0497	.0118	-.20
	-.10	.050	.85	.014	-.023	.0250	.0052	-.10
	-.05	.048	.86	.013	-.012	.0122	.0023	-.05
	-.03	.048	.86	.012	-.007	.0055	.0007	-.03
	0.00	.055	.82	.004	-.007	-.0008	-.0009	0.00
	0.00	.053	.84	-.001	.008	-.0019	-.0012	0.00
	.03	.050	.85	.009	.001	-.0064	-.0023	.03
	.05	.051	.85	.008	.007	-.0130	-.0037	.05
	.10	.053	.83	.009	.017	-.0257	-.0064	.10
	.20	.059	.80	.003	.031	-.0504	-.0119	.20
	.30	.064	.80	-.008	.049	-.0792	-.0173	.30
	.40	.065	.83	-.015	.074	-.1143	-.0235	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
15	-.40	.047	1.29	-.007	-.115	.1091	.0395	-.40
	-.30	.053	1.21	.007	-.087	.0790	.0248	-.30
	-.20	.051	1.19	.016	-.050	.0502	.0138	-.20
	-.10	.049	1.17	.024	-.024	.0232	.0059	-.10
	-.05	.048	1.16	.026	-.013	.0107	.0028	-.05
	-.03	.049	1.16	.027	-.008	.0050	.0013	-.03
	0.00	.060	1.12	.021	-.004	-.0002	-.0014	0.00
	0.00	.057	1.12	.018	-.008	-.0002	-.0004	0.00
	.03	.052	1.15	.023	-.002	-.0048	-.0017	.03
	.05	.052	1.15	.023	.007	-.0109	-.0032	.05
	.10	.054	1.15	.018	.018	-.0235	-.0064	.10
	.20	.057	1.13	.006	.040	-.0497	-.0137	.20
	.30	.060	1.16	-.007	.075	-.0781	-.0230	.30
	.40	.058	1.23	-.022	.115	-.1091	-.0340	.40
20	-.40	.053	1.49	-.067	-.147	.0576	.0630	-.40
	-.30	.056	1.45	-.037	-.111	.0411	.0425	-.30
	-.20	.053	1.49	-.006	-.075	.0277	.0266	-.20
	-.10	.048	1.53	.023	-.041	.0175	.0128	-.10
	-.05	.047	1.55	.027	-.015	.0097	.0055	-.05
	-.03	.047	1.55	.027	-.007	.0053	.0025	-.03
	0.00	.056	1.50	.018	-.002	.0011	-.0016	0.00
	0.00	.056	1.49	.017	-.001	.0005	-.0017	0.00
	.03	.048	1.53	.023	.014	-.0022	-.0044	.03
	.05	.049	1.52	.021	.024	-.0068	-.0077	.05
	.10	.050	1.51	.017	.042	-.0160	-.0138	.10
	.20	.057	1.46	-.006	.075	-.0301	-.0257	.20
	.30	.060	1.42	-.038	.108	-.0437	-.0397	.30
	.40	.058	1.46	-.068	.155	-.0613	-.0569	.40
25	-.40	.054	1.71	-.144	-.108	.0163	.0845	-.40
	-.30	.059	1.66	-.094	-.082	.0010	.0604	-.30
	-.20	.059	1.69	-.056	-.056	-.0075	.0403	-.20
	-.10	.056	1.73	-.033	-.023	-.0057	.0214	-.10
	-.05	.054	1.73	-.034	-.016	-.0047	.0098	-.05
	-.03	.053	1.71	-.034	-.005	-.0033	.0043	-.03
	0.00	.061	1.67	-.040	-.004	-.0023	-.0006	0.00
	0.00	.062	1.67	-.041	-.005	-.0025	-.0013	0.00
	.03	.056	1.69	-.036	.007	.0009	-.0065	.03
	.05	.055	1.67	-.037	.018	.0024	-.0120	.05
	.10	.058	1.67	-.034	.032	.0046	-.0220	.10
	.20	.063	1.63	-.046	.066	.0069	-.0397	.20
	.30	.066	1.61	-.087	.101	-.0015	-.0584	.30
	.40	.063	1.64	-.137	.133	-.0163	-.0782	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.031	2.00	-.190	.035	-.0065	.1001	-.40
	-.30	.037	1.92	-.142	.049	-.0184	.0741	-.30
	-.20	.036	1.88	-.088	.068	-.0184	.0440	-.20
	-.10	.034	1.88	-.044	.060	-.0025	.0194	-.10
	-.05	.035	1.89	-.038	.041	.0016	.0099	-.05
	-.03	.035	1.89	-.035	.039	.0029	.0056	-.03
	0.00	.046	1.83	-.042	.018	.0023	.0006	0.00
	0.00	.047	1.80	-.041	.019	.0004	.0003	0.00
	.03	.034	1.90	-.037	.034	.0011	-.0027	.03
	.05	.034	1.91	-.040	.030	.0036	-.0073	.05
	.10	.034	1.89	-.048	.010	.0063	-.0171	.10
	.20	.038	1.88	-.089	.011	.0206	-.0446	.20
	.30	.039	1.91	-.138	.028	.0189	-.0733	.30
	.40	.035	1.97	-.182	.042	.0051	-.0943	.40
35	-.40	.033	2.15	-.207	.199	-.0045	.1098	-.40
	-.30	.039	2.06	-.138	.188	-.0065	.0793	-.30
	-.20	.044	1.99	-.085	.129	-.0010	.0516	-.20
	-.10	.043	1.99	-.053	.070	.0092	.0252	-.10
	-.05	.041	2.00	-.049	.042	.0128	.0120	-.05
	-.03	.042	1.99	-.049	.029	.0110	.0079	-.03
	0.00	.054	1.95	-.055	.009	.0056	.0011	0.00
	0.00	.053	1.96	-.055	.006	.0056	.0039	0.00
	.03	.042	1.98	-.054	.005	.0030	-.0023	.03
	.05	.040	1.99	-.052	.000	.0000	-.0082	.05
	.10	.041	2.00	-.058	-.019	-.0032	-.0191	.10
	.20	.043	1.98	-.086	-.070	.0043	-.0480	.20
	.30	.040	2.04	-.136	-.122	.0096	-.0774	.30
	.40	.034	2.12	-.200	-.121	.0063	-.1113	.40
40	-.40	.041	2.21	-.244	.364	.0076	.1297	-.40
	-.30	.052	2.13	-.187	.297	.0034	.0935	-.30
	-.20	.057	2.06	-.130	.188	.0033	.0545	-.20
	-.10	.057	2.03	-.086	.112	.0032	.0170	-.10
	-.05	.057	2.03	-.082	.083	.0026	.0042	-.05
	-.03	.057	2.02	-.082	.066	.0022	.0015	-.03
	0.00	.067	1.99	-.082	.018	.0022	-.0008	0.00
	0.00	.077	1.97	-.083	.011	.0041	.0001	0.00
	.03	.054	2.02	-.075	-.001	.0023	-.0022	.03
	.05	.054	2.02	-.078	-.042	.0018	-.0057	.05
	.10	.057	2.02	-.085	-.081	-.0018	-.0124	.10
	.20	.058	2.04	-.122	-.127	-.0001	-.0458	.20
	.30	.055	2.10	-.181	-.232	.0006	-.0882	.30
	.40	.045	2.22	-.245	-.281	-.0010	-.1310	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
45	-.40	.038	2.31	-.281	.448	.0141	.1678	-.40
	-.30	.050	2.20	-.197	.331	.0085	.1218	-.30
	-.20	.055	2.16	-.156	.194	.0052	.0721	-.20
	-.10	.053	2.15	-.153	.101	.0016	.0172	-.10
	-.05	.053	2.13	-.133	.076	-.0012	.0065	-.05
	-.03	.054	2.13	-.135	.066	-.0023	.0008	-.03
	0.00	.076	2.07	-.137	.017	-.0010	-.0034	0.00
	0.00	.075	2.08	-.121	.016	-.0018	-.0035	0.00
	.03	.055	2.15	-.122	.003	-.0012	-.0043	.03
	.05	.054	2.15	-.114	-.013	.0001	-.0076	.05
	.10	.057	2.16	-.120	-.087	.0015	-.0114	.10
	.20	.059	2.17	-.174	-.146	-.0017	-.0363	.20
	.30	.056	2.21	-.183	-.263	-.0041	-.1037	.30
	.40	.042	2.31	-.263	-.348	-.0107	-.1596	.40
50	-.40	.029	2.42	-.373	.485	.0191	.1929	-.40
	-.30	.041	2.26	-.258	.371	.0180	.1476	-.30
	-.20	.048	2.21	-.173	.246	.0135	.1059	-.20
	-.10	.052	2.20	-.135	.119	.0072	.0550	-.10
	-.05	.051	2.17	-.157	.054	.0051	.0278	-.05
	-.03	.051	2.17	-.164	.036	.0040	.0171	-.03
	0.00	.067	2.11	-.173	.013	.0012	.0056	0.00
	0.00	.057	2.08	-.163	.009	.0013	.0050	0.00
	.03	.052	2.10	-.173	-.001	-.0005	.0008	.03
	.05	.053	2.17	-.169	-.021	-.0015	-.0059	.05
	.10	.055	2.20	-.159	-.072	.0009	-.0146	.10
	.20	.057	2.20	-.177	-.133	-.0014	-.0485	.20
	.30	.046	2.29	-.227	-.293	-.0139	-.1284	.30
	.40	.035	2.44	-.342	-.384	-.0118	-.1831	.40
55	-.40	.025	2.46	-.480	.337	.0266	.1489	-.40
	-.30	.036	2.28	-.392	.317	.0290	.1333	-.30
	-.20	.041	2.19	-.330	.239	.0238	.0942	-.20
	-.10	.042	2.14	-.278	.178	.0133	.0672	-.10
	-.05	.045	2.10	-.294	.115	.0068	.0463	-.05
	-.03	.046	2.09	-.293	.094	.0044	.0386	-.03
	0.00	.063	2.02	-.284	.056	.0030	.0409	0.00
	0.00	.064	2.02	-.280	.050	.0037	.0402	0.00
	.03	.041	2.07	-.254	.043	.0037	.0384	.03
	.05	.041	2.12	-.210	.011	.0043	.0270	.05
	.10	.041	2.13	-.218	-.041	.0015	-.0042	.10
	.20	.042	2.19	-.234	-.150	-.0106	-.0649	.20
	.30	.037	2.29	-.335	-.236	-.0172	-.1111	.30
	.40	.030	2.44	-.452	-.237	-.0184	-.1405	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.019	2.56	-.488	.321	.0191	.1421	-.40
	-.30	.033	2.38	-.435	.245	.0299	.1015	-.30
	-.20	.039	2.25	-.398	.185	.0249	.0799	-.20
	-.10	.042	2.15	-.376	.111	.0112	.0539	-.10
	-.05	.041	2.08	-.375	.076	.0046	.0472	-.05
	-.03	.040	2.09	-.379	.085	.0032	.0531	-.03
	0.00	.054	2.04	-.369	.051	.0035	.0367	0.00
	0.00	.053	2.04	-.371	.034	.0033	.0371	0.00
	.03	.034	2.10	-.360	.058	.0019	.0382	.03
	.05	.035	2.16	-.322	.037	-.0009	.0418	.05
	.10	.036	2.26	-.288	-.024	-.0087	.0319	.10
	.20	.033	2.29	-.336	-.173	-.0184	-.0639	.20
	.30	.033	2.40	-.431	-.185	-.0274	-.1011	.30
	.40	.025	2.56	-.481	-.201	-.0201	-.1344	.40
65	-.40	.030	2.59	-.493	.293	.0192	.1526	-.40
	-.30	.041	2.43	-.466	.203	.0333	.1085	-.30
	-.20	.046	2.29	-.442	.143	.0254	.0762	-.20
	-.10	.046	2.18	-.411	.086	.0133	.0491	-.10
	-.05	.044	2.09	-.421	.044	.0041	.0431	-.05
	-.03	.044	2.09	-.424	.035	.0018	.0349	-.03
	0.00	.066	2.08	-.411	.034	.0032	.0297	0.00
	0.00	.065	2.08	-.403	.026	.0032	.0301	0.00
	.03	.045	2.09	-.417	.007	.0037	.0256	.03
	.05	.048	2.10	-.417	-.001	.0025	.0177	.05
	.10	.050	2.23	-.375	-.039	-.0087	.0193	.10
	.20	.046	2.37	-.339	-.107	-.0139	-.0151	.20
	.30	.047	2.45	-.454	-.167	-.0244	-.0940	.30
	.40	.039	2.63	-.472	-.231	-.0071	-.1397	.40
70	-.40	.008	2.71	-.555	.229	.0205	.1272	-.40
	-.30	.022	2.49	-.523	.147	.0300	.0905	-.30
	-.20	.028	2.32	-.477	.121	.0226	.0604	-.20
	-.10	.032	2.22	-.426	.087	.0114	.0342	-.10
	-.05	.033	2.12	-.460	.039	-.0016	.0164	-.05
	-.03	.035	2.12	-.468	.028	-.0007	.0081	-.03
	0.00	.047	2.08	-.454	-.007	.0045	.0046	0.00
	0.00	.029	2.09	-.475	.011	.0009	.0010	0.00
	.03	.033	2.11	-.469	-.014	.0030	-.0028	.03
	.05	.034	2.11	-.466	-.020	.0040	-.0112	.05
	.10	.032	2.22	-.423	-.037	-.0113	-.0026	.10
	.20	.031	2.31	-.475	-.112	-.0199	-.0490	.20
	.30	.021	2.49	-.518	-.087	-.0256	-.0832	.30
	.40	.008	2.71	-.530	-.117	-.0095	-.1210	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
75	-.40	.043	2.74	-.679	.137	.0141	.1066	-.40
	-.30	.056	2.49	-.612	.084	.0248	.0737	-.30
	-.20	.061	2.32	-.543	.076	.0195	.0510	-.20
	-.10	.067	2.15	-.526	.015	.0024	.0296	-.10
	-.05	.071	2.13	-.541	.004	.0007	.0128	-.05
	-.03	.071	2.13	-.542	.006	.0020	.0055	-.03
	0.00	.073	2.12	-.536	-.012	.0059	.0044	0.00
	0.00	.075	2.12	-.552	-.004	.0059	.0029	0.00
	.03	.070	2.10	-.554	-.016	.0037	-.0070	.03
	.05	.071	2.11	-.551	-.014	.0041	-.0140	.05
	.10	.068	2.11	-.544	-.028	.0025	-.0317	.10
	.20	.066	2.25	-.553	-.076	-.0145	-.0486	.20
	.30	.062	2.45	-.613	-.080	-.0167	-.0728	.30
	.40	.051	2.70	-.668	-.090	-.0050	-.1072	.40
80	-.40	.014	2.70	-.699	.102	.0025	.1062	-.40
	-.30	.026	2.49	-.638	.081	.0149	.0710	-.30
	-.20	.033	2.32	-.591	.078	.0133	.0443	-.20
	-.10	.041	2.17	-.596	.017	.0015	.0323	-.10
	-.05	.043	2.15	-.601	.022	-.0002	.0145	-.05
	-.03	.044	2.14	-.601	.015	.0004	.0054	-.03
	0.00	.044	2.14	-.636	.019	.0028	-.0014	0.00
	0.00	.028	2.12	-.620	.021	.0016	-.0013	0.00
	.03	.041	2.17	-.607	.016	.0034	-.0070	.03
	.05	.041	2.17	-.604	.018	.0032	-.0167	.05
	.10	.040	2.19	-.599	.020	.0018	-.0357	.10
	.20	.033	2.31	-.598	-.035	-.0108	-.0474	.20
	.30	.026	2.50	-.642	-.030	-.0106	-.0734	.30
	.40	.020	2.70	-.696	-.042	.0055	-.1072	.40
85	-.40	.032	2.72	-.743	.070	-.0049	.1047	-.40
	-.30	.027	2.47	-.677	.046	.0067	.0700	-.30
	-.20	.046	2.30	-.634	.042	.0086	.0455	-.20
	-.10	.061	2.16	-.637	.003	.0006	.0325	-.10
	-.05	.067	2.16	-.649	.006	.0012	.0145	-.05
	-.03	.070	2.14	-.658	.000	.0023	.0075	-.03
	0.00	.035	2.16	-.663	.013	.0035	-.0006	0.00
	0.00	.051	2.17	-.655	.003	.0030	.0011	0.00
	.03	.065	2.15	-.657	.003	.0044	-.0079	.03
	.05	.066	2.16	-.659	.012	.0039	-.0188	.05
	.10	.062	2.16	-.652	.012	.0050	-.0366	.10
	.20	.047	2.30	-.643	-.034	-.0036	-.0477	.20
	.30	.031	2.44	-.682	-.028	.0023	-.0725	.30
	.40	.032	2.69	-.730	-.010	.0166	-.1055	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
90	-.40	.013	2.67	-.752	.043	-.0167	.1005	-.40
	-.30	.001	2.43	-.712	.031	-.0020	.0695	-.30
	-.20	.011	2.26	-.671	.042	.0017	.0452	-.20
	-.10	.031	2.18	-.695	.006	-.0011	.0339	-.10
	-.05	.038	2.16	-.709	.011	.0006	.0161	-.05
	-.03	.039	2.14	-.708	.013	.0010	.0058	-.03
	0.00	.022	2.14	-.743	.018	.0040	-.0014	0.00
	0.00	.027	2.12	-.728	.006	.0054	.0018	0.00
	.03	.033	2.17	-.708	.028	.0022	-.0099	.03
	.05	.034	2.18	-.712	.031	.0030	-.0186	.05
	.10	.028	2.19	-.692	.031	.0055	-.0338	.10
	.20	.011	2.27	-.670	.005	.0043	-.0457	.20
	.30	-.002	2.43	-.697	.024	.0090	-.0703	.30
	.40	.016	2.70	-.734	.048	.0237	-.1026	.40

***** F-18 ROTARY BALANCE DATA *****

F-18

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.045	-.05	.067	-.185	.1280	.0190	-.40
	-.30	.050	-.03	.046	-.169	.0960	.0164	-.30
	-.20	.053	.01	.034	-.149	.0611	.0138	-.20
	-.10	.056	.08	.019	-.136	.0234	.0116	-.10
	-.05	.055	.11	.012	-.128	.0053	.0112	-.05
	-.03	.055	.13	.008	-.129	-.0037	.0110	-.03
	0.00	.055	.09	-.000	-.141	-.0119	.0110	0.00
	0.00	.055	.08	-.001	-.145	-.0117	.0108	0.00
	.03	.053	.13	-.002	-.134	-.0197	.0104	.03
	.05	.056	.13	-.007	-.134	-.0286	.0104	.05
	.10	.056	.14	-.016	-.136	-.0469	.0100	.10
	.20	.053	.15	-.036	-.146	-.0847	.0083	.20
	.30	.053	.18	-.063	-.160	-.1259	.0072	.30
	.40	.054	.22	-.091	-.174	-.1573	.0066	.40
5	-.40	.040	.34	.071	-.214	.1218	.0301	-.40
	-.30	.043	.36	.044	-.189	.0865	.0250	-.30
	-.20	.043	.40	.024	-.162	.0498	.0206	-.20
	-.10	.043	.45	.009	-.142	.0159	.0168	-.10
	-.05	.042	.47	.004	-.135	-.0022	.0147	-.05
	-.03	.042	.47	-.002	-.135	-.0110	.0132	-.03
	0.00	.046	.42	-.012	-.148	-.0185	.0118	0.00
	0.00	.045	.42	-.011	-.146	-.0188	.0118	0.00
	.03	.042	.45	-.012	-.134	-.0264	.0098	.03
	.05	.043	.46	-.017	-.134	-.0349	.0084	.05
	.10	.044	.46	-.032	-.131	-.0516	.0055	.10
	.20	.051	.48	-.067	-.138	-.0838	.0017	.20
	.30	.055	.50	-.096	-.144	-.1082	-.0020	.30
	.40	.057	.53	-.129	-.147	-.1386	-.0082	.40
10	-.40	.040	.71	.071	-.256	.1027	.0382	-.40
	-.30	.040	.73	.056	-.213	.0658	.0318	-.30
	-.20	.038	.74	.036	-.174	.0338	.0251	-.20
	-.10	.033	.78	.016	-.142	.0047	.0179	-.10
	-.05	.033	.80	.002	-.127	-.0097	.0142	-.05
	-.03	.033	.80	-.006	-.126	-.0171	.0123	-.03
	0.00	.040	.75	-.023	-.143	-.0235	.0102	0.00
	0.00	.039	.75	-.023	-.141	-.0236	.0100	0.00
	.03	.037	.80	-.024	-.119	-.0292	.0081	.03
	.05	.037	.79	-.032	-.120	-.0357	.0061	.05
	.10	.041	.79	-.050	-.117	-.0483	.0018	.10
	.20	.047	.77	-.089	-.119	-.0684	-.0074	.20
	.30	.051	.80	-.132	-.122	-.0918	-.0177	.30
	.40	.051	.88	-.180	-.109	-.1224	-.0293	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
15	-.40	.033	1.13	.071	-.276	.0950	.0443	-.40
	-.30	.037	1.10	.055	-.221	.0607	.0333	-.30
	-.20	.036	1.09	.040	-.170	.0283	.0240	-.20
	-.10	.035	1.10	.013	-.127	.0007	.0154	-.10
	-.05	.035	1.10	-.005	-.117	-.0111	.0114	-.05
	-.03	.036	1.10	-.016	-.113	-.0173	.0094	-.03
	0.00	.040	1.06	-.033	-.123	-.0223	.0071	0.00
	0.00	.040	1.06	-.032	-.120	-.0225	.0070	0.00
	.03	.035	1.10	-.033	-.105	-.0267	.0053	.03
	.05	.036	1.10	-.044	-.103	-.0314	.0029	.05
	.10	.038	1.10	-.064	-.098	-.0419	-.0025	.10
	.20	.042	1.09	-.107	-.094	-.0628	-.0153	.20
	.30	.048	1.10	-.159	-.079	-.0799	-.0362	.30
	.40	.047	1.17	-.219	-.053	-.0993	-.0570	.40
20	-.40	.032	1.46	.072	-.288	.0755	.0523	-.40
	-.30	.033	1.45	.056	-.227	.0529	.0360	-.30
	-.20	.031	1.44	.031	-.172	.0299	.0240	-.20
	-.10	.028	1.46	.010	-.118	.0083	.0141	-.10
	-.05	.027	1.45	-.005	-.101	-.0017	.0080	-.05
	-.03	.028	1.45	-.015	-.092	-.0064	.0045	-.03
	0.00	.039	1.39	-.030	-.105	-.0106	.0002	0.00
	0.00	.038	1.40	-.031	-.102	-.0104	.0001	0.00
	.03	.037	1.41	-.033	-.080	-.0124	-.0041	.03
	.05	.038	1.39	-.044	-.077	-.0158	-.0085	.05
	.10	.042	1.36	-.064	-.067	-.0225	-.0177	.10
	.20	.049	1.31	-.113	-.056	-.0344	-.0351	.20
	.30	.057	1.30	-.185	-.048	-.0447	-.0575	.30
	.40	.054	1.37	-.260	-.044	-.0592	-.0800	.40
25	-.40	.023	1.69	.076	-.244	.0495	.0602	-.40
	-.30	.036	1.64	.058	-.213	.0231	.0413	-.30
	-.20	.042	1.65	.047	-.158	.0103	.0201	-.20
	-.10	.046	1.65	.032	-.102	.0143	-.0022	-.10
	-.05	.049	1.63	.007	-.085	.0194	-.0114	-.05
	-.03	.051	1.62	-.009	-.080	.0192	-.0158	-.03
	0.00	.053	1.57	-.031	-.090	.0186	-.0218	0.00
	0.00	.053	1.57	-.031	-.088	.0186	-.0205	0.00
	.03	.051	1.57	-.045	-.078	.0180	-.0255	.03
	.05	.054	1.55	-.063	-.084	.0159	-.0304	.05
	.10	.057	1.52	-.091	-.082	.0090	-.0387	.10
	.20	.060	1.46	-.153	-.079	-.0020	-.0563	.20
	.30	.057	1.50	-.229	-.074	-.0114	-.0777	.30
	.40	.054	1.58	-.320	-.091	-.0249	-.1012	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.044	1.89	.030	-.120	.0472	.0526	-.40
	-.30	.051	1.84	.028	-.136	.0299	.0344	-.30
	-.20	.050	1.76	.027	-.103	.0003	.0163	-.20
	-.10	.049	1.77	-.000	-.101	-.0048	-.0064	-.10
	-.05	.049	1.77	-.023	-.112	.0024	-.0192	-.05
	-.03	.050	1.77	-.043	-.117	.0054	-.0265	-.03
	0.00	.059	1.74	-.062	-.132	.0091	-.0331	0.00
	0.00	.059	1.74	-.062	-.134	.0106	-.0348	0.00
	.03	.054	1.76	-.077	-.134	.0119	-.0410	.03
	.05	.055	1.76	-.093	-.137	.0131	-.0477	.05
	.10	.055	1.74	-.129	-.142	.0141	-.0599	.10
	.20	.060	1.71	-.190	-.170	.0164	-.0793	.20
	.30	.060	1.73	-.263	-.183	.0106	-.1006	.30
	.40	.054	1.81	-.350	-.199	-.0076	-.1209	.40
35	-.40	.047	2.12	-.039	-.019	.0181	.0642	-.40
	-.30	.055	2.03	-.020	-.070	.0098	.0346	-.30
	-.20	.059	1.98	-.005	-.061	.0005	.0116	-.20
	-.10	.056	1.90	-.023	-.079	-.0177	-.0078	-.10
	-.05	.055	1.90	-.049	-.089	-.0201	-.0204	-.05
	-.03	.056	1.90	-.063	-.090	-.0190	-.0268	-.03
	0.00	.064	1.86	-.084	-.140	-.0158	-.0342	0.00
	0.00	.062	1.85	-.083	-.140	-.0174	-.0343	0.00
	.03	.055	1.90	-.092	-.146	-.0127	-.0422	.03
	.05	.056	1.91	-.100	-.160	-.0108	-.0486	.05
	.10	.057	1.89	-.119	-.201	-.0045	-.0589	.10
	.20	.062	1.85	-.184	-.302	.0015	-.0791	.20
	.30	.062	1.89	-.279	-.363	.0070	-.1052	.30
	.40	.056	1.98	-.382	-.392	.0100	-.1293	.40
40	-.40	.046	2.23	-.066	.078	-.0038	.0957	-.40
	-.30	.060	2.16	-.059	.034	-.0109	.0448	-.30
	-.20	.063	2.05	-.049	-.013	-.0111	.0094	-.20
	-.10	.062	2.00	-.050	-.075	-.0172	-.0104	-.10
	-.05	.062	1.98	-.076	-.098	-.0205	-.0184	-.05
	-.03	.063	1.97	-.100	-.118	-.0196	-.0240	-.03
	0.00	.070	1.95	-.123	-.162	-.0191	-.0310	0.00
	0.00	.070	1.90	-.118	-.160	-.0170	-.0301	0.00
	.03	.066	1.95	-.123	-.154	-.0170	-.0388	.03
	.05	.067	1.93	-.129	-.181	-.0172	-.0492	.05
	.10	.069	1.92	-.124	-.253	-.0156	-.0666	.10
	.20	.069	1.87	-.165	-.378	-.0103	-.0871	.20
	.30	.065	1.94	-.261	-.466	-.0067	-.1175	.30
	.40	.050	2.06	-.392	-.551	-.0052	-.1480	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
45	-.40	.057	2.25	-.121	.193	-.0052	.1241	-.40
	-.30	.071	2.18	-.092	.111	-.0117	.0709	-.30
	-.20	.075	2.11	-.088	.026	-.0135	.0203	-.20
	-.10	.076	2.03	-.102	-.054	-.0165	-.0126	-.10
	-.05	.076	2.04	-.112	-.106	-.0156	-.0190	-.05
	-.03	.078	2.03	-.127	-.116	-.0161	-.0229	-.03
	0.00	.076	2.02	-.157	-.155	-.0173	-.0261	0.00
	0.00	.073	2.03	-.158	-.151	-.0165	-.0272	0.00
	.03	.074	2.01	-.166	-.145	-.0149	-.0298	.03
	.05	.077	1.97	-.165	-.161	-.0157	-.0344	.05
	.10	.079	1.95	-.147	-.246	-.0185	-.0624	.10
	.20	.074	1.90	-.222	-.397	-.0223	-.1101	.20
	.30	.068	1.95	-.311	-.521	-.0222	-.1468	.30
	.40	.040	2.09	-.454	-.605	-.0194	-.1835	.40
50	-.40	.049	2.27	-.189	.172	.0062	.1547	-.40
	-.30	.057	2.18	-.146	.118	.0005	.1080	-.30
	-.20	.062	2.13	-.115	.056	-.0059	.0690	-.20
	-.10	.063	2.07	-.137	-.049	-.0143	-.0012	-.10
	-.05	.061	2.08	-.126	-.086	-.0163	-.0144	-.05
	-.03	.062	2.08	-.112	-.099	-.0155	-.0195	-.03
	0.00	.061	2.05	-.099	-.149	-.0154	-.0219	0.00
	0.00	.059	2.07	-.105	-.155	-.0160	-.0251	0.00
	.03	.061	2.03	-.130	-.151	-.0139	-.0270	.03
	.05	.063	1.96	-.167	-.161	-.0206	-.0276	.05
	.10	.060	2.01	-.174	-.243	-.0233	-.0729	.10
	.20	.054	1.96	-.290	-.396	-.0331	-.1323	.20
	.30	.051	2.04	-.406	-.496	-.0416	-.1720	.30
	.40	.033	2.17	-.548	-.576	-.0464	-.2036	.40
55	-.40	.049	2.31	-.307	.109	-.0058	.1216	-.40
	-.30	.058	2.19	-.252	.109	.0010	.1020	-.30
	-.20	.066	2.12	-.265	.046	.0034	.0533	-.20
	-.10	.062	2.08	-.204	-.001	-.0083	.0217	-.10
	-.05	.062	2.02	-.213	-.059	-.0157	.0083	-.05
	-.03	.060	2.01	-.209	-.084	-.0154	.0025	-.03
	0.00	.055	2.04	-.166	-.141	-.0161	-.0102	0.00
	0.00	.055	2.05	-.171	-.142	-.0130	-.0095	0.00
	.03	.059	2.02	-.196	-.136	-.0174	-.0230	.03
	.05	.058	2.01	-.193	-.165	-.0183	-.0285	.05
	.10	.062	1.95	-.277	-.254	-.0288	-.0798	.10
	.20	.058	2.02	-.410	-.362	-.0432	-.1192	.20
	.30	.048	2.13	-.515	-.417	-.0532	-.1429	.30
	.40	.037	2.34	-.608	-.475	-.0494	-.1674	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.045	2.43	-.316	.110	-.0127	.1216	-.40
	-.30	.053	2.31	-.304	.065	.0050	.0764	-.30
	-.20	.057	2.19	-.313	.014	.0051	.0418	-.20
	-.10	.055	2.15	-.273	.007	-.0046	.0314	-.10
	-.05	.054	2.12	-.251	-.035	-.0122	.0083	-.05
	-.03	.056	2.07	-.293	-.065	-.0186	.0046	-.03
	0.00	.054	2.06	-.286	-.100	-.0200	-.0035	0.00
	0.00	.054	2.04	-.300	-.094	-.0217	-.0019	0.00
	.03	.058	2.02	-.318	-.106	-.0219	-.0102	.03
	.05	.057	2.04	-.315	-.124	-.0213	-.0213	.05
	.10	.057	2.04	-.375	-.220	-.0271	-.0736	.10
	.20	.055	2.11	-.481	-.310	-.0426	-.1161	.20
	.30	.049	2.25	-.564	-.369	-.0521	-.1356	.30
	.40	.037	2.43	-.661	-.438	-.0488	-.1712	.40
65	-.40	.045	2.50	-.333	.085	-.0186	.1214	-.40
	-.30	.047	2.40	-.359	.038	.0081	.0759	-.30
	-.20	.049	2.27	-.358	-.002	.0056	.0454	-.20
	-.10	.050	2.19	-.339	-.038	-.0061	.0142	-.10
	-.05	.050	2.13	-.350	-.062	-.0170	.0054	-.05
	-.03	.050	2.09	-.371	-.079	-.0224	.0023	-.03
	0.00	.056	2.07	-.392	-.111	-.0243	-.0033	0.00
	0.00	.053	2.06	-.385	-.117	-.0237	-.0021	0.00
	.03	.046	2.09	-.380	-.110	-.0224	-.0080	.03
	.05	.047	2.09	-.382	-.119	-.0226	-.0160	.05
	.10	.047	2.10	-.393	-.162	-.0257	-.0399	.10
	.20	.043	2.17	-.490	-.279	-.0380	-.1033	.20
	.30	.039	2.32	-.594	-.347	-.0492	-.1390	.30
	.40	.027	2.55	-.657	-.414	-.0414	-.1767	.40
70	-.40	.037	2.59	-.399	.035	-.0219	.0910	-.40
	-.30	.038	2.50	-.396	.005	.0031	.0590	-.30
	-.20	.044	2.32	-.400	.005	.0021	.0322	-.20
	-.10	.048	2.19	-.401	-.078	-.0159	.0024	-.10
	-.05	.049	2.13	-.432	-.113	-.0287	-.0108	-.05
	-.03	.050	2.12	-.443	-.108	-.0293	-.0180	-.03
	0.00	.041	2.12	-.428	-.136	-.0283	-.0237	0.00
	0.00	.038	2.11	-.421	-.132	-.0266	-.0185	0.00
	.03	.045	2.11	-.437	-.130	-.0271	-.0282	.03
	.05	.043	2.13	-.437	-.135	-.0253	-.0335	.05
	.10	.042	2.17	-.448	-.160	-.0259	-.0484	.10
	.20	.038	2.24	-.542	-.216	-.0358	-.0861	.20
	.30	.032	2.42	-.631	-.234	-.0475	-.1126	.30
	.40	.017	2.69	-.690	-.279	-.0404	-.1475	.40

F-18 ROTARY BALANCE DATA

F-18

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
75	-.40	.048	2.63	-.513	-.018	-.0161	.0772	-.40
	-.30	.052	2.46	-.494	-.047	-.0050	.0441	-.30
	-.20	.058	2.31	-.481	-.060	-.0074	.0188	-.20
	-.10	.063	2.12	-.509	-.095	-.0301	-.0082	-.10
	-.05	.060	2.12	-.517	-.104	-.0295	-.0201	-.05
	-.03	.061	2.11	-.529	-.107	-.0299	-.0262	-.03
	0.00	.045	2.14	-.528	-.119	-.0329	-.0303	0.00
	0.00	.041	2.14	-.512	-.115	-.0312	-.0321	0.00
	.03	.049	2.16	-.533	-.116	-.0293	-.0364	.03
	.05	.046	2.17	-.535	-.118	-.0282	-.0421	.05
	.10	.045	2.19	-.517	-.146	-.0256	-.0551	.10
	.20	.036	2.24	-.608	-.187	-.0312	-.0762	.20
	.30	.037	2.45	-.716	-.203	-.0404	-.0973	.30
	.40	.035	2.71	-.815	-.203	-.0350	-.1287	.40
80	-.40	.053	2.57	-.537	-.027	-.0243	.0773	-.40
	-.30	.041	2.41	-.534	-.076	-.0169	.0453	-.30
	-.20	.051	2.28	-.535	-.078	-.0204	.0181	-.20
	-.10	.063	2.14	-.576	-.097	-.0305	-.0061	-.10
	-.05	.062	2.13	-.587	-.098	-.0291	-.0191	-.05
	-.03	.062	2.13	-.601	-.101	-.0277	-.0257	-.03
	0.00	.040	2.13	-.603	-.129	-.0291	-.0305	0.00
	0.00	.043	2.14	-.622	-.116	-.0299	-.0330	0.00
	.03	.053	2.17	-.603	-.099	-.0265	-.0351	.03
	.05	.051	2.17	-.609	-.104	-.0261	-.0421	.05
	.10	.042	2.19	-.600	-.122	-.0267	-.0546	.10
	.20	.034	2.26	-.660	-.159	-.0255	-.0722	.20
	.30	.026	2.46	-.761	-.183	-.0332	-.0944	.30
	.40	.031	2.76	-.854	-.161	-.0227	-.1259	.40
85	-.40	.061	2.46	-.579	-.055	-.0411	.0781	-.40
	-.30	.045	2.33	-.595	-.093	-.0447	.0470	-.30
	-.20	.056	2.21	-.609	-.086	-.0389	.0197	-.20
	-.10	.069	2.13	-.624	-.090	-.0311	-.0041	-.10
	-.05	.071	2.13	-.645	-.090	-.0279	-.0151	-.05
	-.03	.071	2.13	-.651	-.085	-.0283	-.0239	-.03
	0.00	.042	2.11	-.670	-.118	-.0284	-.0260	0.00
	0.00	.043	2.10	-.665	-.108	-.0285	-.0307	0.00
	.03	.061	2.16	-.659	-.072	-.0267	-.0354	.03
	.05	.059	2.15	-.663	-.080	-.0255	-.0420	.05
	.10	.052	2.18	-.663	-.096	-.0238	-.0543	.10
	.20	.034	2.25	-.703	-.130	-.0229	-.0718	.20
	.30	.014	2.44	-.789	-.159	-.0249	-.0897	.30
	.40	.022	2.75	-.872	-.111	-.0138	-.1186	.40

F-18 ROTARY BALANCE DATA

F-18 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
90	-.40	.042	2.42	-.623	-.099	-.0507	.0739	-.40
	-.30	.033	2.29	-.635	-.101	-.0498	.0474	-.30
	-.20	.039	2.19	-.666	-.107	-.0411	.0216	-.20
	-.10	.051	2.14	-.689	-.091	-.0331	-.0031	-.10
	-.05	.053	2.13	-.708	-.092	-.0278	-.0134	-.05
	-.03	.052	2.14	-.714	-.087	-.0273	-.0208	-.03
	0.00	.027	2.12	-.736	-.107	-.0267	-.0251	0.00
	0.00	.028	2.13	-.747	-.101	-.0266	-.0254	0.00
	.03	.049	2.15	-.719	-.078	-.0251	-.0333	.03
	.05	.046	2.16	-.720	-.073	-.0250	-.0415	.05
	.10	.039	2.18	-.720	-.081	-.0238	-.0555	.10
	.20	.021	2.23	-.750	-.113	-.0172	-.0737	.20
	.30	.013	2.39	-.806	-.145	-.0143	-.0856	.30
	.40	.018	2.68	-.895	-.097	-.0065	-.1162	.40

***** F-18 ROTARY BALANCE DATA *****

F-18

BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.051	.36	-.078	.151	.1515	.0006	-.40
	-.30	.050	.28	-.055	.147	.1212	-.0027	-.30
	-.20	.051	.23	-.030	.142	.0802	-.0058	-.20
	-.10	.055	.21	-.012	.142	.0424	-.0081	-.10
	-.05	.055	.19	-.003	.142	.0248	-.0088	-.05
	-.03	.056	.19	.001	.141	.0160	-.0090	-.03
	0.00	.057	.13	.002	.140	.0078	-.0095	0.00
	0.00	.058	.13	.000	.139	.0079	-.0099	0.00
	.03	.057	.15	.007	.128	-.0001	-.0095	.03
	.05	.057	.14	.011	.127	-.0087	-.0097	.05
	.10	.058	.10	.016	.125	-.0263	-.0103	.10
	.20	.066	.00	.031	.121	-.0654	-.0121	.20
	.30	.072	-.04	.044	.127	-.0999	-.0133	.30
	.40	.079	-.06	.065	.124	-.1292	-.0130	.40
5	-.40	.052	.63	-.112	.134	.1317	.0151	-.40
	-.30	.050	.57	-.084	.142	.1026	.0058	-.30
	-.20	.049	.55	-.059	.134	.0800	-.0005	-.20
	-.10	.044	.52	-.024	.140	.0495	-.0057	-.10
	-.05	.043	.51	-.010	.143	.0326	-.0085	-.05
	-.03	.042	.50	-.005	.147	.0241	-.0100	-.03
	0.00	.044	.46	-.006	.152	.0161	-.0117	0.00
	0.00	.045	.45	-.007	.151	.0165	-.0119	0.00
	.03	.045	.48	.003	.151	.0085	-.0129	.03
	.05	.045	.46	.006	.154	-.0001	-.0141	.05
	.10	.048	.44	.011	.149	-.0169	-.0160	.10
	.20	.055	.37	.025	.153	-.0492	-.0190	.20
	.30	.058	.31	.045	.165	-.0853	-.0215	.30
	.40	.057	.30	.075	.188	-.1207	-.0232	.40
10	-.40	.043	.85	.070	.123	.1180	.0350	-.40
	-.30	.066	.67	.033	.129	.0899	.0202	-.30
	-.20	.081	.58	.011	.129	.0667	.0075	-.20
	-.10	.088	.53	.010	.128	.0467	-.0015	-.10
	-.05	.088	.53	.017	.130	.0354	-.0054	-.05
	-.03	.089	.52	.024	.133	.0295	-.0073	-.03
	0.00	.089	.47	.026	.141	.0240	-.0099	0.00
	0.00	.088	.48	.027	.144	.0238	-.0093	0.00
	.03	.084	.52	.043	.146	.0174	-.0108	.03
	.05	.084	.52	.054	.149	.0108	-.0127	.05
	.10	.084	.49	.078	.159	-.0032	-.0165	.10
	.20	.084	.48	.134	.184	-.0315	-.0236	.20
	.30	.074	.52	.214	.221	-.0612	-.0298	.30
	.40	.053	.58	.317	.254	-.0968	-.0357	.40

F-18 ROTARY BALANCE DATA

F-18 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
15	-.30	.041	1.16	-.145	.072	.0766	.0403	-.30
	-.20	.040	1.15	-.098	.095	.0588	.0192	-.20
	-.10	.040	1.12	-.057	.109	.0409	.0038	-.10
	-.05	.039	1.14	-.040	.126	.0318	-.0025	-.05
	-.03	.040	1.14	-.031	.129	.0265	-.0053	-.03
	0.00	.042	1.11	-.028	.142	.0226	-.0083	0.00
	0.00	.043	1.10	-.027	.140	.0222	-.0076	0.00
	.03	.035	1.14	-.011	.144	.0172	-.0096	.03
	.05	.035	1.13	-.004	.147	.0120	-.0118	.05
	.10	.037	1.12	.013	.154	.0012	-.0152	.10
	.20	.043	1.10	.042	.185	-.0258	-.0223	.20
	.30	.045	1.09	.060	.219	-.0572	-.0299	.30
	.40	.049	1.10	.082	.246	-.0904	-.0388	.40
20	-.30	.045	1.40	-.172	.057	.0404	.0666	-.30
	-.20	.049	1.37	-.102	.060	.0295	.0415	-.20
	-.10	.048	1.40	-.051	.079	.0184	.0211	-.10
	-.05	.048	1.41	-.032	.094	.0126	.0115	-.05
	-.03	.048	1.43	-.024	.102	.0093	.0072	-.03
	0.00	.049	1.41	-.020	.120	.0080	.0031	0.00
	0.00	.054	1.39	-.020	.115	.0066	.0044	0.00
	.03	.043	1.45	-.006	.125	.0043	-.0014	.03
	.05	.042	1.45	.002	.135	.0006	-.0057	.05
	.10	.042	1.47	.016	.152	-.0076	-.0127	.10
	.20	.043	1.48	.043	.197	-.0259	-.0229	.20
	.30	.043	1.47	.068	.242	-.0460	-.0354	.30
	.40	.035	1.50	.085	.274	-.0706	-.0469	.40
25	-.30	.043	1.58	-.210	.083	.0054	.0867	-.30
	-.20	.053	1.57	-.142	.086	-.0007	.0608	-.20
	-.10	.059	1.59	-.085	.098	-.0091	.0397	-.10
	-.05	.060	1.60	-.057	.104	-.0145	.0308	-.05
	-.03	.063	1.61	-.046	.102	-.0170	.0266	-.03
	0.00	.068	1.55	-.032	.102	-.0182	.0242	0.00
	0.00	.066	1.54	-.036	.107	-.0179	.0243	0.00
	.03	.066	1.54	-.021	.092	-.0193	.0183	.03
	.05	.064	1.55	-.007	.099	-.0203	.0134	.05
	.10	.062	1.58	.028	.109	-.0173	.0046	.10
	.20	.058	1.59	.042	.158	-.0026	-.0175	.20
	.30	.057	1.60	.058	.194	-.0222	-.0397	.30
	.40	.048	1.63	.082	.222	-.0456	-.0552	.40
30	-.30	.043	1.72	-.247	.184	-.0076	.1025	-.30
	-.20	.055	1.73	-.166	.188	-.0150	.0769	-.20
	-.10	.060	1.74	-.110	.166	-.0118	.0594	-.10
	-.05	.061	1.76	-.081	.153	-.0081	.0480	-.05
	-.03	.061	1.75	-.066	.156	-.0059	.0406	-.03
	0.00	.065	1.73	-.055	.153	-.0015	.0344	0.00
	0.00	.066	1.74	-.058	.151	-.0008	.0352	0.00
	.03	.065	1.67	-.045	.120	.0017	.0268	.03
	.05	.066	1.67	-.032	.119	.0024	.0195	.05
	.10	.065	1.69	-.007	.117	.0078	.0084	.10
	.20	.064	1.67	.020	.110	.0143	-.0130	.20
	.30	.064	1.73	.018	.124	-.0261	-.0284	.30
	.40	.054	1.80	.034	.115	-.0387	-.0445	.40

F-18 ROTARY BALANCE DATA

F-18 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
35	-.30	.058	1.87	-.272	.353	-.0021	.1051	-.30
	-.20	.065	1.82	-.177	.301	.0061	.0812	-.20
	-.10	.071	1.80	-.109	.227	.0098	.0604	-.10
	-.05	.071	1.83	-.098	.193	.0171	.0514	-.05
	-.03	.072	1.82	-.089	.159	.0195	.0464	-.03
	0.00	.075	1.82	-.075	.161	.0224	.0418	0.00
	0.00	.071	1.84	-.072	.169	.0211	.0445	0.00
	.03	.069	1.85	-.063	.136	.0242	.0343	.03
	.05	.072	1.84	-.053	.125	.0245	.0244	.05
	.10	.071	1.84	-.028	.101	.0294	.0129	.10
	.20	.071	1.87	.006	.081	.0141	-.0083	.20
	.30	.073	1.93	-.015	.062	-.0049	-.0280	.30
	.40	.069	1.99	-.035	.013	-.0120	-.0476	.40
40	-.30	.065	1.91	-.256	.422	.0143	.1122	-.30
	-.20	.075	1.85	-.170	.356	.0176	.0861	-.20
	-.10	.080	1.84	-.104	.263	.0185	.0644	-.10
	-.05	.080	1.86	-.102	.216	.0206	.0550	-.05
	-.03	.084	1.88	-.111	.175	.0227	.0468	-.03
	0.00	.084	1.88	-.106	.172	.0252	.0443	0.00
	0.00	.078	1.91	-.100	.180	.0246	.0434	0.00
	.03	.087	1.82	-.112	.107	.0262	.0320	.03
	.05	.083	1.86	-.095	.107	.0250	.0235	.05
	.10	.084	1.87	-.071	.078	.0265	.0122	.10
	.20	.083	1.91	-.029	.011	.0207	-.0039	.20
	.30	.082	2.02	-.058	-.033	.0140	-.0294	.30
	.40	.079	2.10	-.096	-.086	.0083	-.0704	.40
45	-.40	.045	2.11	-.443	.549	.0267	.1787	-.40
	-.30	.070	1.98	-.304	.474	.0295	.1411	-.30
	-.20	.082	1.89	-.212	.407	.0266	.1131	-.20
	-.10	.089	1.89	-.125	.305	.0219	.0783	-.10
	-.05	.091	1.93	-.106	.227	.0201	.0546	-.05
	-.03	.093	1.91	-.109	.199	.0189	.0432	-.03
	0.00	.094	1.91	-.111	.178	.0195	.0348	0.00
	0.00	.093	1.92	-.116	.170	.0216	.0344	0.00
	.03	.090	1.95	-.131	.143	.0189	.0239	.03
	.05	.091	1.95	-.131	.116	.0180	.0183	.05
	.10	.092	1.95	-.113	.086	.0167	.0113	.10
	.20	.100	2.00	-.073	-.007	.0194	-.0065	.20
	.30	.101	2.07	-.084	-.109	.0145	-.0326	.30
	.40	.090	2.18	-.134	-.193	.0113	-.0949	.40
50	-.40	.046	2.17	-.575	.510	.0625	.1953	-.40
	-.30	.067	2.03	-.412	.459	.0531	.1646	-.30
	-.20	.081	1.93	-.288	.404	.0398	.1361	-.20
	-.10	.089	1.91	-.193	.320	.0318	.1033	-.10
	-.05	.091	1.95	-.154	.263	.0270	.0863	-.05
	-.03	.090	1.95	-.146	.225	.0250	.0769	-.03
	0.00	.094	1.99	-.124	.217	.0230	.0698	0.00
	0.00	.092	1.97	-.132	.204	.0240	.0655	0.00
	.03	.090	1.97	-.133	.148	.0227	.0480	.03
	.05	.092	1.97	-.129	.127	.0215	.0364	.05
	.10	.098	1.96	-.134	.081	.0192	.0171	.10
	.20	.096	2.04	-.121	.002	.0187	-.0106	.20
	.30	.101	2.12	-.138	-.091	.0160	-.0426	.30
	.40	.078	2.23	-.167	-.221	.0017	-.1289	.40

F-18 ROTARY BALANCE DATA

F-18 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
55	-.40	.046	2.30	-.636	.396	.0566	.1693	-.40
	-.30	.062	2.10	-.544	.393	.0588	.1411	-.30
	-.20	.075	2.00	-.443	.358	.0491	.1253	-.20
	-.10	.080	1.96	-.338	.296	.0364	.0990	-.10
	-.05	.080	1.95	-.292	.276	.0302	.0892	-.05
	-.03	.079	1.95	-.291	.260	.0288	.0853	-.03
	0.00	.081	1.93	-.274	.260	.0267	.0831	0.00
	0.00	.080	1.95	-.281	.259	.0282	.0842	0.00
	.03	.079	1.97	-.269	.241	.0270	.0778	.03
	.05	.079	1.97	-.264	.213	.0252	.0673	.05
	.10	.086	1.99	-.246	.164	.0219	.0512	.10
	.20	.089	2.07	-.171	.030	.0199	-.0064	.20
	.30	.089	2.13	-.184	-.090	.0058	-.0771	.30
	.40	.080	2.24	-.264	-.158	.0092	-.1277	.40
60	-.40	.033	2.43	-.647	.395	.0462	.1658	-.40
	-.30	.057	2.21	-.557	.352	.0528	.1309	-.30
	-.20	.070	2.09	-.471	.305	.0435	.1075	-.20
	-.10	.077	2.02	-.396	.260	.0311	.0877	-.10
	-.05	.084	1.98	-.401	.225	.0282	.0715	-.05
	-.03	.084	1.98	-.396	.217	.0267	.0653	-.03
	0.00	.086	1.96	-.382	.206	.0267	.0611	0.00
	0.00	.088	1.97	-.382	.205	.0274	.0624	0.00
	.03	.084	1.99	-.371	.195	.0254	.0579	.03
	.05	.085	1.98	-.366	.184	.0255	.0516	.05
	.10	.090	1.97	-.336	.161	.0236	.0499	.10
	.20	.092	2.06	-.267	.103	.0173	.0281	.20
	.30	.087	2.13	-.262	-.068	.0128	-.0794	.30
	.40	.083	2.30	-.345	-.111	.0104	-.1066	.40
65	-.40	.023	2.51	-.671	.417	.0437	.1770	-.40
	-.30	.054	2.31	-.580	.341	.0513	.1389	-.30
	-.20	.068	2.18	-.488	.297	.0406	.1096	-.20
	-.10	.081	2.11	-.441	.246	.0303	.0782	-.10
	-.05	.083	2.05	-.419	.237	.0278	.0646	-.05
	-.03	.084	2.03	-.410	.221	.0271	.0600	-.03
	0.00	.096	2.01	-.420	.211	.0295	.0562	0.00
	0.00	.095	2.02	-.415	.217	.0264	.0582	0.00
	.03	.089	2.03	-.407	.199	.0287	.0519	.03
	.05	.090	2.01	-.394	.182	.0276	.0454	.05
	.10	.095	2.06	-.356	.152	.0225	.0366	.10
	.20	.098	2.14	-.314	.101	.0165	.0191	.20
	.30	.085	2.27	-.262	.037	.0226	-.0226	.30
	.40	.085	2.42	-.340	-.090	.0270	-.1049	.40

F-18 ROTARY BALANCE DATA

F-18 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
70	-.40	.036	2.62	-.735	.292	.0489	.1440	-.40
	-.30	.053	2.40	-.657	.250	.0518	.1132	-.30
	-.20	.058	2.21	-.544	.239	.0401	.0860	-.20
	-.10	.065	2.14	-.466	.234	.0301	.0631	-.10
	-.05	.066	2.10	-.449	.196	.0305	.0453	-.05
	-.03	.068	2.07	-.441	.193	.0313	.0394	-.03
	0.00	.066	2.05	-.453	.181	.0322	.0337	0.00
	0.00	.067	2.06	-.458	.186	.0305	.0341	0.00
	.03	.071	2.08	-.437	.157	.0304	.0237	.03
	.05	.073	2.04	-.441	.148	.0318	.0171	.05
	.10	.074	2.16	-.393	.095	.0138	.0079	.10
	.20	.073	2.21	-.416	.062	.0059	-.0219	.20
	.30	.068	2.37	-.413	.021	.0061	-.0479	.30
	.40	.064	2.49	-.365	-.082	.0343	-.1019	.40
75	-.40	.044	2.66	-.815	.210	.0383	.1219	-.40
	-.30	.052	2.40	-.721	.222	.0423	.0949	-.30
	-.20	.051	2.23	-.605	.232	.0335	.0735	-.20
	-.10	.058	2.16	-.522	.211	.0289	.0539	-.10
	-.05	.061	2.13	-.523	.191	.0309	.0392	-.05
	-.03	.062	2.12	-.528	.179	.0311	.0334	-.03
	0.00	.057	2.06	-.528	.169	.0325	.0275	0.00
	0.00	.058	2.06	-.531	.172	.0333	.0276	0.00
	.03	.066	2.08	-.527	.158	.0323	.0215	.03
	.05	.069	2.07	-.521	.149	.0327	.0159	.05
	.10	.076	2.05	-.520	.140	.0326	.0033	.10
	.20	.085	2.21	-.501	.092	.0117	-.0227	.20
	.30	.080	2.35	-.518	.067	.0100	-.0491	.30
	.40	.076	2.52	-.529	.010	.0194	-.0807	.40
80	-.40	.036	2.69	-.858	.203	.0268	.1187	-.40
	-.30	.039	2.42	-.758	.227	.0340	.0897	-.30
	-.20	.048	2.24	-.656	.213	.0281	.0677	-.20
	-.10	.055	2.16	-.605	.188	.0279	.0506	-.10
	-.05	.063	2.16	-.615	.170	.0284	.0385	-.05
	-.03	.068	2.15	-.611	.169	.0295	.0316	-.03
	0.00	.063	2.11	-.609	.174	.0318	.0252	0.00
	0.00	.063	2.10	-.611	.160	.0322	.0271	0.00
	.03	.072	2.13	-.600	.154	.0312	.0220	.03
	.05	.072	2.12	-.595	.150	.0319	.0157	.05
	.10	.074	2.14	-.587	.142	.0334	.0022	.10
	.20	.067	2.22	-.546	.109	.0215	-.0241	.20
	.30	.062	2.36	-.550	.108	.0209	-.0519	.30
	.40	.065	2.53	-.551	.049	.0326	-.0829	.40

F-18 ROTARY BALANCE DATA

F-18 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	.019	2.71	-.881	.191	.0186	.1155	-.40
	-.30	.020	2.44	-.781	.225	.0263	.0865	-.30
	-.20	.034	2.25	-.690	.205	.0220	.0685	-.20
	-.10	.047	2.20	-.657	.180	.0262	.0504	-.10
	-.05	.054	2.18	-.663	.169	.0275	.0387	-.05
	-.03	.055	2.17	-.656	.168	.0285	.0319	-.03
	0.00	.045	2.13	-.653	.181	.0301	.0233	0.00
	0.00	.048	2.13	-.667	.169	.0340	.0269	0.00
	.03	.056	2.17	-.654	.167	.0305	.0200	.03
	.05	.058	2.18	-.652	.165	.0315	.0136	.05
	.10	.059	2.19	-.637	.162	.0344	0.0000	.10
	.20	.054	2.25	-.601	.139	.0332	-.0258	.20
	.30	.047	2.37	-.590	.141	.0302	-.0527	.30
	.40	.052	2.53	-.588	.105	.0457	-.0829	.40
90	-.40	.015	2.66	-.896	.167	.0091	.1079	-.40
	-.30	.009	2.40	-.807	.193	.0178	.0822	-.30
	-.20	.019	2.22	-.737	.194	.0172	.0662	-.20
	-.10	.039	2.20	-.721	.169	.0245	.0498	-.10
	-.05	.046	2.19	-.724	.169	.0265	.0366	-.05
	-.03	.050	2.18	-.719	.165	.0269	.0296	-.03
	0.00	.038	2.13	-.719	.180	.0289	.0206	0.00
	0.00	.036	2.12	-.721	.168	.0305	.0240	0.00
	.03	.051	2.17	-.704	.164	.0289	.0167	.03
	.05	.053	2.17	-.702	.168	.0307	.0102	.05
	.10	.052	2.16	-.682	.161	.0348	-.0023	.10
	.20	.045	2.21	-.657	.163	.0433	-.0276	.20
	.30	.039	2.33	-.640	.150	.0525	-.0527	.30
	.40	.044	2.47	-.613	.144	.0545	-.0815	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 minus LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.052	.14	-.008	.008	.1404	.0092	-.40
	-.30	.051	.10	-.013	.008	.1092	.0073	-.30
	-.20	.052	.07	-.010	.012	.0700	.0049	-.20
	-.10	.049	.11	-.008	.025	.0314	.0028	-.10
	-.05	.049	.12	-.008	.031	.0138	.0019	-.05
	0.00	.053	.07	-.011	.021	-.0026	.0009	0.00
	0.00	.055	.06	-.012	.019	-.0025	.0006	0.00
	.05	.051	.16	-.004	.040	-.0195	.0008	.05
	.10	.050	.14	-.006	.040	-.0373	-.0005	.10
	.20	.054	.10	-.006	.036	-.0758	-.0036	.20
	.30	.056	.07	-.011	.022	-.1142	-.0056	.30
	.40	.057	.07	-.008	.018	-.1443	-.0062	.40
5	-.40	.062	.36	-.064	-.044	.1193	.0195	-.40
	-.30	.059	.37	-.065	-.024	.0902	.0135	-.30
	-.20	.049	.39	-.067	-.004	.0641	.0092	-.20
	-.10	.042	.40	-.058	.015	.0322	.0053	-.10
	-.05	.040	.40	-.057	.020	.0148	.0027	-.05
	0.00	.043	.37	-.060	.022	-.0019	-.0004	0.00
	0.00	.043	.37	-.061	.025	-.0018	-.0006	0.00
	.05	.037	.44	-.050	.041	-.0184	-.0022	.05
	.10	.040	.43	-.054	.043	-.0355	-.0047	.10
	.20	.053	.39	-.065	.035	-.0680	-.0087	.20
	.30	.059	.36	-.066	.034	-.0974	-.0127	.30
	.40	.064	.36	-.063	.037	-.1288	-.0176	.40
10	-.40	.061	.69	-.139	-.060	.0860	.0391	-.40
	-.30	.055	.67	-.131	-.034	.0595	.0261	-.30
	-.20	.045	.69	-.123	-.008	.0382	.0154	-.20
	-.10	.037	.73	-.126	.011	.0195	.0071	-.10
	-.05	.037	.74	-.130	.019	.0097	.0034	-.05
	0.00	.039	.74	-.134	.028	.0002	.0000	0.00
	0.00	.039	.73	-.136	.027	.0003	-.0001	0.00
	.05	.029	.78	-.121	.043	-.0100	-.0031	.05
	.10	.034	.75	-.117	.049	-.0196	-.0067	.10
	.20	.048	.69	-.118	.052	-.0400	-.0144	.20
	.30	.057	.68	-.126	.060	-.0618	-.0245	.30
	.40	.057	.70	-.131	.074	-.0906	-.0360	.40
15	-.40	.054	.99	-.217	-.041	.0572	.0567	-.40
	-.30	.054	.95	-.211	-.015	.0350	.0398	-.30
	-.20	.052	.94	-.208	.001	.0176	.0249	-.20
	-.10	.046	.97	-.206	.021	.0075	.0128	-.10
	-.05	.045	.99	-.207	.028	.0036	.0064	-.05
	0.00	.049	.96	-.212	.037	.0017	.0004	0.00
	0.00	.048	.96	-.211	.036	.0022	.0003	0.00
	.05	.041	.99	-.206	.049	-.0011	-.0054	.05
	.10	.041	.99	-.203	.053	-.0050	-.0113	.10
	.20	.048	.96	-.201	.052	-.0173	-.0242	.20
	.30	.055	.95	-.201	.061	-.0357	-.0391	.30
	.40	.051	.99	-.204	.078	-.0596	-.0542	.40

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.054	1.20	-.334	.005	.0309	.0683	-.40
	-.30	.056	1.15	-.321	.033	.0129	.0505	-.30
	-.20	.054	1.15	-.308	.044	.0071	.0305	-.20
	-.10	.051	1.15	-.293	.055	.0049	.0088	-.10
	-.05	.048	1.15	-.285	.057	.0083	-.0005	-.05
	0.00	.053	1.12	-.286	.041	.0033	-.0017	0.00
	0.00	.052	1.12	-.287	.040	.0050	-.0025	0.00
	.05	.052	1.17	-.282	.038	-.0038	-.0020	.05
	.10	.056	1.15	-.290	.027	-.0037	-.0085	.10
	.20	.063	1.14	-.303	.029	-.0044	-.0300	.20
	.30	.068	1.14	-.314	.028	-.0091	-.0513	.30
	.40	.068	1.17	-.322	.036	-.0284	-.0686	.40
25	-.40	.061	1.34	-.414	.065	.0230	.0699	-.40
	-.30	.065	1.27	-.396	.077	.0078	.0538	-.30
	-.20	.065	1.20	-.374	.070	.0031	.0313	-.20
	-.10	.063	1.21	-.365	.054	.0107	.0070	-.10
	-.05	.061	1.23	-.371	.039	.0148	.0008	-.05
	0.00	.066	1.19	-.365	.020	.0086	-.0028	0.00
	0.00	.067	1.19	-.366	.017	.0110	-.0031	0.00
	.05	.060	1.23	-.361	.032	-.0069	-.0005	.05
	.10	.061	1.20	-.357	.006	-.0044	-.0065	.10
	.20	.066	1.21	-.374	-.013	.0028	-.0324	.20
	.30	.065	1.25	-.393	-.033	-.0027	-.0541	.30
	.40	.066	1.33	-.413	-.030	-.0151	-.0721	.40
30	-.40	.053	1.50	-.448	.122	.0024	.0847	-.40
	-.30	.063	1.38	-.437	.143	-.0023	.0598	-.30
	-.20	.064	1.34	-.421	.124	-.0072	.0354	-.20
	-.10	.065	1.33	-.438	.063	.0119	.0100	-.10
	-.05	.063	1.33	-.433	.028	.0143	.0068	-.05
	0.00	.069	1.28	-.427	.006	.0089	-.0002	0.00
	0.00	.071	1.29	-.432	.029	.0034	.0017	0.00
	.05	.061	1.32	-.434	.031	-.0070	-.0048	.05
	.10	.059	1.32	-.420	-.055	.0135	-.0153	.10
	.20	.071	1.29	-.423	-.072	.0131	-.0376	.20
	.30	.068	1.35	-.461	-.104	.0084	-.0626	.30
	.40	.061	1.44	-.468	-.090	-.0020	-.0900	.40
35	-.40	.049	1.61	-.479	.182	-.0050	.0892	-.40
	-.30	.061	1.49	-.459	.161	-.0156	.0644	-.30
	-.20	.067	1.41	-.469	.144	-.0119	.0418	-.20
	-.10	.067	1.35	-.460	.096	.0029	.0210	-.10
	-.05	.067	1.37	-.469	.072	.0014	.0141	-.05
	0.00	.077	1.38	-.470	.036	.0022	.0051	0.00
	0.00	.073	1.39	-.469	.038	-.0007	.0062	0.00
	.05	.067	1.40	-.469	.002	-.0028	-.0054	.05
	.10	.066	1.37	-.453	-.047	.0062	-.0150	.10
	.20	.078	1.42	-.480	-.100	.0133	-.0406	.20
	.30	.070	1.46	-.491	-.131	.0173	-.0715	.30
	.40	.060	1.59	-.486	-.175	.0067	-.1010	.40

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.020	1.73	-.576	.249	-.0178	.1139	-.40
	-.30	.036	1.58	-.528	.232	-.0176	.0764	-.30
	-.20	.051	1.48	-.489	.171	.0093	.0353	-.20
	-.10	.044	1.47	-.473	.108	.0048	.0285	-.10
	-.05	.043	1.46	-.478	.055	.0053	.0199	-.05
	0.00	.054	1.45	-.495	.013	.0045	-.0013	0.00
	0.00	.051	1.45	-.500	.002	.0047	.0021	0.00
	.05	.035	1.46	-.494	-.037	.0029	-.0115	.05
	.10	.041	1.48	-.471	-.067	.0066	-.0126	.10
	.20	.045	1.49	-.501	-.147	.0037	-.0424	.20
	.30	.036	1.57	-.554	-.199	.0218	-.0882	.30
	.40	.025	1.74	-.592	-.232	.0199	-.1258	.40
45	-.40	.042	1.86	-.661	.325	-.0186	.1336	-.40
	-.30	.064	1.67	-.571	.264	.0123	.0735	-.30
	-.20	.071	1.60	-.552	.216	.0115	.0491	-.20
	-.10	.068	1.56	-.520	.159	.0091	.0388	-.10
	-.05	.066	1.52	-.520	.091	.0074	.0316	-.05
	0.00	.073	1.51	-.526	.008	-.0017	.0030	0.00
	0.00	.073	1.52	-.528	.006	.0001	.0050	0.00
	.05	.062	1.48	-.538	-.032	-.0037	-.0108	.05
	.10	.068	1.55	-.497	-.091	.0026	-.0085	.10
	.20	.075	1.57	-.536	-.178	-.0064	-.0426	.20
	.30	.072	1.61	-.588	-.272	.0161	-.0912	.30
	.40	.059	1.77	-.660	-.316	.0240	-.1460	.40
50	-.40	.034	1.99	-.717	.418	-.0101	.1499	-.40
	-.30	.050	1.81	-.614	.306	.0115	.0940	-.30
	-.20	.053	1.70	-.625	.267	.0184	.0692	-.20
	-.10	.054	1.60	-.586	.193	.0166	.0730	-.10
	-.05	.054	1.59	-.587	.151	.0120	.0578	-.05
	0.00	.059	1.59	-.573	.056	.0008	.0210	0.00
	0.00	.057	1.59	-.570	.057	-.0002	.0258	0.00
	.05	.053	1.59	-.575	.014	-.0058	.0045	.05
	.10	.060	1.60	-.569	-.046	-.0056	-.0072	.10
	.20	.061	1.67	-.598	-.227	-.0127	-.0590	.20
	.30	.063	1.77	-.616	-.277	-.0060	-.0928	.30
	.40	.049	1.95	-.705	-.396	.0132	-.1521	.40
55	-.40	.033	2.15	-.737	.421	.0041	.1551	-.40
	-.30	.037	2.00	-.666	.322	.0104	.1133	-.30
	-.20	.046	1.87	-.665	.245	.0190	.0710	-.20
	-.10	.050	1.73	-.664	.181	.0165	.0899	-.10
	-.05	.052	1.70	-.651	.152	.0124	.0726	-.05
	0.00	.047	1.76	-.596	.133	.0060	.0646	0.00
	0.00	.048	1.74	-.615	.140	.0084	.0574	0.00
	.05	.041	1.78	-.596	.075	-.0004	.0414	.05
	.10	.044	1.88	-.569	.005	-.0033	.0380	.10
	.20	.050	1.89	-.644	-.221	-.0174	-.0668	.20
	.30	.039	2.02	-.650	-.275	-.0080	-.1059	.30
	.40	.036	2.15	-.724	-.399	.0020	-.1610	.40

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.015	2.20	-.698	.323	-.0003	.1187	-.40
	-.30	.025	2.08	-.659	.208	.0116	.0708	-.30
	-.20	.036	1.95	-.682	.218	.0223	.0675	-.20
	-.10	.043	1.80	-.666	.123	.0134	.0615	-.10
	-.05	.044	1.75	-.678	.097	.0100	.0543	-.05
	0.00	.031	1.81	-.642	.128	.0081	.0615	0.00
	0.00	.033	1.80	-.667	.122	.0072	.0606	0.00
	.05	.032	1.83	-.641	.096	-.0007	.0355	.05
	.10	.035	1.91	-.603	.026	-.0063	.0287	.10
	.20	.035	1.99	-.677	-.187	-.0197	-.0721	.20
	.30	.027	2.11	-.702	-.263	-.0196	-.1125	.30
	.40	.015	2.26	-.693	-.289	.0031	-.1256	.40
65	-.40	-.005	2.35	-.765	.312	-.0005	.1298	-.40
	-.30	.014	2.23	-.703	.196	.0210	.0769	-.30
	-.20	.030	2.03	-.683	.142	.0214	.0523	-.20
	-.10	.042	1.85	-.703	.065	.0106	.0552	-.10
	-.05	.045	1.82	-.722	.065	.0091	.0523	-.05
	0.00	.034	1.84	-.704	.067	.0042	.0365	0.00
	0.00	.039	1.82	-.718	.029	.0078	.0397	0.00
	.05	.033	1.87	-.689	.050	-.0006	.0154	.05
	.10	.035	1.90	-.654	.009	-.0056	.0004	.10
	.20	.028	2.05	-.698	-.137	-.0178	-.0537	.20
	.30	.016	2.20	-.718	-.204	-.0211	-.0954	.30
	.40	.001	2.33	-.762	-.283	.0043	-.1320	.40
70	-.40	-.009	2.50	-.847	.265	.0127	.1260	-.40
	-.30	.002	2.29	-.781	.169	.0229	.0915	-.30
	-.20	.014	2.13	-.741	.125	.0199	.0577	-.20
	-.10	.021	1.95	-.746	.059	.0070	.0495	-.10
	-.05	.024	1.90	-.749	.040	.0048	.0295	-.05
	0.00	.015	1.90	-.753	.008	.0042	.0070	0.00
	0.00	.017	1.88	-.754	.005	.0009	.0054	0.00
	.05	.018	1.91	-.745	.015	.0006	-.0050	.05
	.10	.018	2.01	-.703	-.029	-.0062	-.0085	.10
	.20	.008	2.11	-.728	-.107	-.0155	-.0471	.20
	.30	-.006	2.30	-.760	-.138	-.0183	-.0844	.30
	.40	-.011	2.49	-.839	-.236	-.0103	-.1248	.40
75	-.40	-.015	2.63	-.920	.207	.0186	.1145	-.40
	-.30	-.002	2.34	-.833	.114	.0191	.0741	-.30
	-.20	.007	2.20	-.774	.080	.0156	.0436	-.20
	-.10	.015	2.02	-.785	.018	.0031	.0299	-.10
	-.05	.019	1.97	-.805	.033	.0031	.0170	-.05
	0.00	.007	1.99	-.818	.002	.0034	.0033	0.00
	0.00	.008	1.97	-.811	.004	.0037	.0038	0.00
	.05	.015	1.98	-.810	.012	.0031	-.0111	.05
	.10	.012	2.02	-.791	.014	.0011	-.0267	.10
	.20	.000	2.20	-.783	-.089	-.0117	-.0437	.20
	.30	-.011	2.36	-.838	-.096	-.0152	-.0750	.30
	.40	-.018	2.63	-.905	-.161	-.0084	-.1151	.40

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	-.018	2.62	-1.010	.103	.0084	.0927	-.40
	-.30	-.016	2.41	-.915	.075	.0144	.0610	-.30
	-.20	-.005	2.24	-.852	.060	.0101	.0365	-.20
	-.10	.011	2.09	-.867	.018	.0031	.0312	-.10
	-.05	.018	2.05	-.882	.024	.0027	.0192	-.05
	0.00	.005	2.01	-.891	.000	.0032	.0045	0.00
	0.00	.005	2.03	-.894	.004	.0042	.0034	0.00
	.05	.021	2.02	-.893	.015	.0038	-.0139	.05
	.10	.015	2.04	-.878	.032	.0031	-.0276	.10
	.20	.001	2.23	-.852	-.037	-.0070	-.0311	.20
	.30	-.009	2.37	-.909	-.048	-.0085	-.0586	.30
	.40	-.018	2.60	-1.000	-.068	-.0022	-.0916	.40
85	-.40	-.007	2.49	-1.006	.086	.0031	.0921	-.40
	-.30	-.014	2.29	-.936	.062	.0088	.0637	-.30
	-.20	.004	2.14	-.863	.062	.0063	.0359	-.20
	-.10	.023	2.00	-.876	.017	.0021	.0362	-.10
	-.05	.029	1.97	-.888	.014	.0033	.0221	-.05
	0.00	.008	1.96	-.909	.024	.0015	.0054	0.00
	0.00	.012	1.98	-.935	.018	.0020	.0051	0.00
	.05	.034	1.94	-.889	.030	.0034	-.0157	.05
	.10	.029	1.97	-.887	.036	.0029	-.0313	.10
	.20	.009	2.09	-.864	-.040	-.0034	-.0389	.20
	.30	-.010	2.26	-.925	-.046	-.0035	-.0642	.30
	.40	-.010	2.49	-.994	-.038	.0059	-.0935	.40
90	-.40	-.032	2.53	-1.037	.103	-.0035	.1031	-.40
	-.30	-.026	2.31	-.972	.087	.0023	.0759	-.30
	-.20	-.014	2.16	-.909	.092	.0013	.0515	-.20
	-.10	.012	2.07	-.938	.043	.0006	.0464	-.10
	-.05	.020	2.05	-.942	.044	.0024	.0325	-.05
	0.00	.005	1.95	-.946	.032	.0033	.0051	0.00
	0.00	.006	1.98	-.966	.048	.0031	.0048	0.00
	.05	.031	1.97	-.942	.032	.0023	-.0244	.05
	.10	.024	1.99	-.944	.038	.0027	-.0463	.10
	.20	-.002	2.07	-.903	-.036	.0012	-.0516	.20
	.30	-.014	2.25	-.967	-.035	.0025	-.0770	.30
	.40	-.009	2.48	-1.031	-.041	.0073	-.1060	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 minus LEX BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.059	.01	.054	-.095	.1316	.0152	-.40
	-.30	.054	.03	.032	-.120	.0986	.0143	-.30
	-.20	.053	.07	.018	-.120	.0630	.0128	-.20
	-.10	.053	.14	.001	-.118	.0247	.0110	-.10
	-.05	.054	.16	-.008	-.119	.0067	.0103	-.05
	0.00	.053	.13	-.019	-.141	-.0109	.0100	0.00
	0.00	.053	.13	-.019	-.140	-.0109	.0099	0.00
	.05	.048	.21	-.021	-.116	-.0280	.0092	.05
	.10	.048	.23	-.030	-.119	-.0461	.0082	.10
	.20	.047	.23	-.046	-.119	-.0840	.0051	.20
	.30	.051	.28	-.071	-.110	-.1254	.0020	.30
	.40	.061	.34	-.092	-.084	-.1565	-.0011	.40
5	-.40	.059	.32	-.004	-.134	.1201	.0232	-.40
	-.30	.055	.36	-.025	-.150	.0891	.0199	-.30
	-.20	.049	.42	-.041	-.144	.0559	.0167	-.20
	-.10	.045	.47	-.051	-.137	.0215	.0131	-.10
	-.05	.043	.48	-.055	-.136	.0033	.0107	-.05
	0.00	.041	.45	-.066	-.150	-.0137	.0082	0.00
	0.00	.041	.46	-.066	-.147	-.0137	.0077	0.00
	.05	.042	.54	-.066	-.115	-.0301	.0048	.05
	.10	.043	.56	-.079	-.111	-.0471	.0013	.10
	.20	.051	.59	-.113	-.111	-.0800	-.0041	.20
	.30	.059	.59	-.139	-.102	-.1033	-.0105	.30
	.40	.067	.63	-.173	-.073	-.1298	-.0203	.40
10	-.40	.059	.65	-.059	-.161	.0889	.0352	-.40
	-.30	.053	.67	-.079	-.171	.0573	.0269	-.30
	-.20	.044	.72	-.090	-.159	.0315	.0198	-.20
	-.10	.036	.79	-.106	-.150	.0087	.0123	-.10
	-.05	.033	.82	-.115	-.144	-.0032	.0081	-.05
	0.00	.038	.78	-.134	-.162	-.0134	.0043	0.00
	0.00	.039	.77	-.134	-.163	-.0138	.0042	0.00
	.05	.039	.88	-.135	-.130	-.0248	.0001	.05
	.10	.041	.88	-.145	-.123	-.0359	-.0053	.10
	.20	.048	.86	-.174	-.111	-.0517	-.0173	.20
	.30	.056	.89	-.222	-.077	-.0725	-.0318	.30
	.40	.063	.95	-.279	-.023	-.0952	-.0495	.40
15	-.40	.052	.97	-.124	-.169	.0629	.0472	-.40
	-.30	.053	.93	-.142	-.174	.0332	.0337	-.30
	-.20	.049	.95	-.159	-.164	.0094	.0212	-.20
	-.10	.047	.99	-.183	-.149	-.0063	.0098	-.10
	-.05	.048	1.00	-.199	-.148	-.0108	.0039	-.05
	0.00	.051	.96	-.214	-.166	-.0134	-.0017	0.00
	0.00	.052	.97	-.213	-.164	-.0139	-.0014	0.00
	.05	.055	1.06	-.218	-.138	-.0159	-.0081	.05
	.10	.054	1.05	-.229	-.130	-.0190	-.0156	.10
	.20	.056	1.09	-.255	-.111	-.0291	-.0341	.20
	.30	.055	1.12	-.300	-.065	-.0440	-.0604	.30

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.052	1.24	-.215	-.142	.0405	.0522	-.40
	-.30	.054	1.18	-.234	-.146	.0121	.0401	-.30
	-.20	.054	1.12	-.258	-.146	-.0064	.0289	-.20
	-.10	.053	1.14	-.271	-.133	-.0135	.0134	-.10
	-.05	.053	1.15	-.280	-.146	-.0162	.0043	-.05
	0.00	.060	1.12	-.292	-.156	-.0184	-.0042	0.00
	0.00	.060	1.11	-.288	-.153	-.0177	-.0037	0.00
	.05	.057	1.22	-.293	-.119	-.0181	-.0138	.05
	.10	.056	1.24	-.305	-.111	-.0189	-.0242	.10
	.20	.057	1.27	-.338	-.088	-.0226	-.0430	.20
	.30	.057	1.31	-.377	-.067	-.0253	-.0736	.30
25	-.40	.053	1.41	-.303	-.084	.0115	.0604	-.40
	-.30	.057	1.34	-.321	-.094	-.0075	.0456	-.30
	-.20	.063	1.25	-.330	-.113	-.0169	.0250	-.20
	-.10	.061	1.26	-.327	-.104	-.0208	.0114	-.10
	-.05	.062	1.27	-.342	-.117	-.0247	.0026	-.05
	0.00	.067	1.22	-.355	-.142	-.0296	-.0081	0.00
	0.00	.069	1.23	-.357	-.139	-.0297	-.0080	0.00
	.05	.058	1.30	-.360	-.111	-.0339	-.0167	.05
	.10	.056	1.33	-.370	-.119	-.0353	-.0254	.10
	.20	.057	1.41	-.410	-.164	-.0073	-.0586	.20
	.30	.057	1.44	-.430	-.178	-.0041	-.0829	.30
30	-.40	.053	1.53	-.383	-.040	-.0049	.0704	-.40
	-.30	.062	1.45	-.389	-.054	-.0125	.0431	-.30
	-.20	.063	1.40	-.408	-.063	-.0264	.0160	-.20
	-.10	.062	1.38	-.419	-.048	-.0240	-.0066	-.10
	-.05	.064	1.39	-.402	-.103	-.0088	-.0103	-.05
	0.00	.070	1.38	-.421	-.142	-.0126	-.0258	0.00
	0.00	.068	1.40	-.423	-.138	-.0139	-.0257	0.00
	.05	.059	1.48	-.414	-.130	-.0220	-.0336	.05
	.10	.060	1.47	-.427	-.171	-.0170	-.0454	.10
	.20	.061	1.48	-.436	-.237	-.0021	-.0636	.20
	.30	.061	1.50	-.454	-.289	-.0178	-.0839	.30
35	-.40	.051	1.70	-.446	.062	-.0159	.0790	-.40
	-.30	.061	1.61	-.450	.025	-.0239	.0473	-.30
	-.20	.066	1.55	-.469	-.021	-.0368	.0123	-.20
	-.10	.067	1.49	-.470	-.025	-.0293	-.0129	-.10
	-.05	.070	1.45	-.455	-.073	-.0148	-.0176	-.05
	0.00	.072	1.49	-.443	-.117	-.0097	-.0276	0.00
	0.00	.071	1.49	-.443	-.115	-.0091	-.0268	0.00
	.05	.071	1.52	-.408	-.135	-.0119	-.0392	.05
	.10	.068	1.53	-.422	-.178	-.0152	-.0509	.10
	.20	.065	1.55	-.467	-.261	-.0223	-.0715	.20
	.30	.057	1.60	-.513	-.341	-.0269	-.0989	.30

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.046	1.87	-.525	.179	-.0148	.0858	-.40
	-.30	.056	1.72	-.482	.132	-.0084	.0505	-.30
	-.20	.057	1.65	-.522	.019	-.0366	.0160	-.20
	-.10	.065	1.54	-.484	-.019	-.0262	-.0125	-.10
	-.05	.069	1.51	-.484	-.057	-.0205	-.0233	-.05
	0.00	.073	1.55	-.435	-.131	-.0122	-.0175	0.00
	0.00	.073	1.53	-.457	-.109	-.0170	-.0233	0.00
	.05	.065	1.60	-.438	-.140	-.0171	-.0323	.05
	.10	.067	1.61	-.457	-.180	-.0225	-.0487	.10
	.20	.061	1.69	-.513	-.265	-.0254	-.0856	.20
45	-.40	.037	1.99	-.574	.273	-.0146	.1000	-.40
	-.30	.046	1.82	-.511	.215	-.0025	.0774	-.30
	-.20	.056	1.75	-.526	.060	-.0302	.0176	-.20
	-.10	.063	1.69	-.478	.010	-.0231	-.0055	-.10
	-.05	.063	1.63	-.477	-.039	-.0163	-.0226	-.05
	0.00	.068	1.56	-.519	-.095	-.0186	-.0307	0.00
	0.00	.069	1.58	-.515	-.092	-.0186	-.0313	0.00
	.05	.054	1.64	-.493	-.109	-.0252	-.0475	.05
	.10	.055	1.70	-.498	-.175	-.0281	-.0603	.10
	.20	.058	1.77	-.549	-.269	-.0320	-.0895	.20
50	-.40	.037	2.11	-.616	.289	-.0116	.1216	-.40
	-.30	.052	1.90	-.584	.236	.0005	.1016	-.30
	-.20	.059	1.82	-.552	.133	-.0031	.0544	-.20
	-.10	.058	1.83	-.496	.017	-.0172	.0078	-.10
	-.05	.053	1.74	-.536	.046	-.0121	.0299	-.05
	0.00	.067	1.70	-.554	-.059	-.0181	-.0119	0.00
	0.00	.065	1.70	-.552	-.050	-.0177	-.0090	0.00
	.05	.065	1.78	-.556	-.131	-.0256	-.0605	.05
	.10	.064	1.81	-.558	-.194	-.0296	-.0767	.10
55	-.40	.033	2.19	-.631	.193	-.0185	.0876	-.40
	-.30	.046	1.95	-.625	.195	-.0050	.1023	-.30
	-.20	.050	1.88	-.593	.137	0.0000	.0664	-.20
	-.10	.049	1.86	-.543	.089	-.0049	.0421	-.10
	-.05	.051	1.78	-.541	.048	-.0120	.0441	-.05
	0.00	.048	1.81	-.518	.038	-.0141	.0398	0.00
	0.00	.047	1.80	-.524	.040	-.0161	.0390	0.00
	.05	.061	1.85	-.583	-.114	-.0256	-.0513	.05
	.10	.060	1.88	-.603	-.184	-.0309	-.0861	.10
60	-.40	.023	2.19	-.644	.167	-.0140	.0928	-.40
	-.30	.027	2.03	-.623	.119	-.0082	.0719	-.30
	-.20	.031	1.98	-.622	.083	-.0001	.0453	-.20
	-.10	.032	1.94	-.561	.016	-.0086	.0240	-.10
	-.05	.034	1.89	-.551	-.006	-.0150	.0186	-.05
	0.00	.039	1.82	-.591	-.052	-.0232	.0130	0.00
	0.00	.035	1.83	-.569	-.049	-.0209	.0132	0.00
	.05	.035	1.89	-.573	-.001	-.0193	.0017	.05
	.10	.041	1.90	-.649	-.191	-.0291	-.0892	.10

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
65	-.40	.013	2.27	-.698	.148	-.0204	.1003	-.40
	-.30	.018	2.15	-.663	.100	-.0068	.0628	-.30
	-.20	.031	1.98	-.661	.041	-.0068	.0511	-.20
	-.10	.039	1.87	-.679	-.059	-.0208	.0118	-.10
	-.05	.040	1.87	-.677	-.085	-.0230	-.0071	-.05
	0.00	.039	1.86	-.662	-.109	-.0263	-.0142	0.00
	0.00	.039	1.87	-.672	-.101	-.0252	-.0131	0.00
	.05	.039	1.95	-.637	-.069	-.0251	-.0104	.05
	.10	.045	1.96	-.653	-.137	-.0265	-.0627	.10
70	-.40	.012	2.25	-.746	.111	-.0272	.0938	-.40
	-.30	.010	2.17	-.710	.067	-.0073	.0635	-.30
	-.20	.022	2.05	-.693	.018	-.0060	.0325	-.20
	-.10	.035	1.90	-.714	-.059	-.0195	.0014	-.10
	-.05	.037	1.88	-.720	-.068	-.0241	-.0013	-.05
	0.00	.035	1.89	-.720	-.117	-.0254	-.0201	0.00
	0.00	.032	1.89	-.719	-.113	-.0274	-.0200	0.00
	.05	.038	1.94	-.696	-.090	-.0249	-.0309	.05
	.10	.035	1.97	-.687	-.124	-.0238	-.0502	.10
	.20	.018	2.10	-.722	-.189	-.0296	-.0896	.20
	.30	.006	2.26	-.802	-.240	-.0378	-.1197	.30
75	-.40	.014	2.26	-.792	.077	-.0328	.0797	-.40
	-.30	.003	2.19	-.757	-.019	-.0092	.0456	-.30
	-.20	.020	2.04	-.732	-.066	-.0106	.0167	-.20
	-.10	.038	1.89	-.775	-.089	-.0255	-.0059	-.10
	-.05	.039	1.89	-.771	-.069	-.0258	-.0167	-.05
	0.00	.025	1.86	-.727	-.115	-.0257	-.0206	0.00
	0.00	.026	1.87	-.755	-.092	-.0263	-.0245	0.00
	.05	.034	1.92	-.728	-.100	-.0248	-.0328	.05
	.10	.024	1.95	-.711	-.119	-.0225	-.0439	.10
	.20	.011	2.07	-.746	-.160	-.0253	-.0685	.20
	.30	.005	2.23	-.832	-.173	-.0313	-.0917	.30
	.40	-.005	2.48	-.942	-.210	-.0331	-.1342	.40
80	-.40	.011	2.30	-.863	.040	-.0368	.0628	-.40
	-.30	.004	2.12	-.825	-.048	-.0250	.0443	-.30
	-.20	.020	1.96	-.812	-.050	-.0319	.0234	-.20
	-.10	.036	1.89	-.821	-.087	-.0260	-.0058	-.10
	-.05	.039	1.90	-.817	-.079	-.0249	-.0126	-.05
	0.00	.021	1.88	-.818	-.092	-.0255	-.0125	0.00
	0.00	.020	1.89	-.817	-.080	-.0261	-.0149	0.00
	.05	.042	1.94	-.797	-.052	-.0223	-.0246	.05
	.10	.034	1.97	-.781	-.066	-.0214	-.0334	.10
	.20	.020	2.08	-.802	-.107	-.0195	-.0519	.20
	.30	.014	2.29	-.920	-.123	-.0256	-.0722	.30
	.40	.013	2.56	-1.037	-.116	-.0219	-.1067	.40

F-18 ROTARY BALANCE DATA

F-18 minus LEX

BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	.012	2.31	-.896	.011	-.0320	.0720	-.40
	-.30	.003	2.08	-.859	-.031	-.0339	.0552	-.30
	-.20	.020	1.94	-.848	-.064	-.0342	.0263	-.20
	-.10	.037	1.90	-.872	-.098	-.0286	-.0046	-.10
	-.05	.040	1.92	-.878	-.077	-.0256	-.0131	-.05
	0.00	.018	1.91	-.894	-.081	-.0248	-.0171	0.00
	0.00	.019	1.93	-.902	-.076	-.0257	-.0213	0.00
	.05	.045	1.99	-.870	-.044	-.0218	-.0279	.05
	.10	.039	2.01	-.873	-.060	-.0205	-.0386	.10
	.20	.022	2.09	-.877	-.109	-.0161	-.0545	.20
	.30	.003	2.29	-.974	-.146	-.0208	-.0800	.30
	.40	.008	2.54	-1.075	-.138	-.0157	-.1148	.40
90	-.40	.002	2.28	-.934	-.011	-.0354	.0850	-.40
	-.30	-.003	2.05	-.915	-.031	-.0437	.0639	-.30
	-.20	.011	1.93	-.899	-.053	-.0369	.0366	-.20
	-.10	.031	1.90	-.925	-.121	-.0304	-.0078	-.10
	-.05	.035	1.91	-.944	-.106	-.0270	-.0238	-.05
	0.00	.015	1.89	-.948	-.112	-.0252	-.0305	0.00
	0.00	.015	1.91	-.960	-.097	-.0254	-.0307	0.00
	.05	.044	1.96	-.930	-.061	-.0224	-.0376	.05
	.10	.039	1.97	-.939	-.074	-.0207	-.0494	.10
	.20	.016	2.05	-.933	-.121	-.0135	-.0631	.20
	.30	.004	2.20	-.998	-.156	-.0157	-.0884	.30
	.40	.001	2.47	-1.098	-.141	-.0114	-.1217	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 with vert. aft 5.75" BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.045	.00	.007	-.042	.1393	.0156	-.40
	-.30	.040	.00	.009	-.042	.1085	.0108	-.30
	-.20	.033	.02	.021	-.031	.0689	.0069	-.20
	-.10	.030	.05	.023	-.021	.0309	.0032	-.10
	-.05	.035	.03	.018	-.029	.0138	.0013	-.05
	0.00	.037	-.02	.011	-.033	-.0018	-.0001	0.00
	0.00	.040	-.03	.012	-.037	-.0024	-.0005	0.00
	.05	.060	-.01	.012	-.033	-.0179	-.0013	.05
	.10	.056	-.00	.013	-.026	-.0357	-.0023	.10
	.20	.056	-.05	.011	-.020	-.0736	-.0046	.20
	.30	.057	-.04	.008	-.005	-.1100	-.0053	.30
	.40	.062	-.02	.008	.014	-.1388	-.0051	.40
5	-.40	.037	.26	-.008	-.078	.1254	.0303	-.40
	-.30	.033	.27	-.007	-.068	.0926	.0211	-.30
	-.20	.033	.28	-.002	-.068	.0636	.0134	-.20
	-.10	.030	.31	.007	-.048	.0319	.0067	-.10
	-.05	.027	.31	.010	-.039	.0150	.0031	-.05
	0.00	.029	.27	.001	-.044	-.0006	-.0010	0.00
	0.00	.031	.25	.001	-.046	-.0004	-.0014	0.00
	.05	.039	.33	.007	-.027	-.0163	-.0039	.05
	.10	.042	.33	.002	-.017	-.0328	-.0067	.10
	.20	.051	.31	-.005	.001	-.0616	-.0113	.20
	.30	.079	.26	-.012	.018	-.0922	-.0159	.30
	.40	.074	.24	-.011	.049	-.1253	-.0198	.40
10	-.40	.028	.77	-.006	-.114	.1069	.0451	-.40
	-.30	.033	.69	.001	-.082	.0724	.0302	-.30
	-.20	.027	.67	.010	-.055	.0457	.0185	-.20
	-.10	.018	.70	.015	-.020	.0231	.0091	-.10
	-.05	.019	.71	.013	-.011	.0120	.0045	-.05
	0.00	.029	.63	-.001	-.014	.0003	-.0010	0.00
	0.00	.029	.64	-.001	-.014	.0003	-.0011	0.00
	.05	.034	.72	.016	.016	-.0111	-.0042	.05
	.10	.034	.71	.017	.024	-.0226	-.0082	.10
	.20	.041	.70	.012	.047	-.0465	-.0166	.20
	.30	.047	.70	-.001	.061	-.0740	-.0253	.30
	.40	.049	.72	-.012	.079	-.1081	-.0356	.40
15	-.40	.017	1.18	-.008	-.149	.1017	.0614	-.40
	-.30	.025	1.07	.005	-.111	.0741	.0404	-.30
	-.20	.025	1.00	.013	-.074	.0479	.0231	-.20
	-.10	.021	.99	.026	-.036	.0231	.0108	-.10
	-.05	.020	.98	.030	-.020	.0112	.0056	-.05
	0.00	.027	.95	.019	-.013	.0003	-.0002	0.00
	0.00	.031	.94	.022	-.018	.0011	-.0004	0.00
	.05	.022	1.03	.034	.021	-.0096	-.0038	.05
	.10	.023	1.03	.030	.034	-.0213	-.0091	.10
	.20	.025	1.05	.019	.063	-.0458	-.0212	.20
	.30	.027	1.07	.003	.102	-.0720	-.0356	.30
	.40	.028	1.11	-.019	.135	-.1005	-.0517	.40

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.028	1.49	-.028	-.156	.0501	.0913	-.40
	-.30	.029	1.45	.010	-.109	.0359	.0618	-.30
	-.20	.027	1.47	.046	-.059	.0256	.0374	-.20
	-.10	.023	1.51	.063	-.013	.0164	.0182	-.10
	-.05	.022	1.52	.063	.006	.0083	.0090	-.05
	0.00	.036	1.43	.047	.006	.0010	-.0013	0.00
	0.00	.035	1.42	.048	.005	.0002	-.0008	0.00
	.05	.040	1.51	.062	.050	-.0082	-.0082	.05
	.10	.042	1.50	.059	.069	-.0167	-.0167	.10
	.20	.043	1.46	.049	.108	-.0307	-.0333	.20
	.30	.044	1.44	.025	.154	-.0432	-.0531	.30
	.40	.038	1.46	-.014	.194	-.0593	-.0736	.40
25	-.40	.036	1.66	-.111	-.101	.0094	.1059	-.40
	-.30	.037	1.62	-.084	-.079	-.0093	.0829	-.30
	-.20	.033	1.63	-.026	-.042	-.0157	.0555	-.20
	-.10	.028	1.69	.035	-.018	-.0118	.0332	-.10
	-.05	.026	1.70	.051	-.004	-.0060	.0197	-.05
	0.00	.041	1.63	.046	-.002	-.0016	.0024	0.00
	0.00	.040	1.63	.045	.001	-.0030	.0025	0.00
	.05	.044	1.70	.053	.040	.0030	-.0125	.05
	.10	.046	1.71	.042	.063	.0065	-.0267	.10
	.20	.050	1.65	-.004	.089	.0108	-.0480	.20
	.30	.051	1.62	-.053	.117	.0023	-.0687	.30
	.40	.048	1.66	-.090	.124	-.0154	-.0864	.40
30	-.40	.041	1.92	-.136	.033	-.0157	.1233	-.40
	-.30	.043	1.85	-.105	.053	-.0288	.0941	-.30
	-.20	.044	1.79	-.055	.068	-.0300	.0626	-.20
	-.10	.041	1.80	-.001	.068	-.0227	.0271	-.10
	-.05	.041	1.80	.029	.051	.0008	.0147	-.05
	0.00	.055	1.74	.023	.020	.0044	.0007	0.00
	0.00	.053	1.74	.025	.024	0.0000	.0016	0.00
	.05	.046	1.80	.036	.016	.0080	-.0083	.05
	.10	.047	1.79	.028	.007	.0127	-.0217	.10
	.20	.053	1.77	-.035	-.003	.0276	-.0533	.20
	.30	.060	1.79	-.085	.007	.0256	-.0842	.30
	.40	.065	1.84	-.116	.005	.0120	-.1105	.40
35	-.40	.048	2.07	-.122	.199	-.0085	.1252	-.40
	-.30	.055	1.97	-.075	.192	-.0110	.0906	-.30
	-.20	.061	1.89	-.033	.151	-.0023	.0537	-.20
	-.10	.060	1.87	-.000	.090	.0028	.0239	-.10
	-.05	.061	1.89	.003	.069	.0040	.0122	-.05
	0.00	.070	1.81	.007	.029	.0022	.0031	0.00
	0.00	.069	1.80	-.004	.025	.0015	.0026	0.00
	.05	.074	1.89	.012	.011	.0004	-.0063	.05
	.10	.077	1.88	.006	-.018	-.0032	-.0172	.10
	.20	.078	1.86	-.029	-.085	.0011	-.0437	.20
	.30	.075	1.94	-.065	-.129	.0090	-.0786	.30
	.40	.068	2.02	-.121	-.157	.0037	-.1091	.40

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75"

BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	.062	2.09	-.179	.327	.0074	.1351	-.40
	-.30	.065	2.03	-.126	.264	.0037	.0981	-.30
	-.20	.068	1.97	-.087	.175	.0042	.0574	-.20
	-.10	.065	1.96	-.056	.108	-.0002	.0252	-.10
	-.05	.063	1.97	-.050	.072	0.0000	.0134	-.05
	0.00	.073	1.90	-.042	.037	.0010	.0025	0.00
	0.00	.049	1.77	-.043	.016	.0002	.0028	0.00
	.05	.065	1.95	-.028	-.011	.0040	-.0076	.05
	.10	.067	1.97	-.032	-.055	.0032	-.0172	.10
	.20	.073	1.96	-.073	-.113	.0005	-.0423	.20
	.30	.076	2.01	-.106	-.211	.0018	-.0881	.30
	.40	.077	2.11	-.170	-.274	-.0014	-.1293	.40
45	-.40	.064	2.10	-.229	.403	.0142	.1705	-.40
	-.30	.071	2.03	-.161	.303	.0101	.1219	-.30
	-.20	.072	1.99	-.120	.181	.0058	.0764	-.20
	-.10	.067	1.99	-.126	.080	.0017	.0231	-.10
	-.05	.066	1.99	-.117	.049	0.0000	.0124	-.05
	0.00	.071	1.94	-.120	.019	-.0025	.0025	0.00
	0.00	.073	1.96	-.111	.006	-.0002	.0032	0.00
	.05	.078	2.01	-.085	.005	.0005	-.0049	.05
	.10	.081	2.00	-.095	-.022	.0039	-.0140	.10
	.20	.083	1.99	-.141	-.092	.0008	-.0385	.20
	.30	.087	2.03	-.155	-.234	-.0055	-.1066	.30
	.40	.079	2.13	-.227	-.352	-.0117	-.1645	.40
50	-.40	.058	2.21	-.341	.406	.0215	.1899	-.40
	-.30	.065	2.11	-.215	.354	.0186	.1438	-.30
	-.20	.073	2.02	-.148	.238	.0158	.1006	-.20
	-.10	.077	2.01	-.115	.109	.0096	.0621	-.10
	-.05	.076	2.00	-.131	.037	.0076	.0357	-.05
	0.00	.081	1.93	-.159	.004	.0025	.0127	0.00
	0.00	.081	1.96	-.168	-.009	.0041	.0126	0.00
	.05	.088	2.00	-.147	-.029	.0005	-.0049	.05
	.10	.089	2.03	-.143	-.046	.0021	-.0142	.10
	.20	.088	2.05	-.150	-.144	-.0011	-.0434	.20
	.30	.078	2.13	-.209	-.314	-.0128	-.1211	.30
55	-.40	.064	2.31	-.444	.289	.0240	.1487	-.40
	-.30	.068	2.17	-.355	.294	.0273	.1280	-.30
	-.20	.071	2.07	-.286	.233	.0243	.0922	-.20
	-.10	.070	2.03	-.225	.175	.0147	.0665	-.10
	-.05	.070	2.00	-.223	.131	.0096	.0466	-.05
	0.00	.071	1.97	-.197	.055	.0034	.0510	0.00
	0.00	.072	1.97	-.206	.050	.0033	.0508	0.00
	.05	.073	2.05	-.144	.016	.0046	.0228	.05
	.10	.073	2.05	-.155	-.037	.0023	.0022	.10
	.20	.074	2.13	-.192	-.151	-.0069	-.0490	.20
	.30	.074	2.21	-.332	-.238	-.0158	-.1032	.30
	.40	.070	2.31	-.432	-.259	-.0164	-.1414	.40

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.061	2.39	-.455	.261	.0158	.1476	-.40
	-.30	.071	2.24	-.390	.228	.0252	.1043	-.30
	-.20	.077	2.10	-.349	.183	.0230	.0812	-.20
	-.10	.080	2.03	-.318	.128	.0137	.0515	-.10
	-.05	.079	1.99	-.295	.115	.0087	.0498	-.05
	0.00	.076	1.96	-.272	.086	.0054	.0446	0.00
	0.00	.076	1.99	-.277	.087	.0055	.0442	0.00
	.05	.078	2.09	-.245	.043	-.0021	.0514	.05
	.10	.080	2.12	-.244	-.003	-.0069	.0328	.10
	.20	.078	2.15	-.299	-.170	-.0135	-.0625	.20
	.30	.077	2.26	-.415	-.203	-.0198	-.0992	.30
	.40	.069	2.42	-.471	-.224	-.0138	-.1369	.40
65	-.40	.041	2.51	-.474	.234	.0133	.1565	-.40
	-.30	.048	2.34	-.438	.186	.0285	.1086	-.30
	-.20	.052	2.20	-.403	.136	.0239	.0762	-.20
	-.10	.054	2.11	-.359	.099	.0143	.0466	-.10
	-.05	.053	2.09	-.341	.076	.0084	.0343	-.05
	0.00	.057	2.03	-.336	.035	.0022	.0309	0.00
	0.00	.056	2.05	-.340	.035	.0054	.0283	0.00
	.05	.052	2.17	-.331	.009	-.0016	.0315	.05
	.10	.052	2.23	-.333	-.024	-.0097	.0262	.10
	.20	.047	2.33	-.309	-.100	-.0111	-.0112	.20
	.30	.048	2.40	-.452	-.186	-.0220	-.0894	.30
	.40	.043	2.50	-.459	-.233	-.0023	-.1374	.40
70	-.40	.046	2.62	-.528	.165	.0148	.1367	-.40
	-.30	.057	2.43	-.505	.119	.0300	.0889	-.30
	-.20	.062	2.26	-.458	.087	.0242	.0578	-.20
	-.10	.064	2.17	-.393	.068	.0144	.0280	-.10
	-.05	.066	2.06	-.389	.015	-.0004	.0196	-.05
	0.00	.057	2.10	-.375	-.013	-.0028	.0123	0.00
	0.00	.060	2.05	-.392	-.010	.0027	.0050	0.00
	.05	.061	2.17	-.378	-.036	-.0069	.0129	.05
	.10	.062	2.17	-.400	-.070	-.0086	-.0041	.10
	.20	.060	2.29	-.466	-.118	-.0188	-.0415	.20
	.30	.055	2.45	-.515	-.127	-.0214	-.0777	.30
	.40	.045	2.62	-.515	-.158	.0002	-.1235	.40
75	-.40	.059	2.65	-.626	.094	.0116	.1167	-.40
	-.30	.065	2.45	-.583	.080	.0235	.0719	-.30
	-.20	.063	2.27	-.519	.081	.0191	.0458	-.20
	-.10	.067	2.14	-.451	.046	.0087	.0214	-.10
	-.05	.067	2.07	-.478	.007	-.0012	.0153	-.05
	0.00	.057	2.05	-.471	-.014	.0015	.0037	0.00
	0.00	.058	2.05	-.486	-.018	.0040	.0059	0.00
	.05	.065	2.07	-.474	-.021	.0043	-.0080	.05
	.10	.065	2.16	-.470	-.066	-.0078	-.0116	.10
	.20	.058	2.28	-.536	-.088	-.0153	-.0388	.20
	.30	.063	2.45	-.587	-.084	-.0169	-.0669	.30
	.40	.064	2.67	-.629	-.092	.0009	-.1138	.40

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.039	2.70	-.676	.063	-.0039	.1171	-.40
	-.30	.054	2.50	-.606	.072	.0110	.0683	-.30
	-.20	.064	2.33	-.562	.082	.0110	.0378	-.20
	-.10	.074	2.15	-.521	.041	.0033	.0252	-.10
	-.05	.077	2.11	-.532	.015	-.0007	.0164	-.05
	0.00	.064	2.09	-.539	-.001	.0017	.0025	0.00
	0.00	.063	2.08	-.537	.002	.0018	.0016	0.00
	.05	.084	2.11	-.540	-.006	.0048	-.0115	.05
	.10	.081	2.14	-.530	-.032	.0013	-.0197	.10
	.20	.072	2.29	-.571	-.074	-.0066	-.0343	.20
	.30	.064	2.47	-.607	-.066	-.0035	-.0624	.30
	.40	.050	2.68	-.668	-.062	.0142	-.1123	.40
85	-.40	.043	2.67	-.693	.044	-.0198	.1174	-.40
	-.30	.037	2.47	-.635	.062	-.0003	.0657	-.30
	-.20	.059	2.29	-.592	.076	.0040	.0361	-.20
	-.10	.071	2.16	-.569	.044	-.0019	.0265	-.10
	-.05	.076	2.14	-.579	.028	-.0013	.0147	-.05
	0.00	.053	2.09	-.589	.003	.0008	.0016	0.00
	0.00	.053	2.13	-.608	.006	-.0005	-.0004	0.00
	.05	.073	2.15	-.587	.017	.0034	-.0140	.05
	.10	.069	2.14	-.571	.001	.0065	-.0248	.10
	.20	.057	2.27	-.588	-.037	.0067	-.0380	.20
	.30	.041	2.43	-.619	-.046	.0070	-.0615	.30
	.40	.044	2.66	-.674	-.020	.0302	-.1115	.40
90	-.40	.033	2.67	-.702	.028	-.0271	.1088	-.40
	-.30	.032	2.40	-.655	.037	-.0147	.0723	-.30
	-.20	.047	2.25	-.627	.068	-.0067	.0355	-.20
	-.10	.063	2.16	-.624	.028	-.0026	.0272	-.10
	-.05	.068	2.17	-.640	.026	-.0002	.0148	-.05
	0.00	.044	2.12	-.647	.004	.0013	.0007	0.00
	0.00	.045	2.12	-.644	.009	-.0014	-.0003	0.00
	.05	.080	2.14	-.630	.019	.0024	-.0138	.05
	.10	.074	2.14	-.610	.003	.0042	-.0245	.10
	.20	.056	2.24	-.619	-.025	.0144	-.0369	.20
	.30	.041	2.34	-.643	.008	.0276	-.0729	.30
	.40	.041	2.61	-.676	-.002	.0343	-.1070	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 with vert. aft 5.75" BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
0	-.40	.035	.04	.081	-.162	.1263	.0241	-.40
	-.30	.039	.05	.058	-.135	.0942	.0226	-.30
	-.20	.042	.08	.044	-.108	.0595	.0210	-.20
	-.10	.045	.15	.026	-.084	.0216	.0192	-.10
	-.05	.046	.17	.017	-.080	.0040	.0186	-.05
	0.00	.051	.11	.002	-.106	-.0125	.0172	0.00
	0.00	.050	.11	.001	-.107	-.0125	.0175	0.00
	.05	.063	.18	-.003	-.093	-.0293	.0167	.05
	.10	.063	.19	-.013	-.087	-.0471	.0153	.10
	.20	.060	.19	-.031	-.103	-.0848	.0116	.20
	.30	.056	.23	-.053	-.113	-.1253	.0076	.30
	.40	.058	.26	-.075	-.132	-.1546	.0027	.40
5	-.40	.036	.36	.064	-.207	.1201	.0400	-.40
	-.30	.036	.41	.042	-.161	.0843	.0355	-.30
	-.20	.033	.45	.024	-.130	.0473	.0308	-.20
	-.10	.032	.52	.009	-.097	.0137	.0257	-.10
	-.05	.033	.51	.002	-.095	-.0038	.0225	-.05
	0.00	.039	.45	-.015	-.110	-.0198	.0178	0.00
	0.00	.037	.45	-.015	-.108	-.0200	.0175	0.00
	.05	.039	.51	-.018	-.084	-.0358	.0137	.05
	.10	.040	.53	-.030	-.079	-.0523	.0095	.10
	.20	.045	.55	-.064	-.080	-.0827	.0014	.20
	.30	.049	.55	-.093	-.088	-.1050	-.0069	.30
	.40	.049	.59	-.125	-.091	-.1349	-.0196	.40
10	-.40	.029	.84	.072	-.218	.0985	.0541	-.40
	-.30	.031	.82	.054	-.181	.0625	.0460	-.30
	-.20	.027	.83	.040	-.137	.0309	.0373	-.20
	-.10	.022	.87	.021	-.096	.0015	.0275	-.10
	-.05	.022	.88	.008	-.084	-.0130	.0223	-.05
	0.00	.033	.81	-.020	-.101	-.0261	.0160	0.00
	0.00	.033	.80	-.021	-.099	-.0260	.0158	0.00
	.05	.041	.87	-.027	-.067	-.0383	.0105	.05
	.10	.042	.88	-.044	-.061	-.0505	.0038	.10
	.20	.045	.86	-.069	-.060	-.0663	-.0108	.20
	.30	.047	.89	-.108	-.049	-.0878	-.0293	.30
15	-.40	.028	1.22	.081	-.249	.0875	.0618	-.40
	-.30	.028	1.18	.063	-.196	.0542	.0502	-.30
	-.20	.029	1.16	.042	-.143	.0231	.0382	-.20
	-.10	.027	1.18	.012	-.089	-.0042	.0254	-.10
	-.05	.028	1.18	-.001	-.073	-.0160	.0182	-.05
	0.00	.037	1.12	-.023	-.083	-.0251	.0114	0.00
	0.00	.037	1.11	-.023	-.082	-.0264	.0111	0.00
	.05	.042	1.20	-.023	-.041	-.0328	.0046	.05
	.10	.043	1.20	-.040	-.030	-.0410	-.0046	.10
	.20	.045	1.19	-.081	-.022	-.0584	-.0248	.20
	.30	.042	1.26	-.133	-.006	-.0752	-.0515	.30

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.018	1.61	.095	-.231	.0685	.0685	-.40
	-.30	.024	1.56	.059	-.194	.0448	.0540	-.30
	-.20	.026	1.55	.034	-.132	.0228	.0373	-.20
	-.10	.025	1.54	.019	-.067	.0031	.0202	-.10
	-.05	.026	1.53	.012	-.049	-.0056	.0107	-.05
	0.00	.038	1.41	-.009	-.057	-.0114	-.0009	0.00
	0.00	.038	1.40	-.010	-.055	-.0113	-.0014	0.00
	.05	.045	1.46	-.011	-.021	-.0175	-.0114	.05
	.10	.045	1.45	-.028	.002	-.0235	-.0229	.10
	.20	.048	1.39	-.079	.007	-.0342	-.0436	.20
	.30	.052	1.40	-.170	.002	-.0422	-.0698	.30
25	-.40	.019	1.90	.103	-.195	.0427	.0691	-.40
	-.30	.025	1.83	.098	-.164	.0234	.0531	-.30
	-.20	.028	1.77	.082	-.112	.0106	.0291	-.20
	-.10	.033	1.72	.041	-.057	.0196	.0002	-.10
	-.05	.037	1.68	0.000	-.045	.0249	-.0126	-.05
	0.00	.053	1.57	-.050	-.064	.0240	-.0250	0.00
	0.00	.051	1.58	-.050	-.066	.0222	-.0245	0.00
	.05	.055	1.60	-.064	-.034	.0180	-.0326	.05
	.10	.056	1.59	-.090	-.032	.0118	-.0433	.10
	.20	.057	1.57	-.146	-.028	0.0000	-.0650	.20
	.30	.056	1.60	-.214	-.032	-.0055	-.0942	.30
30	-.40	.038	2.01	.039	-.030	.0412	.0491	-.40
	-.30	.040	1.97	.054	-.055	.0367	.0218	-.30
	-.20	.041	1.89	.050	-.049	.0214	.0073	-.20
	-.10	.036	1.88	.025	-.054	.0138	-.0131	-.10
	-.05	.036	1.86	-.005	-.061	.0153	-.0264	-.05
	0.00	.052	1.74	-.049	-.094	.0175	-.0421	0.00
	0.00	.052	1.72	-.045	-.097	.0170	-.0426	0.00
	.05	.050	1.81	-.064	-.081	.0185	-.0532	.05
	.10	.049	1.83	-.090	-.085	.0193	-.0646	.10
	.20	.049	1.84	-.162	-.120	.0194	-.0865	.20
35	-.40	.051	2.25	-.019	.028	.0173	.0595	-.40
	-.30	.055	2.14	.016	-.027	.0104	.0285	-.30
	-.20	.059	2.05	.028	-.019	.0048	.0020	-.20
	-.10	.058	2.01	.011	-.044	-.0040	-.0183	-.10
	-.05	.056	1.96	-.010	-.060	-.0101	-.0294	-.05
	0.00	.069	1.85	-.040	-.131	-.0074	-.0409	0.00
	0.00	.067	1.82	-.035	-.137	-.0030	-.0404	0.00
	.05	.065	1.93	-.047	-.126	-.0050	-.0511	.05
	.10	.066	1.93	-.060	-.180	.0013	-.0607	.10
	.20	.065	1.95	-.128	-.266	.0064	-.0833	.20
40	-.40	.059	2.38	-.042	.122	-.0034	.0881	-.40
	-.30	.065	2.26	-.030	.069	-.0061	.0331	-.30
	-.20	.064	2.12	-.018	.019	-.0112	.0002	-.20
	-.10	.063	2.10	-.026	-.030	-.0121	-.0201	-.10
	-.05	.063	2.09	-.052	-.054	-.0128	-.0326	-.05
	0.00	.074	2.01	-.083	-.129	-.0119	-.0466	0.00
	0.00	.074	1.99	-.089	-.120	-.0113	-.0451	0.00
	.05	.073	2.04	-.089	-.130	-.0148	-.0581	.05
	.10	.075	2.01	-.095	-.182	-.0151	-.0743	.10

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
45	-.40	.054	2.23	-.076	.193	-.0050	.1231	-.40
	-.30	.062	2.10	-.049	.119	-.0104	.0729	-.30
	-.20	.066	2.04	-.052	.049	-.0117	.0216	-.20
	-.10	.068	1.96	-.073	-.024	-.0170	-.0123	-.10
	-.05	.069	1.97	-.081	-.036	-.0137	-.0248	-.05
	0.00	.077	1.89	-.112	-.095	-.0116	-.0343	0.00
	0.00	.077	1.89	-.118	-.098	-.0127	-.0345	0.00
	.05	.081	1.93	-.141	-.083	-.0122	-.0435	.05
	.10	.081	1.93	-.128	-.169	-.0181	-.0668	.10
50	-.40	.056	2.19	-.154	.165	.0023	.1515	-.40
	-.30	.063	2.13	-.123	.133	-.0001	.1058	-.30
	-.20	.065	2.04	-.090	.093	-.0054	.0672	-.20
	-.10	.066	2.00	-.118	-.022	-.0146	.0009	-.10
	-.05	.063	1.98	-.120	-.062	-.0163	-.0145	-.05
	0.00	.068	1.96	-.109	-.105	-.0132	-.0265	0.00
	0.00	.067	1.93	-.116	-.115	-.0134	-.0285	0.00
	.05	.092	1.92	-.168	-.098	-.0206	-.0288	.05
	.10	.088	1.95	-.179	-.211	-.0275	-.0812	.10
55	-.40	.060	2.29	-.278	.098	-.0079	.1225	-.40
	-.30	.063	2.14	-.252	.124	-.0028	.0961	-.30
	-.20	.066	2.06	-.243	.080	-.0011	.0505	-.20
	-.10	.062	1.98	-.194	.026	-.0114	.0229	-.10
	-.05	.064	1.93	-.228	-.026	-.0163	.0125	-.05
	0.00	.061	1.98	-.160	-.097	-.0149	-.0089	0.00
	0.00	.062	1.96	-.160	-.101	-.0151	-.0090	0.00
	.05	.067	1.99	-.202	-.104	-.0205	-.0279	.05
	.10	.067	1.95	-.254	-.194	-.0286	-.0748	.10
60	-.40	.058	2.35	-.298	.080	-.0148	.1241	-.40
	-.30	.066	2.23	-.303	.080	-.0022	.0730	-.30
	-.20	.068	2.14	-.297	.050	.0010	.0390	-.20
	-.10	.064	2.08	-.250	.050	-.0071	.0272	-.10
	-.05	.063	2.02	-.272	-.008	-.0176	.0192	-.05
	0.00	.069	1.97	-.292	-.073	-.0210	.0006	0.00
	0.00	.068	1.92	-.281	-.068	-.0206	.0018	0.00
	.05	.078	2.03	-.270	-.091	-.0230	-.0154	.05
	.10	.077	2.01	-.331	-.186	-.0282	-.0725	.10
65	-.40	.055	2.41	-.313	.057	-.0249	.1219	-.40
	-.30	.058	2.31	-.351	.041	.0007	.0751	-.30
	-.20	.059	2.16	-.336	.022	.0025	.0425	-.20
	-.10	.063	2.00	-.354	-.036	-.0239	.0281	-.10
	-.05	.061	1.98	-.347	-.051	-.0233	.0142	-.05
	0.00	.065	1.96	-.334	-.091	-.0229	.0005	0.00
	0.00	.064	1.95	-.339	-.088	-.0243	.0005	0.00
	.05	.066	2.11	-.328	-.070	-.0242	-.0124	.05
	.10	.064	2.13	-.330	-.117	-.0264	-.0334	.10
	.20	.061	2.20	-.458	-.231	-.0373	-.1000	.20

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
70	-.40	.054	2.49	-.365	.000	-.0305	.1042	-.40
	-.30	.053	2.40	-.380	-.009	-.0038	.0588	-.30
	-.20	.057	2.25	-.378	-.005	-.0020	.0283	-.20
	-.10	.059	2.12	-.371	-.037	-.0149	.0022	-.10
	-.05	.060	2.02	-.392	-.087	-.0303	-.0061	-.05
	0.00	.057	2.00	-.389	-.141	-.0289	-.0115	0.00
	0.00	.056	2.00	-.391	-.129	-.0288	-.0122	0.00
	.05	.057	2.09	-.377	-.118	-.0261	-.0204	.05
	.10	.057	2.12	-.400	-.161	-.0269	-.0399	.10
	.20	.055	2.20	-.509	-.208	-.0392	-.0781	.20
	.30	.052	2.37	-.587	-.240	-.0470	-.1056	.30
75	-.40	.071	2.49	-.462	-.045	-.0342	.0921	-.40
	-.30	.069	2.39	-.469	-.045	-.0124	.0466	-.30
	-.20	.077	2.17	-.471	-.078	-.0307	.0256	-.20
	-.10	.077	2.06	-.467	-.097	-.0334	-.0009	-.10
	-.05	.073	2.04	-.476	-.100	-.0324	-.0138	-.05
	0.00	.064	2.02	-.480	-.128	-.0329	-.0252	0.00
	0.00	.062	2.01	-.482	-.135	-.0310	-.0237	0.00
	.05	.082	2.12	-.470	-.111	-.0278	-.0332	.05
	.10	.076	2.15	-.469	-.152	-.0288	-.0421	.10
	.20	.066	2.24	-.568	-.193	-.0364	-.0598	.20
	.30	.065	2.42	-.665	-.209	-.0418	-.0872	.30
	.40	.065	2.65	-.738	-.211	-.0285	-.1255	.40
80	-.40	.072	2.54	-.506	-.036	-.0428	.0940	-.40
	-.30	.061	2.35	-.493	-.043	-.0304	.0462	-.30
	-.20	.072	2.21	-.515	-.092	-.0407	.0285	-.20
	-.10	.075	2.11	-.519	-.080	-.0345	-.0010	-.10
	-.05	.075	2.08	-.530	-.086	-.0316	-.0133	-.05
	0.00	.060	2.02	-.547	-.131	-.0316	-.0246	0.00
	0.00	.060	2.04	-.545	-.132	-.0274	-.0219	0.00
	.05	.092	2.14	-.541	-.087	-.0272	-.0343	.05
	.10	.082	2.15	-.537	-.113	-.0260	-.0422	.10
	.20	.072	2.25	-.601	-.168	-.0328	-.0548	.20
	.30	.062	2.44	-.691	-.184	-.0363	-.0829	.30
	.40	.062	2.68	-.770	-.171	-.0211	-.1213	.40
85	-.40	.066	2.55	-.550	-.060	-.0611	.0999	-.40
	-.30	.059	2.39	-.552	-.093	-.0502	.0636	-.30
	-.20	.072	2.22	-.558	-.090	-.0418	.0301	-.20
	-.10	.082	2.15	-.568	-.081	-.0353	.0007	-.10
	-.05	.085	2.13	-.585	-.079	-.0315	-.0115	-.05
	0.00	.066	2.07	-.618	-.121	-.0319	-.0257	0.00
	0.00	.066	2.05	-.606	-.130	-.0295	-.0233	0.00
	.05	.092	2.15	-.595	-.091	-.0274	-.0336	.05
	.10	.085	2.17	-.598	-.107	-.0251	-.0435	.10
	.20	.064	2.24	-.630	-.156	-.0219	-.0551	.20
	.30	.047	2.47	-.713	-.168	-.0264	-.0726	.30
	.40	.057	2.72	-.789	-.123	-.0116	-.1130	.40

F-18 ROTARY BALANCE DATA

F-18 with vert. aft 5.75" BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
90	-.40	.059	2.54	-.578	-.085	-.0667	.1027	-.40
	-.30	.056	2.35	-.583	-.109	-.0544	.0598	-.30
	-.20	.063	2.22	-.605	-.093	-.0437	.0286	-.20
	-.10	.077	2.11	-.625	-.085	-.0334	.0022	-.10
	-.05	.080	2.10	-.639	-.087	-.0300	-.0100	-.05
	0.00	.063	2.05	-.671	-.124	-.0293	-.0227	0.00
	0.00	.064	2.02	-.656	-.121	-.0294	-.0231	0.00
	.05	.075	2.15	-.651	-.075	-.0266	-.0332	.05
	.10	.069	2.17	-.652	-.092	-.0255	-.0439	.10
	.20	.050	2.23	-.668	-.146	-.0175	-.0510	.20
	.30	.046	2.41	-.725	-.152	-.0177	-.0685	.30
	.40	.054	2.66	-.802	-.128	-.0043	-.1010	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
0	-.40	.045	.20	-.020	-.027	.1349	.0218	-.40
	-.30	.055	.15	-.021	-.018	.0981	.0147	-.30
	-.20	.061	.14	-.020	-.007	.0624	.0091	-.20
	-.10	.064	.13	-.020	.001	.0287	.0044	-.10
	-.05	.066	.12	-.020	.001	.0124	.0022	-.05
	0.00	.071	.06	-.027	-.011	-.0025	-.0005	0.00
	0.00	.070	.06	-.025	-.011	-.0031	-.0006	0.00
	.05	.072	.09	-.025	-.008	-.0183	-.0025	.05
	.10	.075	.07	-.028	-.014	-.0345	-.0045	.10
	.20	.077	.07	-.030	-.013	-.0675	-.0078	.20
	.30	.079	.06	-.029	-.018	-.1000	-.0104	.30
	.40	.077	.07	-.024	-.022	-.1311	-.0133	.40
5	-.40	.013	.53	-.036	-.049	.1330	.0376	-.40
	-.30	.027	.49	-.041	-.035	.0998	.0254	-.30
	-.20	.032	.47	-.036	-.025	.0663	.0155	-.20
	-.10	.034	.46	-.031	-.016	.0330	.0079	-.10
	-.05	.035	.46	-.033	-.008	.0149	.0041	-.05
	0.00	.041	.41	-.042	-.013	-.0025	-.0000	0.00
	0.00	.042	.40	-.041	-.015	-.0025	-.0002	0.00
	.05	.040	.43	-.038	-.004	-.0199	-.0035	.05
	.10	.043	.41	-.042	-.003	-.0363	-.0069	.10
	.20	.048	.39	-.045	.009	-.0652	-.0133	.20
	.30	.052	.37	-.048	.017	-.0948	-.0203	.30
	.40	.050	.39	-.046	.039	-.1265	-.0280	.40
10	-.40	-.009	.86	-.047	-.091	.1218	.0482	-.40
	-.30	-.009	.82	-.045	-.068	.0912	.0363	-.30
	-.20	-.003	.83	-.042	-.041	.0589	.0223	-.20
	-.10	.002	.83	-.039	-.015	.0261	.0099	-.10
	-.05	.003	.83	-.040	-.007	.0120	.0048	-.05
	0.00	.012	.79	-.050	-.003	.0012	.0005	0.00
	0.00	.012	.79	-.047	-.008	.0011	.0006	0.00
	.05	.009	.80	-.042	.010	-.0105	-.0041	.05
	.10	.010	.79	-.040	.019	-.0249	-.0087	.10
	.20	.012	.77	-.046	.042	-.0551	-.0190	.20
	.30	.011	.76	-.049	.065	-.0854	-.0292	.30
	.40	.013	.78	-.052	.086	-.1166	-.0391	.40
15	-.40	-.029	1.14	-.058	-.132	.1025	.0576	-.40
	-.30	-.028	1.08	-.053	-.100	.0734	.0423	-.30
	-.20	-.035	1.09	-.049	-.068	.0495	.0288	-.20
	-.10	-.032	1.08	-.045	-.034	.0297	.0168	-.10
	-.05	-.026	1.06	-.046	-.021	.0174	.0092	-.05
	0.00	-.015	1.02	-.055	-.016	.0042	.0016	0.00
	0.00	-.016	1.03	-.055	-.008	.0033	.0010	0.00
	.05	-.018	1.04	-.049	.003	-.0075	-.0057	.05
	.10	-.017	1.01	-.049	.016	-.0190	-.0125	.10
	.20	-.013	1.00	-.054	.042	-.0432	-.0250	.20
	.30	-.007	1.00	-.062	.070	-.0715	-.0379	.30
	.40	-.005	1.04	-.071	.106	-.1030	-.0505	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	-.046	1.50	-.096	-.147	.0732	.0746	-.40
	-.30	-.044	1.44	-.085	-.112	.0545	.0549	-.30
	-.20	-.049	1.40	-.073	-.075	.0372	.0381	-.20
	-.10	-.063	1.39	-.065	-.037	.0208	.0204	-.10
	-.05	-.071	1.39	-.062	-.019	.0139	.0125	-.05
	0.00	-.067	1.36	-.069	-.005	.0066	.0035	0.00
	0.00	-.068	1.36	-.067	-.005	.0064	.0031	0.00
	.05	-.068	1.38	-.065	.019	-.0025	-.0055	.05
	.10	-.059	1.38	-.069	.040	-.0122	-.0156	.10
	.20	-.041	1.37	-.076	.083	-.0319	-.0346	.20
	.30	-.033	1.38	-.089	.116	-.0513	-.0496	.30
	.40	-.028	1.43	-.104	.159	-.0722	-.0675	.40
25	-.40	-.051	1.74	-.134	-.111	.0474	.0775	-.40
	-.30	-.053	1.69	-.104	-.073	.0352	.0515	-.30
	-.20	-.066	1.67	-.081	-.033	.0260	.0297	-.20
	-.10	-.073	1.66	-.071	-.011	.0135	.0134	-.10
	-.05	-.073	1.64	-.069	-.003	.0074	.0070	-.05
	0.00	-.067	1.61	-.076	-.003	.0018	.0009	0.00
	0.00	-.066	1.62	-.072	-.002	.0012	.0013	0.00
	.05	-.071	1.63	-.074	-.001	-.0024	-.0020	.05
	.10	-.073	1.64	-.072	.007	-.0077	-.0067	.10
	.20	-.062	1.64	-.085	.037	-.0176	-.0225	.20
	.30	-.045	1.65	-.107	.080	-.0286	-.0451	.30
	.40	-.036	1.67	-.137	.116	-.0412	-.0688	.40
30	-.40	-.077	2.00	-.167	.039	.0096	.0852	-.40
	-.30	-.078	1.94	-.125	.050	.0014	.0556	-.30
	-.20	-.083	1.94	-.085	.048	.0021	.0313	-.20
	-.10	-.086	1.94	-.067	.041	.0062	.0163	-.10
	-.05	-.089	1.95	-.064	.040	.0063	.0117	-.05
	0.00	-.075	1.87	-.066	.014	.0015	.0020	0.00
	0.00	-.077	1.88	-.074	.012	.0017	.0024	0.00
	.05	-.087	1.95	-.065	.028	.0022	-.0019	.05
	.10	-.086	1.95	-.067	.012	.0011	-.0090	.10
	.20	-.081	1.91	-.088	.016	.0054	-.0235	.20
	.30	-.080	1.92	-.123	.021	.0044	-.0467	.30
	.40	-.077	1.97	-.167	.039	-.0038	-.0771	.40
35	-.40	-.087	2.21	-.200	.201	-.0119	.1022	-.40
	-.30	-.078	2.13	-.149	.188	-.0205	.0746	-.30
	-.20	-.072	2.07	-.100	.137	-.0129	.0496	-.20
	-.10	-.076	2.08	-.070	.066	.0079	.0241	-.10
	-.05	-.076	2.08	-.062	.054	.0073	.0158	-.05
	0.00	-.063	2.04	-.061	.012	.0078	.0056	0.00
	0.00	-.062	2.03	-.060	.008	.0060	.0057	0.00
	.05	-.075	2.07	-.064	-.019	.0109	-.0036	.05
	.10	-.075	2.07	-.072	-.036	.0058	-.0145	.10
	.20	-.074	2.03	-.105	-.076	.0226	-.0393	.20
	.30	-.079	2.08	-.148	-.113	.0252	-.0662	.30
	.40	-.092	2.14	-.198	-.112	.0178	-.0971	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	-.096	2.33	-.236	.343	-.0153	.1261	-.40
	-.30	-.079	2.23	-.175	.294	-.0171	.0904	-.30
	-.20	-.066	2.16	-.119	.191	-.0083	.0595	-.20
	-.10	-.061	2.11	-.083	.098	.0090	.0255	-.10
	-.05	-.062	2.10	-.084	.047	.0118	.0130	-.05
	0.00	-.051	2.07	-.084	.002	.0077	.0023	0.00
	0.00	-.052	2.07	-.086	-.006	.0060	.0025	0.00
	.05	-.069	2.14	-.072	-.052	.0100	-.0068	.05
	.10	-.072	2.15	-.070	-.092	.0048	-.0184	.10
	.20	-.073	2.16	-.115	-.131	.0167	-.0465	.20
	.30	-.083	2.21	-.181	-.212	.0258	-.0819	.30
	.40	-.096	2.27	-.241	-.240	.0237	-.1211	.40
45	-.40	-.107	2.70	-.269	.501	-.0209	.1684	-.40
	-.30	-.080	2.58	-.192	.384	-.0129	.1250	-.30
	-.20	-.054	2.47	-.164	.217	.0011	.0757	-.20
	-.10	-.047	2.42	-.144	.120	.0053	.0210	-.10
	-.05	-.045	2.42	-.147	.057	.0056	.0149	-.05
	0.00	-.032	2.35	-.142	.030	.0039	.0001	0.00
	0.00	-.032	2.32	-.144	.002	.0060	.0014	0.00
	.05	-.049	2.40	-.119	-.012	.0033	-.0070	.05
	.10	-.048	2.43	-.104	-.085	.0016	-.0165	.10
	.20	-.048	2.45	-.165	-.132	-.0014	-.0425	.20
	.30	-.082	2.56	-.199	-.311	.0199	-.1115	.30
	.40	-.107	2.65	-.277	-.406	.0272	-.1597	.40
50	-.40	-.107	2.71	-.363	.532	-.0079	.1969	-.40
	-.30	-.087	2.59	-.241	.420	-.0084	.1463	-.30
	-.20	-.066	2.50	-.160	.272	-.0026	.1034	-.20
	-.10	-.044	2.45	-.147	.101	.0042	.0504	-.10
	-.05	-.039	2.40	-.147	.058	.0052	.0304	-.05
	0.00	-.032	2.34	-.159	.011	.0035	.0045	0.00
	0.00	-.033	2.33	-.149	.020	.0019	.0036	0.00
	.05	-.042	2.45	-.155	-.027	.0008	-.0051	.05
	.10	-.043	2.45	-.163	-.047	.0006	-.0146	.10
	.20	-.043	2.47	-.169	-.146	.0022	-.0448	.20
	.30	-.085	2.59	-.232	-.335	.0146	-.1244	.30
	.40	-.110	2.70	-.356	-.433	.0175	-.1835	.40
55	-.40	-.120	2.77	-.485	.421	.0085	.1695	-.40
	-.30	-.098	2.58	-.374	.364	.0130	.1365	-.30
	-.20	-.078	2.45	-.307	.281	.0115	.0995	-.20
	-.10	-.055	2.35	-.273	.182	.0106	.0720	-.10
	-.05	-.054	2.31	-.300	.131	.0112	.0505	-.05
	0.00	-.048	2.29	-.222	.062	.0061	.0535	0.00
	0.00	-.044	2.21	-.253	.049	.0070	.0494	0.00
	.05	-.055	2.36	-.176	-.002	.0039	.0171	.05
	.10	-.058	2.35	-.205	-.052	.0032	-.0087	.10
	.20	-.065	2.45	-.200	-.157	.0004	-.0460	.20
	.30	-.097	2.55	-.315	-.294	.0050	-.1173	.30
	.40	-.121	2.72	-.465	-.337	.0091	-.1644	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.116	2.83	-.500	.364	.0064	.1496	-.40
	-.30	-.092	2.63	-.433	.303	.0197	.1167	-.30
	-.20	-.071	2.48	-.409	.233	.0216	.0878	-.20
	-.10	-.055	2.33	-.397	.126	.0117	.0633	-.10
	-.05	-.053	2.27	-.398	.109	.0077	.0644	-.05
	0.00	-.054	2.22	-.365	.081	.0074	.0527	0.00
	0.00	-.057	2.19	-.343	.068	.0068	.0545	0.00
	.05	-.069	2.31	-.291	.032	.0014	.0511	.05
	.10	-.074	2.38	-.286	-.024	-.0032	.0322	.10
	.20	-.081	2.47	-.333	-.191	-.0124	-.0643	.20
	.30	-.097	2.61	-.432	-.225	-.0127	-.1108	.30
	.40	-.119	2.79	-.506	-.268	.0000	-.1410	.40
65	-.40	-.102	2.83	-.512	.351	.0074	.1598	-.40
	-.30	-.064	2.65	-.484	.226	.0262	.1068	-.30
	-.20	-.035	2.48	-.465	.179	.0245	.0795	-.20
	-.10	-.019	2.32	-.433	.105	.0124	.0565	-.10
	-.05	-.015	2.26	-.429	.071	.0059	.0446	-.05
	0.00	.001	2.21	-.435	.050	.0021	.0293	0.00
	0.00	.000	2.17	-.417	.050	.0035	.0305	0.00
	.05	-.008	2.18	-.420	.015	.0027	.0203	.05
	.10	-.015	2.30	-.388	-.026	-.0097	.0193	.10
	.20	-.036	2.48	-.361	-.116	-.0110	-.0231	.20
	.30	-.061	2.58	-.480	-.188	-.0165	-.0965	.30
	.40	-.093	2.80	-.514	-.266	.0062	-.1427	.40
70	-.40	-.107	2.58	-.463	.298	-.0143	.1365	-.40
	-.30	-.086	2.45	-.462	.175	.0223	.0873	-.30
	-.20	-.067	2.27	-.450	.128	.0213	.0617	-.20
	-.10	-.058	2.15	-.417	.080	.0113	.0348	-.10
	-.05	-.050	2.04	-.436	.043	-.0034	.0158	-.05
	0.00	-.051	2.00	-.431	.012	.0026	.0025	0.00
	0.00	-.054	2.00	-.435	.006	.0033	.0040	0.00
	.05	-.051	2.01	-.436	-.014	.0041	-.0058	.05
	.10	-.057	2.13	-.408	-.031	-.0120	-.0036	.10
	.20	-.067	2.26	-.440	-.089	-.0201	-.0467	.20
	.30	-.089	2.43	-.464	-.124	-.0144	-.0823	.30
	.40	-.109	2.62	-.457	-.184	.0207	-.1204	.40
75	-.40	-.064	2.67	-.648	.160	.0044	.1069	-.40
	-.30	-.035	2.44	-.582	.108	.0216	.0750	-.30
	-.20	-.015	2.23	-.517	.081	.0191	.0505	-.20
	-.10	-.001	2.06	-.493	.022	.0017	.0262	-.10
	-.05	.002	2.04	-.509	.006	.0006	.0118	-.05
	0.00	-.005	2.03	-.512	-.008	.0040	.0005	0.00
	0.00	-.007	2.04	-.511	-.009	.0038	.0024	0.00
	.05	.005	1.99	-.517	-.029	.0049	-.0105	.05
	.10	-.003	1.99	-.511	-.043	.0033	-.0249	.10
	.20	-.011	2.18	-.534	-.094	-.0164	-.0475	.20
	.30	-.027	2.35	-.585	-.106	-.0113	-.0720	.30
	.40	-.057	2.62	-.655	-.125	.0044	-.1050	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	-.086	2.63	-.679	.121	-.0031	.1075	-.40
	-.30	-.059	2.42	-.616	.095	.0142	.0722	-.30
	-.20	-.042	2.23	-.559	.082	.0142	.0434	-.20
	-.10	-.028	2.07	-.549	.027	.0027	.0311	-.10
	-.05	-.024	2.04	-.570	.025	.0005	.0139	-.05
	0.00	-.031	2.00	-.574	.008	.0031	-.0013	0.00
	0.00	-.031	2.03	-.575	.001	.0041	.0013	0.00
	.05	-.021	2.04	-.571	.003	.0031	-.0144	.05
	.10	-.024	2.04	-.567	.002	.0002	-.0339	.10
	.20	-.038	2.21	-.578	-.048	-.0131	-.0468	.20
	.30	-.057	2.39	-.622	-.056	-.0074	-.0713	.30
	.40	-.081	2.61	-.682	-.070	.0101	-.1058	.40
85	-.40	-.063	2.67	-.717	.081	-.0061	.1075	-.40
	-.30	-.052	2.39	-.649	.055	.0091	.0715	-.30
	-.20	-.025	2.20	-.598	.051	.0107	.0456	-.20
	-.10	-.003	2.09	-.612	-.002	.0045	.0352	-.10
	-.05	.003	2.06	-.613	.011	.0024	.0151	-.05
	0.00	-.022	2.05	-.626	.020	.0005	-.0057	0.00
	0.00	-.024	2.06	-.625	.003	.0035	.0011	0.00
	.05	.006	2.04	-.630	.002	.0034	-.0171	.05
	.10	.003	2.05	-.631	.007	.0021	-.0375	.10
	.20	-.016	2.16	-.612	-.055	-.0058	-.0460	.20
	.30	-.040	2.33	-.654	-.065	-.0012	-.0707	.30
	.40	-.056	2.60	-.721	-.062	.0157	-.1060	.40
90	-.40	-.079	2.62	-.726	.068	-.0148	.1047	-.40
	-.30	-.076	2.37	-.674	.047	.0008	.0715	-.30
	-.20	-.056	2.17	-.641	.043	.0055	.0465	-.20
	-.10	-.036	2.09	-.671	.003	.0016	.0342	-.10
	-.05	-.030	2.08	-.678	.019	.0002	.0147	-.05
	0.00	-.051	2.02	-.697	.009	.0008	-.0020	0.00
	0.00	-.050	2.00	-.683	-.002	.0038	.0005	0.00
	.05	-.028	2.06	-.676	.020	.0028	-.0164	.05
	.10	-.034	2.08	-.663	.027	.0018	-.0349	.10
	.20	-.053	2.17	-.644	-.004	-.0006	-.0473	.20
	.30	-.068	2.34	-.680	-.005	.0054	-.0712	.30
	.40	-.065	2.57	-.718	-.004	.0252	-.1022	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	-.054	1.28	.047	-.263	.0686	.0625	-.40
	-.30	-.051	1.25	.034	-.209	.0405	.0442	-.30
	-.20	-.050	1.28	.005	-.150	.0202	.0304	-.20
	-.10	-.060	1.29	-.017	-.108	.0019	.0201	-.10
	-.05	-.066	1.29	-.033	-.096	-.0070	.0140	-.05
	0.00	-.064	1.27	-.055	-.096	-.0158	.0057	0.00
	0.00	-.066	1.28	-.059	-.089	-.0151	.0054	0.00
	.05	-.075	1.31	-.072	-.066	-.0241	-.0032	.05
	.10	-.074	1.29	-.094	-.060	-.0346	-.0134	.10
	.20	-.054	1.27	-.141	-.050	-.0476	-.0329	.20
	.30	-.041	1.29	-.203	-.047	-.0628	-.0568	.30
	.40	-.037	1.33	-.264	-.042	-.0773	-.0824	.40
25	-.40	-.080	1.61	.045	-.200	.0540	.0679	-.40
	-.30	-.066	1.57	.023	-.175	.0310	.0469	-.30
	-.20	-.064	1.53	-.001	-.141	.0146	.0248	-.20
	-.10	-.073	1.54	-.019	-.092	-.0022	.0058	-.10
	-.05	-.076	1.55	-.034	-.077	-.0106	-.0029	-.05
	0.00	-.072	1.50	-.060	-.085	-.0160	-.0113	0.00
	0.00	-.072	1.51	-.056	-.085	-.0154	-.0120	0.00
	.05	-.070	1.49	-.071	-.075	-.0132	-.0170	.05
	.10	-.066	1.47	-.094	-.070	-.0128	-.0234	.10
	.20	-.059	1.45	-.155	-.069	-.0141	-.0421	.20
	.30	-.051	1.45	-.229	-.067	-.0234	-.0689	.30
	.40	-.048	1.54	-.308	-.066	-.0410	-.0961	.40
30	-.40	-.075	1.84	.009	-.104	.0362	.0585	-.40
	-.30	-.075	1.80	-.003	-.130	.0180	.0382	-.30
	-.20	-.078	1.78	-.011	-.120	.0001	.0144	-.20
	-.10	-.078	1.77	-.030	-.105	-.0094	-.0036	-.10
	-.05	-.073	1.75	-.045	-.106	-.0051	-.0113	-.05
	0.00	-.062	1.69	-.077	-.120	.0007	-.0209	0.00
	0.00	-.062	1.69	-.071	-.116	.0012	-.0189	0.00
	.05	-.062	1.68	-.100	-.116	.0050	-.0283	.05
	.10	-.059	1.65	-.139	-.137	.0085	-.0384	.10
	.20	-.057	1.63	-.203	-.162	.0106	-.0565	.20
	.30	-.062	1.65	-.267	-.175	.0052	-.0766	.30
	.40	-.064	1.72	-.346	-.198	-.0094	-.0980	.40
35	-.40	-.085	2.07	-.040	-.045	.0042	.0623	-.40
	-.30	-.080	2.03	-.052	-.063	-.0132	.0338	-.30
	-.20	-.073	1.95	-.033	-.085	-.0119	.0090	-.20
	-.10	-.063	1.91	-.029	-.098	-.0143	-.0081	-.10
	-.05	-.059	1.89	-.053	-.111	-.0134	-.0187	-.05
	0.00	-.053	1.84	-.085	-.172	-.0026	-.0294	0.00
	0.00	-.058	1.85	-.081	-.164	-.0037	-.0284	0.00
	.05	-.056	1.85	-.110	-.186	.0037	-.0406	.05
	.10	-.056	1.84	-.139	-.231	.0090	-.0491	.10
	.20	-.055	1.80	-.198	-.287	.0142	-.0657	.20
	.30	-.056	1.82	-.277	-.345	.0171	-.0866	.30
	.40	-.064	1.88	-.368	-.380	.0108	-.1081	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	-.087	2.21	-.084	.024	-.0242	.0875	-.40
	-.30	-.067	2.09	-.092	.007	-.0306	.0401	-.30
	-.20	-.048	1.99	-.066	-.027	-.0159	.0128	-.20
	-.10	-.050	1.95	-.042	-.087	-.0208	-.0123	-.10
	-.05	-.044	1.93	-.068	-.093	-.0241	-.0224	-.05
	0.00	-.032	1.87	-.099	-.150	-.0176	-.0339	0.00
	0.00	-.038	1.92	-.093	-.160	-.0152	-.0366	0.00
	.05	-.040	1.90	-.103	-.194	-.0083	-.0521	.05
	.10	-.044	1.89	-.107	-.273	.0019	-.0635	.10
	.20	-.053	1.88	-.175	-.377	.0105	-.0840	.20
	.30	-.063	1.89	-.276	-.475	.0159	-.1078	.30
	.40	-.079	1.95	-.397	-.535	.0110	-.1348	.40
45	-.40	-.073	2.23	-.107	.150	-.0273	.1154	-.40
	-.30	-.051	2.11	-.080	.114	-.0262	.0670	-.30
	-.20	-.036	2.02	-.078	.037	-.0210	.0210	-.20
	-.10	-.027	1.93	-.075	-.047	-.0166	-.0109	-.10
	-.05	-.032	1.94	-.082	-.081	-.0206	-.0221	-.05
	0.00	-.025	1.89	-.129	-.129	-.0226	-.0302	0.00
	0.00	-.029	1.94	-.134	-.124	-.0219	-.0306	0.00
	.05	-.028	1.91	-.137	-.135	-.0170	-.0424	.05
	.10	-.034	1.87	-.119	-.245	-.0151	-.0692	.10
	.20	-.053	1.91	-.200	-.396	-.0028	-.1043	.20
	.30	-.066	1.94	-.314	-.489	.0019	-.1323	.30
	.40	-.083	2.01	-.451	-.558	.0007	-.1658	.40
50	-.40	-.079	2.20	-.172	.180	-.0256	.1432	-.40
	-.30	-.058	2.13	-.123	.140	-.0228	.0973	-.30
	-.20	-.040	2.05	-.091	.082	-.0179	.0601	-.20
	-.10	-.025	1.97	-.104	-.021	-.0141	-.0036	-.10
	-.05	-.029	1.97	-.091	-.071	-.0145	-.0151	-.05
	0.00	-.029	1.94	-.085	-.124	-.0153	-.0247	0.00
	0.00	-.031	1.95	-.080	-.131	-.0154	-.0241	0.00
	.05	-.028	1.92	-.110	-.132	-.0163	-.0285	.05
	.10	-.040	1.92	-.158	-.235	-.0191	-.0806	.10
	.20	-.048	1.91	-.271	-.369	-.0228	-.1267	.20
	.30	-.066	1.97	-.398	-.479	-.0258	-.1598	.30
	.40	-.094	2.13	-.552	-.556	-.0221	-.1937	.40
55	-.40	-.079	2.24	-.278	.141	-.0330	.1271	-.40
	-.30	-.066	2.13	-.203	.132	-.0195	.0946	-.30
	-.20	-.056	2.01	-.195	.063	-.0165	.0545	-.20
	-.10	-.048	1.93	-.178	.005	-.0238	.0250	-.10
	-.05	-.037	1.88	-.198	-.030	-.0219	.0070	-.05
	0.00	-.038	1.93	-.130	-.121	-.0143	-.0106	0.00
	0.00	-.043	1.98	-.126	-.111	-.0158	-.0125	0.00
	.05	-.037	1.95	-.180	-.137	-.0187	-.0292	.05
	.10	-.040	1.91	-.250	-.234	-.0274	-.0824	.10
	.20	-.046	1.94	-.374	-.339	-.0388	-.1221	.20
	.30	-.066	2.04	-.475	-.426	-.0408	-.1502	.30
	.40	-.095	2.27	-.585	-.473	-.0266	-.1616	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.077	2.30	-.287	.115	-.0339	.1120	-.40
	-.30	-.061	2.18	-.257	.073	-.0173	.0708	-.30
	-.20	-.043	2.03	-.275	.033	-.0096	.0413	-.20
	-.10	-.038	1.98	-.254	.033	-.0055	.0274	-.10
	-.05	-.031	1.91	-.248	-.014	-.0142	.0095	-.05
	0.00	-.025	1.88	-.285	-.076	-.0221	-.0044	0.00
	0.00	-.024	1.87	-.264	-.070	-.0214	-.0058	0.00
	.05	-.023	1.91	-.262	-.107	-.0200	-.0188	.05
	.10	-.022	1.90	-.353	-.199	-.0288	-.0782	.10
	.20	-.037	1.98	-.454	-.287	-.0421	-.1154	.20
	.30	-.059	2.12	-.516	-.356	-.0439	-.1310	.30
	.40	-.089	2.35	-.615	-.441	-.0341	-.1682	.40
65	-.40	-.076	2.41	-.289	.124	-.0370	.1203	-.40
	-.30	-.066	2.23	-.304	.052	-.0127	.0671	-.30
	-.20	-.051	2.12	-.317	.032	-.0015	.0434	-.20
	-.10	-.043	2.02	-.313	-.009	-.0051	.0148	-.10
	-.05	-.035	1.92	-.354	-.043	-.0219	.0071	-.05
	0.00	-.024	1.89	-.335	-.090	-.0220	-.0045	0.00
	0.00	-.022	1.92	-.351	-.081	-.0211	-.0052	0.00
	.05	-.036	1.96	-.350	-.087	-.0215	-.0182	.05
	.10	-.039	1.99	-.363	-.132	-.0248	-.0383	.10
	.20	-.049	2.04	-.484	-.255	-.0380	-.1079	.20
	.30	-.061	2.14	-.550	-.341	-.0446	-.1344	.30
	.40	-.088	2.36	-.612	-.436	-.0237	-.1755	.40
70	-.40	-.079	2.43	-.311	.106	-.0380	.1073	-.40
	-.30	-.069	2.30	-.333	.018	-.0103	.0539	-.30
	-.20	-.049	2.17	-.355	.013	-.0002	.0317	-.20
	-.10	-.041	2.07	-.352	-.029	-.0072	.0045	-.10
	-.05	-.032	1.97	-.403	-.068	-.0273	-.0127	-.05
	0.00	-.038	1.95	-.409	-.104	-.0264	-.0229	0.00
	0.00	-.043	1.98	-.392	-.100	-.0243	-.0196	0.00
	.05	-.038	2.00	-.405	-.093	-.0227	-.0311	.05
	.10	-.039	2.00	-.423	-.129	-.0248	-.0492	.10
	.20	-.047	2.11	-.520	-.200	-.0362	-.0854	.20
	.30	-.070	2.29	-.570	-.243	-.0419	-.1105	.30
	.40	-.103	2.51	-.604	-.410	-.0201	-.1677	.40
75	-.40	-.064	2.43	-.444	.020	-.0417	.0780	-.40
	-.30	-.043	2.29	-.444	-.032	-.0106	.0423	-.30
	-.20	-.026	2.13	-.423	-.050	-.0054	.0180	-.20
	-.10	-.018	2.00	-.427	-.071	-.0174	-.0089	-.10
	-.05	-.012	1.93	-.465	-.085	-.0291	-.0212	-.05
	0.00	-.028	1.97	-.469	-.106	-.0298	-.0287	0.00
	0.00	-.030	1.94	-.481	-.099	-.0311	-.0316	0.00
	.05	-.021	1.96	-.473	-.112	-.0270	-.0414	.05
	.10	-.029	1.99	-.470	-.138	-.0242	-.0517	.10
	.20	-.041	2.07	-.567	-.170	-.0315	-.0727	.20
	.30	-.057	2.30	-.662	-.193	-.0378	-.0952	.30
	.40	-.086	2.54	-.739	-.249	-.0271	-.1342	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
80	-.40	-.060	2.51	-.544	-.044	-.0410	.0809	-.40
	-.30	-.035	2.31	-.525	-.082	-.0174	.0463	-.30
	-.20	-.008	2.18	-.523	-.088	-.0172	.0194	-.20
	-.10	.012	2.06	-.557	-.103	-.0293	-.0094	-.10
	-.05	.019	2.01	-.569	-.107	-.0266	-.0195	-.05
	0.00	-.004	2.02	-.585	-.134	-.0262	-.0275	0.00
	0.00	-.004	2.00	-.579	-.148	-.0245	-.0250	0.00
	.05	.000	2.07	-.575	-.112	-.0254	-.0395	.05
	.10	-.010	2.09	-.564	-.127	-.0250	-.0516	.10
	.20	-.026	2.18	-.637	-.165	-.0264	-.0673	.20
	.30	-.055	2.40	-.736	-.195	-.0316	-.0896	.30
	.40	-.086	2.70	-.841	-.199	-.0188	-.1187	.40
85	-.40	-.050	2.51	-.582	-.049	-.0495	.0823	-.40
	-.30	-.039	2.35	-.581	-.087	-.0414	.0474	-.30
	-.20	-.009	2.19	-.585	-.101	-.0349	.0183	-.20
	-.10	.008	2.09	-.606	-.093	-.0288	-.0050	-.10
	-.05	.014	2.07	-.616	-.099	-.0257	-.0164	-.05
	0.00	-.014	2.04	-.634	-.141	-.0260	-.0249	0.00
	0.00	-.011	2.04	-.657	-.124	-.0251	-.0264	0.00
	.05	.002	2.11	-.637	-.100	-.0241	-.0391	.05
	.10	-.009	2.14	-.635	-.108	-.0241	-.0519	.10
	.20	-.035	2.21	-.676	-.145	-.0222	-.0671	.20
	.30	-.065	2.44	-.770	-.175	-.0270	-.0868	.30
	.40	-.072	2.70	-.856	-.154	-.0118	-.1164	.40
90	-.40	-.055	2.46	-.630	-.086	-.0477	.0789	-.40
	-.30	-.038	2.30	-.642	-.110	-.0441	.0482	-.30
	-.20	-.012	2.16	-.648	-.110	-.0345	.0240	-.20
	-.10	.008	2.07	-.671	-.105	-.0276	-.0004	-.10
	-.05	.014	2.08	-.682	-.101	-.0250	-.0116	-.05
	0.00	-.014	2.09	-.719	-.110	-.0257	-.0238	0.00
	0.00	-.011	2.07	-.718	-.118	-.0255	-.0219	0.00
	.05	.007	2.10	-.698	-.088	-.0232	-.0380	.05
	.10	-.003	2.15	-.708	-.088	-.0231	-.0534	.10
	.20	-.032	2.19	-.719	-.130	-.0186	-.0669	.20
	.30	-.055	2.37	-.801	-.168	-.0163	-.0816	.30
	.40	-.070	2.70	-.887	-.120	-.0078	-.1106	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δr=-30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.005	1.99	-.166	-.005	.0062	.0998	-.40
	-.30	-.002	1.96	-.116	-.006	-.0029	.0735	-.30
	-.20	-.015	1.94	-.065	-.012	-.0037	.0516	-.20
	-.10	-.018	1.98	-.045	-.021	-.0012	.0354	-.10
	-.05	-.021	1.95	-.041	-.034	-.0038	.0292	-.05
	0.00	-.009	1.90	-.045	-.055	-.0055	.0228	0.00
	0.00	-.005	1.86	-.042	-.055	-.0047	.0236	0.00
	.05	-.021	1.98	-.046	-.041	-.0055	.0178	.05
	.10	-.020	1.99	-.054	-.045	-.0070	.0101	.10
	.20	-.018	1.96	-.088	-.045	-.0018	-.0032	.20
	.30	-.014	2.01	-.134	-.037	-.0009	-.0258	.30
	.40	-.012	2.04	-.189	-.018	-.0065	-.0538	.40
40	-.40	-.023	2.37	-.265	.334	-.0235	.1449	-.40
	-.30	-.007	2.25	-.165	.264	-.0214	.1098	-.30
	-.20	.003	2.19	-.102	.171	-.0148	.0799	-.20
	-.10	.011	2.13	-.053	.042	.0069	.0434	-.10
	-.05	.011	2.14	-.047	.008	.0144	.0292	-.05
	0.00	.023	2.08	-.050	-.053	.0099	.0197	0.00
	0.00	.021	2.08	-.054	-.053	.0104	.0183	0.00
	.05	.006	2.17	-.043	-.120	.0101	.0088	.05
	.10	.001	2.19	-.039	-.130	.0055	-.0036	.10
	.20	-.005	2.23	-.089	-.166	.0076	-.0325	.20
	.30	-.015	2.28	-.165	-.262	.0208	-.0675	.30
	.40	-.030	2.38	-.246	-.303	.0215	-.1065	.40
50	-.40	-.046	2.53	-.390	.486	-.0020	.2105	-.40
	-.30	-.023	2.40	-.231	.386	-.0038	.1563	-.30
	-.20	-.008	2.30	-.118	.273	.0007	.1136	-.20
	-.10	.011	2.24	-.062	.150	.0045	.0756	-.10
	-.05	.022	2.21	-.054	.089	.0057	.0601	-.05
	0.00	.036	2.15	-.070	.015	.0077	.0370	0.00
	0.00	.034	2.15	-.052	.008	.0084	.0412	0.00
	.05	.027	2.19	-.075	-.024	.0026	.0072	.05
	.10	.024	2.26	-.068	-.092	.0005	-.0018	.10
	.20	.020	2.29	-.107	-.125	-.0091	-.0284	.20
	.30	-.019	2.41	-.196	-.317	.0047	-.1146	.30
	.40	-.041	2.53	-.345	-.406	.0082	-.1668	.40
55	-.40	-.058	2.65	-.503	.336	.0147	.1669	-.40
	-.30	-.034	2.44	-.364	.331	.0183	.1595	-.30
	-.20	-.013	2.32	-.286	.252	.0194	.1139	-.20
	-.10	.007	2.26	-.278	.179	.0165	.0762	-.10
	-.05	.002	2.21	-.298	.130	.0168	.0535	-.05
	0.00	.007	2.16	-.272	.083	.0148	.0431	0.00
	0.00	.007	2.15	-.259	.073	.0139	.0459	0.00
	.05	-.004	2.18	-.204	.034	.0095	.0381	.05
	.10	.010	2.26	-.092	-.057	.0028	.0110	.10
	.20	-.019	2.35	-.197	-.116	.0015	-.0265	.20
	.30	-.034	2.42	-.288	-.254	-.0017	-.1135	.30
	.40	-.055	2.57	-.460	-.284	-.0007	-.1444	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=-30$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.063	2.71	-.503	.313	.0033	.1577	-.40
	-.30	-.030	2.51	-.406	.263	.0188	.1245	-.30
	-.20	-.005	2.39	-.399	.206	.0242	.1004	-.20
	-.10	.008	2.27	-.371	.147	.0196	.0704	-.10
	-.05	.012	2.23	-.342	.118	.0135	.0575	-.05
	0.00	.022	2.12	-.316	.062	.0050	.0460	0.00
	0.00	.020	2.13	-.314	.071	.0051	.0466	0.00
	.05	.023	2.17	-.324	.050	-.0028	.0387	.05
	.10	.017	2.25	-.294	.018	-.0080	.0262	.10
	.20	-.008	2.39	-.222	-.097	-.0020	-.0241	.20
	.30	-.022	2.49	-.450	-.189	-.0208	-.1040	.30
	.40	-.053	2.67	-.511	-.242	-.0103	-.1331	.40
65	-.40	-.052	2.75	-.541	.292	.0092	.1652	-.40
	-.30	-.012	2.55	-.487	.186	.0263	.1181	-.30
	-.20	.014	2.41	-.458	.140	.0269	.0851	-.20
	-.10	.027	2.28	-.410	.089	.0185	.0549	-.10
	-.05	.027	2.23	-.391	.063	.0126	.0395	-.05
	0.00	.044	2.19	-.370	.040	.0061	.0268	0.00
	0.00	.045	2.20	-.371	.037	.0059	.0284	0.00
	.05	.046	2.18	-.394	.001	-.0015	.0252	.05
	.10	.043	2.23	-.395	-.013	-.0066	.0108	.10
	.20	.018	2.44	-.379	-.094	-.0165	-.0126	.20
	.30	-.003	2.54	-.475	-.188	-.0217	-.0911	.30
	.40	-.036	2.73	-.504	-.253	.0016	-.1296	.40
70	-.40	-.073	2.85	-.590	.231	.0072	.1340	-.40
	-.30	-.034	2.62	-.540	.149	.0263	.0969	-.30
	-.20	-.008	2.46	-.499	.116	.0245	.0699	-.20
	-.10	.002	2.34	-.442	.095	.0158	.0423	-.10
	-.05	.005	2.31	-.423	.061	.0094	.0259	-.05
	0.00	.024	2.16	-.439	-.001	-.0011	.0099	0.00
	0.00	.022	2.16	-.448	-.003	.0001	.0099	0.00
	.05	.021	2.23	-.446	-.018	-.0013	.0007	.05
	.10	.013	2.29	-.457	-.032	-.0086	-.0144	.10
	.20	-.002	2.43	-.505	-.079	-.0205	-.0500	.20
	.30	-.033	2.63	-.546	-.091	-.0237	-.0807	.30
	.40	-.070	2.87	-.584	-.142	-.0101	-.1144	.40
80	-.40	-.055	2.85	-.768	.097	-.0002	.1160	-.40
	-.30	-.017	2.62	-.675	.085	.0151	.0791	-.30
	-.20	.009	2.42	-.618	.084	.0149	.0520	-.20
	-.10	.040	2.25	-.625	.028	.0005	.0370	-.10
	-.05	.047	2.25	-.630	.023	.0011	.0209	-.05
	0.00	.039	2.20	-.647	.001	.0006	.0049	0.00
	0.00	.040	2.20	-.643	.009	.0020	.0030	0.00
	.05	.045	2.26	-.630	.020	-.0002	-.0130	.05
	.10	.036	2.29	-.628	.035	-.0040	-.0350	.10
	.20	.015	2.40	-.644	-.027	-.0140	-.0486	.20
	.30	-.016	2.61	-.697	-.048	-.0134	-.0739	.30
	.40	-.053	2.86	-.774	-.068	.0025	-.1047	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δr=-30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.026	2.86	-.813	.062	-.0050	.1135	-.40
	-.30	.002	2.60	-.727	.048	.0083	.0785	-.30
	-.20	.040	2.40	-.670	.054	.0104	.0529	-.20
	-.10	.078	2.27	-.691	.008	.0019	.0383	-.10
	-.05	.085	2.25	-.691	.008	.0024	.0227	-.05
	0.00	.061	2.24	-.729	-.006	.0023	.0070	0.00
	0.00	.065	2.23	-.703	-.023	.0027	.0091	0.00
	.05	.086	2.25	-.710	.017	.0014	-.0165	.05
	.10	.077	2.28	-.709	.036	-.0005	-.0386	.10
	.20	.046	2.38	-.692	-.031	-.0058	-.0487	.20
	.30	.007	2.56	-.753	-.044	-.0052	-.0727	.30
	.40	-.022	2.84	-.816	-.034	.0108	-.0999	.40
90	-.40	-.040	2.74	-.796	.023	-.0180	.1111	-.40
	-.30	-.024	2.49	-.740	.050	-.0003	.0785	-.30
	-.20	.001	2.33	-.702	.048	.0021	.0533	-.20
	-.10	.039	2.25	-.748	.002	.0001	.0385	-.10
	-.05	.046	2.24	-.759	.012	.0009	.0209	-.05
	0.00	.030	2.19	-.789	.009	.0024	.0016	0.00
	0.00	.030	2.21	-.799	-.008	.0036	.0043	0.00
	.05	.046	2.26	-.758	.034	.0020	-.0153	.05
	.10	.036	2.26	-.744	.051	.0010	-.0358	.10
	.20	.009	2.34	-.716	.005	.0007	-.0467	.20
	.30	-.022	2.52	-.751	.013	.0023	-.0704	.30
	.40	-.036	2.79	-.804	.005	.0178	-.0950	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δr=-30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.006	2.04	-.005	-.162	.0331	.0757	-.40
	-.30	-.003	2.00	.006	-.213	.0131	.0547	-.30
	-.20	-.013	1.96	.001	-.212	-.0044	.0318	-.20
	-.10	-.015	1.96	-.018	-.219	-.0130	.0145	-.10
	-.05	-.010	1.93	-.040	-.214	-.0091	.0071	-.05
	0.00	.000	1.86	-.078	-.230	-.0035	-.0005	0.00
	0.00	.004	1.85	-.080	-.233	-.0030	-.0004	0.00
	.05	-.003	1.88	-.099	-.227	.0011	-.0123	.05
	.10	.001	1.87	-.135	-.228	.0045	-.0222	.10
	.20	.001	1.86	-.214	-.243	.0050	-.0425	.20
	.30	-.003	1.89	-.289	-.249	-.0002	-.0627	.30
	.40	-.011	1.96	-.381	-.246	-.0121	-.0850	.40
40	-.40	-.019	2.46	-.092	.012	-.0315	.1188	-.40
	-.30	-.002	2.36	-.076	-.037	-.0338	.0719	-.30
	-.20	.011	2.25	-.055	-.067	-.0249	.0327	-.20
	-.10	.018	2.18	-.030	-.154	-.0222	.0081	-.10
	-.05	.021	2.17	-.049	-.161	-.0306	-.0060	-.05
	0.00	.032	2.09	-.088	-.238	-.0291	-.0204	0.00
	0.00	.036	2.07	-.084	-.217	-.0301	-.0184	0.00
	.05	.027	2.10	-.102	-.237	-.0230	-.0363	.05
	.10	.020	2.12	-.121	-.317	-.0133	-.0542	.10
	.20	.009	2.15	-.182	-.447	-.0017	-.0801	.20
	.30	-.007	2.19	-.279	-.534	.0060	-.1040	.30
	.40	-.025	2.28	-.414	-.601	.0040	-.1306	.40
50	-.40	-.023	2.55	-.224	.195	-.0262	.1644	-.40
	-.30	.001	2.38	-.137	.138	-.0200	.1193	-.30
	-.20	.020	2.27	-.081	.067	-.0175	.0809	-.20
	-.10	.038	2.26	-.069	-.058	-.0164	.0291	-.10
	-.05	.036	2.20	-.106	-.104	-.0197	-.0045	-.05
	0.00	.032	2.19	-.076	-.190	-.0217	-.0194	0.00
	0.00	.033	2.15	-.065	-.200	-.0211	-.0232	0.00
	.05	.032	2.14	-.102	-.187	-.0217	-.0312	.05
	.10	.035	2.14	-.150	-.225	-.0233	-.0520	.10
	.20	.012	2.15	-.276	-.409	-.0309	-.1309	.20
	.30	-.005	2.22	-.425	-.489	-.0405	-.1666	.30
	.40	-.041	2.39	-.593	-.587	-.0361	-.2037	.40
55	-.40	-.032	2.54	-.367	.162	-.0298	.1537	-.40
	-.30	-.009	2.40	-.304	.104	-.0167	.1086	-.30
	-.20	.005	2.26	-.288	.041	-.0165	.0625	-.20
	-.10	.013	2.20	-.228	-.004	-.0176	.0266	-.10
	-.05	.022	2.16	-.222	-.039	-.0201	.0103	-.05
	0.00	.032	2.09	-.194	-.130	-.0193	-.0047	0.00
	0.00	.031	2.20	-.200	-.141	-.0224	-.0041	0.00
	.05	.024	2.25	-.160	-.180	-.0220	-.0297	.05
	.10	.028	2.10	-.285	-.199	-.0322	-.0479	.10
	.20	.019	2.16	-.393	-.353	-.0451	-.1230	.20
	.30	-.001	2.27	-.528	-.414	-.0523	-.1492	.30
	.40	-.037	2.50	-.653	-.496	-.0476	-.1738	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δr=-30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.036	2.74	-.368	.120	-.0335	.1317	-.40
	-.30	-.017	2.54	-.362	.048	-.0152	.0819	-.30
	-.20	.004	2.39	-.352	.045	-.0079	.0715	-.20
	-.10	.019	2.32	-.296	.002	-.0097	.0382	-.10
	-.05	.025	2.28	-.279	-.027	-.0148	.0213	-.05
	0.00	.030	2.20	-.305	-.106	-.0240	.0025	0.00
	0.00	.031	2.17	-.309	-.100	-.0237	.0009	0.00
	.05	.037	2.19	-.325	-.132	-.0284	-.0125	.05
	.10	.029	2.24	-.308	-.186	-.0291	-.0303	.10
	.20	.022	2.30	-.522	-.319	-.0461	-.1210	.20
	.30	-.001	2.44	-.589	-.381	-.0548	-.1360	.30
	.40	-.038	2.66	-.694	-.466	-.0505	-.1724	.40
65	-.40	-.038	2.73	-.392	.085	-.0343	.1188	-.40
	-.30	-.025	2.57	-.400	.022	-.0088	.0793	-.30
	-.20	-.004	2.42	-.384	.003	-.0017	.0500	-.20
	-.10	.009	2.30	-.360	-.041	-.0101	.0201	-.10
	-.05	.020	2.20	-.378	-.087	-.0219	.0111	-.05
	0.00	.033	2.12	-.386	-.139	-.0242	.0001	0.00
	0.00	.036	2.14	-.376	-.121	-.0222	-.0034	0.00
	.05	.026	2.17	-.394	-.134	-.0253	-.0108	.05
	.10	.022	2.23	-.408	-.164	-.0283	-.0313	.10
	.20	.009	2.28	-.530	-.279	-.0405	-.1053	.20
	.30	-.015	2.44	-.613	-.360	-.0512	-.1382	.30
	.40	-.052	2.69	-.702	-.458	-.0398	-.1800	.40
70	-.40	-.044	2.72	-.425	.047	-.0364	.1031	-.40
	-.30	-.026	2.58	-.412	-.006	-.0066	.0610	-.30
	-.20	-.001	2.37	-.412	-.025	-.0024	.0381	-.20
	-.10	.021	2.20	-.428	-.087	-.0250	.0093	-.10
	-.05	.028	2.15	-.428	-.117	-.0291	-.0023	-.05
	0.00	.015	2.15	-.435	-.164	-.0260	-.0181	0.00
	0.00	.007	2.12	-.422	-.155	-.0274	-.0181	0.00
	.05	.010	2.19	-.433	-.144	-.0263	-.0278	.05
	.10	.006	2.25	-.462	-.160	-.0274	-.0468	.10
	.20	-.011	2.33	-.559	-.191	-.0389	-.0828	.20
	.30	-.037	2.55	-.637	-.254	-.0496	-.1106	.30
	.40	-.081	2.81	-.675	-.404	-.0304	-.1656	.40
80	-.40	-.029	2.70	-.590	-.022	-.0387	.0874	-.40
	-.30	.001	2.49	-.585	-.091	-.0344	.0536	-.30
	-.20	.034	2.37	-.608	-.103	-.0363	.0201	-.20
	-.10	.053	2.22	-.607	-.117	-.0295	-.0035	-.10
	-.05	.062	2.20	-.617	-.121	-.0277	-.0167	-.05
	0.00	.040	2.17	-.626	-.158	-.0292	-.0307	0.00
	0.00	.041	2.15	-.621	-.171	-.0288	-.0251	0.00
	.05	.049	2.22	-.631	-.130	-.0269	-.0386	.05
	.10	.036	2.25	-.617	-.148	-.0250	-.0498	.10
	.20	.013	2.33	-.690	-.174	-.0262	-.0692	.20
	.30	-.020	2.57	-.799	-.193	-.0326	-.0898	.30
	.40	-.051	2.87	-.906	-.179	-.0215	-.1175	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=-30$ BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.029	2.67	-.646	-.051	-.0506	.0909	-.40
	-.30	.000	2.51	-.637	-.097	-.0417	.0545	-.30
	-.20	.035	2.33	-.655	-.121	-.0340	.0274	-.20
	-.10	.059	2.25	-.668	-.112	-.0293	-.0010	-.10
	-.05	.067	2.22	-.675	-.116	-.0278	-.0144	-.05
	0.00	.043	2.17	-.707	-.150	-.0260	-.0265	0.00
	0.00	.044	2.15	-.702	-.147	-.0260	-.0265	0.00
	.05	.055	2.23	-.695	-.109	-.0258	-.0399	.05
	.10	.042	2.26	-.682	-.126	-.0246	-.0520	.10
	.20	.012	2.31	-.735	-.148	-.0225	-.0695	.20
	.30	-.026	2.53	-.828	-.187	-.0255	-.0873	.30
	.40	-.050	2.83	-.927	-.152	-.0173	-.1141	.40
90	-.40	-.039	2.62	-.679	-.096	-.0521	.0871	-.40
	-.30	-.008	2.42	-.679	-.133	-.0418	.0544	-.30
	-.20	.022	2.30	-.704	-.126	-.0335	.0307	-.20
	-.10	.044	2.23	-.728	-.120	-.0287	.0040	-.10
	-.05	.051	2.22	-.749	-.109	-.0269	-.0100	-.05
	0.00	.028	2.18	-.767	-.139	-.0251	-.0219	0.00
	0.00	.030	2.19	-.778	-.134	-.0264	-.0225	0.00
	.05	.044	2.24	-.757	-.098	-.0241	-.0370	.05
	.10	.034	2.27	-.763	-.105	-.0233	-.0521	.10
	.20	.002	2.31	-.788	-.128	-.0196	-.0700	.20
	.30	-.030	2.52	-.860	-.162	-.0187	-.0825	.30
	.40	-.055	2.81	-.959	-.126	-.0108	-.1106	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=25 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	-.027	1.42	-.136	-.162	.0201	.0786	-.40
	-.30	-.023	1.36	-.108	-.123	-.0015	.0562	-.30
	-.20	-.024	1.31	-.080	-.090	-.0118	.0398	-.20
	-.10	-.032	1.28	-.062	-.064	-.0257	.0249	-.10
	-.05	-.035	1.27	-.048	-.048	-.0323	.0158	-.05
	0.00	-.034	1.26	-.039	-.020	-.0394	.0061	0.00
	0.00	-.035	1.26	-.038	-.019	-.0392	.0062	0.00
	.05	-.030	1.24	-.036	-.006	-.0466	-.0024	.05
	.10	-.022	1.26	-.033	.021	-.0564	-.0111	.10
	.20	.003	1.24	-.038	.061	-.0758	-.0296	.20
	.30	.027	1.24	-.051	.105	-.0987	-.0452	.30
	.40	.049	1.25	-.069	.140	-.1253	-.0629	.40
25	-.40	-.036	1.63	-.142	-.136	.0049	.0882	-.40
	-.30	-.038	1.56	-.102	-.107	-.0057	.0633	-.30
	-.20	-.043	1.53	-.069	-.073	-.0173	.0414	-.20
	-.10	-.046	1.52	-.054	-.043	-.0291	.0226	-.10
	-.05	-.041	1.51	-.052	-.035	-.0359	.0144	-.05
	0.00	-.036	1.50	-.052	-.034	-.0408	.0087	0.00
	0.00	-.036	1.50	-.052	-.033	-.0403	.0084	0.00
	.05	-.032	1.46	-.055	-.037	-.0435	.0041	.05
	.10	-.029	1.48	-.054	-.021	-.0492	-.0009	.10
	.20	-.010	1.47	-.068	.013	-.0577	-.0161	.20
	.30	.015	1.48	-.086	.062	-.0703	-.0370	.30
	.40	.033	1.52	-.107	.107	-.0902	-.0592	.40
30	-.40	-.062	1.88	-.162	.001	-.0269	.0968	-.40
	-.30	-.065	1.83	-.117	.002	-.0325	.0661	-.30
	-.20	-.072	1.83	-.076	.004	-.0314	.0425	-.20
	-.10	-.070	1.83	-.057	.011	-.0293	.0298	-.10
	-.05	-.068	1.82	-.053	.002	-.0328	.0219	-.05
	0.00	-.051	1.73	-.055	-.025	-.0348	.0117	0.00
	0.00	-.050	1.75	-.057	-.017	-.0366	.0117	0.00
	.05	-.053	1.76	-.052	-.027	-.0345	.0076	.05
	.10	-.050	1.77	-.051	-.022	-.0359	.0008	.10
	.20	-.039	1.74	-.066	-.014	-.0362	-.0149	.20
	.30	-.031	1.76	-.089	.008	-.0404	-.0361	.30
	.40	-.017	1.79	-.123	.025	-.0510	-.0644	.40
35	-.40	-.067	2.06	-.196	.158	-.0480	.1176	-.40
	-.30	-.059	1.98	-.135	.133	-.0508	.0890	-.30
	-.20	-.054	1.91	-.081	.068	-.0393	.0632	-.20
	-.10	-.058	1.94	-.040	.015	-.0146	.0429	-.10
	-.05	-.059	1.94	-.046	.004	-.0197	.0295	-.05
	0.00	-.044	1.87	-.047	-.045	-.0267	.0149	0.00
	0.00	-.049	1.91	-.043	-.029	-.0276	.0173	0.00
	.05	-.051	1.86	-.044	-.078	-.0219	.0087	.05
	.10	-.051	1.89	-.042	-.075	-.0283	-.0017	.10
	.20	-.041	1.83	-.067	-.120	-.0131	-.0261	.20
	.30	-.032	1.81	-.112	-.165	-.0111	-.0529	.30
	.40	-.030	1.92	-.151	-.147	-.0206	-.0825	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta a=25$ $\delta d=10$ BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	-.071	2.14	-.251	.316	-.0469	.1490	-.40
	-.30	-.052	2.05	-.167	.247	-.0442	.1113	-.30
	-.20	-.041	1.97	-.088	.129	-.0327	.0801	-.20
	-.10	-.041	1.93	-.023	.001	-.0096	.0496	-.10
	-.05	-.044	1.93	-.019	-.017	-.0091	.0350	-.05
	0.00	-.034	1.92	-.011	-.031	-.0163	.0228	0.00
	0.00	-.029	1.88	-.020	-.046	-.0176	.0222	0.00
	.05	-.043	1.91	-.016	-.112	-.0152	.0084	.05
	.10	-.040	1.87	-.022	-.139	-.0226	-.0042	.10
	.20	-.036	1.88	-.074	-.205	-.0091	-.0348	.20
	.30	-.042	1.91	-.123	-.285	-.0040	-.0694	.30
	.40	-.045	2.01	-.187	-.306	-.0096	-.1079	.40
45	-.40	-.078	2.30	-.333	.418	-.0436	.1929	-.40
	-.30	-.063	2.21	-.222	.319	-.0391	.1463	-.30
	-.20	-.045	2.09	-.132	.171	-.0220	.1015	-.20
	-.10	-.043	2.04	-.056	.020	-.0139	.0552	-.10
	-.05	-.041	2.02	-.047	.010	-.0107	.0373	-.05
	0.00	-.032	1.97	-.041	-.047	-.0145	.0245	0.00
	0.00	-.038	2.02	-.030	-.037	-.0139	.0284	0.00
	.05	-.045	2.00	-.024	-.087	-.0165	.0171	.05
	.10	-.042	2.01	-.018	-.136	-.0198	.0090	.10
	.20	-.038	2.02	-.082	-.205	-.0184	-.0289	.20
	.30	-.052	2.10	-.121	-.374	-.0081	-.0887	.30
	.40	-.063	2.22	-.207	-.450	-.0096	-.1390	.40
50	-.40	-.074	2.25	-.366	.370	-.0318	.2216	-.40
	-.30	-.068	2.19	-.243	.311	-.0258	.1743	-.30
	-.20	-.055	2.09	-.154	.175	-.0181	.1311	-.20
	-.10	-.045	2.10	-.088	.041	-.0090	.0847	-.10
	-.05	-.035	2.05	-.092	-.021	-.0078	.0589	-.05
	0.00	-.031	2.03	-.086	-.053	-.0132	.0354	0.00
	0.00	-.034	2.03	-.088	-.042	-.0136	.0338	0.00
	.05	-.035	2.00	-.076	-.110	-.0143	.0219	.05
	.10	-.033	1.98	-.072	-.155	-.0146	.0104	.10
	.20	-.038	2.04	-.120	-.248	-.0216	-.0460	.20
	.30	-.057	2.14	-.184	-.409	-.0153	-.1089	.30
	.40	-.073	2.26	-.290	-.497	-.0172	-.1649	.40
55	-.40	-.079	2.28	-.411	.240	-.0238	.1838	-.40
	-.30	-.074	2.12	-.308	.206	-.0139	.1758	-.30
	-.20	-.068	2.05	-.268	.121	-.0151	.1418	-.20
	-.10	-.060	2.02	-.248	.053	-.0139	.1099	-.10
	-.05	-.048	1.98	-.269	.006	-.0135	.0900	-.05
	0.00	-.040	1.99	-.181	-.028	-.0111	.0804	0.00
	0.00	-.050	2.06	-.143	-.015	-.0102	.0819	0.00
	.05	-.052	2.01	-.147	-.111	-.0128	.0339	.05
	.10	-.047	2.02	-.140	-.140	-.0166	.0132	.10
	.20	-.060	2.05	-.258	-.298	-.0231	-.0588	.20
	.30	-.069	2.11	-.358	-.375	-.0256	-.1045	.30
	.40	-.082	2.27	-.452	-.384	-.0228	-.1305	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=25 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.086	2.37	-.415	.219	-.0251	.1777	-.40
	-.30	-.071	2.19	-.340	.155	-.0120	.1483	-.30
	-.20	-.062	2.05	-.318	.081	-.0131	.1265	-.20
	-.10	-.057	2.02	-.344	.038	-.0171	.0958	-.10
	-.05	-.053	1.99	-.347	.036	-.0183	.0959	-.05
	0.00	-.058	2.00	-.321	-.001	-.0208	.0838	0.00
	0.00	-.052	2.01	-.336	-.010	-.0208	.0840	0.00
	.05	-.056	2.04	-.316	-.046	-.0240	.0737	.05
	.10	-.052	2.06	-.298	-.110	-.0225	.0543	.10
	.20	-.059	2.07	-.386	-.272	-.0361	-.0604	.20
	.30	-.070	2.21	-.435	-.281	-.0338	-.0776	.30
	.40	-.078	2.35	-.470	-.317	-.0234	-.1124	.40
65	-.40	-.067	2.41	-.434	.196	-.0208	.1840	-.40
	-.30	-.042	2.22	-.399	.123	-.0021	.1407	-.30
	-.20	-.028	2.02	-.385	.044	-.0041	.1120	-.20
	-.10	-.033	1.97	-.395	-.009	-.0114	.0912	-.10
	-.05	-.028	1.94	-.399	-.025	-.0130	.0768	-.05
	0.00	-.022	2.01	-.376	-.043	-.0183	.0694	0.00
	0.00	-.025	2.05	-.374	-.038	-.0176	.0740	0.00
	.05	-.027	1.99	-.394	-.074	-.0210	.0599	.05
	.10	-.025	2.00	-.393	-.110	-.0260	.0464	.10
	.20	-.026	2.03	-.459	-.247	-.0342	-.0415	.20
	.30	-.037	2.17	-.472	-.289	-.0335	-.0739	.30
	.40	-.053	2.32	-.499	-.350	-.0194	-.1174	.40
70	-.40	-.093	2.43	-.468	.160	-.0236	.1574	-.40
	-.30	-.064	2.31	-.448	.094	.0051	.1174	-.30
	-.20	-.040	2.09	-.430	.049	.0038	.0897	-.20
	-.10	-.042	1.97	-.428	-.000	-.0144	.0654	-.10
	-.05	-.039	1.96	-.421	-.032	-.0161	.0501	-.05
	0.00	-.038	1.92	-.415	-.087	-.0148	.0475	0.00
	0.00	-.051	2.00	-.404	-.059	-.0168	.0488	0.00
	.05	-.042	1.96	-.429	-.102	-.0209	.0394	.05
	.10	-.045	2.00	-.438	-.114	-.0248	.0256	.10
	.20	-.048	2.07	-.494	-.184	-.0332	-.0220	.20
	.30	-.063	2.22	-.502	-.216	-.0332	-.0522	.30
	.40	-.085	2.40	-.468	-.292	-.0048	-.0968	.40
75	-.40	-.057	2.47	-.628	.051	-.0031	.1374	-.40
	-.30	-.038	2.22	-.564	.010	.0076	.1067	-.30
	-.20	-.006	2.02	-.502	-.009	.0043	.0778	-.20
	-.10	.012	1.91	-.533	-.036	-.0129	.0464	-.10
	-.05	.016	1.87	-.516	-.063	-.0110	.0358	-.05
	0.00	.003	2.01	-.453	-.062	-.0185	.0276	0.00
	0.00	.006	1.96	-.502	-.070	-.0151	.0262	0.00
	.05	.016	1.90	-.486	-.114	-.0159	.0160	.05
	.10	.009	1.91	-.516	-.152	-.0208	.0076	.10
	.20	-.007	2.04	-.568	-.171	-.0282	-.0166	.20
	.30	-.020	2.17	-.612	-.191	-.0276	-.0412	.30
	.40	-.046	2.38	-.663	-.221	-.0121	-.0738	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=25 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	-.074	2.42	-.686	.019	-.0112	.1374	-.40
	-.30	-.039	2.17	-.613	-.004	.0056	.1009	-.30
	-.20	-.022	2.01	-.560	-.010	.0022	.0722	-.20
	-.10	-.005	1.89	-.583	-.047	-.0076	.0535	-.10
	-.05	-.001	1.86	-.574	-.052	-.0076	.0378	-.05
	0.00	-.026	1.94	-.569	-.041	-.0080	.0250	0.00
	0.00	-.026	1.91	-.571	-.053	-.0068	.0287	0.00
	.05	-.006	1.88	-.574	-.070	-.0060	.0120	.05
	.10	-.014	1.89	-.557	-.101	-.0149	-.0003	.10
	.20	-.027	2.01	-.607	-.142	-.0212	-.0159	.20
	.30	-.041	2.17	-.642	-.144	-.0182	-.0422	.30
	.40	-.062	2.37	-.697	-.164	-.0042	-.0732	.40
85	-.40	-.041	2.38	-.722	-.021	-.0128	.1378	-.40
	-.30	-.031	2.13	-.661	-.040	.0048	.1012	-.30
	-.20	.012	1.93	-.616	-.058	.0028	.0754	-.20
	-.10	.036	1.87	-.628	-.066	-.0054	.0551	-.10
	-.05	.042	1.85	-.632	-.064	-.0056	.0387	-.05
	0.00	.011	1.90	-.621	-.057	-.0052	.0260	0.00
	0.00	.003	1.94	-.596	-.048	-.0042	.0251	0.00
	.05	.039	1.83	-.621	-.073	-.0044	.0072	.05
	.10	.031	1.85	-.602	-.076	-.0093	-.0096	.10
	.20	.011	1.92	-.637	-.140	-.0131	-.0202	.20
	.30	-.019	2.04	-.672	-.144	-.0085	-.0431	.30
	.40	-.041	2.31	-.742	-.159	.0029	-.0724	.40
90	-.40	-.056	2.31	-.745	-.042	-.0177	.1334	-.40
	-.30	-.047	2.05	-.694	-.054	.0009	.1006	-.30
	-.20	-.017	1.92	-.655	-.059	-.0025	.0787	-.20
	-.10	.005	1.83	-.668	-.066	-.0056	.0541	-.10
	-.05	.011	1.86	-.681	-.052	-.0056	.0384	-.05
	0.00	-.017	1.91	-.705	-.031	-.0046	.0225	0.00
	0.00	-.021	1.90	-.688	-.047	-.0015	.0261	0.00
	.05	.004	1.87	-.659	-.031	-.0051	.0045	.05
	.10	-.000	1.86	-.659	-.025	-.0068	-.0135	.10
	.20	-.021	1.94	-.658	-.086	-.0039	-.0207	.20
	.30	-.045	2.05	-.689	-.094	-.0020	-.0433	.30
	.40	-.053	2.31	-.736	-.079	.0094	-.0688	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=25 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	-.014	1.13	-.001	-.266	.0169	.0622	-.40
	-.30	-.013	1.13	.002	-.216	-.0104	.0438	-.30
	-.20	-.010	1.13	-.006	-.166	-.0255	.0300	-.20
	-.10	-.016	1.15	-.005	-.123	-.0438	.0184	-.10
	-.05	-.020	1.14	-.011	-.108	-.0522	.0117	-.05
	0.00	-.014	1.12	-.031	-.109	-.0612	.0038	0.00
	0.00	-.013	1.12	-.029	-.100	-.0606	.0034	0.00
	.05	-.016	1.09	-.039	-.094	-.0661	-.0042	.05
	.10	-.014	1.09	-.060	-.089	-.0745	-.0133	.10
	.20	.009	1.04	-.108	-.085	-.0859	-.0303	.20
	.30	.029	1.06	-.169	-.069	-.1001	-.0515	.30
	.40	.045	1.11	-.237	-.047	-.1211	-.0758	.40
25	-.40	-.047	1.44	.002	-.217	.0057	.0750	-.40
	-.30	-.031	1.41	.003	-.202	-.0112	.0541	-.30
	-.20	-.030	1.40	.003	-.161	-.0260	.0302	-.20
	-.10	-.032	1.38	.003	-.117	-.0426	.0099	-.10
	-.05	-.031	1.38	-.000	-.109	-.0500	.0004	-.05
	0.00	-.025	1.32	-.017	-.106	-.0541	-.0071	0.00
	0.00	-.026	1.34	-.014	-.104	-.0544	-.0081	0.00
	.05	-.017	1.30	-.022	-.102	-.0508	-.0136	.05
	.10	-.007	1.24	-.039	-.106	-.0493	-.0199	.10
	.20	.004	1.20	-.095	-.099	-.0524	-.0375	.20
	.30	.018	1.23	-.182	-.090	-.0645	-.0612	.30
	.40	.036	1.30	-.278	-.078	-.0803	-.0882	.40
30	-.40	-.039	1.70	-.017	-.129	-.0009	.0699	-.40
	-.30	-.040	1.64	-.008	-.160	-.0175	.0505	-.30
	-.20	-.048	1.61	.006	-.162	-.0323	.0258	-.20
	-.10	-.045	1.63	.002	-.141	-.0406	.0068	-.10
	-.05	-.035	1.60	-.003	-.141	-.0358	-.0012	-.05
	0.00	-.022	1.55	-.025	-.149	-.0321	-.0117	0.00
	0.00	-.021	1.54	-.022	-.138	-.0330	-.0108	0.00
	.05	-.015	1.48	-.047	-.158	-.0274	-.0206	.05
	.10	-.008	1.44	-.071	-.167	-.0253	-.0299	.10
	.20	-.002	1.41	-.129	-.202	-.0249	-.0460	.20
	.30	.000	1.44	-.208	-.207	-.0307	-.0649	.30
	.40	.008	1.49	-.301	-.214	-.0439	-.0852	.40
35	-.40	-.054	1.96	-.052	-.072	-.0265	.0792	-.40
	-.30	-.055	1.89	-.039	-.098	-.0372	.0482	-.30
	-.20	-.052	1.83	.009	-.139	-.0335	.0290	-.20
	-.10	-.043	1.78	.021	-.168	-.0330	.0086	-.10
	-.05	-.038	1.77	-.007	-.181	-.0331	-.0026	-.05
	0.00	-.031	1.73	-.032	-.224	-.0272	-.0128	0.00
	0.00	-.034	1.75	-.026	-.214	-.0265	-.0115	0.00
	.05	-.033	1.70	-.050	-.249	-.0213	-.0230	.05
	.10	-.031	1.65	-.072	-.286	-.0181	-.0298	.10
	.20	-.026	1.65	-.149	-.336	-.0153	-.0472	.20
	.30	-.021	1.64	-.238	-.385	-.0165	-.0668	.30
	.40	-.013	1.71	-.341	-.402	-.0226	-.0909	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=25 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	-.055	2.06	-.074	.008	-.0536	.1038	-.40
	-.30	-.038	1.97	-.040	-.037	-.0510	.0617	-.30
	-.20	-.029	1.86	.002	-.102	-.0302	.0345	-.20
	-.10	-.035	1.85	.024	-.167	-.0333	.0131	-.10
	-.05	-.028	1.83	.000	-.192	-.0392	.0004	-.05
	0.00	-.022	1.80	-.030	-.223	-.0365	-.0118	0.00
	0.00	-.026	1.83	-.022	-.237	-.0343	-.0118	0.00
	.05	-.026	1.79	-.054	-.261	-.0271	-.0266	.05
	.10	-.029	1.77	-.071	-.341	-.0210	-.0399	.10
	.20	-.039	1.76	-.144	-.436	-.0139	-.0598	.20
	.30	-.042	1.81	-.240	-.513	-.0128	-.0840	.30
	.40	-.042	1.86	-.372	-.585	-.0181	-.1117	.40
45	-.40	-.044	2.12	-.101	.135	-.0568	.1349	-.40
	-.30	-.026	2.02	-.034	.066	-.0486	.0897	-.30
	-.20	-.020	1.96	-.008	-.019	-.0385	.0533	-.20
	-.10	-.017	1.92	-.016	-.094	-.0344	.0142	-.10
	-.05	-.018	1.90	-.020	-.138	-.0383	.0035	-.05
	0.00	-.014	1.87	-.062	-.185	-.0397	-.0062	0.00
	0.00	-.016	1.85	-.059	-.198	-.0388	-.0061	0.00
	.05	-.014	1.81	-.082	-.227	-.0344	-.0178	.05
	.10	-.020	1.80	-.091	-.314	-.0346	-.0483	.10
	.20	-.033	1.81	-.177	-.463	-.0273	-.0863	.20
	.30	-.046	1.87	-.292	-.558	-.0235	-.1147	.30
	.40	-.048	1.93	-.447	-.623	-.0283	-.1463	.40
50	-.40	-.048	2.12	-.195	.130	-.0490	.1593	-.40
	-.30	-.034	2.01	-.099	.087	-.0339	.1257	-.30
	-.20	-.025	1.96	-.037	.017	-.0294	.0968	-.20
	-.10	-.014	1.94	-.057	-.096	-.0274	.0325	-.10
	-.05	-.021	1.94	-.062	-.132	-.0312	.0145	-.05
	0.00	-.023	1.92	-.051	-.203	-.0319	.0000	0.00
	0.00	-.023	1.92	-.058	-.204	-.0340	.0019	0.00
	.05	-.018	1.87	-.099	-.227	-.0347	-.0063	.05
	.10	-.019	1.84	-.152	-.286	-.0373	-.0483	.10
	.20	-.026	1.82	-.268	-.438	-.0446	-.1069	.20
	.30	-.039	1.90	-.385	-.541	-.0496	-.1435	.30
	.40	-.057	2.03	-.544	-.633	-.0486	-.1769	.40
55	-.40	-.041	2.12	-.247	.043	-.0548	.1460	-.40
	-.30	-.034	1.97	-.189	.016	-.0432	.1277	-.30
	-.20	-.031	1.86	-.188	-.051	-.0403	.0917	-.20
	-.10	-.036	1.88	-.185	-.077	-.0396	.0562	-.10
	-.05	-.034	1.87	-.198	-.115	-.0409	.0410	-.05
	0.00	-.031	1.93	-.092	-.196	-.0304	.0192	0.00
	0.00	-.033	1.92	-.080	-.199	-.0303	.0207	0.00
	.05	-.030	1.90	-.122	-.220	-.0334	-.0081	.05
	.10	-.026	1.85	-.212	-.291	-.0413	-.0479	.10
	.20	-.024	1.87	-.379	-.409	-.0589	-.1007	.20
	.30	-.037	1.92	-.471	-.497	-.0633	-.1317	.30
	.40	-.065	2.18	-.601	-.559	-.0517	-.1442	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=25 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.044	2.18	-.245	.015	-.0542	.1427	-.40
	-.30	-.028	2.02	-.223	-.042	-.0438	.1010	-.30
	-.20	-.021	1.88	-.262	-.070	-.0416	.0717	-.20
	-.10	-.018	1.83	-.286	-.061	-.0405	.0488	-.10
	-.05	-.019	1.84	-.268	-.083	-.0399	.0402	-.05
	0.00	-.017	1.83	-.266	-.140	-.0404	.0221	0.00
	0.00	-.019	1.86	-.271	-.131	-.0396	.0245	0.00
	.05	-.014	1.89	-.271	-.168	-.0448	.0119	.05
	.10	-.012	1.89	-.292	-.234	-.0457	-.0163	.10
	.20	-.018	1.91	-.456	-.363	-.0630	-.0869	.20
	.30	-.028	2.02	-.519	-.416	-.0668	-.1038	.30
	.40	-.054	2.22	-.606	-.507	-.0562	-.1431	.40
65	-.40	-.040	2.26	-.249	.035	-.0542	.1452	-.40
	-.30	-.033	2.06	-.265	-.054	-.0422	.0978	-.30
	-.20	-.025	1.95	-.300	-.065	-.0320	.0711	-.20
	-.10	-.021	1.87	-.351	-.084	-.0396	.0406	-.10
	-.05	-.022	1.87	-.339	-.105	-.0375	.0322	-.05
	0.00	-.002	1.80	-.331	-.171	-.0372	.0212	0.00
	0.00	-.015	1.87	-.327	-.145	-.0388	.0201	0.00
	.05	-.024	1.91	-.331	-.165	-.0399	.0121	.05
	.10	-.025	1.92	-.334	-.212	-.0451	-.0061	.10
	.20	-.026	1.94	-.480	-.326	-.0573	-.0768	.20
	.30	-.037	2.04	-.552	-.419	-.0651	-.1060	.30
	.40	-.059	2.24	-.605	-.499	-.0496	-.1500	.40
70	-.40	-.048	2.34	-.306	-.015	-.0546	.1231	-.40
	-.30	-.031	2.13	-.331	-.076	-.0443	.0791	-.30
	-.20	-.015	1.97	-.379	-.093	-.0427	.0459	-.20
	-.10	-.006	1.92	-.388	-.108	-.0411	.0212	-.10
	-.05	-.008	1.90	-.374	-.130	-.0388	.0201	-.05
	0.00	-.017	1.91	-.370	-.175	-.0370	.0137	0.00
	0.00	-.022	1.93	-.360	-.160	-.0378	.0143	0.00
	.05	-.016	1.93	-.373	-.184	-.0371	.0021	.05
	.10	-.016	1.94	-.409	-.212	-.0418	-.0189	.10
	.20	-.022	1.97	-.503	-.270	-.0514	-.0534	.20
	.30	-.040	2.16	-.569	-.314	-.0576	-.0789	.30
	.40	-.073	2.37	-.609	-.470	-.0420	-.1404	.40
75	-.40	-.030	2.34	-.438	-.075	-.0597	.1056	-.40
	-.30	-.009	2.12	-.427	-.105	-.0465	.0719	-.30
	-.20	.010	2.02	-.465	-.121	-.0455	.0381	-.20
	-.10	.011	1.91	-.452	-.136	-.0415	.0144	-.10
	-.05	.010	1.90	-.446	-.150	-.0418	.0038	-.05
	0.00	-.005	1.92	-.451	-.169	-.0424	-.0069	0.00
	0.00	-.002	1.91	-.453	-.176	-.0431	-.0087	0.00
	.05	-.002	1.91	-.439	-.192	-.0374	-.0148	.05
	.10	-.010	1.90	-.458	-.218	-.0364	-.0226	.10
	.20	-.021	1.98	-.555	-.256	-.0436	-.0413	.20
	.30	-.036	2.14	-.642	-.280	-.0453	-.0601	.30
	.40	-.054	2.42	-.737	-.297	-.0411	-.0930	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta a=25$ $\delta d=10$ BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	-.030	2.30	-.477	-.094	-.0595	.1072	-.40
	-.30	-.012	2.13	-.480	-.127	-.0469	.0737	-.30
	-.20	.008	2.04	-.516	-.135	-.0443	.0401	-.20
	-.10	.021	1.93	-.515	-.137	-.0395	.0133	-.10
	-.05	.021	1.91	-.520	-.140	-.0383	.0019	-.05
	0.00	-.002	1.88	-.520	-.178	-.0372	-.0062	0.00
	0.00	.006	1.91	-.552	-.165	-.0396	-.0084	0.00
	.05	.006	1.94	-.520	-.156	-.0376	-.0166	.05
	.10	-.004	1.93	-.519	-.181	-.0343	-.0255	.10
	.20	-.030	2.04	-.605	-.225	-.0376	-.0378	.20
	.30	-.047	2.22	-.691	-.254	-.0385	-.0597	.30
	.40	-.054	2.45	-.790	-.251	-.0331	-.0895	.40
85	-.40	-.021	2.38	-.549	-.109	-.0588	.1108	-.40
	-.30	-.012	2.24	-.554	-.146	-.0498	.0766	-.30
	-.20	.015	2.13	-.575	-.147	-.0431	.0477	-.20
	-.10	.033	2.08	-.606	-.135	-.0394	.0195	-.10
	-.05	.036	2.13	-.628	-.141	-.0382	.0073	-.05
	0.00	.008	2.08	-.631	-.167	-.0361	-.0050	0.00
	0.00	.010	2.03	-.646	-.178	-.0372	-.0053	0.00
	.05	.022	2.11	-.617	-.140	-.0372	-.0184	.05
	.10	.011	2.13	-.620	-.152	-.0366	-.0306	.10
	.20	-.018	2.16	-.657	-.222	-.0352	-.0386	.20
	.30	-.049	2.36	-.750	-.242	-.0362	-.0591	.30
	.40	-.057	2.63	-.843	-.218	-.0261	-.0861	.40
90	-.40	-.026	2.36	-.575	-.120	-.0596	.1091	-.40
	-.30	-.012	2.25	-.600	-.154	-.0517	.0759	-.30
	-.20	.008	2.11	-.641	-.157	-.0428	.0517	-.20
	-.10	.027	2.05	-.655	-.145	-.0361	.0255	-.10
	-.05	.030	2.04	-.669	-.131	-.0351	.0110	-.05
	0.00	.001	2.06	-.688	-.153	-.0338	-.0013	0.00
	0.00	.002	2.08	-.679	-.137	-.0346	-.0064	0.00
	.05	.020	2.12	-.677	-.120	-.0342	-.0191	.05
	.10	.009	2.12	-.679	-.131	-.0326	-.0310	.10
	.20	-.020	2.15	-.702	-.189	-.0278	-.0402	.20
	.30	-.043	2.32	-.779	-.210	-.0263	-.0569	.30
	.40	-.053	2.60	-.871	-.182	-.0220	-.0838	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=25 δd=10 δr=-30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.016	2.01	-.157	-.014	-.0322	.1110	-.40
	-.30	-.017	1.97	-.113	-.012	-.0378	.0843	-.30
	-.20	-.021	1.96	-.072	-.025	-.0343	.0648	-.20
	-.10	-.015	1.96	-.066	-.029	-.0338	.0491	-.10
	-.05	-.012	1.94	-.063	-.034	-.0347	.0440	-.05
	0.00	.005	1.88	-.064	-.057	-.0358	.0368	0.00
	0.00	.005	1.86	-.063	-.057	-.0347	.0369	0.00
	.05	-.004	1.92	-.061	-.050	-.0351	.0310	.05
	.10	-.001	1.91	-.063	-.056	-.0358	.0228	.10
	.20	.007	1.91	-.086	-.053	-.0340	.0067	.20
	.30	.013	1.91	-.127	-.042	-.0361	-.0161	.30
	.40	.020	1.95	-.175	-.024	-.0445	-.0446	.40
40	-.40	-.029	2.31	-.259	.304	-.0509	.1644	-.40
	-.30	-.010	2.22	-.159	.238	-.0464	.1283	-.30
	-.20	.004	2.16	-.081	.141	-.0340	.0969	-.20
	-.10	.001	2.07	-.030	.007	-.0112	.0594	-.10
	-.05	.000	2.09	-.025	-.030	-.0065	.0465	-.05
	0.00	.015	2.04	-.021	-.077	-.0098	.0372	0.00
	0.00	.013	2.05	-.017	-.081	-.0104	.0373	0.00
	.05	.001	2.10	-.014	-.122	-.0112	.0265	.05
	.10	-.002	2.11	-.013	-.142	-.0175	.0136	.10
	.20	-.004	2.14	-.083	-.189	-.0101	-.0167	.20
	.30	-.010	2.21	-.145	-.295	-.0045	-.0491	.30
	.40	-.020	2.29	-.227	-.341	-.0083	-.0855	.40
50	-.40	-.041	2.39	-.348	.347	-.0322	.2272	-.40
	-.30	-.021	2.29	-.238	.299	-.0239	.1808	-.30
	-.20	-.012	2.24	-.142	.206	-.0173	.1426	-.20
	-.10	.002	2.18	-.096	.113	-.0137	.1057	-.10
	-.05	.008	2.17	-.067	.060	-.0131	.0899	-.05
	0.00	.025	2.12	-.065	-.025	-.0097	.0568	0.00
	0.00	.024	2.11	-.070	-.028	-.0095	.0583	0.00
	.05	.018	2.17	-.094	-.051	-.0134	.0303	.05
	.10	.012	2.21	-.072	-.110	-.0152	.0170	.10
	.20	.015	2.22	-.112	-.171	-.0258	-.0045	.20
	.30	-.028	2.34	-.217	-.345	-.0171	-.0941	.30
	.40	-.048	2.46	-.326	-.462	-.0200	-.1426	.40
55	-.40	-.049	2.48	-.415	.236	-.0226	.1861	-.40
	-.30	-.033	2.31	-.304	.236	-.0180	.1857	-.30
	-.20	-.020	2.21	-.257	.158	-.0156	.1467	-.20
	-.10	-.004	2.15	-.258	.089	-.0160	.1134	-.10
	-.05	-.004	2.12	-.287	.061	-.0233	.0921	-.05
	0.00	.010	2.10	-.256	.008	-.0209	.0840	0.00
	0.00	.008	2.08	-.260	-.003	-.0200	.0845	0.00
	.05	-.002	2.16	-.223	-.029	-.0182	.0716	.05
	.10	-.000	2.21	-.113	-.090	-.0156	.0333	.10
	.20	-.025	2.29	-.209	-.167	-.0177	.0020	.20
	.30	-.041	2.36	-.312	-.300	-.0235	-.0854	.30
	.40	-.065	2.54	-.461	-.345	-.0259	-.1201	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta a=25$ $\delta d=10$ $\delta r=-30$ BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.053	2.57	-.433	.228	-.0260	.1813	-.40
	-.30	-.024	2.40	-.347	.185	-.0118	.1482	-.30
	-.20	-.004	2.20	-.322	.109	-.0150	.1238	-.20
	-.10	.008	2.12	-.347	.057	-.0172	.0947	-.10
	-.05	.011	2.11	-.351	.036	-.0190	.0806	-.05
	0.00	.018	2.07	-.336	.014	-.0208	.0737	0.00
	0.00	.019	2.08	-.347	.003	-.0187	.0722	0.00
	.05	.012	2.17	-.323	.007	-.0222	.0652	.05
	.10	.006	2.23	-.296	-.030	-.0270	.0500	.10
	.20	-.012	2.33	-.222	-.143	-.0221	.0023	.20
	.30	-.027	2.43	-.451	-.238	-.0424	-.0714	.30
	.40	-.058	2.61	-.490	-.289	-.0325	-.1055	.40
65	-.40	-.040	2.64	-.470	.213	-.0184	.1834	-.40
	-.30	-.008	2.45	-.417	.151	.0037	.1431	-.30
	-.20	.015	2.30	-.388	.104	.0037	.1071	-.20
	-.10	.028	2.16	-.366	.033	-.0087	.0823	-.10
	-.05	.028	2.11	-.379	.005	-.0160	.0758	-.05
	0.00	.043	2.10	-.371	-.017	-.0177	.0620	0.00
	0.00	.041	2.11	-.379	-.021	-.0175	.0634	0.00
	.05	.031	2.16	-.380	-.038	-.0212	.0514	.05
	.10	.026	2.21	-.374	-.062	-.0267	.0408	.10
	.20	.013	2.35	-.351	-.133	-.0340	.0116	.20
	.30	-.007	2.45	-.456	-.224	-.0410	-.0587	.30
	.40	-.038	2.61	-.499	-.317	-.0256	-.1085	.40
70	-.40	-.062	2.73	-.519	.180	-.0178	.1610	-.40
	-.30	-.030	2.54	-.465	.115	.0038	.1190	-.30
	-.20	-.006	2.36	-.434	.083	.0038	.0904	-.20
	-.10	.006	2.17	-.421	.031	-.0208	.0645	-.10
	-.05	.008	2.17	-.402	.007	-.0194	.0531	-.05
	0.00	.010	2.13	-.393	-.038	-.0175	.0414	0.00
	0.00	.012	2.14	-.405	-.044	-.0186	.0410	0.00
	.05	.007	2.19	-.406	-.049	-.0219	.0343	.05
	.10	.004	2.22	-.428	-.075	-.0275	.0157	.10
	.20	-.007	2.33	-.476	-.128	-.0371	-.0173	.20
	.30	-.032	2.52	-.507	-.157	-.0409	-.0438	.30
	.40	-.070	2.78	-.530	-.208	-.0291	-.0863	.40
80	-.40	-.047	2.74	-.693	.048	-.0144	.1446	-.40
	-.30	-.013	2.51	-.615	.042	.0030	.1050	-.30
	-.20	.014	2.34	-.563	.040	.0010	.0765	-.20
	-.10	.036	2.17	-.588	.006	-.0131	.0565	-.10
	-.05	.041	2.15	-.582	-.006	-.0111	.0434	-.05
	0.00	.030	2.12	-.585	-.026	-.0116	.0264	0.00
	0.00	.030	2.13	-.575	-.032	-.0092	.0285	0.00
	.05	.032	2.18	-.555	-.008	-.0157	.0091	.05
	.10	.025	2.20	-.559	-.035	-.0182	.0000	.10
	.20	.009	2.33	-.606	-.074	-.0251	-.0155	.20
	.30	-.017	2.49	-.640	-.084	-.0240	-.0385	.30
	.40	-.054	2.73	-.708	-.110	-.0161	-.0665	.40

F-18 ROTARY BALANCE DATA

F-18 δ_{lef}=30 δ_a=25 δ_d=10 δ_r=-30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.025	2.77	-.739	.027	-.0171	.1426	-.40
	-.30	-.003	2.52	-.665	.012	.0006	.1065	-.30
	-.20	.040	2.30	-.621	.004	-.0018	.0814	-.20
	-.10	.069	2.20	-.652	-.012	-.0100	.0580	-.10
	-.05	.075	2.19	-.648	-.012	-.0088	.0425	-.05
	0.00	.053	2.18	-.644	-.024	-.0084	.0258	0.00
	0.00	.053	2.16	-.653	-.017	-.0085	.0223	0.00
	.05	.073	2.18	-.631	-.006	-.0113	.0049	.05
	.10	.062	2.20	-.618	-.023	-.0123	-.0069	.10
	.20	.036	2.30	-.649	-.072	-.0170	-.0184	.20
	.30	.001	2.45	-.688	-.076	-.0164	-.0401	.30
	.40	-.028	2.71	-.744	-.081	-.0050	-.0654	.40
90	-.40	-.040	2.64	-.740	.002	-.0241	.1390	-.40
	-.30	-.027	2.41	-.679	.017	-.0036	.1041	-.30
	-.20	.005	2.23	-.657	.004	-.0073	.0798	-.20
	-.10	.038	2.17	-.700	-.009	-.0080	.0582	-.10
	-.05	.045	2.17	-.706	-.005	-.0065	.0414	-.05
	0.00	.023	2.15	-.732	-.012	-.0069	.0232	0.00
	0.00	.025	2.14	-.720	-.010	-.0062	.0223	0.00
	.05	.041	2.20	-.700	.021	-.0082	.0051	.05
	.10	.029	2.22	-.677	.012	-.0082	-.0078	.10
	.20	.003	2.30	-.688	-.029	-.0083	-.0190	.20
	.30	-.030	2.45	-.708	-.026	-.0079	-.0393	.30
	.40	-.043	2.72	-.754	-.030	.0024	-.0612	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=25 δd=10 δr=-30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.023	2.07	-.034	-.150	-.0089	.0920	-.40
	-.30	-.015	1.99	-.018	-.186	-.0251	.0732	-.30
	-.20	-.018	1.93	.011	-.208	-.0369	.0484	-.20
	-.10	-.008	1.89	.010	-.213	-.0398	.0309	-.10
	-.05	.003	1.86	.000	-.204	-.0361	.0219	-.05
	0.00	.020	1.78	-.026	-.224	-.0319	.0107	0.00
	0.00	.023	1.77	-.028	-.216	-.0309	.0106	0.00
	.05	.019	1.77	-.052	-.217	-.0301	-.0005	.05
	.10	.023	1.76	-.081	-.223	-.0288	-.0106	.10
	.20	.024	1.76	-.146	-.236	-.0286	-.0290	.20
	.30	.022	1.81	-.232	-.236	-.0332	-.0481	.30
	.40	.017	1.91	-.331	-.232	-.0452	-.0684	.40
40	-.40	-.032	2.42	-.066	.017	-.0581	.1374	-.40
	-.30	-.005	2.28	-.027	-.032	-.0496	.0916	-.30
	-.20	.005	2.19	-.010	-.112	-.0345	.0508	-.20
	-.10	.011	2.12	.012	-.182	-.0347	.0267	-.10
	-.05	.015	2.10	-.001	-.204	-.0420	.0156	-.05
	0.00	.028	2.04	-.044	-.256	-.0432	.0037	0.00
	0.00	.028	2.04	-.039	-.258	-.0443	.0022	0.00
	.05	.020	2.07	-.058	-.281	-.0344	-.0131	.05
	.10	.011	2.07	-.068	-.361	-.0260	-.0288	.10
	.20	-.003	2.10	-.149	-.470	-.0192	-.0525	.20
	.30	-.015	2.14	-.253	-.551	-.0170	-.0753	.30
	.40	-.029	2.23	-.391	-.616	-.0223	-.1003	.40
50	-.40	-.029	2.44	-.209	.150	-.0487	.1821	-.40
	-.30	-.005	2.32	-.100	.092	-.0353	.1411	-.30
	-.20	.014	2.23	-.052	.018	-.0295	.1072	-.20
	-.10	.028	2.21	-.034	-.093	-.0279	.0530	-.10
	-.05	.029	2.18	-.085	-.138	-.0324	.0217	-.05
	0.00	.028	2.14	-.053	-.228	-.0357	.0052	0.00
	0.00	.026	2.16	-.060	-.229	-.0368	.0059	0.00
	.05	.024	2.13	-.091	-.236	-.0371	-.0048	.05
	.10	.025	2.14	-.153	-.272	-.0399	-.0349	.10
	.20	.007	2.12	-.283	-.431	-.0480	-.1024	.20
	.30	-.012	2.21	-.414	-.524	-.0582	-.1409	.30
	.40	-.048	2.39	-.573	-.604	-.0536	-.1682	.40
55	-.40	-.025	2.46	-.288	.062	-.0550	.1753	-.40
	-.30	-.003	2.29	-.226	.012	-.0442	.1389	-.30
	-.20	.013	2.17	-.226	-.048	-.0434	.0966	-.20
	-.10	.010	2.14	-.218	-.074	-.0416	.0607	-.10
	-.05	.015	2.13	-.225	-.109	-.0439	.0436	-.05
	0.00	.023	2.11	-.162	-.187	-.0403	.0254	0.00
	0.00	.027	2.11	-.147	-.187	-.0373	.0242	0.00
	.05	.020	2.16	-.112	-.225	-.0369	-.0022	.05
	.10	.029	2.10	-.308	-.245	-.0520	-.0189	.10
	.20	.012	2.18	-.401	-.392	-.0668	-.0907	.20
	.30	-.005	2.28	-.524	-.446	-.0741	-.1127	.30
	.40	-.042	2.51	-.633	-.541	-.0702	-.1424	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta a=25$ $\delta d=10$ $\delta r=-30$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.026	2.54	-.281	.044	-.0559	.1590	-.40
	-.30	-.002	2.36	-.265	-.031	-.0406	.1085	-.30
	-.20	.017	2.16	-.286	-.070	-.0431	.0771	-.20
	-.10	.023	2.10	-.316	-.082	-.0408	.0523	-.10
	-.05	.024	2.10	-.292	-.091	-.0401	.0491	-.05
	0.00	.028	2.11	-.286	-.152	-.0431	.0308	0.00
	0.00	.025	2.11	-.290	-.149	-.0425	.0296	0.00
	.05	.031	2.16	-.296	-.174	-.0461	.0143	.05
	.10	.025	2.18	-.257	-.229	-.0435	-.0023	.10
	.20	.017	2.21	-.496	-.347	-.0660	-.0834	.20
	.30	-.003	2.35	-.555	-.405	-.0731	-.0977	.30
	.40	-.041	2.59	-.645	-.491	-.0670	-.1336	.40
65	-.40	-.026	2.61	-.300	.033	-.0559	.1554	-.40
	-.30	-.010	2.42	-.309	-.031	-.0375	.1038	-.30
	-.20	.004	2.24	-.367	-.057	-.0435	.0738	-.20
	-.10	.014	2.16	-.363	-.102	-.0401	.0506	-.10
	-.05	.014	2.16	-.357	-.127	-.0382	.0396	-.05
	0.00	.029	2.12	-.348	-.173	-.0426	.0249	0.00
	0.00	.026	2.11	-.363	-.180	-.0388	.0267	0.00
	.05	.014	2.19	-.360	-.168	-.0409	.0155	.05
	.10	.011	2.23	-.357	-.218	-.0463	-.0026	.10
	.20	.002	2.26	-.499	-.316	-.0601	-.0689	.20
	.30	-.018	2.41	-.580	-.396	-.0699	-.0975	.30
	.40	-.050	2.64	-.646	-.484	-.0593	-.1424	.40
70	-.40	-.025	2.67	-.387	-.017	-.0564	.1278	-.40
	-.30	-.010	2.51	-.356	-.057	-.0258	.0875	-.30
	-.20	.019	2.31	-.414	-.108	-.0449	.0570	-.20
	-.10	.030	2.22	-.424	-.127	-.0442	.0294	-.10
	-.05	.031	2.20	-.401	-.145	-.0417	.0268	-.05
	0.00	.029	2.16	-.402	-.199	-.0421	.0153	0.00
	0.00	.028	2.15	-.402	-.203	-.0409	.0169	0.00
	.05	.026	2.22	-.410	-.192	-.0393	.0028	.05
	.10	.022	2.24	-.447	-.218	-.0429	-.0172	.10
	.20	.008	2.27	-.534	-.279	-.0523	-.0440	.20
	.30	-.016	2.51	-.615	-.293	-.0623	-.0663	.30
	.40	-.065	2.76	-.642	-.446	-.0512	-.1287	.40
80	-.40	-.010	2.67	-.537	-.061	-.0595	.1200	-.40
	-.30	.014	2.47	-.538	-.132	-.0498	.0854	-.30
	-.20	.043	2.35	-.564	-.154	-.0451	.0511	-.20
	-.10	.062	2.24	-.573	-.148	-.0412	.0212	-.10
	-.05	.067	2.19	-.568	-.152	-.0403	.0072	-.05
	0.00	.048	2.15	-.589	-.192	-.0399	-.0016	0.00
	0.00	.049	2.15	-.576	-.192	-.0402	-.0025	0.00
	.05	.048	2.21	-.555	-.167	-.0397	-.0129	.05
	.10	.037	2.21	-.561	-.188	-.0357	-.0206	.10
	.20	.018	2.29	-.639	-.225	-.0401	-.0348	.20
	.30	-.014	2.50	-.735	-.247	-.0436	-.0534	.30
	.40	-.045	2.79	-.838	-.233	-.0372	-.0789	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta a=25$ $\delta d=10$ $\delta r=-30$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	-.010	2.63	-.595	-.090	-.0594	.1221	-.40
	-.30	.018	2.47	-.597	-.145	-.0502	.0865	-.30
	-.20	.052	2.33	-.612	-.154	-.0432	.0548	-.20
	-.10	.077	2.24	-.634	-.148	-.0381	.0254	-.10
	-.05	.082	2.21	-.636	-.138	-.0367	.0088	-.05
	0.00	.057	2.15	-.653	-.176	-.0349	-.0021	0.00
	0.00	.060	2.15	-.645	-.181	-.0370	-.0016	0.00
	.05	.067	2.22	-.626	-.141	-.0369	-.0158	.05
	.10	.053	2.24	-.633	-.159	-.0350	-.0257	.10
	.20	.023	2.29	-.683	-.200	-.0344	-.0351	.20
	.30	-.018	2.49	-.777	-.227	-.0350	-.0524	.30
	.40	-.040	2.76	-.869	-.185	-.0296	-.0783	.40
90	-.40	-.024	2.54	-.631	-.136	-.0555	.1177	-.40
	-.30	.009	2.42	-.625	-.151	-.0509	.0850	-.30
	-.20	.036	2.31	-.660	-.152	-.0421	.0572	-.20
	-.10	.061	2.21	-.677	-.147	-.0357	.0284	-.10
	-.05	.065	2.20	-.690	-.131	-.0341	.0128	-.05
	0.00	.043	2.16	-.707	-.158	-.0329	.0001	0.00
	0.00	.043	2.19	-.721	-.136	-.0353	-.0039	0.00
	.05	.056	2.22	-.690	-.118	-.0338	-.0154	.05
	.10	.045	2.23	-.689	-.137	-.0318	-.0264	.10
	.20	.012	2.27	-.733	-.172	-.0274	-.0382	.20
	.30	-.021	2.44	-.802	-.197	-.0263	-.0514	.30
	.40	-.045	2.75	-.892	-.157	-.0234	-.0765	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δr=-30 δH=-14 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.043	1.86	.055	-.037	.0237	.1103	-.40
	-.30	-.043	1.80	.092	-.020	.0100	.0813	-.30
	-.20	-.049	1.80	.127	-.020	.0066	.0582	-.20
	-.10	-.051	1.81	.142	-.028	.0094	.0393	-.10
	-.05	-.051	1.81	.142	-.032	.0059	.0328	-.05
	0.00	-.037	1.73	.139	-.056	.0044	.0261	0.00
	0.00	-.039	1.75	.142	-.055	.0033	.0269	0.00
	.05	-.050	1.81	.145	-.037	.0030	.0202	.05
	.10	-.050	1.81	.142	-.041	.0009	.0123	.10
	.20	-.046	1.79	.123	-.053	.0055	-.0028	.20
	.30	-.049	1.80	.096	-.038	.0014	-.0249	.30
	.40	-.054	1.86	.055	-.031	-.0105	-.0541	.40
40	-.40	-.088	2.21	-.088	.299	-.0085	.1540	-.40
	-.30	-.067	2.10	-.005	.247	-.0096	.1165	-.30
	-.20	-.046	2.02	.051	.133	-.0013	.0857	-.20
	-.10	-.036	1.96	.086	.033	.0149	.0464	-.10
	-.05	-.041	1.97	.098	-.012	.0208	.0314	-.05
	0.00	-.027	1.91	.102	-.066	.0179	.0221	0.00
	0.00	-.026	1.91	.095	-.069	.0177	.0219	0.00
	.05	-.045	1.98	.108	-.111	.0166	.0124	.05
	.10	-.051	2.02	.116	-.136	.0096	.0002	.10
	.20	-.061	2.05	.068	-.151	.0113	-.0296	.20
	.30	-.079	2.12	-.003	-.244	.0207	-.0661	.30
	.40	-.101	2.21	-.087	-.295	.0197	-.1052	.40
50	-.40	-.110	2.34	-.331	.364	.0009	.2052	-.40
	-.30	-.090	2.24	-.244	.334	.0039	.1631	-.30
	-.20	-.073	2.18	-.141	.257	.0042	.1208	-.20
	-.10	-.053	2.13	-.064	.150	.0083	.0846	-.10
	-.05	-.041	2.12	-.035	.091	.0103	.0674	-.05
	0.00	-.026	2.07	-.036	.002	.0119	.0393	0.00
	0.00	-.027	2.09	-.034	-.006	.0129	.0429	0.00
	.05	-.034	2.12	-.058	-.036	.0059	.0091	.05
	.10	-.041	2.17	-.040	-.063	.0019	-.0028	.10
	.20	-.073	2.23	-.130	-.121	.0112	-.0263	.20
	.30	-.094	2.28	-.195	-.269	.0067	-.1192	.30
	.40	-.122	2.38	-.304	-.360	.0081	-.1701	.40
55	-.40	-.114	2.38	-.385	.253	-.0079	.1621	-.40
	-.30	-.090	2.23	-.326	.219	-.0011	.1443	-.30
	-.20	-.079	2.15	-.249	.200	.0030	.1215	-.20
	-.10	-.055	2.08	-.233	.126	.0051	.0880	-.10
	-.05	-.047	2.05	-.225	.095	.0036	.0679	-.05
	0.00	-.033	2.00	-.201	.047	.0085	.0571	0.00
	0.00	-.031	1.99	-.207	.034	.0092	.0589	0.00
	.05	-.051	2.08	-.152	.009	.0104	.0455	.05
	.10	-.059	2.13	-.144	-.023	.0109	.0286	.10
	.20	-.078	2.21	-.192	-.103	.0098	-.0254	.20
	.30	-.102	2.31	-.270	-.225	.0106	-.1101	.30
	.40	-.128	2.45	-.380	-.255	.0121	-.1397	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δr=-30 δH=-14 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.124	2.51	-.400	.252	-.0095	.1614	-.40
	-.30	-.087	2.29	-.334	.165	.0003	.1215	-.30
	-.20	-.063	2.16	-.327	.116	.0045	.0960	-.20
	-.10	-.041	2.08	-.318	.078	.0081	.0775	-.10
	-.05	-.036	2.06	-.316	.054	.0072	.0635	-.05
	0.00	-.033	2.03	-.309	.042	.0047	.0611	0.00
	0.00	-.032	2.01	-.302	.035	.0074	.0628	0.00
	.05	-.040	2.11	-.264	.033	.0048	.0454	.05
	.10	-.050	2.15	-.235	.004	.0032	.0292	.10
	.20	-.075	2.30	-.173	-.080	.0053	-.0122	.20
	.30	-.090	2.34	-.352	-.179	-.0025	-.0987	.30
	.40	-.125	2.51	-.401	-.237	.0066	-.1323	.40
65	-.40	-.116	2.58	-.447	.200	-.0124	.1490	-.40
	-.30	-.076	2.41	-.408	.154	.0177	.1165	-.30
	-.20	-.050	2.18	-.386	.094	.0065	.0950	-.20
	-.10	-.035	2.10	-.370	.043	.0067	.0711	-.10
	-.05	-.032	2.09	-.360	.023	.0058	.0573	-.05
	0.00	-.016	2.07	-.340	.014	.0067	.0426	0.00
	0.00	-.019	2.07	-.349	.010	.0055	.0434	0.00
	.05	-.028	2.12	-.331	-.003	.0039	.0315	.05
	.10	-.032	2.14	-.325	-.024	.0020	.0162	.10
	.20	-.050	2.25	-.309	-.076	.0017	-.0167	.20
	.30	-.070	2.38	-.379	-.165	-.0044	-.0827	.30
	.40	-.108	2.60	-.401	-.226	.0149	-.1139	.40
70	-.40	-.154	2.72	-.517	.200	.0008	.1300	-.40
	-.30	-.105	2.52	-.481	.137	.0209	.0962	-.30
	-.20	-.069	2.35	-.426	.101	.0176	.0701	-.20
	-.10	-.061	2.17	-.397	.038	-.0024	.0467	-.10
	-.05	-.052	2.14	-.378	.035	-.0024	.0307	-.05
	0.00	-.054	2.10	-.382	.000	-.0021	.0160	0.00
	0.00	-.050	2.11	-.362	-.002	-.0010	.0145	0.00
	.05	-.053	2.16	-.380	-.018	.0023	.0053	.05
	.10	-.056	2.19	-.384	-.026	.0016	-.0098	.10
	.20	-.069	2.30	-.432	-.043	-.0079	-.0509	.20
	.30	-.095	2.49	-.478	-.071	-.0213	-.0780	.30
	.40	-.136	2.69	-.509	-.110	-.0112	-.0982	.40
80	-.40	-.150	2.77	-.712	.086	-.0027	.1158	-.40
	-.30	-.101	2.54	-.634	.076	.0132	.0814	-.30
	-.20	-.062	2.34	-.561	.060	.0117	.0567	-.20
	-.10	-.040	2.19	-.558	.031	-.0025	.0363	-.10
	-.05	-.032	2.18	-.549	.025	-.0004	.0226	-.05
	0.00	-.039	2.14	-.542	-.011	.0035	.0117	0.00
	0.00	-.037	2.13	-.543	-.012	.0042	.0124	0.00
	.05	-.031	2.17	-.541	-.002	.0016	-.0037	.05
	.10	-.037	2.21	-.531	.006	-.0017	-.0231	.10
	.20	-.055	2.31	-.581	.017	-.0084	-.0554	.20
	.30	-.087	2.50	-.622	-.027	-.0181	-.0760	.30
	.40	-.135	2.73	-.674	-.060	-.0042	-.1016	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δr=-30 δH=-14 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	-.127	2.75	-.757	.052	-.0094	.1149	-.40
	-.30	-.087	2.52	-.691	.039	.0110	.0837	-.30
	-.20	-.037	2.32	-.620	.023	.0088	.0607	-.20
	-.10	-.006	2.19	-.615	.009	.0013	.0387	-.10
	-.05	.004	2.18	-.626	.002	.0023	.0243	-.05
	0.00	-.019	2.15	-.608	-.008	.0027	.0083	0.00
	0.00	-.012	2.16	-.631	-.010	.0034	.0105	0.00
	.05	.008	2.16	-.613	-.007	.0037	-.0072	.05
	.10	-.000	2.19	-.612	-.001	.0024	-.0257	.10
	.20	-.028	2.28	-.645	.007	-.0064	-.0555	.20
	.30	-.075	2.47	-.686	-.033	-.0121	-.0752	.30
	.40	-.117	2.73	-.744	-.030	.0033	-.1027	.40
90	-.40	-.135	2.71	-.768	.023	-.0129	.1156	-.40
	-.30	-.110	2.46	-.718	.026	.0048	.0820	-.30
	-.20	-.068	2.26	-.685	-.004	-.0025	.0655	-.20
	-.10	-.036	2.22	-.695	.000	.0013	.0413	-.10
	-.05	-.027	2.21	-.702	.012	.0007	.0234	-.05
	0.00	-.042	2.15	-.715	-.002	.0006	.0039	0.00
	0.00	-.041	2.16	-.737	.004	.0019	.0065	0.00
	.05	-.025	2.20	-.688	.016	.0031	-.0091	.05
	.10	-.034	2.23	-.694	.036	.0018	-.0302	.10
	.20	-.063	2.31	-.695	.043	-.0013	-.0561	.20
	.30	-.099	2.46	-.711	.029	-.0082	-.0745	.30
	.40	-.121	2.74	-.752	.005	.0092	-.0998	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δ_{lef}=30 δ_r=-30 δ_H=-14 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.021	1.82	.176	-.184	.0468	.0798	-.40
	-.30	-.017	1.79	.187	-.220	.0264	.0612	-.30
	-.20	-.026	1.75	.187	-.219	.0089	.0356	-.20
	-.10	-.040	1.75	.185	-.213	-.0069	.0142	-.10
	-.05	-.041	1.72	.169	-.204	-.0060	.0055	-.05
	0.00	-.028	1.63	.136	-.214	-.0022	-.0028	0.00
	0.00	-.031	1.64	.142	-.215	.0002	-.0022	0.00
	.05	-.035	1.65	.112	-.206	.0049	-.0136	.05
	.10	-.034	1.62	.076	-.213	.0074	-.0236	.10
	.20	-.040	1.63	-.009	-.231	.0064	-.0433	.20
	.30	-.052	1.67	-.086	-.247	-.0006	-.0626	.30
	.40	-.069	1.75	-.171	-.249	-.0142	-.0822	.40
40	-.40	-.070	2.31	.097	-.010	-.0204	.1209	-.40
	-.30	-.046	2.20	.098	-.048	-.0274	.0719	-.30
	-.20	-.035	2.11	.078	-.090	-.0210	.0307	-.20
	-.10	-.026	2.03	.085	-.136	-.0155	.0076	-.10
	-.05	-.023	2.02	.076	-.182	-.0233	-.0046	-.05
	0.00	-.011	1.93	.044	-.231	-.0223	-.0144	0.00
	0.00	-.012	1.91	.040	-.227	-.0216	-.0155	0.00
	.05	-.018	1.94	.021	-.246	-.0153	-.0340	.05
	.10	-.027	1.96	-.011	-.318	-.0091	-.0537	.10
	.20	-.048	2.00	-.107	-.432	-.0015	-.0849	.20
	.30	-.072	2.07	-.214	-.514	.0024	-.1116	.30
	.40	-.102	2.15	-.348	-.570	-.0010	-.1373	.40
50	-.40	-.090	2.41	-.138	.158	-.0123	.1663	-.40
	-.30	-.063	2.32	-.102	.118	-.0085	.1227	-.30
	-.20	-.044	2.23	-.067	.054	-.0086	.0851	-.20
	-.10	-.028	2.25	-.042	-.054	-.0090	.0309	-.10
	-.05	-.028	2.21	-.108	-.099	-.0160	-.0045	-.05
	0.00	-.037	2.19	-.094	-.186	-.0198	-.0231	0.00
	0.00	-.035	2.17	-.092	-.195	-.0179	-.0252	0.00
	.05	-.034	2.17	-.126	-.178	-.0206	-.0351	.05
	.10	-.036	2.16	-.184	-.207	-.0248	-.0631	.10
	.20	-.056	2.12	-.317	-.368	-.0316	-.1380	.20
	.30	-.073	2.18	-.419	-.451	-.0395	-.1749	.30
	.40	-.116	2.28	-.513	-.548	-.0226	-.1988	.40
55	-.40	-.096	2.51	-.279	.064	-.0308	.1469	-.40
	-.30	-.072	2.37	-.266	.042	-.0292	.1127	-.30
	-.20	-.061	2.25	-.297	.010	-.0307	.0676	-.20
	-.10	-.062	2.23	-.276	-.019	-.0328	.0312	-.10
	-.05	-.056	2.20	-.278	-.050	-.0345	.0120	-.05
	0.00	-.043	2.17	-.238	-.125	-.0299	-.0066	0.00
	0.00	-.040	2.15	-.241	-.127	-.0283	-.0052	0.00
	.05	-.047	2.23	-.201	-.157	-.0243	-.0344	.05
	.10	-.042	2.15	-.338	-.188	-.0352	-.0545	.10
	.20	-.059	2.21	-.397	-.335	-.0417	-.1343	.20
	.30	-.076	2.29	-.496	-.408	-.0486	-.1601	.30
	.40	-.108	2.41	-.570	-.478	-.0458	-.1704	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δr=-30 δH=-14 BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.106	2.64	-.296	.043	-.0341	.1345	-.40
	-.30	-.074	2.46	-.324	-.014	-.0328	.0862	-.30
	-.20	-.061	2.33	-.370	-.027	-.0324	.0527	-.20
	-.10	-.051	2.25	-.361	-.032	-.0296	.0398	-.10
	-.05	-.043	2.24	-.346	-.058	-.0283	.0264	-.05
	0.00	-.041	2.21	-.331	-.116	-.0290	.0075	0.00
	0.00	-.042	2.20	-.335	-.108	-.0305	.0071	0.00
	.05	-.035	2.24	-.328	-.120	-.0305	-.0149	.05
	.10	-.040	2.26	-.314	-.169	-.0305	-.0351	.10
	.20	-.055	2.31	-.479	-.311	-.0416	-.1255	.20
	.30	-.076	2.41	-.522	-.370	-.0473	-.1399	.30
	.40	-.114	2.55	-.605	-.457	-.0482	-.1671	.40
65	-.40	-.107	2.75	-.334	.023	-.0371	.1269	-.40
	-.30	-.087	2.54	-.391	-.033	-.0371	.0804	-.30
	-.20	-.077	2.43	-.432	-.032	-.0349	.0507	-.20
	-.10	-.060	2.33	-.425	-.062	-.0319	.0255	-.10
	-.05	-.051	2.31	-.403	-.086	-.0314	.0138	-.05
	0.00	-.038	2.24	-.397	-.144	-.0284	.0023	0.00
	0.00	-.039	2.23	-.402	-.139	-.0293	.0008	0.00
	.05	-.049	2.30	-.391	-.135	-.0288	-.0094	.05
	.10	-.055	2.32	-.390	-.167	-.0292	-.0302	.10
	.20	-.071	2.38	-.487	-.297	-.0368	-.1045	.20
	.30	-.091	2.51	-.550	-.363	-.0444	-.1382	.30
	.40	-.127	2.66	-.587	-.454	-.0366	-.1683	.40
70	-.40	-.115	2.81	-.434	-.027	-.0446	.1067	-.40
	-.30	-.090	2.66	-.443	-.053	-.0301	.0643	-.30
	-.20	-.070	2.48	-.483	-.070	-.0375	.0344	-.20
	-.10	-.053	2.40	-.469	-.108	-.0374	.0084	-.10
	-.05	-.047	2.37	-.457	-.115	-.0363	.0028	-.05
	0.00	-.046	2.30	-.451	-.167	-.0359	-.0166	0.00
	0.00	-.047	2.32	-.456	-.156	-.0343	-.0111	0.00
	.05	-.048	2.37	-.459	-.148	-.0319	-.0262	.05
	.10	-.052	2.39	-.472	-.189	-.0313	-.0429	.10
	.20	-.067	2.46	-.541	-.248	-.0347	-.0835	.20
	.30	-.090	2.59	-.596	-.270	-.0421	-.1128	.30
	.40	-.133	2.85	-.664	-.326	-.0453	-.1398	.40
80	-.40	-.107	2.90	-.627	-.063	-.0512	.0987	-.40
	-.30	-.083	2.72	-.642	-.122	-.0452	.0600	-.30
	-.20	-.049	2.59	-.642	-.127	-.0423	.0245	-.20
	-.10	-.023	2.43	-.623	-.134	-.0364	-.0034	-.10
	-.05	-.012	2.39	-.626	-.140	-.0357	-.0177	-.05
	0.00	-.030	2.33	-.634	-.176	-.0358	-.0286	0.00
	0.00	-.025	2.34	-.634	-.184	-.0358	-.0264	0.00
	.05	-.017	2.38	-.621	-.155	-.0326	-.0360	.05
	.10	-.026	2.42	-.624	-.157	-.0315	-.0504	.10
	.20	-.050	2.52	-.682	-.175	-.0289	-.0756	.20
	.30	-.087	2.65	-.763	-.208	-.0373	-.0934	.30
	.40	-.124	2.94	-.857	-.199	-.0310	-.1195	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=-30$ $\delta H=-14$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	-.109	2.79	-.660	-.087	-.0545	.0997	-.40
	-.30	-.082	2.77	-.693	-.127	-.0474	.0607	-.30
	-.20	-.045	2.59	-.680	-.136	-.0420	.0279	-.20
	-.10	-.016	2.49	-.700	-.132	-.0352	.0008	-.10
	-.05	-.004	2.45	-.696	-.131	-.0339	-.0153	-.05
	0.00	-.029	2.37	-.707	-.168	-.0306	-.0249	0.00
	0.00	-.026	2.34	-.700	-.174	-.0313	-.0247	0.00
	.05	-.013	2.43	-.696	-.129	-.0310	-.0384	.05
	.10	-.025	2.47	-.704	-.139	-.0303	-.0537	.10
	.20	-.055	2.53	-.747	-.151	-.0253	-.0771	.20
	.30	-.097	2.68	-.823	-.187	-.0282	-.0915	.30
	.40	-.126	2.96	-.926	-.147	-.0243	-.1222	.40
90	-.40	-.111	2.63	-.654	-.102	-.0571	.0944	-.40
	-.30	-.080	2.46	-.664	-.140	-.0459	.0600	-.30
	-.20	-.043	2.33	-.670	-.130	-.0377	.0330	-.20
	-.10	-.015	2.23	-.694	-.115	-.0315	.0051	-.10
	-.05	-.006	2.21	-.692	-.109	-.0289	-.0104	-.05
	0.00	-.028	2.15	-.711	-.141	-.0271	-.0207	0.00
	0.00	-.026	2.16	-.725	-.124	-.0284	-.0226	0.00
	.05	-.010	2.20	-.699	-.098	-.0263	-.0353	.05
	.10	-.021	2.23	-.699	-.102	-.0244	-.0500	.10
	.20	-.054	2.29	-.732	-.114	-.0188	-.0720	.20
	.30	-.093	2.44	-.798	-.143	-.0192	-.0842	.30
	.40	-.127	2.73	-.899	-.113	-.0149	-.1130	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.059	1.91	.037	-.012	-.0322	.1103	-.40
	-.30	-.052	1.85	.069	-.006	-.0402	.0825	-.30
	-.20	-.052	1.85	.106	-.020	-.0402	.0617	-.20
	-.10	-.043	1.84	.122	-.025	-.0385	.0453	-.10
	-.05	-.039	1.83	.124	-.027	-.0404	.0390	-.05
	0.00	-.022	1.75	.121	-.050	-.0436	.0315	0.00
	0.00	-.021	1.76	.121	-.049	-.0439	.0307	0.00
	.05	-.030	1.82	.128	-.036	-.0431	.0255	.05
	.10	-.026	1.81	.127	-.042	-.0440	.0167	.10
	.20	-.020	1.80	.114	-.041	-.0431	-.0009	.20
	.30	-.015	1.80	.085	-.031	-.0467	-.0238	.30
	.40	-.009	1.85	.045	-.007	-.0558	-.0536	.40
40	-.40	-.089	2.20	-.105	.319	-.0536	.1648	-.40
	-.30	-.059	2.10	-.012	.238	-.0499	.1261	-.30
	-.20	-.040	2.03	.051	.115	-.0384	.0954	-.20
	-.10	-.028	1.97	.099	-.000	-.0174	.0550	-.10
	-.05	-.030	1.96	.108	-.028	-.0125	.0409	-.05
	0.00	-.017	1.90	.092	-.108	-.0157	.0301	0.00
	0.00	-.019	1.91	.097	-.098	-.0162	.0309	0.00
	.05	-.036	1.99	.106	-.143	-.0171	.0222	.05
	.10	-.039	2.01	.107	-.142	-.0271	.0088	.10
	.20	-.042	2.03	.066	-.157	-.0227	-.0197	.20
	.30	-.051	2.10	.013	-.262	-.0175	-.0547	.30
	.40	-.064	2.18	-.060	-.293	-.0229	-.0921	.40
50	-.40	-.107	2.32	-.326	.330	-.0371	.2182	-.40
	-.30	-.078	2.22	-.210	.288	-.0274	.1788	-.30
	-.20	-.058	2.15	-.091	.203	-.0223	.1383	-.20
	-.10	-.039	2.09	-.028	.099	-.0192	.1005	-.10
	-.05	-.026	2.09	.001	.040	-.0172	.0840	-.05
	0.00	-.009	2.05	.003	-.044	-.0165	.0564	0.00
	0.00	-.010	2.05	-.004	-.035	-.0174	.0601	0.00
	.05	-.015	2.07	-.003	-.067	-.0224	.0252	.05
	.10	-.023	2.13	.020	-.087	-.0249	.0152	.10
	.20	-.045	2.17	-.044	-.158	-.0170	-.0035	.20
	.30	-.059	2.23	-.079	-.306	-.0242	-.0974	.30
	.40	-.087	2.34	-.193	-.387	-.0277	-.1460	.40
55	-.40	-.116	2.37	-.387	.212	-.0379	.1851	-.40
	-.30	-.089	2.22	-.312	.176	-.0285	.1687	-.30
	-.20	-.079	2.16	-.234	.143	-.0218	.1429	-.20
	-.10	-.057	2.08	-.203	.081	-.0211	.1103	-.10
	-.05	-.049	2.05	-.202	.044	-.0232	.0897	-.05
	0.00	-.030	2.01	-.171	-.006	-.0159	.0805	0.00
	0.00	-.031	2.01	-.167	-.012	-.0167	.0825	0.00
	.05	-.051	2.09	-.137	-.038	-.0159	.0687	.05
	.10	-.044	2.15	-.038	-.094	-.0184	.0335	.10
	.20	-.071	2.21	-.131	-.146	-.0163	.0007	.20
	.30	-.086	2.28	-.193	-.265	-.0225	-.0854	.30
	.40	-.108	2.42	-.308	-.280	-.0234	-.1135	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.122	2.49	-.388	.206	-.0355	.1908	-.40
	-.30	-.084	2.28	-.326	.109	-.0239	.1464	-.30
	-.20	-.061	2.17	-.304	.074	-.0198	.1194	-.20
	-.10	-.039	2.09	-.278	.029	-.0165	.0989	-.10
	-.05	-.032	2.07	-.279	.009	-.0173	.0841	-.05
	0.00	-.025	2.03	-.261	-.007	-.0199	.0742	0.00
	0.00	-.025	2.02	-.258	-.026	-.0177	.0755	0.00
	.05	-.033	2.10	-.237	-.010	-.0222	.0662	.05
	.10	-.041	2.15	-.206	-.036	-.0247	.0494	.10
	.20	-.059	2.27	-.128	-.139	-.0192	.0002	.20
	.30	-.078	2.33	-.340	-.219	-.0396	-.0758	.30
	.40	-.114	2.48	-.360	-.247	-.0311	-.1023	.40
65	-.40	-.114	2.57	-.433	.141	-.0371	.1831	-.40
	-.30	-.077	2.35	-.393	.068	-.0188	.1481	-.30
	-.20	-.056	2.19	-.376	.047	-.0160	.1176	-.20
	-.10	-.032	2.10	-.340	-.011	-.0140	.0947	-.10
	-.05	-.025	2.08	-.317	-.021	-.0153	.0801	-.05
	0.00	-.010	2.06	-.315	-.044	-.0154	.0661	0.00
	0.00	-.012	2.07	-.306	-.049	-.0144	.0672	0.00
	.05	-.022	2.12	-.318	-.059	-.0198	.0541	.05
	.10	-.027	2.16	-.303	-.070	-.0230	.0408	.10
	.20	-.046	2.28	-.294	-.129	-.0255	.0086	.20
	.30	-.067	2.41	-.364	-.205	-.0376	-.0537	.30
	.40	-.104	2.55	-.359	-.256	-.0199	-.0902	.40
70	-.40	-.129	2.63	-.542	.104	-.0403	.1549	-.40
	-.30	-.099	2.43	-.477	.052	-.0215	.1322	-.30
	-.20	-.076	2.30	-.447	.022	-.0202	.1014	-.20
	-.10	-.053	2.19	-.385	-.023	-.0212	.0728	-.10
	-.05	-.044	2.15	-.359	-.038	-.0211	.0575	-.05
	0.00	-.037	2.08	-.356	-.070	-.0177	.0394	0.00
	0.00	-.039	2.10	-.346	-.059	-.0211	.0420	0.00
	.05	-.045	2.16	-.356	-.066	-.0201	.0301	.05
	.10	-.049	2.21	-.384	-.076	-.0235	.0092	.10
	.20	-.065	2.33	-.430	-.106	-.0368	-.0189	.20
	.30	-.095	2.50	-.461	-.136	-.0419	-.0447	.30
	.40	-.137	2.71	-.483	-.152	-.0369	-.0702	.40
80	-.40	-.122	2.75	-.654	.041	-.0148	.1521	-.40
	-.30	-.100	2.51	-.664	-.008	-.0302	.1214	-.30
	-.20	-.061	2.32	-.601	-.025	-.0235	.0895	-.20
	-.10	-.034	2.21	-.546	-.041	-.0154	.0683	-.10
	-.05	-.028	2.18	-.535	-.050	-.0146	.0552	-.05
	0.00	-.036	2.15	-.542	-.075	-.0139	.0399	0.00
	0.00	-.036	2.14	-.517	-.067	-.0140	.0388	0.00
	.05	-.029	2.21	-.526	-.050	-.0184	.0207	.05
	.10	-.036	2.24	-.541	-.035	-.0219	.0011	.10
	.20	-.056	2.34	-.569	-.071	-.0305	-.0150	.20
	.30	-.093	2.51	-.612	-.087	-.0290	-.0381	.30
	.40	-.135	2.73	-.655	-.094	-.0196	-.0658	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.098	2.74	-.715	.016	-.0160	.1507	-.40
	-.30	-.076	2.48	-.709	-.038	-.0298	.1208	-.30
	-.20	-.025	2.28	-.629	-.057	-.0135	.0979	-.20
	-.10	.005	2.21	-.612	-.057	-.0127	.0688	-.10
	-.05	.013	2.20	-.622	-.061	-.0107	.0554	-.05
	0.00	-.007	2.17	-.623	-.074	-.0088	.0395	0.00
	0.00	-.006	2.17	-.605	-.073	-.0108	.0373	0.00
	.05	.014	2.19	-.601	-.057	-.0136	.0177	.05
	.10	.005	2.21	-.590	-.041	-.0156	-.0025	.10
	.20	-.024	2.30	-.623	-.071	-.0220	-.0170	.20
	.30	-.070	2.49	-.663	-.096	-.0206	-.0366	.30
	.40	-.108	2.71	-.711	-.066	-.0109	-.0643	.40
90	-.40	-.114	2.71	-.732	.004	-.0212	.1488	-.40
	-.30	-.095	2.48	-.679	-.020	-.0029	.1162	-.30
	-.20	-.062	2.28	-.674	-.059	-.0131	.0990	-.20
	-.10	-.032	2.23	-.674	-.051	-.0106	.0692	-.10
	-.05	-.024	2.23	-.689	-.037	-.0098	.0528	-.05
	0.00	-.042	2.17	-.719	-.037	-.0105	.0330	0.00
	0.00	-.041	2.15	-.700	-.055	-.0085	.0340	0.00
	.05	-.027	2.22	-.666	-.028	-.0104	.0158	.05
	.10	-.036	2.25	-.664	-.002	-.0127	-.0041	.10
	.20	-.066	2.32	-.654	-.042	-.0128	-.0162	.20
	.30	-.101	2.46	-.680	-.035	-.0134	-.0382	.30
	.40	-.121	2.72	-.719	-.013	-.0021	-.0616	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.035	1.84	.169	-.147	-.0051	.0787	-.40
	-.30	-.026	1.81	.181	-.202	-.0240	.0629	-.30
	-.20	-.029	1.76	.175	-.198	-.0388	.0374	-.20
	-.10	-.020	1.74	.176	-.206	-.0478	.0179	-.10
	-.05	-.010	1.70	.160	-.197	-.0436	.0103	-.05
	0.00	.010	1.61	.128	-.209	-.0416	.0003	0.00
	0.00	.011	1.61	.128	-.206	-.0401	.0002	0.00
	.05	.005	1.61	.103	-.203	-.0363	-.0107	.05
	.10	.008	1.61	.071	-.211	-.0369	-.0209	.10
	.20	.008	1.62	-.003	-.229	-.0398	-.0400	.20
	.30	.003	1.65	-.074	-.231	-.0472	-.0583	.30
	.40	-.006	1.73	-.165	-.236	-.0602	-.0778	.40
40	-.40	-.070	2.23	.101	.009	-.0628	.1269	-.40
	-.30	-.042	2.13	.108	-.053	-.0631	.0773	-.30
	-.20	-.029	2.05	.099	-.100	-.0505	.0392	-.20
	-.10	-.018	2.00	.110	-.151	-.0476	.0157	-.10
	-.05	-.011	1.96	.096	-.197	-.0541	.0048	-.05
	0.00	.003	1.87	.065	-.239	-.0547	-.0057	0.00
	0.00	.001	1.89	.073	-.252	-.0524	-.0069	0.00
	.05	-.009	1.90	.044	-.266	-.0471	-.0227	.05
	.10	-.013	1.92	.024	-.318	-.0404	-.0414	.10
	.20	-.024	1.93	-.044	-.431	-.0341	-.0678	.20
	.30	-.038	1.98	-.138	-.507	-.0331	-.0919	.30
	.40	-.056	2.06	-.256	-.571	-.0403	-.1155	.40
50	-.40	-.086	2.32	-.145	.135	-.0559	.1747	-.40
	-.30	-.055	2.20	-.079	.094	-.0460	.1314	-.30
	-.20	-.032	2.11	-.036	.032	-.0426	.0946	-.20
	-.10	-.013	2.11	.009	-.080	-.0395	.0488	-.10
	-.05	-.008	2.06	-.029	-.128	-.0441	.0124	-.05
	0.00	-.011	2.02	-.005	-.202	-.0453	-.0056	0.00
	0.00	-.011	2.01	-.012	-.198	-.0457	-.0046	0.00
	.05	-.010	2.01	-.040	-.196	-.0475	-.0149	.05
	.10	-.009	1.99	-.061	-.238	-.0502	-.0444	.10
	.20	-.019	1.96	-.156	-.399	-.0542	-.1082	.20
	.30	-.035	2.02	-.276	-.477	-.0661	-.1422	.30
	.40	-.075	2.16	-.418	-.579	-.0648	-.1764	.40
55	-.40	-.089	2.39	-.270	.078	-.0607	.1707	-.40
	-.30	-.063	2.22	-.260	.022	-.0558	.1240	-.30
	-.20	-.044	2.10	-.225	-.015	-.0548	.0850	-.20
	-.10	-.035	2.02	-.159	-.051	-.0562	.0475	-.10
	-.05	-.032	2.01	-.161	-.075	-.0576	.0304	-.05
	0.00	-.020	2.01	-.108	-.157	-.0476	.0179	0.00
	0.00	-.023	2.02	-.132	-.153	-.0529	.0142	0.00
	.05	-.025	2.08	-.080	-.192	-.0451	-.0097	.05
	.10	-.017	2.00	-.196	-.219	-.0550	-.0235	.10
	.20	-.028	2.03	-.275	-.368	-.0641	-.0967	.20
	.30	-.047	2.12	-.382	-.430	-.0743	-.1184	.30
	.40	-.084	2.31	-.480	-.503	-.0679	-.1340	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.098	2.52	-.276	.068	-.0614	.1578	-.40
	-.30	-.065	2.33	-.290	-.029	-.0552	.1041	-.30
	-.20	-.044	2.18	-.290	-.056	-.0553	.0681	-.20
	-.10	-.028	2.07	-.268	-.072	-.0536	.0449	-.10
	-.05	-.023	2.06	-.236	-.085	-.0504	.0401	-.05
	0.00	-.016	2.04	-.227	-.145	-.0483	.0248	0.00
	0.00	-.017	2.02	-.215	-.140	-.0493	.0247	0.00
	.05	-.016	2.08	-.217	-.153	-.0497	.0089	.05
	.10	-.022	2.10	-.190	-.204	-.0477	-.0093	.10
	.20	-.030	2.15	-.380	-.340	-.0658	-.0898	.20
	.30	-.051	2.25	-.435	-.391	-.0735	-.1047	.30
	.40	-.091	2.46	-.529	-.457	-.0696	-.1314	.40
65	-.40	-.098	2.59	-.303	.028	-.0625	.1477	-.40
	-.30	-.072	2.37	-.335	-.050	-.0554	.0995	-.30
	-.20	-.054	2.24	-.347	-.071	-.0523	.0733	-.20
	-.10	-.035	2.15	-.333	-.084	-.0518	.0437	-.10
	-.05	-.029	2.11	-.312	-.107	-.0474	.0350	-.05
	0.00	-.016	2.06	-.301	-.167	-.0450	.0226	0.00
	0.00	-.017	2.06	-.313	-.169	-.0440	.0231	0.00
	.05	-.029	2.12	-.303	-.164	-.0443	.0139	.05
	.10	-.035	2.16	-.296	-.193	-.0468	-.0031	.10
	.20	-.048	2.22	-.398	-.304	-.0578	-.0689	.20
	.30	-.072	2.34	-.485	-.372	-.0698	-.0990	.30
	.40	-.117	2.53	-.540	-.470	-.0590	-.1365	.40
70	-.40	-.104	2.65	-.363	-.013	-.0652	.1348	-.40
	-.30	-.071	2.44	-.386	-.073	-.0559	.0889	-.30
	-.20	-.051	2.30	-.396	-.108	-.0507	.0580	-.20
	-.10	-.030	2.19	-.384	-.146	-.0497	.0282	-.10
	-.05	-.025	2.17	-.371	-.134	-.0485	.0203	-.05
	0.00	-.027	2.12	-.367	-.192	-.0447	.0116	0.00
	0.00	-.029	2.12	-.371	-.187	-.0443	.0128	0.00
	.05	-.029	2.17	-.370	-.186	-.0427	.0001	.05
	.10	-.034	2.21	-.391	-.192	-.0447	-.0185	.10
	.20	-.048	2.25	-.466	-.279	-.0561	-.0509	.20
	.30	-.078	2.44	-.559	-.277	-.0676	-.0713	.30
	.40	-.138	2.69	-.583	-.375	-.0563	-.1074	.40
80	-.40	-.091	2.66	-.510	-.095	-.0653	.1278	-.40
	-.30	-.064	2.48	-.504	-.145	-.0544	.0900	-.30
	-.20	-.035	2.36	-.521	-.162	-.0504	.0564	-.20
	-.10	-.012	2.23	-.519	-.163	-.0453	.0266	-.10
	-.05	-.007	2.18	-.514	-.174	-.0447	.0141	-.05
	0.00	-.021	2.11	-.520	-.217	-.0433	.0082	0.00
	0.00	-.026	2.10	-.507	-.220	-.0415	.0088	0.00
	.05	-.017	2.18	-.511	-.187	-.0427	-.0029	.05
	.10	-.028	2.20	-.522	-.203	-.0426	-.0140	.10
	.20	-.051	2.24	-.592	-.236	-.0441	-.0255	.20
	.30	-.091	2.45	-.687	-.257	-.0479	-.0460	.30
	.40	-.129	2.74	-.782	-.238	-.0438	-.0710	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.095	2.62	-.562	-.116	-.0653	.1283	-.40
	-.30	-.066	2.46	-.553	-.159	-.0532	.0927	-.30
	-.20	-.028	2.31	-.564	-.172	-.0465	.0620	-.20
	-.10	-.001	2.22	-.583	-.163	-.0430	.0315	-.10
	-.05	.006	2.19	-.584	-.152	-.0412	.0166	-.05
	0.00	-.017	2.11	-.592	-.201	-.0411	.0060	0.00
	0.00	-.017	2.08	-.576	-.206	-.0391	.0082	0.00
	.05	-.007	2.17	-.572	-.168	-.0399	-.0037	.05
	.10	-.018	2.20	-.578	-.179	-.0401	-.0162	.10
	.20	-.052	2.23	-.632	-.202	-.0366	-.0294	.20
	.30	-.095	2.43	-.732	-.220	-.0415	-.0459	.30
	.40	-.127	2.72	-.814	-.190	-.0365	-.0724	.40
90	-.40	-.101	2.59	-.603	-.142	-.0681	.1258	-.40
	-.30	-.073	2.40	-.617	-.182	-.0535	.0941	-.30
	-.20	-.035	2.28	-.642	-.165	-.0468	.0649	-.20
	-.10	-.006	2.21	-.662	-.144	-.0409	.0338	-.10
	-.05	-.001	2.19	-.669	-.128	-.0398	.0165	-.05
	0.00	-.021	2.14	-.680	-.153	-.0378	.0029	0.00
	0.00	-.019	2.09	-.655	-.150	-.0396	.0016	0.00
	.05	-.006	2.15	-.647	-.128	-.0363	-.0091	.05
	.10	-.019	2.17	-.650	-.138	-.0345	-.0213	.10
	.20	-.058	2.21	-.694	-.155	-.0316	-.0384	.20
	.30	-.101	2.38	-.770	-.200	-.0303	-.0452	.30
	.40	-.130	2.67	-.852	-.150	-.0298	-.0731	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=5 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
30	-.40	-.048	1.80	.053	-.040	-.0235	.1120	-.40
	-.30	-.045	1.75	.091	-.029	-.0314	.0844	-.30
	-.20	-.045	1.73	.125	-.035	-.0333	.0622	-.20
	-.10	-.041	1.74	.139	-.030	-.0319	.0443	-.10
	-.05	-.039	1.71	.142	-.042	-.0328	.0386	-.05
	0.00	-.021	1.64	.139	-.067	-.0345	.0319	0.00
	0.00	-.022	1.64	.142	-.060	-.0356	.0310	0.00
	.05	-.031	1.70	.148	-.046	-.0349	.0261	.05
	.10	-.027	1.69	.146	-.044	-.0357	.0173	.10
	.20	-.020	1.66	.137	-.045	-.0360	-.0004	.20
	.30	-.015	1.66	.109	-.034	-.0405	-.0237	.30
	.40	-.013	1.73	.070	-.011	-.0522	-.0529	.40
40	-.40	-.081	2.10	-.087	.300	-.0454	.1611	-.40
	-.30	-.054	2.00	.012	.223	-.0430	.1261	-.30
	-.20	-.032	1.90	.068	.104	-.0291	.0928	-.20
	-.10	-.024	1.87	.112	-.006	-.0094	.0546	-.10
	-.05	-.029	1.85	.116	-.038	-.0049	.0392	-.05
	0.00	-.014	1.80	.116	-.094	-.0102	.0299	0.00
	0.00	-.018	1.81	.104	-.096	-.0110	.0295	0.00
	.05	-.030	1.86	.118	-.141	-.0097	.0197	.05
	.10	-.034	1.90	.127	-.156	-.0181	.0075	.10
	.20	-.038	1.91	.083	-.153	-.0180	-.0214	.20
	.30	-.050	1.98	.018	-.262	-.0107	-.0571	.30
	.40	-.065	2.06	-.058	-.285	-.0169	-.0951	.40
50	-.40	-.106	2.23	-.345	.326	-.0327	.2131	-.40
	-.30	-.080	2.12	-.234	.300	-.0247	.1737	-.30
	-.20	-.059	2.04	-.107	.213	-.0194	.1309	-.20
	-.10	-.035	1.99	-.032	.113	-.0148	.0932	-.10
	-.05	-.022	1.98	-.004	.059	-.0125	.0775	-.05
	0.00	-.010	1.93	-.014	-.031	-.0125	.0455	0.00
	0.00	-.011	1.93	-.008	-.035	-.0133	.0501	0.00
	.05	-.016	1.96	-.022	-.055	-.0173	.0194	.05
	.10	-.022	1.99	-.000	-.082	-.0216	.0088	.10
	.20	-.023	2.03	-.056	-.144	-.0274	-.0209	.20
	.30	-.063	2.10	-.111	-.294	-.0195	-.1042	.30
	.40	-.091	2.21	-.209	-.387	-.0216	-.1545	.40
55	-.40	-.090	2.25	-.379	.217	-.0375	.1727	-.40
	-.30	-.063	2.08	-.302	.180	-.0244	.1525	-.30
	-.20	-.052	2.00	-.241	.161	-.0169	.1333	-.20
	-.10	-.030	1.95	-.209	.099	-.0150	.0992	-.10
	-.05	-.021	1.91	-.195	.076	-.0175	.0797	-.05
	0.00	-.008	1.86	-.170	.022	-.0138	.0696	0.00
	0.00	-.006	1.87	-.161	.013	-.0120	.0721	0.00
	.05	-.026	1.94	-.124	-.013	-.0112	.0574	.05
	.10	-.021	2.02	-.049	-.073	-.0144	.0248	.10
	.20	-.044	2.10	-.107	-.135	-.0136	-.0101	.20
	.30	-.064	2.14	-.184	-.252	-.0142	-.0972	.30
	.40	-.082	2.25	-.302	-.250	-.0160	-.1174	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=5 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.094	2.34	-.365	.216	-.0355	.1764	-.40
	-.30	-.055	2.14	-.308	.126	-.0210	.1346	-.30
	-.20	-.036	2.03	-.297	.089	-.0145	.1100	-.20
	-.10	-.015	1.96	-.293	.047	-.0118	.0875	-.10
	-.05	-.006	1.94	-.284	.026	-.0120	.0732	-.05
	0.00	.001	1.88	-.255	.006	-.0151	.0592	0.00
	0.00	.003	1.90	-.261	-.003	-.0141	.0607	0.00
	.05	-.007	1.96	-.228	.012	-.0167	.0565	.05
	.10	-.015	2.01	-.190	-.013	-.0182	.0412	.10
	.20	-.037	2.13	-.129	-.104	-.0157	-.0032	.20
	.30	-.051	2.16	-.312	-.189	-.0285	-.0780	.30
	.40	-.086	2.33	-.344	-.246	-.0224	-.1106	.40
65	-.40	-.082	2.42	-.399	.173	-.0344	.1734	-.40
	-.30	-.039	2.19	-.358	.082	-.0115	.1342	-.30
	-.20	-.022	2.05	-.359	.047	-.0128	.1061	-.20
	-.10	-.005	1.96	-.341	.011	-.0108	.0844	-.10
	-.05	.001	1.95	-.320	-.001	-.0113	.0705	-.05
	0.00	.016	1.93	-.316	-.022	-.0126	.0573	0.00
	0.00	.014	1.93	-.300	-.019	-.0120	.0585	0.00
	.05	.005	1.97	-.304	-.028	-.0146	.0447	.05
	.10	.001	2.01	-.283	-.043	-.0178	.0326	.10
	.20	-.014	2.11	-.257	-.103	-.0183	0.0000	.20
	.30	-.033	2.22	-.313	-.174	-.0254	-.0508	.30
	.40	-.067	2.38	-.349	-.253	-.0142	-.0953	.40
70	-.40	-.091	2.45	-.509	.110	-.0382	.1369	-.40
	-.30	-.059	2.34	-.417	.100	.0004	.1151	-.30
	-.20	-.038	2.11	-.409	.038	-.0167	.0928	-.20
	-.10	-.020	2.00	-.355	.005	-.0164	.0656	-.10
	-.05	-.013	1.99	-.345	.002	-.0176	.0482	-.05
	0.00	-.009	1.94	-.342	-.034	-.0164	.0325	0.00
	0.00	-.008	1.95	-.350	-.042	-.0165	.0341	0.00
	.05	-.011	2.00	-.338	-.039	-.0165	.0248	.05
	.10	-.014	2.05	-.341	-.044	-.0190	.0119	.10
	.20	-.025	2.15	-.407	-.074	-.0340	-.0283	.20
	.30	-.053	2.30	-.426	-.095	-.0405	-.0515	.30
	.40	-.094	2.50	-.444	-.140	-.0309	-.0745	.40
80	-.40	-.095	2.48	-.656	.026	-.0427	.1427	-.40
	-.30	-.057	2.30	-.607	.020	-.0304	.1060	-.30
	-.20	-.023	2.14	-.563	.015	-.0265	.0718	-.20
	-.10	.003	1.97	-.504	-.009	-.0146	.0552	-.10
	-.05	.010	1.97	-.498	-.020	-.0113	.0439	-.05
	0.00	.002	1.93	-.495	-.036	-.0124	.0277	0.00
	0.00	.002	1.92	-.481	-.032	-.0128	.0273	0.00
	.05	.011	1.98	-.482	-.036	-.0122	.0153	.05
	.10	.004	2.02	-.492	-.015	-.0174	-.0061	.10
	.20	-.014	2.11	-.530	-.032	-.0268	-.0280	.20
	.30	-.045	2.28	-.562	-.061	-.0295	-.0483	.30
	.40	-.088	2.49	-.604	-.089	-.0200	-.0742	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=5 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.077	2.59	-.683	.015	-.0174	.1403	-.40
	-.30	-.041	2.31	-.666	-.014	-.0324	.1027	-.30
	-.20	.007	2.09	-.573	-.038	-.0086	.0883	-.20
	-.10	.033	2.01	-.566	-.025	-.0092	.0594	-.10
	-.05	.039	2.01	-.569	-.033	-.0085	.0456	-.05
	0.00	.018	1.98	-.550	-.048	-.0092	.0298	0.00
	0.00	.019	1.98	-.576	-.038	-.0089	.0275	0.00
	.05	.039	1.99	-.558	-.019	-.0111	.0089	.05
	.10	.032	2.02	-.562	-.011	-.0132	-.0104	.10
	.20	.008	2.10	-.588	-.027	-.0218	-.0291	.20
	.30	-.036	2.28	-.622	-.060	-.0216	-.0492	.30
	.40	-.068	2.52	-.668	-.054	-.0115	-.0761	.40
90	-.40	-.089	2.54	-.708	.014	-.0257	.1376	-.40
	-.30	-.071	2.32	-.652	.000	-.0031	.1050	-.30
	-.20	-.029	2.12	-.633	-.040	-.0103	.0889	-.20
	-.10	0.000	2.04	-.637	-.017	-.0096	.0593	-.10
	-.05	.006	2.03	-.653	-.019	-.0074	.0442	-.05
	0.00	-.015	1.96	-.665	-.012	-.0091	.0220	0.00
	0.00	-.013	1.98	-.676	-.026	-.0083	.0251	0.00
	.05	-.000	2.02	-.636	-.008	-.0084	.0094	.05
	.10	-.008	2.04	-.638	.020	-.0103	-.0115	.10
	.20	-.034	2.11	-.624	-.005	-.0129	-.0268	.20
	.30	-.068	2.27	-.648	-.017	-.0155	-.0481	.30
	.40	-.081	2.54	-.680	-.007	-.0043	-.0705	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=5 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.027	1.69	.184	-.178	.0056	.0829	-.40
	-.30	-.021	1.63	.198	-.218	-.0136	.0652	-.30
	-.20	-.025	1.60	.194	-.216	-.0289	.0398	-.20
	-.10	-.020	1.58	.187	-.215	-.0400	.0204	-.10
	-.05	-.012	1.55	.175	-.204	-.0363	.0118	-.05
	0.00	.005	1.46	.148	-.215	-.0333	.0018	0.00
	0.00	.005	1.47	.148	-.218	-.0325	.0018	0.00
	.05	.001	1.47	.122	-.210	-.0294	-.0085	.05
	.10	.004	1.44	.087	-.217	-.0286	-.0188	.10
	.20	.004	1.46	.011	-.237	-.0320	-.0382	.20
	.30	-.005	1.49	-.063	-.244	-.0400	-.0566	.30
	.40	-.017	1.57	-.155	-.248	-.0529	-.0761	.40
40	-.40	-.064	2.10	.107	-.020	-.0541	.1283	-.40
	-.30	-.037	2.00	.115	-.052	-.0562	.0799	-.30
	-.20	-.027	1.94	.096	-.116	-.0445	.0389	-.20
	-.10	-.016	1.87	.110	-.185	-.0383	.0162	-.10
	-.05	-.011	1.84	.103	-.190	-.0471	.0042	-.05
	0.00	.003	1.76	.070	-.251	-.0497	-.0070	0.00
	0.00	.001	1.74	.069	-.256	-.0460	-.0072	0.00
	.05	-.006	1.77	.047	-.265	-.0401	-.0231	.05
	.10	-.012	1.79	.015	-.334	-.0335	-.0420	.10
	.20	-.026	1.82	-.069	-.443	-.0274	-.0682	.20
	.30	-.043	1.86	-.162	-.516	-.0276	-.0922	.30
	.40	-.065	1.95	-.286	-.588	-.0340	-.1158	.40
50	-.40	-.081	2.21	-.135	.119	-.0460	.1762	-.40
	-.30	-.052	2.10	-.084	.085	-.0374	.1320	-.30
	-.20	-.029	2.02	-.057	.027	-.0330	.0965	-.20
	-.10	-.009	2.03	-.022	-.094	-.0327	.0447	-.10
	-.05	-.005	1.97	-.069	-.123	-.0385	.0098	-.05
	0.00	-.008	1.94	-.036	-.219	-.0419	-.0083	0.00
	0.00	-.009	1.95	-.034	-.215	-.0423	-.0092	0.00
	.05	-.008	1.92	-.073	-.206	-.0434	-.0213	.05
	.10	-.006	1.89	-.102	-.242	-.0467	-.0475	.10
	.20	-.023	1.88	-.202	-.394	-.0493	-.1162	.20
	.30	-.044	1.94	-.280	-.479	-.0478	-.1411	.30
	.40	-.080	2.06	-.412	-.562	-.0461	-.1654	.40
55	-.40	-.084	2.29	-.262	.028	-.0557	.1551	-.40
	-.30	-.060	2.12	-.268	.008	-.0486	.1231	-.30
	-.20	-.040	2.00	-.271	-.025	-.0501	.0790	-.20
	-.10	-.039	1.97	-.225	-.049	-.0506	.0460	-.10
	-.05	-.033	1.94	-.215	-.076	-.0531	.0267	-.05
	0.00	-.017	1.93	-.146	-.165	-.0440	.0120	0.00
	0.00	-.018	1.93	-.157	-.167	-.0426	.0088	0.00
	.05	-.020	1.96	-.119	-.172	-.0423	-.0172	.05
	.10	-.013	1.89	-.257	-.210	-.0542	-.0364	.10
	.20	-.025	1.93	-.274	-.349	-.0596	-.1025	.20
	.30	-.042	2.00	-.390	-.421	-.0665	-.1266	.30
	.40	-.077	2.17	-.481	-.501	-.0618	-.1390	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=5 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.088	2.38	-.286	.010	-.0562	.1456	-.40
	-.30	-.052	2.19	-.286	-.042	-.0528	.0990	-.30
	-.20	-.034	2.06	-.324	-.053	-.0497	.0628	-.20
	-.10	-.022	1.96	-.312	-.070	-.0468	.0397	-.10
	-.05	-.018	1.95	-.281	-.073	-.0444	.0394	-.05
	0.00	-.012	1.91	-.256	-.133	-.0450	.0214	0.00
	0.00	-.012	1.92	-.260	-.127	-.0438	.0230	0.00
	.05	-.004	1.97	-.254	-.140	-.0448	.0021	.05
	.10	-.011	2.00	-.234	-.188	-.0444	-.0139	.10
	.20	-.021	2.01	-.389	-.326	-.0594	-.0970	.20
	.30	-.042	2.12	-.438	-.384	-.0658	-.1103	.30
	.40	-.084	2.31	-.528	-.477	-.0634	-.1342	.40
65	-.40	-.093	2.48	-.300	.024	-.0575	.1459	-.40
	-.30	-.064	2.27	-.349	-.060	-.0540	.0909	-.30
	-.20	-.050	2.13	-.378	-.060	-.0499	.0648	-.20
	-.10	-.036	2.04	-.365	-.084	-.0453	.0401	-.10
	-.05	-.029	2.02	-.347	-.102	-.0427	.0306	-.05
	0.00	-.012	1.97	-.343	-.157	-.0410	.0167	0.00
	0.00	-.013	1.95	-.333	-.159	-.0418	.0173	0.00
	.05	-.023	2.02	-.330	-.152	-.0407	.0083	.05
	.10	-.027	2.07	-.324	-.187	-.0422	-.0089	.10
	.20	-.039	2.11	-.408	-.296	-.0514	-.0729	.20
	.30	-.058	2.20	-.500	-.371	-.0650	-.1118	.30
	.40	-.099	2.41	-.537	-.469	-.0560	-.1398	.40
70	-.40	-.094	2.53	-.396	-.050	-.0627	.1246	-.40
	-.30	-.062	2.35	-.410	-.080	-.0531	.0832	-.30
	-.20	-.043	2.19	-.396	-.101	-.0487	.0549	-.20
	-.10	-.027	2.09	-.404	-.112	-.0473	.0225	-.10
	-.05	-.020	2.06	-.391	-.123	-.0446	.0190	-.05
	0.00	-.019	2.01	-.390	-.179	-.0421	.0113	0.00
	0.00	-.022	2.02	-.388	-.179	-.0441	.0027	0.00
	.05	-.021	2.06	-.386	-.174	-.0397	-.0025	.05
	.10	-.026	2.10	-.398	-.204	-.0411	-.0185	.10
	.20	-.036	2.17	-.469	-.244	-.0501	-.0587	.20
	.30	-.061	2.34	-.546	-.267	-.0659	-.0793	.30
	.40	-.118	2.55	-.554	-.404	-.0526	-.1182	.40
80	-.40	-.088	2.55	-.537	-.108	-.0641	.1217	-.40
	-.30	-.052	2.36	-.518	-.137	-.0525	.0836	-.30
	-.20	-.021	2.23	-.522	-.150	-.0490	.0477	-.20
	-.10	.006	2.11	-.521	-.155	-.0433	.0206	-.10
	-.05	.014	2.06	-.515	-.161	-.0415	.0086	-.05
	0.00	-.004	2.00	-.521	-.202	-.0417	-.0018	0.00
	0.00	-.005	2.03	-.534	-.200	-.0414	-.0021	0.00
	.05	.003	2.08	-.516	-.174	-.0402	-.0104	.05
	.10	-.006	2.10	-.522	-.188	-.0405	-.0219	.10
	.20	-.030	2.16	-.580	-.211	-.0398	-.0397	.20
	.30	-.068	2.36	-.685	-.238	-.0461	-.0596	.30
	.40	-.104	2.63	-.774	-.218	-.0405	-.0837	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=25 δr=-30 δd=5 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.084	2.56	-.588	-.107	-.0657	.1231	-.40
	-.30	-.050	2.41	-.571	-.147	-.0530	.0863	-.30
	-.20	-.012	2.24	-.579	-.162	-.0462	.0540	-.20
	-.10	.020	2.13	-.588	-.153	-.0407	.0255	-.10
	-.05	.027	2.10	-.597	-.146	-.0401	.0087	-.05
	0.00	.004	2.01	-.605	-.195	-.0386	.0002	0.00
	0.00	.006	2.01	-.581	-.188	-.0383	-.0020	0.00
	.05	.016	2.10	-.589	-.154	-.0375	-.0127	.05
	.10	.006	2.13	-.588	-.161	-.0381	-.0264	.10
	.20	-.027	2.16	-.637	-.177	-.0336	-.0439	.20
	.30	-.073	2.36	-.742	-.205	-.0385	-.0581	.30
	.40	-.104	2.64	-.825	-.172	-.0318	-.0847	.40
90	-.40	-.092	2.54	-.621	-.136	-.0676	.1214	-.40
	-.30	-.062	2.37	-.618	-.170	-.0550	.0855	-.30
	-.20	-.027	2.21	-.639	-.167	-.0444	.0589	-.20
	-.10	.002	2.15	-.666	-.147	-.0404	.0272	-.10
	-.05	.010	2.12	-.669	-.130	-.0381	.0112	-.05
	0.00	-.012	2.08	-.681	-.151	-.0367	-.0052	0.00
	0.00	-.013	2.06	-.668	-.157	-.0352	-.0015	0.00
	.05	.002	2.12	-.658	-.125	-.0358	-.0163	.05
	.10	-.009	2.14	-.663	-.131	-.0339	-.0295	.10
	.20	-.043	2.20	-.696	-.147	-.0304	-.0485	.20
	.30	-.081	2.37	-.777	-.178	-.0306	-.0563	.30
	.40	-.109	2.62	-.855	-.137	-.0287	-.0847	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.018	1.46	-.261	-.134	.0714	.0677	-.40
	-.30	.008	1.41	-.227	-.099	.0507	.0488	-.30
	-.20	.001	1.37	-.203	-.079	.0356	.0335	-.20
	-.10	-.015	1.38	-.174	-.044	.0190	.0197	-.10
	-.05	-.027	1.38	-.157	-.023	.0131	.0125	-.05
	0.00	-.025	1.33	-.159	-.019	.0080	.0042	0.00
	0.00	-.025	1.35	-.160	-.014	.0075	.0034	0.00
	.05	-.024	1.33	-.161	-.005	.0007	-.0053	.05
	.10	-.016	1.32	-.172	.016	-.0081	-.0145	.10
	.20	.009	1.29	-.203	.043	-.0282	-.0298	.20
	.30	.024	1.29	-.234	.077	-.0471	-.0436	.30
	.40	.037	1.34	-.267	.121	-.0692	-.0601	.40
25	-.40	.022	1.67	-.267	-.126	.0463	.0755	-.40
	-.30	.011	1.62	-.225	-.095	.0374	.0516	-.30
	-.20	-.008	1.61	-.190	-.060	.0271	.0309	-.20
	-.10	-.021	1.62	-.168	-.024	.0151	.0137	-.10
	-.05	-.022	1.61	-.165	-.014	.0085	.0071	-.05
	0.00	-.020	1.60	-.166	-.012	.0021	.0018	0.00
	0.00	-.019	1.60	-.168	-.010	.0026	.0009	0.00
	.05	-.019	1.59	-.168	-.011	-.0021	-.0034	.05
	.10	-.018	1.58	-.173	-.008	-.0081	-.0084	.10
	.20	-.003	1.54	-.198	.020	-.0187	-.0246	.20
	.30	.023	1.53	-.236	.056	-.0286	-.0454	.30
	.40	.042	1.57	-.278	.097	-.0387	-.0664	.40
30	-.40	.000	1.92	-.275	.011	.0099	.0833	-.40
	-.30	-.013	1.86	-.229	.021	.0036	.0545	-.30
	-.20	-.027	1.87	-.190	.029	.0031	.0288	-.20
	-.10	-.037	1.91	-.166	.031	.0074	.0172	-.10
	-.05	-.039	1.92	-.158	.029	.0061	.0117	-.05
	0.00	-.030	1.88	-.165	.009	.0010	.0028	0.00
	0.00	-.029	1.87	-.163	.015	.0012	.0017	0.00
	.05	-.033	1.89	-.166	.011	.0012	-.0034	.05
	.10	-.031	1.87	-.168	.003	-.0004	-.0098	.10
	.20	-.021	1.81	-.192	-.004	.0021	-.0244	.20
	.30	-.010	1.83	-.229	.010	.0012	-.0451	.30
	.40	.007	1.83	-.272	.024	-.0061	-.0738	.40
35	-.40	-.009	2.08	-.285	.184	-.0141	.0987	-.40
	-.30	-.014	2.03	-.234	.163	-.0223	.0714	-.30
	-.20	-.017	2.00	-.181	.116	-.0146	.0477	-.20
	-.10	-.029	2.03	-.136	.054	.0110	.0285	-.10
	-.05	-.031	2.02	-.131	.034	.0167	.0197	-.05
	0.00	-.020	2.00	-.133	.013	.0063	.0051	0.00
	0.00	-.023	2.02	-.137	.023	.0062	.0066	0.00
	.05	-.028	2.01	-.138	-.020	.0067	-.0059	.05
	.10	-.024	2.00	-.144	-.040	.0033	-.0165	.10
	.20	-.015	1.93	-.176	-.092	.0212	-.0393	.20
	.30	-.009	1.94	-.225	-.125	.0255	-.0632	.30
	.40	-.005	1.98	-.276	-.115	.0188	-.0922	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	-.013	2.16	-.301	.327	-.0182	.1214	-.40
	-.30	-.010	2.05	-.221	.263	-.0183	.0878	-.30
	-.20	-.009	2.00	-.148	.175	-.0113	.0598	-.20
	-.10	-.014	2.00	-.094	.055	.0080	.0348	-.10
	-.05	-.017	2.01	-.088	.018	.0184	.0186	-.05
	0.00	-.017	2.04	-.095	.013	.0076	.0045	0.00
	0.00	-.014	2.03	-.094	.005	.0071	.0066	0.00
	.05	-.023	2.03	-.090	-.063	.0127	-.0053	.05
	.10	-.023	2.02	-.094	-.093	.0064	-.0165	.10
	.20	-.013	1.97	-.147	-.142	.0170	-.0494	.20
	.30	-.010	2.04	-.218	-.221	.0274	-.0825	.30
	.40	-.009	2.13	-.299	-.249	.0284	-.1179	.40
45	-.40	-.028	2.33	-.317	.463	-.0203	.1538	-.40
	-.30	-.024	2.21	-.209	.371	-.0172	.1121	-.30
	-.20	-.016	2.11	-.130	.246	-.0060	.0723	-.20
	-.10	-.015	2.08	-.074	.082	.0038	.0350	-.10
	-.05	-.016	2.06	-.061	.054	.0071	.0152	-.05
	0.00	-.007	2.04	-.060	.015	.0047	.0001	0.00
	0.00	-.012	2.07	-.055	.009	.0058	.0062	0.00
	.05	-.015	2.05	-.054	-.032	.0059	-.0036	.05
	.10	-.011	2.07	-.044	-.092	.0044	-.0123	.10
	.20	-.003	2.04	-.115	-.140	.0037	-.0463	.20
	.30	-.012	2.15	-.207	-.320	.0220	-.0993	.30
	.40	-.018	2.25	-.312	-.393	.0248	-.1472	.40
50	-.40	-.035	2.38	-.386	.512	-.0058	.1877	-.40
	-.30	-.031	2.28	-.240	.395	-.0052	.1384	-.30
	-.20	-.021	2.19	-.142	.267	.0020	.0968	-.20
	-.10	-.015	2.14	-.080	.144	.0064	.0630	-.10
	-.05	-.011	2.13	-.069	.074	.0073	.0399	-.05
	0.00	.003	2.07	-.080	-.004	.0079	.0163	0.00
	0.00	-.005	2.09	-.077	-.000	.0062	.0137	0.00
	.05	-.005	2.09	-.068	-.030	.0035	.0013	.05
	.10	-.002	2.09	-.065	-.076	.0025	-.0118	.10
	.20	.007	2.12	-.136	-.166	.0020	-.0452	.20
	.30	-.019	2.23	-.228	-.347	.0091	-.1212	.30
	.40	-.023	2.34	-.373	-.442	.0139	-.1766	.40
55	-.40	-.042	2.46	-.515	.366	.0131	.1607	-.40
	-.30	-.036	2.29	-.384	.313	.0168	.1326	-.30
	-.20	-.029	2.16	-.319	.238	.0188	.1025	-.20
	-.10	-.019	2.09	-.254	.159	.0122	.0777	-.10
	-.05	-.018	2.07	-.271	.107	.0093	.0569	-.05
	0.00	-.008	2.04	-.236	.058	.0061	.0458	0.00
	0.00	-.008	2.04	-.217	.059	.0070	.0485	0.00
	.05	-.017	2.13	-.098	.021	.0049	.0253	.05
	.10	-.014	2.10	-.134	-.059	.0027	-.0065	.10
	.20	-.018	2.14	-.184	-.182	-.0032	-.0598	.20
	.30	-.028	2.23	-.327	-.303	-.0038	-.1228	.30
	.40	-.034	2.39	-.480	-.329	.0048	-.1606	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.042	2.54	-.507	.326	.0068	.1458	-.40
	-.30	-.032	2.37	-.423	.261	.0193	.1173	-.30
	-.20	-.017	2.19	-.386	.180	.0231	.0859	-.20
	-.10	-.012	2.09	-.369	.120	.0193	.0582	-.10
	-.05	-.011	2.06	-.346	.112	.0151	.0608	-.05
	0.00	-.014	2.06	-.315	.065	.0095	.0545	0.00
	0.00	-.013	2.06	-.321	.062	.0086	.0548	0.00
	.05	-.015	2.09	-.305	.022	.0023	.0430	.05
	.10	-.016	2.11	-.299	-.017	-.0027	.0215	.10
	.20	-.019	2.15	-.291	-.168	-.0083	-.0655	.20
	.30	-.027	2.29	-.431	-.227	-.0138	-.1089	.30
	.40	-.034	2.46	-.509	-.252	-.0011	-.1399	.40
65	-.40	-.022	2.53	-.518	.304	.0042	.1560	-.40
	-.30	-.008	2.32	-.460	.193	.0243	.1084	-.30
	-.20	.006	2.16	-.444	.132	.0265	.0788	-.20
	-.10	.011	2.08	-.415	.081	.0183	.0505	-.10
	-.05	.011	2.04	-.395	.059	.0135	.0387	-.05
	0.00	.017	2.09	-.374	.035	.0013	.0325	0.00
	0.00	.018	2.05	-.371	.012	.0033	.0336	0.00
	.05	.014	2.02	-.381	-.023	-.0047	.0251	.05
	.10	.013	2.06	-.369	-.046	-.0103	.0159	.10
	.20	.004	2.21	-.330	-.119	-.0093	-.0223	.20
	.30	-.000	2.29	-.461	-.223	-.0137	-.0995	.30
	.40	-.004	2.41	-.526	-.295	.0052	-.1490	.40
70	-.40	-.045	2.56	-.521	.295	-.0025	.1429	-.40
	-.30	-.030	2.38	-.497	.161	.0239	.0912	-.30
	-.20	-.012	2.21	-.480	.116	.0250	.0619	-.20
	-.10	-.008	2.12	-.434	.078	.0156	.0345	-.10
	-.05	-.009	2.09	-.412	.057	.0110	.0191	-.05
	0.00	-.014	2.09	-.398	.007	.0024	.0099	0.00
	0.00	-.016	2.11	-.403	.021	.0016	.0139	0.00
	.05	-.006	2.09	-.407	-.017	-.0077	.0093	.05
	.10	-.005	2.11	-.416	-.036	-.0129	.0019	.10
	.20	-.008	2.20	-.473	-.093	-.0198	-.0468	.20
	.30	-.024	2.36	-.491	-.139	-.0135	-.0829	.30
	.40	-.033	2.52	-.491	-.227	.0179	-.1258	.40
75	-.40	-.004	2.58	-.680	.147	.0071	.1069	-.40
	-.30	.020	2.35	-.616	.089	.0232	.0722	-.30
	-.20	.028	2.20	-.550	.082	.0225	.0515	-.20
	-.10	.037	2.11	-.482	.051	.0146	.0228	-.10
	-.05	.042	2.09	-.465	.014	.0087	.0114	-.05
	0.00	.031	2.13	-.454	.003	.0028	-.0006	0.00
	0.00	.035	2.09	-.453	-.011	.0040	.0008	0.00
	.05	.051	1.99	-.492	-.061	-.0009	-.0091	.05
	.10	.045	2.03	-.506	-.090	-.0082	-.0198	.10
	.20	.034	2.12	-.558	-.121	-.0141	-.0454	.20
	.30	.022	2.31	-.603	-.116	-.0107	-.0720	.30
	.40	.012	2.51	-.677	-.150	.0081	-.1059	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	-.014	2.55	-.723	.105	-.0006	.1057	-.40
	-.30	.009	2.31	-.640	.079	.0151	.0716	-.30
	-.20	.021	2.16	-.588	.071	.0162	.0440	-.20
	-.10	.029	2.05	-.545	.037	.0067	.0281	-.10
	-.05	.045	2.00	-.590	.015	.0021	.0158	-.05
	0.00	.029	2.01	-.582	-.002	.0050	.0023	0.00
	0.00	.032	2.01	-.621	.005	.0013	.0002	0.00
	.05	.046	2.01	-.596	-.009	.0032	-.0133	.05
	.10	.034	2.03	-.559	-.035	-.0041	-.0262	.10
	.20	.027	2.15	-.605	-.078	-.0100	-.0436	.20
	.30	.013	2.30	-.638	-.081	-.0053	-.0711	.30
	.40	-.007	2.53	-.720	-.093	.0117	-.1067	.40
85	-.40	.012	2.56	-.755	.061	-.0059	.1047	-.40
	-.30	.025	2.28	-.682	.029	.0078	.0704	-.30
	-.20	.049	2.15	-.639	.037	.0131	.0448	-.20
	-.10	.072	2.04	-.620	-.000	.0045	.0311	-.10
	-.05	.082	2.01	-.646	-.002	.0032	.0154	-.05
	0.00	.050	2.07	-.653	.004	.0021	.0015	0.00
	0.00	.050	2.05	-.659	.006	.0013	-.0027	0.00
	.05	.083	2.00	-.648	-.011	.0042	-.0171	.05
	.10	.075	1.98	-.629	-.024	.0020	-.0326	.10
	.20	.054	2.10	-.643	-.070	-.0033	-.0470	.20
	.30	.031	2.26	-.680	-.077	.0036	-.0696	.30
	.40	.019	2.48	-.752	-.076	.0208	-.1036	.40
90	-.40	-.007	2.49	-.762	.027	-.0131	.0989	-.40
	-.30	.004	2.23	-.710	.031	-.0005	.0698	-.30
	-.20	.023	2.09	-.674	.027	.0058	.0465	-.20
	-.10	.042	2.06	-.674	.005	.0026	.0335	-.10
	-.05	.052	2.05	-.693	.007	.0028	.0169	-.05
	0.00	.033	1.98	-.709	-.011	.0042	.0010	0.00
	0.00	.035	1.97	-.725	-.014	.0049	.0023	0.00
	.05	.056	1.97	-.689	.003	.0034	-.0177	.05
	.10	.049	1.96	-.682	.009	.0033	-.0346	.10
	.20	.026	2.08	-.671	-.032	.0032	-.0457	.20
	.30	.006	2.21	-.696	-.021	.0095	-.0694	.30
	.40	.008	2.51	-.744	-.011	.0240	-.0996	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
20	-.40	.008	1.29	-.113	-.253	.0659	.0586	-.40
	-.30	.000	1.30	-.124	-.220	.0401	.0429	-.30
	-.20	-.003	1.30	-.143	-.188	.0201	.0312	-.20
	-.10	-.015	1.31	-.153	-.148	.0023	.0221	-.10
	-.05	-.022	1.32	-.164	-.138	-.0058	.0164	-.05
	0.00	-.016	1.27	-.191	-.148	-.0133	.0089	0.00
	0.00	-.018	1.30	-.191	-.136	-.0129	.0092	0.00
	.05	-.022	1.28	-.210	-.127	-.0200	.0013	.05
	.10	-.024	1.29	-.231	-.114	-.0304	-.0082	.10
	.20	-.008	1.26	-.273	-.101	-.0455	-.0258	.20
	.30	.013	1.28	-.339	-.083	-.0590	-.0484	.30
	.40	.028	1.33	-.402	-.059	-.0777	-.0748	.40
25	-.40	-.010	1.60	-.094	-.201	.0475	.0661	-.40
	-.30	-.004	1.56	-.109	-.194	.0267	.0460	-.30
	-.20	-.013	1.55	-.120	-.172	.0146	.0257	-.20
	-.10	-.025	1.58	-.132	-.135	.0010	.0080	-.10
	-.05	-.030	1.58	-.149	-.124	-.0060	-.0005	-.05
	0.00	-.028	1.55	-.172	-.134	-.0112	-.0092	0.00
	0.00	-.026	1.57	-.174	-.130	-.0108	-.0091	0.00
	.05	-.022	1.54	-.186	-.131	-.0073	-.0129	.05
	.10	-.016	1.51	-.204	-.125	-.0053	-.0179	.10
	.20	-.004	1.44	-.254	-.123	-.0081	-.0355	.20
	.30	.008	1.46	-.329	-.089	-.0249	-.0614	.30
	.40	.025	1.52	-.414	-.056	-.0413	-.0909	.40
30	-.40	-.003	1.83	-.092	-.108	.0311	.0589	-.40
	-.30	-.010	1.78	-.108	-.149	.0179	.0402	-.30
	-.20	-.020	1.76	-.106	-.159	-.0011	.0157	-.20
	-.10	-.029	1.79	-.120	-.142	-.0094	-.0032	-.10
	-.05	-.027	1.78	-.132	-.141	-.0039	-.0094	-.05
	0.00	-.014	1.72	-.155	-.159	.0024	-.0179	0.00
	0.00	-.015	1.73	-.151	-.152	.0022	-.0176	0.00
	.05	-.013	1.69	-.180	-.167	.0077	-.0262	.05
	.10	-.007	1.68	-.207	-.173	.0117	-.0349	.10
	.20	.001	1.63	-.268	-.198	.0135	-.0524	.20
	.30	.006	1.61	-.335	-.207	.0075	-.0714	.30
	.40	.015	1.70	-.419	-.194	-.0075	-.0920	.40
35	-.40	-.016	2.08	-.123	-.044	.0025	.0630	-.40
	-.30	-.023	2.03	-.110	-.085	-.0120	.0344	-.30
	-.20	-.021	1.98	-.084	-.109	-.0102	.0132	-.20
	-.10	-.016	1.94	-.084	-.132	-.0105	-.0056	-.10
	-.05	-.011	1.91	-.114	-.147	-.0110	-.0176	-.05
	0.00	-.007	1.90	-.138	-.186	-.0019	-.0270	0.00
	0.00	-.006	1.90	-.144	-.193	-.0030	-.0262	0.00
	.05	-.008	1.87	-.162	-.227	.0053	-.0385	.05
	.10	-.007	1.85	-.187	-.259	.0100	-.0449	.10
	.20	-.002	1.80	-.259	-.317	.0150	-.0618	.20
	.30	.004	1.83	-.348	-.361	.0163	-.0836	.30
	.40	.010	1.88	-.446	-.378	.0117	-.1079	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
40	-.40	-.013	2.23	-.156	.035	-.0235	.0875	-.40
	-.30	-.002	2.12	-.130	-.011	-.0272	.0450	-.30
	-.20	.010	2.00	-.080	-.053	-.0140	.0181	-.20
	-.10	.005	1.97	-.060	-.115	-.0159	-.0042	-.10
	-.05	.008	1.95	-.085	-.134	-.0214	-.0182	-.05
	0.00	.016	1.94	-.117	-.181	-.0166	-.0304	0.00
	0.00	.016	1.92	-.112	-.181	-.0166	-.0299	0.00
	.05	.012	1.92	-.139	-.224	-.0083	-.0461	.05
	.10	.007	1.92	-.160	-.303	.0000	-.0588	.10
	.20	-.001	1.90	-.248	-.419	.0107	-.0803	.20
	.30	-.003	1.94	-.348	-.501	.0147	-.1079	.30
	.40	-.007	2.00	-.477	-.563	.0123	-.1380	.40
45	-.40	.009	2.28	-.165	.164	-.0308	.1151	-.40
	-.30	.020	2.15	-.105	.102	-.0254	.0707	-.30
	-.20	.023	2.10	-.078	.020	-.0196	.0360	-.20
	-.10	.025	2.02	-.071	-.072	-.0183	-.0060	-.10
	-.05	.020	2.02	-.072	-.125	-.0206	-.0165	-.05
	0.00	.026	1.97	-.107	-.168	-.0224	-.0286	0.00
	0.00	.023	1.97	-.107	-.157	-.0243	-.0270	0.00
	.05	.025	1.95	-.124	-.167	-.0193	-.0402	.05
	.10	.022	1.93	-.160	-.289	-.0184	-.0661	.10
	.20	.008	1.98	-.249	-.450	-.0075	-.1091	.20
	.30	-.001	2.04	-.373	-.569	.0013	-.1403	.30
	.40	-.005	2.14	-.537	-.632	.0007	-.1769	.40
50	-.40	-.005	2.28	-.191	.202	-.0215	.1451	-.40
	-.30	.002	2.16	-.113	.133	-.0143	.1044	-.30
	-.20	.009	2.09	-.062	.060	-.0127	.0690	-.20
	-.10	.019	2.05	-.073	-.056	-.0141	.0037	-.10
	-.05	.012	2.06	-.077	-.079	-.0181	-.0125	-.05
	0.00	.012	2.03	-.077	-.157	-.0187	-.0271	0.00
	0.00	.009	2.02	-.069	-.162	-.0195	-.0283	0.00
	.05	.014	2.00	-.125	-.179	-.0203	-.0332	.05
	.10	.018	1.96	-.173	-.261	-.0247	-.0714	.10
	.20	.008	1.97	-.310	-.420	-.0301	-.1364	.20
	.30	.001	2.05	-.440	-.541	-.0310	-.1747	.30
	.40	-.012	2.19	-.611	-.616	-.0280	-.2116	.40
55	-.40	-.009	2.31	-.316	.167	-.0223	.1366	-.40
	-.30	-.007	2.19	-.262	.128	-.0088	.1040	-.30
	-.20	-.004	2.10	-.260	.036	-.0074	.0621	-.20
	-.10	-.007	2.06	-.216	-.024	-.0203	.0278	-.10
	-.05	.004	2.02	-.221	-.065	-.0189	.0133	-.05
	0.00	.005	2.08	-.119	-.147	-.0160	-.0075	0.00
	0.00	.002	2.09	-.110	-.137	-.0146	-.0069	0.00
	.05	.010	2.02	-.148	-.191	-.0197	-.0375	.05
	.10	.016	1.98	-.224	-.262	-.0273	-.0676	.10
	.20	.017	2.00	-.420	-.390	-.0425	-.1321	.20
	.30	.005	2.10	-.534	-.478	-.0460	-.1714	.30
	.40	-.013	2.37	-.677	-.518	-.0362	-.1859	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.010	2.39	-.333	.110	-.0259	.1125	-.40
	-.30	-.005	2.28	-.327	.060	-.0084	.0709	-.30
	-.20	.002	2.12	-.323	.006	-.0047	.0487	-.20
	-.10	.004	2.08	-.287	.001	-.0083	.0388	-.10
	-.05	.008	2.05	-.276	-.040	-.0150	.0143	-.05
	0.00	.013	2.02	-.293	-.094	-.0251	-.0025	0.00
	0.00	.009	2.03	-.285	-.092	-.0220	-.0023	0.00
	.05	.019	2.01	-.298	-.144	-.0270	-.0140	.05
	.10	.019	2.01	-.302	-.219	-.0281	-.0412	.10
	.20	.024	2.00	-.502	-.341	-.0454	-.1218	.20
	.30	.016	2.14	-.578	-.386	-.0487	-.1415	.30
	.40	-.002	2.38	-.684	-.447	-.0362	-.1819	.40
65	-.40	-.011	2.46	-.330	.112	-.0302	.1180	-.40
	-.30	-.014	2.32	-.353	.031	-.0066	.0721	-.30
	-.20	-.006	2.16	-.362	-.007	-.0010	.0481	-.20
	-.10	-.000	2.11	-.361	-.043	-.0071	.0186	-.10
	-.05	.002	2.07	-.356	-.064	-.0138	.0064	-.05
	0.00	.018	2.00	-.361	-.114	-.0227	-.0012	0.00
	0.00	.010	2.03	-.354	-.105	-.0215	-.0026	0.00
	.05	.012	2.01	-.372	-.133	-.0255	-.0118	.05
	.10	.009	2.05	-.372	-.188	-.0304	-.0305	.10
	.20	.013	2.05	-.523	-.295	-.0415	-.1076	.20
	.30	.004	2.19	-.605	-.388	-.0482	-.1425	.30
	.40	-.010	2.43	-.690	-.467	-.0305	-.1886	.40
70	-.40	-.014	2.50	-.364	.082	-.0350	.1012	-.40
	-.30	-.011	2.38	-.395	-.013	-.0054	.0566	-.30
	-.20	.003	2.20	-.406	-.047	-.0000	.0367	-.20
	-.10	.009	2.12	-.397	-.061	-.0087	.0110	-.10
	-.05	.010	2.09	-.393	-.078	-.0164	.0035	-.05
	0.00	.012	2.02	-.412	-.130	-.0248	-.0091	0.00
	0.00	.012	2.01	-.408	-.131	-.0251	-.0092	0.00
	.05	.017	2.02	-.418	-.151	-.0241	-.0219	.05
	.10	.019	2.02	-.462	-.198	-.0272	-.0489	.10
	.20	.014	2.09	-.558	-.233	-.0378	-.0853	.20
	.30	.000	2.32	-.631	-.284	-.0450	-.1160	.30
	.40	-.020	2.52	-.678	-.424	-.0249	-.1772	.40
75	-.40	.002	2.51	-.510	-.005	-.0281	.0760	-.40
	-.30	.020	2.35	-.495	-.047	-.0073	.0454	-.30
	-.20	.031	2.18	-.475	-.077	-.0041	.0227	-.20
	-.10	.039	2.10	-.467	-.100	-.0120	-.0057	-.10
	-.05	.050	2.00	-.493	-.110	-.0272	-.0208	-.05
	0.00	.036	1.99	-.514	-.135	-.0296	-.0314	0.00
	0.00	.036	1.98	-.499	-.161	-.0285	-.0276	0.00
	.05	.042	1.97	-.502	-.160	-.0257	-.0408	.05
	.10	.035	2.00	-.520	-.187	-.0244	-.0495	.10
	.20	.030	2.08	-.627	-.220	-.0304	-.0710	.20
	.30	.020	2.26	-.728	-.255	-.0372	-.0991	.30
	.40	-.001	2.53	-.823	-.281	-.0265	-.1381	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
80	-.40	.002	2.43	-.555	-.044	-.0334	.0766	-.40
	-.30	.017	2.26	-.532	-.090	-.0132	.0468	-.30
	-.20	.036	2.13	-.535	-.091	-.0134	.0212	-.20
	-.10	.068	2.00	-.587	-.102	-.0275	-.0116	-.10
	-.05	.070	1.99	-.590	-.106	-.0261	-.0241	-.05
	0.00	.043	1.99	-.601	-.134	-.0263	-.0306	0.00
	0.00	.047	1.96	-.623	-.134	-.0275	-.0323	0.00
	.05	.058	1.96	-.594	-.135	-.0242	-.0417	.05
	.10	.048	1.98	-.595	-.157	-.0232	-.0530	.10
	.20	.036	2.04	-.672	-.211	-.0261	-.0678	.20
	.30	.018	2.24	-.767	-.243	-.0287	-.0921	.30
	.40	.003	2.52	-.878	-.234	-.0164	-.1246	.40
85	-.40	.018	2.31	-.593	-.070	-.0406	.0765	-.40
	-.30	.025	2.13	-.576	-.112	-.0281	.0446	-.30
	-.20	.055	2.05	-.611	-.109	-.0322	.0156	-.20
	-.10	.067	1.98	-.624	-.110	-.0266	-.0064	-.10
	-.05	.074	1.99	-.640	-.102	-.0249	-.0192	-.05
	0.00	.045	1.96	-.670	-.129	-.0243	-.0275	0.00
	0.00	.053	1.88	-.658	-.136	-.0235	-.0276	0.00
	.05	.071	1.92	-.654	-.125	-.0219	-.0413	.05
	.10	.064	1.95	-.655	-.142	-.0216	-.0537	.10
	.20	.039	1.96	-.698	-.205	-.0211	-.0667	.20
	.30	.014	2.17	-.794	-.235	-.0233	-.0887	.30
	.40	.015	2.46	-.885	-.197	-.0111	-.1209	.40
90	-.40	.013	2.27	-.621	-.107	-.0433	.0739	-.40
	-.30	.025	2.09	-.624	-.125	-.0404	.0411	-.30
	-.20	.041	2.02	-.650	-.113	-.0341	.0177	-.20
	-.10	.055	1.94	-.674	-.109	-.0265	-.0021	-.10
	-.05	.061	1.96	-.692	-.096	-.0252	-.0148	-.05
	0.00	.033	1.96	-.719	-.108	-.0245	-.0243	0.00
	0.00	.033	1.92	-.700	-.112	-.0230	-.0241	0.00
	.05	.065	1.88	-.707	-.112	-.0219	-.0428	.05
	.10	.061	1.85	-.714	-.136	-.0207	-.0560	.10
	.20	.040	1.90	-.737	-.181	-.0148	-.0690	.20
	.30	.021	2.06	-.799	-.217	-.0132	-.0859	.30
	.40	.012	2.40	-.890	-.163	-.0064	-.1167	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 δr=-30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.054	2.07	-.265	.009	-.0005	.1013	-.40
	-.30	.046	2.02	-.208	.005	-.0093	.0741	-.30
	-.20	.035	2.02	-.155	-.004	-.0076	.0510	-.20
	-.10	.031	2.02	-.133	-.006	-.0041	.0344	-.10
	-.05	.031	2.02	-.130	-.019	-.0064	.0278	-.05
	0.00	.042	1.97	-.133	-.046	-.0062	.0215	0.00
	0.00	.042	1.97	-.125	-.042	-.0090	.0213	0.00
	.05	.032	2.05	-.130	-.037	-.0075	.0161	.05
	.10	.033	2.04	-.136	-.045	-.0088	.0084	.10
	.20	.037	2.03	-.166	-.038	-.0036	-.0046	.20
	.30	.041	2.04	-.209	-.043	-.0020	-.0261	.30
	.40	.044	2.08	-.262	-.018	-.0070	-.0543	.40
40	-.40	.029	2.39	-.315	.353	-.0242	.1482	-.40
	-.30	.044	2.29	-.213	.290	-.0224	.1118	-.30
	-.20	.054	2.22	-.131	.196	-.0155	.0817	-.20
	-.10	.056	2.14	-.073	.043	.0056	.0458	-.10
	-.05	.055	2.17	-.065	.013	.0147	.0307	-.05
	0.00	.066	2.12	-.065	-.052	.0120	.0214	0.00
	0.00	.068	2.12	-.073	-.055	.0114	.0199	0.00
	.05	.052	2.19	-.064	-.098	.0112	.0108	.05
	.10	.048	2.22	-.063	-.120	.0078	-.0036	.10
	.20	.047	2.24	-.125	-.158	.0088	-.0349	.20
	.30	.040	2.32	-.203	-.257	.0230	-.0711	.30
	.40	.027	2.41	-.292	-.299	.0239	-.1098	.40
50	-.40	-.004	2.56	-.420	.520	-.0007	.2172	-.40
	-.30	.015	2.45	-.255	.406	-.0013	.1592	-.30
	-.20	.028	2.34	-.136	.281	.0042	.1173	-.20
	-.10	.043	2.26	-.086	.155	.0074	.0758	-.10
	-.05	.051	2.23	-.062	.100	.0075	.0584	-.05
	0.00	.064	2.17	-.064	.027	.0076	.0337	0.00
	0.00	.065	2.18	-.058	.023	.0090	.0394	0.00
	.05	.059	2.23	-.087	-.015	.0029	.0029	.05
	.10	.055	2.27	-.062	-.076	.0015	-.0092	.10
	.20	.057	2.31	-.117	-.138	-.0063	-.0331	.20
	.30	.023	2.45	-.220	-.312	.0027	-.1162	.30
	.40	.003	2.58	-.372	-.422	.0088	-.1704	.40
55	-.40	-.012	2.69	-.552	.348	.0188	.1737	-.40
	-.30	.001	2.47	-.391	.340	.0190	.1590	-.30
	-.20	.021	2.31	-.313	.247	.0196	.1173	-.20
	-.10	.039	2.24	-.306	.165	.0157	.0811	-.10
	-.05	.033	2.22	-.331	.131	.0161	.0566	-.05
	0.00	.039	2.17	-.304	.082	.0141	.0458	0.00
	0.00	.041	2.17	-.317	.069	.0151	.0472	0.00
	.05	.025	2.22	-.246	.041	.0102	.0356	.05
	.10	.037	2.30	-.102	-.035	.0021	.0061	.10
	.20	.030	2.37	-.182	-.109	-.0029	-.0364	.20
	.30	.005	2.47	-.312	-.268	-.0044	-.1209	.30
	.40	-.008	2.64	-.505	-.310	-.0025	-.1577	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ $\delta r=-30$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.011	2.72	-.539	.306	.0070	.1631	-.40
	-.30	.015	2.51	-.444	.248	.0212	.1265	-.30
	-.20	.041	2.34	-.422	.186	.0251	.0974	-.20
	-.10	.050	2.24	-.408	.142	.0200	.0686	-.10
	-.05	.052	2.20	-.383	.119	.0148	.0563	-.05
	0.00	.058	2.13	-.335	.076	.0064	.0505	0.00
	0.00	.055	2.15	-.343	.073	.0073	.0514	0.00
	.05	.050	2.23	-.313	.062	.0002	.0438	.05
	.10	.046	2.29	-.302	.018	-.0065	.0259	.10
	.20	.031	2.41	-.215	-.096	-.0033	-.0362	.20
	.30	.019	2.52	-.478	-.199	-.0237	-.1085	.30
	.40	-.007	2.70	-.547	-.245	-.0112	-.1405	.40
65	-.40	.006	2.75	-.563	.298	.0106	.1723	-.40
	-.30	.033	2.55	-.505	.183	.0270	.1199	-.30
	-.20	.054	2.38	-.481	.131	.0273	.0877	-.20
	-.10	.063	2.27	-.443	.085	.0196	.0544	-.10
	-.05	.064	2.22	-.421	.065	.0146	.0401	-.05
	0.00	.077	2.19	-.392	.038	.0054	.0275	0.00
	0.00	.073	2.19	-.398	.032	.0065	.0287	0.00
	.05	.070	2.23	-.397	.006	-.0049	.0243	.05
	.10	.068	2.27	-.391	-.023	-.0117	.0147	.10
	.20	.051	2.43	-.373	-.081	-.0151	-.0170	.20
	.30	.039	2.54	-.497	-.191	-.0215	-.0958	.30
	.40	.019	2.73	-.547	-.265	-.0032	-.1378	.40
70	-.40	-.019	2.65	-.571	.258	.0081	.1435	-.40
	-.30	.013	2.45	-.512	.152	.0250	.0942	-.30
	-.20	.034	2.28	-.485	.099	.0242	.0674	-.20
	-.10	.042	2.18	-.436	.085	.0164	.0407	-.10
	-.05	.043	2.14	-.412	.062	.0100	.0253	-.05
	0.00	.047	2.09	-.396	.012	.0033	.0117	0.00
	0.00	.046	2.09	-.411	.008	.0019	.0076	0.00
	.05	.047	2.15	-.404	.001	-.0065	.0122	.05
	.10	.045	2.19	-.412	-.016	-.0126	-.0020	.10
	.20	.034	2.28	-.469	-.091	-.0193	-.0433	.20
	.30	.010	2.48	-.517	-.096	-.0176	-.0759	.30
	.40	-.019	2.70	-.548	-.147	.0015	-.1141	.40
80	-.40	-.018	2.70	-.725	.097	-.0038	.1117	-.40
	-.30	.014	2.48	-.648	.094	.0131	.0758	-.30
	-.20	.031	2.29	-.595	.093	.0138	.0484	-.20
	-.10	.056	2.15	-.564	.047	.0059	.0326	-.10
	-.05	.070	2.12	-.598	.031	.0021	.0191	-.05
	0.00	.060	2.08	-.596	.007	-.0005	.0046	0.00
	0.00	.068	2.08	-.619	.008	.0029	.0049	0.00
	.05	.067	2.15	-.603	.035	-.0016	-.0156	.05
	.10	.053	2.17	-.562	.015	-.0023	-.0273	.10
	.20	.038	2.28	-.608	-.027	-.0109	-.0452	.20
	.30	.017	2.46	-.654	-.039	-.0090	-.0681	.30
	.40	-.015	2.72	-.737	-.056	.0050	-.0982	.40

F-18 ROTARY BALANCE DATA

F-18 δ_{lef}=30 δ_H=10 δ_r=-30 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	.009	2.71	-.764	.067	-.0061	.1084	-.40
	-.30	.031	2.45	-.682	.061	.0050	.0756	-.30
	-.20	.064	2.28	-.640	.065	.0105	.0503	-.20
	-.10	.096	2.16	-.631	.027	.0024	.0348	-.10
	-.05	.107	2.15	-.664	.017	.0020	.0199	-.05
	0.00	.086	2.14	-.673	.002	.0018	.0036	0.00
	0.00	.091	2.14	-.685	.018	.0018	.0017	0.00
	.05	.110	2.14	-.661	.022	.0021	-.0154	.05
	.10	.099	2.16	-.645	.026	.0007	-.0330	.10
	.20	.073	2.26	-.657	-.021	-.0047	-.0466	.20
	.30	.037	2.43	-.701	-.038	-.0013	-.0682	.30
	.40	.016	2.69	-.760	-.019	.0131	-.0948	.40
90	-.40	-.004	2.66	-.771	.039	-.0145	.1061	-.40
	-.30	.009	2.40	-.712	.055	.0010	.0760	-.30
	-.20	.031	2.24	-.680	.051	.0029	.0519	-.20
	-.10	.066	2.17	-.711	.027	0.0000	.0347	-.10
	-.05	.075	2.16	-.718	.025	.0010	.0201	-.05
	0.00	.057	2.10	-.734	.005	.0030	.0049	0.00
	0.00	.056	2.11	-.724	.006	.0036	.0054	0.00
	.05	.074	2.17	-.725	.045	.0015	-.0160	.05
	.10	.064	2.18	-.706	.053	.0011	-.0331	.10
	.20	.038	2.25	-.691	.014	.0019	-.0458	.20
	.30	.012	2.41	-.718	.018	.0048	-.0668	.30
	.40	.002	2.67	-.759	.006	.0204	-.0904	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 δr=-30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.036	2.08	-.088	-.138	.0241	.0752	-.40
	-.30	.041	1.99	-.077	-.178	.0066	.0559	-.30
	-.20	.032	1.97	-.062	-.188	-.0086	.0331	-.20
	-.10	.033	1.94	-.078	-.195	-.0136	.0163	-.10
	-.05	.038	1.93	-.096	-.192	-.0095	.0088	-.05
	0.00	.052	1.84	-.132	-.211	-.0028	-.0007	0.00
	0.00	.053	1.85	-.138	-.215	-.0023	0.0000	0.00
	.05	.048	1.87	-.154	-.208	-.0001	-.0116	.05
	.10	.051	1.86	-.187	-.212	.0035	-.0213	.10
	.20	.052	1.85	-.248	-.232	.0041	-.0403	.20
	.30	.049	1.87	-.324	-.229	-.0022	-.0589	.30
	.40	.047	1.96	-.422	-.225	-.0148	-.0807	.40
40	-.40	.042	2.46	-.145	.038	-.0318	.1205	-.40
	-.30	.057	2.33	-.100	-.004	-.0312	.0764	-.30
	-.20	.061	2.22	-.065	-.060	-.0205	.0365	-.20
	-.10	.066	2.14	-.040	-.113	-.0194	.0100	-.10
	-.05	.069	2.13	-.055	-.161	-.0276	-.0037	-.05
	0.00	.080	2.07	-.098	-.204	-.0275	-.0178	0.00
	0.00	.079	2.07	-.088	-.204	-.0281	-.0169	0.00
	.05	.073	2.09	-.113	-.205	-.0202	-.0340	.05
	.10	.064	2.11	-.130	-.320	-.0087	-.0500	.10
	.20	.051	2.15	-.212	-.438	.0017	-.0741	.20
	.30	.040	2.22	-.330	-.536	.0063	-.1010	.30
	.40	.028	2.29	-.468	-.590	.0041	-.1278	.40
50	-.40	.024	2.51	-.237	.205	-.0217	.1669	-.40
	-.30	.046	2.38	-.131	.147	-.0142	.1226	-.30
	-.20	.060	2.26	-.069	.074	-.0118	.0817	-.20
	-.10	.076	2.23	-.039	-.038	-.0126	.0303	-.10
	-.05	.079	2.19	-.091	-.085	-.0181	-.0036	-.05
	0.00	.072	2.16	-.079	-.165	-.0208	-.0219	0.00
	0.00	.072	2.15	-.084	-.167	-.0216	-.0216	0.00
	.05	.072	2.17	-.104	-.191	-.0222	-.0332	.05
	.10	.074	2.15	-.162	-.227	-.0265	-.0557	.10
	.20	.053	2.16	-.313	-.403	-.0326	-.1317	.20
	.30	.037	2.27	-.464	-.492	-.0412	-.1695	.30
	.40	.009	2.47	-.643	-.594	-.0398	-.2129	.40
55	-.40	.021	2.56	-.369	.171	-.0231	.1581	-.40
	-.30	.035	2.41	-.313	.115	-.0085	.1086	-.30
	-.20	.045	2.28	-.299	.050	-.0066	.0643	-.20
	-.10	.050	2.23	-.242	.002	-.0164	.0287	-.10
	-.05	.059	2.21	-.242	-.038	-.0198	.0132	-.05
	0.00	.063	2.18	-.138	-.122	-.0164	.0016	0.00
	0.00	.065	2.19	-.154	-.129	-.0189	-.0013	0.00
	.05	.063	2.20	-.159	-.167	-.0223	-.0352	.05
	.10	.064	2.17	-.306	-.190	-.0311	-.0532	.10
	.20	.059	2.21	-.412	-.355	-.0489	-.1271	.20
	.30	.046	2.32	-.570	-.418	-.0551	-.1561	.30
	.40	.018	2.56	-.707	-.486	-.0488	-.1826	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 δr=-30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.022	2.64	-.363	.118	-.0300	.1316	-.40
	-.30	.035	2.49	-.353	.062	-.0097	.0839	-.30
	-.20	.048	2.34	-.350	.041	-.0043	.0694	-.20
	-.10	.057	2.23	-.301	.008	-.0091	.0411	-.10
	-.05	.062	2.21	-.292	-.017	-.0146	.0230	-.05
	0.00	.067	2.17	-.296	-.094	-.0235	-.0001	0.00
	0.00	.062	2.17	-.293	-.092	-.0256	.0002	0.00
	.05	.065	2.21	-.311	-.107	-.0293	-.0188	.05
	.10	.064	2.24	-.242	-.181	-.0267	-.0327	.10
	.20	.068	2.24	-.524	-.298	-.0505	-.1184	.20
	.30	.049	2.39	-.600	-.360	-.0555	-.1374	.30
	.40	.020	2.66	-.723	-.430	-.0464	-.1778	.40
65	-.40	.023	2.67	-.371	.100	-.0326	.1311	-.40
	-.30	.029	2.54	-.396	.027	-.0074	.0799	-.30
	-.20	.045	2.38	-.395	.005	-.0016	.0519	-.20
	-.10	.055	2.27	-.381	-.039	-.0095	.0203	-.10
	-.05	.056	2.24	-.374	-.053	-.0155	.0056	-.05
	0.00	.075	2.17	-.374	-.113	-.0232	-.0053	0.00
	0.00	.070	2.18	-.370	-.112	-.0233	-.0069	0.00
	.05	.071	2.18	-.392	-.124	-.0269	-.0113	.05
	.10	.066	2.22	-.402	-.162	-.0326	-.0315	.10
	.20	.058	2.28	-.528	-.266	-.0443	-.1013	.20
	.30	.037	2.44	-.627	-.350	-.0538	-.1374	.30
	.40	.007	2.72	-.738	-.440	-.0401	-.1850	.40
70	-.40	.017	2.75	-.433	.066	-.0348	.1082	-.40
	-.30	.031	2.61	-.429	-.003	-.0061	.0623	-.30
	-.20	.052	2.42	-.439	-.014	-.0024	.0411	-.20
	-.10	.063	2.30	-.423	-.048	-.0106	.0181	-.10
	-.05	.064	2.26	-.410	-.065	-.0179	.0054	-.05
	0.00	.075	2.17	-.434	-.152	-.0264	-.0078	0.00
	0.00	.071	2.17	-.417	-.141	-.0258	-.0097	0.00
	.05	.076	2.22	-.443	-.140	-.0269	-.0250	.05
	.10	.072	2.23	-.476	-.175	-.0300	-.0467	.10
	.20	.061	2.32	-.583	-.210	-.0403	-.0824	.20
	.30	.032	2.55	-.669	-.251	-.0485	-.1121	.30
	.40	-.003	2.81	-.719	-.396	-.0333	-.1696	.40
80	-.40	.031	2.68	-.588	-.024	-.0340	.0879	-.40
	-.30	.046	2.50	-.569	-.075	-.0189	.0530	-.30
	-.20	.068	2.35	-.561	-.078	-.0153	.0259	-.20
	-.10	.101	2.21	-.596	-.105	-.0257	-.0042	-.10
	-.05	.112	2.18	-.620	-.117	-.0277	-.0178	-.05
	0.00	.094	2.16	-.651	-.152	-.0284	-.0283	0.00
	0.00	.089	2.16	-.637	-.158	-.0286	-.0284	0.00
	.05	.098	2.21	-.632	-.119	-.0279	-.0405	.05
	.10	.086	2.24	-.627	-.140	-.0255	-.0505	.10
	.20	.068	2.31	-.707	-.169	-.0272	-.0686	.20
	.30	.037	2.55	-.806	-.205	-.0326	-.0896	.30
	.40	.015	2.85	-.914	-.187	-.0236	-.1196	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ $\delta r=-30$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	.030	2.65	-.641	-.046	-.0436	.0874	-.40
	-.30	.066	2.45	-.633	-.085	-.0398	.0518	-.30
	-.20	.101	2.30	-.653	-.104	-.0344	.0240	-.20
	-.10	.123	2.22	-.666	-.105	-.0288	-.0015	-.10
	-.05	.130	2.19	-.680	-.105	-.0273	-.0156	-.05
	0.00	.106	2.14	-.704	-.134	-.0277	-.0271	0.00
	0.00	.107	2.14	-.710	-.153	-.0242	-.0241	0.00
	.05	.119	2.22	-.698	-.101	-.0262	-.0412	.05
	.10	.107	2.25	-.696	-.114	-.0258	-.0535	.10
	.20	.079	2.30	-.741	-.154	-.0234	-.0673	.20
	.30	.042	2.51	-.829	-.181	-.0233	-.0853	.30
	.40	.021	2.79	-.936	-.151	-.0145	-.1151	.40
90	-.40	.024	2.60	-.673	-.088	-.0471	.0843	-.40
	-.30	.054	2.43	-.663	-.096	-.0425	.0504	-.30
	-.20	.080	2.30	-.709	-.114	-.0350	.0280	-.20
	-.10	.098	2.21	-.725	-.109	-.0279	.0038	-.10
	-.05	.108	2.20	-.744	-.110	-.0254	-.0091	-.05
	0.00	.086	2.18	-.786	-.134	-.0251	-.0226	0.00
	0.00	.085	2.17	-.769	-.123	-.0238	-.0233	0.00
	.05	.103	2.22	-.766	-.091	-.0237	-.0376	.05
	.10	.089	2.26	-.763	-.096	-.0241	-.0528	.10
	.20	.063	2.29	-.785	-.135	-.0190	-.0674	.20
	.30	.034	2.46	-.850	-.160	-.0161	-.0824	.30
	.40	.017	2.78	-.949	-.126	-.0096	-.1119	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=10 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
30	-.40	.038	2.02	-.230	.018	-.0347	.1126	-.40
	-.30	.037	1.97	-.187	.016	-.0440	.0861	-.30
	-.20	.030	1.97	-.135	-.005	-.0387	.0652	-.20
	-.10	.033	1.94	-.114	-.005	-.0322	.0534	-.10
	-.05	.036	1.95	-.113	-.014	-.0331	.0476	-.05
	0.00	.051	1.88	-.122	-.050	-.0362	.0378	0.00
	0.00	.052	1.87	-.118	-.051	-.0334	.0383	0.00
	.05	.040	1.97	-.120	-.033	-.0354	.0319	.05
	.10	.043	1.96	-.128	-.035	-.0354	.0239	.10
	.20	.049	1.94	-.162	-.030	-.0319	.0069	.20
	.30	.056	1.96	-.208	-.022	-.0323	-.0161	.30
	.40	.063	2.01	-.254	.010	-.0394	-.0436	.40
40	-.40	.031	2.29	-.286	.324	-.0503	.1651	-.40
	-.30	.044	2.19	-.184	.257	-.0456	.1304	-.30
	-.20	.049	2.10	-.111	.147	-.0340	.0982	-.20
	-.10	.046	2.07	-.068	.007	-.0150	.0635	-.10
	-.05	.043	2.07	-.058	-.019	-.0060	.0488	-.05
	0.00	.055	2.05	-.047	-.078	-.0093	.0425	0.00
	0.00	.054	2.05	-.050	-.091	-.0069	.0434	0.00
	.05	.040	2.10	-.039	-.102	-.0108	.0294	.05
	.10	.039	2.13	-.040	-.120	-.0156	.0163	.10
	.20	.041	2.15	-.099	-.169	-.0111	-.0146	.20
	.30	.038	2.20	-.177	-.266	-.0022	-.0487	.30
	.40	.034	2.32	-.265	-.292	-.0055	-.0836	.40
50	-.40	.004	2.43	-.375	.459	-.0273	.2320	-.40
	-.30	.017	2.30	-.211	.353	-.0248	.1766	-.30
	-.20	.028	2.21	-.106	.240	-.0172	.1362	-.20
	-.10	.043	2.15	-.059	.134	-.0147	.0990	-.10
	-.05	.053	2.13	-.049	.069	-.0143	.0818	-.05
	0.00	.069	2.07	-.071	-.013	-.0117	.0544	0.00
	0.00	.069	2.08	-.057	-.016	-.0118	.0609	0.00
	.05	.060	2.14	-.086	-.051	-.0166	.0302	.05
	.10	.053	2.18	-.063	-.075	-.0179	.0179	.10
	.20	.057	2.21	-.107	-.157	-.0267	-.0066	.20
	.30	.022	2.34	-.218	-.320	-.0177	-.0889	.30
	.40	.005	2.46	-.349	-.425	-.0160	-.1408	.40
55	-.40	-.006	2.53	-.483	.298	-.0097	.1876	-.40
	-.30	.008	2.35	-.372	.290	-.0018	.1781	-.30
	-.20	.020	2.22	-.272	.214	-.0050	.1347	-.20
	-.10	.039	2.14	-.265	.130	-.0083	.1016	-.10
	-.05	.035	2.11	-.282	.094	-.0129	.0799	-.05
	0.00	.048	2.06	-.255	.037	-.0161	.0747	0.00
	0.00	.044	2.06	-.267	.021	-.0152	.0752	0.00
	.05	.033	2.13	-.229	-.004	-.0160	.0636	.05
	.10	.043	2.19	-.106	-.070	-.0181	.0319	.10
	.20	.024	2.27	-.202	-.147	-.0207	-.0054	.20
	.30	.011	2.34	-.292	-.295	-.0240	-.0922	.30
	.40	-.001	2.50	-.469	-.299	-.0261	-.1222	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ $\delta a=25$ $\delta r=-30$ $\delta d=10$ BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.004	2.58	-.485	.287	-.0190	.1789	-.40
	-.30	.014	2.40	-.389	.227	-.0016	.1429	-.30
	-.20	.036	2.26	-.363	.174	.0032	.1163	-.20
	-.10	.048	2.15	-.348	.110	-.0055	.0885	-.10
	-.05	.050	2.11	-.334	.083	-.0121	.0762	-.05
	0.00	.059	2.05	-.323	.036	-.0210	.0666	0.00
	0.00	.058	2.03	-.327	.024	-.0220	.0693	0.00
	.05	.058	2.13	-.309	.016	-.0254	.0644	.05
	.10	.052	2.19	-.280	-.016	-.0293	.0495	.10
	.20	.037	2.31	-.192	-.124	-.0229	-.0036	.20
	.30	.023	2.40	-.448	-.217	-.0430	-.0766	.30
	.40	-.000	2.59	-.510	-.259	-.0314	-.1124	.40
65	-.40	.010	2.61	-.505	.268	-.0194	.1887	-.40
	-.30	.029	2.44	-.447	.170	.0076	.1414	-.30
	-.20	.048	2.28	-.426	.123	.0092	.1035	-.20
	-.10	.055	2.17	-.394	.072	.0001	.0729	-.10
	-.05	.059	2.15	-.376	.054	-.0082	.0597	-.05
	0.00	.082	2.06	-.369	.004	-.0198	.0566	0.00
	0.00	.079	2.08	-.363	.009	-.0168	.0552	0.00
	.05	.072	2.13	-.377	-.029	-.0234	.0496	.05
	.10	.068	2.18	-.371	-.049	-.0287	.0394	.10
	.20	.055	2.33	-.363	-.117	-.0347	.0093	.20
	.30	.041	2.45	-.431	-.191	-.0370	-.0548	.30
	.40	.023	2.62	-.525	-.274	-.0268	-.1100	.40
70	-.40	-.012	2.68	-.550	.223	-.0178	.1609	-.40
	-.30	.015	2.51	-.496	.135	.0087	.1196	-.30
	-.20	.037	2.32	-.464	.100	.0082	.0883	-.20
	-.10	.045	2.22	-.418	.101	-.0006	.0617	-.10
	-.05	.049	2.19	-.400	.050	-.0080	.0447	-.05
	0.00	.060	2.08	-.405	-.018	-.0172	.0381	0.00
	0.00	.060	2.10	-.404	-.019	-.0170	.0373	0.00
	.05	.060	2.14	-.416	-.026	-.0218	.0300	.05
	.10	.057	2.16	-.429	-.044	-.0261	.0127	.10
	.20	.044	2.28	-.479	-.102	-.0356	-.0213	.20
	.30	.020	2.49	-.519	-.114	-.0361	-.0483	.30
	.40	-.016	2.72	-.559	-.173	-.0238	-.0902	.40
80	-.40	.005	2.69	-.700	.085	-.0135	.1411	-.40
	-.30	.034	2.47	-.626	.077	.0052	.1041	-.30
	-.20	.054	2.28	-.567	.070	.0028	.0729	-.20
	-.10	.079	2.12	-.564	.026	-.0078	.0532	-.10
	-.05	.089	2.11	-.581	.020	-.0082	.0383	-.05
	0.00	.083	2.05	-.607	-.005	-.0079	.0240	0.00
	0.00	.081	2.06	-.593	-.003	-.0075	.0228	0.00
	.05	.078	2.12	-.553	.013	-.0131	.0054	.05
	.10	.072	2.16	-.558	-.010	-.0165	-.0050	.10
	.20	.056	2.26	-.595	-.049	-.0217	-.0210	.20
	.30	.036	2.43	-.636	-.041	-.0202	-.0440	.30
	.40	.003	2.67	-.712	-.069	-.0100	-.0707	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	.029	2.66	-.739	.054	-.0175	.1383	-.40
	-.30	.048	2.42	-.663	.046	-.0025	.1025	-.30
	-.20	.084	2.24	-.613	.039	-.0001	.0756	-.20
	-.10	.122	2.12	-.631	.005	-.0065	.0546	-.10
	-.05	.130	2.12	-.644	.008	-.0065	.0378	-.05
	0.00	.109	2.10	-.666	.006	-.0059	.0182	0.00
	0.00	.107	2.07	-.641	.004	-.0056	.0205	0.00
	.05	.124	2.11	-.628	.017	-.0085	.0011	.05
	.10	.111	2.13	-.605	-.003	-.0093	-.0098	.10
	.20	.087	2.22	-.637	-.043	-.0135	-.0235	.20
	.30	.050	2.39	-.676	-.051	-.0112	-.0439	.30
	.40	.028	2.62	-.739	-.035	-.0007	-.0693	.40
90	-.40	.010	2.59	-.736	.019	-.0247	.1363	-.40
	-.30	.021	2.33	-.674	.045	-.0103	.1004	-.30
	-.20	.046	2.19	-.653	.032	-.0045	.0762	-.20
	-.10	.078	2.12	-.689	.015	-.0054	.0548	-.10
	-.05	.085	2.11	-.699	.022	-.0053	.0375	-.05
	0.00	.069	2.06	-.714	.010	-.0041	.0186	0.00
	0.00	.069	2.09	-.720	.017	-.0051	.0183	0.00
	.05	.084	2.13	-.680	.042	-.0053	.0024	.05
	.10	.072	2.14	-.661	.038	-.0070	-.0119	.10
	.20	.045	2.20	-.660	.002	-.0065	-.0228	.20
	.30	.018	2.35	-.698	.008	-.0044	-.0426	.30
	.40	.008	2.63	-.736	.005	.0062	-.0633	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.017	2.00	-.066	-.160	-.0103	.0982	-.40
	-.30	.023	1.92	-.045	-.171	-.0233	.0766	-.30
	-.20	.021	1.88	-.029	-.197	-.0350	.0523	-.20
	-.10	.031	1.84	-.049	-.189	-.0346	.0344	-.10
	-.05	.040	1.83	-.067	-.195	-.0317	.0254	-.05
	0.00	.054	1.74	-.101	-.209	-.0261	.0150	0.00
	0.00	.057	1.73	-.097	-.212	-.0265	.0168	0.00
	.05	.053	1.75	-.117	-.207	-.0245	.0053	.05
	.10	.054	1.73	-.142	-.210	-.0230	-.0042	.10
	.20	.057	1.72	-.209	-.222	-.0243	-.0216	.20
	.30	.058	1.77	-.290	-.224	-.0302	-.0411	.30
	.40	.059	1.87	-.392	-.232	-.0432	-.0623	.40
40	-.40	.025	2.31	-.101	.018	-.0545	.1416	-.40
	-.30	.045	2.19	-.060	-.016	-.0451	.0967	-.30
	-.20	.048	2.10	-.035	-.100	-.0321	.0538	-.20
	-.10	.055	2.01	-.009	-.160	-.0353	.0291	-.10
	-.05	.059	2.01	-.017	-.173	-.0425	.0178	-.05
	0.00	.077	1.92	-.048	-.229	-.0440	.0050	0.00
	0.00	.076	1.93	-.045	-.225	-.0445	.0043	0.00
	.05	.068	1.97	-.068	-.244	-.0367	-.0113	.05
	.10	.058	1.98	-.089	-.323	-.0280	-.0270	.10
	.20	.045	2.01	-.176	-.439	-.0212	-.0498	.20
	.30	.036	2.06	-.286	-.520	-.0203	-.0729	.30
	.40	.026	2.15	-.423	-.596	-.0249	-.0982	.40
50	-.40	.021	2.34	-.177	.157	-.0436	.1872	-.40
	-.30	.038	2.20	-.080	.095	-.0320	.1428	-.30
	-.20	.052	2.11	-.035	.029	-.0299	.1069	-.20
	-.10	.066	2.08	-.018	-.080	-.0305	.0530	-.10
	-.05	.067	2.06	-.079	-.131	-.0345	.0207	-.05
	0.00	.060	2.04	-.063	-.196	-.0371	.0045	0.00
	0.00	.060	2.04	-.058	-.193	-.0363	.0039	0.00
	.05	.061	2.05	-.089	-.204	-.0389	-.0069	.05
	.10	.064	2.02	-.155	-.241	-.0398	-.0293	.10
	.20	.046	2.05	-.287	-.416	-.0474	-.0979	.20
	.30	.029	2.13	-.422	-.512	-.0551	-.1338	.30
	.40	.004	2.31	-.582	-.590	-.0557	-.1665	.40
55	-.40	.017	2.39	-.301	.118	-.0479	.1751	-.40
	-.30	.029	2.25	-.258	.071	-.0305	.1299	-.30
	-.20	.043	2.12	-.238	.016	-.0329	.0920	-.20
	-.10	.048	2.07	-.198	-.033	-.0405	.0553	-.10
	-.05	.055	2.04	-.205	-.071	-.0441	.0387	-.05
	0.00	.063	2.03	-.138	-.155	-.0361	.0288	0.00
	0.00	.059	2.04	-.122	-.157	-.0351	.0263	0.00
	.05	.057	2.08	-.130	-.187	-.0390	-.0033	.05
	.10	.068	2.00	-.287	-.216	-.0523	-.0206	.10
	.20	.057	2.07	-.400	-.363	-.0670	-.0865	.20
	.30	.045	2.18	-.525	-.433	-.0715	-.1188	.30
	.40	.014	2.43	-.644	-.517	-.0673	-.1453	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.016	2.47	-.301	.085	-.0500	.1542	-.40
	-.30	.033	2.31	-.302	.021	-.0297	.1039	-.30
	-.20	.048	2.16	-.290	-.016	-.0276	.0744	-.20
	-.10	.062	2.06	-.268	-.034	-.0348	.0510	-.10
	-.05	.070	2.00	-.281	-.063	-.0395	.0427	-.05
	0.00	.074	1.98	-.288	-.128	-.0395	.0270	0.00
	0.00	.070	1.97	-.289	-.124	-.0412	.0272	0.00
	.05	.074	2.04	-.297	-.135	-.0468	.0108	.05
	.10	.062	2.09	-.206	-.206	-.0408	-.0051	.10
	.20	.066	2.07	-.486	-.312	-.0643	-.0826	.20
	.30	.048	2.24	-.559	-.380	-.0710	-.0996	.30
	.40	.012	2.50	-.656	-.460	-.0629	-.1384	.40
65	-.40	.017	2.53	-.322	.074	-.0504	.1475	-.40
	-.30	.025	2.37	-.341	.014	-.0246	.1009	-.30
	-.20	.039	2.21	-.335	-.011	-.0210	.0732	-.20
	-.10	.052	2.11	-.328	-.047	-.0297	.0395	-.10
	-.05	.064	2.04	-.339	-.086	-.0365	.0343	-.05
	0.00	.075	2.01	-.348	-.142	-.0398	.0215	0.00
	0.00	.075	1.98	-.347	-.147	-.0368	.0232	0.00
	.05	.062	2.07	-.354	-.137	-.0410	.0131	.05
	.10	.059	2.10	-.363	-.176	-.0463	-.0059	.10
	.20	.055	2.12	-.482	-.272	-.0577	-.0632	.20
	.30	.036	2.32	-.565	-.344	-.0662	-.0905	.30
	.40	.007	2.53	-.664	-.458	-.0541	-.1436	.40
70	-.40	.015	2.56	-.359	.050	-.0495	.1325	-.40
	-.30	.030	2.42	-.372	-.019	-.0218	.0846	-.30
	-.20	.051	2.24	-.372	-.041	-.0180	.0614	-.20
	-.10	.072	2.10	-.385	-.086	-.0346	.0283	-.10
	-.05	.080	2.06	-.384	-.101	-.0378	.0262	-.05
	0.00	.076	2.03	-.381	-.160	-.0374	.0142	0.00
	0.00	.069	2.00	-.381	-.168	-.0372	.0098	0.00
	.05	.070	2.06	-.394	-.159	-.0375	.0006	.05
	.10	.067	2.07	-.427	-.177	-.0401	-.0179	.10
	.20	.058	2.16	-.523	-.236	-.0502	-.0485	.20
	.30	.034	2.37	-.607	-.259	-.0576	-.0745	.30
	.40	-.006	2.62	-.648	-.408	-.0471	-.1266	.40
80	-.40	.035	2.55	-.515	.004	-.0464	.1112	-.40
	-.30	.048	2.34	-.497	-.064	-.0316	.0752	-.30
	-.20	.089	2.21	-.540	-.091	-.0429	.0420	-.20
	-.10	.108	2.08	-.553	-.098	-.0373	.0153	-.10
	-.05	.112	2.05	-.553	-.105	-.0369	.0014	-.05
	0.00	.091	2.01	-.562	-.153	-.0362	-.0072	0.00
	0.00	.094	2.02	-.559	-.147	-.0357	-.0062	0.00
	.05	.096	2.08	-.542	-.123	-.0347	-.0161	.05
	.10	.086	2.09	-.555	-.144	-.0329	-.0247	.10
	.20	.065	2.17	-.621	-.188	-.0353	-.0371	.20
	.30	.036	2.38	-.721	-.205	-.0385	-.0595	.30
	.40	.015	2.67	-.830	-.184	-.0314	-.0855	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ $\delta a=25$ $\delta r=-30$ $\delta d=10$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	.040	2.51	-.568	-.024	-.0533	.1127	-.40
	-.30	.064	2.34	-.573	-.086	-.0459	.0759	-.30
	-.20	.095	2.20	-.594	-.106	-.0392	.0474	-.20
	-.10	.119	2.10	-.604	-.097	-.0340	.0195	-.10
	-.05	.123	2.07	-.606	-.098	-.0328	.0056	-.05
	0.00	.098	2.01	-.626	-.133	-.0329	-.0057	0.00
	0.00	.099	2.03	-.636	-.126	-.0331	-.0076	0.00
	.05	.106	2.09	-.603	-.100	-.0326	-.0182	.05
	.10	.095	2.10	-.607	-.120	-.0308	-.0273	.10
	.20	.070	2.15	-.665	-.158	-.0290	-.0399	.20
	.30	.032	2.35	-.745	-.173	-.0305	-.0570	.30
	.40	.018	2.61	-.843	-.136	-.0242	-.0834	.40
90	-.40	.030	2.47	-.601	-.064	-.0582	.1083	-.40
	-.30	.051	2.30	-.607	-.103	-.0467	.0760	-.30
	-.20	.073	2.18	-.645	-.108	-.0372	.0520	-.20
	-.10	.098	2.10	-.672	-.100	-.0324	.0231	-.10
	-.05	.102	2.07	-.672	-.096	-.0306	.0094	-.05
	0.00	.078	2.06	-.688	-.113	-.0322	-.0065	0.00
	0.00	.079	2.02	-.682	-.124	-.0291	-.0013	0.00
	.05	.093	2.09	-.663	-.088	-.0301	-.0170	.05
	.10	.081	2.11	-.659	-.097	-.0285	-.0288	.10
	.20	.055	2.13	-.693	-.141	-.0236	-.0388	.20
	.30	.030	2.31	-.765	-.157	-.0214	-.0548	.30
	.40	.014	2.60	-.848	-.110	-.0211	-.0830	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=5 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
30	-.40	.055	1.92	-.219	.003	-.0332	.1029	-.40
	-.30	.051	1.86	-.173	.001	-.0401	.0770	-.30
	-.20	.043	1.86	-.124	-.006	-.0352	.0564	-.20
	-.10	.045	1.85	-.105	-.001	-.0320	.0445	-.10
	-.05	.047	1.86	-.103	-.008	-.0331	.0387	-.05
	0.00	.059	1.78	-.110	-.039	-.0377	.0300	0.00
	0.00	.062	1.76	-.110	-.044	-.0354	.0291	0.00
	.05	.052	1.84	-.106	-.032	-.0345	.0242	.05
	.10	.055	1.84	-.114	-.033	-.0345	.0165	.10
	.20	.061	1.82	-.139	-.029	-.0326	.0013	.20
	.30	.068	1.84	-.183	-.017	-.0335	-.0210	.30
	.40	.076	1.90	-.232	-.002	-.0393	-.0492	.40
40	-.40	.043	2.20	-.281	.327	-.0492	.1562	-.40
	-.30	.056	2.12	-.179	.251	-.0456	.1206	-.30
	-.20	.064	2.03	-.102	.146	-.0337	.0881	-.20
	-.10	.060	1.97	-.052	.017	-.0114	.0561	-.10
	-.05	.060	1.98	-.046	-.030	-.0044	.0406	-.05
	0.00	.072	1.93	-.043	-.081	-.0065	.0322	0.00
	0.00	.074	1.91	-.043	-.067	-.0086	.0310	0.00
	.05	.060	1.99	-.037	-.101	-.0091	.0198	.05
	.10	.059	2.02	-.033	-.141	-.0144	.0075	.10
	.20	.061	2.05	-.096	-.162	-.0101	-.0234	.20
	.30	.059	2.12	-.167	-.246	-.0021	-.0571	.30
	.40	.054	2.20	-.248	-.274	-.0056	-.0926	.40
50	-.40	.016	2.34	-.373	.472	-.0281	.2205	-.40
	-.30	.031	2.23	-.214	.353	-.0240	.1645	-.30
	-.20	.045	2.14	-.102	.226	-.0158	.1251	-.20
	-.10	.058	2.06	-.050	.112	-.0126	.0871	-.10
	-.05	.066	2.05	-.035	.073	-.0125	.0691	-.05
	0.00	.084	1.99	-.042	-.016	-.0106	.0459	0.00
	0.00	.082	1.99	-.048	-.023	-.0111	.0451	0.00
	.05	.077	2.04	-.067	-.053	-.0156	.0186	.05
	.10	.074	2.09	-.046	-.111	-.0175	.0101	.10
	.20	.077	2.13	-.090	-.162	-.0230	-.0172	.20
	.30	.046	2.24	-.194	-.313	-.0176	-.0962	.30
	.40	.029	2.37	-.328	-.416	-.0134	-.1458	.40
55	-.40	.003	2.48	-.492	.304	-.0043	.1830	-.40
	-.30	.019	2.26	-.355	.293	-.0003	.1715	-.30
	-.20	.039	2.12	-.278	.206	-.0003	.1300	-.20
	-.10	.056	2.04	-.256	.125	-.0064	.0922	-.10
	-.05	.051	2.02	-.281	.085	-.0086	.0703	-.05
	0.00	.060	1.98	-.256	.038	-.0079	.0613	0.00
	0.00	.061	1.97	-.266	.029	-.0099	.0627	0.00
	.05	.047	2.01	-.213	-.004	-.0108	.0512	.05
	.10	.060	2.10	-.090	-.067	-.0157	.0201	.10
	.20	.044	2.17	-.179	-.147	-.0199	-.0164	.20
	.30	.029	2.26	-.265	-.282	-.0212	-.0996	.30
	.40	.021	2.42	-.446	-.286	-.0249	-.1292	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=5 BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	.008	2.49	-.482	.286	-.0168	.1705	-.40
	-.30	.026	2.34	-.384	.221	-.0014	.1385	-.30
	-.20	.049	2.17	-.362	.159	.0052	.1063	-.20
	-.10	.060	2.07	-.346	.100	-.0023	.0796	-.10
	-.05	.064	2.02	-.327	.065	-.0077	.0594	-.05
	0.00	.074	1.95	-.311	.027	-.0189	.0510	0.00
	0.00	.070	1.94	-.306	.015	-.0173	.0529	0.00
	.05	.071	2.03	-.286	.015	-.0226	.0537	.05
	.10	.067	2.09	-.264	-.018	-.0271	.0409	.10
	.20	.051	2.21	-.172	-.128	-.0196	-.0146	.20
	.30	.043	2.29	-.422	-.205	-.0390	-.0847	.30
	.40	.023	2.51	-.482	-.239	-.0291	-.1205	.40
65	-.40	.020	2.53	-.502	.265	-.0137	.1794	-.40
	-.30	.044	2.35	-.438	.172	.0069	.1329	-.30
	-.20	.063	2.17	-.424	.118	.0103	.0952	-.20
	-.10	.073	2.07	-.384	.059	.0019	.0657	-.10
	-.05	.079	2.03	-.366	.030	-.0057	.0526	-.05
	0.00	.094	1.99	-.351	.007	-.0154	.0437	0.00
	0.00	.098	2.00	-.351	.002	-.0150	.0446	0.00
	.05	.090	2.02	-.360	-.035	-.0227	.0413	.05
	.10	.089	2.07	-.354	-.050	-.0277	.0311	.10
	.20	.074	2.22	-.334	-.113	-.0315	.0023	.20
	.30	.062	2.34	-.408	-.204	-.0335	-.0668	.30
	.40	.044	2.49	-.480	-.257	-.0201	-.1139	.40
70	-.40	.001	2.59	-.537	.222	-.0147	.1545	-.40
	-.30	.028	2.41	-.475	.139	.0077	.1113	-.30
	-.20	.050	2.22	-.455	.100	.0091	.0813	-.20
	-.10	.059	2.11	-.407	.070	.0005	.0545	-.10
	-.05	.064	2.09	-.389	.047	-.0062	.0381	-.05
	0.00	.075	2.01	-.384	-.013	-.0146	.0310	0.00
	0.00	.073	2.02	-.387	-.008	-.0144	.0285	0.00
	.05	.072	2.06	-.396	-.036	-.0210	.0257	.05
	.10	.071	2.07	-.408	-.059	-.0250	.0091	.10
	.20	.062	2.18	-.459	-.098	-.0327	-.0297	.20
	.30	.040	2.39	-.491	-.112	-.0328	-.0549	.30
	.40	.010	2.60	-.518	-.175	-.0190	-.1010	.40
80	-.40	.009	2.62	-.695	.092	-.0116	.1327	-.40
	-.30	.042	2.39	-.618	.078	.0038	.0944	-.30
	-.20	.062	2.21	-.558	.076	.0033	.0650	-.20
	-.10	.093	2.04	-.548	.018	-.0069	.0491	-.10
	-.05	.104	2.03	-.566	.012	-.0090	.0327	-.05
	0.00	.097	1.98	-.573	-.011	-.0094	.0149	0.00
	0.00	.096	1.99	-.580	-.009	-.0100	.0149	0.00
	.05	.095	2.06	-.544	.023	-.0131	-.0030	.05
	.10	.084	2.08	-.534	-.014	-.0151	-.0099	.10
	.20	.077	2.17	-.579	-.045	-.0207	-.0283	.20
	.30	.055	2.33	-.614	-.048	-.0188	-.0508	.30
	.40	.021	2.59	-.690	-.053	-.0054	-.0769	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=10$ $\delta a=25$ $\delta r=-30$ $\delta d=5$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	.050	2.57	-.726	.058	-.0161	.1299	-.40
	-.30	.070	2.31	-.645	.036	-.0037	.0936	-.30
	-.20	.102	2.15	-.602	.037	.0014	.0670	-.20
	-.10	.142	2.02	-.614	-.001	-.0070	.0488	-.10
	-.05	.152	2.01	-.623	-.004	-.0068	.0326	-.05
	0.00	.129	1.98	-.632	-.015	-.0058	.0166	0.00
	0.00	.131	1.97	-.652	-.021	-.0067	.0176	0.00
	.05	.151	1.99	-.612	.005	-.0092	-.0039	.05
	.10	.139	2.01	-.595	-.007	-.0092	-.0164	.10
	.20	.117	2.11	-.618	-.049	-.0134	-.0287	.20
	.30	.081	2.27	-.660	-.051	-.0096	-.0503	.30
	.40	.063	2.54	-.724	-.029	.0005	-.0772	.40
90	-.40	.035	2.53	-.724	.034	-.0236	.1267	-.40
	-.30	.047	2.26	-.664	.042	-.0077	.0945	-.30
	-.20	.071	2.10	-.632	.035	-.0063	.0667	-.20
	-.10	.106	2.03	-.667	-.008	-.0065	.0503	-.10
	-.05	.115	2.02	-.677	.000	-.0059	.0334	-.05
	0.00	.096	1.95	-.698	-.008	-.0054	.0147	0.00
	0.00	.099	1.98	-.705	.003	-.0062	.0133	0.00
	.05	.114	2.01	-.670	.027	-.0072	-.0031	.05
	.10	.105	2.04	-.651	.025	-.0067	-.0164	.10
	.20	.081	2.10	-.640	-.018	-.0068	-.0281	.20
	.30	.056	2.24	-.669	-.002	-.0021	-.0487	.30
	.40	.051	2.52	-.714	.014	.0064	-.0725	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=5 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.032	2.01	-.072	-.119	-.0089	.0856	-.40
	-.30	.036	1.92	-.050	-.156	-.0238	.0665	-.30
	-.20	.030	1.89	-.027	-.172	-.0352	.0449	-.20
	-.10	.037	1.85	-.045	-.184	-.0351	.0275	-.10
	-.05	.046	1.83	-.067	-.187	-.0310	.0198	-.05
	0.00	.061	1.74	-.099	-.205	-.0253	.0095	0.00
	0.00	.060	1.73	-.095	-.209	-.0259	.0112	0.00
	.05	.059	1.75	-.120	-.200	-.0234	-.0008	.05
	.10	.062	1.74	-.147	-.211	-.0221	-.0107	.10
	.20	.067	1.73	-.207	-.212	-.0233	-.0296	.20
	.30	.069	1.77	-.284	-.212	-.0296	-.0484	.30
	.40	.073	1.85	-.380	-.208	-.0415	-.0689	.40
40	-.40	.038	2.32	-.105	.038	-.0543	.1293	-.40
	-.30	.057	2.20	-.065	-.021	-.0484	.0846	-.30
	-.20	.057	2.11	-.032	-.078	-.0331	.0462	-.20
	-.10	.065	2.06	-.013	-.164	-.0342	.0206	-.10
	-.05	.070	2.03	-.022	-.177	-.0430	.0100	-.05
	0.00	.084	1.95	-.055	-.226	-.0445	-.0028	0.00
	0.00	.084	1.94	-.052	-.226	-.0453	-.0046	0.00
	.05	.080	1.97	-.077	-.230	-.0363	-.0181	.05
	.10	.072	1.99	-.098	-.325	-.0270	-.0339	.10
	.20	.062	2.01	-.180	-.426	-.0198	-.0574	.20
	.30	.055	2.06	-.281	-.504	-.0183	-.0809	.30
	.40	.048	2.14	-.416	-.560	-.0227	-.1075	.40
50	-.40	.034	2.38	-.189	.186	-.0447	.1779	-.40
	-.30	.050	2.24	-.089	.121	-.0331	.1346	-.30
	-.20	.063	2.15	-.034	.046	-.0308	.0948	-.20
	-.10	.078	2.12	-.012	-.067	-.0301	.0441	-.10
	-.05	.080	2.08	-.069	-.116	-.0354	.0102	-.05
	0.00	.078	2.05	-.051	-.204	-.0378	-.0067	0.00
	0.00	.079	2.04	-.044	-.193	-.0377	-.0086	0.00
	.05	.077	2.06	-.079	-.188	-.0399	-.0182	.05
	.10	.082	2.04	-.142	-.226	-.0408	-.0382	.10
	.20	.063	2.05	-.269	-.397	-.0479	-.1085	.20
	.30	.049	2.14	-.406	-.491	-.0543	-.1452	.30
	.40	.026	2.35	-.571	-.566	-.0534	-.1777	.40
55	-.40	.030	2.42	-.321	.139	-.0456	.1624	-.40
	-.30	.043	2.28	-.273	.087	-.0269	.1196	-.30
	-.20	.053	2.10	-.239	.029	-.0271	.0793	-.20
	-.10	.054	2.07	-.198	-.014	-.0363	.0455	-.10
	-.05	.061	2.03	-.199	-.052	-.0400	.0276	-.05
	0.00	.073	2.00	-.149	-.136	-.0367	.0143	0.00
	0.00	.077	1.99	-.165	-.132	-.0372	.0148	0.00
	.05	.069	2.05	-.117	-.180	-.0373	-.0146	.05
	.10	.077	1.99	-.275	-.198	-.0507	-.0326	.10
	.20	.069	2.04	-.365	-.337	-.0646	-.0981	.20
	.30	.060	2.16	-.507	-.393	-.0690	-.1265	.30
	.40	.032	2.41	-.636	-.463	-.0630	-.1533	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=5 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.028	2.47	-.316	.113	-.0478	.1428	-.40
	-.30	.041	2.29	-.296	.044	-.0263	.0957	-.30
	-.20	.058	2.16	-.300	.000	-.0229	.0649	-.20
	-.10	.071	2.06	-.276	-.026	-.0302	.0414	-.10
	-.05	.075	2.03	-.259	-.038	-.0350	.0306	-.05
	0.00	.076	2.01	-.251	-.102	-.0419	.0158	0.00
	0.00	.083	1.98	-.263	-.099	-.0414	.0186	0.00
	.05	.085	2.03	-.283	-.123	-.0461	.0017	.05
	.10	.077	2.06	-.212	-.190	-.0407	-.0146	.10
	.20	.081	2.06	-.472	-.296	-.0634	-.0931	.20
	.30	.065	2.23	-.541	-.346	-.0691	-.1099	.30
	.40	.034	2.50	-.651	-.404	-.0589	-.1468	.40
65	-.40	.030	2.47	-.336	.073	-.0494	.1359	-.40
	-.30	.035	2.34	-.341	.011	-.0232	.0939	-.30
	-.20	.049	2.19	-.339	-.020	-.0185	.0660	-.20
	-.10	.058	2.09	-.334	-.047	-.0253	.0321	-.10
	-.05	.066	2.08	-.325	-.062	-.0332	.0205	-.05
	0.00	.087	1.99	-.342	-.140	-.0382	.0135	0.00
	0.00	.087	1.96	-.338	-.143	-.0382	.0118	0.00
	.05	.080	2.01	-.350	-.143	-.0404	.0029	.05
	.10	.076	2.05	-.356	-.174	-.0460	-.0150	.10
	.20	.072	2.09	-.466	-.266	-.0576	-.0697	.20
	.30	.058	2.23	-.579	-.345	-.0672	-.1107	.30
	.40	.030	2.48	-.674	-.442	-.0533	-.1559	.40
70	-.40	.024	2.55	-.374	.046	-.0497	.1238	-.40
	-.30	.033	2.45	-.381	-.017	-.0205	.0774	-.30
	-.20	.056	2.24	-.385	-.045	-.0158	.0561	-.20
	-.10	.069	2.11	-.369	-.077	-.0246	.0292	-.10
	-.05	.081	2.04	-.371	-.104	-.0351	.0196	-.05
	0.00	.082	1.98	-.388	-.168	-.0386	.0049	0.00
	0.00	.083	1.98	-.388	-.155	-.0377	.0092	0.00
	.05	.080	2.05	-.388	-.151	-.0374	-.0044	.05
	.10	.080	2.04	-.421	-.188	-.0404	-.0262	.10
	.20	.071	2.14	-.523	-.244	-.0512	-.0610	.20
	.30	.050	2.36	-.603	-.251	-.0597	-.0858	.30
	.40	.014	2.61	-.653	-.419	-.0442	-.1410	.40
80	-.40	.038	2.53	-.533	-.014	-.0454	.1052	-.40
	-.30	.054	2.31	-.503	-.078	-.0314	.0690	-.30
	-.20	.100	2.18	-.543	-.104	-.0426	.0346	-.20
	-.10	.117	2.04	-.555	-.116	-.0370	.0112	-.10
	-.05	.119	2.01	-.549	-.120	-.0370	-.0028	-.05
	0.00	.106	1.95	-.578	-.165	-.0349	-.0119	0.00
	0.00	.104	1.96	-.580	-.163	-.0364	-.0127	0.00
	.05	.105	2.03	-.544	-.133	-.0346	-.0227	.05
	.10	.096	2.06	-.557	-.149	-.0331	-.0311	.10
	.20	.079	2.14	-.628	-.192	-.0371	-.0452	.20
	.30	.050	2.34	-.724	-.207	-.0380	-.0666	.30
	.40	.028	2.61	-.832	-.195	-.0327	-.0935	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=10 δa=25 δr=-30 δd=5 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	.041	2.48	-.590	-.045	-.0540	.1064	-.40
	-.30	.064	2.25	-.561	-.099	-.0421	.0694	-.30
	-.20	.106	2.14	-.588	-.121	-.0397	.0406	-.20
	-.10	.127	2.04	-.603	-.118	-.0350	.0146	-.10
	-.05	.130	2.03	-.611	-.115	-.0334	.0019	-.05
	0.00	.109	1.98	-.636	-.160	-.0336	-.0107	0.00
	0.00	.109	1.99	-.644	-.151	-.0362	-.0128	0.00
	.05	.120	2.04	-.616	-.118	-.0339	-.0237	.05
	.10	.107	2.05	-.607	-.134	-.0318	-.0335	.10
	.20	.083	2.10	-.663	-.172	-.0316	-.0458	.20
	.30	.047	2.32	-.756	-.198	-.0319	-.0637	.30
	.40	.031	2.60	-.855	-.151	-.0267	-.0895	.40
90	-.40	.024	2.43	-.613	-.098	-.0551	.1019	-.40
	-.30	.050	2.23	-.608	-.124	-.0427	.0708	-.30
	-.20	.080	2.15	-.648	-.126	-.0390	.0450	-.20
	-.10	.100	2.05	-.668	-.124	-.0338	.0195	-.10
	-.05	.106	2.04	-.682	-.119	-.0323	.0049	-.05
	0.00	.084	2.00	-.710	-.140	-.0303	-.0059	0.00
	0.00	.084	2.00	-.710	-.140	-.0305	-.0076	0.00
	.05	.101	2.07	-.691	-.103	-.0311	-.0235	.05
	.10	.089	2.07	-.685	-.119	-.0295	-.0337	.10
	.20	.061	2.11	-.712	-.153	-.0246	-.0465	.20
	.30	.038	2.29	-.787	-.174	-.0230	-.0606	.30
	.40	.021	2.59	-.873	-.129	-.0199	-.0889	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 $\delta d=-10$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
20	-.40	.084	1.41	-.059	-.185	.0704	.0637	-.40
	-.30	.080	1.37	-.017	-.149	.0527	.0442	-.30
	-.20	.071	1.42	.015	-.120	.0417	.0286	-.20
	-.10	.060	1.49	.026	-.087	.0326	.0166	-.10
	-.05	.057	1.50	.029	-.067	.0251	.0111	-.05
	0.00	.063	1.46	.024	-.053	.0150	.0053	0.00
	0.00	.064	1.43	.016	-.055	.0162	.0044	0.00
	.05	.060	1.47	.021	-.030	.0084	-.0002	.05
	.10	.058	1.43	.008	-.013	.0020	-.0065	.10
	.20	.058	1.35	-.051	.017	-.0063	-.0218	.20
	.30	.062	1.34	-.090	.058	-.0222	-.0356	.30
	.40	.061	1.36	-.124	.102	-.0402	-.0507	.40
25	-.40	.082	1.64	-.096	-.154	.0324	.0806	-.40
	-.30	.083	1.60	-.047	-.132	.0133	.0631	-.30
	-.20	.079	1.62	-.007	-.097	.0054	.0434	-.20
	-.10	.066	1.64	-.009	-.059	.0109	.0204	-.10
	-.05	.062	1.64	-.019	-.035	.0141	.0064	-.05
	0.00	.066	1.62	-.031	-.023	.0168	-.0070	0.00
	0.00	.065	1.62	-.029	-.025	.0167	-.0067	0.00
	.05	.058	1.64	-.036	.001	.0228	-.0188	.05
	.10	.057	1.65	-.047	.009	.0264	-.0281	.10
	.20	.060	1.62	-.080	.037	.0260	-.0439	.20
	.30	.063	1.59	-.126	.064	.0157	-.0629	.30
	.40	.061	1.61	-.164	.092	-.0040	-.0829	.40
30	-.40	.054	1.95	-.143	.007	.0063	.0968	-.40
	-.30	.053	1.88	-.104	.015	-.0042	.0715	-.30
	-.20	.046	1.83	-.063	.037	-.0024	.0372	-.20
	-.10	.040	1.83	-.031	.028	.0151	.0123	-.10
	-.05	.039	1.83	-.030	.016	.0151	.0022	-.05
	0.00	.050	1.77	-.032	-.011	.0124	-.0067	0.00
	0.00	.049	1.77	-.035	-.009	.0121	-.0072	0.00
	.05	.038	1.83	-.036	-.004	.0168	-.0147	.05
	.10	.036	1.85	-.044	-.010	.0184	-.0251	.10
	.20	.035	1.84	-.088	-.003	.0291	-.0521	.20
	.30	.036	1.86	-.137	.012	.0257	-.0790	.30
	.40	.035	1.93	-.187	.021	.0120	-.1042	.40
35	-.40	.048	2.09	-.150	.202	.0073	.0973	-.40
	-.30	.046	1.99	-.101	.173	.0055	.0673	-.30
	-.20	.043	1.93	-.067	.108	.0079	.0409	-.20
	-.10	.038	1.92	-.043	.047	.0175	.0132	-.10
	-.05	.036	1.92	-.044	.026	.0136	.0009	-.05
	0.00	.046	1.88	-.038	-.004	.0086	-.0102	0.00
	0.00	.045	1.87	-.041	-.004	.0074	-.0096	0.00
	.05	.036	1.91	-.040	-.023	.0091	-.0186	.05
	.10	.037	1.92	-.040	-.044	.0052	-.0301	.10
	.20	.041	1.94	-.071	-.086	.0100	-.0574	.20
	.30	.042	2.00	-.126	-.129	.0125	-.0877	.30
	.40	.039	2.08	-.190	-.132	.0062	-.1211	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta d=-10$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
40	-.40	.041	2.16	-.181	.356	.0099	.1137	-.40
	-.30	.042	2.06	-.113	.277	.0063	.0779	-.30
	-.20	.040	2.00	-.074	.176	.0060	.0408	-.20
	-.10	.041	1.96	-.043	.077	.0083	.0079	-.10
	-.05	.039	1.95	-.032	.053	.0057	-.0074	-.05
	0.00	.046	1.91	-.049	.011	.0032	-.0158	0.00
	0.00	.046	1.93	-.043	.004	.0045	-.0127	0.00
	.05	.038	1.95	-.045	-.058	.0056	-.0197	.05
	.10	.042	1.96	-.043	-.093	.0027	-.0281	.10
	.20	.044	1.98	-.086	-.134	.0021	-.0635	.20
	.30	.047	2.05	-.155	-.239	.0036	-.1020	.30
	.40	.045	2.16	-.235	-.299	.0011	-.1451	.40
45	-.40	.032	2.26	-.236	.457	.0162	.1522	-.40
	-.30	.037	2.14	-.145	.345	.0104	.1005	-.30
	-.20	.039	2.07	-.101	.217	.0072	.0540	-.20
	-.10	.038	2.03	-.074	.102	.0021	-.0003	-.10
	-.05	.039	2.01	-.064	.085	-.0010	-.0141	-.05
	0.00	.052	1.97	-.070	.026	-.0026	-.0257	0.00
	0.00	.050	2.00	-.074	.025	-.0040	-.0238	0.00
	.05	.043	2.05	-.059	-.018	-.0010	-.0238	.05
	.10	.046	2.04	-.074	-.067	.0011	-.0284	.10
	.20	.049	2.08	-.159	-.133	-.0050	-.0667	.20
	.30	.045	2.15	-.215	-.278	-.0082	-.1293	.30
	.40	.037	2.22	-.309	-.366	-.0140	-.1860	.40
50	-.40	.018	2.37	-.351	.478	.0235	.1804	-.40
	-.30	.027	2.24	-.219	.381	.0212	.1325	-.30
	-.20	.033	2.16	-.155	.257	.0160	.0848	-.20
	-.10	.038	2.13	-.120	.118	.0078	.0321	-.10
	-.05	.039	2.09	-.117	.073	.0042	.0051	-.05
	0.00	.048	1.99	-.156	.028	.0003	-.0233	0.00
	0.00	.048	2.00	-.165	.034	.0014	-.0245	0.00
	.05	.041	2.10	-.111	-.017	-.0043	-.0299	.05
	.10	.043	2.12	-.127	-.046	-.0011	-.0344	.10
	.20	.041	2.12	-.157	-.159	-.0141	-.0978	.20
	.30	.040	2.14	-.240	-.265	-.0206	-.1570	.30
	.40	.037	2.25	-.349	-.333	-.0200	-.2088	.40
55	-.40	.011	2.45	-.474	.317	.0322	.1349	-.40
	-.30	.014	2.24	-.395	.302	.0335	.1145	-.30
	-.20	.019	2.17	-.352	.246	.0280	.0824	-.20
	-.10	.018	2.12	-.296	.182	.0146	.0489	-.10
	-.05	.022	2.08	-.305	.140	.0097	.0267	-.05
	0.00	.027	2.04	-.265	.096	.0055	.0157	0.00
	0.00	.029	2.01	-.289	.088	.0074	.0157	0.00
	.05	.021	2.08	-.209	.015	.0003	-.0195	.05
	.10	.020	2.14	-.174	-.024	-.0044	-.0419	.10
	.20	.024	2.07	-.270	-.125	-.0125	-.1083	.20
	.30	.033	2.14	-.311	-.172	-.0116	-.1524	.30
	.40	.039	2.28	-.386	-.182	-.0125	-.1602	.40

F-18 ROTARY BALANCE DATA

F-18 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	.003	2.52	-.478	.292	.0235	.1280	-.40
	-.30	.016	2.32	-.440	.226	.0327	.0870	-.30
	-.20	.024	2.21	-.415	.186	.0272	.0648	-.20
	-.10	.027	2.13	-.386	.136	.0154	.0391	-.10
	-.05	.027	2.09	-.362	.132	.0094	.0414	-.05
	0.00	.033	2.04	-.351	.090	.0062	.0258	0.00
	0.00	.033	2.03	-.341	.086	.0044	.0278	0.00
	.05	.024	2.07	-.321	.069	.0018	.0128	.05
	.10	.027	2.10	-.312	.038	-.0008	-.0110	.10
	.20	.035	2.09	-.341	-.078	-.0107	-.1030	.20
	.30	.037	2.22	-.367	-.122	-.0146	-.1192	.30
	.40	.032	2.41	-.414	-.161	-.0130	-.1548	.40
65	-.40	.012	2.55	-.502	.262	.0245	.1293	-.40
	-.30	.024	2.36	-.488	.185	.0351	.0902	-.30
	-.20	.031	2.21	-.452	.149	.0264	.0632	-.20
	-.10	.035	2.13	-.424	.105	.0163	.0343	-.10
	-.05	.035	2.10	-.404	.087	.0107	.0200	-.05
	0.00	.047	2.09	-.381	.074	.0060	.0061	0.00
	0.00	.047	2.08	-.380	.065	.0062	.0076	0.00
	.05	.040	2.05	-.384	.030	.0033	-.0001	.05
	.10	.041	2.07	-.370	.018	.0016	-.0145	.10
	.20	.048	2.10	-.402	-.080	-.0054	-.0885	.20
	.30	.055	2.32	-.417	-.137	-.0199	-.1084	.30
	.40	.050	2.49	-.439	-.191	-.0054	-.1563	.40
70	-.40	-.011	2.67	-.575	.211	.0251	.1075	-.40
	-.30	.007	2.44	-.536	.156	.0307	.0704	-.30
	-.20	.016	2.28	-.495	.134	.0238	.0436	-.20
	-.10	.021	2.19	-.447	.121	.0142	.0164	-.10
	-.05	.023	2.16	-.425	.085	.0099	-.0014	-.05
	0.00	.028	2.07	-.442	.042	.0042	-.0167	0.00
	0.00	.023	2.12	-.413	.055	.0085	-.0183	0.00
	.05	.031	2.05	-.440	.001	.0056	-.0257	.05
	.10	.033	2.07	-.451	-.000	.0036	-.0404	.10
	.20	.041	2.24	-.443	-.050	-.0149	-.0656	.20
	.30	.031	2.41	-.475	-.074	-.0208	-.0963	.30
	.40	.017	2.64	-.490	-.102	-.0078	-.1340	.40
75	-.40	.025	2.68	-.690	.130	.0162	.0913	-.40
	-.30	.044	2.43	-.625	.092	.0257	.0570	-.30
	-.20	.052	2.27	-.568	.090	.0208	.0324	-.20
	-.10	.066	2.14	-.496	.059	.0124	.0071	-.10
	-.05	.074	2.07	-.517	.016	.0047	-.0020	-.05
	0.00	.064	2.05	-.526	.003	.0065	-.0155	0.00
	0.00	.064	2.03	-.530	.003	.0040	-.0141	0.00
	.05	.075	2.00	-.543	-.019	.0050	-.0261	.05
	.10	.073	2.03	-.546	-.026	.0069	-.0392	.10
	.20	.076	2.19	-.525	-.067	-.0107	-.0611	.20
	.30	.073	2.38	-.579	-.063	-.0142	-.0868	.30
	.40	.067	2.60	-.631	-.076	-.0037	-.1208	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta d=-10$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
80	-.40	-.002	2.63	-.721	.091	.0031	.0895	-.40
	-.30	.019	2.42	-.648	.078	.0143	.0567	-.30
	-.20	.033	2.24	-.605	.086	.0150	.0289	-.20
	-.10	.049	2.12	-.563	.038	.0072	.0148	-.10
	-.05	.056	2.06	-.584	.022	.0024	.0013	-.05
	0.00	.050	2.04	-.591	.005	.0055	-.0132	0.00
	0.00	.046	2.04	-.593	.018	.0014	-.0172	0.00
	.05	.060	2.05	-.588	.018	.0033	-.0299	.05
	.10	.058	2.05	-.589	.017	.0049	-.0458	.10
	.20	.058	2.18	-.581	-.016	-.0044	-.0637	.20
	.30	.047	2.40	-.625	-.031	-.0081	-.0850	.30
	.40	.034	2.62	-.680	-.034	.0061	-.1211	.40
85	-.40	.013	2.64	-.744	.052	-.0035	.0894	-.40
	-.30	.018	2.39	-.675	.048	.0042	.0569	-.30
	-.20	.049	2.21	-.632	.053	.0095	.0307	-.20
	-.10	.073	2.08	-.612	.017	.0036	.0178	-.10
	-.05	.081	2.05	-.630	.010	.0014	.0018	-.05
	0.00	.060	2.05	-.652	.003	.0018	-.0150	0.00
	0.00	.066	2.03	-.670	.009	.0015	-.0203	0.00
	.05	.090	2.02	-.646	.007	.0052	-.0316	.05
	.10	.085	2.04	-.638	.004	.0070	-.0477	.10
	.20	.074	2.16	-.627	-.015	.0014	-.0644	.20
	.30	.053	2.34	-.661	-.039	.0016	-.0848	.30
	.40	.049	2.60	-.709	-.006	.0158	-.1182	.40
90	-.40	-.008	2.58	-.759	.037	-.0170	.0855	-.40
	-.30	-.001	2.33	-.718	.030	-.0043	.0565	-.30
	-.20	.020	2.15	-.673	.031	.0027	.0333	-.20
	-.10	.048	2.09	-.669	.009	.0021	.0207	-.10
	-.05	.057	2.06	-.692	.009	.0013	.0051	-.05
	0.00	.039	1.98	-.701	-.007	.0039	-.0137	0.00
	0.00	.039	2.02	-.734	.013	.0025	-.0155	0.00
	.05	.065	2.01	-.703	.015	.0050	-.0305	.05
	.10	.062	2.02	-.687	.017	.0070	-.0471	.10
	.20	.048	2.09	-.665	-.006	.0086	-.0626	.20
	.30	.030	2.29	-.687	.008	.0103	-.0853	.30
	.40	.034	2.58	-.728	.039	.0230	-.1151	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δd=-10 BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
20	-.40	.049	1.47	.065	-.319	.0856	.0516	-.40
	-.30	.048	1.45	.047	-.261	.0647	.0394	-.30
	-.20	.044	1.45	.027	-.202	.0462	.0276	-.20
	-.10	.039	1.42	.004	-.145	.0281	.0147	-.10
	-.05	.038	1.40	-.015	-.124	.0200	.0067	-.05
	0.00	.048	1.33	-.040	-.122	.0130	-.0034	0.00
	0.00	.045	1.32	-.043	-.116	.0128	-.0039	0.00
	.05	.046	1.30	-.060	-.094	.0082	-.0137	.05
	.10	.047	1.28	-.086	-.079	.0015	-.0231	.10
	.20	.052	1.26	-.145	-.072	-.0122	-.0396	.20
	.30	.053	1.28	-.215	-.069	-.0276	-.0599	.30
	.40	.048	1.33	-.288	-.072	-.0437	-.0836	.40
25	-.40	.044	1.72	.111	-.256	.0625	.0561	-.40
	-.30	.051	1.66	.091	-.222	.0378	.0346	-.30
	-.20	.051	1.64	.060	-.160	.0316	.0105	-.20
	-.10	.052	1.62	.010	-.119	.0379	-.0102	-.10
	-.05	.054	1.59	-.028	-.110	.0387	-.0190	-.05
	0.00	.057	1.55	-.074	-.115	.0363	-.0285	0.00
	0.00	.054	1.52	-.068	-.112	.0348	-.0274	0.00
	.05	.051	1.52	-.107	-.106	.0316	-.0359	.05
	.10	.051	1.52	-.140	-.104	.0252	-.0439	.10
	.20	.053	1.50	-.205	-.096	.0132	-.0603	.20
	.30	.050	1.52	-.271	-.094	.0026	-.0826	.30
	.40	.045	1.61	-.344	-.091	-.0143	-.1089	.40
30	-.40	.053	1.86	.079	-.102	.0557	.0397	-.40
	-.30	.058	1.81	.045	-.137	.0442	.0206	-.30
	-.20	.058	1.72	.038	-.120	.0116	.0044	-.20
	-.10	.053	1.71	.003	-.120	.0073	-.0173	-.10
	-.05	.052	1.71	-.032	-.139	.0148	-.0291	-.05
	0.00	.059	1.69	-.079	-.155	.0216	-.0434	0.00
	0.00	.058	1.69	-.075	-.149	.0207	-.0433	0.00
	.05	.051	1.71	-.121	-.150	.0234	-.0551	.05
	.10	.049	1.75	-.165	-.152	.0255	-.0671	.10
	.20	.050	1.72	-.241	-.170	.0245	-.0886	.20
	.30	.049	1.73	-.317	-.193	.0227	-.1084	.30
	.40	.043	1.83	-.382	-.194	-.0004	-.1322	.40
35	-.40	.051	2.14	.003	-.017	.0248	.0519	-.40
	-.30	.051	2.01	.015	-.056	.0205	.0183	-.30
	-.20	.056	1.95	.005	-.069	.0040	-.0012	-.20
	-.10	.055	1.88	-.014	-.092	-.0103	-.0191	-.10
	-.05	.056	1.85	-.049	-.103	-.0109	-.0319	-.05
	0.00	.060	1.80	-.088	-.154	-.0074	-.0468	0.00
	0.00	.059	1.82	-.081	-.167	-.0053	-.0470	0.00
	.05	.057	1.84	-.116	-.187	-.0031	-.0593	.05
	.10	.055	1.84	-.154	-.229	.0009	-.0712	.10
	.20	.054	1.83	-.241	-.304	.0046	-.0948	.20
	.30	.054	1.90	-.331	-.359	.0060	-.1205	.30
	.40	.049	2.00	-.440	-.383	.0063	-.1479	.40

F-18 ROTARY BALANCE DATA

F-18 δd=-10 BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
40	-.40	.051	2.27	-.043	.078	.0005	.0832	-.40
	-.30	.056	2.19	-.043	.039	-.0060	.0330	-.30
	-.20	.059	2.08	-.040	-.015	-.0068	-.0061	-.20
	-.10	.061	2.00	-.051	-.092	-.0114	-.0228	-.10
	-.05	.062	1.96	-.077	-.105	-.0144	-.0326	-.05
	0.00	.067	1.90	-.103	-.159	-.0135	-.0467	0.00
	0.00	.066	1.90	-.108	-.162	-.0135	-.0468	0.00
	.05	.062	1.91	-.130	-.205	-.0145	-.0653	.05
	.10	.061	1.91	-.159	-.255	-.0129	-.0835	.10
	.20	.060	1.92	-.247	-.364	-.0117	-.1145	.20
	.30	.054	1.97	-.344	-.448	-.0124	-.1465	.30
	.40	.046	2.07	-.451	-.523	-.0129	-.1797	.40
45	-.40	.059	2.22	-.078	.179	.0008	.1095	-.40
	-.30	.063	2.15	-.046	.101	-.0068	.0551	-.30
	-.20	.065	2.09	-.061	.039	-.0123	.0053	-.20
	-.10	.064	2.00	-.074	-.046	-.0178	-.0281	-.10
	-.05	.068	1.98	-.095	-.075	-.0169	-.0364	-.05
	0.00	.067	1.93	-.131	-.118	-.0176	-.0456	0.00
	0.00	.067	1.96	-.128	-.119	-.0150	-.0468	0.00
	.05	.065	1.94	-.157	-.129	-.0222	-.0643	.05
	.10	.064	1.92	-.186	-.219	-.0238	-.0950	.10
	.20	.059	1.90	-.274	-.344	-.0289	-.1433	.20
	.30	.056	1.96	-.341	-.438	-.0256	-.1798	.30
	.40	.050	2.03	-.449	-.534	-.0198	-.2090	.40
50	-.40	.036	2.30	-.162	.165	.0077	.1341	-.40
	-.30	.047	2.19	-.120	.136	.0027	.0875	-.30
	-.20	.055	2.16	-.089	.079	-.0061	.0444	-.20
	-.10	.056	2.07	-.135	-.005	-.0193	-.0262	-.10
	-.05	.056	2.06	-.121	-.058	-.0200	-.0403	-.05
	0.00	.060	1.99	-.164	-.119	-.0187	-.0479	0.00
	0.00	.058	2.01	-.152	-.117	-.0198	-.0471	0.00
	.05	.055	1.99	-.182	-.133	-.0251	-.0829	.05
	.10	.052	1.99	-.217	-.229	-.0319	-.1281	.10
	.20	.055	1.98	-.292	-.323	-.0336	-.1668	.20
	.30	.053	2.03	-.370	-.442	-.0361	-.2011	.30
	.40	.043	2.14	-.515	-.538	-.0314	-.2293	.40
55	-.40	.035	2.40	-.301	.112	.0001	.1084	-.40
	-.30	.035	2.27	-.297	.123	.0077	.0836	-.30
	-.20	.040	2.21	-.320	.074	.0063	.0322	-.20
	-.10	.038	2.12	-.262	.027	-.0061	-.0006	-.10
	-.05	.041	2.13	-.188	-.035	-.0135	-.0162	-.05
	0.00	.042	2.08	-.199	-.110	-.0204	-.0531	0.00
	0.00	.042	2.07	-.196	-.110	-.0184	-.0535	0.00
	.05	.044	2.03	-.270	-.165	-.0247	-.1052	.05
	.10	.046	2.03	-.299	-.209	-.0273	-.1292	.10
	.20	.047	2.03	-.360	-.292	-.0328	-.1640	.20
	.30	.045	2.10	-.433	-.394	-.0391	-.1883	.30
	.40	.043	2.30	-.558	-.412	-.0414	-.1849	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta d=-10$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	.026	2.48	-.330	.091	-.0062	.1030	-.40
	-.30	.032	2.36	-.366	.061	.0063	.0565	-.30
	-.20	.037	2.26	-.377	.037	.0047	.0270	-.20
	-.10	.038	2.19	-.318	.034	-.0024	.0146	-.10
	-.05	.043	2.16	-.310	-.001	-.0080	-.0137	-.05
	0.00	.045	2.15	-.312	-.044	-.0131	-.0346	0.00
	0.00	.042	2.13	-.308	-.046	-.0141	-.0345	0.00
	.05	.048	2.09	-.344	-.142	-.0212	-.1034	.05
	.10	.052	2.03	-.384	-.190	-.0251	-.1180	.10
	.20	.056	2.08	-.444	-.239	-.0342	-.1353	.20
	.30	.049	2.22	-.504	-.310	-.0431	-.1562	.30
	.40	.037	2.44	-.585	-.361	-.0366	-.1829	.40
65	-.40	.024	2.54	-.362	.069	-.0122	.0971	-.40
	-.30	.026	2.44	-.413	.043	.0068	.0608	-.30
	-.20	.034	2.30	-.416	.020	.0044	.0305	-.20
	-.10	.035	2.21	-.385	-.013	-.0041	-.0006	-.10
	-.05	.037	2.19	-.359	-.025	-.0087	-.0143	-.05
	0.00	.045	2.14	-.336	-.059	-.0125	-.0284	0.00
	0.00	.045	2.14	-.350	-.057	-.0129	-.0281	0.00
	.05	.041	2.08	-.364	-.086	-.0201	-.0378	.05
	.10	.043	2.06	-.426	-.152	-.0237	-.0757	.10
	.20	.048	2.14	-.488	-.221	-.0306	-.1282	.20
	.30	.042	2.32	-.546	-.314	-.0405	-.1608	.30
	.40	.030	2.53	-.618	-.388	-.0333	-.1958	.40
70	-.40	.009	2.65	-.417	.038	-.0139	.0799	-.40
	-.30	.018	2.53	-.455	-.003	.0027	.0431	-.30
	-.20	.027	2.35	-.452	-.027	.0016	.0201	-.20
	-.10	.033	2.26	-.421	-.037	-.0061	-.0059	-.10
	-.05	.036	2.21	-.402	-.037	-.0095	-.0151	-.05
	0.00	.032	2.13	-.398	-.083	-.0176	-.0309	0.00
	0.00	.030	2.18	-.393	-.081	-.0112	-.0338	0.00
	.05	.044	2.09	-.446	-.108	-.0219	-.0473	.05
	.10	.044	2.08	-.471	-.142	-.0194	-.0682	.10
	.20	.046	2.23	-.521	-.177	-.0291	-.1029	.20
	.30	.036	2.43	-.600	-.204	-.0421	-.1253	.30
	.40	.019	2.69	-.645	-.257	-.0327	-.1623	.40
75	-.40	.021	2.65	-.528	-.017	-.0156	.0648	-.40
	-.30	.029	2.49	-.541	-.035	-.0054	.0324	-.30
	-.20	.033	2.33	-.507	-.052	-.0047	.0093	-.20
	-.10	.039	2.22	-.469	-.068	-.0100	-.0187	-.10
	-.05	.048	2.10	-.508	-.093	-.0253	-.0318	-.05
	0.00	.032	2.12	-.528	-.112	-.0297	-.0424	0.00
	0.00	.030	2.10	-.543	-.112	-.0301	-.0432	0.00
	.05	.038	2.13	-.537	-.113	-.0245	-.0543	.05
	.10	.033	2.14	-.542	-.126	-.0207	-.0665	.10
	.20	.033	2.26	-.586	-.149	-.0254	-.0917	.20
	.30	.035	2.46	-.690	-.162	-.0348	-.1139	.30
	.40	.041	2.73	-.775	-.158	-.0303	-.1427	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta d=-10$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
80	-.40	.009	2.61	-.568	-.056	-.0267	.0695	-.40
	-.30	.025	2.44	-.569	-.079	-.0163	.0365	-.30
	-.20	.042	2.30	-.559	-.074	-.0125	.0119	-.20
	-.10	.061	2.12	-.569	-.091	-.0272	-.0177	-.10
	-.05	.069	2.10	-.589	-.099	-.0278	-.0312	-.05
	0.00	.048	2.09	-.613	-.124	-.0272	-.0389	0.00
	0.00	.050	2.09	-.624	-.121	-.0273	-.0398	0.00
	.05	.060	2.13	-.613	-.100	-.0226	-.0511	.05
	.10	.052	2.15	-.615	-.110	-.0197	-.0636	.10
	.20	.044	2.27	-.651	-.132	-.0193	-.0867	.20
	.30	.034	2.46	-.741	-.143	-.0268	-.1060	.30
	.40	.027	2.75	-.831	-.134	-.0199	-.1364	.40
85	-.40	.019	2.57	-.604	-.067	-.0365	.0690	-.40
	-.30	.024	2.39	-.602	-.097	-.0265	.0402	-.30
	-.20	.050	2.26	-.603	-.089	-.0258	.0126	-.20
	-.10	.072	2.16	-.632	-.090	-.0307	-.0156	-.10
	-.05	.080	2.13	-.643	-.092	-.0268	-.0266	-.05
	0.00	.055	2.11	-.671	-.125	-.0255	-.0381	0.00
	0.00	.055	2.10	-.672	-.123	-.0266	-.0394	0.00
	.05	.074	2.15	-.662	-.095	-.0225	-.0511	.05
	.10	.069	2.19	-.685	-.093	-.0213	-.0648	.10
	.20	.048	2.28	-.696	-.120	-.0154	-.0849	.20
	.30	.029	2.46	-.778	-.128	-.0191	-.1012	.30
	.40	.034	2.75	-.863	-.099	-.0124	-.1330	.40
90	-.40	.002	2.55	-.642	-.104	-.0442	.0671	-.40
	-.30	.010	2.36	-.630	-.107	-.0343	.0407	-.30
	-.20	.033	2.22	-.672	-.102	-.0399	.0120	-.20
	-.10	.049	2.14	-.686	-.102	-.0317	-.0111	-.10
	-.05	.057	2.12	-.702	-.104	-.0269	-.0229	-.05
	0.00	.033	2.11	-.734	-.125	-.0235	-.0306	0.00
	0.00	.033	2.12	-.728	-.116	-.0237	-.0351	0.00
	.05	.056	2.15	-.728	-.091	-.0222	-.0490	.05
	.10	.050	2.17	-.735	-.097	-.0197	-.0616	.10
	.20	.031	2.23	-.746	-.104	-.0103	-.0831	.20
	.30	.019	2.43	-.792	-.113	-.0117	-.0974	.30
	.40	.020	2.70	-.878	-.078	-.0023	-.1281	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.001	1.98	-.163	.073	.0181	.0744	-.40
	-.30	-.008	1.94	-.117	.073	.0096	.0463	-.30
	-.20	-.020	1.95	-.073	.061	.0105	.0223	-.20
	-.10	-.025	1.96	-.054	.051	.0118	.0054	-.10
	-.05	-.026	1.95	-.051	.037	.0106	-.0007	-.05
	0.00	-.018	1.90	-.054	.021	.0098	-.0069	0.00
	0.00	-.016	1.89	-.054	.017	.0111	-.0076	0.00
	.05	-.029	1.98	-.053	.036	.0082	-.0127	.05
	.10	-.029	1.97	-.059	.032	.0067	-.0200	.10
	.20	-.027	1.96	-.081	.035	.0110	-.0351	.20
	.30	-.028	1.95	-.122	.049	.0110	-.0582	.30
	.40	-.029	2.00	-.176	.075	.0038	-.0888	.40
40	-.40	-.042	2.33	-.231	.409	-.0153	.1118	-.40
	-.30	-.024	2.22	-.137	.339	-.0151	.0764	-.30
	-.20	-.010	2.15	-.075	.243	-.0063	.0512	-.20
	-.10	.003	2.07	-.051	.112	.0173	.0119	-.10
	-.05	.001	2.07	-.042	.075	.0207	-.0045	-.05
	0.00	.011	2.04	-.049	.003	.0183	-.0122	0.00
	0.00	.012	2.03	-.051	-.008	.0201	-.0109	0.00
	.05	-.003	2.11	-.043	-.046	.0196	-.0201	.05
	.10	-.008	2.14	-.036	-.054	.0144	-.0324	.10
	.20	-.013	2.16	-.070	-.086	.0158	-.0656	.20
	.30	-.026	2.24	-.159	-.195	.0256	-.1032	.30
	.40	-.043	2.34	-.260	-.228	.0265	-.1444	.40
50	-.40	-.071	2.52	-.391	.560	.0015	.1801	-.40
	-.30	-.046	2.40	-.252	.446	-.0007	.1262	-.30
	-.20	-.026	2.32	-.150	.332	.0030	.0862	-.20
	-.10	-.006	2.25	-.102	.196	.0073	.0492	-.10
	-.05	.004	2.23	-.091	.135	.0077	.0318	-.05
	0.00	.013	2.19	-.084	.065	.0062	.0066	0.00
	0.00	.019	2.19	-.098	.064	.0073	.0093	0.00
	.05	.011	2.22	-.118	.025	.0013	-.0265	.05
	.10	.005	2.29	-.095	.019	.0000	-.0352	.10
	.20	.005	2.31	-.148	-.072	-.0069	-.0624	.20
	.30	-.031	2.36	-.250	-.242	.0038	-.1462	.30
	.40	-.049	2.46	-.392	-.309	.0088	-.1974	.40
55	-.40	-.080	2.66	-.539	.395	.0162	.1334	-.40
	-.30	-.052	2.47	-.427	.383	.0208	.1251	-.30
	-.20	-.031	2.35	-.346	.310	.0208	.0827	-.20
	-.10	-.004	2.25	-.328	.226	.0164	.0508	-.10
	-.05	-.007	2.20	-.346	.169	.0170	.0323	-.05
	0.00	-.002	2.14	-.312	.117	.0136	.0233	0.00
	0.00	.001	2.14	-.320	.103	.0155	.0252	0.00
	.05	-.016	2.20	-.275	.090	.0124	.0088	.05
	.10	-.007	2.30	-.160	.015	.0032	-.0197	.10
	.20	-.023	2.35	-.230	-.039	.0030	-.0635	.20
	.30	-.035	2.40	-.298	-.162	.0068	-.1413	.30
	.40	-.052	2.52	-.434	-.194	.0110	-.1775	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.083	2.71	-.526	.366	.0074	.1253	-.40
	-.30	-.048	2.51	-.454	.302	.0234	.0892	-.30
	-.20	-.016	2.37	-.441	.243	.0263	.0681	-.20
	-.10	.002	2.25	-.416	.178	.0180	.0438	-.10
	-.05	.006	2.21	-.393	.152	.0131	.0335	-.05
	0.00	.010	2.15	-.371	.102	.0091	.0256	0.00
	0.00	.011	2.16	-.362	.115	.0088	.0281	0.00
	.05	-.000	2.22	-.349	.095	.0061	.0105	.05
	.10	-.006	2.24	-.327	.068	.0043	-.0055	.10
	.20	-.020	2.39	-.238	-.020	-.0011	-.0594	.20
	.30	-.028	2.41	-.392	-.123	-.0017	-.1353	.30
	.40	-.051	2.61	-.468	-.157	.0046	-.1669	.40
65	-.40	-.074	2.75	-.556	.332	.0126	.1314	-.40
	-.30	-.035	2.53	-.515	.237	.0297	.0848	-.30
	-.20	-.008	2.37	-.489	.186	.0267	.0590	-.20
	-.10	.008	2.27	-.452	.144	.0175	.0290	-.10
	-.05	.011	2.24	-.433	.115	.0120	.0144	-.05
	0.00	.024	2.20	-.410	.098	.0077	.0005	0.00
	0.00	.023	2.21	-.407	.089	.0083	.0010	0.00
	.05	.012	2.20	-.405	.055	.0048	-.0051	.05
	.10	.010	2.22	-.397	.037	.0036	-.0168	.10
	.20	-.001	2.31	-.367	-.002	.0056	-.0488	.20
	.30	-.008	2.47	-.426	-.128	-.0073	-.1219	.30
	.40	-.030	2.64	-.462	-.164	.0198	-.1556	.40
70	-.40	-.100	2.83	-.621	.275	.0126	.1021	-.40
	-.30	-.054	2.58	-.567	.209	.0287	.0663	-.30
	-.20	-.024	2.41	-.523	.182	.0263	.0400	-.20
	-.10	-.009	2.31	-.471	.146	.0165	.0126	-.10
	-.05	-.009	2.28	-.454	.124	.0114	-.0050	-.05
	0.00	-.004	2.21	-.440	.077	.0085	-.0240	0.00
	0.00	-.005	2.21	-.440	.080	.0068	-.0233	0.00
	.05	-.003	2.22	-.448	.045	.0071	-.0265	.05
	.10	-.003	2.20	-.474	.011	.0056	-.0415	.10
	.20	-.006	2.41	-.462	-.016	-.0164	-.0660	.20
	.30	-.034	2.59	-.497	-.044	-.0158	-.1009	.30
	.40	-.071	2.78	-.518	-.083	.0119	-.1397	.40
80	-.40	-.091	2.89	-.801	.171	.0019	.0870	-.40
	-.30	-.042	2.65	-.703	.144	.0161	.0552	-.30
	-.20	-.007	2.45	-.644	.137	.0199	.0280	-.20
	-.10	.018	2.30	-.602	.082	.0043	.0121	-.10
	-.05	.029	2.26	-.625	.072	.0013	-.0035	-.05
	0.00	.024	2.23	-.639	.046	.0021	-.0197	0.00
	0.00	.025	2.21	-.632	.049	.0045	-.0190	0.00
	.05	.033	2.27	-.636	.058	.0032	-.0329	.05
	.10	.028	2.27	-.633	.063	.0018	-.0526	.10
	.20	.016	2.41	-.626	.025	-.0091	-.0699	.20
	.30	-.014	2.61	-.676	-.003	-.0122	-.0950	.30
	.40	-.056	2.88	-.762	-.005	.0044	-.1301	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta d=-10$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	-.069	2.86	-.821	.112	-.0075	.0848	-.40
	-.30	-.031	2.59	-.742	.098	.0080	.0577	-.30
	-.20	.012	2.42	-.684	.103	.0125	.0311	-.20
	-.10	.050	2.28	-.673	.049	.0043	.0169	-.10
	-.05	.062	2.27	-.687	.046	.0022	.0002	-.05
	0.00	.043	2.24	-.708	.042	.0026	-.0173	0.00
	0.00	.041	2.24	-.687	.040	-.0003	-.0201	0.00
	.05	.068	2.24	-.695	.044	.0038	-.0343	.05
	.10	.061	2.26	-.691	.050	.0032	-.0544	.10
	.20	.039	2.36	-.682	.028	-.0027	-.0725	.20
	.30	-.001	2.57	-.724	-.006	-.0043	-.0936	.30
	.40	-.029	2.84	-.795	.015	.0125	-.1262	.40
90	-.40	-.084	2.80	-.834	.100	-.0135	.0847	-.40
	-.30	-.052	2.55	-.768	.088	-.0017	.0568	-.30
	-.20	-.016	2.38	-.718	.077	.0058	.0349	-.20
	-.10	.020	2.29	-.722	.040	.0011	.0193	-.10
	-.05	.033	2.27	-.745	.043	.0013	.0046	-.05
	0.00	.016	2.23	-.774	.026	.0037	-.0147	0.00
	0.00	.018	2.20	-.768	.035	.0034	-.0147	0.00
	.05	.037	2.26	-.748	.056	.0015	-.0320	.05
	.10	.032	2.28	-.745	.072	.0025	-.0514	.10
	.20	.006	2.36	-.717	.056	.0008	-.0696	.20
	.30	-.026	2.56	-.745	.048	.0009	-.0919	.30
	.40	-.042	2.82	-.802	.057	.0198	-.1210	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.008	1.91	.051	-.112	.0437	.0559	-.40
	-.30	-.006	1.88	.031	-.133	.0272	.0321	-.30
	-.20	-.016	1.84	.016	-.126	.0092	.0078	-.20
	-.10	-.022	1.83	-.008	-.122	-.0013	-.0139	-.10
	-.05	-.019	1.82	-.030	-.118	.0007	-.0219	-.05
	0.00	-.008	1.75	-.064	-.140	.0073	-.0292	0.00
	0.00	-.009	1.75	-.069	-.140	.0075	-.0298	0.00
	.05	-.014	1.76	-.095	-.146	.0127	-.0389	.05
	.10	-.012	1.76	-.135	-.152	.0164	-.0487	.10
	.20	-.009	1.73	-.220	-.171	.0185	-.0685	.20
	.30	-.014	1.75	-.294	-.188	.0125	-.0879	.30
	.40	-.024	1.83	-.380	-.184	-.0005	-.1091	.40
40	-.40	-.034	2.35	-.074	.080	-.0190	.0876	-.40
	-.30	-.016	2.26	-.062	.045	-.0242	.0430	-.30
	-.20	-.006	2.16	-.060	-.002	-.0199	.0035	-.20
	-.10	.004	2.09	-.049	-.080	-.0130	-.0232	-.10
	-.05	.006	2.06	-.056	-.108	-.0180	-.0341	-.05
	0.00	.022	1.98	-.093	-.149	-.0193	-.0457	0.00
	0.00	.019	1.98	-.091	-.153	-.0181	-.0464	0.00
	.05	.014	2.01	-.117	-.177	-.0094	-.0636	.05
	.10	.008	2.03	-.150	-.249	-.0002	-.0835	.10
	.20	-.006	2.07	-.239	-.382	.0090	-.1113	.20
	.30	-.022	2.11	-.347	-.448	.0130	-.1370	.30
	.40	-.039	2.17	-.464	-.503	.0105	-.1652	.40
50	-.40	-.049	2.44	-.195	.235	-.0190	.1360	-.40
	-.30	-.022	2.33	-.130	.186	-.0158	.0918	-.30
	-.20	.001	2.23	-.089	.113	-.0132	.0526	-.20
	-.10	.016	2.19	-.065	.027	-.0135	.0018	-.10
	-.05	.018	2.15	-.115	-.021	-.0194	-.0352	-.05
	0.00	.015	2.12	-.087	-.117	-.0204	-.0523	0.00
	0.00	.015	2.13	-.096	-.114	-.0206	-.0532	0.00
	.05	.020	2.12	-.140	-.114	-.0211	-.0601	.05
	.10	.016	2.07	-.178	-.175	-.0256	-.0877	.10
	.20	.002	2.08	-.263	-.318	-.0250	-.1577	.20
	.30	-.007	2.14	-.392	-.405	-.0340	-.1915	.30
	.40	-.042	2.29	-.550	-.505	-.0263	-.2274	.40
55	-.40	-.060	2.51	-.359	.213	-.0227	.1258	-.40
	-.30	-.038	2.38	-.338	.164	-.0107	.0793	-.30
	-.20	-.019	2.29	-.349	.107	-.0065	.0317	-.20
	-.10	-.006	2.23	-.273	.065	-.0091	-.0025	-.10
	-.05	.000	2.19	-.266	.024	-.0100	-.0192	-.05
	0.00	.009	2.11	-.208	-.069	-.0140	-.0280	0.00
	0.00	.008	2.09	-.253	-.055	-.0126	-.0339	0.00
	.05	.007	2.14	-.180	-.090	-.0203	-.0601	.05
	.10	.004	2.12	-.299	-.121	-.0210	-.0798	.10
	.20	.001	2.12	-.343	-.268	-.0321	-.1561	.20
	.30	-.013	2.23	-.480	-.353	-.0421	-.1828	.30
	.40	-.040	2.43	-.611	-.427	-.0390	-.1999	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta d=-10$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.066	2.61	-.370	.172	-.0293	.1030	-.40
	-.30	-.041	2.45	-.394	.102	-.0117	.0502	-.30
	-.20	-.013	2.32	-.391	.086	-.0008	.0327	-.20
	-.10	-.002	2.23	-.330	.054	-.0013	.0126	-.10
	-.05	.005	2.20	-.317	.023	-.0060	-.0089	-.05
	0.00	.008	2.16	-.300	-.040	-.0111	-.0326	0.00
	0.00	.009	2.14	-.297	-.034	-.0111	-.0311	0.00
	.05	.012	2.19	-.298	-.047	-.0162	-.0491	.05
	.10	.011	2.18	-.272	-.099	-.0194	-.0620	.10
	.20	.015	2.18	-.441	-.245	-.0372	-.1459	.20
	.30	-.007	2.30	-.515	-.302	-.0413	-.1633	.30
	.40	-.040	2.56	-.646	-.371	-.0381	-.1974	.40
65	-.40	-.067	2.68	-.410	.124	-.0312	.0903	-.40
	-.30	-.048	2.53	-.436	.078	-.0082	.0520	-.30
	-.20	-.019	2.37	-.431	.048	.0015	.0253	-.20
	-.10	-.003	2.26	-.403	.010	-.0023	-.0061	-.10
	-.05	.000	2.22	-.384	-.010	-.0066	-.0203	-.05
	0.00	.013	2.16	-.377	-.053	-.0120	-.0374	0.00
	0.00	.014	2.16	-.372	-.057	-.0132	-.0355	0.00
	.05	.006	2.18	-.361	-.061	-.0193	-.0435	.05
	.10	.007	2.16	-.379	-.101	-.0237	-.0592	.10
	.20	.003	2.21	-.479	-.225	-.0307	-.1291	.20
	.30	-.020	2.39	-.558	-.311	-.0420	-.1630	.30
	.40	-.054	2.62	-.654	-.397	-.0288	-.2050	.40
70	-.40	-.076	2.74	-.479	.087	-.0336	.0706	-.40
	-.30	-.047	2.60	-.474	.033	-.0048	.0368	-.30
	-.20	-.018	2.41	-.467	.023	.0017	.0174	-.20
	-.10	.001	2.29	-.438	-.008	-.0052	-.0056	-.10
	-.05	.007	2.26	-.414	-.021	-.0099	-.0194	-.05
	0.00	.003	2.22	-.404	-.074	-.0149	-.0332	0.00
	0.00	.005	2.18	-.422	-.078	-.0177	-.0402	0.00
	.05	.016	2.16	-.469	-.099	-.0253	-.0574	.05
	.10	.014	2.18	-.488	-.126	-.0243	-.0770	.10
	.20	.006	2.31	-.544	-.169	-.0303	-.1098	.20
	.30	-.023	2.50	-.611	-.218	-.0410	-.1333	.30
	.40	-.069	2.75	-.656	-.358	-.0240	-.1886	.40
80	-.40	-.067	2.73	-.631	.018	-.0305	.0625	-.40
	-.30	-.033	2.51	-.597	-.042	-.0168	.0329	-.30
	-.20	-.001	2.38	-.572	-.050	-.0102	.0061	-.20
	-.10	.031	2.20	-.577	-.070	-.0246	-.0233	-.10
	-.05	.045	2.19	-.616	-.078	-.0282	-.0392	-.05
	0.00	.026	2.14	-.644	-.116	-.0281	-.0479	0.00
	0.00	.029	2.15	-.641	-.112	-.0278	-.0494	0.00
	.05	.036	2.21	-.639	-.087	-.0248	-.0589	.05
	.10	.029	2.23	-.649	-.091	-.0244	-.0723	.10
	.20	.010	2.33	-.678	-.121	-.0219	-.0916	.20
	.30	-.018	2.52	-.783	-.142	-.0299	-.1130	.30
	.40	-.049	2.85	-.892	-.133	-.0215	-.1439	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.073	2.70	-.675	-.009	-.0401	.0642	-.40
	-.30	-.031	2.50	-.636	-.061	-.0249	.0354	-.30
	-.20	.012	2.35	-.654	-.063	-.0358	.0012	-.20
	-.10	.041	2.25	-.668	-.072	-.0295	-.0227	-.10
	-.05	.053	2.22	-.672	-.080	-.0259	-.0333	-.05
	0.00	.029	2.18	-.715	-.098	-.0278	-.0487	0.00
	0.00	.031	2.15	-.707	-.113	-.0269	-.0442	0.00
	.05	.045	2.23	-.699	-.081	-.0245	-.0570	.05
	.10	.037	2.26	-.709	-.081	-.0234	-.0709	.10
	.20	.011	2.34	-.732	-.107	-.0193	-.0909	.20
	.30	-.022	2.53	-.817	-.132	-.0246	-.1069	.30
	.40	-.046	2.82	-.923	-.093	-.0144	-.1391	.40
90	-.40	-.077	2.64	-.696	-.053	-.0431	.0632	-.40
	-.30	-.039	2.44	-.680	-.077	-.0432	.0312	-.30
	-.20	-.005	2.31	-.703	-.081	-.0376	.0073	-.20
	-.10	.021	2.25	-.729	-.080	-.0307	-.0176	-.10
	-.05	.032	2.22	-.744	-.081	-.0266	-.0282	-.05
	0.00	.014	2.19	-.772	-.114	-.0265	-.0390	0.00
	0.00	.017	2.17	-.776	-.106	-.0245	-.0384	0.00
	.05	.032	2.24	-.764	-.077	-.0245	-.0529	.05
	.10	.025	2.27	-.768	-.076	-.0232	-.0684	.10
	.20	-.004	2.33	-.783	-.095	-.0146	-.0891	.20
	.30	-.030	2.51	-.848	-.114	-.0185	-.1029	.30
	.40	-.051	2.79	-.942	-.070	-.0115	-.1362	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.017	2.26	-.203	.136	.0182	.0558	-.40
	-.30	-.020	2.20	-.150	.125	.0118	.0259	-.30
	-.20	-.027	2.19	-.106	.108	.0139	.0007	-.20
	-.10	-.033	2.21	-.079	.105	.0181	-.0146	-.10
	-.05	-.035	2.19	-.072	.094	.0143	-.0244	-.05
	0.00	-.023	2.12	-.070	.068	.0120	-.0320	0.00
	0.00	-.024	2.13	-.078	.065	.0123	-.0324	0.00
	.05	-.036	2.20	-.070	.081	.0133	-.0362	.05
	.10	-.037	2.22	-.071	.078	.0110	-.0424	.10
	.20	-.035	2.19	-.086	.081	.0163	-.0565	.20
	.30	-.035	2.19	-.119	.098	.0161	-.0791	.30
	.40	-.033	2.21	-.155	.121	.0102	-.1065	.40
40	-.40	-.058	2.61	-.253	.477	-.0169	.0955	-.40
	-.30	-.037	2.50	-.158	.400	-.0164	.0634	-.30
	-.20	-.022	2.41	-.093	.293	-.0080	.0369	-.20
	-.10	-.010	2.34	-.070	.124	.0151	.0021	-.10
	-.05	-.010	2.34	-.052	.100	.0223	-.0167	-.05
	0.00	.004	2.26	-.069	.042	.0207	-.0301	0.00
	0.00	.003	2.26	-.055	.033	.0204	-.0271	0.00
	.05	-.012	2.32	-.051	.000	.0232	-.0355	.05
	.10	-.014	2.36	-.049	-.043	.0206	-.0484	.10
	.20	-.018	2.35	-.064	-.065	.0142	-.0781	.20
	.30	-.029	2.44	-.142	-.167	.0311	-.1215	.30
	.40	-.046	2.56	-.230	-.196	.0323	-.1633	.40
50	-.40	-.084	2.72	-.401	.593	.0010	.1824	-.40
	-.30	-.056	2.58	-.269	.446	-.0017	.1293	-.30
	-.20	-.036	2.47	-.171	.327	.0014	.0889	-.20
	-.10	-.009	2.44	-.128	.183	.0074	.0481	-.10
	-.05	-.000	2.40	-.112	.139	.0081	.0299	-.05
	0.00	.012	2.34	-.119	.042	.0079	-.0015	0.00
	0.00	.011	2.32	-.118	.042	.0082	.0018	0.00
	.05	.005	2.35	-.128	.009	.0024	-.0313	.05
	.10	-.000	2.42	-.108	.004	.0012	-.0410	.10
	.20	-.005	2.44	-.142	-.069	-.0067	-.0684	.20
	.30	-.043	2.54	-.223	-.241	.0034	-.1545	.30
	.40	-.065	2.65	-.345	-.334	.0114	-.2125	.40
55	-.40	-.091	2.78	-.537	.407	.0206	.1342	-.40
	-.30	-.054	2.52	-.445	.366	.0218	.1148	-.30
	-.20	-.033	2.41	-.362	.293	.0198	.0831	-.20
	-.10	-.008	2.33	-.350	.197	.0155	.0513	-.10
	-.05	-.011	2.28	-.359	.143	.0148	.0335	-.05
	0.00	-.006	2.23	-.333	.104	.0142	.0221	0.00
	0.00	-.008	2.20	-.330	.089	.0127	.0231	0.00
	.05	-.019	2.27	-.290	.071	.0123	.0072	.05
	.10	-.011	2.37	-.163	-.007	.0014	-.0265	.10
	.20	-.030	2.43	-.239	-.053	.0051	-.0668	.20
	.30	-.044	2.48	-.278	-.194	.0090	-.1584	.30
	.40	-.060	2.58	-.412	-.187	.0118	-.1857	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=30$ $\delta d=-10$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.088	2.76	-.519	.375	.0121	.1222	-.40
	-.30	-.045	2.54	-.457	.282	.0275	.0851	-.30
	-.20	-.018	2.38	-.441	.216	.0275	.0611	-.20
	-.10	-.002	2.26	-.418	.149	.0162	.0409	-.10
	-.05	-.000	2.23	-.392	.122	.0099	.0268	-.05
	0.00	.004	2.16	-.365	.073	.0074	.0101	0.00
	0.00	.002	2.13	-.364	.077	.0076	.0112	0.00
	.05	-.006	2.19	-.344	.075	.0062	.0055	.05
	.10	-.014	2.23	-.317	.050	.0053	-.0096	.10
	.20	-.025	2.40	-.226	-.044	.0013	-.0629	.20
	.30	-.033	2.44	-.377	-.131	-.0043	-.1345	.30
	.40	-.056	2.60	-.437	-.150	.0078	-.1691	.40
65	-.40	-.068	2.72	-.535	.351	.0176	.1285	-.40
	-.30	-.029	2.50	-.491	.232	.0318	.0824	-.30
	-.20	-.003	2.33	-.465	.171	.0289	.0549	-.20
	-.10	.010	2.23	-.432	.117	.0170	.0297	-.10
	-.05	.013	2.20	-.415	.091	.0113	.0163	-.05
	0.00	.028	2.16	-.390	.071	.0085	.0018	0.00
	0.00	.021	2.18	-.401	.065	.0082	.0032	0.00
	.05	.016	2.18	-.384	.047	.0077	-.0067	.05
	.10	.013	2.20	-.372	.025	.0067	-.0193	.10
	.20	.002	2.30	-.332	-.020	.0071	-.0541	.20
	.30	-.012	2.50	-.420	-.144	-.0130	-.1238	.30
	.40	-.033	2.65	-.437	-.180	.0203	-.1642	.40
70	-.40	-.092	2.80	-.576	.286	.0180	.1022	-.40
	-.30	-.049	2.54	-.532	.208	.0300	.0638	-.30
	-.20	-.018	2.38	-.487	.161	.0277	.0400	-.20
	-.10	-.005	2.27	-.441	.104	.0159	.0132	-.10
	-.05	-.003	2.24	-.423	.094	.0106	-.0019	-.05
	0.00	.003	2.17	-.414	.050	.0080	-.0233	0.00
	0.00	.002	2.16	-.410	.046	.0072	-.0214	0.00
	.05	.003	2.19	-.417	.024	.0084	-.0302	.05
	.10	-.001	2.29	-.386	.009	-.0066	-.0200	.10
	.20	-.011	2.40	-.443	-.044	-.0157	-.0686	.20
	.30	-.033	2.59	-.466	-.061	-.0137	-.1027	.30
	.40	-.062	2.75	-.494	-.089	.0151	-.1407	.40
80	-.40	-.073	2.79	-.739	.173	.0082	.0830	-.40
	-.30	-.029	2.56	-.655	.127	.0189	.0544	-.30
	-.20	.001	2.37	-.608	.111	.0195	.0277	-.20
	-.10	.021	2.24	-.560	.065	.0108	.0120	-.10
	-.05	.036	2.22	-.584	.046	.0077	-.0010	-.05
	0.00	.034	2.15	-.616	.037	.0054	-.0222	0.00
	0.00	.031	2.12	-.585	.026	.0065	-.0196	0.00
	.05	.041	2.20	-.593	.039	.0064	-.0330	.05
	.10	.037	2.20	-.593	.040	.0055	-.0525	.10
	.20	.016	2.36	-.583	-.004	-.0080	-.0673	.20
	.30	-.007	2.55	-.631	-.014	-.0073	-.0944	.30
	.40	-.039	2.77	-.691	-.018	.0091	-.1298	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=30$ $\delta d=-10$ BETA= 0

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	-.043	2.80	-.780	.112	.0025	.0816	-.40
	-.30	-.013	2.54	-.707	.086	.0118	.0557	-.30
	-.20	.030	2.35	-.653	.072	.0147	.0318	-.20
	-.10	.061	2.23	-.626	.024	.0081	.0189	-.10
	-.05	.076	2.21	-.650	.019	.0065	.0030	-.05
	0.00	.057	2.17	-.671	.008	.0044	-.0160	0.00
	0.00	.059	2.18	-.674	.004	.0070	-.0122	0.00
	.05	.084	2.17	-.658	.020	.0061	-.0331	.05
	.10	.079	2.20	-.655	.027	.0062	-.0528	.10
	.20	.051	2.31	-.630	-.002	-.0024	-.0682	.20
	.30	.016	2.49	-.670	-.014	-.0001	-.0923	.30
	.40	-.006	2.74	-.730	.013	.0170	-.1255	.40
90	-.40	-.064	2.72	-.784	.102	-.0080	.0803	-.40
	-.30	-.035	2.48	-.733	.073	.0059	.0563	-.30
	-.20	-.002	2.31	-.693	.061	.0058	.0326	-.20
	-.10	.031	2.22	-.681	.017	.0046	.0212	-.10
	-.05	.043	2.21	-.707	.015	.0034	.0054	-.05
	0.00	.030	2.17	-.759	.016	.0009	-.0176	0.00
	0.00	.028	2.14	-.727	.008	.0035	-.0137	0.00
	.05	.050	2.19	-.716	.032	.0043	-.0311	.05
	.10	.044	2.21	-.704	.050	.0039	-.0497	.10
	.20	.016	2.29	-.671	.031	.0033	-.0694	.20
	.30	-.010	2.46	-.687	.039	.0061	-.0900	.30
	.40	-.024	2.72	-.739	.071	.0264	-.1212	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δr=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.031	2.05	.045	-.071	.0391	.0426	-.40
	-.30	-.026	1.99	.022	-.068	.0240	.0174	-.30
	-.20	-.026	1.94	-.007	-.070	.0048	-.0097	-.20
	-.10	-.028	1.94	-.034	-.061	-.0024	-.0306	-.10
	-.05	-.025	1.91	-.052	-.065	.0005	-.0382	-.05
	0.00	-.014	1.85	-.082	-.081	.0059	-.0442	0.00
	0.00	-.013	1.84	-.085	-.082	.0077	-.0451	0.00
	.05	-.019	1.85	-.107	-.094	.0123	-.0531	.05
	.10	-.016	1.84	-.149	-.113	.0183	-.0611	.10
	.20	-.012	1.81	-.237	-.147	.0224	-.0802	.20
	.30	-.018	1.83	-.309	-.161	.0153	-.0984	.30
	.40	-.026	1.91	-.386	-.165	.0017	-.1187	.40
40	-.40	-.049	2.40	-.064	.128	-.0208	.0721	-.40
	-.30	-.025	2.31	-.059	.100	-.0251	.0291	-.30
	-.20	-.012	2.21	-.054	.037	-.0186	-.0088	-.20
	-.10	.002	2.13	-.053	-.031	-.0111	-.0329	-.10
	-.05	.005	2.16	-.070	-.080	-.0171	-.0476	-.05
	0.00	.021	2.06	-.096	-.111	-.0167	-.0620	0.00
	0.00	.021	2.05	-.104	-.109	-.0162	-.0590	0.00
	.05	.014	2.08	-.112	-.120	-.0090	-.0776	.05
	.10	.006	2.10	-.144	-.212	-.0001	-.0963	.10
	.20	-.009	2.13	-.236	-.335	.0104	-.1235	.20
	.30	-.023	2.16	-.319	-.409	.0160	-.1479	.30
	.40	-.040	2.24	-.413	-.477	.0156	-.1750	.40
50	-.40	-.059	2.52	-.179	.259	-.0212	.1296	-.40
	-.30	-.030	2.43	-.117	.197	-.0193	.0858	-.30
	-.20	-.004	2.30	-.087	.118	-.0150	.0513	-.20
	-.10	.018	2.24	-.065	.013	-.0124	-.0034	-.10
	-.05	.019	2.19	-.112	-.020	-.0179	-.0378	-.05
	0.00	.016	2.19	-.091	-.095	-.0200	-.0568	0.00
	0.00	.016	2.19	-.088	-.099	-.0198	-.0566	0.00
	.05	.018	2.16	-.132	-.123	-.0213	-.0634	.05
	.10	.013	2.14	-.167	-.156	-.0258	-.0935	.10
	.20	-.001	2.14	-.225	-.326	-.0205	-.1600	.20
	.30	-.016	2.21	-.361	-.417	-.0288	-.2007	.30
	.40	-.051	2.36	-.513	-.489	-.0216	-.2337	.40
55	-.40	-.066	2.60	-.344	.211	-.0262	.1193	-.40
	-.30	-.043	2.46	-.313	.157	-.0162	.0755	-.30
	-.20	-.020	2.35	-.330	.106	-.0071	.0311	-.20
	-.10	-.006	2.29	-.269	.056	-.0073	-.0025	-.10
	-.05	-.001	2.24	-.260	.012	-.0100	-.0182	-.05
	0.00	.009	2.19	-.181	-.090	-.0137	-.0303	0.00
	0.00	.009	2.14	-.216	-.072	-.0145	-.0315	0.00
	.05	.003	2.22	-.156	-.111	-.0203	-.0633	.05
	.10	.003	2.16	-.295	-.123	-.0217	-.0813	.10
	.20	.002	2.18	-.321	-.282	-.0320	-.1600	.20
	.30	-.015	2.29	-.464	-.350	-.0423	-.1875	.30
	.40	-.044	2.48	-.587	-.412	-.0386	-.2111	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=30$ $\delta d=-10$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.069	2.67	-.349	.170	-.0303	.0930	-.40
	-.30	-.038	2.51	-.374	.093	-.0106	.0493	-.30
	-.20	-.014	2.39	-.386	.064	-.0015	.0233	-.20
	-.10	.002	2.28	-.339	.032	-.0014	.0069	-.10
	-.05	.006	2.26	-.309	.015	-.0059	-.0044	-.05
	0.00	.011	2.21	-.306	-.043	-.0112	-.0312	0.00
	0.00	.008	2.20	-.310	-.051	-.0131	-.0303	0.00
	.05	.014	2.22	-.295	-.065	-.0164	-.0480	.05
	.10	.010	2.22	-.267	-.101	-.0185	-.0646	.10
	.20	.013	2.25	-.435	-.259	-.0406	-.1451	.20
	.30	-.012	2.39	-.497	-.310	-.0421	-.1682	.30
	.40	-.042	2.62	-.618	-.350	-.0350	-.2064	.40
65	-.40	-.064	2.75	-.359	.151	-.0297	.0886	-.40
	-.30	-.041	2.58	-.421	.067	-.0033	.0532	-.30
	-.20	-.017	2.44	-.423	.038	.0032	.0272	-.20
	-.10	.001	2.34	-.391	-.001	-.0012	-.0043	-.10
	-.05	.006	2.30	-.375	-.023	-.0066	-.0179	-.05
	0.00	.016	2.23	-.361	-.065	-.0099	-.0333	0.00
	0.00	.021	2.19	-.364	-.070	-.0149	-.0313	0.00
	.05	.011	2.21	-.349	-.070	-.0180	-.0431	.05
	.10	.009	2.23	-.355	-.101	-.0207	-.0671	.10
	.20	.005	2.32	-.479	-.227	-.0348	-.1322	.20
	.30	-.020	2.47	-.554	-.304	-.0441	-.1705	.30
	.40	-.055	2.68	-.635	-.392	-.0288	-.2155	.40
70	-.40	-.067	2.79	-.438	.092	-.0217	.0661	-.40
	-.30	-.041	2.66	-.441	.038	.0020	.0375	-.30
	-.20	-.011	2.48	-.442	.005	.0039	.0166	-.20
	-.10	.003	2.37	-.424	-.022	-.0035	-.0048	-.10
	-.05	.011	2.32	-.413	-.033	-.0100	-.0206	-.05
	0.00	.009	2.25	-.406	-.081	-.0158	-.0361	0.00
	0.00	.011	2.23	-.423	-.088	-.0197	-.0461	0.00
	.05	.022	2.22	-.431	-.093	-.0198	-.0612	.05
	.10	.021	2.23	-.458	-.131	-.0199	-.0817	.10
	.20	.004	2.38	-.538	-.181	-.0334	-.1096	.20
	.30	-.026	2.58	-.596	-.226	-.0418	-.1383	.30
	.40	-.069	2.85	-.650	-.344	-.0252	-.1971	.40
80	-.40	-.052	2.79	-.587	.041	-.0228	.0571	-.40
	-.30	-.023	2.60	-.572	-.040	-.0104	.0321	-.30
	-.20	.010	2.46	-.561	-.050	-.0078	.0070	-.20
	-.10	.042	2.25	-.581	-.071	-.0239	-.0246	-.10
	-.05	.051	2.23	-.599	-.078	-.0236	-.0399	-.05
	0.00	.035	2.22	-.625	-.109	-.0252	-.0531	0.00
	0.00	.034	2.23	-.648	-.104	-.0254	-.0527	0.00
	.05	.043	2.27	-.625	-.077	-.0237	-.0637	.05
	.10	.036	2.30	-.641	-.090	-.0206	-.0741	.10
	.20	.013	2.40	-.676	-.118	-.0214	-.0943	.20
	.30	-.015	2.63	-.780	-.135	-.0320	-.1182	.30
	.40	-.041	2.91	-.873	-.120	-.0235	-.1481	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta r=30$ $\delta d=-10$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
85	-.40	-.056	2.77	-.645	.008	-.0282	.0589	-.40
	-.30	-.018	2.58	-.620	-.051	-.0175	.0352	-.30
	-.20	.020	2.43	-.612	-.068	-.0151	.0118	-.20
	-.10	.054	2.28	-.641	-.075	-.0261	-.0213	-.10
	-.05	.064	2.28	-.667	-.080	-.0236	-.0338	-.05
	0.00	.045	2.23	-.708	-.123	-.0236	-.0452	0.00
	0.00	.042	2.23	-.696	-.124	-.0236	-.0441	0.00
	.05	.061	2.30	-.697	-.076	-.0232	-.0587	.05
	.10	.053	2.34	-.711	-.075	-.0231	-.0750	.10
	.20	.023	2.41	-.736	-.102	-.0174	-.0947	.20
	.30	-.014	2.61	-.817	-.118	-.0243	-.1123	.30
	.40	-.034	2.90	-.915	-.077	-.0171	-.1456	.40
90	-.40	-.064	2.73	-.661	-.033	-.0354	.0568	-.40
	-.30	-.034	2.53	-.649	-.074	-.0247	.0350	-.30
	-.20	.001	2.38	-.690	-.072	-.0341	.0024	-.20
	-.10	.026	2.28	-.707	-.087	-.0271	-.0145	-.10
	-.05	.034	2.29	-.735	-.089	-.0252	-.0280	-.05
	0.00	.016	2.27	-.769	-.116	-.0228	-.0376	0.00
	0.00	.017	2.27	-.769	-.115	-.0256	-.0406	0.00
	.05	.037	2.31	-.764	-.076	-.0228	-.0538	.05
	.10	.029	2.34	-.766	-.076	-.0216	-.0688	.10
	.20	.002	2.39	-.789	-.079	-.0158	-.0929	.20
	.30	-.027	2.58	-.829	-.118	-.0170	-.1056	.30
	.40	-.042	2.85	-.916	-.065	-.0091	-.1396	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=-25 δr=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.003	2.01	-.171	.102	.0365	.0596	-.40
	-.30	-.005	1.96	-.125	.104	.0332	.0318	-.30
	-.20	-.012	1.93	-.080	.105	.0319	.0072	-.20
	-.10	-.015	1.94	-.047	.103	.0371	-.0074	-.10
	-.05	-.017	1.93	-.037	.098	.0378	-.0142	-.05
	0.00	-.008	1.88	-.037	.063	.0349	-.0248	0.00
	0.00	-.007	1.87	-.037	.063	.0337	-.0249	0.00
	.05	-.023	1.96	-.030	.074	.0351	-.0288	.05
	.10	-.025	1.95	-.029	.076	.0342	-.0349	.10
	.20	-.026	1.95	-.044	.074	.0379	-.0476	.20
	.30	-.026	1.96	-.081	.075	.0408	-.0661	.30
	.40	-.024	2.00	-.119	.083	.0305	-.0919	.40
40	-.40	-.030	2.34	-.229	.417	.0109	.1071	-.40
	-.30	-.013	2.24	-.144	.353	.0088	.0740	-.30
	-.20	-.001	2.15	-.086	.267	.0129	.0462	-.20
	-.10	.007	2.10	-.037	.134	.0296	.0155	-.10
	-.05	.010	2.09	-.029	.098	.0371	-.0033	-.05
	0.00	.021	2.05	-.032	.069	.0294	-.0164	0.00
	0.00	.021	2.03	-.037	.058	.0331	-.0163	0.00
	.05	.004	2.10	-.027	.013	.0340	-.0263	.05
	.10	-.002	2.13	-.022	-.033	.0319	-.0388	.10
	.20	-.007	2.14	-.055	-.065	.0311	-.0671	.20
	.30	-.019	2.23	-.120	-.164	.0491	-.1061	.30
	.40	-.035	2.30	-.209	-.207	.0546	-.1434	.40
50	-.40	-.043	2.46	-.366	.550	.0199	.1865	-.40
	-.30	-.022	2.35	-.227	.414	.0136	.1355	-.30
	-.20	-.007	2.26	-.138	.293	.0152	.0965	-.20
	-.10	.011	2.20	-.087	.163	.0202	.0601	-.10
	-.05	.023	2.19	-.073	.111	.0228	.0398	-.05
	0.00	.037	2.12	-.078	.028	.0247	.0095	0.00
	0.00	.036	2.14	-.072	.030	.0247	.0133	0.00
	.05	.028	2.15	-.073	.014	.0202	-.0173	.05
	.10	.023	2.22	-.059	-.025	.0193	-.0277	.10
	.20	.019	2.25	-.085	-.090	.0119	-.0528	.20
	.30	-.026	2.39	-.170	-.267	.0286	-.1366	.30
	.40	-.054	2.50	-.310	-.345	.0378	-.1906	.40
55	-.40	-.044	2.55	-.454	.381	.0319	.1376	-.40
	-.30	-.028	2.35	-.332	.347	.0294	.1281	-.30
	-.20	-.013	2.22	-.272	.251	.0275	.0914	-.20
	-.10	.013	2.13	-.253	.160	.0283	.0653	-.10
	-.05	.013	2.11	-.266	.112	.0298	.0462	-.05
	0.00	.009	2.12	-.228	.062	.0259	.0439	0.00
	0.00	.013	2.12	-.239	.041	.0269	.0477	0.00
	.05	-.007	2.18	-.190	.029	.0264	.0288	.05
	.10	.005	2.22	-.091	-.023	.0206	-.0138	.10
	.20	-.025	2.34	-.181	-.110	.0224	-.0430	.20
	.30	-.047	2.43	-.256	-.245	.0174	-.1388	.30
	.40	-.070	2.60	-.437	-.232	.0214	-.1727	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=-25 δr=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.045	2.60	-.463	.364	.0259	.1279	-.40
	-.30	-.012	2.39	-.393	.268	.0333	.0953	-.30
	-.20	.013	2.26	-.383	.187	.0364	.0731	-.20
	-.10	.033	2.13	-.367	.112	.0287	.0493	-.10
	-.05	.033	2.11	-.353	.090	.0247	.0338	-.05
	0.00	.029	2.07	-.309	.059	.0232	.0162	0.00
	0.00	.031	2.05	-.322	.046	.0225	.0181	0.00
	.05	.010	2.20	-.265	.057	.0162	.0343	.05
	.10	-.002	2.28	-.239	.012	.0094	.0137	.10
	.20	-.014	2.38	-.177	-.073	.0148	-.0460	.20
	.30	-.041	2.50	-.394	-.170	-.0015	-.1259	.30
	.40	-.071	2.69	-.476	-.181	.0137	-.1615	.40
65	-.40	-.030	2.64	-.498	.327	.0306	.1340	-.40
	-.30	.004	2.45	-.466	.213	.0447	.0950	-.30
	-.20	.031	2.28	-.433	.140	.0391	.0675	-.20
	-.10	.042	2.16	-.410	.076	.0282	.0436	-.10
	-.05	.042	2.13	-.389	.054	.0226	.0288	-.05
	0.00	.057	2.08	-.386	.039	.0197	.0141	0.00
	0.00	.052	2.09	-.359	.036	.0198	.0133	0.00
	.05	.031	2.19	-.343	.005	.0108	.0128	.05
	.10	.024	2.25	-.337	-.016	.0041	.0028	.10
	.20	.001	2.41	-.308	-.084	.0031	-.0294	.20
	.30	-.019	2.52	-.442	-.164	-.0017	-.1181	.30
	.40	-.049	2.70	-.488	-.218	.0233	-.1640	.40
70	-.40	-.054	2.74	-.543	.280	.0297	.1139	-.40
	-.30	-.014	2.53	-.517	.165	.0428	.0758	-.30
	-.20	.010	2.35	-.471	.117	.0364	.0521	-.20
	-.10	.021	2.23	-.430	.074	.0239	.0251	-.10
	-.05	.023	2.18	-.404	.062	.0186	.0085	-.05
	0.00	.025	2.11	-.400	.017	.0185	-.0106	0.00
	0.00	.030	2.09	-.398	.025	.0210	-.0130	0.00
	.05	.010	2.25	-.385	.008	.0066	.0008	.05
	.10	.003	2.29	-.398	-.014	.0004	-.0176	.10
	.20	-.015	2.42	-.461	-.084	-.0073	-.0641	.20
	.30	-.042	2.61	-.500	-.077	-.0056	-.1005	.30
	.40	-.082	2.83	-.517	-.112	.0231	-.1416	.40
80	-.40	-.037	2.79	-.739	.142	.0170	.0921	-.40
	-.30	.001	2.52	-.659	.101	.0262	.0626	-.30
	-.20	.029	2.34	-.604	.077	.0276	.0366	-.20
	-.10	.046	2.22	-.571	.039	.0172	.0204	-.10
	-.05	.055	2.19	-.583	.039	.0133	.0015	-.05
	0.00	.044	2.14	-.589	.021	.0113	-.0164	0.00
	0.00	.052	2.14	-.603	.022	.0136	-.0151	0.00
	.05	.052	2.19	-.594	.030	.0128	-.0303	.05
	.10	.044	2.20	-.590	.024	.0121	-.0479	.10
	.20	.013	2.38	-.592	-.027	-.0006	-.0634	.20
	.30	-.016	2.59	-.648	-.020	-.0028	-.0921	.30
	.40	-.053	2.81	-.727	-.023	.0172	-.1290	.40

F-18 ROTARY BALANCE DATA

F-18 δ_{lef}=30 δ_a=-25 δ_r=30 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.012	2.78	-.781	.092	.0089	.0880	-.40
	-.30	.013	2.52	-.705	.066	.0224	.0611	-.30
	-.20	.053	2.32	-.649	.048	.0233	.0373	-.20
	-.10	.081	2.23	-.647	.003	.0159	.0258	-.10
	-.05	.089	2.21	-.649	.015	.0142	.0050	-.05
	0.00	.066	2.19	-.667	.014	.0104	-.0145	0.00
	0.00	.064	2.19	-.658	.013	.0114	-.0165	0.00
	.05	.091	2.18	-.662	.020	.0124	-.0323	.05
	.10	.082	2.20	-.658	.022	.0133	-.0501	.10
	.20	.045	2.32	-.636	-.022	.0053	-.0652	.20
	.30	.004	2.52	-.689	-.022	.0077	-.0909	.30
	.40	-.024	2.79	-.758	-.000	.0259	-.1282	.40
90	-.40	-.028	2.74	-.798	.071	.0015	.0852	-.40
	-.30	-.010	2.48	-.729	.058	.0140	.0597	-.30
	-.20	.019	2.31	-.689	.044	.0149	.0365	-.20
	-.10	.046	2.25	-.712	-.011	.0132	.0272	-.10
	-.05	.055	2.23	-.731	.006	.0118	.0077	-.05
	0.00	.037	2.17	-.751	.008	.0120	-.0147	0.00
	0.00	.036	2.16	-.745	.015	.0100	-.0153	0.00
	.05	.055	2.21	-.719	.037	.0117	-.0306	.05
	.10	.047	2.23	-.719	.049	.0120	-.0496	.10
	.20	.012	2.32	-.671	.012	.0085	-.0644	.20
	.30	-.019	2.49	-.707	.025	.0151	-.0906	.30
	.40	-.036	2.77	-.857	.038	.0298	-.1252	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=-25 δr=30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.003	2.09	.016	-.071	.0604	.0461	-.40
	-.30	-.004	2.04	-.002	-.075	.0444	.0211	-.30
	-.20	-.007	2.00	-.017	-.084	.0241	-.0061	-.20
	-.10	-.010	1.99	-.030	-.077	.0171	-.0267	-.10
	-.05	-.008	1.97	-.040	-.071	.0194	-.0346	-.05
	0.00	.006	1.88	-.057	-.099	.0271	-.0416	0.00
	0.00	.007	1.88	-.062	-.097	.0284	-.0411	0.00
	.05	-.002	1.90	-.076	-.090	.0350	-.0499	.05
	.10	-.002	1.89	-.105	-.106	.0419	-.0572	.10
	.20	-.001	1.88	-.185	-.154	.0528	-.0734	.20
	.30	-.005	1.90	-.256	-.163	.0506	-.0915	.30
	.40	-.013	1.98	-.338	-.172	.0404	-.1119	.40
40	-.40	-.023	2.51	-.061	.126	.0030	.0804	-.40
	-.30	.002	2.38	-.048	.100	-.0039	.0372	-.30
	-.20	.021	2.25	-.018	.034	.0075	.0009	-.20
	-.10	.027	2.18	-.004	-.044	.0090	-.0267	-.10
	-.05	.024	2.17	-.023	-.069	.0033	-.0380	-.05
	0.00	.039	2.10	-.061	-.118	.0042	-.0525	0.00
	0.00	.042	2.07	-.071	-.124	.0029	-.0529	0.00
	.05	.034	2.11	-.078	-.128	.0077	-.0698	.05
	.10	.025	2.12	-.090	-.208	.0185	-.0871	.10
	.20	.006	2.16	-.159	-.348	.0333	-.1133	.20
	.30	-.012	2.22	-.263	-.445	.0434	-.1401	.30
	.40	-.032	2.30	-.402	-.498	.0472	-.1695	.40
50	-.40	-.017	2.51	-.135	.261	.0004	.1398	-.40
	-.30	.006	2.40	-.069	.185	.0015	.0960	-.30
	-.20	.027	2.27	-.027	.103	.0053	.0612	-.20
	-.10	.045	2.24	-.013	-.005	.0070	.0054	-.10
	-.05	.042	2.21	-.045	-.036	.0031	-.0223	-.05
	0.00	.037	2.19	-.016	-.136	-.0009	-.0392	0.00
	0.00	.038	2.17	-.023	-.148	-.0004	-.0397	0.00
	.05	.035	2.18	-.048	-.142	-.0026	-.0459	.05
	.10	.034	2.17	-.102	-.175	-.0051	-.0725	.10
	.20	.007	2.20	-.233	-.365	-.0078	-.1502	.20
	.30	-.014	2.28	-.378	-.449	-.0164	-.1939	.30
	.40	-.050	2.45	-.541	-.511	-.0111	-.2311	.40
55	-.40	-.014	2.50	-.276	.203	-.0034	.1244	-.40
	-.30	.002	2.36	-.220	.138	.0023	.0862	-.30
	-.20	.012	2.23	-.209	.057	.0002	.0514	-.20
	-.10	.020	2.16	-.187	-.002	-.0066	.0217	-.10
	-.05	.021	2.15	-.193	-.040	-.0103	.0062	-.05
	0.00	.032	2.14	-.125	-.118	.0004	-.0150	0.00
	0.00	.031	2.14	-.099	-.106	.0012	-.0135	0.00
	.05	.026	2.19	-.078	-.149	-.0024	-.0460	.05
	.10	.027	2.12	-.277	-.174	-.0161	-.0605	.10
	.20	.011	2.21	-.333	-.324	-.0257	-.1454	.20
	.30	-.010	2.33	-.493	-.372	-.0304	-.1826	.30
	.40	-.042	2.53	-.608	-.424	-.0255	-.2092	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta a=-25$ $\delta r=30$ BETA= 10

ALPHA	$\Omega b/2V$	C_A	C_N	C_m	C_Y	C_l	C_n	$\Omega b/2V$
60	-.40	-.014	2.56	-.278	.159	-.0082	.0995	-.40
	-.30	.009	2.38	-.272	.080	.0043	.0605	-.30
	-.20	.028	2.25	-.289	.034	.0068	.0361	-.20
	-.10	.044	2.16	-.273	-.009	.0051	.0154	-.10
	-.05	.052	2.08	-.281	-.026	-.0002	.0051	-.05
	0.00	.048	2.04	-.268	-.073	-.0083	-.0142	0.00
	0.00	.052	2.04	-.279	-.070	-.0072	-.0141	0.00
	.05	.038	2.14	-.269	-.094	-.0126	-.0292	.05
	.10	.031	2.19	-.209	-.148	-.0088	-.0479	.10
	.20	.024	2.24	-.461	-.261	-.0284	-.1379	.20
	.30	-.004	2.38	-.521	-.308	-.0312	-.1604	.30
	.40	-.038	2.61	-.626	-.350	-.0248	-.2005	.40
65	-.40	-.014	2.59	-.298	.139	-.0121	.0921	-.40
	-.30	.002	2.41	-.335	.060	.0081	.0573	-.30
	-.20	.022	2.30	-.342	.026	.0152	.0340	-.20
	-.10	.037	2.13	-.346	-.027	.0003	.0080	-.10
	-.05	.038	2.10	-.351	-.037	-.0063	-.0073	-.05
	0.00	.047	2.05	-.338	-.089	-.0080	-.0213	0.00
	0.00	.047	2.04	-.342	-.080	-.0080	-.0219	0.00
	.05	.035	2.11	-.338	-.084	-.0093	-.0331	.05
	.10	.024	2.18	-.340	-.125	-.0143	-.0514	.10
	.20	.009	2.26	-.474	-.223	-.0250	-.1255	.20
	.30	-.017	2.42	-.556	-.305	-.0327	-.1634	.30
	.40	-.053	2.66	-.635	-.380	-.0182	-.2106	.40
70	-.40	-.017	2.62	-.383	.085	-.0124	.0696	-.40
	-.30	.007	2.47	-.390	.012	.0109	.0427	-.30
	-.20	.030	2.32	-.385	-.033	.0132	.0232	-.20
	-.10	.044	2.14	-.391	-.054	-.0087	-.0126	-.10
	-.05	.051	2.10	-.395	-.067	-.0143	-.0282	-.05
	0.00	.046	2.06	-.404	-.109	-.0133	-.0411	0.00
	0.00	.042	2.18	-.404	-.107	-.0165	-.0402	0.00
	.05	.043	2.25	-.425	-.116	-.0102	-.0542	.05
	.10	.034	2.29	-.450	-.140	-.0134	-.0716	.10
	.20	.013	2.32	-.526	-.193	-.0237	-.1047	.20
	.30	-.020	2.49	-.584	-.219	-.0330	-.1312	.30
	.40	-.064	2.76	-.634	-.323	-.0144	-.1874	.40
80	-.40	-.012	2.76	-.588	.014	-.0101	.0668	-.40
	-.30	.015	2.58	-.567	-.057	.0008	.0372	-.30
	-.20	.046	2.42	-.552	-.074	-.0002	.0097	-.20
	-.10	.071	2.26	-.576	-.079	-.0175	-.0237	-.10
	-.05	.080	2.25	-.604	-.085	-.0155	-.0370	-.05
	0.00	.058	2.22	-.632	-.125	-.0175	-.0500	0.00
	0.00	.059	2.19	-.630	-.125	-.0164	-.0462	0.00
	.05	.066	2.26	-.620	-.095	-.0143	-.0592	.05
	.10	.054	2.30	-.622	-.106	-.0139	-.0719	.10
	.20	.022	2.41	-.675	-.143	-.0155	-.0918	.20
	.30	-.016	2.64	-.785	-.155	-.0236	-.1172	.30
	.40	-.054	2.94	-.884	-.143	-.0136	-.1491	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=-25 δr=30 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.012	2.66	-.608	.001	-.0241	.0654	-.40
	-.30	.016	2.47	-.591	-.047	-.0270	.0298	-.30
	-.20	.049	2.32	-.600	-.062	-.0242	.0033	-.20
	-.10	.072	2.21	-.620	-.089	-.0156	-.0142	-.10
	-.05	.081	2.20	-.644	-.088	-.0155	-.0305	-.05
	0.00	.057	2.14	-.677	-.128	-.0137	-.0408	0.00
	0.00	.056	2.12	-.670	-.109	-.0158	-.0428	0.00
	.05	.067	2.20	-.658	-.077	-.0145	-.0558	.05
	.10	.056	2.24	-.669	-.083	-.0141	-.0705	.10
	.20	.020	2.32	-.690	-.116	-.0119	-.0899	.20
	.30	-.020	2.56	-.797	-.143	-.0182	-.1103	.30
	.40	-.044	2.86	-.895	-.103	-.0089	-.1443	.40
90	-.40	-.019	2.54	-.627	-.040	-.0297	.0607	-.40
	-.30	.008	2.35	-.621	-.063	-.0307	.0297	-.30
	-.20	.034	2.24	-.642	-.079	-.0252	.0080	-.20
	-.10	.058	2.15	-.675	-.098	-.0167	-.0098	-.10
	-.05	.067	2.14	-.697	-.101	-.0143	-.0209	-.05
	0.00	.043	2.14	-.737	-.118	-.0153	-.0374	0.00
	0.00	.043	2.14	-.740	-.121	-.0157	-.0370	0.00
	.05	.059	2.18	-.721	-.071	-.0139	-.0514	.05
	.10	.048	2.21	-.729	-.073	-.0137	-.0671	.10
	.20	.013	2.25	-.738	-.094	-.0068	-.0875	.20
	.30	-.021	2.48	-.797	-.118	-.0112	-.1047	.30
	.40	-.044	2.78	-.900	-.079	-.0007	-.1350	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=-25 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.017	2.02	-.167	.120	.0433	.0493	-.40
	-.30	.014	1.96	-.117	.125	.0389	.0220	-.30
	-.20	.007	1.93	-.078	.127	.0376	-.0010	-.20
	-.10	.000	1.95	-.055	.122	.0418	-.0172	-.10
	-.05	-.003	1.96	-.052	.114	.0427	-.0234	-.05
	0.00	.006	1.89	-.054	.085	.0384	-.0344	0.00
	0.00	.005	1.89	-.054	.082	.0385	-.0342	0.00
	.05	-.011	1.98	-.051	.100	.0398	-.0392	.05
	.10	-.014	1.98	-.052	.089	.0373	-.0457	.10
	.20	-.018	1.98	-.065	.090	.0420	-.0594	.20
	.30	-.022	1.98	-.103	.089	.0462	-.0784	.30
	.40	-.023	2.02	-.136	.109	.0376	-.1059	.40
40	-.40	-.022	2.34	-.222	.432	.0096	.0885	-.40
	-.30	-.008	2.22	-.131	.383	.0075	.0561	-.30
	-.20	.002	2.15	-.073	.299	.0116	.0305	-.20
	-.10	.011	2.10	-.044	.148	.0313	.0007	-.10
	-.05	.010	2.10	-.032	.126	.0389	-.0181	-.05
	0.00	.022	2.04	-.029	.092	.0310	-.0316	0.00
	0.00	.021	2.05	-.031	.081	.0317	-.0304	0.00
	.05	.006	2.12	-.032	.035	.0365	-.0401	.05
	.10	.002	2.15	-.030	-.018	.0334	-.0519	.10
	.20	-.003	2.17	-.048	-.035	.0335	-.0832	.20
	.30	-.012	2.24	-.127	-.145	.0494	-.1217	.30
	.40	-.030	2.30	-.225	-.198	.0551	-.1602	.40
50	-.40	-.047	2.46	-.348	.574	.0227	.1679	-.40
	-.30	-.029	2.36	-.224	.444	.0149	.1163	-.30
	-.20	-.011	2.26	-.142	.330	.0177	.0788	-.20
	-.10	.007	2.22	-.100	.217	.0213	.0419	-.10
	-.05	.016	2.21	-.084	.150	.0224	.0244	-.05
	0.00	.028	2.15	-.090	.083	.0229	-.0064	0.00
	0.00	.028	2.16	-.085	.068	.0243	-.0051	0.00
	.05	.020	2.20	-.107	.037	.0184	-.0362	.05
	.10	.016	2.26	-.085	.027	.0179	-.0476	.10
	.20	.012	2.29	-.125	-.041	.0116	-.0742	.20
	.30	-.024	2.36	-.200	-.226	.0260	-.1608	.30
	.40	-.042	2.45	-.340	-.308	.0352	-.2128	.40
55	-.40	-.056	2.57	-.478	.396	.0338	.1188	-.40
	-.30	-.038	2.38	-.354	.385	.0312	.1076	-.30
	-.20	-.020	2.26	-.317	.298	.0309	.0702	-.20
	-.10	.005	2.18	-.305	.216	.0311	.0426	-.10
	-.05	-.001	2.14	-.323	.163	.0321	.0251	-.05
	0.00	.004	2.10	-.286	.129	.0296	.0140	0.00
	0.00	.005	2.09	-.295	.116	.0301	.0154	0.00
	.05	-.011	2.16	-.253	.096	.0294	-.0008	.05
	.10	-.003	2.25	-.140	.022	.0167	-.0364	.10
	.20	-.022	2.31	-.214	-.039	.0224	-.0737	.20
	.30	-.032	2.34	-.251	-.165	.0270	-.1645	.30
	.40	-.045	2.46	-.394	-.154	.0303	-.1835	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=-25 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.055	2.62	-.475	.377	.0268	.1076	-.40
	-.30	-.017	2.41	-.422	.290	.0408	.0729	-.30
	-.20	.007	2.28	-.408	.232	.0405	.0509	-.20
	-.10	.023	2.17	-.388	.175	.0310	.0292	-.10
	-.05	.023	2.14	-.370	.137	.0251	.0140	-.05
	0.00	.027	2.09	-.359	.093	.0228	.0001	0.00
	0.00	.028	2.08	-.354	.091	.0229	.0014	0.00
	.05	.013	2.15	-.325	.102	.0206	-.0031	.05
	.10	.007	2.19	-.299	.074	.0206	-.0193	.10
	.20	-.007	2.32	-.211	-.007	.0172	-.0692	.20
	.30	-.019	2.37	-.358	-.101	.0104	-.1465	.30
	.40	-.049	2.57	-.429	-.145	.0222	-.1809	.40
65	-.40	-.044	2.65	-.511	.353	.0345	.1172	-.40
	-.30	-.006	2.44	-.476	.237	.0467	.0702	-.30
	-.20	.020	2.27	-.445	.182	.0423	.0452	-.20
	-.10	.028	2.18	-.414	.128	.0306	.0215	-.10
	-.05	.031	2.15	-.396	.101	.0250	.0085	-.05
	0.00	.044	2.12	-.380	.082	.0220	-.0049	0.00
	0.00	.042	2.12	-.370	.072	.0218	-.0038	0.00
	.05	.034	2.14	-.363	.064	.0209	-.0144	.05
	.10	.032	2.16	-.356	.041	.0198	-.0279	.10
	.20	.016	2.25	-.314	-.002	.0216	-.0609	.20
	.30	-.003	2.47	-.403	-.136	.0019	-.1320	.30
	.40	-.027	2.60	-.420	-.162	.0365	-.1715	.40
70	-.40	-.065	2.73	-.546	.308	.0332	.0944	-.40
	-.30	-.025	2.50	-.512	.213	.0433	.0539	-.30
	-.20	.000	2.31	-.472	.169	.0388	.0291	-.20
	-.10	.010	2.22	-.426	.130	.0283	.0045	-.10
	-.05	.011	2.19	-.406	.101	.0224	-.0099	-.05
	0.00	.015	2.13	-.388	.070	.0220	-.0268	0.00
	0.00	.017	2.12	-.400	.060	.0218	-.0290	0.00
	.05	.014	2.15	-.398	.047	.0212	-.0373	.05
	.10	.010	2.22	-.380	.023	.0115	-.0421	.10
	.20	-.006	2.38	-.414	-.039	-.0031	-.0729	.20
	.30	-.029	2.55	-.451	-.062	-.0014	-.1131	.30
	.40	-.055	2.70	-.475	-.086	.0334	-.1506	.40
80	-.40	-.052	2.71	-.711	.171	.0175	.0702	-.40
	-.30	-.009	2.48	-.637	.133	.0273	.0417	-.30
	-.20	.022	2.31	-.586	.121	.0285	.0159	-.20
	-.10	.040	2.18	-.540	.078	.0196	.0014	-.10
	-.05	.049	2.17	-.547	.054	.0194	-.0089	-.05
	0.00	.049	2.10	-.582	.034	.0183	-.0253	0.00
	0.00	.046	2.09	-.568	.035	.0173	-.0282	0.00
	.05	.056	2.15	-.569	.051	.0163	-.0419	.05
	.10	.051	2.14	-.573	.046	.0163	-.0592	.10
	.20	.025	2.32	-.564	.011	.0006	-.0793	.20
	.30	-.003	2.51	-.620	-.004	-.0008	-.1063	.30
	.40	-.041	2.75	-.685	-.011	.0185	-.1428	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=-25 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.027	2.72	-.750	.112	.0132	.0683	-.40
	-.30	.002	2.47	-.684	.091	.0215	.0439	-.30
	-.20	.045	2.29	-.633	.088	.0218	.0187	-.20
	-.10	.072	2.18	-.599	.042	.0163	.0070	-.10
	-.05	.084	2.16	-.620	.028	.0159	-.0058	-.05
	0.00	.064	2.13	-.635	.019	.0101	-.0272	0.00
	0.00	.066	2.12	-.643	.025	.0127	-.0256	0.00
	.05	.090	2.13	-.638	.041	.0130	-.0440	.05
	.10	.084	2.14	-.636	.037	.0146	-.0601	.10
	.20	.054	2.27	-.615	.012	.0063	-.0810	.20
	.30	.012	2.47	-.653	-.007	.0060	-.1048	.30
	.40	-.011	2.71	-.720	.015	.0267	-.1405	.40
90	-.40	-.050	2.66	-.763	.095	.0021	.0657	-.40
	-.30	-.024	2.41	-.708	.077	.0118	.0432	-.30
	-.20	.012	2.26	-.670	.069	.0149	.0209	-.20
	-.10	.041	2.18	-.662	.029	.0127	.0105	-.10
	-.05	.053	2.17	-.686	.028	.0118	-.0042	-.05
	0.00	.037	2.10	-.704	.025	.0103	-.0263	0.00
	0.00	.039	2.10	-.710	.020	.0115	-.0243	0.00
	.05	.055	2.15	-.696	.046	.0114	-.0411	.05
	.10	.048	2.16	-.684	.056	.0113	-.0595	.10
	.20	.020	2.24	-.656	.042	.0117	-.0790	.20
	.30	-.012	2.42	-.675	.045	.0111	-.1034	.30
	.40	-.028	2.69	-.728	.053	.0306	-.1358	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δa=-25 δr=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.006	1.96	.051	-.080	.0650	.0404	-.40
	-.30	.006	1.90	.033	-.074	.0505	.0156	-.30
	-.20	.004	1.86	.006	-.073	.0334	-.0117	-.20
	-.10	.001	1.86	-.021	-.060	.0245	-.0330	-.10
	-.05	.001	1.85	-.039	-.060	.0252	-.0412	-.05
	0.00	.010	1.78	-.071	-.080	.0323	-.0467	0.00
	0.00	.011	1.77	-.071	-.079	.0310	-.0473	0.00
	.05	.002	1.81	-.096	-.078	.0381	-.0559	.05
	.10	.002	1.79	-.133	-.097	.0450	-.0634	.10
	.20	.002	1.78	-.224	-.141	.0555	-.0810	.20
	.30	-.007	1.80	-.295	-.164	.0513	-.0988	.30
	.40	-.018	1.87	-.376	-.174	.0392	-.1191	.40
40	-.40	-.021	2.34	-.043	.120	.0086	.0686	-.40
	-.30	-.001	2.24	-.044	.101	.0003	.0264	-.30
	-.20	.010	2.15	-.041	.045	.0028	-.0116	-.20
	-.10	.020	2.07	-.038	-.028	.0084	-.0384	-.10
	-.05	.023	2.06	-.052	-.032	.0025	-.0487	-.05
	0.00	.038	1.98	-.084	-.088	.0034	-.0616	0.00
	0.00	.037	1.97	-.083	-.089	.0049	-.0639	0.00
	.05	.030	1.99	-.098	-.091	.0095	-.0794	.05
	.10	.024	2.02	-.131	-.190	.0202	-.0975	.10
	.20	.008	2.07	-.214	-.315	.0335	-.1254	.20
	.30	-.006	2.09	-.294	-.397	.0422	-.1514	.30
	.40	-.025	2.14	-.390	-.463	.0460	-.1768	.40
50	-.40	-.030	2.42	-.149	.254	.0030	.1247	-.40
	-.30	-.006	2.31	-.092	.198	.0020	.0797	-.30
	-.20	.016	2.21	-.064	.128	.0038	.0467	-.20
	-.10	.036	2.17	-.044	.039	.0055	-.0083	-.10
	-.05	.037	2.11	-.093	.008	.0002	-.0417	-.05
	0.00	.032	2.10	-.077	-.091	-.0032	-.0597	0.00
	0.00	.036	2.10	-.077	-.078	-.0014	-.0603	0.00
	.05	.033	2.10	-.118	-.095	-.0038	-.0676	.05
	.10	.029	2.07	-.146	-.140	-.0073	-.0978	.10
	.20	.012	2.09	-.212	-.303	-.0013	-.1666	.20
	.30	-.006	2.16	-.346	-.387	-.0092	-.2081	.30
	.40	-.041	2.29	-.498	-.472	.0002	-.2387	.40
55	-.40	-.037	2.45	-.301	.214	-.0030	.1126	-.40
	-.30	-.020	2.33	-.272	.166	.0009	.0704	-.30
	-.20	-.002	2.20	-.282	.104	.0035	.0289	-.20
	-.10	.009	2.17	-.240	.072	.0052	-.0087	-.10
	-.05	.011	2.13	-.227	.031	.0033	-.0244	-.05
	0.00	.024	2.09	-.173	-.064	.0023	-.0385	0.00
	0.00	.022	2.10	-.177	-.055	.0019	-.0363	0.00
	.05	.016	2.15	-.133	-.094	-.0033	-.0692	.05
	.10	.014	2.10	-.272	-.109	-.0042	-.0875	.10
	.20	.010	2.12	-.307	-.253	-.0122	-.1679	.20
	.30	-.006	2.23	-.443	-.330	-.0232	-.1949	.30
	.40	-.036	2.39	-.562	-.390	-.0178	-.2159	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=-25 δr=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.037	2.51	-.304	.173	-.0094	.0874	-.40
	-.30	-.014	2.35	-.326	.103	.0034	.0442	-.30
	-.20	.007	2.27	-.346	.078	.0126	.0178	-.20
	-.10	.021	2.17	-.315	.039	.0137	-.0062	-.10
	-.05	.024	2.15	-.290	.027	.0091	-.0162	-.05
	0.00	.028	2.09	-.276	-.033	.0032	-.0367	0.00
	0.00	.027	2.10	-.277	-.032	.0036	-.0387	0.00
	.05	.026	2.13	-.267	-.047	-.0010	-.0542	.05
	.10	.022	2.13	-.249	-.080	-.0033	-.0729	.10
	.20	.023	2.17	-.404	-.239	-.0215	-.1503	.20
	.30	.000	2.29	-.469	-.286	-.0232	-.1740	.30
	.40	-.031	2.50	-.585	-.333	-.0166	-.2129	.40
65	-.40	-.034	2.56	-.324	.147	-.0120	.0778	-.40
	-.30	-.012	2.42	-.384	.070	.0111	.0423	-.30
	-.20	.013	2.31	-.385	.047	.0171	.0189	-.20
	-.10	.026	2.21	-.357	.013	.0117	-.0114	-.10
	-.05	.028	2.18	-.341	-.004	.0077	-.0253	-.05
	0.00	.041	2.10	-.330	-.058	.0018	-.0379	0.00
	0.00	.041	2.10	-.325	-.047	.0027	-.0389	0.00
	.05	.034	2.10	-.331	-.051	-.0039	-.0506	.05
	.10	.027	2.13	-.326	-.087	-.0056	-.0726	.10
	.20	.021	2.22	-.452	-.204	-.0187	-.1415	.20
	.30	-.009	2.36	-.519	-.283	-.0256	-.1743	.30
	.40	-.045	2.60	-.606	-.378	-.0112	-.2212	.40
70	-.40	-.032	2.62	-.427	.075	-.0024	.0470	-.40
	-.30	-.015	2.51	-.392	.046	.0144	.0280	-.30
	-.20	.012	2.35	-.412	.007	.0174	.0073	-.20
	-.10	.021	2.24	-.388	-.006	.0089	-.0150	-.10
	-.05	.025	2.22	-.373	-.025	.0045	-.0271	-.05
	0.00	.023	2.15	-.372	-.077	.0003	-.0474	0.00
	0.00	.022	2.16	-.368	-.065	-.0002	-.0430	0.00
	.05	.035	2.11	-.401	-.065	-.0066	-.0688	.05
	.10	.032	2.13	-.426	-.087	-.0065	-.0852	.10
	.20	.015	2.29	-.507	-.154	-.0180	-.1199	.20
	.30	-.016	2.48	-.560	-.204	-.0257	-.1456	.30
	.40	-.058	2.73	-.611	-.326	-.0077	-.2047	.40
80	-.40	-.023	2.62	-.544	.035	-.0096	.0484	-.40
	-.30	.003	2.45	-.524	-.030	.0009	.0224	-.30
	-.20	.030	2.31	-.519	-.041	.0030	-.0034	-.20
	-.10	.054	2.14	-.543	-.046	-.0155	-.0373	-.10
	-.05	.062	2.13	-.560	-.061	-.0132	-.0480	-.05
	0.00	.045	2.11	-.605	-.086	-.0148	-.0600	0.00
	0.00	.047	2.08	-.600	-.095	-.0132	-.0582	0.00
	.05	.053	2.17	-.589	-.061	-.0127	-.0713	.05
	.10	.044	2.19	-.596	-.070	-.0100	-.0821	.10
	.20	.022	2.31	-.647	-.100	-.0106	-.1049	.20
	.30	-.007	2.52	-.739	-.121	-.0196	-.1291	.30
	.40	-.036	2.82	-.834	-.114	-.0144	-.1625	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δa=-25 δr=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.026	2.61	-.596	.011	-.0181	.0487	-.40
	-.30	.006	2.42	-.573	-.042	-.0069	.0248	-.30
	-.20	.042	2.26	-.563	-.045	-.0115	-.0030	-.20
	-.10	.070	2.14	-.591	-.055	-.0163	-.0300	-.10
	-.05	.079	2.15	-.612	-.064	-.0135	-.0413	-.05
	0.00	.060	2.10	-.666	-.098	-.0142	-.0537	0.00
	0.00	.058	2.12	-.673	-.101	-.0139	-.0547	0.00
	.05	.073	2.19	-.654	-.058	-.0135	-.0683	.05
	.10	.064	2.22	-.668	-.063	-.0121	-.0813	.10
	.20	.033	2.30	-.695	-.084	-.0082	-.1037	.20
	.30	-.004	2.49	-.778	-.096	-.0165	-.1235	.30
	.40	-.028	2.79	-.872	-.078	-.0087	-.1561	.40
90	-.40	-.034	2.58	-.617	-.026	-.0243	.0470	-.40
	-.30	-.008	2.38	-.602	-.064	-.0162	.0240	-.30
	-.20	.024	2.24	-.628	-.062	-.0242	-.0053	-.20
	-.10	.047	2.14	-.656	-.088	-.0146	-.0198	-.10
	-.05	.058	2.16	-.683	-.080	-.0145	-.0351	-.05
	0.00	.036	2.15	-.735	-.092	-.0156	-.0495	0.00
	0.00	.037	2.16	-.721	-.096	-.0163	-.0506	0.00
	.05	.055	2.20	-.715	-.061	-.0146	-.0625	.05
	.10	.048	2.23	-.725	-.055	-.0135	-.0780	.10
	.20	.019	2.29	-.749	-.062	-.0061	-.1035	.20
	.30	-.015	2.49	-.795	-.099	-.0095	-.1191	.30
	.40	-.033	2.77	-.889	-.052	.0004	-.1525	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.001	1.89	.025	.084	.0556	.0639	-.40
	-.30	-.001	1.82	.071	.091	.0495	.0345	-.30
	-.20	-.008	1.81	.105	.095	.0455	.0084	-.20
	-.10	-.015	1.82	.123	.095	.0460	-.0130	-.10
	-.05	-.019	1.82	.127	.092	.0451	-.0206	-.05
	0.00	-.012	1.76	.129	.065	.0449	-.0277	0.00
	0.00	-.011	1.77	.122	.066	.0449	-.0278	0.00
	0.00	.017	.11	-.008	.012	-.0007	.0007	0.00
	.05	-.029	1.86	.128	.082	.0430	-.0323	.05
	.10	-.033	1.86	.126	.073	.0414	-.0404	.10
	.20	-.041	1.87	.109	.078	.0459	-.0535	.20
	.30	-.049	1.89	.074	.078	.0466	-.0725	.30
	.40	-.057	1.92	.043	.083	.0339	-.0997	.40
40	-.40	-.055	2.21	-.083	.401	.0264	.1037	-.40
	-.30	-.041	2.13	-.007	.352	.0208	.0697	-.30
	-.20	-.026	2.05	.053	.255	.0248	.0415	-.20
	-.10	-.016	1.98	.087	.133	.0442	.0056	-.10
	-.05	-.016	1.98	.086	.082	.0489	-.0106	-.05
	0.00	-.005	1.94	.094	.052	.0458	-.0222	0.00
	0.00	-.006	1.95	.093	.049	.0461	-.0221	0.00
	.05	-.019	2.01	.105	.028	.0447	-.0328	.05
	.10	-.027	2.03	.115	-.024	.0394	-.0448	.10
	.20	-.034	2.07	.094	-.043	.0359	-.0708	.20
	.30	-.053	2.14	.024	-.146	.0538	-.1118	.30
	.40	-.079	2.22	-.066	-.199	.0580	-.1516	.40
50	-.40	-.082	2.35	-.246	.497	.0351	.1793	-.40
	-.30	-.054	2.22	-.131	.389	.0284	.1289	-.30
	-.20	-.040	2.15	-.044	.283	.0264	.0888	-.20
	-.10	-.019	2.13	.005	.162	.0312	.0522	-.10
	-.05	-.010	2.13	.014	.120	.0328	.0315	-.05
	0.00	-.001	2.08	.009	.061	.0327	.0058	0.00
	0.00	-.002	2.09	.018	.052	.0331	.0125	0.00
	.05	-.011	2.11	-.022	.013	.0274	-.0268	.05
	.10	-.019	2.17	.002	-.011	.0259	-.0385	.10
	.20	-.033	2.22	-.055	-.062	.0182	-.0646	.20
	.30	-.075	2.28	-.159	-.237	.0321	-.1453	.30
	.40	-.109	2.42	-.303	-.292	.0383	-.2003	.40
55	-.40	-.098	2.43	-.345	.342	.0344	.1206	-.40
	-.30	-.073	2.28	-.279	.324	.0371	.1122	-.30
	-.20	-.059	2.14	-.198	.261	.0312	.0831	-.20
	-.10	-.031	2.10	-.189	.187	.0323	.0545	-.10
	-.05	-.030	2.07	-.214	.137	.0312	.0308	-.05
	0.00	-.033	2.02	-.202	.090	.0339	.0193	0.00
	0.00	-.033	2.03	-.207	.084	.0348	.0197	0.00
	.05	-.051	2.09	-.178	.065	.0354	.0064	.05
	.10	-.057	2.14	-.165	.036	.0326	-.0118	.10
	.20	-.076	2.28	-.185	-.052	.0253	-.0668	.20
	.30	-.090	2.31	-.266	-.156	.0327	-.1416	.30
	.40	-.117	2.45	-.413	-.156	.0442	-.1715	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.110	2.51	-.372	.334	.0321	.1132	-.40
	-.30	-.069	2.32	-.323	.266	.0382	.0820	-.30
	-.20	-.042	2.20	-.303	.203	.0365	.0615	-.20
	-.10	-.023	2.13	-.294	.152	.0305	.0399	-.10
	-.05	-.022	2.11	-.282	.125	.0272	.0239	-.05
	0.00	-.023	2.05	-.277	.101	.0240	.0133	0.00
	0.00	-.023	2.05	-.274	.086	.0264	.0141	0.00
	.05	-.038	2.12	-.264	.079	.0239	.0005	.05
	.10	-.048	2.14	-.245	.051	.0235	-.0128	.10
	.20	-.070	2.31	-.207	-.023	.0211	-.0601	.20
	.30	-.090	2.37	-.393	-.090	.0323	-.1374	.30
	.40	-.118	2.51	-.421	-.126	.0408	-.1790	.40
65	-.40	-.107	2.57	-.413	.306	.0349	.1146	-.40
	-.30	-.062	2.38	-.406	.199	.0491	.0807	-.30
	-.20	-.037	2.25	-.385	.144	.0408	.0541	-.20
	-.10	-.024	2.16	-.355	.105	.0286	.0257	-.10
	-.05	-.021	2.12	-.331	.088	.0250	.0104	-.05
	0.00	-.011	2.09	-.321	.067	.0243	-.0054	0.00
	0.00	-.005	2.09	-.326	.070	.0231	-.0038	0.00
	.05	-.024	2.11	-.317	.052	.0211	-.0150	.05
	.10	-.031	2.13	-.313	.033	.0204	-.0283	.10
	.20	-.052	2.25	-.320	-.005	.0217	-.0603	.20
	.30	-.075	2.39	-.388	-.068	.0291	-.1182	.30
	.40	-.106	2.61	-.432	-.125	.0459	-.1652	.40
70	-.40	-.132	2.66	-.499	.237	.0411	.0877	-.40
	-.30	-.091	2.48	-.479	.162	.0482	.0592	-.30
	-.20	-.067	2.33	-.445	.123	.0388	.0338	-.20
	-.10	-.054	2.21	-.389	.099	.0246	.0104	-.10
	-.05	-.050	2.18	-.362	.082	.0224	-.0079	-.05
	0.00	-.048	2.11	-.383	.038	.0212	-.0267	0.00
	0.00	-.047	2.12	-.360	.050	.0221	-.0263	0.00
	.05	-.051	2.15	-.371	.029	.0230	-.0393	.05
	.10	-.059	2.19	-.392	.029	.0232	-.0563	.10
	.20	-.083	2.31	-.459	-.020	.0265	-.0835	.20
	.30	-.105	2.49	-.489	-.020	.0285	-.1156	.30
	.40	-.129	2.68	-.522	-.040	.0458	-.1516	.40
80	-.40	-.134	2.70	-.672	.132	.0271	.0699	-.40
	-.30	-.088	2.49	-.621	.110	.0337	.0413	-.30
	-.20	-.052	2.30	-.565	.094	.0325	.0169	-.20
	-.10	-.030	2.22	-.530	.064	.0240	-.0004	-.10
	-.05	-.023	2.18	-.522	.063	.0215	-.0184	-.05
	0.00	-.029	2.12	-.531	.044	.0199	-.0352	0.00
	0.00	-.029	2.13	-.532	.049	.0213	-.0369	0.00
	.05	-.026	2.18	-.541	.052	.0199	-.0485	.05
	.10	-.033	2.19	-.551	.044	.0207	-.0629	.10
	.20	-.058	2.35	-.607	.021	.0303	-.0821	.20
	.30	-.094	2.50	-.638	.021	.0318	-.1165	.30
	.40	-.133	2.65	-.678	.009	.0479	-.1548	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA= 0

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.112	2.73	-.726	.092	.0206	.0699	-.40
	-.30	-.073	2.46	-.664	.075	.0304	.0426	-.30
	-.20	-.028	2.28	-.621	.050	.0284	.0193	-.20
	-.10	.001	2.23	-.590	.033	.0224	.0029	-.10
	-.05	.012	2.19	-.590	.044	.0204	-.0154	-.05
	0.00	-.008	2.17	-.608	.039	.0203	-.0330	0.00
	0.00	-.014	2.13	-.594	.046	.0132	-.0389	0.00
	.05	.014	2.15	-.601	.042	.0174	-.0510	.05
	.10	.005	2.16	-.608	.040	.0170	-.0689	.10
	.20	-.021	2.24	-.623	.056	.0173	-.1028	.20
	.30	-.053	2.48	-.625	-.011	.0067	-.1101	.30
	.40	-.092	2.72	-.683	.007	.0271	-.1461	.40
90	-.40	-.133	2.67	-.747	.075	.0110	.0653	-.40
	-.30	-.107	2.45	-.698	.053	.0234	.0417	-.30
	-.20	-.064	2.28	-.661	.053	.0199	.0201	-.20
	-.10	-.031	2.22	-.659	.024	.0181	.0056	-.10
	-.05	-.019	2.19	-.668	.023	.0179	-.0100	-.05
	0.00	-.039	2.13	-.696	.021	.0156	-.0310	0.00
	0.00	-.036	2.11	-.693	.016	.0155	-.0306	0.00
	.05	-.018	2.16	-.674	.046	.0151	-.0492	.05
	.10	-.026	2.17	-.672	.052	.0168	-.0658	.10
	.20	-.051	2.25	-.672	.080	.0176	-.0965	.20
	.30	-.087	2.46	-.649	.041	.0120	-.1082	.30
	.40	-.110	2.70	-.708	.057	.0347	-.1424	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	.011	1.86	.215	-.115	.0811	.0587	-.40
	-.30	.009	1.81	.199	-.121	.0617	.0270	-.30
	-.20	.002	1.76	.185	-.118	.0439	.0001	-.20
	-.10	-.006	1.75	.166	-.098	.0329	-.0250	-.10
	-.05	-.008	1.73	.148	-.100	.0318	-.0350	-.05
	0.00	-.001	1.67	.118	-.114	.0373	-.0410	0.00
	0.00	-.001	1.67	.119	-.118	.0387	-.0412	0.00
	.05	-.011	1.69	.089	-.113	.0434	-.0503	.05
	.10	-.012	1.69	.053	-.134	.0492	-.0566	.10
	.20	-.018	1.68	-.041	-.176	.0610	-.0737	.20
	.30	-.031	1.70	-.114	-.201	.0582	-.0899	.30
	.40	-.050	1.79	-.194	-.209	.0466	-.1086	.40
40	-.40	-.039	2.25	.107	.095	.0207	.0878	-.40
	-.30	-.026	2.15	.109	.059	.0111	.0399	-.30
	-.20	-.013	2.07	.102	-.007	.0126	-.0016	-.20
	-.10	-.003	1.99	.102	-.074	.0202	-.0283	-.10
	-.05	-.008	2.00	.097	-.092	.0115	-.0409	-.05
	0.00	.004	1.92	.064	-.134	.0119	-.0565	0.00
	0.00	-.001	1.93	.067	-.142	.0110	-.0552	0.00
	.05	-.000	1.92	.040	-.128	.0153	-.0712	.05
	.10	-.008	1.95	.006	-.217	.0229	-.0903	.10
	.20	-.028	1.98	-.081	-.341	.0356	-.1203	.20
	.30	-.052	2.04	-.186	-.427	.0443	-.1465	.30
	.40	-.083	2.12	-.315	-.488	.0451	-.1742	.40
50	-.40	-.062	2.33	-.037	.200	.0151	.1382	-.40
	-.30	-.035	2.21	.015	.151	.0133	.0940	-.30
	-.20	-.013	2.13	.039	.085	.0132	.0549	-.20
	-.10	.001	2.11	.051	.001	.0132	.0073	-.10
	-.05	.002	2.08	-.003	-.053	.0089	-.0314	-.05
	0.00	-.006	2.06	.006	-.115	.0051	-.0498	0.00
	0.00	-.007	2.06	.008	-.144	.0059	-.0511	0.00
	.05	-.004	2.06	-.022	-.144	.0041	-.0620	.05
	.10	-.009	2.03	-.066	-.178	-.0004	-.0844	.10
	.20	-.035	2.02	-.201	-.312	-.0058	-.1641	.20
	.30	-.055	2.09	-.312	-.363	-.0097	-.2078	.30
	.40	-.100	2.18	-.446	-.436	.0154	-.2295	.40
55	-.40	-.077	2.40	-.197	.177	.0051	.1237	-.40
	-.30	-.053	2.25	-.176	.124	.0063	.0828	-.30
	-.20	-.035	2.11	-.187	.052	.0011	.0376	-.20
	-.10	-.026	2.05	-.166	.021	-.0031	.0034	-.10
	-.05	-.022	2.03	-.167	-.010	-.0047	-.0161	-.05
	0.00	-.014	1.99	-.170	-.076	.0005	-.0340	0.00
	0.00	-.014	2.01	-.138	-.088	.0021	-.0317	0.00
	.05	-.021	2.10	-.100	-.120	-.0005	-.0604	.05
	.10	-.029	2.04	-.206	-.138	-.0060	-.0815	.10
	.20	-.041	2.06	-.283	-.260	-.0126	-.1612	.20
	.30	-.058	2.15	-.377	-.308	-.0148	-.1974	.30
	.40	-.089	2.26	-.458	-.350	-.0036	-.2131	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.088	2.48	-.219	.144	-.0008	.0976	-.40
	-.30	-.056	2.31	-.229	.066	.0061	.0523	-.30
	-.20	-.028	2.15	-.269	.012	.0068	.0206	-.20
	-.10	-.007	2.06	-.265	-.007	.0064	.0065	-.10
	-.05	-.005	2.05	-.265	-.031	.0024	-.0125	-.05
	0.00	-.013	2.04	-.237	-.064	-.0049	-.0254	0.00
	0.00	-.011	2.02	-.236	-.073	.0005	-.0261	0.00
	.05	-.015	2.09	-.244	-.072	-.0046	-.0503	.05
	.10	-.023	2.11	-.223	-.110	-.0050	-.0707	.10
	.20	-.034	2.12	-.373	-.219	-.0103	-.1614	.20
	.30	-.056	2.22	-.393	-.265	-.0130	-.1849	.30
	.40	-.087	2.38	-.495	-.302	-.0057	-.2165	.40
65	-.40	-.092	2.57	-.259	.122	-.0057	.0865	-.40
	-.30	-.064	2.37	-.301	.034	.0091	.0443	-.30
	-.20	-.029	2.21	-.330	-.005	.0130	.0259	-.20
	-.10	-.017	2.13	-.333	-.026	.0033	-.0043	-.10
	-.05	-.020	2.11	-.337	-.035	-.0019	-.0223	-.05
	0.00	-.013	2.07	-.338	-.076	-.0078	-.0403	0.00
	0.00	-.013	2.05	-.334	-.073	-.0066	-.0401	0.00
	.05	-.026	2.13	-.332	-.066	-.0065	-.0522	.05
	.10	-.033	2.16	-.331	-.091	-.0073	-.0734	.10
	.20	-.047	2.19	-.412	-.189	-.0075	-.1432	.20
	.30	-.070	2.31	-.421	-.239	-.0073	-.1769	.30
	.40	-.105	2.53	-.501	-.309	.0031	-.2205	.40
70	-.40	-.097	2.62	-.376	.049	-.0038	.0477	-.40
	-.30	-.067	2.44	-.381	-.004	.0153	.0318	-.30
	-.20	-.036	2.29	-.390	-.044	.0092	.0068	-.20
	-.10	-.031	2.20	-.390	-.051	-.0102	-.0333	-.10
	-.05	-.028	2.17	-.385	-.040	-.0123	-.0427	-.05
	0.00	-.031	2.14	-.388	-.079	-.0111	-.0535	0.00
	0.00	-.031	2.13	-.398	-.094	-.0119	-.0630	0.00
	.05	-.031	2.19	-.398	-.080	-.0090	-.0744	.05
	.10	-.035	2.19	-.413	-.113	-.0063	-.0908	.10
	.20	-.048	2.27	-.480	-.127	-.0046	-.1300	.20
	.30	-.076	2.44	-.489	-.163	-.0078	-.1584	.30
	.40	-.119	2.72	-.542	-.244	.0033	-.1918	.40
80	-.40	-.100	2.65	-.521	.010	.0023	.0523	-.40
	-.30	-.068	2.46	-.526	-.051	.0012	.0229	-.30
	-.20	-.031	2.35	-.521	-.049	-.0075	-.0140	-.20
	-.10	-.005	2.19	-.506	-.063	-.0116	-.0409	-.10
	-.05	.003	2.17	-.519	-.072	-.0109	-.0535	-.05
	0.00	-.014	2.14	-.558	-.117	-.0109	-.0647	0.00
	0.00	-.012	2.14	-.550	-.112	-.0106	-.0651	0.00
	.05	-.005	2.21	-.549	-.078	-.0081	-.0755	.05
	.10	-.016	2.23	-.561	-.082	-.0076	-.0886	.10
	.20	-.042	2.30	-.603	-.111	.0018	-.1117	.20
	.30	-.070	2.53	-.687	-.107	-.0108	-.1402	.30
	.40	-.110	2.82	-.772	-.102	-.0059	-.1680	.40

F-18 ROTARY BALANCE DATA

F-18 $\delta lef=30$ $\delta H=-14$ $\delta a=-25$ $\delta r=30$ $\delta d=-10$ BETA= 10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.108	2.64	-.580	-.012	-.0057	.0539	-.40
	-.30	-.063	2.44	-.581	-.071	.0013	.0267	-.30
	-.20	-.023	2.32	-.564	-.057	-.0174	-.0123	-.20
	-.10	.007	2.22	-.571	-.073	-.0133	-.0344	-.10
	-.05	.018	2.20	-.587	-.086	-.0103	-.0452	-.05
	0.00	-.008	2.17	-.621	-.113	-.0127	-.0609	0.00
	0.00	-.006	2.18	-.640	-.109	-.0121	-.0607	0.00
	.05	.006	2.24	-.619	-.077	-.0092	-.0719	.05
	.10	-.004	2.26	-.626	-.081	-.0086	-.0861	.10
	.20	-.037	2.36	-.685	-.082	-.0041	-.1172	.20
	.30	-.075	2.54	-.746	-.087	-.0070	-.1408	.30
	.40	-.111	2.84	-.838	-.065	-.0000	-.1674	.40
90	-.40	-.115	2.63	-.616	-.056	-.0137	.0498	-.40
	-.30	-.079	2.41	-.613	-.105	-.0050	.0290	-.30
	-.20	-.048	2.29	-.612	-.084	-.0189	-.0045	-.20
	-.10	-.020	2.22	-.635	-.090	-.0143	-.0269	-.10
	-.05	-.009	2.21	-.664	-.098	-.0107	-.0382	-.05
	0.00	-.035	2.21	-.710	-.117	-.0123	-.0536	0.00
	0.00	-.032	2.21	-.710	-.114	-.0132	-.0544	0.00
	.05	-.015	2.24	-.688	-.085	-.0093	-.0662	.05
	.10	-.024	2.27	-.703	-.071	-.0098	-.0840	.10
	.20	-.056	2.34	-.748	-.065	-.0036	-.1135	.20
	.30	-.088	2.53	-.788	-.067	-.0030	-.1371	.30
	.40	-.117	2.79	-.865	-.059	.0042	-.1636	.40

***** F-18 ROTARY BALANCE DATA *****

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
30	-.40	-.007	1.76	-.185	.292	.0628	.0867	-.40
	-.30	.012	1.69	-.082	.282	.0501	.0624	-.30
	-.20	.025	1.65	-.004	.256	.0426	.0406	-.20
	-.10	.026	1.64	.070	.234	.0403	.0214	-.10
	-.05	.021	1.63	.104	.227	.0427	.0106	-.05
	0.00	.028	1.65	.134	.236	.0456	.0014	0.00
	0.00	.029	1.63	.134	.229	.0474	.0007	0.00
	.05	.020	1.69	.160	.224	.0509	-.0105	.05
	.10	.012	1.72	.171	.234	.0528	-.0182	.10
	.20	-.005	1.75	.178	.232	.0455	-.0321	.20
	.30	-.014	1.79	.167	.239	.0326	-.0504	.30
	.40	-.023	1.83	.152	.202	.0213	-.0715	.40
40	-.40	-.039	2.05	-.265	.589	.0438	.1287	-.40
	-.30	-.017	1.99	-.148	.537	.0372	.1016	-.30
	-.20	-.001	1.95	-.059	.460	.0367	.0734	-.20
	-.10	.015	1.92	.023	.378	.0455	.0552	-.10
	-.05	.017	1.91	.048	.339	.0501	.0410	-.05
	0.00	.024	1.89	.072	.276	.0583	.0237	0.00
	0.00	.024	1.87	.070	.272	.0576	.0235	0.00
	.05	.016	1.92	.095	.208	.0695	.0028	.05
	.10	.015	1.94	.115	.170	.0765	-.0100	.10
	.20	-.002	2.05	.142	.174	.0649	-.0274	.20
	.30	-.012	2.13	.111	.105	.0730	-.0566	.30
	.40	-.027	2.25	.039	.029	.0752	-.0818	.40
50	-.40	-.056	2.17	-.459	.566	.0800	.1720	-.40
	-.30	-.010	2.00	-.308	.514	.0759	.1601	-.30
	-.20	.008	1.93	-.178	.443	.0626	.1249	-.20
	-.10	.015	1.91	-.106	.360	.0547	.0971	-.10
	-.05	.018	1.94	-.066	.319	.0527	.0845	-.05
	0.00	.024	1.91	-.034	.271	.0522	.0679	0.00
	0.00	.028	1.89	-.035	.265	.0544	.0665	0.00
	.05	.022	1.99	.005	.216	.0533	.0471	.05
	.10	.021	2.02	.025	.182	.0534	.0337	.10
	.20	.002	2.09	-.003	.085	.0549	-.0224	.20
	.30	-.011	2.20	-.006	-.014	.0573	-.0590	.30
	.40	-.047	2.35	-.068	-.116	.0604	-.1325	.40
55	-.40	-.073	2.39	-.538	.467	.0778	.1417	-.40
	-.30	-.017	2.17	-.419	.389	.0830	.1194	-.30
	-.20	.003	2.07	-.320	.373	.0733	.1170	-.20
	-.10	.019	2.01	-.250	.297	.0647	.0909	-.10
	-.05	.019	2.00	-.223	.263	.0643	.0818	-.05
	0.00	.014	1.98	-.220	.228	.0684	.0753	0.00
	0.00	.017	1.97	-.220	.231	.0670	.0743	0.00
	.05	.007	2.04	-.222	.204	.0668	.0614	.05
	.10	.004	2.06	-.223	.171	.0665	.0454	.10
	.20	-.012	2.25	-.127	.131	.0628	.0195	.20
	.30	-.024	2.40	-.065	-.032	.0543	-.0567	.30
	.40	-.057	2.50	-.139	-.122	.0631	-.1181	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
60	-.40	-.081	2.50	-.547	.427	.0655	.1405	-.40
	-.30	-.029	2.28	-.448	.369	.0733	.1119	-.30
	-.20	-.001	2.17	-.372	.317	.0657	.0899	-.20
	-.10	.017	2.09	-.311	.267	.0568	.0719	-.10
	-.05	.024	2.06	-.296	.237	.0540	.0579	-.05
	0.00	.030	2.00	-.308	.201	.0552	.0466	0.00
	0.00	.031	2.00	-.305	.197	.0568	.0466	0.00
	.05	.020	2.06	-.291	.180	.0576	.0365	.05
	.10	.014	2.08	-.270	.159	.0594	.0292	.10
	.20	-.004	2.21	-.217	.130	.0617	.0139	.20
	.30	-.027	2.43	-.164	.072	.0617	-.0184	.30
	.40	-.061	2.53	-.229	-.083	.0671	-.1276	.40
65	-.40	-.102	2.57	-.597	.443	.0635	.1417	-.40
	-.30	-.041	2.38	-.507	.348	.0721	.1107	-.30
	-.20	-.006	2.23	-.422	.300	.0614	.0823	-.20
	-.10	.018	2.15	-.358	.251	.0524	.0554	-.10
	-.05	.025	2.12	-.346	.233	.0512	.0447	-.05
	0.00	.037	2.05	-.341	.200	.0549	.0396	0.00
	0.00	.037	2.05	-.331	.200	.0538	.0396	0.00
	.05	.031	2.10	-.331	.176	.0548	.0291	.05
	.10	.024	2.13	-.315	.153	.0553	.0186	.10
	.20	.004	2.24	-.286	.129	.0600	-.0068	.20
	.30	-.026	2.44	-.234	.093	.0616	-.0311	.30
	.40	-.068	2.65	-.224	.004	.0681	-.0858	.40
70	-.40	-.117	2.69	-.651	.386	.0620	.1146	-.40
	-.30	-.051	2.45	-.586	.280	.0735	.0791	-.30
	-.20	-.021	2.28	-.486	.266	.0611	.0616	-.20
	-.10	-.003	2.18	-.414	.249	.0510	.0402	-.10
	-.05	.003	2.16	-.388	.227	.0502	.0271	-.05
	0.00	.008	2.10	-.364	.187	.0525	.0146	0.00
	0.00	.005	2.11	-.372	.191	.0519	.0137	0.00
	.05	.008	2.14	-.367	.158	.0548	.0029	.05
	.10	.002	2.17	-.382	.141	.0566	-.0111	.10
	.20	-.009	2.30	-.377	.112	.0578	-.0404	.20
	.30	-.029	2.43	-.357	.093	.0607	-.0732	.30
	.40	-.065	2.65	-.325	.010	.0697	-.1191	.40
80	-.40	-.102	2.71	-.807	.248	.0487	.0752	-.40
	-.30	-.061	2.43	-.694	.262	.0523	.0495	-.30
	-.20	-.023	2.25	-.601	.242	.0491	.0310	-.20
	-.10	-.002	2.20	-.534	.212	.0479	.0185	-.10
	-.05	.006	2.19	-.524	.198	.0487	.0081	-.05
	0.00	.009	2.13	-.534	.188	.0508	-.0022	0.00
	0.00	.010	2.13	-.517	.188	.0516	-.0014	0.00
	.05	.016	2.20	-.524	.172	.0493	-.0101	.05
	.10	.011	2.24	-.527	.171	.0504	-.0216	.10
	.20	-.004	2.35	-.506	.161	.0544	-.0494	.20
	.30	-.029	2.48	-.485	.144	.0609	-.0820	.30
	.40	-.057	2.62	-.491	.103	.0719	-.1215	.40

F-18 ROTARY BALANCE DATA

F-18 δlef=30 δH=-14 δa=-25 δr=30 δd=-10 BETA=-10

ALPHA	Ωb/2V	C_A	C_N	C_m	C_Y	C_l	C_n	Ωb/2V
85	-.40	-.121	2.72	-.846	.234	.0426	.0733	-.40
	-.30	-.077	2.44	-.743	.248	.0447	.0496	-.30
	-.20	-.034	2.25	-.647	.224	.0415	.0323	-.20
	-.10	-.008	2.23	-.583	.203	.0446	.0196	-.10
	-.05	.001	2.23	-.585	.192	.0455	.0086	-.05
	0.00	.000	2.15	-.574	.189	.0475	-.0021	0.00
	0.00	-.000	2.17	-.608	.178	.0489	-.0009	0.00
	.05	.010	2.25	-.596	.177	.0477	-.0117	.05
	.10	.004	2.29	-.592	.183	.0497	-.0260	.10
	.20	-.014	2.38	-.563	.191	.0551	-.0544	.20
	.30	-.042	2.51	-.545	.184	.0617	-.0866	.30
	.40	-.070	2.67	-.536	.133	.0727	-.1211	.40
90	-.40	-.123	2.70	-.875	.202	.0377	.0757	-.40
	-.30	-.096	2.44	-.791	.220	.0353	.0481	-.30
	-.20	-.052	2.28	-.707	.197	.0363	.0361	-.20
	-.10	-.020	2.24	-.661	.175	.0407	.0229	-.10
	-.05	-.008	2.22	-.655	.164	.0421	.0098	-.05
	0.00	-.008	2.18	-.666	.162	.0466	-.0002	0.00
	0.00	-.009	2.17	-.671	.169	.0443	-.0031	0.00
	.05	.003	2.26	-.682	.154	.0460	-.0130	.05
	.10	-.002	2.28	-.679	.165	.0478	-.0294	.10
	.20	-.022	2.34	-.641	.200	.0524	-.0608	.20
	.30	-.052	2.47	-.600	.195	.0617	-.0889	.30
	.40	-.074	2.64	-.582	.159	.0769	-.1199	.40

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15. Supplementary Notes

Langley Technical Monitor: James S. Bowman, Jr.
Topical Report

16. Abstract

Aerodynamic characteristics obtained in a rotational flow environment, utilizing a rotary balance located in the Langley Spin Tunnel, are discussed and presented in tabular form for a 1/10-scale F-18 airplane model.

The study was conducted to establish the rotational aerodynamic characteristics for the basic airplane, as well as the influence of control deflections and the contribution of airplane components, i.e., body, wing, leading-edge extension, horizontal and vertical tails, on these characteristics up to 90° angle of attack. Spin equilibrium conditions predicted using the measured data are also presented herein and compared with spin model and full-scale flight results.

17. Key Words (Suggested by Author(s))

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Rotary balance
High angle-of-attack wind tunnel data

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