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Static Pressures at
Transonic Speeds**

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National Aeronautics
and Space Administration

Scientific and Technical
Information Division

Summary

An investigation has been conducted in the Langley 16-Foot Transonic Tunnel to determine the effects of empennage arrangement on single-engine nozzle/afterbody static pressures. Tests were conducted at Mach numbers from 0.60 to 1.20, nozzle pressure ratios from 1.0 (jet off) to 8.0, and angles of attack from -3° to 9° (at jet-off conditions), depending on Mach number. Three empennage arrangements (aft, staggered, and forward) were investigated. Extensive measurements were made of static pressure on the nozzle/afterbody in the vicinity of the tail surfaces.

The results of this study indicate that, for the isolated nozzle/afterbody, high negative pressure coefficients which act on the aft facing slopes of the nozzle/afterbody are evident at Mach numbers above 0.90. At supersonic speeds, shock-induced flow separation is present on the nozzle. The effects of the empennage on the nozzle/afterbody static pressure distributions are not limited to regions close to the tail surface but extend completely around the nozzle/afterbody. At a Mach number of 0.90 and 0.95, the configuration with the aft-located empennage had the lowest pressure coefficients (highest local velocities) on the afterbody. As the empennage is moved closer to the nozzle at supersonic speeds, the shock-induced flow separation causes a reduction in the pressure coefficients over the nozzle. At subsonic speeds (Mach number less than or equal to 0.95), placing the horizontal and vertical tails at the same longitudinal location causes a channeling effect on the flow and results in increased negative pressure coefficients. Thus, the configuration with the staggered empennage represents the configuration with the lowest unfavorable flow effects. At supersonic speeds (Mach number of 1.20), the results show that moving the horizontal and vertical tails away from the nozzle reduces the adverse empennage interference.

Introduction

Past experimental investigations (refs. 1 through 3) on a typical single-engine fighter aft end have shown the vertical and horizontal tails to be the major contributors to the nozzle/afterbody drag problem. During these investigations, the drag penalty was found to be especially acute when the nozzle operated in a closed-down (dry power) mode and when the tail surfaces were in an aft empennage arrangement. Moving the vertical and horizontal tails forward away from the nozzle greatly reduced the transonic drag rise and lowered the overall configuration drag. These results were deduced from force mea-

surements on the aft end of the model and limited pressure measurements on the nozzle. The extent of the interference caused by the tails and its effects could not be determined because of a lack of detailed pressure measurements in the vicinity of the tails. For this reason, the present investigation was undertaken to obtain the detailed pressure distributions over the nozzle, afterbody, and empennage that are necessary to develop an understanding of the flow interactions associated with afterbody/empennage integration. In addition, there is a tremendous need for very detailed, highly accurate pressure data on simple configurations for use in validating new computational methods. (See refs. 4 through 6.) This study provides these data on a very simple axisymmetric nozzle/afterbody configuration with horizontal and vertical tails.

The investigation was conducted in the Langley 16-Foot Transonic Tunnel at Mach numbers from 0.60 to 1.20. Over 300 static pressures were measured on the surface of the model in the vicinity of the tails while nozzle pressure ratio and angle of attack were varied at each Mach number. Three empennage arrangements (aft, staggered, and forward) were investigated with a typical dry power convergent-divergent nozzle installed.

Symbols

The symbols used in the computer-generated tables in the appendix are given in the second column.

b	B	span (root to tip excluding root filler) of baseline tail surface (used for both vertical and horizontal tails), in.
C_p		static-pressure coefficient, $\frac{p_l - p_\infty}{q_\infty}$
C_p^*		pressure coefficient for sonic flow
c	C	airfoil local chord, in.
l	L	model length, in.
M		free-stream Mach number
NPR		nozzle pressure ratio, $p_{t,j}/p_\infty$
p_l		local static pressure, psi
p_t	PTO	free-stream total pressure, psi
$p_{t,j}$		jet total pressure, psi
p_∞	PO	free-stream static pressure, psi
q_∞	QO	free-stream dynamic pressure, psi
R		radius of afterbody or nozzle, in.
x	X	axial distance, in.

y	Y	distance from root (excluding root filler) to row of pressure orifices on horizontal or vertical tails, in.
α	ALPHA	model angle of attack, deg
ϕ	PHI	meridian angle about model axis, positive in counterclockwise direction when facing upstream, deg

Abbreviations:

Fwd	forward
L.E.	leading edge
Sta.	station
Stag	staggered

Apparatus and Methods

Wind Tunnel

The experimental investigation was conducted in the Langley 16-Foot Transonic Tunnel, a single-return atmospheric tunnel with a slotted octagonal test section and continuous air exchange. The Mach number in the test section can be varied from 0.20 to 1.30. A complete description of this facility and its operating characteristics can be found in reference 7.

Support System and Model

A sketch of the sting-strut-supported single-engine model is presented in figure 1. This type of support system places the model centerline on the centerline of the wind tunnel and minimizes support interference on the afterbody and nozzle. Photographs of the model installed in the test section of the Langley 16-Foot Transonic Tunnel are shown in figure 2. A complete description of the model support system can be found in reference 7.

The overall model arrangement, representing a typical single-engine fighter aft end, is composed of four major parts located as shown in the following table:

Part	x , in.	x/l
Forebody	0-40.89	0-0.57
Afterbody	40.89-64.89	0.57-0.91
Nozzle	64.89-71.70	0.91-1.00
Tail surfaces	Variable	Variable

The forebody consists of an ogive nose 24 in. in length with an initial angle of 14° and a constant-radius cylinder thereafter. The afterbody was designed to simulate closure ahead of the nozzle typical of a single-engine fighter configuration. The afterbody had provisions for mounting the vertical and horizontal tails at two different axial locations (forward and aft). The geometric details of the tail surfaces are presented in figure 3. The tail surfaces were tested in three empennage arrangements: aft, staggered, and forward. Figure 4 illustrates the relative position of the tails for the three empennage arrangements. In addition, the model was tested with all tails removed. The external shape of the afterbody and nozzle is presented in figure 5. The nozzle used for this investigation simulated a variable geometry (fixed in dry power mode for this test), convergent-divergent, axisymmetric nozzle typical of those currently in use on modern fighter aircraft. A complete description of this nozzle can be found in reference 1.

Instrumentation

Static pressure was measured on the afterbody and nozzle at the orifice locations shown in figure 5. Additional orifices were located on the left side of the vertical tail and on the horizontal tails as shown in figure 3. Jet total pressure $p_{t,j}$ was measured upstream of the nozzle throat as shown in figure 1. Jet total temperature was maintained at approximately 530°R throughout the entire investigation.

The forces and moments acting on the model were not measured during this investigation but have been extensively measured and documented in previous tests (refs. 1, 2, and 3).

Tests, Corrections, and Accuracy

Data were obtained at Mach numbers 0.60, 0.90, 0.95, and 1.20. At each Mach number, nozzle pressure ratio NPR was varied while angle of attack α was held constant at 0° . The effect of angle of attack was obtained only at a nozzle pressure ratio NPR of 1.00 (jet off). The NPR was varied from 1.0 to 8.0, and the angle of attack was varied from -3° to 9° , depending on Mach number. Reynolds numbers based on the model length for this study are as follows:

M	Reynolds number
0.60	1.80×10^7
0.90	2.24×10^7
0.95	2.30×10^7
1.20	2.40×10^7

To ensure a turbulent boundary layer over the model, a 0.15-in-wide transition strip of No. 100 Carborundum grit was fixed at 0.82 and 0.63 in. from the leading edges of the vertical and horizontal tails, respectively, and at 2.25 in. from the model nose. Model angle of attack was measured by an attitude sensor mounted in the nose of the model.

The accuracy of the pressure coefficients is estimated to be within the following limits:

M	C_p
0.60	± 0.0170
0.90	± 0.0100
0.95	± 0.0096
1.20	± 0.0082

The accuracy of α is ± 0.02 .

Data Reduction

All data for both the model and wind tunnel were recorded simultaneously by computer and stored on magnetic tape. Fifty frames of data taken at a rate of 10 frames per second were averaged for each data point; these average values were used to compute steady-state results. All the data obtained in this study are presented as the variation of pressure coefficient C_p over the afterbody and empennage. These pressure coefficient data are presented in tabulated form in the appendix and in plotted form in the data figures.

Presentation of Results

All the aerodynamic data taken during this study are presented graphically in the figures in the form of pressure coefficient on the nozzle/afterbody and empennage of each configuration. The major results of this investigation are presented in the following figures:

	Figure
Effect of model support system on pressure coefficients at two meridian angles for body alone at $M = 0.95$ and NPR = 1.0 (jet off)	6
Effect of nozzle pressure ratio on nozzle/afterbody pressures at $\alpha \approx 0^\circ$ for—	
Body alone	7
Body with horizontal and vertical tails in aft location	8
Body with horizontal and vertical tails in forward location	9
Body with horizontal tails in aft location and vertical tail in forward location	10

Effect of angle of attack on nozzle/afterbody pressures at NPR ≈ 1.0 for —	
Body alone	11
Body with horizontal and vertical tails in aft location	12
Body with horizontal and vertical tails in forward location	13
Body with horizontal tails in aft location and vertical tail in forward location	14
Effect of empennage arrangement on nozzle/afterbody pressure coefficients at NPR = 1.0 and $\alpha = 0^\circ$ for—	
$\phi = 18^\circ$	15
$\phi = 72^\circ$	16
Effect of empennage arrangement on pressure coefficients at NPR = 1.0 and $\alpha = 0^\circ$ on—	
Horizontal tails	17
Vertical tail	18
Comparison of calculated and experimental pressure coefficients at $\alpha = 0^\circ$ on nozzle/afterbody for—	
Body alone	19
Staggered tails configuration	20
Drag coefficient due to various empennage arrangement	21

Results and Discussions

The primary emphasis in this investigation was on determining the effects of nozzle pressure ratio, angle of attack, and empennage arrangement on the pressure distributions over a single-engine nozzle/afterbody configuration. The basic data are presented graphically in figures 7 to 18 and tabulated in the appendix. Comparisons of the experimental data with theoretical calculations are presented in figures 19 and 20.

Strut Interference Effects

The model used in this study was mounted on a strut support system in the Langley 16-Foot Transonic Tunnel. (See fig. 1.) It would be expected from looking at this installation that the strut located on the bottom of the model may adversely affect the pressure coefficients on the model lower surface. However, as indicated by the data of figures 6 and 7, the pressure coefficients on the nozzle/afterbody are not significantly affected by the presence of the strut support system. At an angle of attack of 0° the largest effect noted, as one would expect, is at the stations closest to the strut. (See data for $x/l = 0.7$ in fig. 6(a).) At lifting conditions, $\alpha = 3^\circ$, the strut system again appears to have only small effects on the pressure coefficients. (Compare lower surface pressure coefficients at $\alpha = -3^\circ$ with upper surface pressure coefficients at $\alpha = 3^\circ$ in fig. 6(b).) Based on these results it is believed that the pressure coefficient data obtained on the model

at $\alpha = 0^\circ$ are relatively free of adverse strut interference effects.

Nozzle/Afterbody Configuration

Varying nozzle pressure ratio does not significantly alter the pressure distributions over the isolated nozzle/afterbody (body alone) at the lower test Mach numbers. (See fig. 7.) At supersonic speeds (fig. 7(a)), a local shock wave appears to be present on the nozzle at a fuselage station x/l of about 0.95 and causes flow separation. As the pressure ratio is increased, this shock wave moves forward on the nozzle increasing slightly the area of flow separation. The data of reference 3 (summarized in fig. 21) indicated that the drag coefficient for the isolated nozzle/afterbody is fairly constant up to a Mach number of 0.90. At the higher Mach numbers, the drag increases significantly. At a Mach number of 0.95 (compare figs. 7(b) and (d), for example) the increased drag is probably due to the higher local velocities (area of supersonic flow) in the area around the start of the nozzle ($x/l = 0.91$). These higher negative pressure coefficients acting on the rearward-facing surface area of the nozzle act to increase the drag coefficient. At supersonic speeds, $M = 1.2$, the high drag is caused (compare figs. 7(a) and (d)) by the shock-induced flow separation on the nozzle itself which prevents any pressure recovery over the last 25 percent of the nozzle boattail.

Increasing the angle of attack at subsonic speeds for the isolated nozzle/afterbody (fig. 11) tends to increase the pressure coefficients (reduce local velocities) on the upper surface of the model and decrease the pressure coefficients (increase local velocities) on the lower surface of the model, particularly near the start of the nozzle boattail. At supersonic speeds, the effect of angle of attack is extremely small, which is not surprising since the highest angle of attack at this Mach number was less than 6° .

Nozzle/Afterbody/Empenage Configurations

The effect of nozzle pressure ratio on the pressure distributions over the nozzle/afterbody with the empenage in various arrangements at an angle of attack of approximately 0° is presented in figures 8 through 10. In general, the results show forward movement of a shock wave on the nozzle with increasing NPR at supersonic speeds and some increase in pressure coefficients at the nozzle exit at subsonic speeds. Although there is a small effect of nozzle pressure ratio on these pressure distributions, there is a significant effect of the empenage on the nozzle/afterbody pressure coefficients. The pressure distributions show that the local airflow velocity over

the afterbody decreases at the leading edge of the empenage surface and then increases around the empenage surface resulting in slightly lower (more negative) static pressure coefficients at the nozzle exit for $M > 0.90$. (Compare fig. 7 with fig. 8 or 16.) In addition, for the aft tails arrangement the flow expansion around the empenage results in a higher local velocity (lower negative pressure coefficients) at the start of the nozzle boattail than occurs with the tails off. At all Mach numbers of this investigation, the effects of the empenage are not limited to the regions close to the tail surfaces but extend completely around the nozzle/afterbody. The magnitude of these effects is small at the lower Mach numbers (for $M = 0.60$, compare figs. 7(d) and 8(d)) but increase as the Mach number increases (for $M = 0.95$, compare figs. 7(b) and 8(b)).

The drag data of references 1 to 3 and figure 21 indicate that adding the empenage can cause significant interference effects on the nozzle/afterbody, depending on the empenage configuration and test Mach number. At the lower Mach numbers ($M = 0.50$ from ref. 3), the interference drag is extremely small with the aft tails arrangement having the highest level. Comparing the data of figure 7(d) with 8(d) for $M = 0.60$ (empenage is off in fig. 7(d) and on in fig. 8(d)) would tend to confirm this low level of interference drag. The results at $M = 0.60$ presented herein indicate that although the tails caused an acceleration of the flow over the afterbody, the local velocities are still subsonic and no indication of flow separation is present. At a Mach number of 0.95, however (compare figs. 7(b) and 8(b)), the empenage caused a large increase in velocities over the aft portion of the afterbody and forward portion of the nozzle ($x/l = 0.82$ to 0.92) which results in the formation of a shock wave at about $x/l = 0.92$ and flow separation over much of the nozzle (pressures on the nozzle are less positive than on the body alone). (See data for $\phi = 72^\circ$, for example.) These high negative pressure coefficients acting on the rearward-facing projected area of the nozzle/afterbody along with the absence of pressure recovery on the nozzle (flow separation) cause the high level of interference drag shown in references 1 to 3.

The effect of angle of attack on the pressure distributions over the nozzle/afterbody is presented in figure 12 for the configuration with the tails in the aft location, in figure 13 for the configuration with the tails in the forward location, and in figure 14 for the configuration with the tails in the staggered location. (See fig. 4 for model sketches.) Increasing angle of attack significantly affects the pressure coefficients over the afterbody. These effects, as indicated previously, are not limited to the area around the

empennage but extend completely around the afterbody. Increasing angle of attack increases the local velocity on model surfaces located above the upper surface of the horizontal tails ($\phi = 0^\circ$ to 72°) and lowers the velocities on model surfaces below the horizontal tails ($\phi = 108^\circ$ to 180°).

At a Mach number of 0.60, increasing angle of attack significantly alters the pressure coefficient distributions over the model afterbody with very little effect on the pressures over the nozzle (particularly at roll angles greater than 18°). (See figs. 12(d), 13(d), and 14(d).) At roll angles which are essentially located behind the vertical tail ($\phi = 0^\circ$ and 18°) there is a significant effect of angle of attack on the nozzle pressure distribution. The effect of angle of attack on the level of interference drag is believed to be relatively small, since the flow data generally show no evidence of flow separation on the nozzle/afterbody.

At the higher Mach numbers ($M > 0.60$), the angle-of-attack effects are not limited to the model afterbody but extend aft on to the nozzle. (For example, see figs. 12(a) and (b).) Increasing α generally results in lower local pressure coefficients which increase the total drag. Although the effect of α on the nozzle pressure coefficients is large for the aft-mounted empennage arrangement (fig. 12), it is somewhat reduced as the tail surfaces are moved forward away from the nozzle. (See fig. 13.)

Effect of Empennage Arrangement

In references 1 and 3 and figure 21, the aerodynamic force data showed that the staggered tails configuration in general has the lowest interference drag at high subsonic speeds and the aft tails configuration the highest interference drag. At supersonic speeds ($M = 1.20$), the aft tails configuration still has the highest interference drag, but now the forward tails configuration has the lowest interference drag.

At $M = 0.90$, the pressure data show that the configuration with the aft-tail arrangement has the higher local velocities on the afterbody at the start ($x/l = 0.91$) of the nozzle boattail. (Compare figs. 8(c) and 10(c) and see figs. 15(a) and 16(a).) This region of supersonic flow with large negative pressure coefficients acting on the rearward-facing slopes may cause the drag increase identified in reference 3 even though the pressures on the aft part of the nozzle are slightly higher (more positive). The largest negative pressure coefficients on the aft tails configuration are located in the region between the horizontal and vertical tails ($\phi = 0^\circ$ to 90°); this indicates some channeling effect of the airflow.

At a Mach number of 0.95, the pressure coefficient data indicate (compare figs. 8(b) and 10(b)) essentially the same results as for $M = 0.90$, except

that a shock wave at $x/l = 0.92$ causes some flow separation on the nozzle for the aft tails arrangement, and this results in higher interference drag.

At $M = 1.20$, the major area of adverse empennage effects appears to be located on the nozzle. (Compare figs. 8(a) and 9(a) and see figs. 15(b) and 16(b).) As the empennage is moved closer to the nozzle, the shock-induced flow separation causes larger negative pressure coefficients over the nozzle. These reduced pressures acting on the rearward-facing slopes of the nozzle probably result in the increased drag noted in reference 3 for the aft tails configuration.

Empennage Pressure Coefficients

The effect of empennage arrangement on the horizontal tail and vertical tail pressure coefficients at jet-off conditions is summarized in figures 17 and 18, respectively. At the inboard station ($y/b = 0.10$), the pressure coefficients over the horizontal tails in the staggered empennage configuration at subsonic speeds are approximately the same as for the other two empennage arrangements, whereas at the more outboard span station ($y/b = 0.20$), the velocities over the staggered empennage horizontal tails are significantly lower except near the tail leading edge. These data would seem to indicate that at the inboard station, the local flow may be dominated by afterbody/horizontal tail juncture effects. For the outboard station, however, the data would seem to indicate that when the tail surfaces are aligned (located at the same afterbody station) there is some channeling (meeting of the pockets of supersonic flow on each tail surface) of the air flow between the tail surfaces which causes the higher local velocities indicated by the pressure coefficient data. This is evident in the pressure distribution over the vertical tail (fig. 18), which shows a shock wave formed on the aft and forward tails configuration and none on the staggered tails configuration. It is evident that the high empennage interference drag increments at subsonic speeds for the aft and forward tails configurations are due to the high negative pressures in the region of supersonic flow, which are acting on the rearward-facing projected area of the model afterbody and the wave drag. At $M = 1.20$, the pressure coefficient characteristics are nearly the same for all empennage configurations studied, possibly indicating that the interference drag is primarily associated with the effect of the empennage on the flow over the afterbody and nozzle.

Comparison of Calculated and Experimental Results

The experimental data obtained in this investigation are compared with the results calculated

by two theoretical methods in figures 19 and 20. The first theoretical method is a viscous-inviscid interaction method known as RAXJET (refs. 5 and 6), which is used to calculate the pressure distributions over an isolated nozzle/afterbody. This interaction method subdivides the flow about the nozzle/afterbody into several regions. In general these regions include (1) the essentially inviscid external flow, (2) the boundary-layer flow over the nozzle surfaces, (3) the essentially inviscid jet exhaust, and (4) the mixing layer between the jet exhaust and the external stream. The boundary-layer growth effects are accounted for by using an effective surface determined by adding the boundary-layer-displacement thickness to the body geometry. RAXJET attempts to solve the flow field by patching together solutions for the flow in each of these regions. This type of jet flow field modeling has proven to be very accurate for isolated boattail geometries. The second method is a full-potential finite-volume transonic code called FLO-30V (ref. 5), which is used to calculate the pressure distributions over the nozzle/afterbody including the effects of the empennage. In this code an integral boundary-layer calculation is performed in strip fashion. The resulting effective body and tails are used as input to the code. This developmental code utilizes the method of Caughey and Jameson which is based upon the full potential equation and a mesh generation technique which wraps a C-type grid around the body and tails. Further discussion of the methods used in these calculations and of the comparisons of calculations with experimental data can be found in reference 8.

A comparison of the experimental data for the nozzle/afterbody configuration with the calculations by using the RAXJET code is presented in figure 19. The results indicate that the calculations compare reasonably well with the experimental data at subsonic speeds. There is some discrepancy in the comparison at the model station just downstream of the start of the nozzle ($x/l = 0.91$) and at the nozzle exit. This difference is possibly caused either by grid resolution or the inadequacy of the boundary-layer calculation to accurately predict viscous effects. At $M = 1.20$, the nozzle external flow is dominated by shock-induced flow separation, and therefore, the calculations would not be expected to yield good agreement over the nozzle itself because the method does not contain a separation model.

The calculated results from FLO-30V for the staggered empennage arrangement at subsonic speeds are compared with the experimental data in figure 20. The staggered tails arrangement was chosen because the results presented herein and in references 1 and 3 show that the empennage interference effects

were less for this configuration than for the other configurations studied, and it was believed that a better agreement could be obtained. The calculated results show reasonably good agreement with the experimental data at the lowest test Mach number ($M = 0.60$). At the higher subsonic test Mach numbers (fig. 20(c) for $M = 0.95$), the discrepancy between the experiment and theory becomes significant. The major reason for the discrepancy could probably be attributed to the approximations made to model the vertical tails and the lack of a model of the wake of the vertical tail. The FLO-30V calculations do account for viscous effects, but the boundary layers on the body and tail were computed separately as two-dimensional elements so that the influence of the empennage is not included in the afterbody boundary-layer calculations. As a result, the FLO-30V calculation shows some influence of the empennage on nozzle/afterbody pressures but fails to predict the severity of the interference effects.

Conclusions

An investigation has been conducted in the Langley 16-Foot Transonic Tunnel to determine the effects of empennage arrangement on single-engine nozzle/afterbody static pressures. Tests were conducted at Mach numbers from 0.60 to 1.20, nozzle pressure ratios from 1.0 (jet off) to 8.0, and angles of attack from -3° to 9° , depending on Mach number. Three empennage arrangements (aft, staggered, and forward) were investigated. The results of this study indicate the following conclusions:

1. For the isolated nozzle/afterbody, high negative pressure coefficients which act on the rearward-facing slopes of the nozzle/afterbody are evident at Mach numbers above 0.90. At supersonic speeds, shock-induced flow separation is present on the nozzle.
2. The effects of the empennage on nozzle/afterbody pressure coefficients are not limited to the regions close to the tail surfaces but extend completely around the nozzle/afterbody.
3. At a Mach number of 0.90 and 0.95, the configuration with the aft-located horizontal and vertical tails had the lowest (most negative) pressure coefficients (highest local velocities) on the afterbody.
4. As the empennage is moved closer to the nozzle at supersonic speeds, the shock-induced flow separation causes a reduction in the pressure coefficients over the nozzle.
5. At subsonic speeds (Mach number less than or equal to 0.95), placing the horizontal and vertical tails at the same longitudinal location causes a channeling effect on the flow resulting in increased

negative pressure coefficients. The configuration with the staggered tails represents the configuration with the lowest unfavorable flow effects.

6. At supersonic speeds (Mach number equal to 1.20), the results show that moving the horizontal and vertical tails away from the nozzle reduces the unfavorable flow effects.

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Appendix

Tabulated Pressure Distributions

The tabulated pressure distributions are presented in tables A1 through A32 as follows:

Effect of nozzle pressure ratio on pressure distributions for—

Body alone at—

$M = 1.20$ and $\alpha = 0.010^\circ$	A1
$M = 0.95$ and $\alpha = 0.010^\circ$	A3
$M = 0.90$ and $\alpha = 0.009^\circ$	A5
$M = 0.60$ and $\alpha = 0.010^\circ$	A7

Aft tails configuration at—

$M = 1.20$ and $\alpha = 0.025^\circ$	A9
$M = 0.95$ and $\alpha = 0.024^\circ$	A11
$M = 0.90$ and $\alpha = 0.017^\circ$	A13
$M = 0.60$ and $\alpha = 0.030^\circ$	A15

Forward tails configuration at—

$M = 1.20$ and $\alpha = 0.003^\circ$	A17
$M = 0.95$ and $\alpha = 0.015^\circ$	A19
$M = 0.90$ and $\alpha = 0.016^\circ$	A21
$M = 0.60$ and $\alpha = 0.009^\circ$	A23

Staggered tails configuration at—

$M = 1.20$ and $\alpha = 0.015^\circ$	A25
$M = 0.95$ and $\alpha = 0.023^\circ$	A27
$M = 0.90$ and $\alpha = 0.020^\circ$	A29
$M = 0.60$ and $\alpha = 0.029^\circ$	A31

Effect of angle of attack on pressure distributions for—

Body alone at—

$M = 1.20$ and NPR = 1.037	A2
$M = 0.95$ and NPR = 1.115	A4
$M = 0.90$ and NPR = 1.111	A6
$M = 0.60$ and NPR = 1.051	A8

Aft tails configuration at—

$M = 1.20$ and NPR = 0.985	A10
$M = 0.95$ and NPR = 1.067	A12
$M = 0.90$ and NPR = 1.099	A14
$M = 0.60$ and NPR = 1.050	A16

Forward tails configuration at—

$M = 1.20$ and NPR = 1.052	A18
$M = 0.95$ and NPR = 1.138	A20
$M = 0.90$ and NPR = 1.119	A22
$M = 0.60$ and NPR = 1.056	A24

Staggered tails configuration at—

$M = 1.20$ and NPR = 1.006	A26
$M = 0.95$ and NPR = 1.096	A28
$M = 0.90$ and NPR = 1.098	A30
$M = 0.60$ and NPR = 1.049	A32

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Table A1. Effect of Nozzle Pressure Ratio on Pressure Distributions for Body Alone at
 $M = 1.20$ and $\alpha = 0.010^\circ$

(a) NPR = 1.060

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION POINT NUMBER	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL					
			UPPER SURFACE Y/B	LOWER SURFACE Y/B	UPPER SURFACE Y/B	LOWER SURFACE Y/B	0.1	0.2				
MACH NUMBER	1.205		0.1	0.2	0.1	0.2	0.1	0.2				
ALPHA, DEG	.010	0.05	0.10									
NPR	1.060	0.20	0.30									
PTQ, PSI	14.696	0.40	0.50									
PD, PSI	6.023	0.60	0.70									
QD, PSI	6.119	0.80	0.90									
Tails removed												
AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.027	-.023	*****	-.018	*****	*****	*****	-.023	-.014	-.007	.005	*****
.598	-.033	-.027	*****	-.025	*****	-.028	*****	-.028	-.015	-.007	*****	*****
.612	-.033	-.029	*****	-.026	*****	-.021	*****	-.020	-.011	-.008	*****	*****
.626	-.031	-.028	*****	-.028	*****	-.024	*****	-.017	-.012	-.005	*****	*****
.640	*****	-.019	*****	-.015	*****	-.019	*****	-.014	-.005	-.002	*****	*****
.654	*****	-.028	*****	-.025	*****	-.019	*****	-.023	-.024	-.020	*****	*****
.668	*****	*****	*****	-.022	*****	-.021	*****	-.017	-.015	-.008	*****	*****
.682	*****	-.030	*****	-.027	*****	-.028	*****	-.021	-.018	-.001	.003	*****
.696	*****	-.030	*****	-.027	*****	-.026	*****	-.019	-.007	.001	-.001	.000
.710	*****	-.023	*****	*****	*****	-.024	*****	-.010	-.005	.000	-.004	-.006
.724	*****	-.020	*****	-.021	*****	-.020	*****	-.009	-.008	-.009	-.013	-.014
.738	*****	-.025	*****	-.028	*****	*****	*****	-.014	-.026	-.021	-.027	-.026
.752	*****	-.012	*****	-.009	*****	-.012	*****	-.010	-.016	-.018	-.018	*****
.766	*****	-.027	*****	-.032	*****	-.030	*****	-.035	-.043	-.043	-.043	-.046
.779	*****	-.019	*****	-.019	*****	-.023	*****	-.018	*****	-.029	-.026	-.030
.793	*****	-.031	*****	-.030	*****	-.032	*****	*****	-.034	-.035	-.038	*****
.807	*****	-.038	*****	-.034	*****	-.036	*****	*****	-.037	-.041	-.037	-.037
.821	*****	*****	*****	-.034	*****	-.038	*****	*****	-.038	-.040	-.039	-.038
.835	*****	-.046	*****	-.048	*****	-.042	*****	*****	-.040	-.043	-.044	-.051
.849	*****	-.057	*****	-.057	*****	-.050	*****	*****	-.047	-.054	-.056	-.062
.863	*****	-.074	*****	-.071	*****	-.068	*****	*****	-.068	-.072	*****	-.071
.877	-.036	-.074	*****	-.076	*****	-.081	*****	*****	*****	*****	*****	*****
.891	-.086	-.094	*****	-.096	*****	-.100	*****	*****	-.102	-.097	-.096	-.093
.916	-.115	-.116	-.178	*****	-.124	*****	-.137	-.143	-.140	-.126	-.116	-.127
.928	-.157	*****	-.202	*****	-.163	*****	-.167	-.169	-.171	-.173	-.174	-.170
.940	-.215	*****	-.212	*****	-.224	-.229	-.225	-.226	-.229	-.229	-.231	-.230
.952	*****	*****	-.295	*****	-.299	-.300	-.305	-.306	-.308	-.309	-.311	-.306
.962	-.329	-.328	*****	*****	-.331	-.326	-.317	-.314	-.315	-.297	-.327	-.333
.974	-.114	-.086	*****	*****	-.067	-.058	-.050	-.054	-.050	-.047	-.055	-.055
.986	-.016	-.013	-.016	*****	-.014	-.009	-.008	-.011	-.009	-.008	-.010	-.010
.996	.007	.010	*****	*****	.003	.009	.010	.009	.006	.010	.006	.010
AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0988												

Table A1. Continued

(b) NPR = 2.040

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL					
			UPPER SURFACE Y/B	0.2	LOWER SURFACE Y/B	0.2	Y/B					
POINT NUMBER	4		0.1		0.1	0.2	0.1	0.2				
MACH NUMBER	1.201											
ALPHA, DEG	.010	0.05										
NPR	2.040	0.10										
PTO, PSI	14.697	0.20										
PO, PSI	6.051	0.30										
QO, PSI	6.112	0.40										
		0.50										
		0.60										
		0.70										
		0.80										
		0.90										
Tails removed												
AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.032	-.030	*****	-.018	*****	*****	*****	-.023	-.020	-.012	.005	*****
.59A	-.037	-.033	*****	-.028	*****	-.030	*****	-.025	-.019	-.008	*****	*****
.612	-.034	-.034	*****	-.028	*****	-.025	*****	-.020	-.017	-.005	*****	*****
.626	-.034	-.036	*****	-.025	*****	-.028	*****	-.020	-.018	-.010	*****	*****
.640	*****	-.027	*****	-.022	*****	-.015	*****	-.012	-.012	-.006	*****	*****
.654	*****	-.040	*****	-.029	*****	-.021	*****	-.028	-.027	-.021	*****	*****
.668	*****	*****	*****	-.025	*****	-.022	*****	-.021	-.018	-.014	*****	*****
.682	*****	-.032	*****	-.034	*****	-.030	*****	-.023	-.021	-.005	.002	*****
.696	*****	-.034	*****	-.033	*****	-.027	*****	-.021	-.016	-.006	-.004	.003
.710	*****	-.032	*****	*****	*****	-.025	*****	-.014	-.008	-.002	-.003	-.005
.724	*****	-.023	*****	-.025	*****	-.017	*****	-.010	-.011	-.007	-.012	-.013
.738	*****	-.028	*****	-.025	*****	*****	*****	-.018	-.028	-.024	-.026	-.024
.752	*****	-.016	*****	-.014	*****	-.014	*****	-.013	-.021	-.018	-.019	*****
.766	*****	-.030	*****	-.038	*****	-.035	*****	-.036	-.044	-.044	-.047	-.048
.779	*****	-.022	*****	-.024	*****	-.027	*****	-.022	*****	-.030	-.028	-.027
.793	*****	-.035	*****	-.035	*****	-.038	*****	*****	-.039	-.039	-.039	*****
.807	*****	-.043	*****	-.040	*****	-.040	*****	*****	-.042	-.043	-.040	-.038
.821	*****	*****	*****	-.039	*****	-.041	*****	*****	-.040	-.036	-.038	-.038
.835	*****	-.054	*****	-.050	*****	-.051	*****	*****	-.047	-.047	-.048	-.051
.849	*****	-.062	*****	-.053	*****	-.052	*****	*****	-.050	-.059	-.059	-.057
.863	*****	-.076	*****	-.073	*****	-.071	*****	*****	-.072	-.071	*****	-.072
.877	-.094	-.077	*****	-.078	*****	-.085	*****	*****	*****	*****	*****	*****
.891	-.094	-.100	*****	-.097	*****	-.103	*****	*****	-.102	-.096	-.097	-.092
.916	-.121	-.122	-.183	*****	-.129	*****	-.140	-.147	-.143	-.128	-.116	-.126
.928	-.160	*****	-.207	*****	-.168	*****	-.170	-.173	-.174	-.174	-.174	-.170
.940	-.218	*****	-.216	*****	-.229	-.234	-.229	-.230	-.232	-.231	-.232	-.229
.952	*****	*****	-.299	*****	-.305	-.305	-.309	-.308	-.310	-.309	-.312	-.305
.962	-.334	-.333	*****	*****	-.334	-.332	-.330	-.326	-.331	-.320	-.335	-.338
.974	-.061	-.063	*****	*****	-.055	-.055	-.051	-.056	-.049	-.045	-.057	-.060
.986	-.010	-.012	-.009	*****	-.009	-.008	-.012	-.010	-.012	-.011	-.017	-.014
.996	.005	.005	*****	*****	.006	.009	.007	.004	.007	.004	.002	.005
AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT										.1008		

ORIGINAL PAGE IS
OF POOR QUALITY

Table A1. Continued

(c) NPR = 4.074

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION	BODY ONLY	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
				UPPER SURFACE		LOWER SURFACE		Y/B	
		5		0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	1.200								
ALPHA, DEG	.011		0.05						
			0.10						
NPR	4.074		0.20						
			0.30						
PTQ, PSI	14.695		0.40						
			0.50						
PD, PSI	6.057		0.60						
			0.70						
QD, PSI	6.109		0.80						
			0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.031	*****	-.017	*****	*****	*****	-.023	-.024	-.014	.004	*****
.598	-.039	-.037	*****	-.031	*****	-.030	*****	-.027	-.021	-.007	*****	*****
.612	-.038	-.035	*****	-.027	*****	-.025	*****	-.020	-.019	-.008	*****	*****
.626	-.038	-.037	*****	-.029	*****	-.024	*****	-.020	-.018	-.013	*****	*****
.640	*****	-.027	*****	-.026	*****	-.021	*****	-.014	-.014	-.008	*****	*****
.654	*****	-.042	*****	-.035	*****	-.022	*****	-.027	-.028	-.024	*****	*****
.668	*****	*****	*****	-.028	*****	-.024	*****	-.024	-.021	-.015	*****	*****
.682	*****	-.031	*****	-.033	*****	-.031	*****	-.026	-.025	-.007	-.001	*****
.696	*****	-.038	*****	-.034	*****	-.032	*****	-.027	-.020	-.003	-.003	.000
.710	*****	-.037	*****	*****	*****	-.024	*****	-.019	-.013	-.003	-.001	-.007
.724	*****	-.028	*****	-.026	*****	-.015	*****	-.009	-.013	-.011	-.013	-.016
.738	*****	-.032	*****	-.031	*****	*****	*****	-.019	-.027	-.022	-.024	-.026
.752	*****	-.018	*****	-.020	*****	-.015	*****	-.011	-.022	-.021	-.020	*****
.766	*****	-.035	*****	-.039	*****	-.035	*****	-.040	-.049	-.044	-.047	-.048
.779	*****	-.024	*****	-.026	*****	-.030	*****	-.025	*****	-.031	-.031	-.031
.793	*****	-.034	*****	-.037	*****	-.042	*****	*****	-.039	-.039	-.040	*****
.807	*****	-.042	*****	-.039	*****	-.043	*****	*****	-.042	-.042	-.040	-.041
.821	*****	*****	*****	-.040	*****	-.044	*****	*****	-.044	-.044	-.037	-.038
.835	*****	-.054	*****	-.053	*****	-.052	*****	*****	-.048	-.049	-.050	-.052
.849	*****	-.062	*****	-.055	*****	-.057	*****	*****	-.053	-.055	-.059	-.062
.863	*****	-.080	*****	-.074	*****	-.071	*****	*****	-.073	-.076	*****	-.072
.877	-.097	-.082	*****	-.078	*****	-.085	*****	*****	*****	*****	*****	*****
.891	-.096	-.101	*****	-.100	*****	-.104	*****	*****	-.103	-.097	-.098	-.092
.916	-.121	-.123	-.185	*****	-.130	*****	-.144	-.146	-.145	-.127	-.117	-.127
.928	-.161	*****	-.208	*****	-.171	*****	-.173	-.173	-.175	-.175	-.174	-.169
.940	-.220	*****	-.218	*****	-.230	-.235	-.231	-.231	-.232	-.233	-.232	-.229
.952	*****	*****	-.303	*****	-.303	-.308	-.311	-.311	-.312	-.310	-.313	-.305
.962	-.336	-.335	-.334	*****	-.337	-.336	-.336	-.329	-.333	-.332	-.341	-.341
.974	-.079	-.074	*****	*****	-.067	-.057	-.061	-.057	-.055	-.054	-.060	-.069
.986	-.011	-.012	-.013	*****	-.014	-.012	-.014	-.014	-.012	-.016	-.014	-.013
.996	.005	.004	*****	*****	.005	.004	.005	.005	.003	.006	.004	.009

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1029

Table A1. Continued

(d) NPR = 6.026

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS					
CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
POINT NUMBER	6		0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	1.199							
ALPHA, DEG	.011	0.05						
NPR	6.026	0.10						
PTQ, PSI	14.694	0.20						
PD, PSI	6.064	0.30						
QD, PSI	6.107	0.40						
		0.50						
		0.60						
		0.70						
		0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.034	-.031	*****	-.014	*****	*****	*****	-.024	-.023	-.015	.000	*****
.598	-.041	-.036	*****	-.031	*****	-.033	*****	-.026	-.024	-.012	*****	*****
.612	-.040	-.037	*****	-.031	*****	-.027	*****	-.022	-.021	-.011	*****	*****
.626	-.039	-.039	*****	-.029	*****	-.024	*****	-.021	-.020	-.013	*****	*****
.640	*****	-.030	*****	-.026	*****	-.022	*****	-.017	-.015	-.008	*****	*****
.654	*****	-.042	*****	-.035	*****	-.025	*****	-.030	-.028	-.025	*****	*****
.668	*****	*****	*****	-.030	*****	-.027	*****	-.026	-.022	-.015	*****	*****
.682	*****	-.033	*****	-.032	*****	-.032	*****	-.031	-.027	-.010	-.003	*****
.696	*****	-.036	*****	-.037	*****	-.032	*****	-.029	-.021	-.010	-.005	-.004
.710	*****	-.034	*****	*****	*****	-.026	*****	-.019	-.014	-.008	-.008	-.010
.724	*****	-.031	*****	-.029	*****	-.020	*****	-.012	-.014	-.012	-.017	-.017
.738	*****	-.031	*****	-.030	*****	*****	*****	-.021	-.032	-.025	-.027	-.029
.752	*****	-.020	*****	-.016	*****	-.015	*****	-.014	-.021	-.021	-.020	*****
.766	*****	-.036	*****	-.039	*****	-.037	*****	-.039	-.049	-.045	-.047	-.048
.779	*****	-.026	*****	-.026	*****	-.028	*****	-.024	*****	-.033	-.029	-.030
.793	*****	-.035	*****	-.037	*****	-.038	*****	*****	-.040	-.040	-.042	*****
.807	*****	-.044	*****	-.039	*****	-.042	*****	*****	-.045	-.043	-.041	-.040
.821	*****	*****	*****	-.041	*****	-.043	*****	*****	-.044	-.044	-.040	-.041
.835	*****	-.053	*****	-.053	*****	-.054	*****	*****	-.052	-.050	-.051	-.053
.849	*****	-.064	*****	-.061	*****	-.056	*****	*****	-.058	-.059	-.062	-.064
.863	*****	-.081	*****	-.077	*****	-.073	*****	*****	-.071	-.074	*****	-.076
.877	-.097	-.085	*****	-.079	*****	-.084	*****	*****	*****	*****	*****	*****
.891	-.096	-.100	*****	-.100	*****	-.104	*****	*****	-.103	-.096	-.098	-.094
.916	-.122	-.123	-.186	*****	-.130	*****	-.144	-.149	-.144	-.128	-.117	-.127
.928	-.163	*****	-.209	*****	-.172	*****	-.172	-.174	-.175	-.175	-.175	-.170
.940	-.220	*****	-.218	*****	-.230	*****	-.236	-.231	-.232	-.233	-.233	-.229
.952	*****	*****	-.302	*****	-.307	-.308	-.309	-.309	-.313	-.310	-.312	-.306
.962	-.289	-.271	-.247	*****	-.220	-.198	-.189	-.187	-.180	-.187	-.216	-.266
.974	-.026	-.024	*****	*****	-.020	-.020	-.020	-.021	-.018	-.020	-.025	-.021
.986	.010	.009	.009	*****	.009	.009	.007	.008	.007	.006	.004	.008
.996	.015	.014	*****	*****	.012	.014	.015	.016	.015	.017	.015	.018

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0881

ORIGINAL PAGE IS
OF POOR QUALITY

Table A1. Concluded

(e) NPR = 7.997

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
			0.1	0.2	0.1	0.2	0.1	0.2
POINT NUMBER	7							
MACH NUMBER	1.200							
ALPHA, DEG	.011	0.05						
NPR	7.997	0.10						
PTD, PSI	14.694	0.20						
PD, PSI	6.057	0.30						
QD, PSI	6.108	0.40						
		0.50						
		0.60						
		0.70						
		0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.030	*****	-.025	*****	*****	*****	-.025	-.022	-.016	.000	*****
.598	-.043	-.034	*****	-.031	*****	-.031	*****	-.026	-.022	-.014	*****	*****
.612	-.039	-.034	*****	-.031	*****	-.024	*****	-.022	-.017	-.012	*****	*****
.626	-.040	-.035	*****	-.033	*****	-.028	*****	-.021	-.021	-.015	*****	*****
.640	*****	-.033	*****	-.028	*****	-.020	*****	-.014	-.015	-.008	*****	*****
.654	*****	-.046	*****	-.036	*****	-.023	*****	-.031	-.028	-.023	*****	*****
.668	*****	*****	*****	-.030	*****	-.028	*****	-.026	-.024	-.014	*****	*****
.682	*****	-.037	*****	-.032	*****	-.032	*****	-.029	-.026	-.007	-.006	*****
.696	*****	-.035	*****	-.035	*****	-.035	*****	-.032	-.025	-.006	-.007	-.004
.710	*****	-.038	*****	*****	*****	-.030	*****	-.021	-.018	-.003	-.006	-.011
.724	*****	-.033	*****	-.026	*****	-.018	*****	-.015	-.012	-.012	-.015	-.017
.738	*****	-.030	*****	-.031	*****	*****	*****	-.021	-.033	-.027	-.026	-.025
.752	*****	-.023	*****	-.018	*****	-.019	*****	-.016	-.025	-.021	-.019	*****
.766	*****	-.039	*****	-.038	*****	-.040	*****	-.042	-.049	-.047	-.049	-.048
.779	*****	-.028	*****	-.024	*****	-.028	*****	-.026	*****	-.031	-.030	-.032
.793	*****	-.036	*****	-.038	*****	-.041	*****	*****	-.038	-.039	-.042	*****
.807	*****	-.042	*****	-.039	*****	-.044	*****	*****	-.043	-.042	-.041	-.040
.821	*****	*****	*****	-.044	*****	-.041	*****	*****	-.041	-.043	-.039	-.040
.835	*****	-.054	*****	-.052	*****	-.056	*****	*****	-.052	-.051	-.051	-.053
.849	*****	-.065	*****	-.060	*****	-.061	*****	*****	-.054	-.062	-.063	-.066
.863	*****	-.084	*****	-.076	*****	-.074	*****	*****	-.071	-.074	*****	-.078
.877	-.102	-.084	*****	-.079	*****	-.084	*****	*****	*****	*****	*****	*****
.891	-.094	-.102	*****	-.098	*****	-.102	*****	*****	-.103	-.098	-.097	-.092
.916	-.122	-.122	-.186	*****	-.131	*****	-.144	-.146	-.142	-.127	-.117	-.125
.928	-.162	*****	-.210	*****	-.172	*****	-.173	-.173	-.174	-.176	-.173	-.169
.940	-.220	*****	-.220	*****	-.231	-.236	-.231	-.231	-.232	-.231	-.231	-.227
.952	*****	*****	-.303	*****	-.305	-.308	-.309	-.310	-.310	-.311	-.310	-.304
.962	-.128	-.103	-.101	*****	-.085	-.069	-.073	-.063	-.066	-.065	-.084	-.110
.974	.006	.008	*****	*****	.008	.006	.008	.009	.012	.007	.006	.006
.986	.029	.031	.025	*****	.028	.027	.027	.027	.026	.022	.025	.027
.996	.028	.025	*****	*****	.026	.027	.031	.029	.030	.029	.029	.031

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0728

Table A2. Effect of Angle of Attack on Pressure Distributions for Body Alone at $M = 1.20$ and $NPR = 1.037$

(a) $\alpha = -2.991^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION	BODY ONLY	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
				UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B	
MACH NUMBER	1.200	9		0.1	0.2	0.1	0.2	0.1	0.2
ALPHA, DEG	-2.991		0.05						
NPR	1.037		0.10						
			0.20						
			0.30						
PTD, PSI	14.692		0.40						
			0.50						
PD, PSI	6.058		0.60						
			0.70						
QD, PSI	6.107		0.80						
			0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG												
	0	18	36	45	54	72	81	90	108	135	162	180	
.584	-.037	-.024	*****	-.030	*****	*****	*****	-.045	-.040	-.023	.000	*****	
.598	-.037	-.033	*****	-.040	*****	-.045	*****	-.043	-.038	-.022	*****	*****	
.612	-.036	-.035	*****	-.038	*****	-.042	*****	-.035	-.030	-.020	*****	*****	
.626	-.038	-.039	*****	-.043	*****	-.040	*****	-.037	-.026	-.020	*****	*****	
.640	*****	-.027	*****	-.037	*****	-.038	*****	-.027	-.023	-.015	*****	*****	
.654	*****	-.044	*****	-.043	*****	-.038	*****	-.043	-.039	-.030	*****	*****	
.668	*****	*****	*****	-.039	*****	-.039	*****	-.036	-.034	-.022	*****	*****	
.682	*****	-.037	*****	-.040	*****	-.044	*****	-.042	-.044	-.023	-.009	*****	
.696	*****	-.042	*****	-.044	*****	-.049	*****	-.045	-.043	-.015	-.006	-.001	
.710	*****	-.040	*****	*****	*****	-.046	*****	-.039	-.030	-.005	-.002	-.002	
.724	*****	-.035	*****	-.041	*****	-.039	*****	-.027	-.023	-.010	-.007	-.010	
.738	*****	-.042	*****	-.047	*****	*****	*****	-.030	-.033	-.021	-.018	-.017	
.752	*****	-.030	*****	-.031	*****	-.026	*****	-.020	-.023	-.021	-.019	*****	
.766	*****	-.041	*****	-.050	*****	-.041	*****	-.046	-.048	-.043	-.041	-.043	
.779	*****	-.034	*****	-.031	*****	-.036	*****	-.027	*****	-.030	-.027	-.025	
.793	*****	-.036	*****	-.039	*****	-.047	*****	*****	-.047	-.039	-.035	*****	
.807	*****	-.045	*****	-.043	*****	-.050	*****	*****	-.046	-.043	-.033	-.031	
.821	*****	*****	*****	-.044	*****	-.052	*****	*****	-.043	-.042	-.034	-.032	
.835	*****	-.054	*****	-.062	*****	-.063	*****	*****	-.052	-.048	-.044	-.043	
.849	*****	-.062	*****	-.066	*****	-.068	*****	*****	-.054	-.060	-.055	-.056	
.863	*****	-.084	*****	-.087	*****	-.078	*****	*****	-.069	-.069	*****	-.073	
.877	-.134	-.114	*****	-.090	*****	-.092	*****	*****	*****	*****	*****	*****	
.891	-.103	-.111	*****	-.098	*****	-.102	*****	*****	-.108	-.098	-.090	-.088	
.916	-.126	-.128	-.199	*****	-.134	*****	-.152	-.154	-.144	-.124	-.111	-.118	
.928	-.168	*****	-.221	*****	-.181	*****	-.181	-.178	-.176	-.171	-.167	-.164	
.940	-.230	*****	-.230	*****	-.245	*****	-.249	-.241	-.237	-.232	-.224	-.219	
.952	*****	*****	-.322	*****	-.324	*****	-.321	-.322	-.317	-.310	-.295	-.293	
.962	-.363	-.364	-.362	*****	-.367	*****	-.360	-.345	-.320	-.302	-.275	-.305	-.318
.974	-.164	-.111	*****	*****	-.075	*****	-.066	-.058	-.055	-.056	-.064	-.087	-.111
.986	-.041	-.034	-.033	*****	-.028	*****	-.028	-.026	-.027	-.025	-.028	-.029	-.032
.996	-.015	-.013	*****	*****	-.012	*****	-.012	-.012	-.009	-.014	-.013	-.014	-.010

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1087

Table A2. Continued

(b) $\alpha = 0.011^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION POINT NUMBER	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL				
			UPPER SURFACE		LOWER SURFACE		Y/B				
			0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	1.201										
ALPHA, DEG	.011	0.05									
NPR	1.043	0.10									
PTD, PSI	14.691	0.20									
PD, PSI	6.050	0.30									
QD, PSI	6.109	0.40									
		0.50									
		0.60									
		0.70									
		0.80									
		0.90									

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.041	-.031	*****	-.030	*****	*****	*****	-.031	-.026	-.018	.001	*****
.598	-.042	-.037	*****	-.036	*****	-.034	*****	-.030	-.024	-.015	*****	*****
.612	-.041	-.036	*****	-.032	*****	-.027	*****	-.022	-.018	-.014	*****	*****
.626	-.041	-.036	*****	-.035	*****	-.030	*****	-.023	-.019	-.016	*****	*****
.640	*****	-.031	*****	-.031	*****	-.020	*****	-.019	-.011	-.013	*****	*****
.654	*****	-.040	*****	-.043	*****	-.026	*****	-.029	-.027	-.022	*****	*****
.668	*****	*****	*****	-.031	*****	-.027	*****	-.023	-.024	-.015	*****	*****
.682	*****	-.038	*****	-.034	*****	-.030	*****	-.030	-.029	-.012	-.006	*****
.696	*****	-.037	*****	-.036	*****	-.036	*****	-.032	-.022	-.013	-.008	-.004
.710	*****	-.035	*****	*****	*****	-.032	*****	-.023	-.019	-.010	-.011	-.011
.724	*****	-.035	*****	-.032	*****	-.025	*****	-.018	-.018	-.013	-.021	-.020
.738	*****	-.039	*****	-.032	*****	*****	*****	-.027	-.036	-.027	-.031	-.030
.752	*****	-.027	*****	-.021	*****	-.020	*****	-.021	-.034	-.023	-.022	*****
.766	*****	-.037	*****	-.042	*****	-.041	*****	-.044	-.051	-.047	-.050	-.050
.779	*****	-.029	*****	-.025	*****	-.031	*****	-.027	*****	-.033	-.031	-.034
.793	*****	-.035	*****	-.035	*****	-.041	*****	*****	-.039	-.040	-.045	*****
.807	*****	-.042	*****	-.038	*****	-.046	*****	*****	-.045	-.043	-.042	-.040
.821	*****	*****	*****	-.044	*****	-.045	*****	*****	-.044	-.043	-.040	-.043
.835	*****	-.054	*****	-.056	*****	-.055	*****	*****	-.051	-.053	-.052	-.056
.849	*****	-.064	*****	-.062	*****	-.064	*****	*****	-.058	-.063	-.067	-.066
.863	*****	-.082	*****	-.082	*****	-.073	*****	*****	-.069	-.076	*****	-.078
.877	-.104	-.087	*****	-.079	*****	-.082	*****	*****	*****	*****	*****	*****
.891	-.095	-.100	*****	-.095	*****	-.102	*****	*****	-.101	-.095	-.098	-.095
.916	-.119	-.122	-.184	*****	-.129	*****	-.141	-.144	-.141	-.124	-.114	-.124
.928	-.162	*****	-.208	*****	-.173	*****	-.171	-.172	-.172	-.171	-.172	-.167
.940	-.220	*****	-.218	*****	-.231	-.235	-.230	-.229	-.229	-.229	-.229	-.226
.952	*****	*****	-.301	*****	-.305	-.307	-.311	-.310	-.311	-.310	-.310	-.304
.962	-.333	-.336	-.333	*****	-.331	-.331	-.333	-.320	-.321	-.327	-.333	-.338
.974	-.127	-.095	*****	*****	-.071	-.057	-.053	-.057	-.048	-.049	-.065	-.070
.986	-.026	-.020	-.024	*****	-.021	-.016	-.016	-.015	-.013	-.014	-.020	-.022
.996	-.003	-.003	*****	*****	-.003	-.001	.001	.003	.003	-.001	-.001	-.002

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1039

Table A2. Continued

(c) $\alpha = 3.011^\circ$

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	BODY ONLY			HORIZONTAL TAILS				VERTICAL TAIL			
POINT NUMBER	11			UPPER SURFACE	LOWER SURFACE		Y/B				
MACH NUMBER	1.200			X/C	0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	3.011			0.05	Tails removed						
				0.10							
NPR	1.034			0.20							
				0.30							
PTD, PSI	14.689			0.40							
				0.50							
PD, PSI	6.055			0.60							
				0.70							
QD, PSI	6.107			0.80							
				0.90							

AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.043	-.034	*****	-.036	*****	*****	*****	-.031	-.023	-.012	.004	*****
.598	-.041	-.037	*****	-.036	*****	-.038	*****	-.031	-.024	-.015	*****	*****
.612	-.042	-.036	*****	-.038	*****	-.032	*****	-.027	-.023	-.012	*****	*****
.626	-.038	-.035	*****	-.033	*****	-.033	*****	-.025	-.026	-.014	*****	*****
.640	*****	-.034	*****	-.030	*****	-.028	*****	-.020	-.018	-.008	*****	*****
.654	*****	-.042	*****	-.040	*****	-.033	*****	-.032	-.031	-.017	*****	*****
.668	*****	*****	*****	-.030	*****	-.030	*****	-.029	-.023	-.009	*****	*****
.682	*****	-.034	*****	-.034	*****	-.037	*****	-.033	-.029	-.012	-.005	*****
.696	*****	-.034	*****	-.037	*****	-.039	*****	-.033	-.024	-.019	-.013	-.009
.710	*****	-.034	*****	*****	*****	-.033	*****	-.028	-.024	-.015	-.019	-.019
.724	*****	-.027	*****	-.028	*****	-.027	*****	-.028	-.030	-.026	-.022	-.023
.738	*****	-.032	*****	-.034	*****	*****	*****	-.038	-.050	-.038	-.032	-.032
.752	*****	-.019	*****	-.023	*****	-.034	*****	-.036	-.038	-.034	-.029	*****
.766	*****	-.032	*****	-.042	*****	-.048	*****	-.050	-.058	-.057	-.051	-.050
.779	*****	-.028	*****	-.029	*****	-.039	*****	-.032	*****	-.045	-.036	-.036
.793	*****	-.037	*****	-.042	*****	-.046	*****	*****	-.050	-.042	-.049	*****
.807	*****	-.042	*****	-.044	*****	-.048	*****	*****	-.052	-.051	-.046	-.046
.821	*****	*****	*****	-.044	*****	-.051	*****	*****	-.052	-.051	-.048	-.047
.835	*****	-.053	*****	-.058	*****	-.057	*****	*****	-.064	-.065	-.061	-.062
.849	*****	-.064	*****	-.065	*****	-.068	*****	*****	-.067	-.076	-.069	-.068
.863	*****	-.079	*****	-.077	*****	-.080	*****	*****	-.087	-.089	*****	-.082
.877	-.081	-.075	*****	-.079	*****	-.085	*****	*****	*****	*****	*****	*****
.891	-.091	-.096	*****	-.096	*****	-.105	*****	*****	-.108	-.102	-.097	-.100
.916	-.116	-.119	-.168	*****	-.127	*****	-.143	-.148	-.150	-.133	-.117	-.133
.928	-.158	*****	-.195	*****	-.168	*****	-.173	-.177	-.180	-.182	-.178	-.171
.940	-.212	*****	-.212	*****	-.224	*****	-.234	-.231	-.236	-.240	-.243	-.242
.952	*****	*****	-.286	*****	-.293	*****	-.303	-.310	-.315	-.324	-.328	-.330
.962	-.307	-.303	-.300	*****	-.300	*****	-.316	-.328	-.337	-.360	-.371	-.373
.974	-.143	-.118	*****	*****	-.078	*****	-.069	-.066	-.065	-.070	-.078	-.105
.985	-.034	-.031	-.033	*****	-.031	*****	-.026	-.028	-.030	-.030	-.033	-.038
.996	-.009	-.013	*****	*****	-.015	*****	-.013	-.014	-.016	-.014	-.015	-.013

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1095
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ORIGINAL PAGE IS
OF POOR QUALITY

Table A2. Concluded

(d) $\alpha = 5.984^\circ$

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION POINT NUMBER	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
			0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	1.199							
ALPHA, DEG	5.984	0.05						
NPR	1.017	0.10						
PTD, PSI	14.691	0.20						
PD, PSI	6.067	0.30						
QD, PSI	6.105	0.40						
		0.50						
		0.60						
		0.70						
		0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.041	-.033	*****	-.039	*****	*****	*****	-.050	-.043	-.021	.015	*****
.598	-.041	-.037	*****	-.046	*****	-.049	*****	-.053	-.040	-.016	*****	*****
.612	-.036	-.037	*****	-.042	*****	-.045	*****	-.047	-.040	-.018	*****	*****
.626	-.030	-.035	*****	-.041	*****	-.044	*****	-.045	-.042	-.025	*****	*****
.640	*****	-.034	*****	-.041	*****	-.041	*****	-.041	-.034	-.013	*****	*****
.654	*****	-.039	*****	-.045	*****	-.045	*****	-.052	-.043	-.023	*****	*****
.668	*****	*****	*****	-.039	*****	-.043	*****	-.047	-.039	-.013	*****	*****
.682	*****	-.033	*****	-.042	*****	-.049	*****	-.053	-.049	-.022	-.003	*****
.696	*****	-.037	*****	-.043	*****	-.049	*****	-.049	-.046	-.032	-.018	-.017
.710	*****	-.035	*****	*****	*****	-.048	*****	-.052	-.049	-.039	-.021	-.021
.724	*****	-.032	*****	-.038	*****	-.046	*****	-.051	-.055	-.035	-.029	-.024
.738	*****	-.033	*****	-.035	*****	*****	*****	-.065	-.067	-.048	-.039	-.039
.752	*****	-.026	*****	-.036	*****	-.046	*****	-.054	-.061	-.046	-.030	*****
.766	*****	-.042	*****	-.048	*****	-.063	*****	-.079	-.082	-.067	-.052	-.054
.779	*****	-.034	*****	-.043	*****	-.059	*****	-.061	*****	-.060	-.038	-.038
.793	*****	-.041	*****	-.051	*****	-.065	*****	*****	-.073	-.054	-.040	*****
.807	*****	-.049	*****	-.051	*****	-.066	*****	*****	-.070	-.057	-.047	-.047
.821	*****	*****	*****	-.054	*****	-.062	*****	*****	-.073	-.062	-.049	-.054
.835	*****	-.058	*****	-.062	*****	-.071	*****	*****	-.086	-.077	-.058	-.063
.849	*****	-.065	*****	-.068	*****	-.080	*****	*****	-.089	-.082	-.064	-.069
.863	*****	-.078	*****	-.080	*****	-.093	*****	*****	-.095	-.101	*****	-.084
.877	-.105	-.082	*****	-.080	*****	-.092	*****	*****	*****	*****	*****	*****
.891	-.090	-.102	*****	-.099	*****	-.114	*****	*****	-.124	-.109	-.115	-.112
.916	-.104	-.118	*****	-.159	*****	-.129	*****	-.157	-.165	-.170	-.143	-.139
.928	-.153	*****	-.188	*****	-.167	*****	-.183	-.192	-.201	-.195	-.186	-.176
.940	-.215	*****	-.206	*****	-.219	-.236	-.242	-.251	-.262	-.261	-.253	-.241
.952	*****	*****	-.275	*****	-.277	-.298	-.316	-.330	-.348	-.351	-.344	-.329
.962	-.335	-.318	-.281	*****	-.276	-.286	-.312	-.341	-.390	-.399	-.393	-.383
.974	-.233	-.167	*****	*****	-.109	-.082	-.088	-.079	-.086	-.126	-.252	-.363
.986	-.032	-.050	*****	*****	-.054	-.051	-.053	-.051	-.055	-.066	-.077	-.073
.996	-.025	-.030	*****	*****	-.035	-.038	-.040	-.038	-.039	-.043	-.044	-.044

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1233

Table A3. Effect of Nozzle Pressure Ratio on Pressure Distributions for Body Alone at $M = 0.95$ and $\alpha = 0.010^\circ$

(a) NPR = 1.112

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	BODY ONLY			HORIZONTAL TAILS						VERTICAL TAIL			
	POINT NUMBER	13		UPPER SURFACE	LOWER SURFACE				Y/B				
MACH NUMBER	.951			X/C	0.1	0.2	0.1	0.2	0.1	0.2			
ALPHA, DEG	.010			0.05									
NPR	1.112			0.10									
PT0, PSI	14.691			0.20									
PD, PSI	8.214			0.30									
Q0, PSI	5.195			0.40									
				0.50									
				0.60									
				0.70									
				0.80									
				0.90									
Tails removed													
AFTERBODY PRESSURE COEFFICIENTS													
PHI, DEG													
X/L	0	18	36	45	54	72	81	90	108	135	162	180	
.584	-.033	-.031	*****	-.023	*****	*****	*****	-.016	-.016	-.010	-.004	*****	
.598	-.049	-.040	*****	-.040	*****	-.049	*****	-.025	-.030	-.018	*****	*****	
.612	-.043	-.041	*****	-.032	*****	-.041	*****	-.023	-.033	-.016	*****	*****	
.626	-.036	-.038	*****	-.029	*****	-.034	*****	-.033	-.032	-.038	*****	*****	
.640	*****	-.049	*****	-.056	*****	-.049	*****	-.045	-.028	-.026	*****	*****	
.654	*****	-.047	*****	-.048	*****	-.050	*****	-.044	-.040	-.046	*****	*****	
.668	*****	*****	*****	-.047	*****	-.045	*****	-.042	-.044	-.034	*****	*****	
.682	*****	-.060	*****	-.052	*****	-.050	*****	-.046	-.047	-.052	-.038	*****	
.696	*****	-.050	*****	-.060	*****	-.048	*****	-.046	-.042	-.046	-.039	-.031	
.710	*****	-.043	*****	*****	*****	-.046	*****	-.051	-.044	-.040	-.043	-.035	
.724	*****	-.051	*****	-.057	*****	-.058	*****	-.043	-.049	-.042	-.050	-.046	
.738	*****	-.058	*****	-.056	*****	*****	*****	-.060	-.057	-.044	-.049	-.061	
.752	*****	-.052	*****	-.052	*****	-.055	*****	-.052	-.054	-.050	-.057	*****	
.766	*****	-.079	*****	-.077	*****	-.081	*****	-.074	-.084	-.070	-.079	-.079	
.779	*****	-.061	*****	-.060	*****	-.063	*****	-.070	*****	-.066	-.062	-.056	
.793	*****	-.081	*****	-.087	*****	-.071	*****	*****	-.083	-.081	-.078	*****	
.807	*****	-.087	*****	-.074	*****	-.077	*****	*****	-.081	-.088	-.079	-.075	
.821	*****	*****	*****	-.084	*****	-.086	*****	*****	-.093	-.096	-.096	-.098	
.835	*****	-.104	*****	-.102	*****	-.115	*****	*****	-.108	-.112	-.103	-.109	
.849	*****	-.127	*****	-.115	*****	-.122	*****	*****	-.130	-.138	-.121	-.117	
.863	*****	-.148	*****	-.151	*****	-.147	*****	*****	-.140	-.147	*****	-.135	
.877	-.131	-.129	*****	-.144	*****	-.146	*****	*****	*****	*****	*****	*****	
.891	-.155	-.156	*****	-.167	*****	-.167	*****	*****	-.165	-.165	-.155	-.162	
.916	-.187	-.184	-.246	*****	-.176	*****	-.193	-.199	-.195	-.185	-.181	-.184	
.928	-.237	*****	-.276	*****	-.232	*****	-.235	-.240	-.232	-.241	-.245	-.233	
.940	-.275	*****	-.215	*****	-.218	*****	-.224	-.243	-.240	-.249	-.228	-.223	
.952	*****	*****	-.088	*****	-.090	-.098	-.099	-.095	-.101	-.106	-.104	-.105	
.962	.011	.015	.018	*****	.010	.016	.016	.012	.009	.003	-.004	-.003	
.974	.103	.104	*****	*****	.105	.097	.097	.101	.089	.090	.086	.088	
.986	.148	.157	.159	*****	.160	.150	.147	.145	.139	.146	.144	.143	
.996	.176	.173	*****	*****	.181	.170	.170	.172	.166	.166	.170	.166	
AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT				.0485									

Table A3. Continued

(b) NPR = 2.036

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	BODY ONLY	X/C	Y/B	HORIZONTAL TAILS				VERTICAL TAIL					
				UPPER SURFACE	LOWER SURFACE	0.1	0.2	0.1	0.2				
POINT NUMBER	14			0.1	0.2	0.1	0.2	0.1	0.2				
MACH NUMBER	.953												
ALPHA, DEG	.009	0.05											
NPR	2.036	0.10											
PTD, PSI	14.693	0.20											
PO, PSI	8.197	0.30											
QD, PSI	5.206	0.40											
		0.50											
		0.60											
		0.70											
		0.80											
		0.90											

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.035	-.024	*****	-.022	*****	*****	*****	-.023	-.016	-.005	.011	*****
.598	-.037	-.042	*****	-.033	*****	-.025	*****	-.033	-.025	-.022	*****	*****
.612	-.054	-.037	*****	-.035	*****	-.033	*****	-.030	-.025	-.029	*****	*****
.626	-.034	-.029	*****	-.042	*****	-.032	*****	-.026	-.039	-.015	*****	*****
.640	*****	-.053	*****	-.032	*****	-.033	*****	-.041	-.037	-.038	*****	*****
.654	*****	-.054	*****	-.058	*****	-.037	*****	-.050	-.047	-.040	*****	*****
.668	*****	*****	*****	-.040	*****	-.038	*****	-.035	-.041	-.027	*****	*****
.682	*****	-.059	*****	-.047	*****	-.041	*****	-.052	-.048	-.039	-.042	*****
.696	*****	-.049	*****	-.046	*****	-.055	*****	-.044	-.054	-.049	-.049	-.042
.710	*****	-.060	*****	*****	*****	-.056	*****	-.041	-.051	-.049	-.039	-.037
.724	*****	-.061	*****	-.066	*****	-.053	*****	-.042	-.053	-.045	-.047	-.046
.738	*****	-.062	*****	-.059	*****	*****	*****	-.059	-.057	-.049	-.060	-.046
.752	*****	-.057	*****	-.061	*****	-.060	*****	-.049	-.062	-.053	-.047	*****
.766	*****	-.078	*****	-.083	*****	-.084	*****	-.082	-.078	-.074	-.069	-.090
.779	*****	-.060	*****	-.052	*****	-.062	*****	-.053	*****	-.062	-.053	-.068
.793	*****	-.077	*****	-.079	*****	-.086	*****	*****	-.077	-.073	-.083	*****
.807	*****	-.079	*****	-.077	*****	-.087	*****	*****	-.079	-.070	-.083	-.079
.821	*****	*****	*****	-.095	*****	-.095	*****	*****	-.099	-.085	-.092	-.082
.835	*****	-.106	*****	-.114	*****	-.101	*****	*****	-.105	-.101	-.094	-.113
.849	*****	-.131	*****	-.114	*****	-.128	*****	*****	-.134	-.115	-.123	-.127
.863	*****	-.152	*****	-.146	*****	-.136	*****	*****	-.138	-.132	*****	-.134
.877	-.141	-.132	*****	-.129	*****	-.131	*****	*****	*****	*****	*****	*****
.891	-.147	-.165	*****	-.155	*****	-.155	*****	*****	-.169	-.141	-.155	-.141
.916	-.174	-.176	-.238	*****	-.173	*****	-.180	-.177	-.173	-.162	-.165	-.174
.928	-.217	*****	-.250	*****	-.215	*****	-.195	-.210	-.193	-.190	-.208	-.210
.940	-.186	*****	-.170	*****	-.193	-.161	-.165	-.174	-.160	-.157	-.159	-.171
.952	*****	*****	-.049	*****	-.058	-.061	-.055	-.059	-.059	-.059	-.065	-.063
.962	.050	.047	.047	*****	.051	.049	.046	.047	.045	.047	.038	.037
.974	.134	.134	*****	*****	.131	.133	.133	.127	.133	.131	.123	.123
.986	.187	.182	.181	*****	.174	.180	.183	.176	.181	.182	.177	.174
.996	.207	.204	*****	*****	.205	.200	.201	.199	.204	.195	.195	.201

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0295

Table A3. Continued

(c) NPR = 3.036

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	BODY ONLY	X/C	Y/B	HORIZONTAL TAILS				VERTICAL TAIL			
				UPPER SURFACE	LOWER SURFACE	Y/B		0.1	0.2		
POINT NUMBER	15			0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.952										
ALPHA, DEG	.009	0.05									
		0.10									
NPR	3.036	0.20									
		0.30									
PTD, PSI	14.691	0.40									
		0.50									
PD, PSI	8.203	0.60									
		0.70									
QD, PSI	5.202	0.80									
		0.90									

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.043	-.018	*****	-.019	*****	*****	*****	-.022	-.006	-.009	-.002	*****
.598	-.032	-.028	*****	-.034	*****	-.041	*****	-.028	-.025	-.018	*****	*****
.612	-.040	-.036	*****	-.031	*****	-.035	*****	-.024	-.019	-.024	*****	*****
.626	-.040	-.025	*****	-.034	*****	-.032	*****	-.034	-.036	-.020	*****	*****
.640	*****	-.049	*****	-.037	*****	-.041	*****	-.050	-.039	-.026	*****	*****
.654	*****	-.054	*****	-.046	*****	-.035	*****	-.053	-.058	-.056	*****	*****
.668	*****	*****	*****	-.054	*****	-.038	*****	-.029	-.046	-.028	*****	*****
.682	*****	-.058	*****	-.046	*****	-.051	*****	-.046	-.048	-.042	-.044	*****
.696	*****	-.049	*****	-.051	*****	-.054	*****	-.047	-.044	-.039	-.041	-.033
.710	*****	-.050	*****	*****	*****	-.048	*****	-.035	-.055	-.046	-.036	-.025
.724	*****	-.062	*****	-.063	*****	-.050	*****	-.050	-.052	-.043	-.040	-.043
.738	*****	-.062	*****	-.058	*****	*****	*****	-.054	-.065	-.050	-.049	-.060
.752	*****	-.056	*****	-.053	*****	-.061	*****	-.049	-.053	-.052	-.045	*****
.766	*****	-.070	*****	-.078	*****	-.079	*****	-.070	-.084	-.074	-.074	-.074
.779	*****	-.065	*****	-.051	*****	-.063	*****	-.057	*****	-.058	-.061	-.060
.793	*****	-.074	*****	-.073	*****	-.079	*****	*****	-.082	-.077	-.082	*****
.807	*****	-.073	*****	-.072	*****	-.084	*****	*****	-.078	-.078	-.075	-.071
.821	*****	*****	*****	-.089	*****	-.093	*****	*****	-.094	-.079	-.086	-.091
.835	*****	-.099	*****	-.110	*****	-.106	*****	*****	-.107	-.107	-.112	-.100
.849	*****	-.124	*****	-.122	*****	-.117	*****	*****	-.127	-.125	-.123	-.120
.863	*****	-.145	*****	-.141	*****	-.133	*****	*****	-.143	-.121	*****	-.120
.877	-.125	-.138	*****	-.124	*****	-.136	*****	*****	*****	*****	*****	*****
.891	-.140	-.170	*****	-.152	*****	-.164	*****	*****	-.152	-.159	-.151	-.146
.916	-.173	-.167	-.233	*****	-.177	*****	-.168	-.180	-.177	-.158	-.163	-.182
.928	-.204	*****	-.260	*****	-.214	*****	-.192	-.204	-.199	-.210	-.202	-.205
.940	-.191	*****	-.186	*****	-.178	-.163	-.172	-.171	-.171	-.171	-.170	-.159
.952	*****	*****	-.063	*****	-.058	-.059	-.058	-.060	-.054	-.059	-.069	-.067
.962	.044	.049	.046	*****	.042	.048	.048	.046	.044	.045	.036	.031
.974	.137	.138	*****	*****	.129	.133	.132	.130	.125	.123	.124	.124
.986	.187	.191	.174	*****	.180	.182	.178	.175	.177	.172	.175	.180
.996	.203	.205	*****	*****	.203	.196	.201	.198	.201	.197	.194	.200

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0297

Table A4. Continued

(b) $\alpha = 0.011^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	BODY ONLY		HORIZONTAL TAILS				VERTICAL TAIL			
POINT NUMBER	19		UPPER SURFACE		LOWER SURFACE		Y/B			
		X/C	0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.951									
ALPHA, DEG	.011	0.05								
NPR	1.133	0.10								
PTO, PSI	14.689	0.20								
PO, PSI	8.212	0.30								
QO, PSI	5.195	0.40								
		0.50								
		0.60								
		0.70								
		0.80								
		0.90								

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.040	-.026	*****	-.024	*****	*****	*****	-.021	-.011	-.016	.001	*****
.598	-.046	-.033	*****	-.044	*****	-.037	*****	-.036	-.027	-.026	*****	*****
.612	-.040	-.041	*****	-.039	*****	-.031	*****	-.039	-.025	-.022	*****	*****
.626	-.035	-.031	*****	-.035	*****	-.044	*****	-.034	-.024	-.030	*****	*****
.640	*****	-.040	*****	-.045	*****	-.046	*****	-.046	-.041	-.032	*****	*****
.654	*****	-.062	*****	-.054	*****	-.047	*****	-.050	-.066	-.038	*****	*****
.668	*****	*****	*****	-.040	*****	-.042	*****	-.038	-.038	-.038	*****	*****
.682	*****	-.054	*****	-.056	*****	-.056	*****	-.043	-.055	-.047	-.042	*****
.696	*****	-.059	*****	-.053	*****	-.048	*****	-.042	-.047	-.048	-.046	-.045
.710	*****	-.050	*****	*****	*****	-.053	*****	-.041	-.043	-.047	-.034	-.039
.724	*****	-.052	*****	-.065	*****	-.048	*****	-.052	-.054	-.046	-.054	-.049
.738	*****	-.063	*****	-.062	*****	*****	*****	-.059	-.066	-.044	-.053	-.056
.752	*****	-.053	*****	-.053	*****	-.074	*****	-.057	-.062	-.055	-.056	*****
.766	*****	-.076	*****	-.090	*****	-.076	*****	-.081	-.081	-.071	-.082	-.082
.779	*****	-.059	*****	-.058	*****	-.073	*****	-.057	*****	-.063	-.064	-.072
.793	*****	-.076	*****	-.074	*****	-.078	*****	*****	-.083	-.066	-.077	*****
.807	*****	-.081	*****	-.083	*****	-.080	*****	*****	-.086	-.086	-.079	-.081
.821	*****	*****	*****	-.087	*****	-.093	*****	*****	-.102	-.101	-.085	-.090
.835	*****	-.111	*****	-.109	*****	-.102	*****	*****	-.112	-.094	-.109	-.112
.849	*****	-.136	*****	-.129	*****	-.129	*****	*****	-.140	-.128	-.118	-.130
.863	*****	-.140	*****	-.148	*****	-.146	*****	*****	-.132	-.152	*****	-.128
.877	-.148	-.148	*****	-.139	*****	-.151	*****	*****	*****	*****	*****	*****
.891	-.157	-.167	*****	-.169	*****	-.177	*****	*****	-.154	-.161	-.167	-.148
.916	-.189	-.188	-.253	*****	-.187	*****	-.193	-.199	-.191	-.184	-.167	-.191
.928	-.233	*****	-.289	*****	-.229	*****	-.237	-.251	-.228	-.235	-.232	-.231
.940	-.247	*****	-.228	*****	-.244	-.223	-.245	-.234	-.230	-.225	-.244	-.222
.952	*****	*****	-.092	*****	-.095	-.094	-.100	-.094	-.101	-.098	-.107	-.102
.962	.016	.016	.019	*****	.017	.012	.017	.011	.014	.006	-.002	-.005
.974	.105	.106	*****	*****	.105	.103	.100	.096	.098	.095	.091	.091
.986	.156	.152	.152	*****	.153	.150	.148	.150	.149	.147	.138	.145
.996	.175	.180	*****	*****	.173	.178	.167	.175	.165	.171	.163	.169

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0490

Table A4. Continued

(c) $\alpha = 3.014^\circ$

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	BODY ONLY	X/C	Y/B	HORIZONTAL TAILS				VERTICAL TAIL				
				UPPER SURFACE		LOWER SURFACE		Y/B				
POINT NUMBER	20			0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.948											
ALPHA, DEG	3.014	0.05										
NPR	1.120	0.10										
PTD, PSI	14.689	0.20										
PD, PSI	8.233	0.30										
QD, PSI	5.183	0.40										
		0.50										
		0.60										
		0.70										
		0.80										
		0.90										
Tails removed												
AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.041	-.035	*****	-.015	*****	*****	*****	-.020	-.015	-.004	.010	*****
.598	-.037	-.041	*****	-.038	*****	-.041	*****	-.029	-.034	-.011	*****	*****
.612	-.033	-.045	*****	-.033	*****	-.032	*****	-.029	-.032	-.015	*****	*****
.626	-.032	-.036	*****	-.032	*****	-.040	*****	-.032	-.035	-.024	*****	*****
.640	*****	-.045	*****	-.045	*****	-.051	*****	-.036	-.039	-.027	*****	*****
.654	*****	-.048	*****	-.047	*****	-.049	*****	-.055	-.055	-.052	*****	*****
.668	*****	*****	*****	-.051	*****	-.045	*****	-.038	-.033	-.033	*****	*****
.682	*****	-.042	*****	-.053	*****	-.047	*****	-.049	-.057	-.039	-.034	*****
.696	*****	-.052	*****	-.046	*****	-.047	*****	-.049	-.046	-.044	-.047	-.033
.710	*****	-.046	*****	*****	*****	-.060	*****	-.048	-.050	-.041	-.032	-.034
.724	*****	-.050	*****	-.055	*****	-.050	*****	-.043	-.056	-.051	-.043	-.039
.738	*****	-.059	*****	-.063	*****	*****	*****	-.063	-.058	-.059	-.050	-.048
.752	*****	-.056	*****	-.064	*****	-.063	*****	-.062	-.060	-.059	-.051	*****
.766	*****	-.072	*****	-.085	*****	-.072	*****	-.079	-.096	-.089	-.088	-.084
.779	*****	-.062	*****	-.070	*****	-.073	*****	-.067	*****	-.062	-.056	-.064
.793	*****	-.075	*****	-.079	*****	-.082	*****	*****	-.086	-.085	-.080	*****
.807	*****	-.075	*****	-.078	*****	-.085	*****	*****	-.080	-.081	-.083	-.073
.821	*****	*****	*****	-.090	*****	-.098	*****	*****	-.093	-.089	-.083	-.089
.835	*****	-.101	*****	-.108	*****	-.112	*****	*****	-.107	-.117	-.104	-.110
.849	*****	-.113	*****	-.110	*****	-.122	*****	*****	-.126	-.128	-.125	-.133
.863	*****	-.123	*****	-.130	*****	-.140	*****	*****	-.152	-.141	*****	-.136
.877	-.141	-.120	*****	-.141	*****	-.142	*****	*****	*****	*****	*****	*****
.891	-.151	-.146	*****	-.149	*****	-.170	*****	*****	-.171	-.176	-.163	-.173
.916	-.173	-.163	-.204	*****	-.164	*****	-.184	-.185	-.193	-.188	-.177	-.202
.928	-.168	*****	-.204	*****	-.199	*****	-.212	-.216	-.236	-.259	-.261	-.258
.940	-.135	*****	-.135	*****	-.146	-.169	-.200	-.232	-.259	-.321	-.320	-.329
.952	*****	*****	-.043	*****	-.047	-.067	-.075	-.071	-.113	-.188	-.192	-.201
.962	.027	.022	.045	*****	.047	.056	.043	.039	.010	-.014	-.032	-.043
.974	.103	.101	*****	*****	.082	.104	.111	.097	.092	.087	.066	.059
.986	.145	.137	.142	*****	.146	.145	.142	.131	.143	.131	.127	.127
.996	.162	.155	*****	*****	.158	.156	.152	.156	.152	.133	.139	.138
AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT				.0498								

Table A4. Concluded

(d) $\alpha = 5.976^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION POINT NUMBER	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.949								
ALPHA, DEG	5.976	0.05							
NPR	1.092	0.10							
PTD, PSI	14.689	0.20							
PO, PSI	8.224	0.30							
QD, PSI	5.189	0.40							
		0.50							
		0.60							
		0.70							
		0.80							
		0.90							

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.029	*****	-.044	*****	*****	*****	-.029	-.021	-.003	.028	*****
.598	-.032	-.034	*****	-.042	*****	-.046	*****	-.060	-.030	-.019	*****	*****
.612	-.037	-.028	*****	-.046	*****	-.042	*****	-.048	-.034	-.036	*****	*****
.626	-.028	-.030	*****	-.055	*****	-.046	*****	-.056	-.045	-.029	*****	*****
.640	*****	-.044	*****	-.051	*****	-.067	*****	-.057	-.055	-.036	*****	*****
.654	*****	-.052	*****	-.056	*****	-.069	*****	-.077	-.071	-.050	*****	*****
.668	*****	*****	*****	-.051	*****	-.055	*****	-.053	-.057	-.034	*****	*****
.682	*****	-.049	*****	-.056	*****	-.061	*****	-.072	-.069	-.044	-.031	*****
.696	*****	-.048	*****	-.049	*****	-.066	*****	-.068	-.069	-.055	-.033	-.028
.710	*****	-.053	*****	*****	*****	-.068	*****	-.070	-.063	-.047	-.034	-.026
.724	*****	-.050	*****	-.060	*****	-.073	*****	-.073	-.069	-.054	-.039	-.040
.738	*****	-.053	*****	-.064	*****	*****	*****	-.080	-.088	-.057	-.042	-.046
.752	*****	-.060	*****	-.068	*****	-.080	*****	-.085	-.078	-.060	-.050	*****
.766	*****	-.064	*****	-.071	*****	-.090	*****	-.113	-.115	-.094	-.089	-.074
.779	*****	-.066	*****	-.072	*****	-.083	*****	-.080	*****	-.069	-.050	-.054
.793	*****	-.074	*****	-.083	*****	-.099	*****	*****	-.099	-.084	-.079	*****
.807	*****	-.085	*****	-.086	*****	-.094	*****	*****	-.107	-.083	-.072	-.075
.821	*****	*****	*****	-.093	*****	-.103	*****	*****	-.115	-.104	-.090	-.083
.835	*****	-.103	*****	-.103	*****	-.117	*****	*****	-.139	-.118	-.104	-.101
.849	*****	-.117	*****	-.117	*****	-.130	*****	*****	-.149	-.133	-.123	-.118
.863	*****	-.116	*****	-.126	*****	-.148	*****	*****	-.171	-.165	*****	-.135
.877	-.105	-.113	*****	-.127	*****	-.140	*****	*****	*****	*****	*****	*****
.891	-.141	-.137	*****	-.134	*****	-.155	*****	*****	-.185	-.188	-.182	-.166
.916	-.124	-.129	-.166	*****	-.140	*****	-.176	-.193	-.205	-.199	-.177	-.188
.928	-.128	*****	-.167	*****	-.153	*****	-.211	-.231	-.254	-.271	-.273	-.260
.940	-.110	*****	-.109	*****	-.133	*****	-.158	-.192	-.249	-.311	-.350	-.347
.952	*****	*****	-.059	*****	-.065	-.074	-.072	-.092	-.171	-.307	-.371	-.306
.962	.032	.006	.007	*****	.008	.011	.014	.013	-.008	-.056	-.089	-.089
.974	.093	.080	*****	*****	.055	.060	.057	.060	.065	.043	.023	.023
.986	.100	.101	.099	*****	.085	.083	.087	.082	.091	.088	.081	.083
.996	.093	.096	*****	*****	.093	.089	.099	.095	.086	.087	.087	.093

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0669

Table A5. Effect of Nozzle Pressure Ratio on Pressure Distributions for Body Alone at $M = 0.90$ and $\alpha = 0.009^\circ$

(a) NPR = 1.111

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	BODY ONLY			HORIZONTAL TAILS				VERTICAL TAIL				
POINT NUMBER	22			UPPER SURFACE	LOWER SURFACE		Y/B					
MACH NUMBER	.901			X/C	0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.009			0.05	Tails removed							
				0.10								
NPR	1.111			0.20								
				0.30								
PTO, PSI	14.692			0.40								
				0.50								
PO, PSI	8.677			0.60								
				0.70								
QO, PSI	4.931			0.80								
				0.90								

AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.034	-.030	*****	-.021	*****	*****	*****	-.025	-.024	-.016	-.009	*****
.598	-.047	-.044	*****	-.039	*****	-.043	*****	-.037	-.031	-.025	*****	*****
.612	-.043	-.041	*****	-.037	*****	-.042	*****	-.034	-.035	-.030	*****	*****
.626	-.037	-.042	*****	-.043	*****	-.037	*****	-.031	-.033	-.031	*****	*****
.640	*****	-.048	*****	-.047	*****	-.044	*****	-.045	-.038	-.037	*****	*****
.654	*****	-.053	*****	-.055	*****	-.043	*****	-.044	-.047	-.043	*****	*****
.668	*****	*****	*****	-.044	*****	-.040	*****	-.041	-.044	-.033	*****	*****
.682	*****	-.057	*****	-.049	*****	-.050	*****	-.048	-.051	-.046	-.045	*****
.696	*****	-.052	*****	-.051	*****	-.051	*****	-.048	-.049	-.047	-.041	-.040
.710	*****	-.051	*****	*****	*****	-.046	*****	-.046	-.050	-.047	-.045	-.044
.724	*****	-.055	*****	-.058	*****	-.056	*****	-.049	-.051	-.047	-.048	-.048
.738	*****	-.057	*****	-.060	*****	*****	*****	-.053	-.063	-.062	-.051	-.058
.752	*****	-.051	*****	-.060	*****	-.056	*****	-.056	-.062	-.054	-.052	*****
.766	*****	-.073	*****	-.077	*****	-.076	*****	-.079	-.078	-.081	-.072	-.073
.779	*****	-.063	*****	-.064	*****	-.065	*****	-.061	*****	-.063	-.057	-.059
.793	*****	-.075	*****	-.076	*****	-.075	*****	*****	-.075	-.078	-.075	*****
.807	*****	-.078	*****	-.074	*****	-.077	*****	*****	-.075	-.074	-.072	-.071
.821	*****	*****	*****	-.084	*****	-.084	*****	*****	-.088	-.084	-.085	-.088
.835	*****	-.098	*****	-.096	*****	-.099	*****	*****	-.097	-.102	-.093	-.092
.849	*****	-.108	*****	-.110	*****	-.112	*****	*****	-.113	-.108	-.107	-.105
.863	*****	-.124	*****	-.119	*****	-.119	*****	*****	-.116	-.117	*****	-.115
.877	-.120	-.117	*****	-.117	*****	-.123	*****	*****	*****	*****	*****	*****
.891	-.141	-.143	*****	-.145	*****	-.140	*****	*****	-.138	-.126	-.130	-.133
.916	-.156	-.167	-.224	*****	-.153	*****	-.168	-.170	-.165	-.157	-.151	-.165
.928	-.203	*****	-.235	*****	-.197	*****	-.189	-.197	-.189	-.192	-.195	-.192
.940	-.196	*****	-.187	*****	-.191	-.186	-.191	-.191	-.190	-.190	-.192	-.186
.952	*****	*****	-.123	*****	-.122	-.120	-.124	-.128	-.119	-.122	-.125	-.121
.962	-.023	-.028	-.021	*****	-.024	-.024	-.024	-.025	-.031	-.027	-.031	-.031
.974	.071	.072	*****	*****	.070	.073	.074	.069	.068	.069	.063	.061
.986	.144	.137	.138	*****	.139	.134	.137	.134	.134	.131	.129	.121
.996	.169	.169	*****	*****	.170	.167	.169	.161	.164	.160	.161	.151

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0473
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Table A5. Continued

(b) NPR = 2.033

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
			0.1	0.2	0.1	0.2	0.1	0.2
POINT NUMBER	23							
MACH NUMBER	.901							
ALPHA, DEG	.010	0.05						
		0.10						
NPR	2.033	0.20						
		0.30						
PTO, PSI	14.693	0.40						
		0.50						
PO, PSI	8.682	0.60						
		0.70						
QD, PSI	4.929	0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.034	-.025	*****	-.023	*****	*****	*****	-.022	-.019	-.016	-.007	*****
.598	-.046	-.037	*****	-.036	*****	-.037	*****	-.037	-.029	-.027	*****	*****
.612	-.043	-.038	*****	-.038	*****	-.035	*****	-.035	-.032	-.030	*****	*****
.626	-.034	-.037	*****	-.041	*****	-.038	*****	-.027	-.028	-.029	*****	*****
.640	*****	-.041	*****	-.043	*****	-.041	*****	-.038	-.039	-.030	*****	*****
.654	*****	-.053	*****	-.048	*****	-.042	*****	-.046	-.045	-.038	*****	*****
.668	*****	*****	*****	-.038	*****	-.036	*****	-.042	-.042	-.033	*****	*****
.682	*****	-.056	*****	-.048	*****	-.045	*****	-.049	-.046	-.040	-.038	*****
.696	*****	-.047	*****	-.045	*****	-.044	*****	-.047	-.050	-.045	-.040	-.041
.710	*****	-.052	*****	*****	*****	-.046	*****	-.042	-.051	-.042	-.041	-.046
.724	*****	-.056	*****	-.053	*****	-.052	*****	-.049	-.055	-.048	-.050	-.043
.738	*****	-.061	*****	-.059	*****	*****	*****	-.052	-.063	-.057	-.051	-.050
.752	*****	-.052	*****	-.054	*****	-.054	*****	-.057	-.055	-.054	-.051	*****
.766	*****	-.072	*****	-.073	*****	-.074	*****	-.077	-.071	-.077	-.067	-.073
.779	*****	-.062	*****	-.061	*****	-.060	*****	-.059	*****	-.060	-.052	-.060
.793	*****	-.073	*****	-.069	*****	-.075	*****	*****	-.068	-.073	-.066	*****
.807	*****	-.070	*****	-.071	*****	-.077	*****	*****	-.073	-.074	-.068	-.065
.821	*****	*****	*****	-.085	*****	-.086	*****	*****	-.080	-.080	-.080	-.078
.835	*****	-.094	*****	-.099	*****	-.096	*****	*****	-.094	-.096	-.086	-.092
.849	*****	-.104	*****	-.107	*****	-.102	*****	*****	-.103	-.106	-.096	-.104
.863	*****	-.122	*****	-.116	*****	-.110	*****	*****	-.115	-.112	*****	-.113
.877	-.114	-.107	*****	-.116	*****	-.115	*****	*****	*****	*****	*****	*****
.891	-.131	-.137	*****	-.134	*****	-.126	*****	*****	-.130	-.114	-.123	-.119
.916	-.152	-.146	-.206	*****	-.149	*****	-.143	-.152	-.148	-.139	-.132	-.149
.928	-.179	*****	-.206	*****	-.174	*****	-.163	-.165	-.164	-.161	-.169	-.171
.940	-.176	*****	-.160	*****	-.166	-.154	-.157	-.165	-.154	-.150	-.156	-.155
.952	*****	*****	-.084	*****	-.089	-.084	-.082	-.086	-.088	-.076	-.089	-.087
.962	.014	.016	.018	*****	.014	.015	.020	.016	.011	.014	.010	.005
.974	.112	.113	*****	*****	.108	.108	.113	.110	.107	.112	.105	.102
.986	.177	.175	.172	*****	.172	.168	.174	.169	.167	.172	.166	.170
.996	.206	.206	*****	*****	.197	.194	.200	.191	.196	.198	.195	.196

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0277

Table A5. Concluded

(d) NPR = 4.991

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE Y/B	0.2	LOWER SURFACE Y/B	0.2	0.1	0.2
POINT NUMBER	25		0.1					
MACH NUMBER	.901							
ALPHA, DEG	.009	0.05						
		0.10						
NPR	4.991	0.20						
		0.30						
PTQ, PSI	14.692	0.40						
		0.50						
PD, PSI	8.681	0.60						
		0.70						
QD, PSI	4.929	0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.038	-.023	*****	-.025	*****	*****	*****	-.029	-.022	-.018	-.007	*****
.598	-.040	-.042	*****	-.038	*****	-.040	*****	-.039	-.030	-.026	*****	*****
.612	-.035	-.039	*****	-.036	*****	-.032	*****	-.031	-.027	-.030	*****	*****
.626	-.032	-.033	*****	-.041	*****	-.036	*****	-.029	-.028	-.027	*****	*****
.640	*****	-.042	*****	-.042	*****	-.042	*****	-.039	-.040	-.031	*****	*****
.654	*****	-.056	*****	-.050	*****	-.042	*****	-.051	-.051	-.043	*****	*****
.668	*****	*****	*****	-.044	*****	-.043	*****	-.035	-.043	-.030	*****	*****
.682	*****	-.056	*****	-.046	*****	-.052	*****	-.039	-.043	-.038	-.042	*****
.696	*****	-.044	*****	-.044	*****	-.049	*****	-.043	-.052	-.041	-.043	-.043
.710	*****	-.054	*****	*****	*****	-.050	*****	-.039	-.047	-.039	-.045	-.038
.724	*****	-.052	*****	-.047	*****	-.057	*****	-.050	-.050	-.044	-.047	-.044
.738	*****	-.056	*****	-.056	*****	*****	*****	-.055	-.064	-.051	-.055	-.050
.752	*****	-.056	*****	-.058	*****	-.059	*****	-.053	-.056	-.050	-.051	*****
.766	*****	-.066	*****	-.071	*****	-.074	*****	-.075	-.074	-.071	-.074	-.076
.779	*****	-.053	*****	-.055	*****	-.057	*****	-.055	*****	-.061	-.058	-.061
.793	*****	-.068	*****	-.069	*****	-.076	*****	*****	-.067	-.067	-.071	*****
.807	*****	-.068	*****	-.074	*****	-.073	*****	*****	-.068	-.072	-.072	-.066
.821	*****	*****	*****	-.079	*****	-.081	*****	*****	-.077	-.078	-.084	-.077
.835	*****	-.097	*****	-.094	*****	-.092	*****	*****	-.088	-.089	-.091	-.094
.849	*****	-.109	*****	-.106	*****	-.103	*****	*****	-.099	-.104	-.100	-.104
.863	*****	-.118	*****	-.118	*****	-.111	*****	*****	-.109	-.109	*****	-.104
.877	-.109	-.103	*****	-.111	*****	-.113	*****	*****	*****	*****	*****	*****
.891	-.121	-.135	*****	-.131	*****	-.122	*****	*****	-.125	-.122	-.118	-.112
.916	-.140	-.141	-.205	*****	-.143	*****	-.141	-.142	-.142	-.134	-.131	-.143
.928	-.160	*****	-.207	*****	-.164	*****	-.155	-.157	-.155	-.160	-.165	-.157
.940	-.151	*****	-.143	*****	-.148	-.140	-.142	-.147	-.147	-.140	-.141	-.146
.952	*****	*****	-.067	*****	-.070	-.068	-.065	-.068	-.066	-.069	-.072	-.067
.962	.037	.034	.035	*****	.033	.033	.036	.038	.033	.034	.028	.024
.974	.138	.133	*****	*****	.130	.128	.131	.129	.129	.125	.119	.124
.986	.197	.194	.189	*****	.189	.185	.187	.188	.183	.182	.181	.185
.996	.223	.216	*****	*****	.210	.212	.212	.211	.207	.208	.204	.210

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0196

Table A6. Effect of Angle of Attack on Pressure Distributions for Body Alone at
 $M = 0.90$ and $NPR = 1.111$

(a) $\alpha = -2.980^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL					
			UPPER SURFACE	LOWER SURFACE	Y/B	Y/B	0.1	0.2				
POINT NUMBER	27		0.1	0.2	0.1	0.2	0.1	0.2				
MACH NUMBER	.901		Tails removed									
ALPHA, DEG	-2.980	0.05										
		0.10										
NPR	1.111	0.20										
		0.30										
PTD, PSI	14.691	0.40										
		0.50										
PD, PSI	8.681	0.60										
		0.70										
QD, PSI	4.928	0.80										
		0.90										

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.027	*****	-.027	*****	*****	*****	-.036	-.035	-.032	-.014	*****
.598	-.040	-.042	*****	-.051	*****	-.052	*****	-.042	-.040	-.036	*****	*****
.612	-.039	-.039	*****	-.045	*****	-.041	*****	-.044	-.039	-.038	*****	*****
.625	-.028	-.034	*****	-.047	*****	-.044	*****	-.047	-.041	-.039	*****	*****
.640	*****	-.047	*****	-.052	*****	-.056	*****	-.055	-.053	-.038	*****	*****
.654	*****	-.062	*****	-.059	*****	-.052	*****	-.063	-.060	-.050	*****	*****
.668	*****	*****	*****	-.053	*****	-.051	*****	-.049	-.047	-.042	*****	*****
.682	*****	-.054	*****	-.060	*****	-.058	*****	-.056	-.056	-.049	-.039	*****
.696	*****	-.047	*****	-.058	*****	-.055	*****	-.053	-.056	-.050	-.040	-.035
.710	*****	-.051	*****	*****	*****	-.057	*****	-.056	-.058	-.045	-.041	-.040
.724	*****	-.055	*****	-.057	*****	-.062	*****	-.064	-.064	-.052	-.041	-.047
.738	*****	-.064	*****	-.068	*****	*****	*****	-.069	-.077	-.059	-.048	-.051
.752	*****	-.058	*****	-.064	*****	-.067	*****	-.067	-.065	-.057	-.050	*****
.766	*****	-.077	*****	-.084	*****	-.082	*****	-.088	-.085	-.074	-.064	-.064
.779	*****	-.060	*****	-.064	*****	-.070	*****	-.067	*****	-.065	-.055	-.052
.793	*****	-.073	*****	-.083	*****	-.083	*****	*****	-.081	-.068	-.065	*****
.807	*****	-.080	*****	-.083	*****	-.085	*****	*****	-.082	-.072	-.066	-.069
.821	*****	*****	*****	-.090	*****	-.097	*****	*****	-.086	-.083	-.077	-.077
.835	*****	-.107	*****	-.110	*****	-.108	*****	*****	-.103	-.091	-.084	-.082
.849	*****	-.119	*****	-.128	*****	-.120	*****	*****	-.109	-.101	-.093	-.093
.863	*****	-.133	*****	-.142	*****	-.133	*****	*****	-.120	-.111	*****	-.101
.877	-.124	-.119	*****	-.132	*****	-.139	*****	*****	*****	*****	*****	*****
.891	-.153	-.160	*****	-.160	*****	-.153	*****	*****	-.137	-.113	-.107	-.110
.916	-.188	-.187	-.266	*****	-.182	*****	-.174	-.176	-.157	-.135	-.120	-.127
.928	-.246	*****	-.301	*****	-.235	*****	-.210	-.197	-.174	-.149	-.144	-.145
.940	-.294	*****	-.256	*****	-.254	*****	-.216	-.210	-.194	-.170	-.131	-.125
.952	*****	*****	-.181	*****	-.174	*****	-.145	-.131	-.109	-.098	-.067	-.070
.962	-.084	-.075	-.066	*****	-.054	-.039	-.022	-.010	-.006	-.000	-.003	-.005
.974	.038	.037	*****	*****	.048	.062	.075	.074	.075	.078	.077	.083
.986	.118	.120	.120	*****	.133	.124	.124	.133	.121	.140	.129	.132
.996	.136	.139	*****	*****	.133	.134	.139	.149	.142	.156	.149	.148

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0509
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Table A6. Continued

(b) $\alpha = 0.013^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	BODY ONLY		HORIZONTAL TAILS				VERTICAL TAIL					
	POINT NUMBER	28	UPPER SURFACE	LOWER SURFACE		Y/B						
MACH NUMBER	.900	X/C	0.1	0.2	0.1	0.2	0.1	0.2				
ALPHA, DEG	.013	0.05	Tails removed									
		0.10										
NPR	1.122	0.20										
		0.30										
PTD, PSI	14.691	0.40										
		0.50										
		0.60										
PD, PSI	8.688	0.70										
		0.80										
QD, PSI	4.924	0.90										

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.039	-.032	*****	-.024	*****	*****	*****	-.022	-.025	-.023	-.006	*****
.598	-.045	-.045	*****	-.045	*****	-.037	*****	-.030	-.031	-.026	*****	*****
.612	-.043	-.041	*****	-.039	*****	-.039	*****	-.032	-.034	-.027	*****	*****
.626	-.035	-.041	*****	-.039	*****	-.038	*****	-.039	-.027	-.030	*****	*****
.640	*****	-.041	*****	-.045	*****	-.043	*****	-.045	-.035	-.035	*****	*****
.654	*****	-.050	*****	-.054	*****	-.044	*****	-.050	-.049	-.042	*****	*****
.668	*****	*****	*****	-.043	*****	-.037	*****	-.040	-.038	-.038	*****	*****
.682	*****	-.051	*****	-.054	*****	-.053	*****	-.047	-.049	-.039	-.041	*****
.696	*****	-.049	*****	-.044	*****	-.049	*****	-.045	-.054	-.043	-.043	-.035
.710	*****	-.057	*****	*****	*****	-.049	*****	-.048	-.050	-.045	-.041	-.043
.724	*****	-.055	*****	-.055	*****	-.053	*****	-.052	-.054	-.051	-.050	-.053
.738	*****	-.061	*****	-.062	*****	*****	*****	-.062	-.066	-.056	-.049	-.056
.752	*****	-.057	*****	-.062	*****	-.059	*****	-.058	-.060	-.057	-.052	*****
.766	*****	-.072	*****	-.075	*****	-.071	*****	-.077	-.075	-.076	-.068	-.070
.779	*****	-.062	*****	-.064	*****	-.062	*****	-.058	*****	-.059	-.061	-.053
.793	*****	-.072	*****	-.069	*****	-.081	*****	*****	-.067	-.075	-.073	*****
.807	*****	-.078	*****	-.070	*****	-.077	*****	*****	-.072	-.075	-.071	-.077
.821	*****	*****	*****	-.083	*****	-.086	*****	*****	-.086	-.083	-.080	-.087
.835	*****	-.093	*****	-.100	*****	-.097	*****	*****	-.094	-.099	-.097	-.090
.849	*****	-.113	*****	-.111	*****	-.110	*****	*****	-.110	-.109	-.105	-.099
.863	*****	-.121	*****	-.129	*****	-.116	*****	*****	-.119	-.117	*****	-.115
.877	-.118	-.112	*****	-.120	*****	-.125	*****	*****	*****	*****	*****	*****
.891	-.140	-.151	*****	-.144	*****	-.130	*****	*****	-.134	-.124	-.131	-.132
.916	-.166	-.165	-.224	*****	-.171	*****	-.164	-.167	-.163	-.156	-.149	-.156
.928	-.195	*****	-.238	*****	-.196	*****	-.186	-.195	-.188	-.186	-.190	-.193
.940	-.196	*****	-.187	*****	-.191	*****	-.185	-.192	-.195	-.193	-.195	-.193
.952	*****	*****	-.121	*****	-.125	-.123	-.115	-.124	-.118	-.124	-.121	-.128
.962	-.025	-.029	-.022	*****	-.031	-.027	-.023	-.023	-.025	-.026	-.031	-.029
.974	.075	.075	*****	*****	.068	.069	.075	.069	.069	.069	.065	.062
.986	.141	.139	.138	*****	.142	.132	.135	.132	.134	.130	.129	.127
.996	.167	.175	*****	*****	.168	.167	.174	.165	.163	.159	.163	.155

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0468

Table A6. Concluded

(c) $\alpha = 6.008^\circ$

TEST PARAMETERS

CONFIGURATION	BODY ONLY	
POINT NUMBER	29	X/C
MACH NUMBER	.901	
ALPHA, DEG	6.008	0.05
NPR	1.079	0.10
		0.20
		0.30
PTD, PSI	14.692	0.40
		0.50
PN, PSI	8.680	0.60
		0.70
QD, PSI	4.930	0.80
		0.90

TAIL SURFACE PRESSURE COEFFICIENTS

HORIZONTAL TAILS				VERTICAL TAIL	
UPPER SURFACE		LOWER SURFACE		Y/B	
Y/B		Y/B		0.1	0.2
0.1	0.2	0.1	0.2		

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.042	-.034	*****	-.040	*****	*****	*****	-.042	-.039	-.016	.014	*****
.598	-.045	-.043	*****	-.047	*****	-.054	*****	-.052	-.045	-.031	*****	*****
.612	-.037	-.037	*****	-.050	*****	-.056	*****	-.049	-.051	-.027	*****	*****
.626	-.036	-.040	*****	-.046	*****	-.056	*****	-.051	-.051	-.029	*****	*****
.640	*****	-.046	*****	-.049	*****	-.064	*****	-.060	-.054	-.038	*****	*****
.654	*****	-.045	*****	-.058	*****	-.059	*****	-.079	-.070	-.051	*****	*****
.668	*****	*****	*****	-.052	*****	-.060	*****	-.068	-.061	-.037	*****	*****
.682	*****	-.051	*****	-.053	*****	-.072	*****	-.076	-.074	-.053	-.042	*****
.696	*****	-.049	*****	-.055	*****	-.069	*****	-.077	-.075	-.057	-.042	-.026
.710	*****	-.054	*****	*****	*****	-.068	*****	-.072	-.071	-.053	-.038	-.029
.724	*****	-.054	*****	-.061	*****	-.076	*****	-.077	-.073	-.054	-.041	-.043
.738	*****	-.056	*****	-.059	*****	*****	*****	-.081	-.089	-.064	-.048	-.047
.752	*****	-.060	*****	-.066	*****	-.073	*****	-.085	-.082	-.059	-.044	*****
.766	*****	-.072	*****	-.069	*****	-.088	*****	-.101	-.105	-.089	-.081	-.074
.779	*****	-.061	*****	-.067	*****	-.080	*****	-.079	*****	-.067	-.057	-.049
.793	*****	-.074	*****	-.074	*****	-.094	*****	*****	-.099	-.089	-.080	*****
.807	*****	-.073	*****	-.073	*****	-.092	*****	*****	-.102	-.088	-.074	-.072
.821	*****	*****	*****	-.084	*****	-.096	*****	*****	-.110	-.101	-.085	-.082
.835	*****	-.084	*****	-.091	*****	-.106	*****	*****	-.126	-.116	-.102	-.096
.849	*****	-.093	*****	-.101	*****	-.121	*****	*****	-.138	-.129	-.120	-.105
.863	*****	-.104	*****	-.109	*****	-.122	*****	*****	-.143	-.146	*****	-.119
.877	-.089	-.096	*****	-.110	*****	-.120	*****	*****	*****	*****	*****	*****
.891	-.101	-.118	*****	-.113	*****	-.137	*****	*****	-.160	-.152	-.148	-.144
.916	-.118	-.113	-.149	*****	-.130	*****	-.170	-.184	-.200	-.192	-.181	-.185
.928	-.124	*****	-.145	*****	-.137	*****	-.183	-.215	-.244	-.265	-.271	-.254
.940	-.126	*****	-.111	*****	-.121	-.143	-.166	-.202	-.260	-.316	-.313	-.307
.952	*****	*****	-.069	*****	-.070	-.076	-.095	-.109	-.170	-.226	-.242	-.238
.962	.036	-.007	-.004	*****	-.010	-.004	-.008	-.012	-.050	-.105	-.135	-.126
.974	.083	.068	*****	*****	.049	.049	.054	.052	.045	.011	-.019	-.015
.986	.106	.104	.091	*****	.084	.082	.085	.085	.083	.071	.055	.062
.996	.101	.100	*****	*****	.093	.090	.090	.088	.079	.077	.081	.088

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0641

Table A7. Effect of Nozzle Pressure Ratio on Pressure Distributions for Body Alone at $M = 0.60$ and $\alpha = 0.010^\circ$

(a) NPR = 1.037

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE		LOWER SURFACE		Y/B		Y/B	
POINT NUMBER	30		0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	.601									
ALPHA, DEG	.010	0.05								
NPR	1.037	0.10								
PTD, PSI	14.703	0.20								
PD, PSI	11.520	0.30								
QD, PSI	2.911	0.40								
		0.50								
		0.60								
		0.70								
		0.80								
		0.90								

Tails removed

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.040	-.033	*****	-.024	*****	*****	*****	-.033	-.025	-.022	-.014	*****
.598	-.044	-.038	*****	-.038	*****	-.041	*****	-.037	-.032	-.027	*****	*****
.612	-.043	-.038	*****	-.035	*****	-.035	*****	-.035	-.035	-.026	*****	*****
.626	-.039	-.039	*****	-.035	*****	-.038	*****	-.038	-.038	-.030	*****	*****
.640	*****	-.047	*****	-.041	*****	-.040	*****	-.040	-.044	-.036	*****	*****
.654	*****	-.054	*****	-.050	*****	-.037	*****	-.048	-.049	-.045	*****	*****
.668	*****	*****	*****	-.044	*****	-.045	*****	-.039	-.042	-.032	*****	*****
.682	*****	-.051	*****	-.043	*****	-.046	*****	-.047	-.048	-.043	-.039	*****
.696	*****	-.049	*****	-.046	*****	-.045	*****	-.047	-.045	-.044	-.043	-.039
.710	*****	-.046	*****	*****	*****	-.047	*****	-.044	-.045	-.039	-.042	-.042
.724	*****	-.049	*****	-.048	*****	-.049	*****	-.045	-.050	-.042	-.049	-.049
.738	*****	-.054	*****	-.051	*****	*****	*****	-.049	-.057	-.051	-.051	-.048
.752	*****	-.053	*****	-.050	*****	-.052	*****	-.048	-.055	-.045	-.043	*****
.766	*****	-.061	*****	-.061	*****	-.063	*****	-.059	-.067	-.066	-.065	-.066
.779	*****	-.056	*****	-.055	*****	-.057	*****	-.050	*****	-.054	-.050	-.050
.793	*****	-.065	*****	-.067	*****	-.062	*****	*****	-.062	-.060	-.058	*****
.807	*****	-.065	*****	-.067	*****	-.063	*****	*****	-.063	-.063	-.060	-.063
.821	*****	*****	*****	-.068	*****	-.071	*****	*****	-.066	-.066	-.067	-.067
.835	*****	-.083	*****	-.080	*****	-.076	*****	*****	-.077	-.076	-.074	-.078
.849	*****	-.086	*****	-.085	*****	-.088	*****	*****	-.082	-.085	-.079	-.081
.863	*****	-.096	*****	-.091	*****	-.093	*****	*****	-.086	-.089	*****	-.086
.877	-.090	-.089	*****	-.090	*****	-.091	*****	*****	*****	*****	*****	*****
.891	-.103	-.108	*****	-.100	*****	-.105	*****	*****	-.105	-.100	-.104	-.098
.916	-.122	-.120	-.184	*****	-.118	*****	-.123	-.124	-.120	-.114	-.110	-.120
.928	-.142	*****	-.176	*****	-.138	*****	-.139	-.136	-.137	-.142	-.141	-.137
.940	-.152	*****	-.139	*****	-.148	-.141	-.141	-.138	-.145	-.147	-.153	-.147
.952	*****	*****	-.113	*****	-.113	-.110	-.113	-.118	-.114	-.114	-.122	-.119
.962	-.046	-.048	*****	*****	-.050	-.048	-.053	-.047	-.056	-.053	-.055	-.058
.974	.028	.031	*****	*****	.027	.029	.026	.027	.024	.020	.018	.022
.986	.095	.095	.092	*****	.091	.093	.092	.088	.083	.081	.074	.076
.996	.134	.124	*****	*****	.124	.119	.118	.114	.114	.104	.105	.104

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0446

Table A7. Continued

(b) NPR = 1.992

TFST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	BODY ONLY			HORIZONTAL TAILS				VERTICAL TAIL				
POINT NUMBER	31			UPPER SURFACE	LOWER SURFACE		Y/B					
MACH NUMBER	.603			Y/B	Y/B	Y/B	Y/B	Y/B				
ALPHA, DEG	.009			0.1	0.2	0.1	0.2	0.1	0.2			
NPR	1.992			Tails removed								
PT0, PSI	14.703											
PO, PSI	11.503											
QO, PSI	2.925											
				X/C								
					0.05							
					0.10							
					0.20							
					0.30							
					0.40							
					0.50							
					0.60							
					0.70							
					0.80							
					0.90							

AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.030	*****	-.024	*****	*****	*****	-.028	-.019	-.024	-.015	*****
.598	-.041	-.033	*****	-.041	*****	-.041	*****	-.035	-.027	-.030	*****	*****
.612	-.035	-.031	*****	-.038	*****	-.036	*****	-.033	-.030	-.030	*****	*****
.626	-.034	-.035	*****	-.041	*****	-.039	*****	-.039	-.034	-.029	*****	*****
.640	*****	-.044	*****	-.040	*****	-.038	*****	-.044	-.039	-.027	*****	*****
.654	*****	-.049	*****	-.041	*****	-.040	*****	-.045	-.051	-.038	*****	*****
.668	*****	*****	*****	-.039	*****	-.041	*****	-.037	-.035	-.030	*****	*****
.682	*****	-.044	*****	-.041	*****	-.046	*****	-.038	-.047	-.039	-.039	*****
.696	*****	-.047	*****	-.042	*****	-.043	*****	-.042	-.047	-.044	-.042	-.036
.710	*****	-.049	*****	*****	*****	-.047	*****	-.042	-.046	-.039	-.042	-.039
.724	*****	-.050	*****	-.047	*****	-.051	*****	-.044	-.053	-.041	-.043	-.048
.738	*****	-.057	*****	-.050	*****	*****	*****	-.049	-.056	-.047	-.045	-.051
.752	*****	-.048	*****	-.044	*****	-.057	*****	-.048	-.044	-.044	-.044	*****
.766	*****	-.058	*****	-.055	*****	-.055	*****	-.064	-.060	-.059	-.060	-.059
.779	*****	-.046	*****	-.049	*****	-.054	*****	-.047	*****	-.052	-.048	-.046
.793	*****	-.059	*****	-.060	*****	-.063	*****	*****	-.056	-.058	-.057	*****
.807	*****	-.061	*****	-.061	*****	-.064	*****	*****	-.061	-.062	-.057	-.060
.821	*****	*****	*****	-.067	*****	-.072	*****	*****	-.064	-.062	-.066	-.069
.835	*****	-.077	*****	-.081	*****	-.073	*****	*****	-.075	-.074	-.071	-.070
.849	*****	-.090	*****	-.082	*****	-.075	*****	*****	-.079	-.083	-.075	-.076
.863	*****	-.085	*****	-.090	*****	-.083	*****	*****	-.083	-.084	*****	-.082
.877	-.082	-.084	*****	-.088	*****	-.087	*****	*****	*****	*****	*****	*****
.891	-.095	-.104	*****	-.101	*****	-.096	*****	*****	-.099	-.093	-.092	-.096
.916	-.116	-.107	-.167	*****	-.111	*****	-.105	-.117	-.112	-.105	-.101	-.109
.928	-.122	*****	-.174	*****	-.128	*****	-.121	-.124	-.125	-.129	-.130	-.126
.940	-.132	*****	-.117	*****	-.133	-.127	-.122	-.127	-.131	-.126	-.129	-.132
.952	*****	*****	-.092	*****	-.094	-.092	-.090	-.091	-.088	-.091	-.094	-.098
.962	-.027	-.014	-.021	*****	-.022	-.020	-.016	-.023	-.027	-.021	-.025	-.027
.974	.068	.069	*****	*****	.060	.062	.066	.061	.062	.059	.056	.055
.986	.137	.137	.137	*****	.129	.130	.135	.131	.126	.128	.125	.123
.995	.173	.173	*****	*****	.169	.168	.171	.166	.165	.164	.163	.156

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0280

Table A7. Continued

(c) NPR = 3.028

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
			Y/B	0.2	Y/B	0.2	0.1	0.2	
POINT NUMBER	32								
MACH NUMBER	.600								
ALPHA, DEG	.010	0.05							
NPR	3.028	0.10							
PTD, PSI	14.703	0.20							
PD, PSI	11.528	0.30							
QD, PSI	2.904	0.40							
		0.50							
		0.60							
		0.70							
		0.80							
		0.90							

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.039	-.034	*****	-.027	*****	*****	*****	-.031	-.028	-.029	-.008	*****
.598	-.054	-.041	*****	-.044	*****	-.033	*****	-.038	-.036	-.031	*****	*****
.612	-.042	-.042	*****	-.037	*****	-.028	*****	-.031	-.031	-.034	*****	*****
.626	-.040	-.036	*****	-.043	*****	-.026	*****	-.036	-.031	-.032	*****	*****
.640	*****	-.042	*****	-.044	*****	-.032	*****	-.043	-.045	-.035	*****	*****
.654	*****	-.055	*****	-.049	*****	-.036	*****	-.048	-.048	-.042	*****	*****
.668	*****	*****	*****	-.043	*****	-.037	*****	-.050	-.039	-.035	*****	*****
.682	*****	-.049	*****	-.045	*****	-.046	*****	-.045	-.054	-.041	-.042	*****
.696	*****	-.054	*****	-.045	*****	-.047	*****	-.048	-.049	-.039	-.040	-.039
.710	*****	-.051	*****	*****	*****	-.044	*****	-.047	-.046	-.038	-.038	-.038
.724	*****	-.050	*****	-.046	*****	-.047	*****	-.049	-.047	-.040	-.045	-.045
.738	*****	-.052	*****	-.049	*****	*****	*****	-.054	-.061	-.045	-.048	-.050
.752	*****	-.051	*****	-.053	*****	-.053	*****	-.051	-.053	-.043	-.042	*****
.766	*****	-.072	*****	-.066	*****	-.060	*****	-.066	-.066	-.059	-.057	-.064
.779	*****	-.055	*****	-.051	*****	-.062	*****	-.051	*****	-.045	-.049	-.051
.793	*****	-.066	*****	-.059	*****	-.066	*****	*****	-.060	-.051	-.060	*****
.807	*****	-.066	*****	-.068	*****	-.063	*****	*****	-.057	-.049	-.057	-.059
.821	*****	*****	*****	-.067	*****	-.068	*****	*****	-.063	-.056	-.063	-.069
.835	*****	-.083	*****	-.075	*****	-.075	*****	*****	-.070	-.067	-.072	-.075
.849	*****	-.086	*****	-.086	*****	-.084	*****	*****	-.078	-.070	-.080	-.081
.863	*****	-.091	*****	-.096	*****	-.088	*****	*****	-.082	-.078	*****	-.081
.877	-.092	-.091	*****	-.089	*****	-.092	*****	*****	*****	*****	*****	*****
.891	-.095	-.106	*****	-.103	*****	-.099	*****	*****	-.091	-.088	-.093	-.096
.916	-.129	-.113	-.175	*****	-.114	*****	-.113	-.111	-.108	-.103	-.101	-.115
.928	-.129	*****	-.169	*****	-.129	*****	-.126	-.124	-.120	-.123	-.126	-.124
.940	-.137	*****	-.123	*****	-.128	-.127	-.129	-.124	-.116	-.129	-.129	-.131
.952	*****	*****	-.097	*****	-.097	-.090	-.093	-.088	-.084	-.095	-.102	-.099
.962	-.039	-.024	-.029	*****	-.025	-.029	-.023	-.017	-.019	-.021	-.027	-.033
.974	.063	.061	*****	*****	.059	.060	.061	.063	.067	.063	.059	.058
.986	.132	.136	.132	*****	.132	.125	.130	.133	.137	.127	.126	.124
.996	.171	.175	*****	*****	.165	.165	.166	.166	.170	.162	.162	.159

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0287

Table A7. Concluded

(d) NPR = 4.992

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS					
CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
POINT NUMBER	33		0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	.600							
ALPHA, DEG	.009	0.05						
NPR	4.992	0.10						
PTO, PSI	14.701	0.20						
PD, PSI	11.522	0.30						
QO, PSI	2.907	0.40						
		0.50						
		0.60						
		0.70						
		0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.029	-.034	*****	-.023	*****	*****	*****	-.018	-.034	-.022	-.012	*****
.598	-.039	-.046	*****	-.035	*****	-.036	*****	-.023	-.041	-.029	*****	*****
.612	-.040	-.046	*****	-.037	*****	-.034	*****	-.026	-.037	-.026	*****	*****
.626	-.041	-.040	*****	-.035	*****	-.037	*****	-.031	-.043	-.028	*****	*****
.640	*****	-.053	*****	-.039	*****	-.040	*****	-.039	-.046	-.032	*****	*****
.654	*****	-.056	*****	-.045	*****	-.032	*****	-.039	-.054	-.042	*****	*****
.668	*****	*****	*****	-.043	*****	-.039	*****	-.036	-.050	-.040	*****	*****
.682	*****	-.060	*****	-.050	*****	-.043	*****	-.044	-.057	-.047	-.034	*****
.696	*****	-.056	*****	-.052	*****	-.039	*****	-.049	-.057	-.046	-.035	-.023
.710	*****	-.058	*****	*****	*****	-.040	*****	-.048	-.054	-.040	-.029	-.032
.724	*****	-.058	*****	-.048	*****	-.038	*****	-.045	-.054	-.042	-.034	-.042
.738	*****	-.058	*****	-.052	*****	*****	*****	-.047	-.057	-.045	-.035	-.045
.752	*****	-.043	*****	-.058	*****	-.059	*****	-.049	-.049	-.045	-.038	*****
.766	*****	-.058	*****	-.069	*****	-.071	*****	-.058	-.066	-.058	-.057	-.051
.779	*****	-.053	*****	-.056	*****	-.064	*****	-.046	*****	-.047	-.045	-.034
.793	*****	-.067	*****	-.070	*****	-.073	*****	*****	-.066	-.058	-.052	*****
.807	*****	-.067	*****	-.068	*****	-.070	*****	*****	-.065	-.060	-.051	-.054
.821	*****	*****	*****	-.074	*****	-.074	*****	*****	-.065	-.064	-.054	-.062
.835	*****	-.082	*****	-.081	*****	-.070	*****	*****	-.077	-.072	-.068	-.060
.849	*****	-.090	*****	-.082	*****	-.078	*****	*****	-.078	-.080	-.070	-.062
.863	*****	-.102	*****	-.087	*****	-.087	*****	*****	-.083	-.083	*****	-.075
.877	-.095	-.092	*****	-.087	*****	-.093	*****	*****	*****	*****	*****	*****
.891	-.100	-.112	*****	-.095	*****	-.102	*****	*****	-.090	-.087	-.080	-.087
.916	-.112	-.114	-.170	*****	-.118	*****	-.104	-.115	-.106	-.095	-.089	-.092
.928	-.125	*****	-.166	*****	-.132	*****	-.123	-.120	-.117	-.119	-.115	-.115
.940	-.135	*****	-.128	*****	-.132	-.118	-.123	-.122	-.123	-.120	-.111	-.118
.952	*****	*****	-.091	*****	-.084	-.079	-.084	-.077	-.075	-.074	-.074	-.080
.962	-.010	-.017	-.012	*****	-.018	-.007	-.004	-.010	-.006	-.001	-.002	.002
.974	.085	.080	*****	*****	.073	.081	.081	.082	.081	.081	.085	.081
.986	.159	.157	.149	*****	.152	.157	.151	.153	.152	.153	.158	.154
.996	.198	.192	*****	*****	.195	.197	.188	.190	.189	.195	.198	.193

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0209

Table A8. Effect of Angle of Attack on Pressure Distributions for Body Alone at
 $M = 0.60$ and $NPR = 1.051$

(a) $\alpha = -2.980^\circ$

TFST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	BODY ONLY			HORIZONTAL TAILS				VERTICAL TAIL				
POINT NUMBER	35			UPPER SURFACE		LOWER SURFACE		Y/B				
MACH NUMBER	.601			X/C	0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	-2.980			0.05	Tails removed							
				0.10								
NPR	1.051			0.20								
				0.30								
PTD, PSI	14.703			0.40								
				0.50								
PD, PSI	11.518			0.60								
				0.70								
QD, PSI	2.912			0.80								
				0.90								
AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.031	*****	-.024	*****	*****	*****	-.039	-.037	-.031	-.015	*****
.598	-.039	-.038	*****	-.044	*****	-.046	*****	-.046	-.041	-.035	*****	*****
.612	-.041	-.038	*****	-.041	*****	-.044	*****	-.040	-.041	-.031	*****	*****
.626	-.035	-.036	*****	-.040	*****	-.046	*****	-.044	-.041	-.037	*****	*****
.640	*****	-.043	*****	-.048	*****	-.049	*****	-.051	-.047	-.040	*****	*****
.654	*****	-.049	*****	-.054	*****	-.049	*****	-.056	-.051	-.047	*****	*****
.668	*****	*****	*****	-.049	*****	-.048	*****	-.046	-.046	-.040	*****	*****
.682	*****	-.048	*****	-.052	*****	-.051	*****	-.054	-.056	-.044	-.038	*****
.696	*****	-.049	*****	-.051	*****	-.054	*****	-.056	-.053	-.041	-.037	-.033
.710	*****	-.050	*****	*****	*****	-.053	*****	-.054	-.059	-.043	-.038	-.033
.724	*****	-.056	*****	-.054	*****	-.059	*****	-.055	-.056	-.044	-.042	-.038
.738	*****	-.056	*****	-.060	*****	*****	*****	-.059	-.065	-.047	-.044	-.044
.752	*****	-.052	*****	-.059	*****	-.058	*****	-.059	-.061	-.049	-.045	*****
.766	*****	-.063	*****	-.071	*****	-.070	*****	-.068	-.073	-.060	-.054	-.055
.779	*****	-.060	*****	-.059	*****	-.065	*****	-.061	*****	-.051	-.042	-.043
.793	*****	-.071	*****	-.070	*****	-.072	*****	*****	-.066	-.058	-.054	*****
.807	*****	-.072	*****	-.071	*****	-.077	*****	*****	-.063	-.061	-.052	-.051
.821	*****	*****	*****	-.080	*****	-.081	*****	*****	-.071	-.065	-.059	-.059
.835	*****	-.086	*****	-.089	*****	-.089	*****	*****	-.075	-.071	-.060	-.064
.849	*****	-.093	*****	-.097	*****	-.096	*****	*****	-.085	-.079	-.069	-.066
.863	*****	-.105	*****	-.106	*****	-.102	*****	*****	-.090	-.081	*****	-.069
.877	-.105	-.100	*****	-.106	*****	-.108	*****	*****	*****	*****	*****	*****
.891	-.117	-.125	*****	-.118	*****	-.115	*****	*****	-.098	-.084	-.082	-.079
.916	-.148	-.146	-.216	*****	-.139	*****	-.131	-.126	-.114	-.099	-.087	-.092
.928	-.177	*****	-.218	*****	-.173	*****	-.149	-.143	-.126	-.112	-.108	-.104
.940	-.205	*****	-.177	*****	-.183	*****	-.161	-.159	-.150	-.133	-.109	-.105
.952	*****	*****	-.165	*****	-.150	*****	-.136	-.121	-.112	-.092	-.080	-.077
.962	-.106	-.106	-.093	*****	-.077	*****	-.065	-.052	-.040	-.031	-.021	-.022
.974	-.014	-.008	*****	*****	-.001	.020	.030	.035	.044	.044	.043	.044
.986	.065	.071	.076	*****	.085	.088	.095	.095	.098	.100	.092	.092
.996	.101	.104	*****	*****	.115	.119	.119	.122	.128	.125	.115	.107
AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT				.0463								

Table A8. Continued

(b) $\alpha = 0.019^\circ$

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	BODY ONLY			HORIZONTAL TAILS				VERTICAL TAIL			
POINT NUMBER	36			UPPER SURFACE	LOWER SURFACE		Y/B				
MACH NUMBER	.599			Y/B	0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.019			X/C							
NPR	1.052			Tails removed							
PTD, PSI	14.703										
PD, PSI	11.533										
QD, PSI	2.900										
				0.05							
				0.10							
				0.20							
				0.30							
				0.40							
				0.50							
				0.60							
				0.70							
				0.80							
				0.90							

AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.044	-.033	*****	-.027	*****	*****	*****	-.031	-.028	-.026	-.010	*****
.598	-.047	-.042	*****	-.042	*****	-.036	*****	-.036	-.034	-.035	*****	*****
.612	-.042	-.039	*****	-.043	*****	-.037	*****	-.029	-.030	-.034	*****	*****
.626	-.034	-.035	*****	-.043	*****	-.037	*****	-.029	-.036	-.027	*****	*****
.640	*****	-.046	*****	-.039	*****	-.041	*****	-.034	-.038	-.035	*****	*****
.654	*****	-.047	*****	-.049	*****	-.041	*****	-.052	-.047	-.048	*****	*****
.668	*****	*****	*****	-.048	*****	-.041	*****	-.043	-.042	-.040	*****	*****
.682	*****	-.053	*****	-.052	*****	-.054	*****	-.045	-.047	-.040	-.041	*****
.696	*****	-.047	*****	-.045	*****	-.046	*****	-.043	-.045	-.045	-.042	-.039
.710	*****	-.047	*****	*****	*****	-.047	*****	-.045	-.047	-.044	-.041	-.036
.724	*****	-.050	*****	-.052	*****	-.049	*****	-.049	-.048	-.048	-.046	-.039
.738	*****	-.053	*****	-.057	*****	*****	*****	-.053	-.061	-.050	-.048	-.042
.752	*****	-.057	*****	-.053	*****	-.053	*****	-.055	-.054	-.052	-.048	*****
.766	*****	-.066	*****	-.064	*****	-.065	*****	-.068	-.072	-.064	-.060	-.064
.779	*****	-.055	*****	-.051	*****	-.055	*****	-.047	*****	-.049	-.057	-.050
.793	*****	-.062	*****	-.066	*****	-.063	*****	*****	-.059	-.062	-.059	*****
.807	*****	-.066	*****	-.061	*****	-.064	*****	*****	-.064	-.062	-.059	-.054
.821	*****	*****	*****	-.069	*****	-.070	*****	*****	-.070	-.066	-.066	-.062
.835	*****	-.076	*****	-.077	*****	-.072	*****	*****	-.079	-.078	-.081	-.076
.849	*****	-.086	*****	-.088	*****	-.086	*****	*****	-.086	-.084	-.079	-.081
.863	*****	-.096	*****	-.096	*****	-.096	*****	*****	-.094	-.089	*****	-.084
.877	-.093	-.089	*****	-.098	*****	-.099	*****	*****	*****	*****	*****	*****
.891	-.100	-.108	*****	-.110	*****	-.101	*****	*****	-.099	-.095	-.099	-.090
.916	-.128	-.121	-.175	*****	-.120	*****	-.120	-.126	-.120	-.115	-.111	-.119
.928	-.138	*****	-.178	*****	-.141	*****	-.142	-.141	-.136	-.136	-.141	-.137
.940	-.149	*****	-.139	*****	-.143	-.142	-.148	-.150	-.147	-.150	-.146	-.140
.952	*****	*****	-.113	*****	-.118	-.107	-.112	-.117	-.113	-.111	-.117	-.110
.962	-.057	-.049	*****	*****	-.051	-.053	-.049	-.050	-.051	-.052	-.058	-.057
.974	.030	.030	*****	*****	.023	.019	.023	.023	.025	.025	.020	.021
.986	.097	.095	.089	*****	.092	.083	.084	.081	.083	.079	.080	.084
.996	.130	.123	*****	*****	.115	.121	.119	.111	.115	.111	.104	.108

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0449
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Table A8. Continued

(c) $\alpha = 3.013^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION	BODY ONLY	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
				UPPER SURFACE		LOWER SURFACE		Y/B	
MACH NUMBER		37		0.1	0.2	0.1	0.2	0.1	0.2
ALPHA, DEG	3.013		0.05						
NPR	1.048		0.10						
PTD, PSI	14.704		0.20						
PD, PSI	11.525		0.30						
QD, PSI	2.907		0.40						
			0.50						
			0.60						
			0.70						
			0.80						
			0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.042	-.033	*****	-.027	*****	*****	*****	-.035	-.031	-.020	-.010	*****
.598	-.045	-.042	*****	-.038	*****	-.045	*****	-.042	-.040	-.027	*****	*****
.612	-.042	-.040	*****	-.037	*****	-.043	*****	-.040	-.035	-.032	*****	*****
.626	-.035	-.035	*****	-.043	*****	-.042	*****	-.041	-.044	-.032	*****	*****
.640	*****	-.047	*****	-.045	*****	-.043	*****	-.048	-.043	-.038	*****	*****
.654	*****	-.046	*****	-.051	*****	-.046	*****	-.056	-.047	-.047	*****	*****
.668	*****	*****	*****	-.046	*****	-.050	*****	-.047	-.046	-.037	*****	*****
.682	*****	-.047	*****	-.046	*****	-.051	*****	-.057	-.052	-.044	-.042	*****
.696	*****	-.044	*****	-.046	*****	-.052	*****	-.051	-.057	-.047	-.038	-.038
.710	*****	-.052	*****	*****	*****	-.047	*****	-.051	-.055	-.045	-.039	-.044
.724	*****	-.051	*****	-.051	*****	-.052	*****	-.051	-.057	-.045	-.046	-.047
.738	*****	-.052	*****	-.050	*****	*****	*****	-.054	-.063	-.047	-.051	-.051
.752	*****	-.052	*****	-.055	*****	-.050	*****	-.053	-.061	-.049	-.050	*****
.766	*****	-.060	*****	-.063	*****	-.065	*****	-.073	-.074	-.063	-.070	-.068
.779	*****	-.052	*****	-.050	*****	-.058	*****	-.058	*****	-.058	-.052	-.053
.793	*****	-.056	*****	-.066	*****	-.073	*****	*****	-.068	-.071	-.067	*****
.807	*****	-.060	*****	-.060	*****	-.071	*****	*****	-.070	-.069	-.060	-.066
.821	*****	*****	*****	-.069	*****	-.075	*****	*****	-.078	-.072	-.071	-.075
.835	*****	-.068	*****	-.076	*****	-.080	*****	*****	-.085	-.088	-.080	-.083
.849	*****	-.070	*****	-.079	*****	-.088	*****	*****	-.095	-.094	-.090	-.089
.863	*****	-.081	*****	-.082	*****	-.091	*****	*****	-.097	-.099	*****	-.100
.877	-.079	-.074	*****	-.081	*****	-.092	*****	*****	*****	*****	*****	*****
.891	-.080	-.095	*****	-.097	*****	-.101	*****	*****	-.114	-.115	-.113	-.113
.916	-.102	-.095	-.142	*****	-.111	*****	-.122	-.129	-.133	-.137	-.128	-.144
.928	-.106	*****	-.134	*****	-.123	*****	-.135	-.146	-.153	-.172	-.172	-.174
.940	-.105	*****	-.105	*****	-.124	-.128	-.133	-.144	-.164	-.184	-.189	-.188
.952	*****	*****	-.075	*****	-.084	-.098	-.104	-.108	-.128	-.155	-.169	-.166
.962	-.023	-.020	-.018	*****	-.029	-.030	-.039	-.046	-.065	-.087	-.101	-.107
.974	.045	.044	*****	*****	.039	.045	.037	.031	.020	-.004	-.016	-.024
.986	.101	.102	.098	*****	.093	.088	.106	.102	.083	.069	.055	.050
.996	.126	.115	*****	*****	.125	.120	.122	.120	.108	.093	.086	.083

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0467

Table A8. Continued

(d) $\alpha = 5.976^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS					
CONFIGURATION	BODY ONLY		HORIZONTAL TAILS				VERTICAL TAIL	
POINT NUMBER	38		UPPER SURFACE		LOWER SURFACE		Y/B	
		X/C	0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	.601							
ALPHA, DEG	5.976	0.05						
NPR	1.040	0.10						
PTD, PSI	14.705	0.20						
PD, PSI	11.522	0.30						
QD, PSI	2.911	0.40						
		0.50						
		0.60						
		0.70						
		0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.032	-.037	*****	-.034	*****	*****	*****	-.049	-.045	-.028	-.003	*****
.598	-.037	-.040	*****	-.048	*****	-.063	*****	-.058	-.056	-.034	*****	*****
.612	-.040	-.040	*****	-.045	*****	-.056	*****	-.064	-.054	-.030	*****	*****
.626	-.037	-.038	*****	-.043	*****	-.053	*****	-.058	-.057	-.038	*****	*****
.640	*****	-.042	*****	-.051	*****	-.058	*****	-.066	-.059	-.047	*****	*****
.654	*****	-.042	*****	-.058	*****	-.061	*****	-.070	-.076	-.053	*****	*****
.668	*****	*****	*****	-.051	*****	-.061	*****	-.064	-.059	-.042	*****	*****
.682	*****	-.043	*****	-.051	*****	-.067	*****	-.076	-.072	-.057	-.043	*****
.696	*****	-.043	*****	-.054	*****	-.070	*****	-.078	-.069	-.059	-.040	-.034
.710	*****	-.045	*****	*****	*****	-.064	*****	-.074	-.072	-.054	-.034	-.043
.724	*****	-.049	*****	-.054	*****	-.060	*****	-.069	-.071	-.057	-.041	-.044
.738	*****	-.046	*****	-.058	*****	*****	*****	-.078	-.079	-.062	-.045	-.044
.752	*****	-.044	*****	-.056	*****	-.073	*****	-.075	-.080	-.063	-.048	*****
.766	*****	-.054	*****	-.064	*****	-.074	*****	-.084	-.093	-.080	-.069	-.063
.779	*****	-.052	*****	-.056	*****	-.071	*****	-.078	*****	-.069	-.050	-.051
.793	*****	-.062	*****	-.063	*****	-.078	*****	*****	-.089	-.077	-.070	*****
.807	*****	-.062	*****	-.058	*****	-.080	*****	*****	-.091	-.076	-.064	-.067
.821	*****	*****	*****	-.068	*****	-.081	*****	*****	-.096	-.085	-.069	-.073
.835	*****	-.062	*****	-.070	*****	-.089	*****	*****	-.107	-.098	-.083	-.082
.849	*****	-.075	*****	-.074	*****	-.097	*****	*****	-.113	-.103	-.098	-.092
.863	*****	-.071	*****	-.081	*****	-.098	*****	*****	-.122	-.116	*****	-.108
.877	-.070	-.067	*****	-.076	*****	-.096	*****	*****	*****	*****	*****	*****
.891	-.073	-.083	*****	-.080	*****	-.108	*****	*****	-.136	-.129	-.120	-.119
.916	-.084	-.085	-.114	*****	-.093	*****	-.129	-.144	-.154	-.160	-.148	-.156
.928	-.099	*****	-.120	*****	-.104	*****	-.139	-.154	-.175	-.196	-.195	-.199
.940	-.113	*****	-.075	*****	-.091	-.116	-.136	-.159	-.186	-.220	-.215	-.215
.952	*****	*****	-.062	*****	-.063	-.080	-.098	-.116	-.151	-.204	-.204	-.200
.962	-.023	-.020	-.012	*****	-.014	.017	-.030	-.041	-.085	-.131	-.149	-.145
.974	.048	.038	*****	*****	.033	.041	.044	.034	.007	-.034	-.054	-.070
.986	.097	.085	.117	*****	.099	.078	.078	.076	.073	.039	.034	.016
.996	.100	.045	*****	*****	.097	.083	.086	.082	.082	.066	.057	.053

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0550

Table A8. Concluded

(e) $\alpha = 9.015^\circ$

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	BODY ONLY	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
			0.1	0.2	0.1	0.2	0.1	0.2
POINT NUMBER	39							
MACH NUMBER	.600							
ALPHA, DEG	9.015	0.05						
		0.10						
NPR	1.040	0.20						
		0.30						
PTD, PSI	14.704	0.40						
		0.50						
PD, PSI	11.526	0.60						
		0.70						
QD, PSI	2.907	0.80						
		0.90						

Tails removed

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.029	-.042	*****	-.049	*****	*****	*****	-.076	-.073	-.034	.008	*****
.598	-.037	-.046	*****	-.055	*****	-.089	*****	-.094	-.084	-.050	*****	*****
.612	-.029	-.047	*****	-.060	*****	-.086	*****	-.087	-.079	-.044	*****	*****
.626	-.016	-.045	*****	-.056	*****	-.084	*****	-.096	-.084	-.046	*****	*****
.640	*****	-.046	*****	-.057	*****	-.086	*****	-.098	-.084	-.057	*****	*****
.654	*****	-.051	*****	-.065	*****	-.077	*****	-.107	-.097	-.065	*****	*****
.668	*****	*****	*****	-.059	*****	-.083	*****	-.102	-.099	-.055	*****	*****
.682	*****	-.066	*****	-.060	*****	-.092	*****	-.104	-.105	-.067	-.028	*****
.696	*****	-.063	*****	-.058	*****	-.085	*****	-.095	-.095	-.063	-.031	-.023
.710	*****	-.057	*****	*****	*****	-.087	*****	-.100	-.096	-.068	-.028	-.023
.724	*****	-.061	*****	-.062	*****	-.087	*****	-.105	-.103	-.073	-.033	-.036
.738	*****	-.067	*****	-.065	*****	*****	*****	-.108	-.111	-.077	-.032	-.038
.752	*****	-.059	*****	-.057	*****	-.085	*****	-.112	-.110	-.077	-.037	*****
.766	*****	-.076	*****	-.063	*****	-.100	*****	-.121	-.123	-.096	-.059	-.051
.779	*****	-.061	*****	-.056	*****	-.090	*****	-.104	*****	-.084	-.045	-.045
.793	*****	-.065	*****	-.061	*****	-.090	*****	*****	-.119	-.097	-.060	*****
.807	*****	-.071	*****	-.056	*****	-.088	*****	*****	-.112	-.097	-.059	-.062
.821	*****	*****	*****	-.065	*****	-.097	*****	*****	-.128	-.102	-.070	-.071
.835	*****	-.073	*****	-.077	*****	-.098	*****	*****	-.129	-.119	-.082	-.074
.849	*****	-.084	*****	-.078	*****	-.106	*****	*****	-.146	-.127	-.092	-.090
.863	*****	-.097	*****	-.079	*****	-.103	*****	*****	-.154	-.136	*****	-.097
.877	-.070	-.078	*****	-.082	*****	-.100	*****	*****	*****	*****	*****	*****
.891	-.074	-.097	*****	-.083	*****	-.104	*****	*****	-.166	-.146	-.125	-.124
.916	-.100	-.095	-.109	*****	-.098	*****	-.132	-.147	-.180	-.178	-.154	-.164
.928	-.111	*****	-.114	*****	-.095	*****	-.134	-.163	-.203	-.221	-.213	-.198
.940	-.130	*****	-.090	*****	-.081	-.097	-.123	-.155	-.213	-.253	-.237	-.232
.952	*****	*****	-.064	*****	-.043	-.060	-.081	-.079	-.176	-.227	-.229	-.220
.962	-.069	-.033	-.003	*****	-.014	.013	.003	.015	-.082	-.163	-.175	-.173
.974	.016	.034	*****	*****	.050	.075	.064	.076	.001	-.052	-.086	-.089
.986	.093	.094	.088	*****	.091	.074	.091	.087	.090	.015	-.002	-.009
.996	.093	.088	*****	*****	.106	.108	.084	.106	.085	.079	.041	.037

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0617

Table A9. Effect of Nozzle Pressure Ratio on Pressure Distributions for Aft Tails Configuration at $M = 1.20$ and $\alpha = 0.025^\circ$

(a) NPR = 1.033

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	POINT NUMBER	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE	LOWER SURFACE	Y/B		Y/B			
MACH NUMBER	1.205	3	X/C	0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.025		0.05	*****	*****	*****	*****	*****	.028	
NPR	1.033		0.10	1.146	.061	-.008	1.146	.208	.019	
PTD, PSI	14.745		0.20	1.140	.012	-.021	1.136	*****	-.044	
PD, PSI	6.041		0.30	1.137	*****	-.058	1.129	-.055	-.061	
QD, PSI	6.140		0.40	1.130	-.094	-.097	*****	-.048	-.063	
			0.50	1.135	-.150	-.143	1.129	-.065	-.074	
			0.60	1.142	-.180	-.165	1.135	-.106	-.103	
			0.70	1.151	-.193	-.188	1.144	-.144	-.139	
			0.80	1.163	*****	-.204	1.157	-.186	-.157	
			0.90	1.176	*****	-.200	*****	-.194	-.172	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.032	-.024	*****	-.023	*****	*****	*****	-.024	-.014	-.009	.009	*****
.598	-.037	-.029	*****	-.029	*****	-.027	*****	-.023	-.017	-.008	*****	*****
.612	-.034	-.031	*****	-.027	*****	-.021	*****	-.016	-.012	-.002	*****	*****
.626	-.035	-.030	*****	-.020	*****	-.019	*****	-.014	-.009	-.006	*****	*****
.640	*****	-.019	*****	-.016	*****	-.016	*****	-.012	-.006	-.003	*****	*****
.654	*****	-.032	*****	-.027	*****	-.020	*****	-.024	-.024	-.017	*****	*****
.668	*****	*****	*****	-.023	*****	-.024	*****	-.019	-.013	-.008	*****	*****
.682	*****	-.029	*****	-.030	*****	-.028	*****	-.023	-.018	-.003	.003	*****
.696	*****	-.032	*****	-.031	*****	-.027	*****	-.021	-.013	.000	.001	.001
.710	*****	-.027	*****	*****	*****	-.021	*****	-.009	-.007	-.001	-.003	-.004
.724	*****	.022	*****	-.016	*****	-.016	*****	-.010	-.007	-.009	-.014	-.014
.738	*****	.101	*****	.016	*****	*****	*****	-.015	-.026	-.024	-.027	-.026
.752	*****	.074	*****	.055	*****	.012	*****	-.001	-.013	-.018	-.020	*****
.766	*****	.036	*****	.031	*****	.013	*****	-.002	-.028	-.042	-.046	-.047
.779	*****	.018	*****	.042	*****	.092	*****	.204	.047	-.010	-.023	-.028
.793	*****	-.009	*****	.050	*****	.120	*****	*****	.067	.013	-.022	*****
.807	*****	-.006	*****	.056	*****	.096	*****	*****	.036	.028	.003	-.003
.821	*****	*****	*****	.047	*****	.051	*****	*****	.001	.022	.019	.014
.835	*****	-.018	*****	.008	*****	.014	*****	*****	-.027	.007	.014	.013
.849	*****	-.049	*****	*****	*****	-.036	*****	*****	-.055	-.021	-.001	-.003
.863	*****	-.083	*****	-.075	*****	-.088	*****	*****	-.087	-.051	*****	-.022
.877	-.099	-.119	*****	-.107	*****	-.134	*****	*****	*****	*****	*****	*****
.891	-.147	-.154	*****	-.151	*****	-.174	*****	*****	-.151	-.109	-.087	-.079
.915	-.193	-.214	-.271	*****	-.223	*****	-.251	-.228	-.222	-.170	-.137	-.146
.928	-.224	*****	-.309	*****	-.273	-.268	-.257	-.240	-.246	-.227	-.208	-.199
.940	-.277	*****	-.319	*****	-.332	-.321	-.301	-.285	-.296	-.287	-.273	-.267
.952	*****	*****	-.393	*****	-.396	-.372	-.355	-.342	-.362	-.371	-.364	-.356
.962	-.371	-.312	-.275	*****	-.276	-.275	-.276	-.239	-.218	-.229	-.310	-.379
.974	-.108	-.108	*****	*****	-.115	-.109	-.098	-.096	-.091	-.089	-.095	-.093
.986	-.070	-.077	-.079	*****	-.079	-.072	-.075	-.072	-.072	-.071	-.072	-.068
.996	-.045	-.041	*****	*****	-.051	-.049	-.053	-.055	-.054	-.052	-.049	-.049

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1195
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Table A9. Continued

(b) NPR = 1.998

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
4	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.200								
ALPHA, DEG	.027	0.05	*****	*****	*****	*****	*****	.026	
NPR	1.998	0.10	-.021	.053	-.011	.066	.161	.012	
PTD, PSI	14.743	0.20	-.043	.008	-.026	.023	*****	-.050	
PD, PSI	6.081	0.30	-.068	*****	-.062	-.034	-.053	-.066	
QD, PSI	6.128	0.40	-.123	-.100	-.102	*****	-.059	-.071	
		0.50	-.168	-.154	-.149	-.145	-.067	-.079	
		0.60	-.185	-.184	-.165	-.182	-.104	-.104	
		0.70	-.193	-.201	-.194	-.211	-.144	-.136	
		0.80	-.206	*****	-.208	-.234	-.180	-.161	
		0.90	-.192	*****	-.207	*****	-.191	-.174	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.038	-.033	*****	-.024	*****	*****	*****	-.025	-.017	-.009	.006	*****
.598	-.041	-.032	*****	-.033	*****	-.031	*****	-.025	-.021	-.009	*****	*****
.612	-.040	-.037	*****	-.031	*****	-.025	*****	-.022	-.017	-.008	*****	*****
.626	-.038	-.038	*****	-.029	*****	-.026	*****	-.020	-.019	-.013	*****	*****
.640	*****	-.029	*****	-.027	*****	-.019	*****	-.015	-.014	-.008	*****	*****
.654	*****	-.040	*****	-.034	*****	-.025	*****	-.030	-.030	-.021	*****	*****
.668	*****	*****	*****	-.028	*****	-.027	*****	-.023	-.016	-.014	*****	*****
.682	*****	-.032	*****	-.034	*****	-.033	*****	-.028	-.025	-.009	-.002	*****
.696	*****	-.038	*****	-.039	*****	-.032	*****	-.022	-.017	-.004	-.002	.000
.710	*****	-.035	*****	*****	*****	-.023	*****	-.016	-.009	-.005	-.007	-.009
.724	*****	.022	*****	-.022	*****	-.020	*****	-.009	-.012	-.011	-.018	-.016
.738	*****	.100	*****	.011	*****	*****	*****	-.016	-.027	-.024	-.027	-.026
.752	*****	.073	*****	.051	*****	.010	*****	-.005	-.020	-.021	-.021	*****
.766	*****	.030	*****	.029	*****	.010	*****	-.008	-.032	-.042	-.051	-.048
.779	*****	.011	*****	.034	*****	.090	*****	.194	.046	-.012	-.027	-.028
.793	*****	-.007	*****	.039	*****	.116	*****	*****	.063	.011	-.026	*****
.807	*****	-.014	*****	.047	*****	.089	*****	*****	.033	.021	.001	-.007
.821	*****	*****	*****	.040	*****	.047	*****	*****	.000	.018	.016	.013
.835	*****	-.030	*****	.006	*****	.002	*****	*****	-.030	.003	.009	.011
.849	*****	-.050	*****	*****	*****	-.039	*****	*****	-.054	-.023	-.007	-.004
.863	*****	-.086	*****	-.078	*****	-.093	*****	*****	-.096	-.053	*****	-.024
.877	-.108	-.123	*****	-.113	*****	-.144	*****	*****	*****	*****	*****	*****
.891	-.154	-.162	*****	-.157	*****	-.177	*****	*****	-.154	-.112	-.090	-.080
.916	-.201	-.220	-.281	*****	-.231	*****	-.255	-.232	-.226	-.172	-.139	-.147
.928	-.229	*****	-.312	*****	-.281	-.278	-.262	-.245	-.250	-.230	-.210	-.199
.940	-.285	*****	-.324	*****	-.338	-.327	-.307	-.289	-.300	-.292	-.277	-.272
.952	*****	*****	-.400	*****	-.399	-.377	-.360	-.345	-.365	-.374	-.365	-.358
.962	-.177	-.138	-.142	*****	-.134	-.156	-.155	-.206	-.271	-.351	-.363	-.410
.974	-.092	-.106	*****	*****	-.104	-.110	-.104	-.101	-.098	-.103	-.109	-.115
.986	-.081	-.087	*****	*****	-.092	-.092	-.096	-.081	-.077	-.082	-.081	-.082
.996	-.064	-.064	*****	*****	-.060	-.061	-.057	-.060	-.051	-.059	-.056	-.058

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1204

Table A9. Continued

(c) NPR = 3.995

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
		5							X/C	0.1	0.2	0.1	0.2	0.1	0.2
			1.200												
				.028					0.05	*****	*****	*****	*****	*****	.020
					3.995				0.10	-.017	.055	-.007	.059	.128	.017
									0.20	-.044	.008	-.029	.023	*****	-.049
									0.30	-.073	*****	-.066	-.032	-.053	-.065
			14.746						0.40	-.118	-.098	-.101	*****	-.056	-.071
									0.50	-.168	-.156	-.145	-.144	-.071	-.077
				6.081					0.60	-.184	-.187	-.165	-.182	-.106	-.108
									0.70	-.190	-.198	-.194	-.210	-.142	-.138
				6.129					0.80	-.204	*****	-.209	-.229	-.182	-.156
									0.90	-.194	*****	-.207	*****	-.191	-.173

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.035	-.032	*****	-.027	*****	*****	*****	-.026	-.019	-.012	.005	*****
.598	-.040	-.035	*****	-.035	*****	-.031	*****	-.027	-.021	-.010	*****	*****
.612	-.040	-.037	*****	-.033	*****	-.025	*****	-.020	-.017	-.009	*****	*****
.626	-.042	-.039	*****	-.032	*****	-.027	*****	-.018	-.016	-.013	*****	*****
.640	*****	-.027	*****	-.029	*****	-.018	*****	-.015	-.010	-.007	*****	*****
.654	*****	-.039	*****	-.033	*****	-.022	*****	-.029	-.030	-.026	*****	*****
.668	*****	*****	*****	-.031	*****	-.026	*****	-.023	-.021	-.011	*****	*****
.682	*****	-.034	*****	-.032	*****	-.030	*****	-.028	-.024	-.010	-.001	*****
.696	*****	-.038	*****	-.039	*****	-.032	*****	-.030	-.019	-.003	-.007	-.004
.710	*****	-.036	*****	*****	*****	-.025	*****	-.016	-.014	-.005	-.007	-.008
.724	*****	.012	*****	-.020	*****	-.019	*****	-.010	-.013	-.013	-.016	-.014
.738	*****	.090	*****	.008	*****	*****	*****	-.019	-.027	-.028	-.027	-.026
.752	*****	.071	*****	.053	*****	.008	*****	-.006	-.018	-.022	-.020	*****
.766	*****	.025	*****	.031	*****	.011	*****	-.008	-.035	-.045	-.046	-.050
.779	*****	.014	*****	.040	*****	.093	*****	.194	.049	-.011	-.026	-.032
.793	*****	-.012	*****	.045	*****	.122	*****	*****	.059	.009	-.023	*****
.807	*****	-.009	*****	.054	*****	.083	*****	*****	.035	.020	-.003	-.004
.821	*****	*****	*****	.034	*****	.043	*****	*****	-.003	.021	.015	.013
.835	*****	-.023	*****	-.001	*****	-.001	*****	*****	-.027	.004	.012	.008
.849	*****	-.055	*****	*****	*****	-.038	*****	*****	-.055	-.024	-.006	-.007
.863	*****	-.091	*****	-.080	*****	-.092	*****	*****	-.097	-.052	*****	-.024
.877	-.106	-.119	*****	-.108	*****	-.137	*****	*****	*****	*****	*****	*****
.891	-.152	-.155	*****	-.154	*****	-.176	*****	*****	-.153	-.110	-.088	-.078
.916	-.198	-.220	*****	-.227	*****	-.254	*****	*****	-.232	-.226	-.170	-.138
.928	-.229	*****	-.313	*****	-.281	-.278	-.264	-.245	-.250	-.229	-.208	-.198
.940	-.283	*****	-.327	*****	-.339	-.327	-.305	-.289	-.301	-.291	-.276	-.268
.952	*****	*****	-.399	*****	-.401	-.377	-.360	-.347	-.365	-.373	-.367	-.357
.962	-.249	-.184	*****	-.148	*****	-.146	-.164	-.213	-.331	-.396	-.411	-.410
.974	-.095	-.113	*****	*****	-.109	-.102	-.107	-.108	-.107	-.118	-.119	-.118
.986	-.076	-.086	*****	*****	-.095	-.095	-.092	-.090	-.078	-.084	-.082	-.074
.996	-.051	-.053	*****	*****	-.058	-.072	-.071	-.062	-.039	-.062	-.055	-.053

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1233
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Table A9. Continued

(d) NPR = 5.988

TFST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	AFT TAILS	HORIZONTAL TAILS										
		UPPER SURFACE				LOWER SURFACE						
		X/C	Y/B		Y/B		Y/B		Y/B			
0.1	0.2		0.1	0.2	0.1	0.2	0.1	0.2				
POINT NUMBER	6											
MACH NUMBER	1.200											
ALPHA, DEG	.028	0.05	*****	*****	*****	*****	*****	*****	*****	*****	.024	
NPR	5.988	0.10	-.018	.058	*****	-.011	.067	*****	.102	*****	.021	
		0.20	-.043	.006	*****	-.033	.019	*****	*****	*****	-.047	
		0.30	-.068	*****	*****	-.064	-.031	*****	-.058	*****	-.067	
PTD, PSI	14.747	0.40	-.121	-.098	*****	-.102	*****	*****	-.054	*****	-.072	
		0.50	-.167	-.154	*****	-.148	-.143	*****	-.074	*****	-.080	
		0.60	-.181	-.185	*****	-.168	-.182	*****	-.106	*****	-.113	
PD, PSI	6.082	0.70	-.188	-.197	*****	-.195	-.211	*****	-.141	*****	-.136	
		0.80	-.205	*****	*****	-.208	-.230	*****	-.183	*****	-.157	
QD, PSI	6.130	0.90	-.196	*****	*****	-.207	*****	*****	-.190	*****	-.172	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
584	-.037	-.032	*****	-.029	*****	*****	*****	-.026	-.019	-.013	.004	*****
598	-.040	-.034	*****	-.034	*****	-.032	*****	-.027	-.023	-.010	*****	*****
612	-.040	-.038	*****	-.032	*****	-.026	*****	-.022	-.018	-.011	*****	*****
626	-.042	-.039	*****	-.034	*****	-.027	*****	-.017	-.019	-.013	*****	*****
640	*****	-.029	*****	-.029	*****	-.019	*****	-.014	-.013	-.005	*****	*****
654	*****	-.042	*****	-.035	*****	-.028	*****	-.030	-.028	-.022	*****	*****
668	*****	*****	*****	-.027	*****	-.029	*****	-.023	-.022	-.015	*****	*****
682	*****	-.034	*****	-.035	*****	-.034	*****	-.029	-.025	-.016	-.004	*****
696	*****	-.037	*****	-.040	*****	-.035	*****	-.032	-.019	-.011	-.006	-.003
710	*****	-.034	*****	*****	*****	-.027	*****	-.018	-.011	-.004	-.010	-.010
724	*****	.019	*****	-.019	*****	-.021	*****	-.014	-.014	-.013	-.015	-.015
738	*****	.090	*****	.009	*****	*****	*****	-.019	-.030	-.027	-.028	-.024
752	*****	.079	*****	.053	*****	.007	*****	-.005	-.018	-.021	-.023	*****
766	*****	.033	*****	.027	*****	.012	*****	-.011	-.029	-.044	-.049	-.048
779	*****	.015	*****	.038	*****	.091	*****	.198	.044	-.011	-.026	-.030
793	*****	-.008	*****	.040	*****	.118	*****	*****	.059	.007	-.027	*****
807	*****	-.013	*****	.050	*****	.085	*****	*****	.030	.022	-.002	-.005
821	*****	*****	*****	.035	*****	.042	*****	*****	-.001	.018	.013	.015
835	*****	-.032	*****	-.001	*****	-.001	*****	*****	-.035	-.005	.008	.005
849	*****	-.052	*****	*****	*****	-.038	*****	*****	-.054	-.024	-.007	-.009
863	*****	-.088	*****	-.078	*****	-.087	*****	*****	-.093	-.054	*****	-.026
877	-.105	-.123	*****	-.109	*****	-.138	*****	*****	*****	*****	*****	*****
891	-.152	-.157	*****	-.156	*****	-.179	*****	*****	-.155	-.114	-.089	-.082
916	-.198	-.219	-.276	*****	-.229	*****	-.253	-.232	-.226	-.172	-.138	-.146
928	-.228	*****	-.311	*****	-.279	-.278	-.261	-.244	-.250	-.231	-.210	-.198
940	-.282	*****	-.325	*****	-.336	-.324	-.306	-.288	-.301	-.294	-.277	-.269
952	*****	*****	-.392	*****	-.380	-.353	-.351	-.344	-.366	-.374	-.367	-.359
962	-.135	-.133	-.123	*****	-.113	-.103	-.109	-.133	-.183	-.235	-.283	-.316
974	-.067	-.083	*****	*****	-.089	-.080	-.083	-.082	-.081	-.093	-.087	-.082
986	-.059	-.059	-.066	*****	-.066	-.074	-.076	-.072	-.060	-.065	-.058	-.051
996	-.040	-.031	*****	*****	-.037	-.051	-.056	-.043	-.024	-.040	-.037	-.031

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1107

Table A9. Concluded

(e) NPR = 7.963

TFST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
	7								X/C	0.1	0.2	0.1	0.2	0.1	0.2
	1.201			0.05	7.963	14.746	6.075	6.131		*****	*****	*****	*****	*****	.019
				0.10						-.020	.061	-.011	.074	.081	.024
				0.20						-.043	.008	-.035	.026	*****	-.050
				0.30						-.073	*****	-.070	-.028	-.054	-.059
				0.40						-.120	-.097	-.100	*****	-.058	-.071
				0.50						-.168	-.155	-.148	-.141	-.076	-.085
				0.60						-.183	-.184	-.173	-.179	-.112	-.114
				0.70						-.193	-.199	-.195	-.208	-.136	-.134
				0.80						-.201	*****	-.208	-.230	-.179	-.154
				0.90						-.195	*****	-.206	*****	-.186	-.168

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.033	*****	-.029	*****	*****	*****	-.029	-.023	-.015	.003	*****
.598	-.043	-.037	*****	-.035	*****	-.031	*****	-.027	-.024	-.015	*****	*****
.612	-.043	-.037	*****	-.034	*****	-.030	*****	-.020	-.019	-.012	*****	*****
.626	-.043	-.041	*****	-.035	*****	-.028	*****	-.019	-.019	-.011	*****	*****
.640	*****	-.032	*****	-.026	*****	-.021	*****	-.017	-.015	-.009	*****	*****
.654	*****	-.046	*****	-.040	*****	-.024	*****	-.031	-.029	-.022	*****	*****
.668	*****	*****	*****	-.031	*****	-.027	*****	-.024	-.022	-.016	*****	*****
.682	*****	-.034	*****	-.036	*****	-.032	*****	-.034	-.029	-.014	-.005	*****
.696	*****	-.039	*****	-.040	*****	-.036	*****	-.033	-.024	-.012	-.007	-.003
.710	*****	-.036	*****	*****	*****	-.029	*****	-.022	-.013	-.005	-.009	-.010
.724	*****	.014	*****	-.022	*****	-.021	*****	-.014	-.016	-.014	-.019	-.015
.738	*****	.088	*****	.005	*****	*****	*****	-.021	-.032	-.023	-.030	-.028
.752	*****	.065	*****	.047	*****	.005	*****	-.011	-.024	-.022	-.019	*****
.766	*****	.029	*****	.029	*****	.011	*****	-.011	-.031	-.041	-.048	-.050
.779	*****	.003	*****	.039	*****	.091	*****	.200	.045	-.009	-.026	-.029
.793	*****	-.008	*****	.047	*****	.117	*****	*****	.059	.006	-.025	*****
.807	*****	-.016	*****	.050	*****	.087	*****	*****	.027	.019	-.002	-.005
.821	*****	*****	*****	.036	*****	.045	*****	*****	-.001	.017	.014	.008
.835	*****	-.032	*****	.002	*****	.008	*****	*****	-.041	-.009	.009	.004
.849	*****	-.056	*****	*****	*****	-.043	*****	*****	-.052	-.028	-.011	-.006
.863	*****	-.092	*****	-.078	*****	-.087	*****	*****	-.094	-.055	*****	-.028
.877	-.107	-.117	*****	-.108	*****	-.133	*****	*****	*****	*****	*****	*****
.891	-.149	-.156	*****	-.152	*****	-.173	*****	*****	-.156	-.112	-.085	-.080
.916	-.197	-.218	-.275	*****	-.229	*****	-.255	-.231	-.225	-.168	-.137	-.142
.928	-.227	*****	-.311	*****	-.276	-.276	-.260	-.244	-.249	-.229	-.207	-.198
.940	-.284	*****	-.323	*****	-.335	-.312	-.304	-.287	-.300	-.291	-.276	-.266
.952	*****	*****	-.301	*****	-.230	-.214	-.228	-.277	-.360	-.373	-.366	-.357
.962	-.079	-.093	-.097	*****	-.088	-.075	-.081	-.083	-.111	-.127	-.139	-.151
.974	-.047	-.061	*****	*****	-.068	-.065	-.057	-.057	-.062	-.067	-.058	-.051
.986	-.040	-.038	-.041	*****	-.046	-.053	-.056	-.054	-.043	-.043	-.038	-.025
.996	-.024	-.015	*****	*****	-.018	-.028	-.033	-.027	-.012	-.020	-.022	-.017

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0963

Table A10. Effect of Angle of Attack on Pressure Distributions for Aft Tails Configuration at $M = 1.20$ and $NPR = 0.985$

(a) $\alpha = -2.979^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION POINT NUMBER	AFT TAILS	9	HORIZONTAL TAILS UPPER SURFACE				HORIZONTAL TAILS LOWER SURFACE				VERTICAL TAIL	
			X/C	0.1	0.2	Y/B	0.1	0.2	Y/B	0.1	0.2	
MACH NUMBER	1.200											
ALPHA, DEG	-2.979		0.05	*****	*****	*****	*****	*****	*****	*****	.016	
			0.10	-.018	.175	-.130	.057	.048	.015			
NPR	.985		0.20	-.045	.099	-.127	.023	*****	-.058			
			0.30	-.064	*****	-.147	-.038	-.071	-.074			
PT0, PSI	14.746		0.40	-.118	-.030	-.169	*****	-.056	-.079			
			0.50	-.167	-.091	-.201	-.150	-.073	-.046			
PD, PSI	6.081		0.60	-.183	-.126	-.227	-.186	-.066	-.074			
			0.70	-.192	-.145	-.258	-.213	-.093	-.091			
QD, PSI	6.129		0.80	-.201	*****	-.264	-.235	-.135	-.110			
			0.90	-.194	*****	-.244	*****	-.142	-.125			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.042	-.039	*****	-.050	*****	*****	*****	-.042	-.031	-.015	.004	*****
.598	-.043	-.042	*****	-.047	*****	-.048	*****	-.045	-.037	-.014	*****	*****
.612	-.044	-.046	*****	-.047	*****	-.042	*****	-.038	-.033	-.017	*****	*****
.626	-.048	-.049	*****	-.049	*****	-.043	*****	-.037	-.030	-.015	*****	*****
.640	*****	-.038	*****	-.039	*****	-.038	*****	-.027	-.024	-.014	*****	*****
.654	*****	-.049	*****	-.046	*****	-.038	*****	-.043	-.040	-.030	*****	*****
.668	*****	*****	*****	-.041	*****	-.039	*****	-.037	-.034	-.021	*****	*****
.682	*****	-.038	*****	-.037	*****	-.044	*****	-.042	-.042	-.024	-.009	*****
.696	*****	-.042	*****	-.046	*****	-.049	*****	-.044	-.039	-.019	-.005	.000
.710	*****	-.041	*****	*****	*****	-.044	*****	-.039	-.029	-.008	-.007	.000
.724	*****	-.014	*****	-.039	*****	-.042	*****	-.028	-.021	-.011	-.012	-.009
.738	*****	.099	*****	-.015	*****	*****	*****	-.029	-.031	-.022	-.019	-.016
.752	*****	.068	*****	.045	*****	-.002	*****	-.010	-.020	-.017	-.018	*****
.766	*****	.024	*****	.013	*****	.004	*****	-.013	-.030	-.034	-.040	-.041
.779	*****	.005	*****	.023	*****	.101	*****	.199	.043	-.006	-.020	-.016
.793	*****	-.023	*****	.040	*****	.179	*****	*****	.008	.002	-.016	*****
.807	*****	-.026	*****	.085	*****	.159	*****	*****	-.047	-.005	-.001	-.002
.821	*****	*****	*****	.081	*****	.112	*****	*****	-.077	-.027	-.006	.002
.835	*****	.016	*****	.047	*****	.065	*****	*****	-.108	-.046	-.022	-.018
.849	*****	-.017	*****	*****	*****	.021	*****	*****	-.118	-.071	-.050	-.044
.863	*****	-.041	*****	-.027	*****	-.036	*****	*****	-.146	-.104	*****	-.074
.877	*****	-.065	*****	-.061	*****	-.081	*****	*****	*****	*****	*****	*****
.891	-.104	-.110	*****	-.106	*****	-.119	*****	*****	-.211	-.165	-.136	-.123
.916	-.151	-.172	-.233	*****	-.181	*****	-.236	-.245	-.267	-.221	-.186	-.191
.928	-.180	*****	-.272	*****	-.239	*****	-.252	-.249	-.251	-.278	-.276	-.252
.940	-.237	*****	-.286	*****	-.306	-.313	-.303	-.288	-.317	-.329	-.317	-.310
.952	*****	*****	-.370	*****	-.381	-.375	-.370	-.343	-.352	-.400	-.401	-.394
.962	-.361	-.367	-.396	*****	-.407	-.347	-.264	-.174	-.138	-.149	-.198	-.266
.974	-.319	-.228	*****	*****	-.157	-.150	-.139	-.120	-.107	-.113	-.125	-.121
.986	-.080	-.088	-.091	*****	-.107	-.129	-.123	-.110	-.105	-.106	-.107	-.101
.996	-.056	-.059	*****	*****	-.082	-.099	-.097	-.097	-.092	-.090	-.079	-.078

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1304
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Table A10. Continued

(b) $\alpha = 0.021^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	POINT NUMBER	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE	LOWER SURFACE	Y/B		Y/B			
MACH NUMBER	1.200		X/C	0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.021		0.05	*****	*****	*****	*****	*****	.019	
NPR	.999		0.10	-.153	.053	-.011	.178	.042	.016	
PTD, PSI	14.746		0.20	-.152	.006	-.030	.113	*****	-.047	
PD, PSI	6.081		0.30	-.161	*****	-.066	.040	-.058	-.065	
QD, PSI	6.129		0.40	-.187	-.099	-.100	*****	-.063	-.079	
			0.50	-.220	-.157	-.145	-.086	-.078	-.084	
			0.60	-.248	-.188	-.171	-.122	-.114	-.118	
			0.70	-.257	-.205	-.195	-.158	-.139	-.137	
			0.80	-.265	*****	-.208	-.180	-.182	-.157	
			0.90	-.245	*****	-.205	*****	-.191	-.172	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.040	-.034	*****	-.039	*****	*****	*****	-.024	-.023	-.013	-.001	*****
.598	-.045	-.041	*****	-.038	*****	-.037	*****	-.035	-.028	-.010	*****	*****
.612	-.044	-.044	*****	-.033	*****	-.030	*****	-.027	-.025	-.012	*****	*****
.626	-.045	-.044	*****	-.037	*****	-.026	*****	-.024	-.022	-.014	*****	*****
.640	*****	-.035	*****	-.032	*****	-.023	*****	-.016	-.012	-.009	*****	*****
.654	*****	-.043	*****	-.039	*****	-.027	*****	-.032	-.028	-.024	*****	*****
.668	*****	*****	*****	-.032	*****	-.030	*****	-.026	-.023	-.016	*****	*****
.682	*****	-.038	*****	-.036	*****	-.036	*****	-.031	-.030	-.014	-.004	*****
.696	*****	-.040	*****	-.041	*****	-.036	*****	-.032	-.025	-.011	-.010	-.007
.710	*****	-.039	*****	*****	*****	-.035	*****	-.022	-.019	-.007	-.011	-.013
.724	*****	.007	*****	-.027	*****	-.025	*****	-.018	-.021	-.014	-.022	-.019
.738	*****	.086	*****	.007	*****	*****	*****	-.023	-.034	-.030	-.029	-.028
.752	*****	.071	*****	.046	*****	.003	*****	-.010	-.023	-.021	-.023	*****
.766	*****	.026	*****	.023	*****	.009	*****	-.012	-.034	-.044	-.050	-.050
.779	*****	.007	*****	.036	*****	.088	*****	.190	.044	-.013	-.029	-.034
.793	*****	-.012	*****	.041	*****	.110	*****	*****	.062	.010	-.026	*****
.807	*****	-.016	*****	.052	*****	.082	*****	*****	.025	.027	-.004	-.009
.821	*****	*****	*****	.031	*****	.043	*****	*****	-.001	.011	.013	.010
.835	*****	-.024	*****	-.001	*****	-.008	*****	*****	-.041	-.002	.006	.007
.849	*****	-.058	*****	*****	*****	-.045	*****	*****	-.052	-.018	-.010	-.011
.863	*****	-.091	*****	-.081	*****	-.093	*****	*****	-.086	-.058	*****	-.028
.877	-.111	-.126	*****	-.115	*****	-.137	*****	*****	*****	*****	*****	*****
.891	-.151	-.164	*****	-.154	*****	-.179	*****	*****	-.151	-.112	-.087	-.076
.916	-.201	-.220	-.277	*****	-.233	*****	-.255	-.231	-.224	-.170	-.136	-.143
.928	-.230	*****	-.313	*****	-.284	-.280	-.263	-.246	-.248	-.230	-.208	-.196
.940	-.286	*****	-.326	*****	-.339	-.328	-.306	-.288	-.298	-.290	-.275	-.268
.952	*****	*****	-.403	*****	-.404	-.380	-.361	-.346	-.366	-.375	-.365	-.356
.962	-.368	-.302	-.293	*****	-.273	-.293	-.316	-.297	-.275	-.265	-.371	-.402
.974	-.112	-.115	*****	*****	-.127	-.119	-.108	-.104	-.099	-.097	-.104	-.109
.986	-.081	-.084	-.088	*****	-.090	-.085	-.081	-.078	-.077	-.078	-.079	-.076
.996	-.061	-.058	*****	*****	-.061	-.063	-.062	-.062	-.060	-.059	-.057	-.054

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1271
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Table A10. Continued

(c) $\alpha = 3.018^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	AFT TAILS 11	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.199								
ALPHA, DEG	3.018	0.05	*****	*****	*****	*****	*****	.009	
		0.10	-.018	-.087	.126	.052	.039	.017	
NPR	.975	0.20	-.042	-.096	.062	.019	*****	-.042	
		0.30	-.064	*****	.016	-.039	-.046	-.063	
PTD, PSI	14.745	0.40	-.119	-.171	-.037	*****	-.071	-.087	
		0.50	-.167	-.218	-.074	-.151	-.090	-.116	
PD, PSI	6.087	0.60	-.183	-.250	-.104	-.187	-.153	-.156	
		0.70	-.192	-.259	-.130	-.215	-.184	-.176	
OD, PSI	6.127	0.80	-.202	*****	-.148	-.234	-.224	-.203	
		0.90	-.195	*****	-.156	*****	-.236	-.218	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.035	-.040	*****	-.038	*****	*****	*****	-.026	-.026	-.018	-.004	*****
.598	-.040	-.036	*****	-.034	*****	-.035	*****	-.033	-.027	-.013	*****	*****
.612	-.035	-.035	*****	-.029	*****	-.033	*****	-.028	-.026	-.017	*****	*****
.626	-.033	-.034	*****	-.034	*****	-.033	*****	-.030	-.027	-.016	*****	*****
.640	*****	-.031	*****	-.028	*****	-.026	*****	-.020	-.016	-.012	*****	*****
.654	*****	-.038	*****	-.039	*****	-.030	*****	-.035	-.033	-.021	*****	*****
.668	*****	*****	*****	-.030	*****	-.030	*****	-.031	-.026	-.012	*****	*****
.682	*****	-.035	*****	-.036	*****	-.039	*****	-.033	-.027	-.013	-.006	*****
.696	*****	-.035	*****	-.038	*****	-.035	*****	-.032	-.023	-.018	-.013	-.012
.710	*****	-.025	*****	*****	*****	-.029	*****	-.028	-.025	-.018	-.021	-.022
.724	*****	.033	*****	-.013	*****	-.024	*****	-.021	-.027	-.024	-.024	-.025
.738	*****	.079	*****	.012	*****	*****	*****	-.034	-.042	-.038	-.034	-.033
.752	*****	.062	*****	.037	*****	-.004	*****	-.016	-.034	-.032	-.027	*****
.766	*****	.027	*****	.022	*****	-.002	*****	-.028	-.047	-.053	-.051	-.051
.779	*****	.017	*****	.033	*****	.067	*****	.192	.045	-.028	-.036	-.038
.793	*****	-.002	*****	.026	*****	.056	*****	*****	.117	.008	-.035	*****
.807	*****	-.015	*****	.015	*****	.006	*****	*****	.100	.053	-.014	-.029
.821	*****	*****	*****	-.014	*****	-.033	*****	*****	.074	.058	.022	.010
.835	*****	-.063	*****	-.050	*****	-.072	*****	*****	.029	.040	.036	.032
.849	*****	-.096	*****	*****	*****	-.108	*****	*****	.009	.033	.045	.038
.863	*****	-.136	*****	-.126	*****	-.151	*****	*****	-.033	.003	*****	.021
.877	-.156	-.165	*****	-.159	*****	-.194	*****	*****	*****	*****	*****	*****
.891	-.197	-.203	*****	-.201	*****	-.231	*****	*****	-.090	-.057	-.036	-.030
.916	-.245	-.263	-.323	*****	-.278	*****	-.274	-.268	-.177	-.120	-.085	-.096
.928	-.272	*****	-.351	*****	-.322	-.304	-.279	-.288	-.213	-.181	-.162	-.151
.940	-.324	*****	-.364	*****	-.370	-.324	-.311	-.313	-.275	-.253	-.232	-.226
.952	*****	*****	-.204	*****	-.180	-.180	-.203	-.309	-.349	-.341	-.333	-.318
.962	-.135	-.127	-.118	*****	-.113	-.116	-.118	-.125	-.270	-.389	-.381	-.377
.974	-.111	-.112	*****	*****	-.108	-.107	-.109	-.117	-.145	-.235	-.395	-.403
.986	-.111	-.110	-.111	*****	-.108	-.118	-.120	-.126	-.132	-.127	-.133	-.143
.996	-.098	-.095	*****	*****	-.108	-.115	-.115	-.119	-.107	-.087	-.077	-.072

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1244

Table A10. Concluded

(d) $\alpha = 5.976^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
12	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.200								
ALPHA, DEG	5.976	0.05	*****	*****	*****	*****	*****	*****	.008
NPR	.970	0.10	.123	-.224	.265	-.056	.032	.011	
PTD, PSI	14.747	0.20	.063	-.189	.169	-.073	*****	-.038	
		0.30	.015	*****	.099	-.115	-.045	-.057	
		0.40	-.044	-.236	.053	*****	-.078	-.092	
PD, PSI	6.078	0.50	-.082	-.271	.001	-.205	-.105	-.137	
		0.60	-.092	-.297	-.040	-.239	-.184	-.188	
QD, PSI	6.131	0.70	-.117	-.307	-.058	-.264	-.225	-.212	
		0.80	-.132	*****	-.086	-.277	-.255	-.235	
		0.90	-.139	*****	-.102	*****	-.272	-.250	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.027	-.030	*****	-.038	*****	*****	*****	-.043	-.046	-.022	.002	*****
.598	-.031	-.032	*****	-.036	*****	-.047	*****	-.048	-.041	-.022	*****	*****
.612	-.029	-.031	*****	-.037	*****	-.046	*****	-.048	-.042	-.020	*****	*****
.626	-.028	-.031	*****	-.036	*****	-.043	*****	-.046	-.042	-.025	*****	*****
.640	*****	-.029	*****	-.034	*****	-.037	*****	-.040	-.036	-.014	*****	*****
.654	*****	-.038	*****	-.042	*****	-.041	*****	-.050	-.043	-.025	*****	*****
.668	*****	*****	*****	-.036	*****	-.040	*****	-.045	-.037	-.018	*****	*****
.682	*****	-.034	*****	-.043	*****	-.046	*****	-.050	-.048	-.026	-.006	*****
.696	*****	-.034	*****	-.043	*****	-.049	*****	-.048	-.042	-.032	-.017	-.015
.710	*****	-.021	*****	*****	*****	-.042	*****	-.049	-.043	-.034	-.022	-.021
.724	*****	.033	*****	-.009	*****	-.038	*****	-.050	-.048	-.039	-.023	-.025
.738	*****	.075	*****	.009	*****	*****	*****	-.055	-.066	-.048	-.038	-.037
.752	*****	.052	*****	.023	*****	-.012	*****	-.040	-.056	-.048	-.028	*****
.766	*****	.021	*****	.015	*****	-.008	*****	-.052	-.070	-.064	-.052	-.052
.779	*****	.011	*****	.017	*****	.050	*****	.196	.007	-.053	-.035	-.035
.793	*****	-.010	*****	.005	*****	.000	*****	*****	.185	-.015	-.040	*****
.807	*****	-.027	*****	-.021	*****	-.064	*****	*****	.185	.088	-.026	-.041
.821	*****	*****	*****	-.056	*****	-.098	*****	*****	.148	.116	.037	.007
.835	*****	-.088	*****	-.098	*****	-.127	*****	*****	.104	.105	.087	.069
.849	*****	-.125	*****	*****	*****	-.165	*****	*****	.089	.097	.095	.087
.863	*****	-.170	*****	-.178	*****	-.203	*****	*****	.051	.075	*****	.078
.877	-.202	-.234	*****	-.214	*****	-.246	*****	*****	*****	*****	*****	*****
.891	-.229	-.235	*****	-.249	*****	-.282	*****	*****	-.021	.005	.026	.024
.916	-.285	-.302	-.368	*****	-.324	*****	-.289	-.352	-.120	-.059	-.029	-.039
.928	-.303	*****	-.398	*****	-.359	*****	-.323	-.293	-.355	-.163	-.124	-.107
.940	-.357	*****	-.407	*****	-.379	*****	-.302	-.285	-.340	-.229	-.203	-.182
.952	*****	*****	-.324	*****	-.156	*****	-.152	-.155	-.385	-.322	-.299	-.288
.962	-.231	-.302	*****	*****	-.152	*****	-.152	-.146	-.144	-.350	-.348	-.343
.974	-.155	-.179	*****	*****	-.162	*****	-.160	-.153	-.151	-.334	-.354	-.362
.986	-.142	-.151	-.152	*****	-.164	*****	-.172	-.172	-.136	-.179	-.253	-.309
.996	-.122	-.125	*****	*****	-.166	*****	-.164	-.164	-.108	-.106	-.111	-.120

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1399

Table A11. Effect of Nozzle Pressure Ratio on Pressure Distributions for Aft Tails Configuration at $M = 0.95$ and $\alpha = 0.024^\circ$

(a) NPR = 1.063

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS						VERTICAL TAIL			
		POINT NUMBER	UPPER SURFACE Y/B	LOWER SURFACE Y/B		Y/B		Y/B			
MACH NUMBER	X/C			0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.024		0.05	*****	*****	*****	*****	*****	*****	*****	-.053
NPR	1.063		0.10	-.126	-.069	-.085	-.627	-.064	-.048		
PTD, PSI	14.754		0.20	-.219	-.148	-.152	-.619	*****	-.099		
			0.30	-.283	*****	-.200	-.630	-.116	-.141		
PD, PSI	8.252		0.40	-.370	-.311	-.264	*****	-.183	-.229		
			0.50	-.420	-.366	-.308	-.720	-.492	-.276		
QD, PSI	5.216		0.60	-.437	-.415	-.366	-.754	-.328	-.336		
			0.70	-.470	-.437	-.389	-.783	-.374	-.361		
			0.80	-.494	*****	-.399	-.786	-.425	-.397		
			0.90	-.511	*****	-.111	*****	-.299	-.236		

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.027	-.022	*****	-.004	*****	*****	*****	-.003	-.008	-.009	.010	*****
.598	-.034	-.028	*****	-.028	*****	-.024	*****	-.025	-.019	-.012	*****	*****
.612	-.037	-.026	*****	-.022	*****	-.019	*****	-.022	-.017	-.019	*****	*****
.626	-.018	-.021	*****	-.025	*****	-.023	*****	-.017	-.021	-.008	*****	*****
.640	*****	-.032	*****	-.019	*****	-.022	*****	-.023	-.026	-.012	*****	*****
.654	*****	-.035	*****	-.025	*****	-.019	*****	-.025	-.032	-.029	*****	*****
.668	*****	*****	*****	-.019	*****	-.011	*****	-.015	-.012	-.012	*****	*****
.682	*****	-.007	*****	-.010	*****	-.015	*****	-.023	-.014	-.009	-.013	*****
.696	*****	.014	*****	.011	*****	-.002	*****	-.006	-.010	-.010	-.012	-.011
.710	*****	.046	*****	*****	*****	.006	*****	.003	-.006	-.003	-.005	-.009
.724	*****	.093	*****	.040	*****	.013	*****	.010	-.005	-.001	-.011	-.010
.738	*****	.082	*****	.038	*****	*****	*****	.006	-.002	-.006	-.005	-.009
.752	*****	.039	*****	.032	*****	.020	*****	.019	.010	.005	-.001	*****
.766	*****	-.018	*****	.007	*****	.035	*****	.035	.015	-.007	-.017	-.020
.779	*****	-.034	*****	.020	*****	.082	*****	.203	.056	.011	-.002	-.008
.793	*****	-.054	*****	-.008	*****	.057	*****	*****	.020	-.009	-.022	*****
.807	*****	-.077	*****	-.038	*****	-.007	*****	*****	-.046	-.032	-.037	-.041
.821	*****	*****	*****	-.078	*****	-.088	*****	*****	-.086	-.070	-.064	-.067
.835	*****	-.194	*****	-.152	*****	-.142	*****	*****	-.156	-.114	-.100	-.100
.849	*****	-.234	*****	*****	*****	-.218	*****	*****	-.187	-.155	-.136	-.138
.863	*****	-.289	*****	-.273	*****	-.286	*****	*****	-.246	-.203	*****	-.174
.877	-.305	-.324	*****	-.318	*****	-.347	*****	*****	*****	*****	*****	*****
.891	-.381	-.387	*****	-.379	*****	-.407	*****	*****	-.345	-.290	-.270	-.262
.916	-.430	-.449	-.545	*****	-.471	*****	-.449	-.437	-.420	-.364	-.334	-.343
.928	-.357	*****	-.464	*****	-.355	*****	-.360	-.382	-.331	-.402	-.429	-.424
.940	-.103	*****	-.103	*****	-.075	-.096	-.118	-.119	-.201	-.242	-.269	-.285
.952	*****	*****	-.008	*****	-.005	-.011	-.011	-.021	-.029	-.030	-.044	-.042
.962	.020	.023	.003	*****	.020	.004	.020	.025	.035	.039	.020	.019
.974	.030	.042	*****	*****	.050	.042	.041	.050	.057	.059	.054	.054
.986	.067	.059	.078	*****	.062	.057	.071	.078	.063	.073	.070	.065
.996	.085	.076	*****	*****	.084	.091	.091	.087	.085	.095	.086	.085

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0876
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Table A11. Continued

(b) NPR = 2.018

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE	LOWER SURFACE	Y/B		Y/B		
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		14	.351	.024	2.018	14.752	8.247	5.217							
										*****	*****	*****	*****	*****	-.050
									0.05	-.081	-.062	-.079	.010	-.063	-.047
									0.10	-.119	-.140	-.137	-.074	*****	-.097
									0.20	-.163	*****	-.205	-.152	-.120	-.143
									0.30	-.228	-.308	-.266	*****	-.181	-.224
									0.40	-.252	-.361	-.305	-.315	-.464	-.272
									0.50	-.271	-.413	-.372	-.368	-.326	-.331
									0.60	-.094	-.440	-.387	-.403	-.374	-.359
									0.70	.026	*****	-.397	-.151	-.425	-.396
									0.80	.117	*****	-.060	*****	-.119	-.189
									0.90						

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.025	-.018	*****	-.008	*****	*****	*****	-.014	-.002	-.007	.009	*****
.598	-.031	-.021	*****	-.025	*****	-.024	*****	-.019	-.015	-.014	*****	*****
.612	-.027	-.022	*****	-.024	*****	-.018	*****	-.016	-.015	-.019	*****	*****
.626	-.014	-.018	*****	-.026	*****	-.017	*****	-.015	-.012	-.015	*****	*****
.640	*****	-.021	*****	-.025	*****	-.027	*****	-.019	-.023	-.019	*****	*****
.654	*****	-.032	*****	-.032	*****	-.023	*****	-.025	-.032	-.029	*****	*****
.668	*****	*****	*****	-.019	*****	-.019	*****	-.011	-.020	-.010	*****	*****
.682	*****	-.016	*****	-.010	*****	-.014	*****	-.014	-.023	-.016	-.015	*****
.696	*****	.007	*****	.005	*****	-.005	*****	-.001	-.014	-.009	-.012	-.010
.710	*****	.043	*****	*****	*****	.006	*****	.004	-.002	-.003	-.008	-.006
.724	*****	.097	*****	.038	*****	.011	*****	.006	.000	.004	-.011	-.004
.738	*****	.090	*****	.043	*****	*****	*****	.011	-.005	-.004	-.010	-.001
.752	*****	.033	*****	.038	*****	.021	*****	.020	.006	.010	-.003	*****
.766	*****	-.012	*****	.012	*****	.029	*****	.036	.016	-.005	-.020	-.023
.779	*****	-.025	*****	.018	*****	.079	*****	.202	.057	.012	-.002	-.007
.793	*****	-.048	*****	-.001	*****	.052	*****	*****	.016	-.008	-.023	*****
.807	*****	-.090	*****	-.033	*****	-.002	*****	*****	-.041	-.031	-.039	-.033
.821	*****	*****	*****	-.073	*****	-.075	*****	*****	-.093	-.070	-.067	-.065
.835	*****	-.190	*****	-.142	*****	-.146	*****	*****	-.150	-.113	-.099	-.102
.849	*****	-.232	*****	*****	*****	-.217	*****	*****	-.193	-.156	-.138	-.138
.863	*****	-.291	*****	-.276	*****	-.294	*****	*****	-.247	-.204	*****	-.172
.877	-.300	-.329	*****	-.317	*****	-.347	*****	*****	*****	*****	*****	*****
.891	-.377	-.389	*****	-.378	*****	-.407	*****	*****	-.344	-.293	-.277	-.261
.916	-.419	-.435	-.540	*****	-.470	*****	-.465	-.418	-.415	-.367	-.335	-.342
.928	-.259	*****	-.363	*****	-.351	-.277	-.300	-.263	-.361	-.431	-.428	-.411
.940	-.059	*****	-.070	*****	-.064	-.061	-.065	-.066	-.117	-.212	-.264	-.247
.952	*****	*****	-.010	*****	.006	-.006	.007	-.008	-.017	-.032	-.044	-.029
.962	.045	.051	.028	*****	.017	.031	.014	.033	.037	.027	.024	.023
.974	.070	.090	*****	*****	.060	.042	.035	.068	.068	.060	.049	.076
.986	.100	.089	.067	*****	.072	.065	.070	.102	.095	.089	.075	.114
.996	.109	.111	*****	*****	.097	.089	.103	.092	.096	.097	.096	.123

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0793
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Table A11. Continued

(c) NPR = 3.023

TFST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	AFT TAILS 15	MACH NUMBER .949	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
				UPPER SURFACE		LOWER SURFACE		Y/B		
				0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.023		0.05	*****	*****	*****	*****	*****	-.050	
			0.10	-.119	-.078	-.089	-.036	-.061	-.054	
NPR	3.023		0.20	-.167	-.141	-.143	-.111	*****	-.102	
			0.30	-.210	*****	-.202	-.198	-.114	-.151	
PTD, PSI	14.752		0.40	-.291	-.306	-.269	*****	-.185	-.227	
			0.50	-.328	-.366	-.308	-.359	-.443	-.275	
PD, PSI	8.259		0.60	-.365	-.414	-.369	-.409	-.325	-.332	
			0.70	-.386	-.439	-.383	-.452	-.377	-.363	
QD, PSI	5.210		0.80	-.383	*****	-.398	-.456	-.427	-.397	
			0.90	-.194	*****	-.046	*****	-.140	-.128	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.032	-.024	*****	-.005	*****	*****	*****	-.014	-.017	-.007	.005	*****
.598	-.031	-.036	*****	-.024	*****	-.027	*****	-.021	-.025	-.015	*****	*****
.612	-.032	-.033	*****	-.024	*****	-.014	*****	-.022	-.014	-.015	*****	*****
.626	-.031	-.018	*****	-.021	*****	-.016	*****	-.017	-.017	-.015	*****	*****
.640	*****	-.027	*****	-.025	*****	-.025	*****	-.023	-.022	-.017	*****	*****
.654	*****	-.031	*****	-.029	*****	-.024	*****	-.032	-.030	-.021	*****	*****
.668	*****	*****	*****	-.012	*****	-.018	*****	-.013	-.011	-.013	*****	*****
.682	*****	-.007	*****	-.013	*****	-.019	*****	-.017	-.017	-.012	-.016	*****
.696	*****	.013	*****	.008	*****	-.005	*****	-.016	-.013	-.012	-.015	-.011
.710	*****	.045	*****	*****	*****	.004	*****	.000	-.008	-.007	-.008	-.010
.724	*****	.091	*****	.034	*****	.012	*****	.008	-.002	.000	-.005	-.007
.738	*****	.092	*****	.038	*****	*****	*****	.007	-.003	-.004	-.006	-.011
.752	*****	.029	*****	.025	*****	.022	*****	.019	.008	.005	-.005	*****
.766	*****	-.014	*****	.004	*****	.033	*****	.038	.018	-.007	-.020	-.020
.779	*****	-.026	*****	.019	*****	.083	*****	.206	.051	.011	-.007	-.008
.793	*****	-.058	*****	-.008	*****	.056	*****	*****	.010	-.008	-.023	*****
.807	*****	-.080	*****	-.031	*****	-.009	*****	*****	-.042	-.038	-.037	-.036
.821	*****	*****	*****	-.078	*****	-.073	*****	*****	-.094	-.070	-.065	-.068
.835	*****	-.189	*****	-.140	*****	-.142	*****	*****	-.154	-.114	-.107	-.101
.849	*****	-.230	*****	*****	*****	-.221	*****	*****	-.195	-.161	-.140	-.138
.863	*****	-.295	*****	-.277	*****	-.291	*****	*****	-.250	-.204	*****	-.177
.877	*****	-.311	*****	-.314	*****	-.346	*****	*****	*****	*****	*****	*****
.891	*****	-.378	*****	-.375	*****	-.405	*****	*****	-.345	-.292	-.264	-.262
.916	*****	-.425	*****	-.537	*****	-.473	*****	-.462	-.435	-.415	-.370	-.342
.928	*****	-.293	*****	-.372	*****	-.316	*****	-.281	-.268	-.292	-.354	-.420
.940	*****	-.105	*****	-.061	*****	-.072	*****	-.061	-.071	-.066	-.125	-.216
.952	*****	*****	*****	.012	*****	.013	*****	.018	.003	-.010	-.023	-.037
.962	.032	.025	*****	.045	*****	.028	*****	.030	.026	.020	.035	.038
.974	.051	.049	*****	.065	*****	.055	*****	.054	.043	.076	.081	.075
.986	.058	.090	*****	.087	*****	.079	*****	.078	.081	.094	.097	.098
.996	.083	.106	*****	*****	*****	.106	*****	.101	.112	.103	.108	.109

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0781

Table A11. Concluded

(d) NPR = 5.002

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	X/C	HORIZONTAL TAILS						VERTICAL TAIL	
					UPPER SURFACE		LOWER SURFACE		Y/B		Y/B	
					0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
ALPHA, DEG	.024			0.05	*****	*****	*****	*****	*****	*****	*****	-.042
NPR	5.002			0.10	-.107	-.066	-.087	-.036	-.061	-.060		
PTD, PSI	14.754			0.20	-.175	-.142	-.153	-.114	*****	-.100		
PQ, PSI	8.264			0.30	-.212	*****	-.205	-.199	-.119	-.142		
QD, PSI	5.209			0.40	-.293	-.305	-.271	*****	-.184	-.228		
				0.50	-.330	-.365	-.305	-.356	-.425	-.271		
				0.60	-.368	-.413	-.377	-.407	-.329	-.332		
				0.70	-.386	-.436	-.389	-.449	-.378	-.360		
				0.80	-.379	*****	-.402	-.446	-.425	-.394		
				0.90	-.103	*****	-.058	*****	-.117	-.090		

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.038	-.019	*****	-.004	*****	*****	*****	-.015	-.004	-.008	.004	*****
.598	-.034	-.021	*****	-.023	*****	-.025	*****	-.030	-.019	-.017	*****	*****
.612	-.033	-.026	*****	-.026	*****	-.020	*****	-.021	-.018	-.016	*****	*****
.626	-.022	-.021	*****	-.022	*****	-.025	*****	-.017	-.012	-.013	*****	*****
.640	*****	-.020	*****	-.023	*****	-.025	*****	-.022	-.019	-.019	*****	*****
.654	*****	-.028	*****	-.031	*****	-.022	*****	-.039	-.031	-.021	*****	*****
.668	*****	*****	*****	-.011	*****	-.014	*****	-.016	-.017	-.017	*****	*****
.682	*****	-.013	*****	-.016	*****	-.014	*****	-.020	-.018	-.017	-.017	*****
.696	*****	.012	*****	.003	*****	-.006	*****	-.009	-.011	-.013	-.014	-.011
.710	*****	.046	*****	*****	*****	.004	*****	-.001	-.005	-.007	-.011	-.010
.724	*****	.093	*****	.036	*****	.008	*****	.005	-.004	-.003	-.014	-.008
.738	*****	.084	*****	.038	*****	*****	*****	.009	-.006	-.003	-.011	-.011
.752	*****	.027	*****	.035	*****	.022	*****	.016	.007	.003	-.003	*****
.766	*****	-.017	*****	.006	*****	.029	*****	.037	.018	-.005	-.018	-.025
.779	*****	-.026	*****	.018	*****	.080	*****	.207	.053	.009	-.001	-.007
.793	*****	-.048	*****	-.001	*****	.052	*****	*****	.008	-.010	-.025	*****
.807	*****	-.088	*****	-.032	*****	-.008	*****	*****	-.048	-.039	-.040	-.039
.821	*****	*****	*****	-.078	*****	-.083	*****	*****	-.103	-.075	-.071	-.071
.835	*****	-.191	*****	-.147	*****	-.146	*****	*****	-.159	-.117	-.100	-.103
.849	*****	-.233	*****	*****	*****	-.209	*****	*****	-.202	-.163	-.143	-.138
.863	*****	-.293	*****	-.270	*****	-.291	*****	*****	-.250	-.208	*****	-.185
.877	-.305	-.323	*****	-.318	*****	-.346	*****	*****	*****	*****	*****	*****
.891	-.378	-.388	*****	-.377	*****	-.411	*****	*****	-.347	-.290	-.274	-.267
.916	-.419	-.437	-.535	*****	-.465	*****	-.456	-.426	-.415	-.364	-.336	-.345
.928	-.268	*****	-.361	*****	-.337	-.269	-.261	-.258	-.340	-.393	-.426	-.421
.940	-.061	*****	-.068	*****	-.059	-.054	-.065	-.077	-.123	-.189	-.244	-.242
.952	*****	*****	.025	*****	.012	.016	.009	.021	-.003	-.025	-.030	-.032
.962	.048	.066	.063	*****	.057	.042	.045	.052	.043	.051	.026	.041
.974	.077	.083	*****	*****	.069	.061	.065	.070	.087	.094	.059	.075
.986	.107	.105	.086	*****	.090	.087	.084	.097	.095	.103	.092	.109
.996	.117	.134	*****	*****	.109	.115	.109	.122	.112	.101	.119	.115

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0735
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Table A12. Effect of Angle of Attack on Pressure Distributions for Aft Tails Configuration at $M = 0.95$ and $NPR = 1.067$

(a) $\alpha = -2.989^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
				UPPER SURFACE		LOWER SURFACE		Y/B		
MACH NUMBER	.951	18		0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	-2.989		0.05	*****	*****	*****	*****	*****	-.046	
			0.10	-.120	.069	-.267	-.028	-.061	-.048	
NPR	1.067		0.20	-.166	-.018	-.270	-.105	*****	-.076	
			0.30	-.212	*****	-.304	-.189	-.098	-.124	
PTD, PSI	14.755		0.40	-.282	-.225	-.355	*****	-.154	-.196	
			0.50	-.320	-.280	-.394	-.350	-.373	-.235	
PD, PSI	8.242		0.60	-.366	-.331	-.444	-.400	-.281	-.290	
			0.70	-.377	-.367	-.467	-.446	-.366	-.309	
QD, PSI	5.222		0.80	-.369	*****	-.442	-.440	-.372	-.350	
			0.90	-.040	*****	-.117	*****	-.250	-.282	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.045	-.034	*****	-.023	*****	*****	*****	-.026	-.022	-.005	.009	*****
.598	-.041	-.036	*****	-.035	*****	-.038	*****	-.032	-.026	-.011	*****	*****
.612	-.029	-.029	*****	-.025	*****	-.027	*****	-.028	-.029	-.021	*****	*****
.626	-.020	-.019	*****	-.028	*****	-.028	*****	-.023	-.023	-.017	*****	*****
.640	*****	-.024	*****	-.027	*****	-.032	*****	-.027	-.021	-.020	*****	*****
.654	*****	-.026	*****	-.035	*****	-.034	*****	-.041	-.040	-.025	*****	*****
.668	*****	*****	*****	-.017	*****	-.025	*****	-.024	-.020	-.012	*****	*****
.682	*****	-.010	*****	-.014	*****	-.020	*****	-.022	-.020	-.018	-.015	*****
.696	*****	.016	*****	-.001	*****	-.012	*****	-.013	-.017	-.014	-.012	-.008
.710	*****	.049	*****	*****	*****	-.003	*****	-.002	-.010	-.008	-.002	-.005
.724	*****	.108	*****	.034	*****	.006	*****	-.003	-.009	-.006	-.010	-.002
.738	*****	.091	*****	.035	*****	*****	*****	-.004	-.013	-.012	-.012	-.007
.752	*****	.031	*****	.022	*****	.011	*****	.011	.002	-.004	-.010	*****
.766	*****	-.028	*****	-.002	*****	.025	*****	.029	.004	-.020	-.026	-.030
.779	*****	-.020	*****	.033	*****	.113	*****	.202	.018	-.018	-.022	-.023
.793	*****	-.041	*****	.024	*****	.133	*****	*****	-.099	-.052	-.052	*****
.807	*****	-.051	*****	.013	*****	.079	*****	*****	-.151	-.095	-.078	-.069
.821	*****	*****	*****	-.025	*****	.005	*****	*****	-.207	-.140	-.113	-.107
.835	*****	-.150	*****	-.086	*****	-.071	*****	*****	-.251	-.180	-.154	-.155
.849	*****	-.180	*****	*****	*****	-.143	*****	*****	-.290	-.228	-.199	-.191
.863	*****	-.245	*****	-.219	*****	-.223	*****	*****	-.340	-.273	*****	-.232
.877	-.254	-.273	*****	-.255	*****	-.278	*****	*****	*****	*****	*****	*****
.891	-.317	-.334	*****	-.316	*****	-.332	*****	*****	-.420	-.359	-.329	-.315
.916	-.374	-.400	-.491	*****	-.411	*****	-.444	-.436	-.448	-.430	-.392	-.398
.928	-.387	*****	-.527	*****	-.463	-.389	-.357	-.277	-.282	-.409	-.395	-.377
.940	-.195	*****	-.226	*****	-.249	-.187	-.178	-.132	-.108	-.159	-.173	-.130
.952	*****	*****	-.042	*****	-.056	-.063	-.074	-.072	-.055	-.055	-.053	-.018
.962	.022	.009	.019	*****	-.005	-.040	-.019	-.036	-.025	-.022	-.022	-.005
.974	.061	.063	*****	*****	.039	.009	-.003	-.014	.016	-.003	.003	.013
.986	.083	.082	.074	*****	.056	.036	.023	.021	.020	.020	.012	.028
.996	.084	.086	*****	*****	.064	.063	.051	.037	.045	.035	.028	.052

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1022
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Table A12. Continued

(b) $\alpha = 0.026^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS													
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PT-J, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL			
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B	
									X/C	0.1	0.2	0.1	0.2	0.1	0.2	
		19	.950	.026						0.05	*****	*****	*****	*****	*****	-.057
									0.10	-.120	-.072	-.090	-.034	-.054	-.054	
		1.086							0.20	-.166	-.140	-.142	-.114	*****	-.105	
									0.30	-.217	*****	-.197	-.197	-.117	-.145	
		14.754							0.40	-.291	-.309	-.266	*****	-.184	-.228	
									0.50	-.325	-.368	-.307	-.356	-.362	-.281	
		8.258							0.60	-.369	-.418	-.370	-.408	-.327	-.336	
									0.70	-.381	-.440	-.386	-.453	-.377	-.362	
		5.212							0.80	-.378	*****	-.404	-.453	-.427	-.398	
									0.90	-.192	*****	-.110	*****	-.289	-.187	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.022	-.020	*****	-.014	*****	*****	*****	-.024	-.010	-.016	.002	*****
.598	-.028	-.024	*****	-.031	*****	-.024	*****	-.022	-.023	-.023	*****	*****
.612	-.020	-.031	*****	-.029	*****	-.020	*****	-.022	-.016	-.010	*****	*****
.626	-.017	-.021	*****	-.017	*****	-.017	*****	-.018	-.016	-.015	*****	*****
.640	*****	-.026	*****	-.025	*****	-.026	*****	-.027	-.028	-.017	*****	*****
.654	*****	-.038	*****	-.029	*****	-.026	*****	-.022	-.034	-.025	*****	*****
.668	*****	*****	*****	-.014	*****	-.015	*****	-.008	-.021	-.012	*****	*****
.682	*****	-.017	*****	-.012	*****	-.017	*****	-.006	-.026	-.016	-.013	*****
.696	*****	.005	*****	.003	*****	-.004	*****	-.005	-.013	-.014	-.012	-.012
.710	*****	.044	*****	*****	*****	.006	*****	.005	-.013	-.006	-.002	-.010
.724	*****	.086	*****	.035	*****	.016	*****	.001	-.009	-.006	-.008	-.008
.738	*****	.077	*****	.035	*****	*****	*****	.002	-.010	-.008	-.008	-.008
.752	*****	.036	*****	.035	*****	.018	*****	.015	.008	.001	-.005	*****
.766	*****	-.013	*****	.008	*****	.026	*****	.037	.018	-.009	-.020	-.021
.779	*****	-.015	*****	.020	*****	.082	*****	.213	.051	.007	-.005	-.009
.793	*****	-.047	*****	-.003	*****	.058	*****	*****	.014	-.007	-.022	*****
.807	*****	-.077	*****	-.038	*****	-.020	*****	*****	-.053	-.036	-.036	-.038
.821	*****	*****	*****	-.088	*****	-.083	*****	*****	-.094	-.074	-.063	-.066
.835	*****	-.194	*****	-.149	*****	-.143	*****	*****	-.161	-.112	-.101	-.099
.849	*****	-.231	*****	*****	*****	-.213	*****	*****	-.194	-.159	-.138	-.140
.863	*****	-.295	*****	-.281	*****	-.285	*****	*****	-.251	-.206	*****	-.176
.877	*****	-.309	*****	-.323	*****	-.341	*****	*****	*****	*****	*****	*****
.891	*****	-.374	*****	-.379	*****	-.416	*****	*****	-.350	-.294	-.266	-.262
.916	*****	-.414	*****	-.547	*****	-.470	*****	-.474	-.447	-.418	-.369	-.347
.928	*****	-.317	*****	-.548	*****	-.484	*****	-.359	-.354	-.381	-.428	-.421
.940	*****	-.101	*****	-.142	*****	-.139	*****	-.112	-.129	-.167	-.231	-.251
.952	*****	*****	*****	-.053	*****	-.048	*****	-.024	-.012	-.021	-.025	-.036
.962	*****	.055	*****	-.019	*****	-.003	*****	.012	.024	.033	.034	.011
.974	*****	.071	*****	*****	*****	.015	*****	.059	.062	.043	.076	.077
.986	*****	.088	*****	.041	*****	.046	*****	.089	.080	.084	.073	.093
.996	*****	.102	*****	*****	*****	.069	*****	.093	.098	.099	.106	.097

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0911
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Table A12. Continued

(c) $\alpha = 3.026^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	20	X/C	0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.951								
ALPHA, DEG	3.026	0.05	*****	*****	*****	*****	*****	-.020	
		0.10	-.323	-.226	.067	.094	-.047	-.047	
NPR	1.061	0.20	-.301	-.259	-.011	-.008	*****	-.108	
		0.30	-.326	*****	-.092	-.111	-.135	-.160	
PTD, PSI	14.757	0.40	-.391	-.384	-.170	*****	-.208	-.251	
		0.50	-.425	-.446	-.206	-.282	-.358	-.307	
PD, PSI	8.249	0.60	-.440	-.492	-.287	-.343	-.364	-.374	
		0.70	-.460	-.508	-.305	-.383	-.417	-.405	
QD, PSI	5.219	0.80	-.456	*****	-.330	-.399	-.467	-.439	
		0.90	-.101	*****	-.225	*****	-.232	-.318	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.018	-.015	*****	-.001	*****	*****	*****	-.034	-.022	-.004	.004	*****
.598	-.027	-.024	*****	-.019	*****	-.014	*****	-.011	-.017	-.011	*****	*****
.612	-.023	-.018	*****	-.020	*****	-.018	*****	-.010	-.019	-.014	*****	*****
.626	-.023	-.017	*****	-.023	*****	-.022	*****	-.015	-.013	-.012	*****	*****
.640	*****	-.018	*****	-.024	*****	-.023	*****	-.020	-.019	-.017	*****	*****
.654	*****	-.019	*****	-.029	*****	-.026	*****	-.031	-.031	-.023	*****	*****
.668	*****	*****	*****	-.013	*****	-.019	*****	-.017	-.015	-.008	*****	*****
.682	*****	-.003	*****	-.007	*****	-.015	*****	-.018	-.020	-.017	-.016	*****
.696	*****	.018	*****	.006	*****	-.008	*****	-.014	-.014	-.008	-.009	.000
.710	*****	.045	*****	*****	*****	.007	*****	-.003	-.006	.001	-.005	.003
.724	*****	.087	*****	.040	*****	.012	*****	.005	-.001	-.002	-.003	-.005
.738	*****	.086	*****	.038	*****	*****	*****	.012	-.004	-.002	-.004	-.001
.752	*****	.045	*****	.038	*****	.026	*****	.026	.013	.010	.001	*****
.766	*****	-.001	*****	.016	*****	.035	*****	.042	.029	.004	-.012	-.010
.779	*****	-.020	*****	.005	*****	.053	*****	.223	.103	.041	.020	.019
.793	*****	-.065	*****	-.029	*****	-.027	*****	*****	.110	.037	.005	*****
.807	*****	-.107	*****	-.077	*****	-.101	*****	*****	.062	.025	.006	.002
.821	*****	*****	*****	-.132	*****	-.161	*****	*****	-.002	-.003	-.016	-.018
.835	*****	-.222	*****	-.196	*****	-.224	*****	*****	-.061	-.047	-.046	-.047
.849	*****	-.273	*****	*****	*****	-.283	*****	*****	-.111	-.090	-.086	-.080
.863	*****	-.334	*****	-.327	*****	-.355	*****	*****	-.165	-.135	*****	-.109
.877	-.352	-.373	*****	-.369	*****	-.409	*****	*****	*****	*****	*****	*****
.891	-.426	-.436	*****	-.439	*****	-.469	*****	*****	-.271	-.228	-.206	-.202
.916	-.430	-.467	-.578	*****	-.515	*****	-.460	-.440	-.363	-.308	-.267	-.275
.928	-.223	*****	-.314	*****	-.321	-.259	-.265	-.269	-.370	-.389	-.369	-.351
.940	-.090	*****	-.115	*****	-.112	-.123	-.136	-.126	-.295	-.411	-.442	-.444
.952	*****	*****	-.060	*****	-.063	-.075	-.081	-.079	-.135	-.179	-.180	-.192
.962	-.037	-.016	-.033	*****	-.037	-.039	-.047	-.033	-.063	-.052	-.035	-.035
.974	-.014	-.007	*****	*****	-.013	-.014	-.018	-.004	-.015	.016	.026	.037
.986	-.005	.015	.008	*****	.007	-.014	.003	.010	.019	.047	.062	.057
.996	.019	.027	*****	*****	.025	.021	.025	.029	.021	.041	.063	.061

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1073

Table A12. Concluded

(d) $\alpha = 5.970^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
					UPPER SURFACE Y/B	0.1	0.2	LOWER SURFACE Y/B	0.1	0.2	0.1	0.2
ALPHA, DEG	5.970			0.05	*****	*****	*****	*****	*****	*****	*****	-.046
NPR	1.045			0.10	-.119	-.392	.196	-.042	-.043	-.063	*****	-.120
PTQ, PSI	14.759			0.20	-.170	-.377	.097	-.115	-.149	-.187	*****	-.278
PD, PSI	8.273			0.30	-.217	*****	.008	-.199	-.370	-.347	*****	-.413
QD, PSI	5.208			0.40	-.294	-.465	-.079	*****	-.411	-.452	*****	-.485
				0.50	-.335	-.522	-.125	-.363	-.512	-.457	*****	-.198
				0.60	-.372	-.553	-.219	-.412	-.246	*****	*****	*****
				0.70	-.387	-.570	-.209	-.455	*****	*****	*****	*****
				0.80	-.381	*****	-.258	-.461	*****	*****	*****	*****
				0.90	-.151	*****	-.192	*****	*****	*****	*****	*****

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.013	-.016	*****	-.013	*****	*****	*****	-.044	-.040	-.005	.015	*****
.598	-.022	-.018	*****	-.026	*****	-.020	*****	-.027	-.033	-.021	*****	*****
.612	-.021	-.015	*****	-.029	*****	-.023	*****	-.027	-.032	-.010	*****	*****
.626	-.010	-.017	*****	-.022	*****	-.022	*****	-.026	-.032	-.013	*****	*****
.640	*****	-.018	*****	-.026	*****	-.028	*****	-.034	-.030	-.022	*****	*****
.654	*****	-.016	*****	-.032	*****	-.028	*****	-.048	-.045	-.032	*****	*****
.668	*****	*****	*****	-.019	*****	-.013	*****	-.038	-.021	-.018	*****	*****
.682	*****	.008	*****	-.015	*****	-.022	*****	-.038	-.035	-.030	-.002	*****
.696	*****	.019	*****	-.003	*****	-.011	*****	-.025	-.026	-.023	.001	.008
.710	*****	.042	*****	*****	*****	.002	*****	-.016	-.014	-.016	.009	.006
.724	*****	.085	*****	.025	*****	.010	*****	-.004	-.012	-.010	.013	.015
.738	*****	.079	*****	.033	*****	*****	*****	-.002	-.012	-.005	.018	.010
.752	*****	.036	*****	.030	*****	.027	*****	.015	.007	.010	.027	*****
.766	*****	-.009	*****	.012	*****	.040	*****	.047	.029	.011	.014	.020
.779	*****	-.032	*****	-.011	*****	.029	*****	.244	.144	.067	.050	.046
.793	*****	-.077	*****	-.067	*****	-.114	*****	*****	.194	.086	.048	*****
.807	*****	-.132	*****	-.120	*****	-.206	*****	*****	.152	.088	.054	.054
.821	*****	*****	*****	-.191	*****	-.248	*****	*****	.090	.070	.041	.031
.835	*****	-.267	*****	-.255	*****	-.306	*****	*****	.017	.028	.010	.014
.849	*****	-.316	*****	*****	*****	-.358	*****	*****	-.037	-.019	-.022	-.024
.863	*****	-.378	*****	-.391	*****	-.428	*****	*****	-.095	-.059	*****	-.059
.877	-.410	-.452	*****	-.437	*****	-.476	*****	*****	*****	*****	*****	*****
.891	-.476	-.483	*****	-.494	*****	-.535	*****	*****	-.197	-.144	-.131	-.137
.916	-.499	-.525	-.541	*****	-.472	*****	-.388	-.506	-.275	-.218	-.193	-.204
.928	-.295	*****	-.216	*****	-.181	-.202	-.236	-.326	-.283	-.299	-.297	-.294
.940	-.156	*****	-.116	*****	-.136	-.144	-.172	-.159	-.257	-.363	-.384	-.383
.952	*****	*****	-.123	*****	-.117	-.128	-.131	-.130	-.163	-.249	-.299	-.390
.962	-.145	-.118	-.122	*****	-.117	-.146	-.118	-.124	-.113	-.078	-.095	-.109
.974	-.123	-.097	*****	*****	-.097	-.093	-.088	-.088	-.055	-.008	-.012	-.019
.986	-.079	-.065	-.043	*****	-.059	-.040	-.053	-.042	-.004	.019	.040	.026
.996	-.038	-.022	*****	*****	-.028	-.047	-.046	-.023	.019	.036	.047	.027

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1213

Table A13. Effect of Nozzle Pressure Ratio on Pressure Distributions for Aft Tails Configuration at $M = 0.90$ and $\alpha = 0.017^\circ$

(a) NPR = 1.096

TFST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	AFT TAILS	HORIZONTAL TAILS						VERTICAL TAIL	
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
22	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.900								
ALPHA, DEG	.017	0.05	*****	*****	*****	*****	*****	-.071	
		0.10	-.036	-.106	-.127	-.271	-.100	-.090	
NPR	1.096	0.20	-.135	-.200	-.179	-.320	*****	-.142	
		0.30	-.200	*****	-.233	-.393	-.164	-.195	
PTD, PSI	14.757	0.40	-.288	-.358	-.298	*****	-.237	-.276	
		0.50	-.326	-.407	-.316	-.545	-.452	-.322	
PD, PSI	8.721	0.60	-.397	-.456	-.353	-.592	-.374	-.377	
		0.70	-.409	-.330	-.233	-.635	-.412	-.379	
QD, PSI	4.950	0.80	-.409	*****	-.087	-.496	-.148	-.066	
		0.90	-.307	*****	.012	*****	.019	.053	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.031	-.021	*****	-.011	*****	*****	*****	-.013	-.022	-.020	-.006	*****
.598	-.037	-.036	*****	-.030	*****	-.032	*****	-.027	-.026	-.025	*****	*****
.612	-.036	-.031	*****	-.030	*****	-.026	*****	-.024	-.028	-.022	*****	*****
.626	-.028	-.032	*****	-.028	*****	-.024	*****	-.026	-.026	-.021	*****	*****
.640	*****	-.035	*****	-.031	*****	-.032	*****	-.032	-.027	-.026	*****	*****
.654	*****	-.035	*****	-.037	*****	-.028	*****	-.037	-.033	-.032	*****	*****
.668	*****	*****	*****	-.021	*****	-.024	*****	-.024	-.024	-.022	*****	*****
.682	*****	-.019	*****	-.021	*****	-.028	*****	-.031	-.028	-.031	-.028	*****
.696	*****	.000	*****	-.012	*****	-.019	*****	-.025	-.025	-.027	-.025	-.025
.710	*****	.027	*****	*****	*****	-.011	*****	-.014	-.025	-.025	-.028	-.024
.724	*****	.068	*****	.010	*****	-.016	*****	-.017	-.027	-.023	-.029	-.028
.738	*****	.051	*****	.012	*****	*****	*****	-.014	-.030	-.023	-.025	-.033
.752	*****	.004	*****	.000	*****	.001	*****	-.007	-.015	-.021	-.025	*****
.766	*****	-.048	*****	-.021	*****	.005	*****	.009	-.007	-.030	-.043	-.042
.779	*****	-.056	*****	-.021	*****	.046	*****	.191	.027	-.021	-.032	-.036
.793	*****	-.095	*****	-.046	*****	.003	*****	*****	-.023	-.043	-.053	*****
.807	*****	-.124	*****	-.078	*****	-.046	*****	*****	-.076	-.063	-.064	-.067
.821	*****	*****	*****	-.121	*****	-.130	*****	*****	-.128	-.106	-.100	-.097
.835	*****	-.245	*****	-.199	*****	-.201	*****	*****	-.187	-.146	-.130	-.123
.849	*****	-.277	*****	*****	*****	-.270	*****	*****	-.226	-.181	-.166	-.165
.863	*****	-.337	*****	-.322	*****	-.340	*****	*****	-.276	-.231	*****	-.195
.877	-.347	-.368	*****	-.369	*****	-.395	*****	*****	*****	*****	*****	*****
.891	-.423	-.436	*****	-.432	*****	-.450	*****	*****	-.336	-.270	-.246	-.243
.916	-.169	-.176	-.208	*****	-.197	*****	-.208	-.206	-.191	-.189	-.184	-.203
.928	-.092	*****	-.136	*****	-.124	-.112	-.116	-.113	-.136	-.168	-.191	-.191
.940	-.048	*****	-.073	*****	-.078	-.065	-.065	-.059	-.091	-.133	-.156	-.163
.952	*****	*****	-.014	*****	-.011	-.012	-.015	-.005	-.031	-.062	-.083	-.090
.962	.051	.049	.051	*****	.064	.037	.043	.043	.036	.019	.003	-.003
.974	.105	.110	*****	*****	.105	.115	.099	.096	.097	.096	.086	.080
.986	.155	.144	.153	*****	.156	.134	.156	.153	.143	.138	.133	.131
.996	.172	.175	*****	*****	.174	.165	.168	.166	.161	.158	.154	.149

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0521

Table A13. Continued

(b) NPR = 2.020

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	AFT TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
MACH NUMBER			0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.016	0.05	*****	*****	*****	*****	*****	-.082	
		0.10	.109	-.107	-.117	-.456	-.105	-.079	
NPR	2.020	0.20	-.007	-.190	-.169	-.437	*****	-.135	
		0.30	-.090	*****	-.228	-.486	-.159	-.186	
PT0, PSI	14.759	0.40	-.185	-.361	-.290	*****	-.238	-.285	
		0.50	-.243	-.402	-.308	-.617	-.440	-.323	
PO, PSI	8.718	0.60	-.269	-.453	-.338	-.658	-.376	-.375	
		0.70	-.295	-.235	-.207	-.676	-.346	-.342	
QQ, PSI	4.953	0.80	-.293	*****	-.077	-.393	-.096	-.055	
		0.90	-.214	*****	.026	*****	.033	.060	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.024	*****	.001	*****	*****	*****	-.015	-.017	-.020	-.012	*****
.598	-.031	-.030	*****	-.030	*****	-.036	*****	-.026	-.028	-.019	*****	*****
.612	-.030	-.033	*****	-.022	*****	-.034	*****	-.026	-.024	-.018	*****	*****
.626	-.023	-.027	*****	-.023	*****	-.023	*****	-.022	-.021	-.020	*****	*****
.640	*****	-.029	*****	-.029	*****	-.024	*****	-.025	-.032	-.025	*****	*****
.654	*****	-.040	*****	-.034	*****	-.026	*****	-.040	-.034	-.032	*****	*****
.668	*****	*****	*****	-.022	*****	-.028	*****	-.018	-.025	-.024	*****	*****
.682	*****	-.021	*****	-.023	*****	-.021	*****	-.025	-.027	-.029	-.028	*****
.696	*****	.001	*****	-.010	*****	-.020	*****	-.019	-.029	-.024	-.025	-.024
.710	*****	.023	*****	*****	*****	-.012	*****	-.019	-.020	-.023	-.023	-.026
.724	*****	.070	*****	.015	*****	-.010	*****	-.013	-.016	-.024	-.024	-.025
.738	*****	.064	*****	.012	*****	*****	*****	-.016	-.024	-.028	-.026	-.027
.752	*****	-.001	*****	.008	*****	-.003	*****	-.001	-.014	-.021	-.023	*****
.766	*****	-.037	*****	-.022	*****	.000	*****	.011	-.009	-.034	-.046	-.044
.779	*****	-.059	*****	-.014	*****	.050	*****	.197	.025	-.023	-.027	-.034
.793	*****	-.089	*****	-.042	*****	.008	*****	*****	-.016	-.047	-.053	*****
.807	*****	-.123	*****	-.082	*****	-.058	*****	*****	-.074	-.062	-.063	-.063
.821	*****	*****	*****	-.127	*****	-.125	*****	*****	-.125	-.095	-.095	-.090
.835	*****	-.248	*****	-.192	*****	-.192	*****	*****	-.183	-.149	-.121	-.123
.849	*****	-.276	*****	*****	*****	-.255	*****	*****	-.221	-.178	-.163	-.158
.863	*****	-.343	*****	-.328	*****	-.342	*****	*****	-.271	-.213	*****	-.193
.877	-.347	-.361	*****	-.360	*****	-.394	*****	*****	*****	*****	*****	*****
.891	-.406	-.428	*****	-.417	*****	-.448	*****	*****	-.327	-.262	-.220	-.215
.916	-.133	-.146	-.197	*****	-.174	*****	-.162	-.176	-.169	-.167	-.163	-.179
.928	-.069	*****	-.119	*****	-.103	*****	-.094	-.095	-.092	-.115	-.151	-.166
.940	-.027	*****	-.054	*****	-.057	-.044	-.047	-.040	-.070	-.104	-.124	-.132
.952	*****	*****	.008	*****	.038	.012	.010	.015	.003	-.030	-.051	-.053
.962	.080	.078	.077	*****	.074	.076	.073	.075	.063	.055	.044	.037
.974	.136	.136	*****	*****	.138	.136	.132	.130	.128	.128	.125	.122
.986	.181	.177	.174	*****	.177	.173	.170	.170	.174	.178	.177	.177
.996	.194	.195	*****	*****	.192	.194	.189	.190	.199	.195	.198	.199

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0358

ORIGINAL PAGE IS
OF POOR QUALITY

Table A13. Continued

(c) NPR = 3.017

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	AFT TAILS	HORIZONTAL TAILS								VERTICAL TAIL					
		POINT NUMBER	24	UPPER SURFACE				LOWER SURFACE				Y/B			
				X/C	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.901														
ALPHA, DEG	.018	0.05	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****		
NPR	3.017	0.10	-.147	-.121	-.126	-.072	-.129	-.082	0.20	-.191	-.184	-.178	-.156	*****	-.132
PTD, PSI	14.759	0.30	-.236	*****	-.231	-.237	-.163	-.186	0.40	-.307	-.356	-.295	*****	-.240	-.275
PD, PSI	8.715	0.50	-.332	-.404	-.319	-.391	-.432	-.317	0.60	-.333	-.448	-.346	-.447	-.368	-.383
QD, PSI	4.954	0.70	-.183	-.221	-.214	-.410	-.298	-.381	0.80	-.051	*****	-.076	-.063	-.095	-.063
		0.90	.041	*****	.027	*****	.032	.061							

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.030	-.025	*****	.001	*****	*****	*****	-.017	-.021	-.023	-.004	*****
.598	-.036	-.034	*****	-.031	*****	-.028	*****	-.024	-.029	-.018	*****	*****
.612	-.033	-.033	*****	-.022	*****	-.025	*****	-.020	-.024	-.020	*****	*****
.626	-.028	-.026	*****	-.024	*****	-.027	*****	-.022	-.030	-.025	*****	*****
.640	*****	-.039	*****	-.033	*****	-.033	*****	-.029	-.025	-.025	*****	*****
.654	*****	-.033	*****	-.036	*****	-.030	*****	-.038	-.031	-.040	*****	*****
.668	*****	*****	*****	-.029	*****	-.026	*****	-.024	-.018	-.022	*****	*****
.682	*****	-.013	*****	-.020	*****	-.022	*****	-.028	-.026	-.027	-.031	*****
.696	*****	.002	*****	-.009	*****	-.023	*****	-.025	-.025	-.025	-.028	-.023
.710	*****	.028	*****	*****	*****	-.012	*****	-.020	-.022	-.023	-.030	-.020
.724	*****	.070	*****	.013	*****	-.015	*****	-.012	-.021	-.024	-.028	-.025
.738	*****	.062	*****	.015	*****	*****	*****	-.016	-.025	-.024	-.028	-.030
.752	*****	.002	*****	.001	*****	.002	*****	-.001	-.014	-.021	-.027	*****
.766	*****	-.040	*****	-.025	*****	.009	*****	.012	-.013	-.031	-.044	-.045
.779	*****	-.062	*****	-.016	*****	.052	*****	.197	.027	-.016	-.029	-.032
.793	*****	-.093	*****	-.047	*****	.018	*****	*****	-.022	-.040	-.056	*****
.807	*****	-.124	*****	-.072	*****	-.054	*****	*****	-.075	-.064	-.064	-.064
.821	*****	*****	*****	-.124	*****	-.124	*****	*****	-.128	-.107	-.098	-.093
.835	*****	-.236	*****	-.192	*****	-.189	*****	*****	-.184	-.144	-.124	-.125
.849	*****	-.274	*****	*****	*****	-.262	*****	*****	-.225	-.180	-.165	-.157
.863	*****	-.333	*****	-.322	*****	-.348	*****	*****	-.269	-.231	*****	-.185
.877	-.351	-.359	*****	-.356	*****	-.398	*****	*****	*****	*****	*****	*****
.891	-.401	-.419	*****	-.424	*****	-.435	*****	*****	-.319	-.256	-.228	-.221
.916	-.143	-.149	-.180	*****	-.169	*****	-.169	-.184	-.170	-.174	-.169	-.175
.928	-.075	*****	-.117	*****	-.104	*****	-.094	-.101	-.090	-.117	-.148	-.171
.940	-.031	*****	-.052	*****	-.058	-.045	-.047	-.040	-.070	-.106	-.127	-.129
.952	*****	*****	.007	*****	.005	.008	.013	.014	-.006	-.036	-.049	-.056
.962	.075	.075	.078	*****	.076	.072	.072	.071	.065	.051	.038	.037
.974	.131	.132	*****	*****	.137	.133	.128	.129	.130	.129	.119	.125
.986	.173	.175	.178	*****	.173	.168	.169	.172	.170	.175	.172	.175
.996	.190	.189	*****	*****	.194	.189	.191	.191	.188	.190	.194	.193

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0368

Table A13. Concluded

(d) NPR = 5.028

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	25		0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.900									
ALPHA, DEG	.017	0.05	*****	*****	*****	*****	*****	*****	-.064	
		0.10	-.167	-.111	-.123	-.080	-.153	-.082		
NPR	5.028	0.20	-.196	-.183	-.176	-.160	*****	-.138		
		0.30	-.254	*****	-.226	-.248	-.154	-.188		
PTQ, PSI	14.760	0.40	-.317	-.356	-.301	*****	-.237	-.275		
		0.50	-.335	-.408	-.312	-.404	-.426	-.324		
PO, PSI	8.724	0.60	-.317	-.448	-.335	-.463	-.367	-.385		
		0.70	-.149	-.237	-.194	-.391	-.261	-.348		
QD, PSI	4.950	0.80	-.044	*****	-.069	-.059	-.089	-.053		
		0.90	.047	*****	.033	*****	.035	.063		

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.030	-.018	*****	.001	*****	*****	*****	-.018	-.018	-.022	-.008	*****
.598	-.039	-.031	*****	-.030	*****	-.031	*****	-.026	-.026	-.020	*****	*****
.612	-.031	-.032	*****	-.024	*****	-.030	*****	-.020	-.024	-.022	*****	*****
.626	-.024	-.025	*****	-.026	*****	-.032	*****	-.027	-.022	-.022	*****	*****
.640	*****	-.030	*****	-.030	*****	-.035	*****	-.030	-.027	-.022	*****	*****
.654	*****	-.034	*****	-.032	*****	-.033	*****	-.037	-.038	-.033	*****	*****
.668	*****	*****	*****	-.023	*****	-.027	*****	-.026	-.020	-.022	*****	*****
.682	*****	-.015	*****	-.021	*****	-.033	*****	-.026	-.027	-.030	-.034	*****
.696	*****	.001	*****	-.011	*****	-.025	*****	-.020	-.030	-.026	-.030	-.022
.710	*****	.024	*****	*****	*****	-.015	*****	-.015	-.022	-.023	-.021	-.020
.724	*****	.070	*****	.014	*****	-.006	*****	-.009	-.023	-.023	-.024	-.029
.738	*****	.058	*****	.009	*****	*****	*****	-.015	-.022	-.022	-.030	-.030
.752	*****	.005	*****	.006	*****	-.002	*****	-.001	-.012	-.021	-.030	*****
.766	*****	-.045	*****	-.023	*****	.008	*****	.011	-.009	-.029	-.046	-.047
.779	*****	-.052	*****	-.016	*****	.049	*****	.197	.027	-.019	-.038	-.033
.793	*****	-.081	*****	-.039	*****	.011	*****	*****	-.027	-.044	-.058	*****
.807	*****	-.116	*****	-.069	*****	-.048	*****	*****	-.076	-.071	-.070	-.070
.821	*****	*****	*****	-.121	*****	-.119	*****	*****	-.127	-.111	-.095	-.095
.835	*****	-.235	*****	-.189	*****	-.190	*****	*****	-.185	-.147	-.135	-.126
.849	*****	-.280	*****	*****	*****	-.252	*****	*****	-.225	-.190	-.168	-.158
.863	*****	-.334	*****	-.321	*****	-.333	*****	*****	-.273	-.232	*****	-.181
.877	-.346	-.362	*****	-.358	*****	-.392	*****	*****	*****	*****	*****	*****
.891	-.382	-.423	*****	-.402	*****	-.435	*****	*****	-.305	-.252	-.208	-.207
.916	-.140	-.138	-.174	*****	-.168	*****	-.150	-.171	-.161	-.170	-.162	-.162
.928	-.063	*****	-.113	*****	-.094	-.085	-.086	-.084	-.109	-.140	-.151	-.155
.940	-.020	*****	-.044	*****	-.052	-.036	-.039	-.030	-.065	-.103	-.111	-.121
.952	*****	*****	.019	*****	.020	.022	.019	.026	.008	-.024	-.042	-.040
.962	.088	.090	.090	*****	.087	.088	.086	.086	.080	.064	.052	.054
.974	.147	.149	*****	*****	.150	.147	.145	.142	.140	.144	.140	.138
.986	.192	.188	.189	*****	.186	.185	.184	.181	.177	.179	.187	.185
.996	.212	.212	*****	*****	.203	.202	.202	.204	.197	.198	.202	.204

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0300

Table A14. Effect of Angle of Attack on Pressure Distributions for Aft Tails Configuration at $M = 0.90$ and $NPR = 1.099$

(a) $\alpha = -2.977^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS										
CONFIGURATION POINT NUMBER	AFT TAILS 27	HORIZONTAL TAILS				VERTICAL TAIL						
		X/C	UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B					
			0.1	0.2	0.1	0.2	0.1	0.2				
MACH NUMBER	.901											
ALPHA, DEG	-2.977	0.05	*****	*****	*****	*****	*****	*****	*****	*****	*****	-.075
		0.10	-.152	.033	-.329	-.066	-.092	-.078				
NPR	1.099	0.20	-.200	-.067	-.302	-.149	*****	-.124				
		0.30	-.242	*****	-.349	-.242	-.140	-.168				
PTD, PSI	14.762	0.40	-.323	-.258	-.400	*****	-.200	-.238				
		0.50	-.321	-.311	-.423	-.402	-.385	-.272				
PD, PSI	8.720	0.60	-.326	-.333	-.483	-.460	-.321	-.325				
		0.70	-.149	-.134	-.313	-.405	-.195	-.224				
QD, PSI	4.954	0.80	-.041	*****	-.081	-.056	-.097	-.057				
		0.90	.051	*****	.017	*****	.007	.043				

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.046	-.041	*****	-.025	*****	*****	*****	-.025	-.027	-.016	.008	*****
.598	-.045	-.038	*****	-.043	*****	-.036	*****	-.038	-.033	-.021	*****	*****
.612	-.032	-.031	*****	-.031	*****	-.033	*****	-.038	-.030	-.025	*****	*****
.626	-.030	-.024	*****	-.032	*****	-.030	*****	-.034	-.030	-.025	*****	*****
.640	*****	-.029	*****	-.033	*****	-.037	*****	-.043	-.036	-.035	*****	*****
.654	*****	-.035	*****	-.047	*****	-.041	*****	-.048	-.043	-.039	*****	*****
.668	*****	*****	*****	-.031	*****	-.035	*****	-.035	-.040	-.025	*****	*****
.682	*****	-.027	*****	-.026	*****	-.033	*****	-.036	-.035	-.026	-.029	*****
.696	*****	.005	*****	-.008	*****	-.028	*****	-.039	-.030	-.030	-.029	-.023
.710	*****	.036	*****	*****	*****	-.025	*****	-.031	-.034	-.023	-.026	-.028
.724	*****	.079	*****	.013	*****	-.021	*****	-.026	-.033	-.028	-.031	-.031
.738	*****	.064	*****	.005	*****	*****	*****	-.030	-.039	-.029	-.033	-.037
.752	*****	.005	*****	-.005	*****	-.014	*****	-.016	-.033	-.031	-.038	*****
.766	*****	-.042	*****	-.027	*****	-.007	*****	.000	-.030	-.045	-.057	-.057
.779	*****	-.055	*****	-.004	*****	.081	*****	.172	-.022	-.047	-.055	-.056
.793	*****	-.078	*****	-.013	*****	.108	*****	*****	-.123	-.093	-.087	*****
.807	*****	-.098	*****	-.025	*****	.039	*****	*****	-.192	-.126	-.118	-.112
.821	*****	*****	*****	-.068	*****	-.041	*****	*****	-.229	-.183	-.150	-.151
.835	*****	-.190	*****	-.134	*****	-.109	*****	*****	-.287	-.222	-.187	-.184
.849	*****	-.226	*****	*****	*****	-.190	*****	*****	-.311	-.254	-.231	-.226
.863	*****	-.288	*****	-.267	*****	-.267	*****	*****	-.373	-.310	*****	-.269
.877	-.284	-.292	*****	-.283	*****	-.313	*****	*****	*****	*****	*****	*****
.891	-.286	-.295	*****	-.293	*****	-.303	*****	*****	-.421	-.366	-.333	-.328
.916	-.135	-.136	-.195	*****	-.147	*****	-.172	-.195	-.186	-.208	-.201	-.202
.928	-.089	*****	-.159	*****	*****	-.122	-.120	-.104	-.116	-.154	-.169	-.167
.940	-.071	*****	-.105	*****	-.099	-.087	-.077	-.052	-.048	-.102	-.123	-.125
.952	*****	*****	-.053	*****	-.054	-.039	-.028	-.004	-.005	-.032	-.054	-.052
.962	.018	.017	*****	*****	.022	.019	.019	.046	.049	.032	.021	.029
.974	.082	.083	*****	*****	.089	.079	.077	.099	.091	.086	.087	.096
.986	.125	.131	.122	*****	.132	.111	.118	.118	.130	.121	.116	.123
.996	.135	.141	*****	*****	.130	.121	.128	.136	.125	.128	.133	.124

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0562
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Table A14. Continued

(b) $\alpha = 0.021^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS											
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL					
					UPPER SURFACE Y/B	0.1	0.2	LOWER SURFACE Y/B	0.1	0.2	Y/B	0.1	0.2	
ALPHA, DEG	.021			0.05	*****	*****	*****	*****	*****	*****	*****	*****	*****	-.071
NPR	1.115			0.10	-.145	-.115	-.117	-.081	-.089	-.089	*****	*****	*****	-.089
PTD, PSI	14.762			0.20	-.191	-.187	-.171	-.158	-.138	-.138	*****	*****	*****	-.138
PD, PSI	8.722			0.30	-.248	*****	-.225	-.243	-.161	-.190	*****	*****	*****	-.190
QD, PSI	4.953			0.40	-.309	-.364	-.298	*****	-.238	-.279	*****	*****	*****	-.279
				0.50	-.334	-.408	-.321	-.402	-.379	-.327	*****	*****	*****	-.327
				0.60	-.358	-.461	-.365	-.458	-.376	-.387	*****	*****	*****	-.387
				0.70	-.200	-.349	-.246	-.457	-.179	-.395	*****	*****	*****	-.395
				0.80	-.058	*****	-.088	-.070	-.131	-.094	*****	*****	*****	-.094
				0.90	.037	*****	.017	*****	.020	.051	*****	*****	*****	.051

AFTERBODY PRESSURE COEFFICIENTS													
X/L	PHI, DEG												
	0	18	36	45	54	72	81	90	108	135	162	180	
.584	-.028	-.031	*****	-.015	*****	*****	*****	-.020	-.021	-.015	-.007	*****	*****
.598	-.036	-.035	*****	-.026	*****	-.032	*****	-.027	-.027	-.021	*****	*****	*****
.612	-.032	-.032	*****	-.026	*****	-.030	*****	-.025	-.027	-.022	*****	*****	*****
.626	-.029	-.029	*****	-.028	*****	-.029	*****	-.025	-.025	-.028	*****	*****	*****
.640	*****	-.034	*****	-.037	*****	-.036	*****	-.031	-.031	-.028	*****	*****	*****
.654	*****	-.039	*****	-.039	*****	-.034	*****	-.035	-.037	-.033	*****	*****	*****
.668	*****	*****	*****	-.024	*****	-.027	*****	-.024	-.027	-.022	*****	*****	*****
.682	*****	-.022	*****	-.021	*****	-.029	*****	-.026	-.033	-.022	-.030	*****	*****
.696	*****	-.004	*****	-.004	*****	-.020	*****	-.026	-.027	-.021	-.030	-.022	-.022
.710	*****	.026	*****	*****	*****	-.016	*****	-.025	-.020	-.017	-.027	-.025	-.025
.724	*****	.072	*****	.017	*****	-.013	*****	-.014	-.021	-.021	-.031	-.027	-.027
.738	*****	.055	*****	.012	*****	*****	*****	-.009	-.026	-.022	-.032	-.031	-.031
.752	*****	.002	*****	.000	*****	-.005	*****	-.003	-.018	-.018	-.031	*****	*****
.766	*****	-.048	*****	-.023	*****	.001	*****	.009	-.010	-.029	-.046	-.050	-.050
.779	*****	-.058	*****	-.019	*****	.045	*****	.189	.026	-.018	-.032	-.032	-.032
.793	*****	-.094	*****	-.043	*****	.015	*****	*****	-.016	-.041	-.052	*****	*****
.807	*****	-.127	*****	-.082	*****	-.050	*****	*****	-.058	-.064	-.071	-.067	-.067
.821	*****	*****	*****	-.121	*****	-.123	*****	*****	-.112	-.112	-.097	-.095	-.095
.835	*****	-.248	*****	-.192	*****	-.197	*****	*****	-.168	-.144	-.128	-.131	-.131
.849	*****	-.240	*****	*****	*****	-.269	*****	*****	-.211	-.185	-.163	-.158	-.158
.863	*****	-.348	*****	-.317	*****	-.341	*****	*****	-.270	-.240	*****	-.195	-.195
.877	-.352	-.366	*****	-.367	*****	-.395	*****	*****	*****	*****	*****	*****	*****
.891	-.419	-.424	*****	-.434	*****	-.425	*****	*****	-.334	-.277	-.258	-.233	-.233
.916	-.165	-.171	-.228	*****	-.191	*****	-.203	-.199	-.198	-.207	-.197	-.196	-.196
.928	-.086	*****	-.134	*****	-.121	-.110	-.116	-.100	-.140	-.173	-.191	-.187	-.187
.940	-.050	*****	-.069	*****	-.080	-.064	-.065	-.054	-.103	-.132	-.157	-.157	-.157
.952	*****	*****	-.019	*****	-.013	-.011	-.009	.003	-.036	-.064	-.089	-.092	-.092
.962	.055	.057	.059	*****	.047	.050	.053	.063	.028	.011	-.001	-.005	-.005
.974	.112	.116	*****	*****	.112	.108	.105	.121	.092	.090	.079	.083	.083
.986	.154	.154	.159	*****	.151	.156	.154	.156	.120	.139	.132	.135	.135
.996	.163	.176	*****	*****	.175	.167	.180	.176	.147	.152	.149	.146	.146

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0519
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Table A14. Continued

(c) $\alpha = 6.020^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
				0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER	.900								
ALPHA, DEG	6.020	0.05	*****	*****	*****	*****	*****	*****	-.063
NPR	1.088	0.10	-.370	-.464	.197	.057	-.105	-.078	
		0.20	-.347	-.446	.084	-.061	*****	-.156	
		0.30	-.369	*****	-.005	-.153	-.195	-.231	
		0.40	-.435	-.538	-.084	*****	-.296	-.335	
PTD, PSI	14.762	0.50	-.456	-.594	-.121	-.324	-.396	-.400	
		0.60	-.460	-.622	-.166	-.354	-.472	-.470	
PD, PSI	8.728	0.70	-.222	-.461	-.161	-.199	-.237	-.499	
		0.80	-.048	*****	-.104	-.068	-.481	-.291	
QD, PSI	4.948	0.90	.043	*****	-.014	*****	-.005	.042	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.020	-.014	*****	-.016	*****	*****	*****	-.038	-.035	-.009	.010	*****
.598	-.031	-.024	*****	-.030	*****	-.045	*****	-.049	-.048	-.022	*****	*****
.612	-.024	-.031	*****	-.034	*****	-.038	*****	-.041	-.043	-.017	*****	*****
.626	-.016	-.026	*****	-.029	*****	-.036	*****	-.045	-.043	-.022	*****	*****
.640	*****	-.031	*****	-.035	*****	-.043	*****	-.051	-.046	-.022	*****	*****
.654	*****	-.029	*****	-.034	*****	-.039	*****	-.059	-.054	-.036	*****	*****
.668	*****	*****	*****	-.027	*****	-.034	*****	-.046	-.040	-.022	*****	*****
.682	*****	-.015	*****	-.022	*****	-.031	*****	-.049	-.046	-.028	-.017	*****
.696	*****	.003	*****	-.008	*****	-.029	*****	-.034	-.038	-.027	-.008	-.012
.710	*****	.025	*****	*****	*****	-.020	*****	-.032	-.029	-.022	-.005	-.005
.724	*****	.057	*****	.009	*****	-.013	*****	-.022	-.029	-.018	-.005	-.010
.738	*****	.049	*****	.014	*****	*****	*****	-.018	-.026	-.014	-.008	-.007
.752	*****	.007	*****	.001	*****	-.002	*****	-.006	-.007	-.001	.009	*****
.766	*****	-.046	*****	-.025	*****	.000	*****	.023	.012	-.001	-.006	-.010
.779	*****	-.073	*****	-.052	*****	-.018	*****	.232	.122	.047	.039	.018
.793	*****	-.124	*****	-.115	*****	-.176	*****	*****	.179	.061	.023	*****
.807	*****	-.178	*****	-.180	*****	-.259	*****	*****	.139	.065	.038	.019
.821	*****	*****	*****	-.238	*****	-.311	*****	*****	.076	.045	.017	.006
.835	*****	-.338	*****	-.315	*****	-.367	*****	*****	.007	.007	.005	-.020
.849	*****	-.380	*****	*****	*****	-.411	*****	*****	-.048	-.034	-.038	-.044
.863	*****	-.449	*****	-.449	*****	-.488	*****	*****	-.093	-.071	*****	-.068
.877	-.468	-.502	*****	-.499	*****	-.540	*****	*****	*****	*****	*****	*****
.891	-.541	-.549	*****	-.559	*****	-.583	*****	*****	-.168	-.131	-.119	-.122
.916	-.309	-.299	-.344	*****	-.292	*****	-.275	-.327	-.198	-.173	-.158	-.175
.928	-.147	*****	-.181	*****	-.154	-.152	-.161	-.180	-.184	-.208	-.221	-.217
.940	-.074	*****	-.097	*****	-.088	-.094	-.101	-.108	-.165	-.200	-.234	-.240
.952	*****	*****	-.040	*****	-.040	-.062	-.047	-.061	-.108	-.151	-.184	-.185
.962	-.021	-.021	-.014	*****	-.018	-.022	-.012	-.023	-.047	-.059	-.090	-.095
.974	.012	.021	*****	*****	.020	.016	.025	.012	.015	.025	.015	.007
.986	.048	.057	.065	*****	.065	.057	.067	.064	.069	.084	.074	.066
.996	.087	.081	*****	*****	.098	.093	.095	.088	.080	.084	.084	.082

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0843

Table A15. Effect of Nozzle Pressure Ratio on Pressure Distributions for Aft Tails Configuration at $M = 0.60$ and $\alpha = 0.030^\circ$

(a) NPR = 1.035

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PO, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		30	.602	.030	1.035	14.774	11.568	2.931	0.05	*****	*****	*****	*****	*****	-.109
									0.10	-1.219	-.147	-.111	-1.112	-1.110	-.123
									0.20	-1.298	-.163	-.145	-1.249	*****	-.158
									0.30	-1.365	*****	-.180	-1.384	-.166	-.183
									0.40	-1.492	-.215	-.194	*****	-.193	-.208
									0.50	-1.526	-.201	-.181	-1.653	-1.316	-.185
									0.60	-1.571	-.166	-.168	-1.750	-.178	-.163
									0.70	-1.285	-.117	-.126	-1.667	-1.081	-.123
									0.80	-1.061	*****	-.073	-1.091	-.085	-.058
									0.90	-.906	*****	-.011	*****	-.007	.015

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.028	*****	-.015	*****	*****	*****	-.022	-.028	-.022	-.012	*****
.598	-.041	-.036	*****	-.028	*****	-.032	*****	-.036	-.037	-.026	*****	*****
.612	-.038	-.038	*****	-.028	*****	-.030	*****	-.027	-.031	-.026	*****	*****
.626	-.033	-.030	*****	-.030	*****	-.032	*****	-.031	-.031	-.030	*****	*****
.640	*****	-.035	*****	-.033	*****	-.039	*****	-.030	-.031	-.034	*****	*****
.654	*****	-.033	*****	-.041	*****	-.036	*****	-.040	-.038	-.037	*****	*****
.668	*****	*****	*****	-.030	*****	-.033	*****	-.034	-.034	-.031	*****	*****
.682	*****	-.027	*****	-.030	*****	-.035	*****	-.040	-.039	-.038	-.037	*****
.696	*****	-.014	*****	-.025	*****	-.035	*****	-.038	-.034	-.034	-.034	-.037
.710	*****	.004	*****	*****	*****	-.030	*****	-.033	-.035	-.040	-.031	-.034
.724	*****	.022	*****	-.025	*****	-.027	*****	-.028	-.036	-.034	-.037	-.042
.738	*****	.004	*****	-.026	*****	*****	*****	-.026	-.038	-.037	-.040	-.038
.752	*****	-.031	*****	-.031	*****	-.023	*****	-.019	-.033	-.033	-.044	*****
.766	*****	-.077	*****	-.059	*****	-.022	*****	-.008	-.027	-.046	-.057	-.056
.779	*****	-.100	*****	-.052	*****	.000	*****	.160	-.008	-.037	-.045	-.050
.793	*****	-.115	*****	-.082	*****	-.039	*****	*****	-.041	-.057	-.060	*****
.807	*****	-.141	*****	-.098	*****	-.093	*****	*****	-.077	-.069	-.064	-.068
.821	*****	*****	*****	-.127	*****	-.133	*****	*****	-.116	-.088	-.075	-.075
.835	*****	-.180	*****	-.154	*****	-.154	*****	*****	-.144	-.109	-.091	-.089
.849	*****	-.142	*****	*****	*****	-.190	*****	*****	-.163	-.123	-.103	-.105
.863	*****	-.185	*****	-.174	*****	-.204	*****	*****	-.164	-.135	*****	-.107
.877	-.163	-.166	*****	-.162	*****	-.192	*****	*****	*****	*****	*****	*****
.891	-.162	-.166	*****	-.165	*****	-.185	*****	*****	-.161	-.134	-.119	-.115
.916	-.115	-.130	*****	-.138	*****	-.139	*****	-.140	-.137	-.135	-.124	-.135
.928	-.098	*****	-.160	*****	-.137	-.127	-.118	-.112	-.128	-.143	-.145	-.146
.940	-.088	*****	-.118	*****	-.124	-.107	-.098	-.086	-.116	-.136	-.140	-.150
.952	*****	*****	-.082	*****	-.083	-.071	-.069	-.061	-.081	-.099	-.114	-.110
.962	-.014	-.016	*****	*****	-.017	-.011	-.015	-.010	-.019	-.039	-.048	-.054
.974	.045	.049	*****	*****	.052	.047	.047	.039	.043	.036	.032	.025
.986	.099	.102	*****	*****	.107	.099	.097	.100	.092	.096	.092	.084
.996	.126	.140	*****	*****	.126	.125	.122	.116	.111	.114	.116	.110

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0469
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Table A15. Continued

(b) NPR = 2.057

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	31		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.602								
ALPHA, DEG	.029	0.05	*****	*****	*****	*****	*****	-.107	
		0.10	-.674	-.129	-.120	-1.673	-1.069	-.103	
NPR	2.057	0.20	-.847	-.172	-.152	-1.622	*****	-.143	
		0.30	-.989	*****	-.177	-1.714	-.165	-.183	
PTD, PSI	14.775	0.40	-1.132	-.205	-.190	*****	-.201	-.203	
		0.50	-1.197	-.193	-.175	-1.929	-1.099	-.187	
PQ, PSI	11.570	0.60	-1.228	-.165	-.160	-1.992	-.177	-.156	
		0.70	-1.178	-.110	-.117	-1.737	-.874	-.111	
QD, PSI	2.930	0.80	-1.093	*****	-.062	-1.244	-.074	-.049	
		0.90	-.960	*****	-.001	*****	-.002	.023	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.032	-.023	*****	-.020	*****	*****	*****	-.024	-.020	-.027	-.014	*****
.598	-.040	-.029	*****	-.034	*****	-.033	*****	-.035	-.031	-.027	*****	*****
.612	-.035	-.032	*****	-.028	*****	-.032	*****	-.032	-.030	-.027	*****	*****
.626	-.027	-.030	*****	-.030	*****	-.030	*****	-.028	-.030	-.027	*****	*****
.640	*****	-.034	*****	-.033	*****	-.036	*****	-.032	-.030	-.030	*****	*****
.654	*****	-.032	*****	-.036	*****	-.030	*****	-.039	-.036	-.035	*****	*****
.668	*****	*****	*****	-.027	*****	-.029	*****	-.033	-.033	-.027	*****	*****
.682	*****	-.026	*****	-.027	*****	-.033	*****	-.036	-.036	-.036	-.036	*****
.696	*****	-.012	*****	-.022	*****	-.032	*****	-.033	-.037	-.034	-.040	-.036
.710	*****	.001	*****	*****	*****	-.033	*****	-.029	-.033	-.033	-.032	-.039
.724	*****	.028	*****	-.017	*****	-.028	*****	-.033	-.038	-.034	-.038	-.037
.738	*****	.000	*****	-.022	*****	*****	*****	-.030	-.042	-.036	-.041	-.040
.752	*****	-.031	*****	-.023	*****	-.021	*****	-.018	-.028	-.035	-.039	*****
.766	*****	-.080	*****	-.051	*****	-.023	*****	-.009	-.026	-.046	-.052	-.059
.779	*****	-.083	*****	-.050	*****	-.002	*****	.151	-.002	-.037	-.046	-.046
.793	*****	-.113	*****	-.076	*****	-.041	*****	*****	-.042	-.054	-.061	*****
.807	*****	-.128	*****	-.093	*****	-.079	*****	*****	-.074	-.063	-.068	-.063
.821	*****	*****	*****	-.115	*****	-.131	*****	*****	-.108	-.088	-.075	-.077
.835	*****	-.174	*****	-.153	*****	-.158	*****	*****	-.140	-.105	-.090	-.092
.849	*****	-.176	*****	*****	*****	-.179	*****	*****	-.155	-.115	-.102	-.097
.863	*****	-.182	*****	-.174	*****	-.190	*****	*****	-.168	-.133	*****	-.113
.877	-.150	-.160	*****	-.158	*****	-.188	*****	*****	*****	*****	*****	*****
.891	-.158	-.163	*****	-.159	*****	-.174	*****	*****	-.158	-.126	-.118	-.113
.916	-.105	-.115	-.169	*****	-.131	*****	-.124	-.132	-.128	-.121	-.120	-.125
.928	-.082	*****	-.146	*****	-.123	-.120	-.104	-.095	-.116	-.130	-.136	-.140
.940	-.071	*****	-.101	*****	-.112	-.093	-.081	-.071	-.097	-.119	-.132	-.131
.952	*****	*****	-.057	*****	-.065	-.049	-.047	-.041	-.056	-.079	-.093	-.092
.962	.010	.015	.010	*****	.003	.006	.010	.012	.003	-.011	-.028	-.030
.974	.077	.080	*****	*****	.079	.079	.076	.073	.072	.070	.062	.055
.986	.138	.135	.136	*****	.135	.134	.135	.131	.131	.131	.127	.127
.996	.169	.167	*****	*****	.163	.165	.164	.161	.159	.160	.159	.161

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0327

Table A15. Continued

(c) NPR = 3.036

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
					UPPER SURFACE		LOWER SURFACE		Y/B			
					0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.015			0.05	*****	*****	*****	*****	*****	*****	-.097	
				0.10	.062	-.140	-.115	.066	-1.035	-.098		
NPR	3.036			0.20	.042	-.157	-.150	.036	*****	-.150		
				0.30	.024	*****	-.178	.000	-.167	-.178		
PTD, PSI	14.776			0.40	.012	-.199	-.199	*****	-.192	-.202		
				0.50	.021	-.194	-.180	.007	-.946	-.185		
PD, PSI	11.587			0.60	.039	-.155	-.157	.024	-.171	-.154		
				0.70	.079	-.108	-.120	.058	-.738	-.109		
QD, PSI	2.917			0.80	.127	*****	-.068	.100	-.076	-.052		
				0.90	.174	*****	-.001	*****	-.001	.020		

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	19	36	45	54	72	81	90	108	135	162	180
.584	-.038	-.024	*****	-.019	*****	*****	*****	-.019	-.024	-.029	-.016	*****
.598	-.039	-.032	*****	-.034	*****	-.037	*****	-.032	-.032	-.032	*****	*****
.612	-.034	-.033	*****	-.034	*****	-.031	*****	-.029	-.031	-.030	*****	*****
.626	-.029	-.029	*****	-.032	*****	-.032	*****	-.030	-.034	-.032	*****	*****
.640	*****	-.037	*****	-.035	*****	-.034	*****	-.034	-.030	-.027	*****	*****
.654	*****	-.031	*****	-.032	*****	-.033	*****	-.047	-.038	-.036	*****	*****
.668	*****	*****	*****	-.027	*****	-.032	*****	-.033	-.030	-.033	*****	*****
.682	*****	-.022	*****	-.033	*****	-.037	*****	-.035	-.035	-.038	-.038	*****
.696	*****	-.010	*****	-.024	*****	-.034	*****	-.035	-.041	-.036	-.036	-.032
.710	*****	.000	*****	*****	*****	-.029	*****	-.030	-.032	-.032	-.032	-.035
.724	*****	.024	*****	-.016	*****	-.027	*****	-.032	-.036	-.038	-.036	-.039
.738	*****	.007	*****	-.024	*****	*****	*****	-.030	-.042	-.037	-.036	-.040
.752	*****	-.047	*****	-.027	*****	-.025	*****	-.024	-.025	-.038	-.041	*****
.766	*****	-.077	*****	-.047	*****	-.018	*****	-.009	-.025	-.046	-.055	-.053
.779	*****	-.078	*****	-.049	*****	.002	*****	.155	-.007	-.041	-.047	-.045
.793	*****	-.113	*****	-.071	*****	-.040	*****	*****	-.040	-.056	-.061	*****
.807	*****	-.140	*****	-.085	*****	-.087	*****	*****	-.082	-.069	-.065	-.065
.821	*****	*****	*****	-.123	*****	-.124	*****	*****	-.109	-.085	-.073	-.074
.835	*****	-.168	*****	-.147	*****	-.160	*****	*****	-.148	-.107	-.091	-.086
.849	*****	-.182	*****	*****	*****	-.178	*****	*****	-.155	-.122	-.103	-.098
.863	*****	-.175	*****	-.172	*****	-.191	*****	*****	-.170	-.130	*****	-.109
.877	-.154	-.160	*****	-.165	*****	-.192	*****	*****	*****	*****	*****	*****
.891	-.155	-.167	*****	-.162	*****	-.178	*****	*****	-.163	-.128	-.116	-.111
.916	-.106	-.116	-.169	*****	-.135	*****	-.124	-.134	-.129	-.125	-.118	-.123
.928	-.083	*****	-.149	*****	-.122	-.119	-.105	-.093	-.116	-.132	-.136	-.137
.940	-.071	*****	-.097	*****	-.108	-.094	-.087	-.075	-.100	-.124	-.129	-.134
.952	*****	*****	-.058	*****	-.066	-.054	-.050	-.040	-.053	-.081	-.090	-.090
.962	.012	.013	.011	*****	.000	.006	.011	.011	.002	-.014	-.024	-.024
.974	.077	.079	*****	*****	.093	.075	.077	.077	.072	.069	.064	.058
.986	.137	.141	.144	*****	.140	.134	.130	.130	.132	.130	.130	.127
.996	.170	.169	*****	*****	.166	.163	.165	.166	.164	.161	.167	.163

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0328
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Table A15. Concluded

(d) NPR = 4.989

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION POINT NUMBER	AFT TAILS 33	HORIZONTAL TAILS										
		X/C	UPPER SURFACE Y/B		LOWER SURFACE Y/B		VERTICAL TAIL Y/B					
			0.1	0.2	0.1	0.2	0.1	0.2				
MACH NUMBER	.601											
ALPHA, DEG	.017	0.05	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
NPR	4.989	0.10	-.129	-.135	-.120	-.144	-.179	-.166	-.192	-.192	-.192	-.180
PTD, PSI	14.776	0.20	-.165	-.150	-.161	-.179	-.179	-.166	-.192	-.192	-.192	-.180
PO, PSI	11.578	0.30	-.202	*****	*****	*****	*****	*****	*****	*****	*****	*****
QD, PSI	2.925	0.40	-.200	-.206	-.199	*****	*****	*****	*****	*****	*****	*****
		0.50	-.189	-.192	-.181	-.217	*****	*****	*****	*****	*****	*****
		0.60	-.163	-.155	-.159	-.201	*****	*****	*****	*****	*****	*****
		0.70	-.113	-.108	-.123	-.154	*****	*****	*****	*****	*****	*****
		0.80	-.062	*****	-.064	-.094	*****	*****	*****	*****	*****	*****
		0.90	.000	*****	.001	*****	*****	*****	*****	*****	*****	*****

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.025	*****	-.012	*****	*****	*****	-.021	-.025	-.027	-.017	*****
.598	-.039	-.032	*****	-.032	*****	-.035	*****	-.033	-.031	-.031	*****	*****
.612	-.033	-.032	*****	-.031	*****	-.030	*****	-.029	-.030	-.032	*****	*****
.626	-.028	-.028	*****	-.033	*****	-.031	*****	-.029	-.026	-.032	*****	*****
.640	*****	-.028	*****	-.034	*****	-.034	*****	-.034	-.033	-.031	*****	*****
.654	*****	-.033	*****	-.036	*****	-.030	*****	-.045	-.038	-.039	*****	*****
.668	*****	*****	*****	-.030	*****	-.034	*****	-.033	-.027	-.032	*****	*****
.682	*****	-.022	*****	-.029	*****	-.034	*****	-.036	-.038	-.038	-.034	*****
.696	*****	-.011	*****	-.023	*****	-.028	*****	-.034	-.035	-.038	-.034	-.033
.710	*****	.007	*****	*****	*****	-.027	*****	-.031	-.031	-.031	-.035	-.035
.724	*****	.030	*****	-.018	*****	-.031	*****	-.027	-.027	-.036	-.037	-.039
.738	*****	.021	*****	-.022	*****	*****	*****	-.029	-.036	-.036	-.039	-.042
.752	*****	-.040	*****	-.029	*****	-.023	*****	-.021	-.029	-.036	-.039	*****
.766	*****	-.076	*****	-.049	*****	-.019	*****	-.013	-.030	-.046	-.058	-.055
.779	*****	-.083	*****	-.050	*****	.004	*****	.153	-.003	-.042	-.045	-.047
.793	*****	-.114	*****	-.072	*****	-.024	*****	*****	-.045	-.056	-.058	*****
.807	*****	-.134	*****	-.092	*****	-.078	*****	*****	-.079	-.075	-.064	-.066
.821	*****	*****	*****	-.115	*****	-.107	*****	*****	-.095	-.087	-.079	-.077
.835	*****	-.175	*****	-.133	*****	-.153	*****	*****	-.145	-.105	-.088	-.088
.849	*****	-.176	*****	*****	*****	-.183	*****	*****	-.143	-.125	-.098	-.100
.863	*****	-.174	*****	-.166	*****	-.186	*****	*****	-.166	-.130	*****	-.106
.877	-.150	-.156	*****	-.163	*****	-.189	*****	*****	*****	*****	*****	*****
.891	-.151	-.157	*****	-.163	*****	-.174	*****	*****	-.161	-.130	-.115	-.112
.916	-.105	-.112	-.168	*****	-.124	*****	-.124	-.131	-.125	-.120	-.112	-.123
.928	-.077	*****	-.141	*****	-.115	-.113	-.103	-.091	-.111	-.129	-.134	-.131
.940	-.065	*****	-.088	*****	-.096	-.087	-.080	-.068	-.091	-.115	-.121	-.126
.952	*****	*****	-.050	*****	-.049	-.043	-.041	-.030	-.046	-.067	-.082	-.084
.962	.023	.027	.023	*****	.020	.022	.022	.023	.017	.006	-.006	-.012
.974	.095	.099	*****	*****	.101	.094	.091	.091	.091	.085	.080	.079
.986	.156	.162	.164	*****	.166	.153	.154	.154	.152	.154	.152	.150
.996	.192	.197	*****	*****	.192	.187	.191	.187	.187	.189	.188	.190

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0247

Table A16. Effect of Angle of Attack on Pressure Distributions for Aft Tails Configuration at $M = 0.60$ and $NPR = 1.050$

(a) $\alpha = -2.981^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	AFT TAILS	POINT NUMBER	HORIZONTAL TAILS						VERTICAL TAIL			
			X/C	UPPER SURFACE		LOWER SURFACE		Y/B				
				0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.600	35										
ALPHA, DEG	-2.981		0.05	*****	*****	*****	*****	*****	*****	*****	*****	*****
NPR	1.050		0.10	-.158	.032	-.312	-.152	-.808	-.114	*****	*****	*****
PTD, PSI	14.777		0.20	-.174	-.031	-.281	-.194	*****	*****	*****	*****	*****
PD, PSI	11.589		0.30	-.194	*****	-.278	-.232	-.131	-.161	*****	*****	*****
QD, PSI	2.916		0.40	-.219	-.127	-.285	*****	-.158	-.175	*****	*****	*****
			0.50	-.194	-.122	-.250	-.225	-.578	-.157	*****	*****	*****
			0.60	-.170	-.104	-.217	-.208	-.148	-.139	*****	*****	*****
			0.70	-.123	-.061	-.163	-.155	-.420	-.096	*****	*****	*****
			0.80	-.068	*****	-.094	-.097	-.067	-.039	*****	*****	*****
			0.90	-.005	*****	-.024	*****	-.003	.022	*****	*****	*****

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.034	-.027	*****	-.017	*****	*****	*****	-.032	-.034	-.033	-.016	*****
.598	-.038	-.031	*****	-.044	*****	-.048	*****	-.042	-.035	-.039	*****	*****
.612	-.032	-.027	*****	-.040	*****	-.039	*****	-.037	-.039	-.039	*****	*****
.626	-.025	-.022	*****	-.038	*****	-.042	*****	-.039	-.038	-.045	*****	*****
.640	*****	-.029	*****	-.046	*****	-.047	*****	-.041	-.039	-.048	*****	*****
.654	*****	-.028	*****	-.049	*****	-.039	*****	-.051	-.042	-.053	*****	*****
.668	*****	*****	*****	-.043	*****	-.042	*****	-.043	-.031	-.043	*****	*****
.682	*****	-.009	*****	-.039	*****	-.042	*****	-.051	-.034	-.047	-.045	*****
.696	*****	.009	*****	-.030	*****	-.044	*****	-.048	-.037	-.048	-.039	-.037
.710	*****	.021	*****	*****	*****	-.041	*****	-.042	-.037	-.046	-.038	-.040
.724	*****	.049	*****	-.026	*****	-.035	*****	-.043	-.044	-.051	-.042	-.050
.738	*****	.023	*****	-.031	*****	*****	*****	-.050	-.057	-.060	-.051	-.050
.752	*****	-.036	*****	-.027	*****	-.022	*****	-.042	-.060	-.058	-.054	*****
.766	*****	-.067	*****	-.040	*****	-.005	*****	-.028	-.071	-.082	-.075	-.073
.779	*****	-.067	*****	-.025	*****	.061	*****	.113	-.078	-.082	-.070	-.068
.793	*****	-.097	*****	-.040	*****	.067	*****	*****	-.143	-.103	-.095	*****
.807	*****	-.105	*****	-.048	*****	.034	*****	*****	-.189	-.123	-.101	-.099
.821	*****	*****	*****	-.051	*****	-.029	*****	*****	-.205	-.148	-.113	-.108
.835	*****	-.142	*****	-.087	*****	-.085	*****	*****	-.231	-.157	-.124	-.123
.849	*****	-.132	*****	*****	*****	-.126	*****	*****	-.228	-.170	-.143	-.129
.863	*****	-.130	*****	-.137	*****	-.146	*****	*****	-.231	-.178	*****	-.138
.877	*****	-.121	*****	-.133	*****	-.152	*****	*****	*****	*****	*****	*****
.891	*****	-.129	*****	-.137	*****	-.154	*****	*****	-.202	-.162	-.137	-.135
.916	*****	-.109	*****	-.174	*****	-.108	*****	-.134	-.144	-.144	-.134	-.140
.928	*****	*****	*****	-.150	*****	-.114	*****	-.124	-.112	-.130	-.147	-.146
.940	*****	*****	*****	-.103	*****	-.118	*****	-.106	-.089	-.113	-.133	-.145
.952	*****	*****	*****	-.075	*****	-.089	*****	-.076	-.060	-.062	-.095	-.103
.962	*****	-.023	*****	-.025	*****	-.014	*****	-.025	-.006	-.011	-.028	-.042
.974	*****	.035	*****	*****	*****	.054	*****	.040	.040	.060	.039	.033
.986	*****	.093	*****	.108	*****	.107	*****	.091	.093	.085	.088	.087
.996	*****	.116	*****	*****	*****	.111	*****	.089	.110	.112	.103	.104

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0472
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Table A16. Continued

(b) $\alpha = 0.022^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	36		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.598								
ALPHA, DEG	.022	0.05	*****	*****	*****	*****	*****	-.123	
		0.10	-.158	-.129	-.109	-.146	-.731	-.112	
NPR	1.056	0.20	-.191	-.174	-.157	-.202	*****	-.155	
		0.30	-.216	*****	-.178	-.236	-.167	-.186	
PTD, PSI	14.778	0.40	-.222	-.218	-.194	*****	-.200	-.210	
		0.50	-.209	-.199	-.182	-.230	-.501	-.187	
PD, PSI	11.602	0.60	-.180	-.167	-.162	-.212	-.172	-.155	
		0.70	-.131	-.116	-.127	-.165	-.353	-.117	
QD, PSI	2.906	0.80	-.075	*****	-.074	-.100	-.082	-.052	
		0.90	-.011	*****	-.011	*****	-.013	.020	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.037	-.029	*****	-.018	*****	*****	*****	-.025	-.023	-.028	-.016	*****
.598	-.039	-.032	*****	-.036	*****	-.037	*****	-.034	-.032	-.030	*****	*****
.612	-.036	-.033	*****	-.032	*****	-.030	*****	-.030	-.030	-.026	*****	*****
.626	-.032	-.031	*****	-.029	*****	-.029	*****	-.031	-.035	-.029	*****	*****
.640	*****	-.039	*****	-.033	*****	-.037	*****	-.035	-.035	-.030	*****	*****
.654	*****	-.037	*****	-.036	*****	-.031	*****	-.043	-.039	-.039	*****	*****
.668	*****	*****	*****	-.029	*****	-.029	*****	-.032	-.033	-.030	*****	*****
.682	*****	-.026	*****	-.030	*****	-.033	*****	-.038	-.039	-.039	-.035	*****
.696	*****	-.014	*****	-.025	*****	-.030	*****	-.037	-.040	-.032	-.032	-.036
.710	*****	.000	*****	*****	*****	-.025	*****	-.033	-.036	-.036	-.033	-.036
.724	*****	.026	*****	-.021	*****	-.030	*****	-.030	-.039	-.036	-.041	-.041
.738	*****	-.002	*****	-.025	*****	*****	*****	-.032	-.039	-.042	-.043	-.042
.752	*****	-.047	*****	-.030	*****	-.024	*****	-.022	-.029	-.036	-.038	*****
.766	*****	-.075	*****	-.053	*****	-.024	*****	-.007	-.029	-.053	-.054	-.060
.779	*****	-.091	*****	-.056	*****	-.002	*****	.155	-.004	-.043	-.045	-.050
.793	*****	-.116	*****	-.082	*****	-.043	*****	*****	-.043	-.053	-.059	*****
.807	*****	-.137	*****	-.101	*****	-.085	*****	*****	-.068	-.064	-.061	-.067
.821	*****	*****	*****	-.123	*****	-.125	*****	*****	-.110	-.089	-.079	-.079
.835	*****	-.182	*****	-.150	*****	-.160	*****	*****	-.138	-.104	-.090	-.094
.849	*****	-.182	*****	*****	*****	-.188	*****	*****	-.159	-.117	-.102	-.105
.863	*****	-.185	*****	-.175	*****	-.197	*****	*****	-.170	-.135	*****	-.110
.877	*****	-.153	*****	-.165	*****	-.195	*****	*****	*****	*****	*****	*****
.891	*****	-.163	*****	-.163	*****	-.183	*****	*****	-.166	-.133	-.125	-.119
.916	*****	-.113	*****	-.183	*****	-.141	*****	-.134	-.138	-.135	-.128	-.134
.928	*****	-.093	*****	-.159	*****	-.138	*****	-.117	-.107	-.125	-.140	-.149
.940	*****	-.087	*****	-.113	*****	-.125	*****	-.100	-.088	-.111	-.138	-.149
.952	*****	*****	*****	-.080	*****	-.081	*****	-.066	-.064	-.079	-.100	-.118
.962	*****	-.012	*****	-.015	*****	-.021	*****	-.012	-.010	-.025	-.032	-.046
.974	*****	.049	*****	*****	*****	.046	*****	.045	.047	.043	.041	.039
.986	*****	.103	*****	.109	*****	.105	*****	.104	.096	.093	.094	.089
.996	*****	.134	*****	*****	*****	.134	*****	.126	.129	.113	.109	.107

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0467

Table A16. Continued

(c) $\alpha = 3.017^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS					VERTICAL TAIL				
		UPPER SURFACE	LOWER SURFACE		Y/B		Y/B				
POINT NUMBER	37	X/C	0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.598										
ALPHA, DEG	3.017	0.05	*****	*****	*****	*****	*****	-.128			
NPR	1.048	0.10	-.146	-.328	.043	-.159	-.655	-.125			
PTD, PSI	14.778	0.20	-.197	-.301	-.035	-.208	*****	-.168			
		0.30	-.211	*****	-.082	-.238	-.192	-.206			
PD, PSI	11.602	0.40	-.233	-.298	-.120	*****	-.227	-.223			
		0.50	-.214	-.255	-.120	-.243	-.440	-.208			
QD, PSI	2.906	0.60	-.186	-.208	-.123	-.220	-.203	-.181			
		0.70	-.143	-.149	-.098	-.176	-.298	-.126			
		0.80	-.081	*****	-.053	-.112	-.092	-.065			
		0.90	-.021	*****	.002	*****	-.013	.007			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.034	-.023	*****	-.019	*****	*****	*****	-.028	-.031	-.023	-.007	*****
.598	-.039	-.036	*****	-.033	*****	-.037	*****	-.040	-.039	-.027	*****	*****
.612	-.036	-.035	*****	-.037	*****	-.037	*****	-.039	-.031	-.022	*****	*****
.626	-.030	-.029	*****	-.032	*****	-.039	*****	-.032	-.033	-.026	*****	*****
.640	*****	-.035	*****	-.037	*****	-.036	*****	-.034	-.040	-.033	*****	*****
.654	*****	-.040	*****	-.041	*****	-.035	*****	-.049	-.045	-.037	*****	*****
.668	*****	*****	*****	-.034	*****	-.038	*****	-.039	-.036	-.028	*****	*****
.682	*****	-.028	*****	-.033	*****	-.039	*****	-.043	-.044	-.034	-.036	*****
.696	*****	-.020	*****	-.028	*****	-.042	*****	-.039	-.039	-.033	-.034	-.030
.710	*****	-.003	*****	*****	*****	-.040	*****	-.036	-.037	-.031	-.026	-.033
.724	*****	.014	*****	-.028	*****	-.034	*****	-.034	-.039	-.030	-.026	-.029
.738	*****	-.009	*****	-.032	*****	*****	*****	-.031	-.038	-.030	-.027	-.025
.752	*****	-.048	*****	-.046	*****	-.037	*****	-.029	-.027	-.023	-.026	*****
.766	*****	-.085	*****	-.073	*****	-.044	*****	-.010	-.015	-.030	-.042	-.038
.779	*****	-.107	*****	-.077	*****	-.059	*****	.153	.042	-.004	-.022	-.028
.793	*****	-.138	*****	-.119	*****	-.132	*****	*****	.052	-.012	-.035	*****
.807	*****	-.163	*****	-.149	*****	-.192	*****	*****	.025	-.019	-.037	-.036
.821	*****	*****	*****	-.178	*****	-.223	*****	*****	-.020	-.029	-.042	-.040
.835	*****	-.217	*****	-.205	*****	-.239	*****	*****	-.062	-.053	-.056	-.056
.849	*****	-.221	*****	*****	*****	-.256	*****	*****	-.089	-.075	-.072	-.072
.863	*****	-.214	*****	-.216	*****	-.256	*****	*****	-.109	-.086	*****	-.085
.877	-.183	-.194	*****	-.209	*****	-.239	*****	*****	*****	*****	*****	*****
.891	-.179	-.187	*****	-.190	*****	-.219	*****	*****	-.121	-.106	-.098	-.090
.916	-.129	-.137	-.191	*****	-.153	*****	-.145	-.142	-.122	-.117	-.117	-.125
.928	-.100	*****	-.162	*****	-.143	-.130	-.119	-.112	-.120	-.140	-.145	-.148
.940	-.085	*****	-.110	*****	-.123	-.101	-.093	-.089	-.113	-.143	-.151	-.151
.952	*****	*****	-.078	*****	-.070	-.060	-.057	-.060	-.073	-.113	-.127	-.117
.962	-.013	-.011	-.018	*****	-.014	-.008	.000	.002	-.018	-.042	-.067	-.069
.974	.048	.051	*****	*****	.050	.058	.056	.056	.039	.029	.022	.009
.986	.098	.094	.096	*****	.093	.099	.099	.091	.089	.079	.081	.078
.996	.124	.105	*****	*****	.136	.119	.111	.109	.112	.092	.099	.102

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0475
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Table A16. Continued

(d) $\alpha = 5.972^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	AFT TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
38	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.601								
ALPHA, DEG	5.972	0.05	*****	*****	*****	*****	*****	*****	-.151
		0.10	-.351	-.489	.189	.021	-.578	-.142	
NPR	1.036	0.20	-.319	-.435	.082	-.067	*****	-.188	
		0.30	-.296	*****	.015	-.135	-.223	-.229	
PTD, PSI	14.778	0.40	-.303	-.365	-.040	*****	-.262	-.253	
		0.50	-.264	-.307	-.061	-.166	-.389	-.229	
PD, PSI	11.576	0.60	-.219	-.239	-.079	-.164	-.229	-.204	
		0.70	-.161	-.163	-.064	-.131	-.251	-.153	
QD, PSI	2.928	0.80	-.091	*****	-.032	-.085	-.113	-.086	
		0.90	-.025	*****	.012	*****	-.025	-.002	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG,

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.029	-.031	*****	-.028	*****	*****	*****	-.048	-.043	-.022	-.002	*****
.598	-.036	-.033	*****	-.047	*****	-.059	*****	-.055	-.059	-.030	*****	*****
.612	-.031	-.039	*****	-.042	*****	-.044	*****	-.055	-.050	-.027	*****	*****
.626	-.031	-.034	*****	-.041	*****	-.049	*****	-.054	-.045	-.032	*****	*****
.640	*****	-.033	*****	-.046	*****	-.058	*****	-.056	-.051	-.040	*****	*****
.654	*****	-.036	*****	-.053	*****	-.060	*****	-.066	-.061	-.043	*****	*****
.668	*****	*****	*****	-.042	*****	-.057	*****	-.058	-.053	-.030	*****	*****
.682	*****	-.032	*****	-.040	*****	-.058	*****	-.064	-.058	-.039	-.022	*****
.696	*****	-.024	*****	-.037	*****	-.060	*****	-.062	-.055	-.042	-.021	-.015
.710	*****	-.015	*****	*****	*****	-.052	*****	-.061	-.052	-.032	-.014	-.018
.724	*****	-.002	*****	-.037	*****	-.053	*****	-.055	-.055	-.032	-.016	-.018
.738	*****	-.019	*****	-.044	*****	*****	*****	-.059	-.051	-.027	-.013	-.014
.752	*****	-.061	*****	-.059	*****	-.060	*****	-.047	-.040	-.019	-.014	*****
.766	*****	-.106	*****	-.103	*****	-.080	*****	-.035	-.015	-.016	-.022	-.018
.779	*****	-.130	*****	-.122	*****	-.131	*****	.144	.079	.016	.007	.001
.793	*****	-.178	*****	-.163	*****	-.274	*****	*****	.138	.025	.002	*****
.807	*****	-.208	*****	-.207	*****	-.312	*****	*****	.118	.033	.003	-.008
.821	*****	*****	*****	-.242	*****	-.331	*****	*****	.069	.020	-.002	-.013
.835	*****	-.260	*****	-.268	*****	-.334	*****	*****	.009	.000	-.013	-.021
.849	*****	-.268	*****	*****	*****	-.341	*****	*****	-.025	-.020	-.027	-.034
.863	*****	-.259	*****	-.276	*****	-.316	*****	*****	-.062	-.045	*****	-.048
.877	-.217	-.225	*****	-.249	*****	-.287	*****	*****	*****	*****	*****	*****
.891	-.209	-.228	*****	-.229	*****	-.253	*****	*****	-.093	-.074	-.071	-.069
.916	-.141	-.160	-.212	*****	-.181	*****	-.162	-.158	-.109	-.108	-.097	-.105
.928	-.112	*****	-.186	*****	-.158	-.138	-.122	-.116	-.116	-.132	-.137	-.135
.940	-.098	*****	-.128	*****	-.133	-.103	-.089	-.089	-.119	-.142	-.154	-.152
.952	*****	*****	-.090	*****	-.080	-.059	-.050	-.062	-.098	-.119	-.137	-.128
.967	-.035	-.042	-.032	*****	-.025	-.012	-.012	-.018	-.047	-.065	-.077	-.076
.974	.025	.008	*****	*****	.029	.037	.037	.024	.021	.008	.003	-.004
.986	.074	.060	.069	*****	.060	.068	.070	.061	.063	.060	.056	.052
.996	.069	.065	*****	*****	.069	.072	.074	.065	.063	.068	.067	.068

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0587

Table A16. Concluded

(e) $\alpha = 9.013^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	AFT TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		39	.597	9.013					0.05	*****	*****	*****	*****	*****	-.133
									0.10	-.175	-1.711	.320	-.177	-.540	-.137
									0.20	-.196	-.376	.195	-.211	*****	-.205
									0.30	-.212	*****	.101	-.244	-.255	-.250
									0.40	-.239	-.376	.031	*****	-.305	-.277
									0.50	-.218	-.334	.002	-.255	-.376	-.262
									0.60	-.194	-.272	-.033	-.225	-.258	-.229
									0.70	-.145	-.201	-.035	-.183	-.237	-.170
									0.80	-.091	*****	-.016	-.118	-.132	-.094
									0.90	-.030	*****	.022	*****	-.044	-.011

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG.											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.024	-.032	*****	-.042	*****	*****	*****	-.086	-.077	-.030	.014	*****
.598	-.032	-.047	*****	-.052	*****	-.072	*****	-.091	-.084	-.039	*****	*****
.612	-.023	-.048	*****	-.052	*****	-.076	*****	-.086	-.075	-.036	*****	*****
.626	-.019	-.040	*****	-.052	*****	-.081	*****	-.087	-.081	-.039	*****	*****
.640	*****	-.052	*****	-.055	*****	-.081	*****	-.095	-.083	-.042	*****	*****
.654	*****	-.054	*****	-.055	*****	-.077	*****	-.109	-.093	-.050	*****	*****
.668	*****	*****	*****	-.052	*****	-.081	*****	-.093	-.084	-.040	*****	*****
.682	*****	-.054	*****	-.050	*****	-.081	*****	-.099	-.096	-.044	-.006	*****
.696	*****	-.058	*****	-.044	*****	-.082	*****	-.100	-.078	-.047	-.004	.007
.710	*****	-.034	*****	*****	*****	-.082	*****	-.091	-.080	-.036	.002	.004
.724	*****	-.021	*****	-.047	*****	-.081	*****	-.092	-.081	-.035	.001	.011
.738	*****	-.050	*****	-.058	*****	*****	*****	-.093	-.078	-.029	.004	.010
.752	*****	-.103	*****	-.081	*****	-.093	*****	-.083	-.054	-.014	.020	*****
.766	*****	-.149	*****	-.123	*****	-.129	*****	-.069	-.024	-.008	.009	.006
.779	*****	-.172	*****	-.161	*****	-.266	*****	.084	.104	.039	.041	.037
.793	*****	-.227	*****	-.235	*****	-.420	*****	*****	.225	.061	.038	*****
.807	*****	-.264	*****	-.281	*****	-.465	*****	*****	.207	.078	.045	.035
.821	*****	*****	*****	-.320	*****	-.442	*****	*****	.150	.074	.038	.025
.835	*****	-.320	*****	-.341	*****	-.419	*****	*****	.073	.055	.030	.012
.849	*****	-.315	*****	*****	*****	-.395	*****	*****	.019	.028	.014	.005
.863	*****	-.310	*****	-.330	*****	-.364	*****	*****	-.025	.003	*****	-.012
.877	-.248	-.277	*****	-.297	*****	-.331	*****	*****	*****	*****	*****	*****
.891	-.240	-.261	*****	-.275	*****	-.285	*****	*****	-.067	-.040	-.044	-.041
.916	-.170	-.196	-.292	*****	-.205	*****	-.179	-.187	-.105	-.081	-.078	-.082
.928	-.143	*****	-.256	*****	-.191	-.161	-.140	-.138	-.119	-.120	-.127	-.115
.940	-.141	*****	-.179	*****	-.162	-.115	-.097	-.101	-.132	-.134	-.151	-.138
.952	*****	*****	-.146	*****	-.105	-.062	-.050	-.069	-.111	-.116	-.143	-.126
.962	-.084	-.098	-.066	*****	-.032	-.010	-.007	-.016	-.052	-.058	-.084	-.071
.974	-.012	-.023	*****	*****	.035	.042	.041	.033	.015	.014	.001	-.001
.986	.060	.049	.075	*****	.081	.087	.086	.072	.070	.073	.059	.056
.996	.088	.061	*****	*****	.101	.097	.101	.085	.082	.089	.081	.076

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0651
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Table A17. Effect of Nozzle Pressure Ratio on Pressure Distributions for Forward Tails Configuration at $M = 1.20$ and $\alpha = 0.003^\circ$

(a) NPR = 1.056

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION POINT NUMBER	FWD TAILS	HORIZONTAL TAILS							
		X/C	UPPER SURFACE Y/B		LOWER SURFACE Y/B		VERTICAL TAIL Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.203								
ALPHA, DEG	.003	0.05	.034	*****	.021	*****	.026	.033	
NPR	1.056	0.10	.045	.104	-.001	.068	*****	*****	
		0.20	.012	.056	-.014	.020	-.024	-.038	
		0.30	*****	.008	*****	-.025	-.048	-.051	
		0.40	-.073	-.044	-.101	-.080	-.043	-.052	
PTQ, PSI	14.683	0.50	-.114	-.098	-.145	-.137	-.041	-.067	
		0.60	-.123	-.135	-.160	-.158	-.094	-.099	
		0.70	-.122	-.156	-.133	-.163	-.115	*****	
PD, PSI	6.028	0.80	-.125	-.168	-.136	-.171	-.138	-.126	
		0.90	-.093	*****	-.111	*****	-.137	-.119	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.031	-.027	*****	*****	*****	*****	*****	-.024	-.018	-.009	.008	*****
.598	-.039	-.030	*****	-.029	*****	-.027	*****	-.026	-.017	-.009	*****	*****
.612	-.036	-.032	*****	-.029	*****	-.025	*****	-.024	-.013	-.008	*****	*****
.626	-.017	-.023	*****	-.029	*****	-.023	*****	-.023	-.012	-.008	*****	*****
.640	*****	.074	*****	-.004	*****	-.019	*****	-.016	-.010	-.001	*****	*****
.654	*****	.073	*****	.025	*****	-.008	*****	-.021	-.022	-.018	*****	*****
.668	*****	*****	*****	.048	*****	.010	*****	-.004	-.011	-.011	*****	*****
.682	*****	.023	*****	.036	*****	.046	*****	.074	.021	.000	-.001	*****
.696	*****	.003	*****	.047	*****	.120	*****	*****	.094	.033	.005	.002
.710	*****	-.001	*****	*****	*****	.111	*****	*****	.085	.058	.019	.010
.724	*****	.002	*****	.058	*****	.076	*****	*****	.051	.055	.033	.024
.738	*****	-.004	*****	.033	*****	*****	*****	*****	.014	.033	.035	.033
.752	*****	-.005	*****	.016	*****	.011	*****	*****	-.006	.029	.042	*****
.766	*****	-.050	*****	-.027	*****	-.036	*****	*****	-.046	-.009	.008	.009
.779	*****	-.061	*****	-.046	*****	-.071	*****	*****	-.076	-.006	.011	.012
.793	*****	-.089	*****	-.084	*****	-.100	*****	*****	-.078	-.039	-.016	*****
.807	*****	-.115	*****	-.110	*****	-.133	*****	*****	-.099	-.061	-.030	-.032
.821	*****	*****	*****	-.135	*****	-.147	*****	*****	-.106	-.076	-.052	-.050
.835	*****	-.156	*****	-.161	*****	-.170	*****	*****	-.118	-.095	-.078	-.077
.849	*****	-.166	*****	-.176	*****	-.178	*****	*****	-.117	-.117	-.101	-.100
.863	*****	-.159	*****	-.192	*****	-.167	*****	*****	-.104	-.128	*****	-.129
.877	-.128	-.140	*****	-.166	*****	-.122	*****	*****	*****	*****	*****	*****
.891	-.136	-.142	*****	-.136	*****	-.128	*****	*****	-.119	-.134	-.159	-.155
.916	-.136	-.130	-.175	*****	-.125	*****	-.147	-.154	-.160	-.157	-.157	*****
.928	-.159	*****	-.196	*****	-.163	*****	-.173	-.178	-.189	-.200	-.192	-.203
.940	-.204	*****	-.205	*****	-.221	*****	-.229	-.233	-.242	-.252	-.260	-.257
.952	*****	*****	-.285	*****	-.293	*****	-.303	-.312	-.313	-.321	-.328	-.332
.962	-.311	-.309	-.318	*****	-.322	-.318	-.321	-.307	-.248	-.189	-.217	-.275
.974	-.137	-.114	*****	*****	-.084	-.073	-.065	-.057	-.050	-.044	-.050	-.054
.986	-.018	-.019	-.020	*****	*****	-.022	-.031	-.031	-.028	-.025	-.021	-.023
.996	.005	.005	*****	*****	-.001	-.006	-.012	-.009	-.010	-.007	-.008	-.008

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1092

Table A17. Continued

(b) NPR = 1.990

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL				
			UPPER SURFACE		LOWER SURFACE		Y/B				
POINT NUMBER	4		0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	1.201										
ALPHA, DEG	.005	0.05	.022	*****	.021	*****	.028	.020			
		0.10	.044	.102	.001	.063	*****	*****			
NPR	1.990	0.20	.012	.047	-.027	.015	-.022	-.044			
		0.30	*****	.006	*****	-.031	-.043	-.056			
PTQ, PSI	14.680	0.40	-.071	-.046	-.106	-.086	-.047	-.054			
		0.50	-.116	-.102	-.146	-.138	-.040	-.069			
PD, PSI	6.046	0.60	-.127	-.137	-.166	-.165	-.088	-.100			
		0.70	-.124	-.159	-.137	-.170	-.113	*****			
QD, PSI	6.104	0.80	-.118	-.169	-.140	-.176	-.137	-.131			
		0.90	-.100	*****	-.123	*****	-.134	-.122			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.035	-.029	*****	*****	*****	*****	*****	-.024	-.021	-.011	.007	*****
.598	-.039	-.034	*****	-.030	*****	-.028	*****	-.026	-.023	-.008	*****	*****
.612	-.036	-.036	*****	-.029	*****	-.023	*****	-.019	-.016	-.011	*****	*****
.626	-.019	-.026	*****	-.032	*****	-.025	*****	-.019	-.018	-.009	*****	*****
.640	*****	.066	*****	-.005	*****	-.015	*****	-.012	-.012	-.004	*****	*****
.654	*****	.070	*****	.021	*****	-.010	*****	-.024	-.026	-.019	*****	*****
.668	*****	*****	*****	.046	*****	.008	*****	-.006	-.015	-.006	*****	*****
.682	*****	.017	*****	.037	*****	.042	*****	.077	.021	-.001	.000	*****
.696	*****	.001	*****	.043	*****	.127	*****	*****	.095	.028	.006	.003
.710	*****	.002	*****	*****	*****	.115	*****	*****	.080	.057	.023	.011
.724	*****	.007	*****	.058	*****	.075	*****	*****	.045	.051	.032	.024
.738	*****	-.003	*****	.030	*****	*****	*****	*****	.015	.032	.038	.037
.752	*****	-.007	*****	.018	*****	.006	*****	*****	-.008	.023	.041	*****
.766	*****	-.049	*****	-.030	*****	-.045	*****	*****	-.049	-.011	.003	.012
.779	*****	-.066	*****	-.048	*****	-.077	*****	*****	-.067	-.012	.011	.013
.793	*****	-.094	*****	-.082	*****	-.103	*****	*****	-.085	-.039	-.018	*****
.807	*****	-.119	*****	-.112	*****	-.128	*****	*****	-.103	-.063	-.033	-.030
.821	*****	*****	*****	-.129	*****	-.146	*****	*****	-.106	-.075	-.050	-.048
.835	*****	-.157	*****	-.161	*****	-.169	*****	*****	-.123	-.096	-.080	-.074
.849	*****	-.169	*****	-.183	*****	-.182	*****	*****	-.119	-.119	-.102	-.101
.863	*****	-.162	*****	-.200	*****	-.167	*****	*****	-.106	-.130	*****	-.124
.877	*****	-.132	*****	-.170	*****	-.127	*****	*****	*****	*****	*****	*****
.891	-.142	-.146	*****	-.136	*****	-.128	*****	*****	-.124	-.136	-.157	-.153
.916	-.137	-.134	-.178	*****	-.129	*****	-.150	-.156	-.162	-.158	-.159	*****
.928	-.158	*****	-.197	*****	-.165	*****	-.174	-.180	-.190	-.201	-.196	-.204
.940	-.207	*****	-.210	*****	-.224	*****	-.231	-.235	-.246	-.253	-.260	-.257
.952	*****	*****	-.288	*****	-.297	*****	-.306	-.313	-.321	-.328	-.333	*****
.962	-.303	-.302	-.303	*****	-.283	*****	-.271	-.292	-.296	-.242	-.176	-.225
.974	-.062	-.067	*****	*****	-.047	-.043	-.046	-.050	-.050	-.045	-.041	-.045
.986	.000	-.006	-.009	*****	-.013	-.013	-.004	-.017	-.021	-.021	-.019	-.018
.996	.019	.014	*****	*****	.005	.004	.004	-.003	.001	-.002	-.001	.001

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1055
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ORIGINAL PAGE IS
OF POOR QUALITY

Table A17. Continued

(c) NPR = 3.949

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION POINT NUMBER	FWD TAILS 5	HORIZONTAL TAILS								VERTICAL TAIL	
		X/C	UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		0.1	0.2	
			0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	1.199										
ALPHA, DEG	.004	0.05	.024	*****	.016	*****	.028	.034			
NPR	3.949	0.10	.040	*****	-.005	.056	*****	*****	*****		
PTD, PSI	14.682	0.20	.005	.048	-.027	.018	-.024	-.038			
PD, PSI	6.064	0.30	*****	-.003	*****	-.031	-.041	-.057			
QD, PSI	6.100	0.40	-.075	-.049	-.109	-.083	-.049	-.052			
		0.50	-.117	-.104	-.156	-.140	-.043	-.069			
		0.60	-.127	-.138	-.173	-.162	-.091	-.103			
		0.70	-.129	-.158	-.146	-.170	-.114	*****			
		0.80	-.126	-.174	-.143	-.176	-.134	-.131			
		0.90	-.102	*****	-.128	*****	-.137	-.122			

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG.

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.031	*****	*****	*****	*****	*****	-.025	-.026	-.016	.004	*****
.598	-.042	-.038	*****	-.033	*****	-.031	*****	-.025	-.025	-.013	*****	*****
.612	-.039	-.038	*****	-.033	*****	-.027	*****	-.021	-.018	-.014	*****	*****
.626	-.019	-.030	*****	-.035	*****	-.028	*****	-.019	-.019	-.013	*****	*****
.640	*****	.064	*****	-.010	*****	-.020	*****	-.012	-.012	-.007	*****	*****
.654	*****	.075	*****	.015	*****	-.013	*****	-.023	-.025	-.023	*****	*****
.668	*****	*****	*****	.035	*****	.007	*****	-.008	-.012	-.014	*****	*****
.682	*****	.020	*****	.030	*****	.044	*****	.073	.022	.002	-.005	*****
.696	*****	-.003	*****	.040	*****	.121	*****	*****	.086	.031	.003	.003
.710	*****	-.013	*****	*****	*****	.117	*****	*****	.080	.058	.016	.008
.724	*****	.001	*****	.056	*****	.068	*****	*****	.044	.050	.029	.027
.738	*****	-.010	*****	.034	*****	*****	*****	*****	.009	.030	.034	.037
.752	*****	-.005	*****	.010	*****	.005	*****	*****	-.008	.024	.038	*****
.766	*****	-.049	*****	-.041	*****	-.041	*****	*****	-.051	-.012	.004	.008
.779	*****	-.064	*****	-.048	*****	-.071	*****	*****	-.077	-.012	.012	.014
.793	*****	-.093	*****	-.091	*****	-.106	*****	*****	-.086	-.043	-.018	*****
.807	*****	-.119	*****	-.112	*****	-.135	*****	*****	-.097	-.064	-.037	-.029
.821	*****	*****	*****	-.137	*****	-.151	*****	*****	-.108	-.079	-.051	-.048
.835	*****	-.157	*****	-.166	*****	-.175	*****	*****	-.116	-.099	-.080	-.078
.849	*****	-.172	*****	-.186	*****	-.190	*****	*****	-.120	-.122	-.105	-.100
.863	*****	-.162	*****	-.202	*****	-.173	*****	*****	-.112	-.133	*****	-.125
.877	*****	-.139	*****	-.142	*****	-.173	*****	*****	*****	*****	*****	*****
.891	*****	-.142	*****	-.145	*****	-.138	*****	*****	-.122	-.139	-.159	-.153
.916	*****	-.138	*****	-.135	*****	-.179	*****	*****	-.154	-.158	-.164	-.159
.928	*****	-.162	*****	-.198	*****	-.170	*****	*****	-.177	-.181	-.192	-.204
.940	*****	-.208	*****	-.210	*****	-.228	*****	*****	-.233	-.237	-.246	-.256
.952	*****	*****	*****	-.292	*****	-.299	*****	*****	-.314	-.316	-.325	-.334
.962	*****	-.311	*****	-.311	*****	-.307	*****	*****	-.323	-.318	-.296	-.256
.974	*****	-.069	*****	-.069	*****	-.062	*****	*****	-.056	-.058	-.060	-.057
.986	*****	.000	*****	-.005	*****	-.018	*****	*****	-.015	-.024	-.025	-.026
.996	*****	.017	*****	.013	*****	.000	*****	*****	.003	.002	-.004	.000

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1114

Table A17. Concluded

(d) NPR = 6.008

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	FWD TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
				UPPER SURFACE		LOWER SURFACE		Y/B			
MACH NUMBER				0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.005	6	0.05	.027	*****	.019	*****	.028	.019		
NPR	6.008		0.10	.028	.101	.006	.066	*****	*****		
PT0, PSI	14.683		0.20	.004	.046	-.029	.021	-.019	-.042		
PD, PSI	6.049		0.30	*****	-.003	*****	-.022	-.043	-.061		
Q0, PSI	6.105		0.40	-.077	-.049	-.107	-.082	-.046	-.052		
			0.50	-.114	-.100	-.154	-.137	-.045	-.065		
			0.60	-.127	-.136	-.168	-.165	-.088	-.104		
			0.70	-.126	-.159	-.143	-.172	-.113	*****		
			0.80	-.125	-.169	-.140	-.177	-.138	-.130		
			0.90	-.102	*****	-.129	*****	-.132	-.123		

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.036	-.031	*****	*****	*****	*****	*****	-.028	-.023	-.016	.005	*****
.598	-.042	-.035	*****	-.033	*****	-.028	*****	-.027	-.023	-.011	*****	*****
.612	-.042	-.037	*****	-.029	*****	-.027	*****	-.023	-.017	-.013	*****	*****
.626	-.020	-.025	*****	-.032	*****	-.028	*****	-.022	-.020	-.013	*****	*****
.640	*****	.066	*****	-.011	*****	-.018	*****	-.014	-.016	-.005	*****	*****
.654	*****	.064	*****	.018	*****	-.011	*****	-.025	-.025	-.021	*****	*****
.668	*****	*****	*****	.043	*****	.006	*****	-.007	-.015	-.012	*****	*****
.682	*****	.022	*****	.032	*****	.044	*****	.066	.016	-.005	-.002	*****
.696	*****	-.007	*****	.037	*****	.120	*****	*****	.085	.026	.001	.001
.710	*****	-.009	*****	*****	*****	.113	*****	*****	.079	.057	.020	.007
.724	*****	-.006	*****	.059	*****	.076	*****	*****	.044	.050	.030	.021
.738	*****	-.010	*****	.029	*****	*****	*****	*****	.003	.027	.032	.032
.752	*****	-.015	*****	.019	*****	.009	*****	*****	-.011	.023	.038	*****
.766	*****	-.050	*****	-.033	*****	-.042	*****	*****	-.050	-.016	.002	.007
.779	*****	-.061	*****	-.047	*****	-.076	*****	*****	-.072	-.011	.008	.011
.793	*****	-.091	*****	-.083	*****	-.108	*****	*****	-.088	-.045	-.017	*****
.807	*****	-.117	*****	-.115	*****	-.133	*****	*****	-.104	-.058	-.033	-.032
.821	*****	*****	*****	-.134	*****	-.151	*****	*****	-.109	-.078	-.048	-.050
.835	*****	-.166	*****	-.166	*****	-.173	*****	*****	-.123	-.103	-.083	-.077
.849	*****	-.168	*****	-.182	*****	-.184	*****	*****	-.120	-.119	-.105	-.103
.863	*****	-.165	*****	-.200	*****	-.172	*****	*****	-.109	-.137	*****	-.130
.877	-.133	-.149	*****	-.170	*****	-.127	*****	*****	*****	*****	*****	*****
.891	-.140	-.148	*****	-.137	*****	-.127	*****	*****	-.121	-.137	-.157	-.156
.916	-.138	-.132	-.177	*****	-.129	*****	-.149	-.154	-.161	-.158	-.156	*****
.928	-.161	*****	-.198	*****	-.167	*****	-.174	-.179	-.190	-.201	-.197	-.203
.940	-.208	*****	-.210	*****	-.225	*****	-.233	-.235	-.245	-.253	-.258	-.255
.952	*****	*****	-.290	*****	-.298	*****	-.308	-.313	-.316	-.322	-.329	-.332
.962	-.230	-.214	-.197	*****	-.173	-.160	-.144	-.164	-.141	-.107	-.110	-.132
.974	-.018	-.020	*****	*****	-.022	-.022	-.024	-.021	-.022	-.024	-.023	-.025
.986	.017	.020	.011	*****	.006	.006	.008	.003	-.002	-.002	-.001	-.003
.996	.028	.029	*****	*****	.012	.012	.012	.010	.009	.009	.011	.010

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0943
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Table A18. Effect of Angle of Attack on Pressure Distributions for Forward Tails Configuration at $M = 1.20$ and $NPR = 1.052$

(a) $\alpha = -2.985^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS											
CONFIGURATION POINT NUMBER	FWD TAILS	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
								UPPER SURFACE	LOWER SURFACE	VERTICAL TAIL				
								Y/B	Y/B	0.1	0.2	0.1	0.2	
		1.200	-2.985	1.052	14.680	6.053	6.102	X/C	0.1	0.2	0.1	0.2	0.1	0.2
								0.05	-.095	*****	.031	*****	.021	.026
								0.10	-.113	.091	.003	.179	*****	*****
								0.20	-.093	.045	-.028	.115	-.031	-.050
								0.30	*****	-.008	*****	.061	-.069	-.070
								0.40	-.139	-.054	-.108	-.013	-.060	-.078
								0.50	-.174	-.110	-.154	-.072	-.011	-.029
								0.60	-.185	-.143	-.171	-.098	-.042	-.061
								0.70	-.192	-.156	-.139	-.115	-.066	*****
								0.80	-.185	-.174	-.141	-.110	-.092	-.090
								0.90	-.164	*****	-.124	*****	-.085	-.077
AFTERBODY PRESSURE COEFFICIENTS														
PHI, DEG														
X/L	0	18	36	45	54	72	81	90	108	135	162	180		
.584	-.036	-.035	*****	*****	*****	*****	*****	-.044	-.037	-.021	.003	*****		
.598	-.045	-.041	*****	-.042	*****	-.047	*****	-.045	-.036	-.017	*****	*****		
.612	-.041	-.043	*****	-.041	*****	-.041	*****	-.039	-.034	-.014	*****	*****		
.626	-.040	-.046	*****	-.042	*****	-.041	*****	-.038	-.030	-.016	*****	*****		
.640	*****	.063	*****	-.024	*****	-.028	*****	-.028	-.025	-.016	*****	*****		
.654	*****	.072	*****	.006	*****	-.021	*****	-.035	-.037	-.027	*****	*****		
.668	*****	*****	*****	.031	*****	-.001	*****	-.018	-.026	-.016	*****	*****		
.682	*****	.007	*****	.018	*****	.028	*****	.065	.010	-.014	-.005	*****		
.696	*****	-.010	*****	.018	*****	.158	*****	*****	.038	.019	.009	.009		
.710	*****	-.025	*****	*****	*****	.181	*****	*****	-.007	.029	.021	.017		
.724	*****	-.011	*****	.087	*****	.143	*****	*****	-.035	.011	.019	.018		
.738	*****	.004	*****	.069	*****	*****	*****	*****	-.065	-.013	.007	.013		
.752	*****	.025	*****	.063	*****	.066	*****	*****	-.078	-.030	.001	*****		
.766	*****	-.013	*****	.007	*****	.012	*****	*****	-.108	-.061	-.041	-.036		
.779	*****	-.012	*****	.001	*****	-.023	*****	*****	-.133	-.071	-.043	-.034		
.793	*****	-.047	*****	-.032	*****	-.053	*****	*****	-.144	-.092	-.065	*****		
.807	*****	-.075	*****	-.060	*****	-.077	*****	*****	-.159	-.110	-.081	-.070		
.821	*****	*****	*****	-.085	*****	-.095	*****	*****	-.169	-.125	-.098	-.092		
.835	*****	-.107	*****	-.115	*****	-.119	*****	*****	-.178	-.149	-.124	-.119		
.849	*****	-.118	*****	-.134	*****	-.131	*****	*****	-.181	-.168	-.149	-.145		
.863	*****	-.117	*****	-.150	*****	-.120	*****	*****	-.162	-.190	*****	-.178		
.877	-.083	-.095	*****	-.119	*****	-.105	*****	*****	*****	*****	*****	*****		
.891	-.089	-.092	*****	-.090	*****	-.109	*****	*****	-.135	-.174	-.206	-.209		
.916	-.101	-.098	-.158	*****	-.108	*****	-.145	-.151	-.161	-.176	-.188	*****		
.928	-.134	*****	-.186	*****	-.152	*****	-.164	-.173	-.189	-.211	-.212	-.226		
.940	-.197	*****	-.202	*****	-.217	*****	-.229	-.230	-.241	-.257	-.266	-.266		
.952	*****	*****	-.292	*****	-.297	-.306	-.316	-.313	-.311	-.319	-.328	*****		
.962	-.320	-.320	*****	*****	-.336	-.345	-.341	-.283	-.171	-.116	-.126	-.170		
.974	-.307	-.240	*****	*****	-.121	-.090	-.074	-.069	-.051	-.041	-.045	-.050		
.986	-.039	-.041	-.039	*****	-.038	-.046	-.050	-.042	-.035	-.028	-.026	-.027		
.996	-.011	-.011	*****	*****	-.015	-.024	-.031	-.025	-.017	-.013	-.014	-.011		
AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT													.1124	

Table A18. Continued

(b) $\alpha = 0.014^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	FWD TAILS	POINT NUMBER	HORIZONTAL TAILS						VERTICAL TAIL			
			X/C	UPPER SURFACE		LOWER SURFACE		Y/B				
MACH NUMBER	1.198	0.1		0.2	0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.014		0.05	.033	*****	-.320	*****	.028	.013			
NPR	1.056		0.10	.034	.224	-.142	.065	*****	*****			
PTQ, PSI	14.637		0.20	.007	.143	-.128	.015	-.025	-.045			
PD, PSI	6.054		0.30	*****	.085	*****	-.029	-.051	-.060			
QD, PSI	6.079		0.40	-.080	.018	-.177	-.086	-.060	-.067			
			0.50	-.118	-.043	-.210	-.140	-.048	-.069			
			0.60	-.133	-.080	-.231	-.166	-.095	-.105			
			0.70	-.133	-.099	-.210	-.178	-.115	*****			
			0.80	-.127	-.111	-.203	-.180	-.142	-.136			
			0.90	-.103	*****	-.184	*****	-.142	-.128			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.039	-.035	*****	*****	*****	*****	*****	-.028	-.026	-.015	.001	*****
.598	-.048	-.040	*****	-.035	*****	-.037	*****	-.029	-.025	-.015	*****	*****
.612	-.043	-.038	*****	-.033	*****	-.031	*****	-.026	-.025	-.019	*****	*****
.626	-.023	-.032	*****	-.037	*****	-.031	*****	-.027	-.025	-.019	*****	*****
.640	*****	.058	*****	-.018	*****	-.024	*****	-.019	-.019	-.012	*****	*****
.654	*****	.063	*****	.009	*****	-.018	*****	-.029	-.027	-.025	*****	*****
.668	*****	*****	*****	.031	*****	.006	*****	-.008	-.016	-.017	*****	*****
.682	*****	.010	*****	.026	*****	.039	*****	.066	.013	-.007	-.005	*****
.696	*****	.000	*****	.036	*****	.120	*****	*****	.078	.021	-.005	-.001
.710	*****	-.015	*****	*****	*****	.104	*****	*****	.075	.052	.010	.004
.724	*****	-.015	*****	.046	*****	.070	*****	*****	.045	.047	.021	.016
.738	*****	-.012	*****	.022	*****	*****	*****	*****	.005	.025	.029	.027
.752	*****	-.022	*****	.008	*****	-.001	*****	*****	-.015	.020	.033	*****
.766	*****	-.058	*****	-.033	*****	-.051	*****	*****	-.059	-.019	.004	.005
.779	*****	-.066	*****	-.054	*****	-.085	*****	*****	-.081	-.020	.009	.012
.793	*****	-.089	*****	-.087	*****	-.111	*****	*****	-.086	-.043	-.022	*****
.807	*****	-.121	*****	-.115	*****	-.146	*****	*****	-.107	-.064	-.036	-.030
.821	*****	*****	*****	-.143	*****	-.154	*****	*****	-.113	-.078	-.054	-.049
.835	*****	-.166	*****	-.168	*****	-.175	*****	*****	-.128	-.102	-.080	-.080
.849	*****	-.171	*****	-.188	*****	-.185	*****	*****	-.128	-.122	-.110	-.101
.863	*****	-.170	*****	-.204	*****	-.178	*****	*****	-.107	-.142	*****	-.130
.877	-.137	-.157	*****	-.177	*****	-.130	*****	*****	*****	*****	*****	*****
.891	-.150	-.151	*****	-.141	*****	-.130	*****	*****	-.123	-.136	-.157	-.157
.916	-.141	-.135	-.179	*****	-.128	*****	-.152	-.158	-.163	-.160	-.158	*****
.928	-.165	*****	-.201	*****	-.168	*****	-.177	-.182	-.191	-.203	-.214	-.206
.940	-.212	*****	-.214	*****	-.226	*****	-.234	-.237	-.246	-.255	-.261	-.258
.952	*****	*****	-.292	*****	-.300	-.310	-.315	-.319	-.325	-.333	-.335	*****
.962	-.318	-.314	-.325	*****	-.332	-.332	-.338	-.319	-.285	-.243	-.269	-.307
.974	-.148	-.128	*****	*****	-.099	-.082	-.077	-.070	-.062	-.054	-.057	-.057
.986	-.030	-.030	-.030	*****	-.030	-.038	-.039	-.033	-.032	-.029	-.034	-.030
.996	-.003	-.006	*****	*****	-.009	-.015	-.017	-.016	-.015	-.013	-.012	-.012

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1169
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Table A18. Continued

(c) $\alpha = 3.016^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
			Y/B	0.2	Y/B	0.2	0.1	0.2	
MACH NUMBER	1.202								
ALPHA, DEG	3.016	0.05	.203	*****	.032	*****	.022	.015	
NPR	1.048	0.10	.165	.097	.007	-.094	*****	*****	
PTD, PSI	14.684	0.20	.092	.054	-.022	-.091	-.015	-.039	
PD, PSI	6.037	0.30	*****	.000	*****	-.115	-.039	-.052	
QD, PSI	6.109	0.40	-.012	-.049	-.105	-.155	-.067	-.074	
		0.50	-.045	-.102	-.146	-.202	-.081	-.099	
		0.60	-.063	-.137	-.162	-.230	-.131	-.142	
		0.70	-.061	-.159	-.139	-.228	-.160	*****	
		0.80	-.059	-.168	-.135	-.236	-.186	-.179	
		0.90	-.042	*****	-.120	*****	-.190	-.177	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.035	-.032	*****	*****	*****	*****	*****	-.035	-.027	-.018	.000	*****
.598	-.040	-.035	*****	-.036	*****	-.039	*****	-.033	-.029	-.017	*****	*****
.612	-.035	-.036	*****	-.034	*****	-.032	*****	-.030	-.026	-.018	*****	*****
.626	.003	-.011	*****	-.030	*****	-.032	*****	-.029	-.032	-.017	*****	*****
.640	*****	.053	*****	-.004	*****	-.028	*****	-.023	-.023	-.010	*****	*****
.654	*****	.053	*****	.014	*****	-.018	*****	-.031	-.031	-.022	*****	*****
.668	*****	*****	*****	.031	*****	.004	*****	-.011	-.019	-.010	*****	*****
.682	*****	.018	*****	.033	*****	.041	*****	.064	.005	-.012	-.004	*****
.696	*****	.008	*****	.035	*****	.076	*****	*****	.132	.006	-.013	-.009
.710	*****	-.005	*****	*****	*****	.035	*****	*****	.149	.064	-.009	-.015
.724	*****	-.019	*****	.009	*****	-.010	*****	*****	.120	.084	.024	.007
.738	*****	-.032	*****	-.021	*****	*****	*****	*****	.074	.075	.048	.043
.752	*****	-.050	*****	-.042	*****	-.063	*****	*****	.052	.071	.077	*****
.766	*****	-.090	*****	-.089	*****	-.116	*****	*****	.005	.039	.050	.052
.779	*****	-.110	*****	-.106	*****	-.142	*****	*****	-.018	.043	.064	.062
.793	*****	-.135	*****	-.143	*****	-.167	*****	*****	-.025	.014	.037	*****
.807	*****	-.164	*****	-.169	*****	-.198	*****	*****	-.033	-.004	.019	.022
.821	*****	*****	*****	-.192	*****	-.212	*****	*****	-.045	-.020	-.002	.001
.835	*****	-.214	*****	-.221	*****	-.231	*****	*****	-.059	-.048	-.028	-.028
.849	*****	-.217	*****	-.235	*****	-.238	*****	*****	-.064	-.061	-.046	-.046
.863	*****	-.221	*****	-.255	*****	-.217	*****	*****	-.053	-.078	*****	-.069
.877	-.196	-.209	*****	-.226	*****	-.144	*****	*****	*****	*****	*****	*****
.891	-.202	-.201	*****	-.171	*****	-.138	*****	*****	-.112	-.093	-.099	-.097
.916	-.171	-.164	-.191	*****	-.149	*****	-.158	-.166	-.157	-.136	-.115	*****
.928	-.185	*****	-.210	*****	-.182	*****	-.182	-.184	-.188	-.187	-.196	-.169
.940	-.222	*****	-.221	*****	-.232	*****	-.234	-.241	-.244	-.246	-.242	-.238
.952	*****	*****	-.285	*****	-.299	-.301	-.313	-.321	-.325	-.330	-.333	*****
.962	-.289	-.279	-.275	*****	-.273	-.309	-.338	-.333	-.345	-.367	-.375	-.374
.974	-.106	-.099	*****	*****	-.092	-.092	-.074	-.074	-.073	-.079	-.103	-.123
.986	-.032	-.034	-.037	*****	-.040	-.041	-.041	-.043	-.044	-.045	-.047	-.039
.996	-.009	-.013	*****	*****	-.018	-.025	-.029	-.028	-.027	-.023	-.023	-.017

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1192

Table A18. Concluded

(d) $\alpha = 6.017^\circ$

TFST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B	0.1	0.2	LOWER SURFACE Y/B	0.1	0.2	
POINT NUMBER	12								
MACH NUMBER	1.197								
ALPHA, DEG.	6.017	0.05	.348	*****	.198	*****	.042	.028	
NPR	1.028	0.10	.269	-.038	.136	-.299	*****	*****	
		0.20	.195	-.051	.061	-.188	-.008	-.027	
PTD, PSI	14.682	0.30	*****	-.090	*****	-.199	-.023	-.035	
		0.40	.064	-.126	-.039	-.223	-.068	-.076	
		0.50	.024	-.176	-.084	-.263	-.110	-.126	
PD, PSI	6.074	0.60	.025	-.206	-.082	-.283	-.170	-.175	
		0.70	.019	-.226	-.081	-.282	-.203	*****	
QD, PSI	6.098	0.80	.009	-.232	-.078	-.287	-.232	-.220	
		0.90	.037	*****	-.050	*****	-.231	-.218	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.031	-.034	*****	*****	*****	*****	*****	-.051	-.048	-.027	.005	*****
.598	-.036	-.035	*****	-.044	*****	-.052	*****	-.052	-.047	-.021	*****	*****
.612	-.034	-.034	*****	-.039	*****	-.047	*****	-.048	-.048	-.025	*****	*****
.626	.007	-.009	*****	-.032	*****	-.046	*****	-.052	-.043	-.029	*****	*****
.640	*****	.062	*****	-.008	*****	-.033	*****	-.042	-.038	-.016	*****	*****
.654	*****	.054	*****	.010	*****	-.022	*****	-.047	-.048	-.029	*****	*****
.668	*****	*****	*****	.020	*****	-.003	*****	-.033	-.038	-.014	*****	*****
.682	*****	.017	*****	.023	*****	.031	*****	.046	-.027	-.022	-.006	*****
.696	*****	.006	*****	.025	*****	.038	*****	*****	.172	-.026	-.024	-.015
.710	*****	-.005	*****	*****	*****	-.047	*****	*****	.211	.065	-.019	-.023
.724	*****	-.024	*****	-.028	*****	-.092	*****	*****	.190	.132	.019	-.010
.738	*****	-.056	*****	-.071	*****	*****	*****	*****	.130	.130	.073	.059
.752	*****	-.077	*****	-.098	*****	-.132	*****	*****	.113	.136	.133	*****
.766	*****	-.131	*****	-.142	*****	-.173	*****	*****	.065	.107	.103	.100
.779	*****	-.152	*****	-.165	*****	-.192	*****	*****	.052	.106	.126	.118
.793	*****	-.184	*****	-.197	*****	-.218	*****	*****	.049	.080	.095	*****
.807	*****	-.209	*****	-.222	*****	-.247	*****	*****	.038	.058	.072	.071
.821	*****	*****	*****	-.246	*****	-.264	*****	*****	.025	.044	.063	.057
.835	*****	-.253	*****	-.277	*****	-.281	*****	*****	.002	.021	.036	.031
.849	*****	-.265	*****	-.295	*****	-.290	*****	*****	.011	.007	.016	.015
.863	*****	-.275	*****	-.312	*****	-.244	*****	*****	.018	-.011	*****	-.014
.877	-.246	-.287	*****	-.263	*****	-.167	*****	*****	*****	*****	*****	*****
.891	-.246	-.247	*****	-.202	*****	-.159	*****	*****	-.105	-.053	-.041	-.044
.916	-.206	-.191	-.234	*****	-.173	*****	-.171	-.182	-.163	-.129	-.080	*****
.928	-.202	*****	-.242	*****	-.200	*****	-.194	-.196	-.198	-.184	-.171	-.147
.940	-.232	*****	-.237	*****	-.242	*****	-.252	-.259	-.255	-.251	-.236	-.228
.952	*****	*****	-.291	*****	-.285	-.302	-.327	-.338	-.337	-.338	-.335	*****
.962	-.325	-.316	-.242	*****	-.258	-.310	-.343	-.357	-.377	-.384	-.385	-.380
.974	-.148	-.126	*****	*****	-.127	-.128	-.111	-.105	-.115	-.161	-.334	-.383
.986	-.051	-.069	-.091	*****	-.090	-.065	-.063	-.070	-.071	-.073	-.071	-.072
.996	-.033	-.033	*****	*****	-.056	-.048	-.049	-.054	-.050	-.051	-.041	-.039

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1312

ORIGINAL PAGE IS
OF POOR QUALITY

Table A19. Effect of Nozzle Pressure Ratio on Pressure Distributions for Forward Tails Configuration at
 $M = 0.95$ and $\alpha = 0.015^\circ$

(a) NPR = 1.132

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	FWD TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		13	.951	.015	1.132	14.685	8.209	5.194	0.05	-.062	*****	-.024	*****	-.013	-.035
									0.10	-.066	-.606	-.110	-.070	*****	*****
									0.20	-.110	-.588	-.216	-.131	-.055	-.090
									0.30	*****	-.609	*****	-.190	-.104	-.136
									0.40	-.228	-.636	-.372	-.290	-.186	-.205
									0.50	-.262	-.679	-.419	-.341	-.215	-.245
									0.60	-.301	-.711	-.409	-.374	-.286	-.305
									0.70	-.294	-.732	-.402	-.387	-.327	*****
									0.80	-.298	-.742	-.417	-.391	-.348	-.348
									0.90	-.251	*****	-.388	*****	-.350	-.329

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	.002	.006	*****	*****	*****	*****	*****	.003	.010	.012	.023	*****
.598	.009	.016	*****	.010	*****	.007	*****	-.002	.005	.004	*****	*****
.612	.045	.041	*****	.024	*****	.016	*****	.008	.004	.006	*****	*****
.626	.117	.080	*****	.042	*****	.025	*****	.015	.013	.007	*****	*****
.640	*****	.114	*****	.046	*****	.028	*****	.019	.009	.006	*****	*****
.654	*****	.052	*****	.036	*****	.030	*****	.017	.010	.006	*****	*****
.668	*****	*****	*****	.036	*****	.045	*****	.047	.040	.025	*****	*****
.682	*****	-.007	*****	.026	*****	.071	*****	.117	.064	.026	.009	*****
.696	*****	-.025	*****	.022	*****	.081	*****	*****	.056	.024	.008	.003
.710	*****	-.053	*****	*****	*****	.020	*****	*****	.005	.008	-.002	-.005
.724	*****	-.088	*****	-.049	*****	-.032	*****	*****	-.049	-.022	-.022	-.028
.738	*****	-.135	*****	-.098	*****	*****	*****	*****	-.098	-.053	-.053	-.047
.752	*****	-.165	*****	-.131	*****	-.149	*****	*****	-.128	-.082	-.070	*****
.766	*****	-.231	*****	-.207	*****	-.222	*****	*****	-.189	-.141	-.125	-.126
.779	*****	-.248	*****	-.235	*****	-.256	*****	*****	-.215	-.152	-.124	-.128
.793	*****	-.291	*****	-.282	*****	-.306	*****	*****	-.245	-.197	-.173	*****
.807	*****	-.327	*****	-.321	*****	-.343	*****	*****	-.259	-.222	-.194	-.194
.821	*****	*****	*****	-.345	*****	-.366	*****	*****	-.279	-.240	-.225	-.220
.835	*****	-.380	*****	-.387	*****	-.394	*****	*****	-.292	-.278	-.255	-.258
.849	*****	-.377	*****	-.402	*****	-.396	*****	*****	-.287	-.296	-.286	-.289
.863	*****	-.251	*****	-.269	*****	-.261	*****	*****	-.212	-.255	*****	-.311
.877	-.074	-.102	*****	-.091	*****	-.099	*****	*****	*****	*****	*****	*****
.891	-.074	-.075	*****	-.069	*****	-.053	*****	*****	-.075	-.101	-.114	-.105
.916	-.069	-.071	-.117	*****	-.080	*****	-.090	-.080	-.091	-.092	-.091	*****
.928	-.095	*****	-.135	*****	-.107	*****	-.108	-.112	-.112	-.120	-.126	-.130
.940	-.114	*****	-.107	*****	-.111	*****	-.112	-.115	-.119	-.121	-.131	-.127
.952	*****	*****	-.060	*****	-.057	-.060	-.065	-.061	-.063	-.053	-.064	*****
.962	.019	.023	.026	*****	.026	.022	.020	.024	.021	.027	.018	.021
.974	.110	.105	*****	*****	.101	.102	.106	.094	.107	.107	.099	.099
.986	.159	.156	*****	*****	.163	.148	.152	.155	.155	.150	.153	.153
.996	.186	.182	*****	*****	.177	.178	.180	.176	.167	.178	.170	.180

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0429

Table A19. Continued

(b) NPR = 2.013

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	FWD TAILS	POINT NUMBER	HORIZONTAL TAILS					VERTICAL TAIL				
			X/C	UPPER SURFACE		LOWER SURFACE		Y/B				
MACH NUMBER		0.1		0.2	0.1	0.2	0.1	0.2				
ALPHA, DEG	.015		0.05	-.050	*****	.591	*****	-.007	-.031			
NPR	2.013	14	0.10	-.066	.603	.592	-.070	*****	*****			
PTD, PSI	14.682		0.20	-.107	.580	.572	-.128	-.055	-.081			
PD, PSI	8.200		0.30	*****	.559	*****	-.189	-.107	-.132			
QD, PSI	5.197		0.40	-.227	.543	.555	-.285	-.187	-.204			
			0.50	-.260	.552	.559	-.336	-.216	-.250			
			0.60	-.300	.567	.575	-.370	-.288	-.306			
			0.70	-.297	.587	.597	-.384	-.324	*****			
			0.80	-.300	.613	.623	-.393	-.351	-.345			
			0.90	-.261	*****	.649	*****	-.343	-.333			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	.004	.006	*****	*****	*****	*****	*****	.009	.009	.015	.016	*****
.598	.010	.015	*****	.013	*****	.000	*****	-.001	.002	.004	*****	*****
.612	.041	.039	*****	.024	*****	.012	*****	.011	.006	.011	*****	*****
.626	.119	.082	*****	.045	*****	.023	*****	.017	.012	.008	*****	*****
.640	*****	.109	*****	.045	*****	.025	*****	.021	.017	.010	*****	*****
.654	*****	.064	*****	.039	*****	.030	*****	.020	.014	.010	*****	*****
.668	*****	*****	*****	.038	*****	.045	*****	.048	.041	.026	*****	*****
.682	*****	-.007	*****	.026	*****	.077	*****	.115	.062	.026	.011	*****
.696	*****	-.025	*****	.018	*****	.087	*****	*****	.060	.024	.007	.007
.710	*****	-.051	*****	*****	*****	.025	*****	*****	.003	.013	-.003	-.003
.724	*****	-.090	*****	-.050	*****	-.033	*****	*****	-.039	-.020	-.024	-.024
.738	*****	-.139	*****	-.095	*****	*****	*****	*****	-.094	-.056	-.047	-.042
.752	*****	-.163	*****	-.126	*****	-.140	*****	*****	-.123	-.080	-.071	*****
.766	*****	-.228	*****	-.207	*****	-.223	*****	*****	-.191	-.144	-.122	-.121
.779	*****	-.247	*****	-.232	*****	-.249	*****	*****	-.219	-.160	-.129	-.125
.793	*****	-.287	*****	-.283	*****	-.311	*****	*****	-.246	-.197	-.174	*****
.807	*****	-.324	*****	-.316	*****	-.341	*****	*****	-.260	-.221	-.196	-.190
.821	*****	*****	*****	-.344	*****	-.368	*****	*****	-.272	-.249	-.226	-.214
.835	*****	-.372	*****	-.388	*****	-.398	*****	*****	-.295	-.279	-.258	-.252
.849	*****	-.370	*****	-.396	*****	-.390	*****	*****	-.275	-.297	-.288	-.284
.863	*****	-.253	*****	-.202	*****	-.207	*****	*****	-.177	-.295	*****	-.305
.877	-.077	-.108	*****	-.105	*****	-.102	*****	*****	*****	*****	*****	*****
.891	-.062	-.062	*****	-.047	*****	-.060	*****	*****	-.090	-.088	-.094	-.095
.916	-.055	-.058	-.098	*****	-.062	*****	-.067	-.067	-.075	-.071	-.078	*****
.928	-.079	*****	-.111	*****	-.087	*****	-.085	-.082	-.088	-.101	-.116	-.108
.940	-.075	*****	-.071	*****	-.079	*****	-.080	-.082	-.082	-.086	-.091	-.096
.952	*****	*****	-.024	*****	-.020	-.020	-.023	-.023	-.024	-.020	-.026	*****
.962	.058	.063	.063	*****	.068	.065	.063	.063	.066	.071	.068	.061
.974	.140	.141	*****	*****	.141	.141	.140	.143	.143	.147	.146	.144
.986	.198	.189	.191	*****	.193	.189	.189	.196	.191	.193	.193	.197
.996	.214	.212	*****	*****	.217	.210	.213	.213	.208	.210	.212	.215

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0237
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Table A19. Continued

(c) NPR = 2.993

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	FWD TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DFG	NPR	PTO, PSI	PO, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
		15							X/C	0.1	0.2	0.1	0.2	0.1	0.2
		.952													
		.015		0.05	-.055	*****	.585	*****		-.014	-.032				
				0.10	-.065	.602	.583	-.071	*****	*****	*****				
		2.993		0.20	-.109	.574	.573	-.129	*****	-.052	-.089				
				0.30	*****	.556	*****	-.189	*****	-.099	-.136				
		14.686		0.40	-.228	.543	.553	-.286	*****	-.183	-.206				
				0.50	-.255	.551	.559	-.339	*****	-.213	-.245				
		8.195		0.60	-.294	.570	.575	-.370	*****	-.286	-.302				
				0.70	-.292	.591	.597	-.385	*****	-.319	*****				
		5.202		0.80	-.295	.614	.622	-.385	*****	-.346	-.350				
				0.90	-.255	*****	.647	*****	*****	-.340	-.325				

AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	.004	.010	*****	*****	*****	*****	*****	.008	.003	.012	.021	*****
.598	.015	.010	*****	.012	*****	.005	*****	.001	.005	.008	*****	*****
.612	.046	.041	*****	.028	*****	.016	*****	.011	.007	.005	*****	*****
.626	.117	.082	*****	.042	*****	.024	*****	.018	.011	.010	*****	*****
.640	*****	.106	*****	.048	*****	.026	*****	.022	.012	.014	*****	*****
.654	*****	.069	*****	.045	*****	.027	*****	.020	.014	.009	*****	*****
.668	*****	*****	*****	.035	*****	.046	*****	.052	.040	.029	*****	*****
.682	*****	-.003	*****	.030	*****	.073	*****	.119	.061	.029	.011	*****
.696	*****	-.031	*****	.024	*****	.082	*****	*****	.056	.024	.010	.009
.710	*****	-.053	*****	*****	*****	.043	*****	*****	.005	.010	.001	-.001
.724	*****	-.089	*****	-.046	*****	-.033	*****	*****	-.045	-.023	-.022	-.023
.738	*****	-.135	*****	-.098	*****	*****	*****	*****	-.100	-.057	-.047	-.041
.752	*****	-.160	*****	-.139	*****	-.144	*****	*****	-.119	-.083	-.069	*****
.766	*****	-.228	*****	-.202	*****	-.223	*****	*****	-.190	-.145	-.126	-.121
.779	*****	-.244	*****	-.233	*****	-.256	*****	*****	-.215	-.151	-.127	-.121
.793	*****	-.288	*****	-.283	*****	-.307	*****	*****	-.241	-.194	-.171	*****
.807	*****	-.326	*****	-.312	*****	-.336	*****	*****	-.260	-.226	-.195	-.190
.821	*****	*****	*****	-.341	*****	-.365	*****	*****	-.273	-.249	-.221	-.214
.835	*****	-.370	*****	-.385	*****	-.396	*****	*****	-.295	-.275	-.255	-.252
.849	*****	-.373	*****	-.395	*****	-.377	*****	*****	-.280	-.302	-.284	-.281
.863	*****	-.251	*****	-.330	*****	-.243	*****	*****	-.225	-.289	*****	-.308
.877	-.098	-.080	*****	-.112	*****	-.070	*****	*****	*****	*****	*****	*****
.891	-.058	-.042	*****	-.067	*****	-.051	*****	*****	-.076	-.093	-.098	-.075
.916	-.054	-.060	*****	*****	*****	*****	*****	*****	-.075	-.080	-.073	*****
.928	-.077	*****	*****	*****	*****	*****	*****	*****	-.088	-.088	-.099	-.115
.940	-.079	*****	*****	*****	*****	*****	*****	*****	-.084	-.084	-.093	-.093
.952	*****	*****	*****	*****	*****	*****	*****	*****	-.020	-.020	-.020	*****
.962	.056	.062	.061	*****	.064	.060	.060	.061	.062	.067	.066	.063
.974	.140	.138	*****	*****	.139	.137	.138	.138	.141	.144	.146	.145
.986	.190	.188	.192	*****	.191	.185	.194	.188	.187	.190	.192	.195
.996	.214	.209	*****	*****	.213	.211	.214	.209	.208	.209	.214	.219

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0250

Table A19. Concluded

(d) NPR = 5.014

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	FWD TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		16	.953	.015	5.014	14.685	8.189	5.205	0.05	-.059	*****	.587	*****	-.007	-.019
									0.10	-.067	.605	.582	-.063	*****	*****
									0.20	-.113	.577	.571	-.122	-.050	-.083
									0.30	*****	.563	*****	-.187	-.103	-.128
									0.40	-.227	.545	.554	-.283	-.182	-.205
									0.50	-.263	.555	.560	-.342	-.213	-.239
									0.60	-.299	.570	.577	-.367	-.287	-.297
									0.70	-.302	.589	.598	-.385	-.317	*****
									0.80	-.305	.615	.624	-.381	-.345	-.345
									0.90	-.270	*****	.650	*****	-.345	-.321

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG.											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	.006	.012	*****	*****	*****	*****	*****	.006	.008	.011	.023	*****
.598	.013	.014	*****	.010	*****	.008	*****	.001	.002	.008	*****	*****
.612	.043	.040	*****	.029	*****	.015	*****	.010	.008	.008	*****	*****
.626	.117	.045	*****	.043	*****	.030	*****	.017	.011	.010	*****	*****
.640	*****	.111	*****	.050	*****	.029	*****	.019	.013	.010	*****	*****
.654	*****	.058	*****	.038	*****	.030	*****	.021	.013	.002	*****	*****
.668	*****	*****	*****	.033	*****	.045	*****	.050	.043	.021	*****	*****
.682	*****	.004	*****	.024	*****	.074	*****	.116	.063	.024	.013	*****
.696	*****	-.025	*****	.018	*****	.094	*****	.054	.023	.008	.009	*****
.710	*****	-.054	*****	*****	*****	.031	*****	*****	.001	.008	.002	-.004
.724	*****	-.090	*****	-.043	*****	-.031	*****	*****	-.048	-.019	-.019	-.024
.738	*****	-.133	*****	-.093	*****	*****	*****	*****	-.095	-.058	-.047	-.042
.752	*****	-.157	*****	-.134	*****	-.138	*****	*****	-.124	-.078	-.072	*****
.766	*****	-.224	*****	-.206	*****	-.207	*****	*****	-.197	-.144	-.124	-.120
.779	*****	-.243	*****	-.226	*****	-.250	*****	*****	-.222	-.148	-.127	-.122
.793	*****	-.285	*****	-.281	*****	-.306	*****	*****	-.244	-.198	-.172	*****
.807	*****	-.315	*****	-.315	*****	-.341	*****	*****	-.264	-.218	-.196	-.190
.821	*****	*****	*****	-.344	*****	-.363	*****	*****	-.279	-.243	-.220	-.215
.835	*****	-.373	*****	-.382	*****	-.389	*****	*****	-.298	-.279	-.256	-.253
.849	*****	-.372	*****	-.394	*****	-.397	*****	*****	-.281	-.283	-.283	-.281
.863	*****	-.199	*****	-.258	*****	-.296	*****	*****	-.167	-.274	*****	-.307
.877	-.076	-.082	*****	-.067	*****	-.133	*****	*****	*****	*****	*****	*****
.891	-.047	-.058	*****	-.044	*****	-.088	*****	*****	-.065	-.102	-.095	-.131
.916	-.051	-.054	-.098	*****	-.058	*****	-.063	-.067	-.068	-.066	-.069	*****
.928	-.071	*****	-.101	*****	-.081	*****	-.083	-.075	-.079	-.092	-.104	-.092
.940	-.071	*****	-.067	*****	-.070	*****	-.071	-.070	-.070	-.073	-.080	-.079
.952	*****	*****	-.005	*****	-.005	-.009	-.010	-.009	-.007	-.003	-.006	*****
.962	.072	.077	.078	*****	.081	.076	.077	.075	.078	.085	.081	.079
.974	.154	.153	*****	*****	.153	.158	.150	.155	.156	.158	.159	.160
.986	.205	.203	.207	*****	.203	.203	.197	.205	.207	.199	.206	.205
.996	.224	.225	*****	*****	.226	.218	.215	.223	.214	.218	.222	.221

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0177
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Table A20. Effect of Angle of Attack on Pressure Distributions for Forward Tails Configuration at $M = 0.95$ and $NPR = 1.138$

(a) $\alpha = -2.987^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
MACH NUMBER	.951		0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	-2.987	0.05	-.281	*****	.586	*****	-.016	-.030	
		0.10	-.245	.592	.575	.081	*****	*****	
NPR	1.138	0.20	-.241	.574	.571	-.017	-.049	-.078	
		0.30	*****	.552	*****	-.102	-.083	-.113	
PTD, PSI	14.687	0.40	-.321	.538	.548	-.209	-.149	-.173	
		0.50	-.352	.550	.556	-.257	-.179	-.209	
PD, PSI	8.211	0.60	-.382	.563	.571	-.305	-.237	-.256	
		0.70	-.388	.582	.592	-.315	-.277	*****	
QD, PSI	5.194	0.80	-.380	.611	.619	-.321	-.295	-.292	
		0.90	-.329	*****	.643	*****	-.265	-.216	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.010	.006	*****	*****	*****	*****	*****	-.007	.001	.010	.022	*****
.598	.001	.011	*****	.004	*****	-.007	*****	-.011	-.010	.005	*****	*****
.612	.040	.038	*****	.026	*****	.010	*****	.003	-.004	.000	*****	*****
.626	.127	.088	*****	.038	*****	.017	*****	.008	.000	.001	*****	*****
.640	*****	.118	*****	.048	*****	.016	*****	.006	-.002	-.002	*****	*****
.654	*****	.056	*****	.030	*****	.024	*****	.001	-.002	-.004	*****	*****
.668	*****	*****	*****	.023	*****	.033	*****	.032	.029	.008	*****	*****
.682	*****	.000	*****	.024	*****	.083	*****	.112	.035	.002	-.006	*****
.696	*****	-.016	*****	.037	*****	.150	*****	*****	-.028	-.018	-.022	-.018
.710	*****	-.029	*****	*****	*****	.112	*****	*****	-.107	-.056	-.041	-.036
.724	*****	-.061	*****	.008	*****	.055	*****	*****	-.158	-.101	-.073	-.068
.738	*****	-.094	*****	-.031	*****	*****	*****	*****	-.191	-.133	-.104	-.096
.752	*****	-.115	*****	-.072	*****	-.070	*****	*****	-.223	-.163	-.123	*****
.766	*****	-.189	*****	-.148	*****	-.152	*****	*****	-.278	-.214	-.183	-.178
.779	*****	-.196	*****	-.173	*****	-.192	*****	*****	-.302	-.228	-.189	-.185
.793	*****	-.239	*****	-.228	*****	-.241	*****	*****	-.312	-.261	-.234	*****
.807	*****	-.271	*****	-.257	*****	-.278	*****	*****	-.341	-.292	-.256	-.250
.821	*****	*****	*****	-.285	*****	-.300	*****	*****	-.360	-.315	-.287	-.277
.835	*****	-.312	*****	-.320	*****	-.337	*****	*****	-.369	-.343	-.318	-.315
.849	*****	-.266	*****	-.310	*****	-.320	*****	*****	-.348	-.365	-.350	-.346
.863	*****	-.061	*****	-.148	*****	-.187	*****	*****	-.163	-.307	*****	-.361
.877	-.028	-.041	*****	-.044	*****	-.087	*****	*****	*****	*****	*****	*****
.891	-.051	-.061	*****	-.066	*****	-.061	*****	*****	-.068	-.070	-.165	-.117
.916	-.109	-.098	-.163	*****	-.091	*****	-.094	-.088	-.078	-.064	-.070	*****
.928	-.148	*****	-.186	*****	-.131	*****	-.122	-.115	-.089	-.084	-.086	-.083
.940	-.168	*****	-.151	*****	-.145	*****	-.130	-.117	-.067	-.071	-.065	-.073
.952	*****	*****	-.091	*****	-.080	-.071	-.066	-.063	-.015	-.018	-.021	*****
.962	-.017	-.007	-.002	*****	.009	.008	.034	.018	.040	.057	.047	.048
.974	.076	.084	*****	*****	.099	.104	.094	.095	.128	.109	.122	.121
.986	.143	.139	.138	*****	.145	.131	.135	.131	.155	.151	.149	.152
.996	.160	.152	*****	*****	.155	.147	.150	.146	.162	.149	.151	.161

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0439

Table A20. Continued

(b) $\alpha = 0.002^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	FWD TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	OD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		19	.950	.002					0.05	-.068	*****	.432	*****	-.003	-.031
									0.10	-.068	.686	.456	-.069	*****	*****
		1.155							0.20	-.109	.646	.489	-.132	-.056	-.089
									0.30	*****	.606	*****	-.188	-.107	-.135
		14.687							0.40	-.221	.585	.502	-.289	-.187	-.213
									0.50	-.261	.588	.519	-.343	-.216	-.246
		8.214							0.60	-.299	.592	.545	-.375	-.288	-.304
									0.70	-.294	.606	.574	-.389	-.322	*****
		5.192							0.80	-.306	.625	.603	-.391	-.351	-.347
									0.90	-.257	*****	.637	*****	-.345	-.329

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.003	.006	*****	*****	*****	*****	*****	.005	.002	.010	.019	*****
.598	.009	.008	*****	.008	*****	.000	*****	.004	.001	.009	*****	*****
.612	.040	.037	*****	.028	*****	.012	*****	.013	.007	.010	*****	*****
.626	.111	.081	*****	.043	*****	.023	*****	.019	.009	.011	*****	*****
.640	*****	.112	*****	.049	*****	.025	*****	.016	.014	.011	*****	*****
.654	*****	.063	*****	.038	*****	.028	*****	.016	.011	.007	*****	*****
.668	*****	*****	*****	.034	*****	.044	*****	.045	.042	.023	*****	*****
.682	*****	-.004	*****	.025	*****	.071	*****	.113	.059	.027	.008	*****
.696	*****	-.032	*****	.022	*****	.085	*****	*****	.057	.022	.007	.01
.710	*****	-.054	*****	*****	*****	.026	*****	*****	.006	.003	-.001	-.00
.724	*****	-.091	*****	-.046	*****	-.037	*****	*****	-.051	-.020	-.024	-.02
.738	*****	-.133	*****	-.103	*****	*****	*****	*****	-.093	-.059	-.047	-.04
.752	*****	-.166	*****	-.134	*****	-.142	*****	*****	-.124	-.081	-.073	*****
.766	*****	-.233	*****	-.211	*****	-.225	*****	*****	-.191	-.146	-.125	-.12
.779	*****	-.254	*****	-.234	*****	-.257	*****	*****	-.222	-.154	-.126	-.12
.793	*****	-.293	*****	-.281	*****	-.312	*****	*****	-.241	-.199	-.175	*****
.807	*****	-.326	*****	-.317	*****	-.348	*****	*****	-.263	-.231	-.196	-.18
.821	*****	*****	*****	-.349	*****	-.364	*****	*****	-.285	-.245	-.223	-.21
.835	*****	-.374	*****	-.383	*****	-.390	*****	*****	-.297	-.280	-.256	-.25
.849	*****	-.365	*****	-.401	*****	-.374	*****	*****	-.292	-.306	-.286	-.28
.863	*****	-.187	*****	-.285	*****	-.231	*****	*****	-.242	-.292	*****	-.30
.877	-.056	-.094	*****	-.059	*****	-.105	*****	*****	*****	*****	*****	*****
.891	-.036	-.056	*****	-.055	*****	-.071	*****	*****	-.144	-.105	-.151	-.16
.916	-.072	-.073	-.118	*****	-.074	*****	-.077	-.088	-.094	-.092	-.091	*****
.928	-.102	*****	-.143	*****	-.111	*****	-.113	-.106	-.113	-.121	-.118	-.12
.940	-.114	*****	-.105	*****	-.120	*****	-.112	-.116	-.115	-.121	-.124	-.13
.952	*****	*****	-.057	*****	-.057	*****	-.061	-.066	-.060	-.057	-.060	*****
.962	.019	.017	.023	*****	.024	.019	.022	.022	.024	.021	.024	.01
.974	.105	.103	*****	*****	.098	.103	.097	.101	.102	.101	.102	.10
.986	.157	.162	.159	*****	.153	.159	.154	.149	.154	.150	.150	.15
.996	.182	.179	*****	*****	.183	.179	.181	.177	.174	.170	.178	.16

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0440

Table A20. Continued

(c) $\alpha = 3.010^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS						VERTICAL TAIL	
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
20	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.949								
ALPHA, DEG	3.010	0.05	.145	*****	.578	*****	-.006	-.035	
NPR	1.129	0.10	.092	.597	.575	-.241	*****	*****	
		0.20	.014	.569	.570	-.259	-.050	-.094	
		0.30	*****	.552	*****	-.295	-.119	-.158	
PTD, PSI	14.694	0.40	-.132	.537	.545	-.370	-.210	-.242	
		0.50	-.164	.548	.553	-.426	-.255	-.284	
		0.60	-.214	.563	.571	-.448	-.333	-.346	
PD, PSI	8.225	0.70	-.216	.581	.591	-.456	-.377	*****	
		0.80	-.217	.609	.617	-.465	-.407	-.402	
QD, PSI	5.184	0.90	-.162	*****	.643	*****	-.412	-.388	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	.006	.013	*****	*****	*****	*****	*****	.004	.005	.015	.030	*****
.598	.012	.018	*****	.013	*****	.007	*****	.000	-.001	.007	*****	*****
.612	.043	.039	*****	.025	*****	.013	*****	.007	.003	.010	*****	*****
.626	.103	.073	*****	.039	*****	.028	*****	.017	.010	.012	*****	*****
.640	*****	.097	*****	.045	*****	.025	*****	.019	.011	.011	*****	*****
.654	*****	.064	*****	.035	*****	.034	*****	.019	.014	.011	*****	*****
.668	*****	*****	*****	.036	*****	.046	*****	.050	.047	.033	*****	*****
.682	*****	-.009	*****	.016	*****	.061	*****	.120	.089	.044	.038	*****
.696	*****	-.034	*****	-.009	*****	.028	*****	*****	.137	.058	.038	.038
.710	*****	-.070	*****	*****	*****	-.056	*****	*****	.104	.068	.044	.032
.724	*****	-.121	*****	-.106	*****	-.119	*****	*****	.052	.044	.030	.019
.738	*****	-.174	*****	-.150	*****	*****	*****	*****	.004	.015	.006	.003
.752	*****	-.214	*****	-.201	*****	-.227	*****	*****	-.045	-.014	-.013	*****
.766	*****	-.275	*****	-.270	*****	-.301	*****	*****	-.107	-.071	-.069	-.064
.779	*****	-.307	*****	-.298	*****	-.328	*****	*****	-.135	-.073	-.059	-.060
.793	*****	-.347	*****	-.349	*****	-.374	*****	*****	-.166	-.127	-.103	*****
.807	*****	-.381	*****	-.382	*****	-.410	*****	*****	-.185	-.148	-.127	-.128
.821	*****	*****	*****	-.409	*****	-.435	*****	*****	-.191	-.172	-.147	-.154
.835	*****	-.437	*****	-.449	*****	-.467	*****	*****	-.218	-.203	-.181	-.185
.849	*****	-.443	*****	-.474	*****	-.468	*****	*****	-.184	-.185	-.194	-.209
.863	*****	-.338	*****	-.379	*****	-.353	*****	*****	-.132	-.202	*****	-.232
.877	-.141	-.143	*****	-.166	*****	-.183	*****	*****	*****	*****	*****	*****
.891	-.083	-.064	*****	-.068	*****	-.111	*****	*****	-.101	-.171	-.125	-.189
.916	-.052	-.053	-.086	*****	-.062	*****	-.076	-.092	-.104	-.119	-.117	*****
.928	-.062	*****	-.094	*****	-.070	*****	-.099	-.090	-.126	-.155	-.170	-.172
.940	-.065	*****	-.053	*****	-.062	*****	-.094	-.112	-.130	-.153	-.175	-.176
.952	*****	*****	-.032	*****	-.035	-.037	-.044	-.058	-.064	-.083	-.099	*****
.962	.040	.033	.028	*****	.034	.027	.071	.020	.009	.009	-.002	-.004
.974	.109	.110	*****	*****	.129	.082	.079	.120	.082	.090	.090	.087
.986	.147	.134	.152	*****	.143	.119	.112	.120	.126	.131	.135	.131
.996	.147	.136	*****	*****	.127	.131	.127	.128	.133	.135	.135	.140

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0471

Table A20. Concluded

(d) $\alpha = 6.008^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	21	X/C	0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.948								
ALPHA, DEG	6.008	0.05	.323	*****	.728	*****	.010	-.011	
NPR	1.087	0.10	.236	.494	.678	-.414	*****	*****	
		0.20	.134	.506	.642	-.387	-.053	-.101	
		0.30	*****	.498	*****	-.400	-.141	-.171	
PTQ, PSI	14.686	0.40	-.025	.495	.596	-.452	-.247	-.269	
		0.50	-.064	.518	.596	-.510	-.302	-.326	
		0.60	-.101	.534	.604	-.516	-.391	-.393	
PD, PSI	8.230	0.70	-.112	.560	.615	-.526	-.429	*****	
QD, PSI	5.183	0.80	-.087	.596	.635	-.535	-.463	-.454	
		0.90	-.053	*****	.654	*****	-.461	-.443	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	.014	.015	*****	*****	*****	*****	*****	-.013	-.007	.018	.047	*****
.598	.022	.020	*****	.014	*****	.001	*****	-.014	-.007	.012	*****	*****
.612	.045	.045	*****	.026	*****	.012	*****	-.002	-.005	.016	*****	*****
.626	.104	.073	*****	.039	*****	.024	*****	.007	.006	.020	*****	*****
.640	*****	.097	*****	.045	*****	.023	*****	.012	.006	.027	*****	*****
.654	*****	.058	*****	.047	*****	.033	*****	.015	.010	.026	*****	*****
.668	*****	*****	*****	.037	*****	.049	*****	.055	.053	.059	*****	*****
.682	*****	-.006	*****	.014	*****	.053	*****	.140	.114	.075	.061	*****
.696	*****	-.044	*****	-.027	*****	-.047	*****	*****	.216	.106	.075	.07
.710	*****	-.096	*****	*****	*****	-.162	*****	*****	.207	.123	.083	.07
.724	*****	-.157	*****	-.154	*****	-.218	*****	*****	.156	.114	.077	.06
.738	*****	-.214	*****	-.216	*****	*****	*****	*****	.099	.096	.062	.05
.752	*****	-.254	*****	-.265	*****	-.307	*****	*****	.052	.064	.049	*****
.766	*****	-.326	*****	-.331	*****	-.367	*****	*****	-.013	.013	.002	-.00
.779	*****	-.357	*****	-.367	*****	-.399	*****	*****	-.046	-.001	.005	-.00
.793	*****	-.401	*****	-.415	*****	-.443	*****	*****	-.074	-.042	-.040	*****
.807	*****	-.439	*****	-.447	*****	-.478	*****	*****	-.089	-.067	-.055	-.05
.821	*****	*****	*****	-.479	*****	-.497	*****	*****	-.107	-.098	-.083	-.07
.835	*****	-.496	*****	-.515	*****	-.526	*****	*****	-.110	-.104	-.104	-.10
.849	*****	-.509	*****	-.538	*****	-.509	*****	*****	-.097	-.113	-.116	-.12
.863	*****	-.493	*****	-.440	*****	-.337	*****	*****	-.124	-.134	*****	-.13
.877	-.232	-.231	*****	-.197	*****	-.170	*****	*****	*****	*****	*****	*****
.891	-.112	-.113	*****	-.127	*****	-.110	*****	*****	-.204	-.241	-.226	-.21
.916	-.055	-.047	-.069	*****	-.046	*****	-.041	-.062	-.132	-.224	-.234	*****
.928	-.070	*****	-.045	*****	-.020	*****	-.021	-.043	-.115	-.215	-.281	-.29
.940	-.071	*****	-.002	*****	.009	*****	.020	-.009	-.076	-.136	-.208	-.20
.952	*****	*****	.032	*****	.029	.031	.040	.026	-.036	-.058	-.100	*****
.962	.002	.039	.035	*****	.040	.047	.051	.044	.021	.008	-.005	-.02
.974	.046	.060	*****	*****	.037	.050	.050	.058	.038	.059	.070	.05
.986	.075	.069	.054	*****	.069	.070	.084	.083	.068	.076	.093	.10
.996	.072	.076	*****	*****	.078	.061	.072	.080	.050	.068	.082	.09

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0562

Table A21. Effect of Nozzle Pressure Ratio on Pressure Distributions for Forward Tails Configuration at $M = 0.90$ and $\alpha = 0.016^\circ$

(a) NPR = 1.114

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
MACH NUMBER			0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.016	0.05	-.097	*****	.770	*****	-.041	-.071	
		0.10	-.102	.292	.710	-.119	*****	*****	
NPR	1.114	0.20	-.141	.345	.656	-.183	-.093	-.128	
		0.30	*****	.374	*****	-.247	-.152	-.189	
PTO, PSI	14.684	0.40	-.258	.381	.585	-.351	-.230	-.256	
		0.50	-.250	.414	.576	-.388	-.271	-.301	
PO, PSI	8.686	0.60	-.263	.441	.574	-.406	-.332	-.349	
		0.70	-.171	.480	.581	-.253	-.349	*****	
QO, PSI	4.921	0.80	-.088	.518	.595	-.064	-.125	-.085	
		0.90	-.014	*****	.610	*****	-.004	.020	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.010	-.007	*****	*****	*****	*****	*****	-.012	-.014	-.005	.003	*****
.598	-.005	-.007	*****	-.005	*****	-.012	*****	-.012	-.017	-.012	*****	*****
.612	.028	.016	*****	.006	*****	.000	*****	-.006	-.007	-.009	*****	*****
.626	.089	.060	*****	.018	*****	-.001	*****	-.001	-.005	-.007	*****	*****
.640	*****	.081	*****	.023	*****	-.001	*****	-.007	-.011	-.012	*****	*****
.654	*****	.025	*****	.008	*****	.006	*****	-.007	-.011	-.010	*****	*****
.668	*****	*****	*****	.015	*****	.012	*****	.019	.011	.002	*****	*****
.682	*****	-.044	*****	-.006	*****	.036	*****	.089	.029	-.002	-.018	*****
.696	*****	-.067	*****	-.015	*****	.044	*****	*****	.025	-.005	-.023	-.019
.710	*****	-.103	*****	*****	*****	-.019	*****	*****	-.027	-.027	-.034	-.034
.724	*****	-.141	*****	-.095	*****	-.079	*****	*****	-.080	-.050	-.047	-.052
.738	*****	-.178	*****	-.139	*****	*****	*****	*****	-.127	-.083	-.081	-.080
.752	*****	-.212	*****	-.194	*****	-.187	*****	*****	-.153	-.106	-.093	*****
.766	*****	-.287	*****	-.261	*****	-.279	*****	*****	-.204	-.157	-.150	-.142
.779	*****	-.293	*****	-.278	*****	-.302	*****	*****	-.213	-.158	-.130	-.122
.793	*****	-.331	*****	-.317	*****	-.365	*****	*****	-.223	-.175	-.154	*****
.807	*****	-.303	*****	-.311	*****	-.334	*****	*****	-.190	-.180	-.144	-.135
.821	*****	*****	*****	-.166	*****	-.178	*****	*****	-.154	-.140	-.130	-.134
.835	*****	-.080	*****	-.085	*****	-.087	*****	*****	-.097	-.107	-.113	-.119
.849	*****	-.041	*****	-.053	*****	-.045	*****	*****	-.067	-.098	-.099	-.100
.863	*****	-.029	*****	-.043	*****	-.027	*****	*****	-.043	-.081	*****	-.097
.877	-.022	-.029	*****	-.044	*****	-.038	*****	*****	*****	*****	*****	*****
.891	-.058	-.069	*****	-.071	*****	-.067	*****	*****	-.078	-.090	-.096	-.101
.916	-.115	-.115	-.174	*****	-.115	*****	-.121	-.119	-.125	-.123	-.123	*****
.928	-.145	*****	-.191	*****	-.152	*****	-.147	-.152	-.152	-.160	-.173	-.167
.940	-.167	*****	-.151	*****	-.160	*****	-.154	-.157	-.161	-.167	-.164	-.166
.952	*****	*****	-.105	*****	-.106	*****	-.102	-.106	-.104	-.100	-.107	*****
.962	-.031	-.023	-.020	*****	-.021	-.019	-.021	-.018	-.018	-.013	-.017	-.017
.974	.066	.067	*****	*****	.068	.067	.072	.068	.072	.079	.078	.071
.986	.131	.132	.133	*****	.134	.135	.138	.136	.134	.130	.135	.135
.996	.160	.161	*****	*****	.164	.168	.169	.165	.161	.168	.163	.163

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0415

Table A21. Continued

(b) NPR = 2.001

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		X/C	UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	23		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.899								
ALPHA, DEG	.016	0.05	-.080	*****	.854	*****	-.036	-.073	
NPR	2.001	0.10	-.092	.281	.789	-.112	*****	*****	
PTD, PSI	14.684	0.20	-.127	.278	.713	-.182	-.088	-.131	
PQ, PSI	8.688	0.30	*****	.327	*****	-.244	-.153	-.184	
QQ, PSI	4.919	0.40	-.246	.350	.628	-.339	-.236	-.248	
		0.50	-.243	.394	.607	-.385	-.272	-.298	
		0.60	-.249	.433	.598	-.399	-.339	-.341	
		0.70	-.181	.469	.600	-.213	-.354	*****	
		0.80	-.087	.504	.602	-.059	-.105	-.071	
		0.90	-.012	*****	.609	*****	.001	.028	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG												
	0	18	36	45	54	72	81	90	108	135	162	180	
.584	-.014	-.001	*****	*****	*****	*****	*****	-.011	-.010	-.003	.007	*****	
.598	-.013	-.002	*****	-.003	*****	-.009	*****	-.019	-.015	-.009	*****	*****	
.612	.018	.020	*****	.009	*****	.004	*****	-.008	-.014	-.001	*****	*****	
.626	.091	.053	*****	.025	*****	.009	*****	-.003	-.008	-.006	*****	*****	
.640	*****	.072	*****	.024	*****	.007	*****	-.004	-.007	-.012	*****	*****	
.654	*****	.024	*****	.007	*****	.008	*****	-.012	-.006	-.014	*****	*****	
.668	*****	*****	*****	.007	*****	.018	*****	.013	.012	-.001	*****	*****	
.682	*****	-.045	*****	-.011	*****	.041	*****	.079	.031	-.003	-.014	*****	
.696	*****	-.071	*****	-.022	*****	.052	*****	*****	.025	-.009	-.021	-.027	
.710	*****	-.093	*****	*****	*****	-.008	*****	*****	-.028	-.022	-.034	-.035	
.724	*****	-.137	*****	-.087	*****	-.079	*****	*****	-.073	-.056	-.057	-.054	
.738	*****	-.173	*****	-.145	*****	*****	*****	*****	-.121	-.082	-.081	-.075	
.752	*****	-.216	*****	-.188	*****	-.192	*****	*****	-.155	-.111	-.091	*****	
.766	*****	-.294	*****	-.258	*****	-.278	*****	*****	-.212	-.155	-.133	-.143	
.779	*****	-.312	*****	-.286	*****	-.302	*****	*****	-.215	-.155	-.128	-.135	
.793	*****	-.327	*****	-.324	*****	-.343	*****	*****	-.219	-.166	-.147	*****	
.807	*****	-.247	*****	-.243	*****	-.302	*****	*****	-.185	-.149	-.139	-.136	
.821	*****	*****	*****	-.148	*****	-.164	*****	*****	-.143	-.130	-.129	-.126	
.835	*****	-.065	*****	-.079	*****	-.080	*****	*****	-.095	-.102	-.108	-.120	
.849	*****	-.032	*****	-.046	*****	-.041	*****	*****	-.057	-.082	-.091	-.104	
.863	*****	-.025	*****	-.039	*****	-.026	*****	*****	-.043	-.071	*****	-.091	
.877	*****	-.018	*****	-.034	*****	-.036	*****	*****	*****	*****	*****	*****	
.891	-.055	-.060	*****	-.059	*****	-.060	*****	*****	-.069	-.079	-.096	-.092	
.916	-.107	-.101	-.154	*****	-.099	*****	-.106	-.103	-.107	-.104	-.105	*****	
.928	-.131	*****	-.160	*****	-.127	*****	-.128	-.125	-.127	-.134	-.145	-.146	
.940	-.131	*****	-.123	*****	-.128	*****	-.128	-.129	-.122	-.129	-.137	-.136	
.952	*****	*****	-.066	*****	-.066	-.068	-.069	-.071	-.060	-.059	-.073	*****	
.962	.002	.016	*****	*****	.023	*****	.022	.018	.023	.025	.031	.029	.018
.974	.099	.106	*****	*****	.112	.112	.109	.112	.116	.120	.117	.113	
.986	.171	.167	.171	*****	.176	.174	.171	.171	.177	.177	.172	.178	
.996	.199	.201	*****	*****	.203	.204	.201	.198	.202	.205	.198	.204	

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0210

ORIGINAL PAGE IS
OF POOR QUALITY

Table A21. Continued

(c) NPR = 3.006

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION POINT NUMBER	FWD TAILS 24	X/C	HORIZONTAL TAILS						VERTICAL TAIL	
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B			
			0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBRER	.900									
ALPHA, DEG	.016	0.05	-.091	*****	-.191	*****	-.039	-.062		
NPR	3.006	0.10	-.104	-.090	-.219	-.122	*****	*****		
PTO, PSI	14.685	0.20	-.137	-.170	-.242	-.180	-.089	-.136		
PO, PSI	8.679	0.30	*****	-.243	*****	-.237	-.147	-.184		
QO, PSI	4.925	0.40	-.254	-.344	-.364	-.341	-.232	-.256		
		0.50	-.252	-.389	-.411	-.387	-.267	-.305		
		0.60	-.260	-.459	-.416	-.402	-.331	-.343		
		0.70	-.179	-.481	-.417	-.255	-.353	*****		
		0.80	-.092	-.490	-.392	-.055	-.111	-.078		
		0.90	-.014	*****	-.327	*****	.003	.025		

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.003	-.001	*****	*****	*****	*****	*****	-.010	-.008	-.004	.002	*****
.598	-.001	.000	*****	-.005	*****	-.015	*****	-.014	-.011	-.008	*****	*****
.612	.027	.023	*****	.010	*****	-.003	*****	-.007	-.005	-.008	*****	*****
.626	.097	.063	*****	.021	*****	.002	*****	-.004	.000	-.009	*****	*****
.640	*****	.085	*****	.021	*****	.004	*****	.004	-.002	-.012	*****	*****
.654	*****	.031	*****	.008	*****	.004	*****	.000	-.006	-.012	*****	*****
.668	*****	*****	*****	.008	*****	.015	*****	.024	.016	-.003	*****	*****
.682	*****	-.044	*****	-.011	*****	.042	*****	.087	.037	-.006	-.017	*****
.696	*****	-.062	*****	-.021	*****	.042	*****	*****	.025	-.011	-.020	-.021
.710	*****	-.095	*****	*****	*****	-.012	*****	*****	-.030	-.028	-.027	-.031
.724	*****	-.141	*****	-.097	*****	-.072	*****	*****	-.081	-.058	-.053	-.055
.738	*****	-.182	*****	-.149	*****	*****	*****	*****	-.126	-.086	-.079	-.061
.752	*****	-.203	*****	-.183	*****	-.192	*****	*****	-.157	-.115	-.095	*****
.766	*****	-.281	*****	-.260	*****	-.272	*****	*****	-.208	-.160	-.137	-.138
.779	*****	-.285	*****	-.275	*****	-.306	*****	*****	-.224	-.160	-.130	-.125
.793	*****	-.315	*****	-.308	*****	-.346	*****	*****	-.230	-.174	-.150	*****
.807	*****	-.267	*****	-.280	*****	-.341	*****	*****	-.202	-.166	-.137	-.139
.821	*****	*****	*****	-.172	*****	-.215	*****	*****	-.154	-.131	-.122	-.110
.835	*****	-.067	*****	-.092	*****	-.092	*****	*****	-.101	-.108	-.108	-.115
.849	*****	-.034	*****	-.050	*****	-.041	*****	*****	-.063	-.089	-.095	-.098
.863	*****	-.019	*****	-.037	*****	-.023	*****	*****	-.047	-.072	*****	-.090
.877	-.013	-.020	*****	-.035	*****	-.037	*****	*****	*****	*****	*****	*****
.891	-.046	-.055	*****	-.061	*****	-.064	*****	*****	-.071	-.080	-.094	-.081
.916	-.096	-.097	-.149	*****	-.095	*****	-.106	-.108	-.109	-.109	-.107	*****
.928	-.125	*****	-.163	*****	-.131	*****	-.127	-.133	-.130	-.138	-.153	-.147
.940	-.126	*****	-.120	*****	-.136	*****	-.131	-.137	-.131	-.133	-.137	-.141
.952	*****	*****	-.068	*****	-.073	-.070	-.075	-.074	-.066	-.066	-.073	*****
.962	.012	.015	.025	*****	.026	.020	.019	.018	.020	.027	.024	.021
.974	.107	.109	*****	*****	.109	.110	.109	.105	.111	.116	.116	.111
.986	.176	.175	.174	*****	.169	.170	.167	.164	.168	.173	.172	.173
.996	.202	.206	*****	*****	.197	.199	.196	.196	.199	.199	.196	.206

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0229

Table A21. Concluded

(d) NPR = 4.977

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	25	X/C	0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.899								
ALPHA, DEG	.016	0.05	-.090	*****	-.202	*****	-.034	-.066	
NPR	4.977	0.10	-.101	-.091	-.207	-.132	*****	*****	
		0.20	-.133	-.171	-.241	-.178	-.086	-.128	
PTD, PSI	14.684	0.30	*****	-.241	*****	-.244	-.149	-.184	
		0.40	-.255	-.344	-.369	-.341	-.231	-.258	
PD, PSI	8.689	0.50	-.259	-.394	-.415	-.381	-.274	-.300	
		0.60	-.253	-.456	-.419	-.393	-.331	-.341	
QD, PSI	4.919	0.70	-.174	-.482	-.420	-.250	-.341	*****	
		0.80	-.085	-.492	-.421	-.059	-.110	-.065	
		0.90	-.016	*****	-.350	*****	.000	.028	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG.

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.010	.001	*****	*****	*****	*****	*****	-.012	-.013	-.004	.002	*****
.598	-.002	-.005	*****	-.003	*****	-.014	*****	-.018	-.014	-.008	*****	*****
.612	.025	.021	*****	.011	*****	-.007	*****	-.007	-.009	-.009	*****	*****
.626	.094	.060	*****	.020	*****	.005	*****	-.004	-.008	-.012	*****	*****
.640	*****	.083	*****	.017	*****	.005	*****	-.003	-.007	-.008	*****	*****
.654	*****	.029	*****	.012	*****	.008	*****	-.008	-.008	-.016	*****	*****
.668	*****	*****	*****	.006	*****	.021	*****	.020	.017	.001	*****	*****
.682	*****	-.037	*****	-.001	*****	.045	*****	.086	.033	-.009	-.017	*****
.696	*****	-.065	*****	-.021	*****	.046	*****	*****	.019	-.011	-.021	-.02
.710	*****	-.093	*****	*****	*****	-.011	*****	*****	-.030	-.020	-.033	-.03
.724	*****	-.142	*****	-.091	*****	-.079	*****	*****	-.081	-.047	-.058	-.05
.738	*****	-.174	*****	-.137	*****	*****	*****	*****	-.119	-.092	-.078	-.07
.752	*****	-.209	*****	-.179	*****	-.185	*****	*****	-.147	-.100	-.091	*****
.766	*****	-.282	*****	-.261	*****	-.272	*****	*****	-.211	-.163	-.130	-.13
.779	*****	-.293	*****	-.274	*****	-.300	*****	*****	-.214	-.160	-.125	-.13
.793	*****	-.316	*****	-.326	*****	-.338	*****	*****	-.236	-.192	-.150	*****
.807	*****	-.260	*****	-.260	*****	-.321	*****	*****	-.190	-.155	-.134	-.13
.821	*****	*****	*****	-.167	*****	-.161	*****	*****	-.135	-.127	-.125	-.11
.835	*****	-.066	*****	-.079	*****	-.086	*****	*****	-.098	-.115	-.103	-.11
.849	*****	-.032	*****	-.046	*****	-.036	*****	*****	-.055	-.083	-.094	-.10
.863	*****	-.018	*****	-.036	*****	-.024	*****	*****	-.036	-.070	*****	-.08
.877	-.014	-.021	*****	-.033	*****	-.033	*****	*****	*****	*****	*****	*****
.891	-.050	-.059	*****	-.061	*****	-.063	*****	*****	-.069	-.076	-.095	-.08
.916	-.095	-.093	-.147	*****	-.095	*****	-.097	-.101	-.103	-.101	-.099	*****
.928	-.118	*****	-.156	*****	-.124	*****	-.122	-.116	-.120	-.128	-.145	-.13
.940	-.118	*****	-.106	*****	-.118	*****	-.119	-.112	-.115	-.115	-.128	-.12
.952	*****	*****	-.054	*****	-.054	-.057	-.059	-.055	-.050	-.050	-.057	*****
.962	.027	.033	.042	*****	.039	.040	.039	.037	.038	.046	.044	.03
.974	.127	.127	*****	*****	.128	.132	.128	.131	.127	.136	.133	.13
.986	.192	.190	.193	*****	.191	.187	.190	.191	.189	.192	.186	.19
.996	.221	.216	*****	*****	.214	.212	.210	.212	.213	.212	.211	.21

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0141

Table A22. Effect of Angle of Attack on Pressure Distributions for Forward Tails Configuration at $M = 0.90$ and $NPR = 1.119$

(a) $\alpha = -2.994^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	FWD TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL				
				UPPER SURFACE		LOWER SURFACE		Y/B				
				0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.893	27										
ALPHA, DEG	-2.994		0.05	-.357	*****	-.212	*****			-.037	-.062	
NPR	1.119		0.10	-.290	-.096	-.215	.038			*****	*****	
PT0, PSI	14.578		0.20	-.283	-.175	-.243	-.058			-.084	-.111	
PD, PSI	8.686		0.30	*****	-.247	*****	-.137			-.133	-.159	
QD, PSI	4.847		0.40	-.367	-.351	-.376	-.237			-.195	-.217	
			0.50	-.392	-.402	-.421	-.273			-.226	-.262	
			0.60	-.399	-.466	-.428	-.264			-.249	-.257	
			0.70	-.281	-.488	-.429	-.130			-.180	*****	
			0.80	-.119	-.500	-.425	-.048			-.069	-.048	
			0.90	-.030	*****	-.380	*****			.014	.034	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG.											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.012	-.003	*****	*****	*****	*****	*****	-.019	-.016	-.015	.002	*****
.598	-.001	.001	*****	-.015	*****	-.022	*****	-.022	-.022	-.015	*****	*****
.612	.034	.025	*****	.007	*****	-.011	*****	-.012	-.023	-.019	*****	*****
.626	.112	.065	*****	.016	*****	-.006	*****	-.013	-.018	-.021	*****	*****
.640	*****	.099	*****	.018	*****	-.007	*****	-.016	-.021	-.024	*****	*****
.654	*****	.026	*****	-.004	*****	-.005	*****	-.023	-.024	-.029	*****	*****
.668	*****	*****	*****	.001	*****	.011	*****	.007	-.008	-.022	*****	*****
.682	*****	-.044	*****	-.009	*****	.050	*****	.087	.001	-.038	-.042	*****
.696	*****	-.051	*****	-.004	*****	.111	*****	*****	-.065	-.059	-.058	-.051
.710	*****	-.072	*****	*****	*****	.076	*****	*****	-.160	-.094	-.080	-.070
.724	*****	-.102	*****	-.041	*****	.010	*****	*****	-.210	-.131	-.114	-.104
.738	*****	-.125	*****	-.076	*****	*****	*****	*****	-.241	-.160	-.143	-.132
.752	*****	-.156	*****	-.119	*****	-.120	*****	*****	-.262	-.190	-.160	*****
.766	*****	-.234	*****	-.190	*****	-.193	*****	*****	-.324	-.238	-.215	-.208
.779	*****	-.195	*****	-.198	*****	-.208	*****	*****	-.332	-.250	-.211	-.201
.793	*****	-.191	*****	-.194	*****	-.239	*****	*****	-.345	-.277	-.239	*****
.807	*****	-.143	*****	-.150	*****	-.168	*****	*****	-.308	-.260	-.226	-.200
.821	*****	*****	*****	-.096	*****	-.106	*****	*****	-.217	-.198	-.183	-.171
.835	*****	-.048	*****	-.060	*****	-.065	*****	*****	-.124	-.145	-.142	-.141
.849	*****	-.026	*****	-.040	*****	-.034	*****	*****	-.082	-.103	-.113	-.111
.863	*****	-.020	*****	-.039	*****	-.027	*****	*****	-.049	-.086	*****	-.095
.877	-.013	-.022	*****	-.035	*****	-.043	*****	*****	*****	*****	*****	*****
.891	-.064	-.075	*****	-.073	*****	-.073	*****	*****	-.079	-.086	-.102	-.095
.916	-.126	-.125	-.197	*****	-.122	*****	-.125	-.121	-.122	-.115	-.117	*****
.928	-.166	*****	-.216	*****	-.162	*****	-.156	-.155	-.146	-.143	-.152	-.143
.940	-.187	*****	-.180	*****	-.176	*****	-.169	-.156	-.151	-.141	-.144	-.140
.952	*****	*****	-.128	*****	-.119	-.119	-.110	-.108	-.087	-.082	-.083	*****
.962	-.049	-.037	-.029	*****	-.031	-.027	-.025	-.015	-.006	.001	-.007	-.005
.974	.059	.060	*****	*****	.070	.071	.068	.065	.071	.081	.075	.080
.986	.128	.124	.124	*****	.130	.123	.131	.134	.128	.134	.128	.137
.996	.147	.148	*****	*****	.146	.139	.148	.141	.148	.155	.154	.159

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0451
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ORIGINAL PAGE IS
OF POOR QUALITY

Table A22. Continued

(b) $\alpha = 0.013^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	2R	X/C	0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.903								
ALPHA, DEG	.013	0.05	-.082	*****	-.213	*****	-.043	-.075	
NPR	1.131	0.10	-.093	-.084	-.201	-.120	*****	*****	
PTD, PSI	14.684	0.20	-.138	-.171	-.238	-.185	-.092	-.127	
PD, PSI	8.649	0.30	*****	-.239	*****	-.248	-.145	-.180	
QD, PSI	4.942	0.40	-.260	-.340	-.359	-.346	-.230	-.255	
		0.50	-.265	-.387	-.402	-.378	-.273	-.300	
		0.60	-.272	-.454	-.414	-.417	-.332	-.347	
		0.70	-.199	-.467	-.415	-.323	-.357	*****	
		0.80	-.090	-.482	-.404	-.057	-.137	-.090	
		0.90	-.017	*****	-.339	*****	-.003	.024	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.004	-.007	*****	*****	*****	*****	*****	-.013	-.011	-.004	.005	*****
.598	.000	-.003	*****	-.004	*****	-.013	*****	-.011	-.019	-.004	*****	*****
.612	.027	.016	*****	.013	*****	-.005	*****	-.007	-.013	-.011	*****	*****
.626	.033	.058	*****	.019	*****	.007	*****	.002	-.009	-.010	*****	*****
.640	*****	.045	*****	.024	*****	.003	*****	-.002	-.008	-.010	*****	*****
.654	*****	.024	*****	.012	*****	.005	*****	-.002	-.008	-.019	*****	*****
.668	*****	*****	*****	.007	*****	.015	*****	.024	.018	.000	*****	*****
.682	*****	-.039	*****	-.008	*****	.037	*****	.089	.039	-.005	-.020	*****
.696	*****	-.060	*****	-.022	*****	.045	*****	*****	.031	-.008	-.022	-.020
.710	*****	-.090	*****	*****	*****	-.013	*****	*****	-.027	-.022	-.032	-.034
.724	*****	-.135	*****	-.093	*****	-.080	*****	*****	-.073	-.051	-.054	-.046
.738	*****	-.179	*****	-.139	*****	*****	*****	*****	-.121	-.086	-.082	-.070
.752	*****	-.204	*****	-.184	*****	-.187	*****	*****	-.150	-.108	-.095	*****
.766	*****	-.240	*****	-.264	*****	-.273	*****	*****	-.222	-.161	-.139	-.147
.779	*****	-.294	*****	-.280	*****	-.303	*****	*****	-.220	-.165	-.137	-.130
.793	*****	-.336	*****	-.331	*****	-.352	*****	*****	-.235	-.192	-.166	*****
.807	*****	-.321	*****	-.340	*****	-.347	*****	*****	-.208	-.162	-.149	-.133
.821	*****	*****	*****	-.198	*****	-.238	*****	*****	-.154	-.143	-.133	-.125
.835	*****	-.082	*****	-.097	*****	-.096	*****	*****	-.104	-.118	-.118	-.127
.849	*****	-.037	*****	-.051	*****	-.046	*****	*****	-.060	-.084	-.103	-.099
.863	*****	-.023	*****	-.040	*****	-.032	*****	*****	-.044	-.079	*****	-.094
.877	-.021	-.024	*****	-.037	*****	-.038	*****	*****	*****	*****	*****	*****
.891	-.060	-.059	*****	-.069	*****	-.068	*****	*****	-.075	-.088	-.098	-.095
.916	-.110	-.113	-.171	*****	-.106	*****	-.121	-.122	-.125	-.125	-.125	*****
.928	-.144	*****	-.186	*****	-.149	*****	-.156	-.149	-.152	-.159	-.157	-.168
.940	-.159	*****	-.148	*****	-.161	*****	-.157	-.158	-.157	-.169	-.164	-.166
.952	*****	*****	-.099	*****	-.106	-.110	-.109	-.109	-.102	-.104	-.114	*****
.962	-.025	-.020	-.018	*****	-.010	-.020	-.025	-.018	-.018	-.016	-.020	-.018
.974	.071	.066	*****	*****	.073	.070	.064	.069	.067	.075	.070	.068
.986	.140	.128	.135	*****	.134	.127	.133	.136	.127	.126	.131	.129
.996	.163	.158	*****	*****	.158	.156	.159	.158	.162	.160	.148	.152

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0423

Table A22. Concluded

ORIGINAL PAGE IS
OF POOR QUALITY

(c) $\alpha = 6.015^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.901								
ALPHA, DEG	6.015	0.05	.313	*****	-.361	*****	-.026	-.066	
		0.10	.229	.047	-.415	-.499	*****	*****	
NPR	1.086	0.20	.117	-.058	-.406	-.447	-.095	-.150	
		0.30	*****	-.150	*****	-.469	-.191	-.224	
PTD, PSI	14.684	0.40	-.030	-.262	-.469	-.521	-.306	-.322	
		0.50	-.062	-.310	-.511	-.568	-.357	-.379	
PD, PSI	8.677	0.60	-.085	-.379	-.507	-.577	-.442	-.447	
		0.70	-.078	-.404	-.505	-.591	-.485	*****	
QD, PSI	4.926	0.80	-.042	-.419	-.499	-.524	-.507	-.504	
		0.90	-.001	*****	-.459	*****	-.075	-.081	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG												
	0	18	36	45	54	72	81	90	108	135	162	180	
.584	.000	.002	*****	*****	*****	*****	*****	-.025	-.020	.006	.031	*****	
.598	.008	.006	*****	.000	*****	-.019	*****	-.029	-.030	-.001	*****	*****	
.612	.030	.019	*****	.007	*****	-.013	*****	-.018	-.019	.001	*****	*****	
.626	.084	.052	*****	.015	*****	-.003	*****	-.011	-.012	.002	*****	*****	
.640	*****	.071	*****	.019	*****	.000	*****	-.008	-.010	.005	*****	*****	
.654	*****	.028	*****	.013	*****	.003	*****	-.011	-.007	.002	*****	*****	
.668	*****	*****	*****	.001	*****	.013	*****	.030	.028	.032	*****	*****	
.682	*****	-.049	*****	-.029	*****	.011	*****	.113	.088	.047	.040	*****	
.696	*****	-.089	*****	-.080	*****	-.103	*****	.189	.075	.053	.050	*****	
.710	*****	-.146	*****	*****	*****	-.214	*****	.185	.092	.061	.053	*****	
.724	*****	-.204	*****	-.210	*****	-.287	*****	.138	.089	.056	.051	*****	
.738	*****	-.269	*****	-.275	*****	*****	*****	.082	.072	.046	.040	*****	
.752	*****	-.312	*****	-.322	*****	-.355	*****	.029	.046	.029	*****	*****	
.766	*****	-.390	*****	-.393	*****	-.438	*****	-.033	.002	-.014	-.007	*****	
.779	*****	-.415	*****	-.418	*****	-.458	*****	-.050	-.006	.005	-.005	*****	
.793	*****	-.454	*****	-.474	*****	-.503	*****	-.066	-.041	-.032	*****	*****	
.807	*****	-.489	*****	-.505	*****	-.535	*****	-.071	-.051	-.035	-.033	*****	
.821	*****	*****	*****	-.512	*****	-.543	*****	-.075	-.054	-.051	-.048	*****	
.835	*****	-.352	*****	-.375	*****	-.331	*****	-.062	-.068	-.057	-.063	*****	
.849	*****	-.135	*****	-.176	*****	-.148	*****	-.052	-.068	-.070	-.072	*****	
.863	*****	-.065	*****	-.085	*****	-.089	*****	-.048	-.066	*****	-.077	*****	
.877	*****	-.026	*****	-.061	*****	-.058	*****	*****	*****	*****	*****	*****	
.891	*****	-.042	*****	-.064	*****	-.057	*****	*****	*****	*****	*****	*****	
.916	*****	-.074	*****	-.141	*****	-.069	*****	-.072	-.080	-.098	-.115	*****	
.928	*****	-.107	*****	-.128	*****	-.075	*****	-.074	-.090	-.116	-.158	-.179	-.180
.940	*****	-.127	*****	-.084	*****	-.053	*****	-.046	-.069	-.116	-.150	-.188	-.192
.952	*****	*****	*****	-.032	*****	.008	.021	.023	-.003	-.056	-.089	-.135	*****
.962	*****	-.042	*****	.043	*****	.057	.064	.061	.057	.025	-.005	-.029	-.051
.974	*****	.033	*****	.061	*****	.070	.074	.069	.068	.064	.067	.060	.046
.986	*****	.090	*****	.104	*****	.079	.084	.090	.093	.085	.106	.107	.107
.996	*****	.084	*****	.106	*****	.109	.088	.086	.103	.077	.086	.098	.103

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0370

Table A23. Effect of Nozzle Pressure Ratio on Pressure Distributions for Forward Tails Configuration at $M = 0.60$ and $\alpha = 0.009^\circ$

(a) NPR = 1.041

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS										
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS									VERTICAL TAIL	
		POINT NUMBER	30	UPPER SURFACE			LOWER SURFACE			Y/B		
MACH NUMBER	.602			X/C	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
ALPHA, DEG	.009	0.05	-.082	*****	-1.301	*****	-.077	-.096				
NPR	1.041	0.10	-.095	*****	-1.122	*****	*****	*****				
PT0, PSI	14.694	0.20	-.121	*****	-1.274	*****	-.118	-.138				
PD, PSI	11.503	0.30	*****	*****	-1.379	*****	-.156	-.171				
QD, PSI	2.916	0.40	-.166	*****	-1.552	*****	-.194	-.185				
		0.50	-.159	*****	-1.637	*****	-.177	-.171				
		0.60	-.140	*****	-1.741	*****	-.148	-.151				
		0.70	-.111	*****	-1.782	*****	-.123	*****				
		0.80	-.070	*****	-1.797	*****	-.075	-.064				
		0.90	-.030	*****	-1.600	*****	-.025	-.009				

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.015	-.012	*****	*****	*****	*****	*****	-.020	-.014	-.018	-.006	*****
.598	-.016	-.006	*****	-.018	*****	-.022	*****	-.022	-.026	-.022	*****	*****
.612	.008	.003	*****	-.012	*****	-.016	*****	-.018	-.026	-.021	*****	*****
.626	.056	.020	*****	-.011	*****	-.021	*****	-.020	-.022	-.025	*****	*****
.640	*****	.034	*****	-.016	*****	-.022	*****	-.025	-.024	-.025	*****	*****
.654	*****	-.015	*****	-.026	*****	-.021	*****	-.021	-.025	-.030	*****	*****
.668	*****	*****	*****	-.029	*****	-.012	*****	-.003	-.006	-.023	*****	*****
.682	*****	-.073	*****	-.044	*****	.003	*****	.051	.005	-.033	-.033	*****
.696	*****	-.082	*****	-.054	*****	-.010	*****	*****	-.005	-.031	-.040	-.033
.710	*****	-.118	*****	*****	*****	-.056	*****	*****	-.049	-.047	-.039	-.039
.724	*****	-.138	*****	-.089	*****	-.094	*****	*****	-.075	-.052	-.055	-.049
.738	*****	-.149	*****	-.120	*****	*****	*****	*****	-.105	-.071	-.059	-.062
.752	*****	-.144	*****	-.125	*****	-.140	*****	*****	-.114	-.075	-.066	*****
.766	*****	-.156	*****	-.140	*****	-.168	*****	*****	-.138	-.099	-.086	-.079
.779	*****	-.138	*****	-.134	*****	-.145	*****	*****	-.132	-.084	-.068	-.065
.793	*****	-.129	*****	-.125	*****	-.151	*****	*****	-.130	-.091	-.078	*****
.807	*****	-.108	*****	-.110	*****	-.129	*****	*****	-.106	-.089	-.078	-.073
.821	*****	*****	*****	-.098	*****	-.104	*****	*****	-.099	-.086	-.077	-.082
.835	*****	-.074	*****	-.085	*****	-.085	*****	*****	-.078	-.081	-.079	-.082
.849	*****	-.061	*****	-.079	*****	-.066	*****	*****	-.069	-.083	-.081	-.080
.863	*****	-.055	*****	-.071	*****	-.058	*****	*****	-.061	-.083	*****	-.084
.877	-.047	-.047	*****	-.066	*****	-.064	*****	*****	*****	*****	*****	*****
.891	-.073	-.080	*****	-.079	*****	-.079	*****	*****	-.077	-.088	-.094	-.094
.916	-.103	-.097	-.156	*****	-.103	*****	-.103	-.103	-.105	-.109	-.107	*****
.928	-.122	*****	-.156	*****	-.129	*****	-.122	-.122	-.122	-.133	-.134	-.133
.940	-.134	*****	-.122	*****	-.132	*****	-.133	-.133	-.132	-.135	-.136	-.139
.952	*****	*****	-.098	*****	-.107	-.106	-.104	-.102	-.104	-.103	-.111	*****
.962	-.049	-.035	*****	*****	-.043	-.042	-.043	-.042	-.043	-.048	-.052	-.048
.974	.027	.030	*****	*****	.027	.032	.029	.029	.032	.027	.029	.024
.986	.091	.098	.093	*****	.093	.090	.088	.088	.088	.089	.088	.087
.996	.114	.117	*****	*****	.120	.115	.116	.119	.121	.115	.115	.109

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0418
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Table A23. Continued

(b) NPR = 2.112

TFST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	FWD TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		31	.601	.008	2.112	14.694	11.512	2.910	0.05	-.090	*****	-.870	*****	-.089	-.095
									0.10	-.100	-1.381	-1.008	-.144	*****	*****
									0.20	-.118	-1.464	-1.140	-.169	-.115	-.143
									0.30	*****	-1.566	*****	-.183	-.158	-.169
									0.40	-.172	-1.695	-1.401	-.203	-.190	-.188
									0.50	-.147	-1.787	-1.454	-.183	-.172	-.168
									0.60	-.137	-1.861	-1.517	-.159	-.149	-.143
									0.70	-.108	-1.907	-1.507	-.110	-.120	*****
									0.80	-.064	-1.921	-1.488	-.063	-.071	-.054
									0.90	-.023	*****	-1.359	*****	-.015	-.002

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	14	36	45	54	72	81	90	108	135	162	180
.584	-.020	-.008	*****	*****	*****	*****	*****	-.018	-.021	-.014	-.005	*****
.598	-.008	-.012	*****	-.016	*****	-.022	*****	-.018	-.027	-.020	*****	*****
.612	.008	.000	*****	-.011	*****	-.017	*****	-.017	-.027	-.024	*****	*****
.626	.057	.020	*****	-.012	*****	-.015	*****	-.017	-.021	-.020	*****	*****
.640	*****	.027	*****	-.010	*****	-.021	*****	-.017	-.020	-.020	*****	*****
.654	*****	-.010	*****	-.020	*****	-.015	*****	-.024	-.022	-.033	*****	*****
.668	*****	*****	*****	-.031	*****	-.009	*****	.004	-.008	-.017	*****	*****
.682	*****	-.073	*****	-.034	*****	-.002	*****	.053	.004	-.027	-.033	*****
.696	*****	-.086	*****	-.052	*****	-.012	*****	*****	-.006	-.036	-.041	-.028
.710	*****	-.109	*****	*****	*****	-.048	*****	*****	-.038	-.041	-.041	-.037
.724	*****	-.131	*****	-.093	*****	-.102	*****	*****	-.071	-.050	-.047	-.049
.738	*****	-.146	*****	-.118	*****	*****	*****	*****	-.103	-.067	-.057	-.052
.752	*****	-.149	*****	-.128	*****	-.136	*****	*****	-.116	-.074	-.059	*****
.766	*****	-.150	*****	-.147	*****	-.164	*****	*****	-.141	-.096	-.080	-.079
.779	*****	-.140	*****	-.130	*****	-.146	*****	*****	-.127	-.081	-.072	-.059
.793	*****	-.129	*****	-.123	*****	-.142	*****	*****	-.123	-.092	-.077	*****
.807	*****	-.105	*****	-.106	*****	-.124	*****	*****	-.110	-.085	-.079	-.073
.821	*****	*****	*****	-.093	*****	-.103	*****	*****	-.094	-.084	-.079	-.072
.835	*****	-.069	*****	-.082	*****	-.078	*****	*****	-.079	-.081	-.082	-.079
.849	*****	-.054	*****	-.073	*****	-.057	*****	*****	-.064	-.076	-.079	-.074
.863	*****	-.053	*****	-.065	*****	-.057	*****	*****	-.055	-.079	*****	-.079
.877	-.045	-.046	*****	-.061	*****	-.055	*****	*****	*****	*****	*****	*****
.891	-.069	-.072	*****	-.076	*****	-.071	*****	*****	-.071	-.079	-.085	-.082
.916	-.090	-.092	-.144	*****	-.091	*****	-.092	-.094	-.096	-.093	-.099	*****
.928	-.108	*****	-.142	*****	-.112	*****	-.112	-.111	-.110	-.118	-.124	-.120
.940	-.116	*****	-.107	*****	-.118	*****	-.109	-.113	-.114	-.122	-.120	-.125
.952	*****	*****	-.079	*****	-.084	-.080	-.082	-.084	-.084	-.084	-.091	*****
.962	-.018	-.018	-.011	*****	-.013	-.013	-.014	-.015	-.013	-.012	-.024	-.019
.974	.060	.062	*****	*****	.064	.063	.060	.061	.065	.065	.059	.061
.986	.123	.124	*****	*****	.130	.125	.130	.127	.130	.128	.132	.130
.996	.164	.164	*****	*****	.150	.163	.162	.160	.161	.164	.166	.171

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0263

Table A23. Continued

(c) NPR = 3.137

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	32		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.600								
ALPHA, DEG	.009	0.05	-.086	*****	-.563	*****	-.082	-.091	
		0.10	-.095	*****	-.740	*****	*****	*****	
NPR	3.137	0.20	-.140	-1.642	-.926	-.175	-.114	-.140	
		0.30	*****	-1.734	*****	-.189	-.154	-.166	
PTD, PSI	14.691	0.40	-.169	-1.824	-1.218	-.213	-.186	-.192	
		0.50	-.158	-1.931	-1.303	-.189	-.172	-.171	
PD, PSI	11.517	0.60	-.143	-1.980	-1.334	-.160	-.155	-.145	
		0.70	-.106	-2.037	-1.330	-.116	-.125	*****	
QD, PSI	2.903	0.80	-.065	-2.032	-1.271	-.067	-.074	-.060	
		0.90	-.021	*****	-1.180	*****	-.018	-.002	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.017	-.011	*****	*****	*****	*****	*****	-.016	-.024	-.023	-.013	*****
.598	-.012	-.014	*****	-.021	*****	-.028	*****	-.026	-.023	-.022	*****	*****
.617	.011	.006	*****	-.011	*****	-.021	*****	-.021	-.024	-.020	*****	*****
.626	.067	.025	*****	-.008	*****	-.018	*****	-.019	-.022	-.026	*****	*****
.640	*****	.036	*****	-.016	*****	-.023	*****	-.019	-.021	-.031	*****	*****
.654	*****	-.008	*****	-.026	*****	-.019	*****	-.023	-.023	-.029	*****	*****
.668	*****	*****	*****	-.026	*****	-.013	*****	.000	-.007	-.023	*****	*****
.682	*****	-.068	*****	-.042	*****	.006	*****	.055	-.001	-.023	-.033	*****
.696	*****	-.100	*****	-.051	*****	-.005	*****	*****	-.008	-.032	-.040	-.035
.710	*****	-.114	*****	*****	*****	-.046	*****	*****	-.046	-.037	-.037	-.042
.724	*****	-.134	*****	-.083	*****	-.093	*****	*****	-.072	-.053	-.049	-.050
.738	*****	-.154	*****	-.117	*****	*****	*****	*****	-.105	-.068	-.054	-.057
.752	*****	-.143	*****	-.127	*****	-.144	*****	*****	-.121	-.075	-.068	*****
.766	*****	-.154	*****	-.138	*****	-.162	*****	*****	-.134	-.096	-.084	-.075
.779	*****	-.134	*****	-.130	*****	-.156	*****	*****	-.131	-.087	-.066	-.065
.793	*****	-.121	*****	-.120	*****	-.146	*****	*****	-.117	-.094	-.077	*****
.807	*****	-.107	*****	-.107	*****	-.125	*****	*****	-.107	-.084	-.076	-.073
.821	*****	*****	*****	-.094	*****	-.108	*****	*****	-.088	-.084	-.073	-.077
.835	*****	-.070	*****	-.087	*****	-.080	*****	*****	-.079	-.084	-.075	-.076
.849	*****	-.059	*****	-.069	*****	-.067	*****	*****	-.059	-.077	-.078	-.082
.863	*****	-.051	*****	-.072	*****	-.053	*****	*****	-.057	-.079	*****	-.083
.877	-.038	-.053	*****	-.061	*****	-.060	*****	*****	*****	*****	*****	*****
.891	-.066	-.075	*****	-.074	*****	-.067	*****	*****	-.077	-.084	-.089	-.086
.916	-.090	-.089	-.146	*****	-.093	*****	-.099	-.094	-.097	-.102	-.095	*****
.928	-.103	*****	-.142	*****	-.114	*****	-.110	-.105	-.110	-.120	-.148	-.123
.940	-.113	*****	-.105	*****	-.119	*****	-.116	-.115	-.114	-.117	-.125	-.128
.952	*****	*****	-.079	*****	-.080	-.081	-.077	-.083	-.081	-.082	-.088	*****
.962	-.018	-.015	-.011	*****	-.015	-.019	-.021	-.015	-.019	-.021	-.021	-.026
.974	.057	.069	*****	*****	.064	.066	.064	.066	.064	.063	.067	.059
.986	.135	.131	.134	*****	.129	.130	.128	.129	.130	.135	.131	.130
.996	.168	.169	*****	*****	.168	.163	.168	.164	.163	.168	.169	.169

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0262

Table A23. Concluded

(d) NPR = 5.091

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS										
CONFIGURATION	FWO TAILS	HORIZONTAL TAILS						VERTICAL TAIL				
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B		0.1	0.2	
33	0.1			0.2	0.1	0.2	0.1	0.2				
MACH NUMBER	.600											
ALPHA, DEG	.009	0.05	-.077	*****	-1.209	*****	-.094	-.094				
		0.10	-.100	-1.058	-1.214	-.136	*****	*****				
NPR	5.091	0.20	-.123	-1.176	-1.255	-.158	-.112	-.145				
		0.30	*****	-1.307	*****	-.186	-.148	-.159				
PTD, PSI	14.691	0.40	-.167	-1.476	-1.458	-.208	-.184	-.184				
		0.50	-.154	-1.543	-1.467	-.181	-.171	-.173				
PD, PSI	11.516	0.60	-.145	-1.637	-1.429	-.151	-.146	-.148				
		0.70	-.104	-1.495	-1.266	-.114	-.116	*****				
QD, PSI	2.904	0.80	-.062	-1.107	-1.078	-.063	-.072	-.053				
		0.90	-.021	*****	-.941	*****	-.020	.001				

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.015	-.013	*****	*****	*****	*****	*****	-.020	-.022	-.018	-.011	*****
.598	-.008	-.012	*****	-.019	*****	-.025	*****	-.022	-.025	-.023	*****	*****
.612	.011	.004	*****	-.011	*****	-.021	*****	-.017	-.020	-.023	*****	*****
.626	.059	.028	*****	-.012	*****	-.021	*****	-.022	-.026	-.024	*****	*****
.640	*****	.028	*****	-.015	*****	-.017	*****	-.024	-.024	-.028	*****	*****
.654	*****	-.016	*****	-.024	*****	-.015	*****	-.021	-.025	-.028	*****	*****
.668	*****	*****	*****	-.022	*****	-.009	*****	.004	-.009	-.019	*****	*****
.682	*****	-.073	*****	-.042	*****	.005	*****	.056	.007	-.024	-.032	*****
.696	*****	-.087	*****	-.048	*****	-.005	*****	*****	-.010	-.032	-.032	-.034
.710	*****	-.110	*****	*****	*****	-.055	*****	*****	-.046	-.041	-.040	-.040
.724	*****	-.134	*****	-.098	*****	-.093	*****	*****	-.069	-.052	-.046	-.056
.738	*****	-.144	*****	-.119	*****	*****	*****	*****	-.104	-.075	-.060	-.059
.752	*****	-.141	*****	-.124	*****	-.139	*****	*****	-.120	-.074	-.063	*****
.766	*****	-.147	*****	-.138	*****	-.162	*****	*****	-.137	-.099	-.080	-.080
.779	*****	-.128	*****	-.120	*****	-.150	*****	*****	-.126	-.088	-.068	-.064
.793	*****	-.123	*****	-.122	*****	-.138	*****	*****	-.119	-.093	-.074	*****
.807	*****	-.106	*****	-.107	*****	-.122	*****	*****	-.106	-.089	-.069	-.078
.821	*****	*****	*****	-.092	*****	-.099	*****	*****	-.094	-.083	-.074	-.079
.835	*****	-.071	*****	-.078	*****	-.078	*****	*****	-.076	-.083	-.076	-.080
.849	*****	-.056	*****	-.064	*****	-.061	*****	*****	-.064	-.082	-.076	-.077
.863	*****	-.051	*****	-.066	*****	-.049	*****	*****	-.054	-.075	*****	-.079
.877	-.040	-.045	*****	-.060	*****	-.053	*****	*****	*****	*****	*****	*****
.891	-.058	-.069	*****	-.073	*****	-.066	*****	*****	-.071	-.077	-.082	-.087
.916	-.085	-.086	-.145	*****	-.087	*****	-.093	-.093	-.093	-.093	-.090	*****
.928	-.099	*****	-.137	*****	-.108	*****	-.103	-.108	-.107	-.111	-.137	-.114
.940	-.110	*****	-.099	*****	-.107	*****	-.105	-.107	-.111	-.108	-.111	-.121
.952	*****	*****	-.065	*****	-.067	-.070	-.067	-.073	-.067	-.068	-.079	*****
.962	-.001	.000	.000	*****	.002	.000	-.004	-.003	.000	-.002	-.004	-.004
.974	.084	.084	*****	*****	.083	.084	.084	.079	.082	.085	.084	.082
.986	.158	.158	*****	*****	.156	.151	.155	.153	.150	.155	.158	.152
.996	.193	.194	*****	*****	.195	.189	.193	.191	.190	.194	.192	.194

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0177
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Table A24. Effect of Angle of Attack on Pressure Distributions for Forward Tails Configuration at $M = 0.60$ and $NPR = 1.056$

(a) $\alpha = -2.992^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
				UPPER SURFACE		LOWER SURFACE		Y/B		
MACH NUMBER	.601	35		0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	-2.992		0.05	-.325	*****	-1.162	*****	-.076	-.081	
			0.10	-.282	-1.047	-1.192	.049	*****	*****	
NPR	1.056		0.20	-.257	-1.177	-1.261	-.046	-.101	-.122	
			0.30	*****	-1.294	*****	-.085	-.130	-.148	
PTQ, PSI	14.691		0.40	-.258	-1.468	-1.451	-.122	-.151	-.166	
			0.50	-.210	-1.535	-1.466	-.117	-.140	-.148	
PD, PSI	11.511		0.60	-.188	-1.623	-1.428	-.102	-.120	-.116	
			0.70	-.144	-1.382	-1.237	-.080	-.102	*****	
QD, PSI	2.908		0.80	-.095	-1.079	-1.060	-.039	-.050	-.037	
			0.90	-.039	*****	-.932	*****	-.003	.011	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.009	-.006	*****	*****	*****	*****	*****	-.026	-.030	-.024	-.019	*****
.598	-.006	-.005	*****	-.015	*****	-.036	*****	-.043	-.038	-.028	*****	*****
.612	.015	.010	*****	-.003	*****	-.033	*****	-.033	-.033	-.036	*****	*****
.626	.077	.038	*****	-.008	*****	-.025	*****	-.030	-.042	-.034	*****	*****
.640	*****	.026	*****	-.010	*****	-.028	*****	-.031	-.038	-.038	*****	*****
.654	*****	.001	*****	-.014	*****	-.020	*****	-.035	-.044	-.048	*****	*****
.668	*****	*****	*****	-.016	*****	-.009	*****	-.013	-.032	-.048	*****	*****
.682	*****	-.054	*****	-.023	*****	.024	*****	.039	-.053	-.059	-.053	*****
.696	*****	-.072	*****	-.028	*****	.070	*****	*****	-.106	-.079	-.068	-.069
.710	*****	-.082	*****	*****	*****	.031	*****	*****	-.154	-.095	-.075	-.075
.724	*****	-.100	*****	-.048	*****	-.005	*****	*****	-.185	-.117	-.098	-.085
.738	*****	-.110	*****	-.055	*****	*****	*****	*****	-.203	-.129	-.095	-.090
.752	*****	-.101	*****	-.076	*****	-.054	*****	*****	-.197	-.133	-.102	*****
.766	*****	-.117	*****	-.091	*****	-.091	*****	*****	-.204	-.148	-.120	-.109
.779	*****	-.104	*****	-.083	*****	-.095	*****	*****	-.186	-.132	-.103	-.105
.793	*****	-.091	*****	-.090	*****	-.095	*****	*****	-.166	-.136	-.103	*****
.807	*****	-.077	*****	-.069	*****	-.084	*****	*****	-.146	-.119	-.103	-.098
.821	*****	*****	*****	-.063	*****	-.075	*****	*****	-.124	-.110	-.101	-.095
.835	*****	-.048	*****	-.064	*****	-.061	*****	*****	-.102	-.109	-.098	-.096
.849	*****	-.040	*****	-.058	*****	-.042	*****	*****	-.083	-.095	-.090	-.100
.863	*****	-.039	*****	-.053	*****	-.049	*****	*****	-.069	-.091	*****	-.096
.877	-.035	-.046	*****	-.053	*****	-.058	*****	*****	*****	*****	*****	*****
.891	-.054	-.075	*****	-.076	*****	-.075	*****	*****	-.084	-.091	-.098	-.091
.916	-.105	-.102	-.167	*****	-.101	*****	-.099	-.103	-.103	-.103	-.103	*****
.928	-.132	*****	-.170	*****	-.126	*****	-.126	-.124	-.118	-.122	-.136	-.126
.940	-.147	*****	-.129	*****	-.141	*****	-.134	-.130	-.123	-.123	-.125	-.125
.952	*****	*****	-.119	*****	-.115	*****	-.106	-.107	-.094	-.087	-.098	*****
.962	-.063	-.056	*****	*****	-.048	-.044	-.042	-.040	-.040	-.034	-.042	-.045
.974	.016	.025	*****	*****	.029	.032	.028	.026	.034	.036	.030	.026
.986	.086	.086	.091	*****	.086	.088	.092	.089	.087	.088	.083	.086
.996	.113	.110	*****	*****	.110	.113	.117	.110	.113	.122	.102	.114

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0431
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Table A24. Continued

ORIGINAL PAGE IS
OF POOR QUALITY

(b) $\alpha = 0.008^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	36		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.600								
ALPHA, DEG	.008	0.05	-.115	*****	-1.187	*****	-.082	-.095	
		0.10	-.092	-1.037	-1.218	-.143	*****	*****	
NPR	1.058	0.20	-.124	-1.168	-1.265	-.164	-.119	-.140	
		0.30	*****	-1.293	*****	-.181	-.152	-.175	
PTD, PSI	14.691	0.40	-.162	-1.461	-1.463	-.209	-.188	-.189	
		0.50	-.149	-1.529	-1.462	-.193	-.178	-.165	
PD, PSI	11.519	0.60	-.142	-1.627	-1.403	-.161	-.155	-.149	
		0.70	-.110	-1.480	-1.235	-.116	-.122	*****	
QD, PSI	2.901	0.80	-.065	-1.085	-1.060	-.068	-.079	-.055	
		0.90	-.029	*****	-.930	*****	-.027	-.001	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.017	-.013	*****	*****	*****	*****	*****	-.022	-.020	-.016	-.008	*****
.598	-.014	-.011	*****	-.019	*****	-.026	*****	-.027	-.025	-.025	*****	*****
.612	.006	.002	*****	-.015	*****	-.016	*****	-.021	-.023	-.019	*****	*****
.626	.059	.022	*****	-.008	*****	-.018	*****	-.023	-.021	-.020	*****	*****
.640	*****	.027	*****	-.014	*****	-.018	*****	-.026	-.023	-.024	*****	*****
.654	*****	-.011	*****	-.026	*****	-.014	*****	-.021	-.028	-.031	*****	*****
.668	*****	*****	*****	-.031	*****	-.008	*****	.001	-.010	-.021	*****	*****
.682	*****	-.078	*****	-.046	*****	.004	*****	.051	-.005	-.029	-.033	*****
.696	*****	-.093	*****	-.058	*****	.007	*****	.002	-.034	-.035	-.039	*****
.710	*****	-.107	*****	*****	*****	-.060	*****	*****	-.039	-.032	-.042	-.045
.724	*****	-.133	*****	-.105	*****	-.092	*****	*****	-.084	-.060	-.054	-.053
.738	*****	-.137	*****	-.115	*****	*****	*****	*****	-.102	-.064	-.060	-.061
.752	*****	-.146	*****	-.128	*****	-.148	*****	*****	-.115	-.083	-.063	*****
.766	*****	-.160	*****	-.144	*****	-.172	*****	*****	-.139	-.093	-.078	-.082
.779	*****	-.140	*****	-.127	*****	-.149	*****	*****	-.127	-.088	-.068	-.069
.793	*****	-.124	*****	-.122	*****	-.143	*****	*****	-.127	-.094	-.078	*****
.807	*****	-.107	*****	-.107	*****	-.127	*****	*****	-.109	-.086	-.072	-.076
.821	*****	*****	*****	-.095	*****	-.098	*****	*****	-.089	-.083	-.079	-.082
.835	*****	-.072	*****	-.078	*****	-.079	*****	*****	-.081	-.082	-.077	-.082
.849	*****	-.064	*****	-.074	*****	-.064	*****	*****	-.062	-.079	-.079	-.084
.863	*****	-.058	*****	-.068	*****	-.057	*****	*****	-.062	-.079	*****	-.087
.877	-.046	-.053	*****	-.068	*****	-.062	*****	*****	*****	*****	*****	*****
.891	-.069	-.075	*****	-.075	*****	-.079	*****	*****	-.077	-.082	-.096	-.096
.916	-.099	-.096	-.156	*****	-.098	*****	-.103	*****	-.106	-.103	-.103	*****
.928	-.118	*****	-.157	*****	-.124	*****	-.122	-.120	-.120	-.127	-.138	-.134
.940	-.129	*****	-.122	*****	-.133	*****	-.130	-.132	-.127	-.133	-.142	-.143
.952	*****	*****	-.103	*****	-.104	*****	-.096	-.105	-.102	-.102	-.114	*****
.962	-.043	-.038	-.039	*****	-.039	-.039	-.043	-.046	-.042	-.043	-.049	-.056
.974	.032	.032	*****	*****	.031	.029	.029	.029	.031	.031	.026	.023
.986	.096	.094	.091	*****	.094	.094	.091	.084	.086	.088	.082	.081
.996	.120	.125	*****	*****	.119	.122	.117	.115	.115	.113	.106	.102

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0411

Table A24. Continued

(c) $\alpha = 3.020^\circ$

TFST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	HORIZONTAL TAILS						VERTICAL TAIL			
		POINT NUMBER	MACH NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B		
0.1	0.2				0.1	0.2	0.1	0.2			
ALPHA, DEG	3.020	0.05	.126	*****	-1.218	*****	-.093	-.107			
NPR	1.053	0.10	.076	-1.061	-1.183	-.344	*****	*****			
PT θ , PSI	14.691	0.20	-.005	-1.182	-1.252	-.300	-.142	-.166			
PD, PSI	11.517	0.30	*****	-1.298	*****	-.294	-.186	-.197			
QD, PSI	2.903	0.40	-.083	-1.478	-1.430	-.288	-.226	-.213			
		0.50	-.093	-1.542	-1.445	-.261	-.209	-.200			
		0.60	-.083	-1.633	-1.370	-.210	-.180	-.175			
		0.70	-.068	-1.437	-1.229	-.154	-.149	*****			
		0.80	-.038	-1.104	-1.068	-.096	-.094	-.078			
		0.90	-.007	*****	-.938	*****	-.039	-.017			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.594	-.020	-.017	*****	*****	*****	*****	*****	-.026	-.027	-.015	.001	*****
.598	-.016	-.019	*****	-.025	*****	-.030	*****	-.029	-.028	-.017	*****	*****
.612	.003	-.004	*****	-.018	*****	-.028	*****	-.025	-.024	-.015	*****	*****
.626	.044	.015	*****	-.018	*****	-.028	*****	-.026	-.028	-.016	*****	*****
.640	*****	.011	*****	-.020	*****	-.029	*****	-.030	-.024	-.011	*****	*****
.654	*****	-.023	*****	-.028	*****	-.030	*****	-.029	-.029	-.015	*****	*****
.668	*****	*****	*****	-.043	*****	-.028	*****	-.005	.000	-.002	*****	*****
.682	*****	-.097	*****	-.067	*****	-.042	*****	.047	.031	-.002	-.011	*****
.696	*****	-.117	*****	-.094	*****	-.096	*****	*****	.070	.010	-.011	-.00
.710	*****	-.151	*****	*****	*****	-.171	*****	*****	.053	.012	-.009	-.01
.724	*****	-.171	*****	-.154	*****	-.206	*****	*****	.022	.000	-.015	-.01
.738	*****	-.183	*****	-.179	*****	*****	*****	*****	-.012	-.013	-.021	-.02
.752	*****	-.186	*****	-.189	*****	-.235	*****	*****	-.030	-.025	-.023	*****
.766	*****	-.190	*****	-.194	*****	-.237	*****	*****	-.069	-.050	-.042	-.04
.779	*****	-.173	*****	-.175	*****	-.215	*****	*****	-.074	-.044	-.033	-.03
.793	*****	-.159	*****	-.172	*****	-.202	*****	*****	-.078	-.057	-.048	*****
.807	*****	-.138	*****	-.142	*****	-.167	*****	*****	-.066	-.055	-.048	-.05
.821	*****	*****	*****	-.124	*****	-.131	*****	*****	-.061	-.057	-.058	-.05
.835	*****	-.091	*****	-.103	*****	-.102	*****	*****	-.053	-.064	-.060	-.06
.849	*****	-.081	*****	-.090	*****	-.078	*****	*****	-.047	-.066	-.066	-.06
.863	*****	-.066	*****	-.082	*****	-.063	*****	*****	-.052	-.069	*****	-.07
.877	-.052	-.063	*****	-.072	*****	-.065	*****	*****	*****	*****	*****	*****
.891	-.071	-.083	*****	-.083	*****	-.078	*****	*****	-.075	-.079	-.091	-.08
.916	-.093	-.095	-.147	*****	-.100	*****	-.097	-.101	-.105	-.108	-.107	*****
.928	-.108	*****	-.145	*****	-.119	*****	-.116	-.116	-.124	-.136	-.144	-.14
.940	-.116	*****	-.110	*****	-.117	*****	-.124	-.129	-.134	-.146	-.158	-.15
.952	*****	*****	-.089	*****	-.086	-.092	-.094	-.103	-.109	-.116	-.135	*****
.962	-.034	-.035	-.033	*****	-.031	-.034	-.033	-.035	-.046	-.052	-.067	-.06
.974	.036	.033	*****	*****	.028	.036	.038	.035	.025	.024	.015	.00
.986	.094	.087	.083	*****	.091	.093	.086	.081	.087	.082	.076	.07
.996	.114	.104	*****	*****	.124	.104	.108	.107	.099	.101	.096	.09

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0412
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Table A24. Continued

(d) $\alpha = 6.017^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
POINT NUMBER	38		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.601								
ALPHA, DEG	6.017	0.05	.313	*****	-1.610	*****	-.095	-.128	
		0.10	.216	-.801	-1.549	-.451	*****	*****	
NPR	1.039	0.20	.116	-.971	-1.521	-.415	-.151	-.174	
		0.30	*****	-1.131	*****	-.390	-.215	-.231	
PTD, PSI	14.691	0.40	.006	-1.292	-1.630	-.370	-.255	-.255	
		0.50	-.025	-1.337	-1.687	-.312	-.251	-.236	
PD, PSI	11.506	0.60	-.039	-1.352	-1.615	-.251	-.215	-.200	
		0.70	-.031	-1.202	-1.384	-.185	-.178	*****	
QD, PSI	2.912	0.80	-.013	-1.059	-1.093	-.114	-.121	-.100	
		0.90	.009	*****	-.959	*****	-.050	-.029	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.023	-.025	*****	*****	*****	*****	*****	-.048	-.039	-.016	.009	*****
.598	-.021	-.023	*****	-.037	*****	-.055	*****	-.049	-.054	-.018	*****	*****
.612	-.008	-.021	*****	-.030	*****	-.051	*****	-.047	-.042	-.013	*****	*****
.626	.034	.002	*****	-.028	*****	-.047	*****	-.051	-.044	-.014	*****	*****
.640	*****	-.001	*****	-.036	*****	-.055	*****	-.050	-.040	-.016	*****	*****
.654	*****	-.038	*****	-.054	*****	-.059	*****	-.054	-.038	-.014	*****	*****
.668	*****	*****	*****	-.073	*****	-.061	*****	-.029	-.005	.005	*****	*****
.682	*****	-.111	*****	-.114	*****	-.105	*****	.022	.047	.019	.017	*****
.696	*****	-.153	*****	-.151	*****	-.225	*****	*****	.144	.036	.023	.019
.710	*****	-.191	*****	*****	*****	-.302	*****	*****	.159	.057	.039	.028
.724	*****	-.217	*****	-.236	*****	-.335	*****	*****	.114	.053	.026	.020
.738	*****	-.237	*****	-.237	*****	*****	*****	*****	.061	.041	.020	.016
.752	*****	-.233	*****	-.250	*****	-.312	*****	*****	.028	.032	.015	*****
.766	*****	-.240	*****	-.263	*****	-.304	*****	*****	-.009	.000	-.006	-.010
.779	*****	-.215	*****	-.229	*****	-.271	*****	*****	-.025	.002	.010	-.002
.793	*****	-.203	*****	-.222	*****	-.245	*****	*****	-.031	-.014	-.013	*****
.807	*****	-.174	*****	-.185	*****	-.202	*****	*****	-.033	-.020	-.017	-.019
.821	*****	*****	*****	-.157	*****	-.165	*****	*****	-.032	-.030	-.020	-.030
.835	*****	-.116	*****	-.135	*****	-.127	*****	*****	-.037	-.041	-.034	-.044
.849	*****	-.095	*****	-.113	*****	-.099	*****	*****	-.036	-.048	-.049	-.053
.863	*****	-.079	*****	-.101	*****	-.079	*****	*****	-.041	-.060	*****	-.059
.877	-.062	-.068	*****	-.085	*****	-.076	*****	*****	*****	*****	*****	*****
.891	-.076	-.094	*****	-.088	*****	-.081	*****	*****	-.079	-.075	-.083	-.081
.916	-.099	-.103	-.162	*****	-.100	*****	-.099	-.105	-.107	-.112	-.107	*****
.928	-.117	*****	-.153	*****	-.111	*****	-.113	-.116	-.128	-.140	-.162	-.144
.940	-.131	*****	-.115	*****	-.114	*****	-.117	-.125	-.138	-.151	-.166	-.164
.952	*****	*****	-.100	*****	-.085	-.081	-.086	-.104	-.116	-.129	-.150	*****
.962	-.055	-.057	-.049	*****	-.037	-.035	-.034	-.046	-.059	-.070	-.086	-.083
.974	.017	-.003	*****	*****	.019	.023	.019	.014	.012	.010	.000	-.007
.986	.077	.062	.063	*****	.055	.059	.054	.062	.065	.065	.060	.054
.996	.078	.060	*****	*****	.065	.066	.065	.062	.068	.073	.070	.069

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0489

Table A24. Concluded

(e) $\alpha = 9.009^\circ$

TFST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	FWD TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
POINT NUMBER	39		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.601								
ALPHA, DEG	9.009	0.05	.447	*****	-1.135	*****	-.098	-.139	
		0.10	.343	*****	-1.203	-1.848	*****	*****	
NPR	1.051	0.20	.221	-1.173	-1.248	-.291	-.178	-.204	
		0.30	*****	-1.299	*****	-.329	-.244	-.252	
PTD, PSI	14.689	0.40	.071	-1.462	-1.429	-.358	-.298	-.279	
		0.50	.040	-1.539	-1.430	-.330	-.281	-.256	
PD, PSI	11.507	0.60	.005	-1.615	-1.397	-.287	-.251	-.225	
		0.70	.000	-1.400	-1.204	-.228	-.205	*****	
QD, PSI	2.909	0.80	.005	-1.080	-1.059	-.161	-.139	-.117	
		0.90	.018	*****	-.928	*****	-.071	-.046	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.021	-.037	*****	*****	*****	*****	*****	-.081	-.066	-.016	.030	*****
.598	-.019	-.040	*****	-.046	*****	-.081	*****	-.088	-.078	-.024	*****	*****
.612	-.004	-.039	*****	-.045	*****	-.075	*****	-.083	-.072	-.019	*****	*****
.626	.043	-.022	*****	-.048	*****	-.074	*****	-.083	-.071	-.015	*****	*****
.640	*****	-.027	*****	-.054	*****	-.087	*****	-.088	-.070	-.016	*****	*****
.654	*****	-.074	*****	-.078	*****	-.091	*****	-.094	-.064	-.015	*****	*****
.668	*****	*****	*****	-.104	*****	-.104	*****	-.065	-.025	.015	*****	*****
.682	*****	-.163	*****	-.147	*****	-.186	*****	-.011	.051	.037	.045	*****
.696	*****	-.199	*****	-.205	*****	-.378	*****	*****	.201	.065	.059	.05
.710	*****	-.243	*****	*****	*****	-.460	*****	*****	.250	.096	.076	.05
.724	*****	-.273	*****	-.302	*****	-.449	*****	*****	.195	.100	.068	.05
.738	*****	-.292	*****	-.317	*****	*****	*****	*****	.137	.089	.067	.05
.752	*****	-.288	*****	-.307	*****	-.383	*****	*****	.091	.083	.059	*****
.766	*****	-.289	*****	-.318	*****	-.361	*****	*****	.031	.046	.030	.03
.779	*****	-.251	*****	-.280	*****	-.310	*****	*****	.005	.045	.041	.03
.793	*****	-.235	*****	-.263	*****	-.285	*****	*****	-.002	.020	.017	*****
.807	*****	-.204	*****	-.229	*****	-.248	*****	*****	-.013	.015	.014	.00
.821	*****	*****	*****	-.202	*****	-.205	*****	*****	-.019	-.011	.002	-.00
.835	*****	-.144	*****	-.174	*****	-.161	*****	*****	-.031	-.024	-.022	-.02
.849	*****	-.129	*****	-.144	*****	-.132	*****	*****	-.035	-.033	-.037	-.03
.863	*****	-.117	*****	-.127	*****	-.101	*****	*****	-.051	-.058	*****	-.05
.877	-.076	-.093	*****	-.114	*****	-.084	*****	*****	*****	*****	*****	*****
.891	-.093	-.126	*****	-.116	*****	-.083	*****	*****	-.085	-.078	-.078	-.07
.916	-.108	-.127	-.241	*****	-.113	*****	-.096	-.097	-.107	-.109	-.104	*****
.928	-.133	*****	-.227	*****	-.125	*****	-.106	-.106	-.125	-.144	-.164	-.14
.940	-.153	*****	-.154	*****	-.130	*****	-.105	-.116	-.136	-.155	-.170	-.16
.952	*****	*****	-.132	*****	-.089	-.072	-.078	-.100	-.108	-.129	-.156	*****
.962	-.094	-.099	-.064	*****	-.035	-.022	-.034	-.036	-.048	-.060	-.092	-.09
.974	-.021	-.028	*****	*****	.039	.022	.024	.034	.034	.013	.000	-.01
.986	.056	.052	.085	*****	.070	.085	.069	.086	.080	.082	.071	.05
.996	.085	.079	*****	*****	.141	.124	.107	.092	.100	.096	.095	.05

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0508

Table A25. Effect of Nozzle Pressure Ratio on Pressure Distributions for Staggered Tails Configuration at $M = 1.20$ and $\alpha = 0.015^\circ$

(a) NPR = 1.043

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	STAG TAILS	HORIZONTAL TAILS						VERTICAL TAIL	
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
3	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.205								
ALPHA, DEG	.015	0.05	-.015	*****	*****	*****	.033	.041	
		0.10	-.031	-.019	-.005	.001	.001	.004	
NPR	1.043	0.20	-.059	-.071	-.028	-.051	-.030	-.042	
		0.30	-.082	*****	-.063	-.085	-.055	-.067	
PTD, PSI	14.786	0.40	-.129	-.167	-.103	*****	-.095	-.108	
		0.50	-.178	-.214	-.148	-.205	-.115	-.138	
PD, PSI	6.056	0.60	-.192	-.238	-.165	-.227	-.144	-.153	
		0.70	-.202	-.221	-.195	-.228	-.148	-.152	
QD, PSI	6.158	0.80	-.212	*****	-.206	-.209	-.114	-.139	
		0.90	-.202	*****	-.199	*****	-.054	-.055	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.024	-.022	*****	-.014	*****	*****	*****	-.026	-.013	-.012	.003	*****
.598	-.030	-.027	*****	-.028	*****	-.027	*****	-.026	-.014	-.008	*****	*****
.612	-.028	-.027	*****	-.027	*****	-.026	*****	-.017	-.010	-.007	*****	*****
.626	-.008	-.019	*****	-.023	*****	-.020	*****	-.016	-.008	-.005	*****	*****
.640	*****	.081	*****	.002	*****	-.010	*****	-.011	-.005	-.003	*****	*****
.654	*****	.083	*****	.027	*****	-.007	*****	-.016	-.020	-.018	*****	*****
.668	*****	*****	*****	.041	*****	.007	*****	-.002	-.009	-.005	*****	*****
.682	*****	.012	*****	.024	*****	.012	*****	.008	.001	.000	-.001	*****
.696	*****	-.006	*****	.011	*****	.007	*****	.015	.011	.007	.002	.002
.710	*****	-.022	*****	*****	*****	.012	*****	.019	.019	.013	.003	.000
.724	*****	-.042	*****	-.008	*****	.007	*****	.020	.018	.006	-.003	-.004
.738	*****	-.056	*****	-.029	*****	*****	*****	-.001	-.002	-.004	-.012	-.014
.752	*****	-.068	*****	-.029	*****	-.008	*****	.001	-.002	-.002	-.003	*****
.766	*****	-.093	*****	-.063	*****	-.037	*****	-.029	-.030	-.025	-.028	-.029
.779	*****	-.100	*****	-.056	*****	.024	*****	.174	.030	-.006	-.009	-.012
.793	*****	-.114	*****	-.048	*****	.045	*****	*****	.060	.005	-.015	*****
.807	*****	-.107	*****	-.039	*****	.001	*****	*****	.023	.020	.002	.002
.821	*****	*****	*****	-.051	*****	-.034	*****	*****	-.002	.019	.014	.009
.835	*****	-.080	*****	-.072	*****	-.071	*****	*****	-.033	-.004	.009	.002
.849	*****	-.077	*****	*****	*****	-.117	*****	*****	-.053	-.029	-.011	-.011
.863	*****	-.067	*****	-.122	*****	-.154	*****	*****	-.094	-.056	*****	-.031
.877	-.021	-.043	*****	-.121	*****	-.194	*****	*****	*****	*****	*****	*****
.891	-.059	-.079	*****	-.131	*****	-.212	*****	*****	-.160	-.118	-.096	-.086
.916	-.121	-.132	-.193	*****	-.183	*****	-.231	-.219	-.222	-.171	-.141	-.151
.928	-.175	*****	-.241	*****	-.222	-.227	-.224	-.217	-.241	-.231	-.211	-.201
.940	-.247	*****	-.260	*****	-.276	-.274	-.260	-.253	-.284	-.286	-.276	-.271
.952	*****	*****	-.345	*****	-.344	-.323	-.308	-.302	-.336	-.365	-.364	-.355
.962	-.390	-.390	-.387	*****	-.361	-.271	-.248	-.199	-.143	-.132	-.170	-.203
.974	-.125	-.130	*****	*****	-.108	-.098	-.089	-.077	-.073	-.072	-.079	-.079
.986	-.063	-.072	-.068	*****	-.058	-.057	-.054	-.056	-.054	-.056	-.057	-.053
.996	-.030	-.035	*****	*****	-.030	-.031	-.031	-.036	-.038	-.040	-.037	-.036

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1114

Table A25. Continued

(b) NPR = 2.013

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	STAG TAILS 4	MACH NUMBER 1.200	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
				UPPER SURFACE		LOWER SURFACE		Y/B		
				0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.017		0.05	-.022	*****	*****	*****	.021	.036	
			0.10	-.038	-.029	-.009	-.009	.003	.004	
NPR	2.013		0.20	-.058	-.066	-.029	-.058	-.036	-.046	
			0.30	-.088	*****	-.065	-.098	-.064	-.072	
PTQ, PSI	14.786		0.40	-.133	-.171	-.106	*****	-.097	-.113	
			0.50	-.182	-.217	-.150	-.211	-.112	-.140	
PD, PSI	6.094		0.60	-.191	-.244	-.169	-.236	-.145	-.153	
			0.70	-.206	-.231	-.196	-.234	-.147	-.156	
QD, PSI	6.147		0.80	-.216	*****	-.212	-.215	-.117	-.137	
			0.90	-.211	*****	-.205	*****	-.058	-.057	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.028	-.025	*****	-.020	*****	*****	*****	-.024	-.016	-.015	.001	*****
.598	-.035	-.029	*****	-.031	*****	-.030	*****	-.025	-.019	-.011	*****	*****
.612	-.036	-.032	*****	-.031	*****	-.024	*****	-.021	-.015	-.010	*****	*****
.626	-.017	-.024	*****	-.024	*****	-.023	*****	-.017	-.016	-.009	*****	*****
.640	*****	.073	*****	.000	*****	-.014	*****	-.015	-.012	-.005	*****	*****
.654	*****	.069	*****	.027	*****	-.009	*****	-.023	-.025	-.020	*****	*****
.668	*****	*****	*****	.039	*****	.008	*****	-.007	-.010	-.010	*****	*****
.682	*****	.015	*****	.020	*****	.009	*****	.000	-.007	-.003	.001	*****
.696	*****	-.010	*****	.010	*****	.010	*****	.006	.004	.001	.004	.003
.710	*****	-.027	*****	*****	*****	.010	*****	.015	.012	.010	.000	-.002
.724	*****	-.046	*****	-.010	*****	.002	*****	.014	.011	.004	-.001	-.005
.738	*****	-.066	*****	-.034	*****	*****	*****	-.001	-.007	-.008	-.012	-.013
.752	*****	-.073	*****	-.029	*****	-.008	*****	-.004	-.004	-.005	-.003	*****
.766	*****	-.096	*****	-.066	*****	-.036	*****	-.031	-.031	-.028	-.026	-.027
.779	*****	-.108	*****	-.062	*****	.019	*****	.169	.027	-.006	-.011	-.011
.793	*****	-.119	*****	-.054	*****	.042	*****	*****	.049	.004	-.016	*****
.807	*****	-.113	*****	-.047	*****	.000	*****	*****	.024	.019	.003	.000
.821	*****	*****	*****	-.055	*****	-.047	*****	*****	-.008	.015	.012	.010
.835	*****	-.090	*****	-.084	*****	-.084	*****	*****	-.035	-.005	.004	.005
.849	*****	-.077	*****	*****	*****	-.122	*****	*****	-.064	-.029	-.011	-.009
.863	*****	-.065	*****	-.128	*****	-.166	*****	*****	-.099	-.059	*****	-.034
.877	-.029	-.053	*****	-.133	*****	-.202	*****	*****	*****	*****	*****	*****
.891	-.061	-.082	*****	-.137	*****	-.210	*****	*****	-.161	-.118	-.094	-.087
.916	-.126	-.138	-.199	*****	-.199	*****	-.236	-.226	-.226	-.174	-.143	-.150
.928	-.181	*****	-.244	*****	-.228	-.238	-.230	-.222	-.245	-.231	-.212	-.202
.940	-.253	*****	-.264	*****	-.283	-.280	-.267	-.258	-.287	-.291	-.276	-.271
.952	*****	*****	-.354	*****	-.352	-.328	-.314	-.305	-.339	-.368	-.365	-.357
.962	-.340	-.256	-.291	*****	-.255	-.227	-.214	-.222	-.173	-.154	-.173	-.229
.974	-.095	-.088	*****	*****	-.087	-.078	-.071	-.075	-.080	-.084	-.081	-.080
.986	-.053	-.056	-.060	*****	-.055	-.042	-.041	-.047	-.057	-.068	-.056	-.052
.996	-.032	-.031	*****	*****	-.029	-.012	-.012	-.017	-.030	-.046	-.034	-.036

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1098

ORIGINAL PAGE IS
OF POOR QUALITY

Table A25. Continued

(c) NPR = 3.993

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
		POINT NUMBER	X/C	UPPER SURFACE		LOWER SURFACE		Y/B	
5	0.1			0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.200								
ALPHA, DEG	.015	0.05	-.028	*****	*****	*****	.024	.028	
		0.10	-.043	-.023	-.010	-.006	.007	.003	
NPR	3.993	0.20	-.063	-.076	-.028	-.057	-.035	-.046	
		0.30	-.088	*****	-.065	-.101	-.064	-.072	
PTD, PSI	14.786	0.40	-.135	-.170	-.107	*****	-.093	-.112	
		0.50	-.181	-.216	-.151	-.211	-.117	-.139	
PD, PSI	6.097	0.60	-.202	-.242	-.169	-.232	-.143	-.153	
		0.70	-.204	-.230	-.199	-.235	-.145	-.155	
QD, PSI	6.146	0.80	-.218	*****	-.213	-.213	-.117	-.141	
		0.90	-.209	*****	-.205	*****	-.056	-.056	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG.

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.031	-.025	*****	-.021	*****	*****	*****	-.027	-.018	-.014	.000	*****
.598	-.035	-.030	*****	-.029	*****	-.030	*****	-.023	-.020	-.010	*****	*****
.612	-.037	-.032	*****	-.030	*****	-.024	*****	-.020	-.016	-.013	*****	*****
.626	-.019	-.025	*****	-.030	*****	-.023	*****	-.021	-.019	-.011	*****	*****
.640	*****	.071	*****	-.005	*****	-.014	*****	-.015	-.011	-.008	*****	*****
.654	*****	.072	*****	.023	*****	-.008	*****	-.026	-.026	-.022	*****	*****
.668	*****	*****	*****	.037	*****	.010	*****	-.009	-.016	-.011	*****	*****
.682	*****	.013	*****	.022	*****	.012	*****	-.004	-.010	-.007	.000	*****
.696	*****	-.015	*****	.002	*****	.010	*****	.005	.006	.002	.001	.000
.710	*****	-.026	*****	*****	*****	.009	*****	.015	.016	.009	.000	-.003
.724	*****	-.040	*****	-.015	*****	.006	*****	.012	.008	.004	-.004	-.007
.738	*****	-.067	*****	-.031	*****	*****	*****	.005	-.009	-.007	-.012	-.013
.752	*****	-.069	*****	-.031	*****	-.009	*****	-.002	-.004	-.004	-.003	*****
.766	*****	-.097	*****	-.066	*****	-.039	*****	-.031	-.033	-.030	-.026	-.030
.779	*****	-.107	*****	-.061	*****	.019	*****	.170	.027	-.007	-.011	-.012
.793	*****	-.118	*****	-.054	*****	.045	*****	*****	.051	.004	-.015	*****
.807	*****	-.111	*****	-.048	*****	-.004	*****	*****	.021	.019	.002	-.003
.821	*****	*****	*****	-.057	*****	-.046	*****	*****	-.007	.016	.011	.010
.835	*****	-.089	*****	-.087	*****	-.080	*****	*****	-.039	-.004	.004	.001
.849	*****	-.079	*****	*****	*****	-.117	*****	*****	-.059	-.030	-.011	-.014
.863	*****	-.068	*****	-.124	*****	-.162	*****	*****	-.100	-.059	*****	-.033
.877	-.026	-.051	*****	-.127	*****	-.195	*****	*****	*****	*****	*****	*****
.891	-.065	-.083	*****	-.135	*****	-.214	*****	*****	-.154	-.117	-.097	-.086
.916	-.125	-.137	-.199	*****	-.187	*****	-.234	-.223	-.226	-.173	-.143	-.152
.928	-.182	*****	-.242	*****	-.230	-.237	-.229	-.223	-.245	-.232	-.213	-.203
.940	-.252	*****	-.264	*****	-.283	-.280	-.266	-.258	-.288	-.291	-.279	-.269
.952	*****	*****	-.354	*****	-.350	-.331	-.313	-.306	-.339	-.368	-.365	-.356
.962	-.384	-.336	-.309	*****	-.297	-.258	-.254	-.252	-.241	-.208	-.222	-.305
.974	-.097	-.090	*****	*****	-.091	-.083	-.082	-.082	-.088	-.091	-.089	-.090
.986	-.052	-.058	-.063	*****	-.062	-.045	-.044	-.048	-.061	-.075	-.061	-.059
.996	-.029	-.033	*****	*****	-.028	-.012	-.010	-.013	-.029	-.051	-.035	-.037

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1145

Table A25. Continued

(d) NPR = 6.019

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
				UPPER SURFACE		LOWER SURFACE		Y/B		
MACH NUMBER	1.199	6	0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.010		0.05	-.029	*****	*****	*****	.023	.035	
NPR	6.019		0.10	-.041	-.023	-.019	-.016	.003	.000	
PTD, PSI	14.786		0.20	-.063	-.073	-.033	-.061	-.027	-.047	
PD, PSI	6.106		0.30	-.088	*****	-.069	-.104	-.063	-.075	
QD, PSI	6.144		0.40	-.136	-.173	-.106	*****	-.095	-.114	
			0.50	-.183	-.218	-.155	-.214	-.114	-.141	
			0.60	-.202	-.242	-.176	-.235	-.144	-.158	
			0.70	-.207	-.231	-.199	-.236	-.147	-.157	
			0.80	-.220	*****	-.214	-.214	-.116	-.139	
			0.90	-.210	*****	-.206	*****	-.056	-.058	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.029	-.029	*****	-.023	*****	*****	*****	-.026	-.021	-.015	-.003	*****
.598	-.037	-.032	*****	-.030	*****	-.033	*****	-.027	-.022	-.012	*****	*****
.612	-.035	-.034	*****	-.031	*****	-.026	*****	-.021	-.017	-.012	*****	*****
.626	-.020	-.027	*****	-.030	*****	-.025	*****	-.020	-.016	-.012	*****	*****
.640	*****	.074	*****	-.007	*****	-.018	*****	-.013	-.015	-.009	*****	*****
.654	*****	.069	*****	.020	*****	-.012	*****	-.026	-.029	-.025	*****	*****
.668	*****	*****	*****	.042	*****	.004	*****	-.010	-.015	-.015	*****	*****
.682	*****	.013	*****	.021	*****	.006	*****	-.002	-.010	-.006	-.003	*****
.696	*****	-.011	*****	.005	*****	.005	*****	.007	.002	.004	.003	-.002
.710	*****	-.030	*****	*****	*****	.013	*****	.013	.012	.007	.001	-.003
.724	*****	-.046	*****	-.018	*****	.004	*****	.012	.010	.000	-.005	-.005
.738	*****	-.065	*****	-.036	*****	*****	*****	.001	-.010	-.007	-.011	-.011
.752	*****	-.070	*****	-.038	*****	-.012	*****	-.003	-.006	-.005	-.003	*****
.766	*****	-.098	*****	-.067	*****	-.038	*****	-.029	-.031	-.029	-.031	-.025
.779	*****	-.105	*****	-.058	*****	.022	*****	.173	.027	-.008	-.012	-.013
.793	*****	-.112	*****	-.052	*****	.040	*****	*****	.051	.005	-.015	*****
.807	*****	-.112	*****	-.046	*****	.000	*****	*****	.023	.016	.004	-.001
.821	*****	*****	*****	-.057	*****	-.046	*****	*****	-.011	.011	.012	.010
.835	*****	-.092	*****	-.087	*****	-.078	*****	*****	-.036	-.007	.000	.000
.849	*****	-.084	*****	*****	*****	-.120	*****	*****	-.063	-.032	-.017	-.016
.863	*****	-.070	*****	-.130	*****	-.159	*****	*****	-.103	-.062	*****	-.031
.877	-.030	-.049	*****	-.128	*****	-.197	*****	*****	*****	*****	*****	*****
.891	-.063	-.083	*****	-.133	*****	-.215	*****	*****	-.164	-.120	-.095	-.087
.916	-.124	-.137	-.201	*****	-.190	*****	-.236	-.227	-.228	-.177	-.145	-.154
.928	-.180	*****	-.246	*****	-.230	-.238	-.230	-.225	-.247	-.233	-.213	-.202
.940	-.253	*****	-.264	*****	-.283	-.281	-.267	-.259	-.289	-.293	-.279	-.273
.952	*****	*****	-.354	*****	-.351	-.331	-.313	-.306	-.341	-.371	-.368	-.355
.962	-.192	-.161	-.146	*****	-.139	-.139	-.152	-.148	-.122	-.113	-.115	-.143
.974	-.057	-.061	*****	*****	-.067	-.055	-.052	-.058	-.065	-.071	-.061	-.067
.986	-.026	-.032	-.042	*****	-.043	-.031	-.028	-.032	-.047	-.058	-.037	-.042
.996	-.010	-.016	*****	*****	-.018	-.001	.011	.005	-.013	-.041	-.017	-.021

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1003
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Table A25. Concluded

(e) NPR = 8.069

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS										
CONFIGURATION	STAG TAILS	HORIZONTAL TAILS								VERTICAL TAIL		
		POINT NUMBER	7	UPPER SURFACE				LOWER SURFACE				Y/B
MACH NUMBER	1.203			X/C	0.1	Y/B	0.2	0.1	Y/B	0.2	0.1	0.2
		ALPHA, DEG	.010	0.05	-.027	*****	*****	*****	*****	*****	.020	.025
NPR	8.069	0.10	-.041	-.016	-.014	-.009	.003	.002				
		0.20	-.059	-.066	-.036	-.053	-.032	-.048				
		0.30	-.088	*****	-.066	-.104	-.064	-.071				
PTD, PSI	14.782	0.40	-.130	-.169	-.102	*****	-.098	-.109				
		0.50	-.179	-.217	-.153	-.212	-.113	-.134				
PD, PSI	6.074	0.60	-.198	-.241	-.175	-.234	-.141	-.151				
		0.70	-.203	-.229	-.197	-.234	-.147	-.154				
QQ, PSI	6.151	0.80	-.213	*****	-.210	-.212	-.114	-.140				
		0.90	-.206	*****	-.203	*****	-.056	-.063				

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.030	-.025	*****	-.019	*****	*****	*****	-.026	-.019	-.014	-.002	*****
.598	-.036	-.031	*****	-.028	*****	-.031	*****	-.025	-.022	-.013	*****	*****
.612	-.035	-.034	*****	-.029	*****	-.024	*****	-.021	-.018	-.012	*****	*****
.626	-.020	-.028	*****	-.030	*****	-.022	*****	-.016	-.018	-.013	*****	*****
.640	*****	.067	*****	-.011	*****	-.015	*****	-.012	-.012	-.007	*****	*****
.654	*****	.063	*****	.020	*****	-.010	*****	-.024	-.025	-.023	*****	*****
.668	*****	*****	*****	.040	*****	.005	*****	-.010	-.015	-.014	*****	*****
.682	*****	.015	*****	.021	*****	.009	*****	-.001	-.012	-.008	-.002	*****
.696	*****	-.011	*****	.005	*****	.008	*****	.002	.001	-.003	-.003	-.002
.710	*****	-.027	*****	*****	*****	.006	*****	.016	.010	.011	-.001	-.002
.724	*****	-.048	*****	-.015	*****	.005	*****	.015	.013	.006	-.008	.000
.738	*****	-.062	*****	-.032	*****	*****	*****	.000	-.006	-.005	-.013	-.007
.752	*****	-.073	*****	-.036	*****	-.014	*****	-.002	-.005	.000	-.001	*****
.766	*****	-.097	*****	-.067	*****	-.034	*****	-.030	-.032	-.026	-.027	-.029
.779	*****	-.099	*****	-.057	*****	.022	*****	.172	.030	-.005	-.011	-.010
.793	*****	-.111	*****	-.050	*****	.046	*****	*****	.052	.008	-.015	*****
.807	*****	-.110	*****	-.042	*****	.006	*****	*****	.020	.020	.000	.003
.821	*****	*****	*****	-.053	*****	-.034	*****	*****	-.005	.015	.011	.013
.835	*****	-.090	*****	-.077	*****	-.080	*****	*****	-.044	-.008	.000	.000
.849	*****	-.088	*****	*****	*****	-.119	*****	*****	-.055	-.029	-.016	-.017
.863	*****	-.070	*****	-.126	*****	-.161	*****	*****	-.099	-.057	*****	-.037
.877	-.026	-.049	*****	-.123	*****	-.189	*****	*****	*****	*****	*****	*****
.891	-.057	-.078	*****	-.133	*****	-.211	*****	*****	-.163	-.113	-.096	-.085
.916	-.120	-.133	-.196	*****	-.184	*****	-.233	-.222	-.225	-.171	-.142	-.150
.928	-.177	*****	-.244	*****	-.227	-.235	-.228	-.220	-.243	-.228	-.211	-.203
.940	-.246	*****	-.262	*****	-.277	-.277	-.264	-.255	-.285	-.290	-.277	-.269
.952	*****	*****	-.348	*****	-.341	-.316	-.287	-.275	-.307	-.336	-.357	-.354
.962	-.082	-.075	-.073	*****	-.074	-.075	-.077	-.076	-.067	-.067	-.070	-.082
.974	-.026	-.026	*****	*****	-.036	-.030	-.028	-.030	-.041	-.046	-.036	-.037
.986	.000	-.005	-.014	*****	-.019	-.014	-.008	-.009	-.019	-.034	-.018	-.012
.996	.012	.004	*****	*****	.003	.013	.015	.023	.005	-.017	.004	.002

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0875
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Table A26. Effect of Angle of Attack on Pressure Distributions for Staggered Tails Configuration at $M = 1.20$ and $NPR = 1.006$

(a) $\alpha = -2.777^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS										
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS UPPER SURFACE Y/B				HORIZONTAL TAILS LOWER SURFACE Y/B		VERTICAL TAIL Y/B			
			0.1	0.2	0.1	0.2	0.1	0.2				
MACH NUMBER	1.200											
ALPHA, DEG	-2.777	0.05	-0.214	*****	*****	*****	*****	*****	.019	.006		
NPR	1.006	0.10	-0.163	.095	-0.131	.104	.000	-0.006	.000	-0.006		
PT0, PSI	14.783	0.20	-0.163	.022	-0.129	.034	-0.036	-0.056	-0.036	-0.056		
		0.30	-0.177	*****	-0.147	-0.036	-0.073	-0.084	-0.073	-0.084		
		0.40	-0.196	-0.101	-0.168	*****	-0.102	-0.119	-0.102	-0.119		
PD, PSI	6.094	0.50	-0.232	-0.157	-0.207	-0.158	-0.126	-0.150	-0.126	-0.150		
		0.60	-0.257	-0.176	-0.226	-0.175	-0.149	-0.167	-0.149	-0.167		
QD, PSI	6.145	0.70	-0.268	-0.158	-0.258	-0.165	-0.153	-0.171	-0.153	-0.171		
		0.80	-0.278	*****	-0.261	-0.136	-0.137	-0.156	-0.137	-0.156		
		0.90	-0.254	*****	-0.239	*****	-0.029	-0.057	-0.029	-0.057		

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.036	-.029	*****	-.032	*****	*****	*****	-.041	-.030	-.018	.001	*****
.598	-.042	-.033	*****	-.042	*****	-.048	*****	-.039	-.033	-.016	*****	*****
.612	-.036	-.038	*****	-.043	*****	-.041	*****	-.033	-.027	-.016	*****	*****
.626	-.038	-.040	*****	-.042	*****	-.042	*****	-.037	-.031	-.017	*****	*****
.640	*****	.063	*****	-.029	*****	-.033	*****	-.027	-.023	-.014	*****	*****
.654	*****	.065	*****	.013	*****	-.025	*****	-.042	-.039	-.029	*****	*****
.668	*****	*****	*****	.033	*****	-.005	*****	-.024	-.029	-.020	*****	*****
.682	*****	.006	*****	.012	*****	-.006	*****	-.010	-.022	-.014	-.002	*****
.696	*****	-.019	*****	-.011	*****	-.009	*****	-.013	-.014	-.005	.004	.010
.710	*****	-.040	*****	*****	*****	-.013	*****	-.006	-.006	.009	.012	.012
.724	*****	-.052	*****	-.029	*****	-.014	*****	-.007	-.003	.009	.009	.003
.738	*****	-.040	*****	-.049	*****	*****	*****	-.018	-.016	-.004	.002	.001
.752	*****	-.086	*****	-.046	*****	-.030	*****	-.015	-.010	-.002	.001	*****
.766	*****	-.105	*****	-.078	*****	-.051	*****	-.037	-.036	-.026	-.025	-.020
.779	*****	-.107	*****	-.068	*****	.018	*****	.168	.015	-.008	-.006	-.002
.793	*****	-.123	*****	-.055	*****	.099	*****	*****	-.004	-.008	-.009	*****
.807	*****	-.120	*****	-.016	*****	.076	*****	*****	-.056	-.013	-.004	-.004
.821	*****	*****	*****	-.006	*****	.026	*****	*****	-.078	-.029	-.009	-.006
.835	*****	-.060	*****	-.037	*****	-.020	*****	*****	-.110	-.054	-.030	-.025
.849	*****	-.038	*****	*****	*****	-.063	*****	*****	-.119	-.079	-.052	-.053
.863	*****	-.018	*****	-.075	*****	-.106	*****	*****	-.148	-.111	*****	-.080
.877	.035	.015	*****	-.067	*****	-.141	*****	*****	*****	*****	*****	*****
.891	-.002	-.023	*****	-.071	*****	-.147	*****	*****	-.220	-.170	-.143	-.133
.916	-.073	-.082	-.149	*****	-.131	*****	-.206	-.236	-.266	-.223	-.190	-.194
.928	-.131	*****	-.196	*****	-.179	-.202	-.209	-.237	-.269	-.278	-.256	-.243
.940	-.204	*****	-.223	*****	-.244	-.258	-.257	-.265	-.298	-.328	-.319	-.311
.952	*****	*****	-.315	*****	-.321	-.324	-.324	-.307	-.258	-.314	-.398	-.393
.962	-.357	-.357	-.359	*****	-.356	-.300	-.237	-.148	-.108	-.111	-.136	-.147
.974	-.379	-.373	*****	*****	-.202	-.133	-.113	-.100	-.087	-.092	-.100	-.100
.986	-.124	-.118	-.109	*****	-.100	-.097	-.096	-.095	-.088	-.091	-.091	-.090
.996	-.052	-.056	*****	*****	-.066	-.078	-.081	-.084	-.080	-.073	-.070	-.066

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.1205
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Table A26. Continued

ORIGINAL PAGE IS
OF POOR QUALITY

(b) $\alpha = 0.022^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	1.199								
ALPHA, DEG	.022	0.05	-.023	*****	*****	*****	.013	.013	
		0.10	-.042	-.027	-.013	-.017	.003	-.008	
NPR	1.025	0.20	-.063	-.086	-.031	-.069	-.036	-.052	
		0.30	-.088	*****	*****	*****	-.069	-.081	
PTO, PSI	14.782	0.40	-.132	-.180	-.101	*****	-.103	-.114	
		0.50	-.180	-.221	-.155	-.217	-.120	-.140	
PO, PSI	6.101	0.60	-.198	-.248	-.175	-.238	-.145	-.160	
		0.70	-.206	-.234	-.199	-.240	-.150	-.157	
QO, PSI	6.143	0.80	-.218	*****	*****	*****	-.123	-.145	
		0.90	-.206	*****	*****	*****	-.063	-.066	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.030	*****	-.024	*****	*****	*****	-.030	-.020	-.020	-.003	*****
.598	-.039	-.034	*****	-.031	*****	-.031	*****	-.029	-.024	-.020	*****	*****
.612	-.037	-.038	*****	-.034	*****	-.026	*****	-.023	-.021	-.017	*****	*****
.626	-.022	-.029	*****	-.034	*****	-.023	*****	-.023	-.023	-.013	*****	*****
.640	*****	.063	*****	-.010	*****	-.020	*****	-.015	-.014	-.009	*****	*****
.654	*****	.062	*****	.013	*****	-.013	*****	-.027	-.030	-.025	*****	*****
.668	*****	*****	*****	.034	*****	.003	*****	-.014	-.018	-.016	*****	*****
.682	*****	.015	*****	.019	*****	.007	*****	-.003	-.013	-.006	-.004	*****
.696	*****	-.014	*****	.006	*****	.003	*****	-.002	-.001	-.001	-.007	-.004
.710	*****	-.028	*****	*****	*****	.003	*****	.008	.009	.004	-.002	-.008
.724	*****	-.051	*****	-.020	*****	.005	*****	.011	.007	.000	-.011	-.008
.738	*****	-.067	*****	-.036	*****	*****	*****	-.005	-.012	-.009	-.016	-.013
.752	*****	-.072	*****	-.035	*****	-.015	*****	-.009	-.010	-.005	-.002	*****
.766	*****	-.103	*****	-.069	*****	-.038	*****	-.035	-.032	-.029	-.031	-.032
.779	*****	-.101	*****	-.057	*****	.019	*****	.172	.027	-.007	-.010	-.012
.793	*****	-.117	*****	-.053	*****	.043	*****	*****	.051	.006	-.016	*****
.807	*****	-.113	*****	-.048	*****	-.007	*****	*****	.026	.018	-.001	-.004
.821	*****	*****	*****	-.062	*****	-.044	*****	*****	-.001	.013	.011	-.007
.835	*****	-.094	*****	-.087	*****	-.085	*****	*****	-.037	-.006	.003	-.003
.849	*****	-.087	*****	*****	*****	-.127	*****	*****	-.052	-.027	-.015	-.015
.863	*****	-.070	*****	-.132	*****	-.166	*****	*****	-.099	-.061	*****	-.036
.877	-.030	-.053	*****	-.131	*****	-.199	*****	*****	*****	*****	*****	*****
.891	-.068	-.083	*****	-.139	*****	-.213	*****	*****	-.156	-.115	-.095	-.084
.916	-.129	-.140	*****	-.205	*****	-.189	*****	-.240	-.227	-.227	-.174	-.142
.928	-.183	*****	*****	-.245	*****	-.234	*****	-.242	-.233	-.226	-.231	-.213
.940	-.251	*****	*****	-.266	*****	-.287	*****	-.268	-.260	-.290	-.292	-.278
.952	*****	*****	*****	-.356	*****	-.352	*****	-.315	-.309	-.342	-.370	-.370
.962	-.397	-.396	*****	-.396	*****	-.368	*****	-.256	-.216	-.159	-.149	-.190
.974	-.138	-.133	*****	*****	*****	-.115	*****	-.089	-.081	-.077	-.074	-.080
.986	-.071	-.079	*****	-.074	*****	-.069	*****	-.062	-.061	-.061	-.061	-.065
.996	-.038	-.048	*****	*****	*****	-.040	*****	-.039	-.043	-.041	-.043	-.045

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1172

Table A26. Continued

(c) $\alpha = 3.021^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG	TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
				UPPER SURFACE		LOWER SURFACE		Y/B	
POINT NUMBER		11		0.1	0.2	0.1	0.2	0.1	0.2
MACH NUMBER		1.200							
ALPHA, DEG		3.021	0.05	.146	*****	*****	*****	.014	-.003
			0.10	.104	-.158	.122	-.123	.007	.000
NPR		1.004	0.20	.047	-.179	.071	-.155	-.028	-.045
			0.30	-.002	*****	.016	-.193	-.059	-.066
PTD, PSI		14.784	0.40	-.060	-.247	-.038	*****	-.094	-.104
			0.50	-.100	-.285	-.078	-.276	-.107	-.128
PD, PSI		6.097	0.60	-.110	-.309	-.104	-.297	-.135	-.150
			0.70	-.135	-.304	-.128	-.300	-.136	-.145
QD, PSI		6.145	0.80	-.148	*****	-.151	-.280	-.116	-.135
			0.90	-.152	*****	-.155	*****	-.092	-.083

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.033	-.030	*****	-.023	*****	*****	*****	-.030	-.015	-.034	-.013	*****
.598	-.037	-.032	*****	-.030	*****	-.030	*****	-.025	-.031	-.022	*****	*****
.612	-.032	-.033	*****	-.029	*****	-.028	*****	-.026	-.027	-.014	*****	*****
.626	.011	-.008	*****	-.026	*****	-.030	*****	-.026	-.019	-.015	*****	*****
.640	*****	.069	*****	-.005	*****	-.020	*****	-.018	-.016	-.007	*****	*****
.654	*****	.057	*****	.017	*****	-.015	*****	-.029	-.029	-.021	*****	*****
.668	*****	*****	*****	.036	*****	-.001	*****	-.014	-.021	-.009	*****	*****
.682	*****	.008	*****	.018	*****	.001	*****	-.005	-.019	-.007	-.005	*****
.696	*****	-.010	*****	.005	*****	.004	*****	.003	-.005	-.009	-.014	-.008
.710	*****	-.025	*****	*****	*****	.006	*****	.007	-.002	-.005	-.016	-.018
.724	*****	-.046	*****	-.012	*****	.001	*****	.006	.000	-.008	-.016	-.016
.738	*****	-.056	*****	-.029	*****	*****	*****	-.012	-.021	-.019	-.025	-.021
.752	*****	-.062	*****	-.035	*****	-.018	*****	-.009	-.012	-.012	-.013	*****
.766	*****	-.092	*****	-.067	*****	-.042	*****	-.034	-.037	-.033	-.036	-.036
.779	*****	-.094	*****	-.058	*****	.005	*****	.175	.033	-.016	-.016	-.016
.793	*****	-.104	*****	-.058	*****	-.017	*****	*****	.114	.012	-.022	*****
.807	*****	-.110	*****	-.074	*****	-.074	*****	*****	.101	.051	-.006	-.014
.821	*****	*****	*****	-.101	*****	-.117	*****	*****	.072	.060	.026	.017
.835	*****	-.121	*****	-.134	*****	-.156	*****	*****	.033	.045	.036	.032
.849	*****	-.126	*****	*****	*****	-.189	*****	*****	.011	.030	.034	.036
.863	*****	-.129	*****	-.185	*****	-.223	*****	*****	-.034	.004	*****	.021
.877	-.087	-.111	*****	-.183	*****	-.255	*****	*****	*****	*****	*****	*****
.891	-.122	-.140	*****	-.195	*****	-.266	*****	*****	-.097	-.060	-.039	-.029
.916	-.177	-.192	-.253	*****	-.249	*****	-.264	-.272	-.177	-.119	-.086	-.097
.928	-.229	*****	-.293	*****	-.284	-.275	-.253	-.268	-.212	-.181	-.162	-.150
.940	-.293	*****	-.313	*****	-.323	-.294	-.275	-.281	-.268	-.251	-.233	-.223
.952	*****	*****	-.373	*****	-.309	-.246	-.251	-.317	-.335	-.340	-.330	-.316
.962	-.141	-.133	-.122	*****	-.117	-.107	-.108	-.131	-.289	-.384	-.384	-.377
.974	-.099	-.092	*****	*****	-.087	-.086	-.085	-.096	-.129	-.216	-.390	-.401
.986	-.086	-.084	-.083	*****	-.084	-.082	-.084	-.091	-.100	-.103	-.101	-.096
.996	-.072	-.066	*****	*****	-.071	-.072	-.072	-.082	-.082	-.070	-.055	-.051

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1225

Table A26. Concluded

(d) $\alpha = 5.987^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
MACH NUMBER			0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	5.987	0.05	.291	*****	*****	*****	.026	.009	
		0.10	.230	-.319	.253	-.238	.011	.014	
NPR	.985	0.20	.141	-.275	.162	-.248	-.023	-.042	
		0.30	.094	*****	.108	-.264	-.045	-.056	
PTD, PSI	14.785	0.40	.023	-.310	.047	*****	-.079	-.093	
		0.50	-.018	-.338	-.004	-.331	-.098	-.119	
PD, PSI	6.104	0.60	-.032	-.358	-.045	-.348	-.134	-.146	
		0.70	-.061	-.350	-.063	-.348	-.133	-.138	
OD, PSI	6.144	0.80	-.077	*****	-.093	-.325	-.125	-.132	
		0.90	-.093	*****	-.104	*****	-.116	-.095	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.027	-.026	*****	-.030	*****	*****	*****	-.046	-.032	-.051	-.020	*****
.598	-.031	-.029	*****	-.036	*****	-.043	*****	-.047	-.048	-.023	*****	*****
.612	-.029	-.029	*****	-.035	*****	-.041	*****	-.047	-.037	-.020	*****	*****
.626	.015	.001	*****	-.027	*****	-.037	*****	-.047	-.039	-.022	*****	*****
.640	*****	.061	*****	-.002	*****	-.027	*****	-.032	-.034	-.014	*****	*****
.654	*****	.055	*****	.013	*****	-.023	*****	-.042	-.042	-.023	*****	*****
.668	*****	*****	*****	.019	*****	-.005	*****	-.029	-.038	-.014	*****	*****
.682	*****	.011	*****	.011	*****	-.003	*****	-.021	-.034	-.021	-.006	*****
.696	*****	.001	*****	-.002	*****	-.001	*****	-.017	-.025	-.027	-.019	-.015
.710	*****	-.016	*****	*****	*****	.001	*****	-.011	-.022	-.026	-.021	-.023
.724	*****	-.035	*****	-.012	*****	-.007	*****	-.013	-.023	-.025	-.021	-.025
.738	*****	-.050	*****	-.033	*****	*****	*****	-.029	-.037	-.032	-.030	-.031
.752	*****	-.057	*****	-.042	*****	-.027	*****	-.026	-.030	-.028	-.018	*****
.766	*****	-.092	*****	-.067	*****	-.052	*****	-.056	-.052	-.046	-.039	-.037
.779	*****	-.095	*****	-.060	*****	-.004	*****	.185	.018	-.031	-.015	-.019
.793	*****	-.105	*****	-.079	*****	-.065	*****	*****	.177	.002	-.023	*****
.807	*****	-.117	*****	-.107	*****	-.148	*****	*****	.181	.085	-.014	-.026
.821	*****	*****	*****	-.140	*****	-.185	*****	*****	.150	.111	.044	.021
.835	*****	-.154	*****	-.177	*****	-.218	*****	*****	.103	.111	.091	.077
.849	*****	-.165	*****	*****	*****	-.248	*****	*****	.084	.097	.093	.087
.863	*****	-.178	*****	-.229	*****	-.274	*****	*****	.045	.067	*****	.070
.877	-.141	-.182	*****	-.235	*****	-.303	*****	*****	*****	*****	*****	*****
.891	-.152	-.194	*****	-.251	*****	-.315	*****	*****	-.026	-.001	.016	.022
.916	-.225	-.238	-.321	*****	-.300	*****	-.281	-.369	-.123	-.063	-.033	-.042
.928	-.267	*****	-.350	*****	-.326	-.299	-.270	-.335	-.166	-.130	-.111	-.100
.940	-.337	*****	-.364	*****	-.354	-.293	-.277	-.317	-.228	-.205	-.186	-.176
.952	*****	*****	-.418	*****	-.224	-.178	-.198	-.309	-.312	-.300	-.289	-.271
.962	-.174	-.176	-.170	*****	-.163	-.151	-.149	-.169	-.305	-.349	-.346	-.336
.974	-.125	-.123	*****	*****	-.157	-.149	-.142	-.135	-.203	-.305	-.365	-.365
.986	-.119	-.114	-.119	*****	-.130	-.136	-.129	-.132	-.124	-.154	-.222	-.265
.996	-.098	-.101	*****	*****	-.108	-.113	-.119	-.115	-.101	-.089	-.088	-.088

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .1320

Table A27. Effect of Nozzle Pressure Ratio on Pressure Distributions for Staggered Tails Configuration at $M = 0.95$ and $\alpha = 0.023^\circ$

(a) NPR = 1.098

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B			
MACH NUMBER	.948		0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG	.023	0.05	-.095	*****	*****	*****	-.049	-.088		
		0.10	-.123	-.180	-.082	-.155	-.082	-.096		
NPR	1.098	0.20	-.161	-.234	-.136	-.212	-.117	-.141		
		0.30	-.221	*****	-.191	-.273	-.167	-.187		
PTD, PSI	14.789	0.40	-.294	-.306	-.265	*****	-.225	-.250		
		0.50	-.330	-.260	-.288	-.253	-.227	-.251		
PD, PSI	8.288	0.60	-.364	-.278	-.365	-.272	-.232	-.244		
		0.70	-.372	-.296	-.359	-.293	-.193	-.197		
QD, PSI	5.219	0.80	-.279	*****	-.308	-.300	-.161	-.146		
		0.90	.033	*****	.016	*****	-.041	-.011		

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	14	36	45	54	72	81	90	108	135	162	180
.584	-.004	-.007	*****	.002	*****	*****	*****	-.003	-.003	-.007	.010	*****
.598	.009	.000	*****	-.010	*****	-.008	*****	-.015	-.017	-.006	*****	*****
.612	.029	.017	*****	.009	*****	-.005	*****	-.007	-.007	-.013	*****	*****
.626	.096	.067	*****	.019	*****	.002	*****	-.002	-.005	-.012	*****	*****
.640	*****	.091	*****	.024	*****	-.003	*****	-.008	-.019	-.025	*****	*****
.654	*****	.024	*****	-.001	*****	-.004	*****	-.024	-.029	-.030	*****	*****
.668	*****	*****	*****	-.016	*****	-.015	*****	-.011	-.016	-.022	*****	*****
.682	*****	-.056	*****	-.042	*****	-.033	*****	-.032	-.039	-.032	-.036	*****
.696	*****	-.094	*****	-.059	*****	-.057	*****	-.043	-.046	-.041	-.042	-.035
.710	*****	-.116	*****	*****	*****	-.073	*****	-.056	-.056	-.035	-.039	-.037
.724	*****	-.153	*****	-.103	*****	-.083	*****	-.066	-.064	-.038	-.052	-.043
.738	*****	-.177	*****	-.121	*****	*****	*****	-.084	-.076	-.056	-.051	-.045
.752	*****	-.183	*****	-.131	*****	-.093	*****	-.070	-.071	-.038	-.040	*****
.766	*****	-.195	*****	-.159	*****	-.072	*****	-.054	-.048	-.055	-.053	-.060
.779	*****	-.166	*****	-.103	*****	-.016	*****	.157	.019	-.018	-.030	-.038
.793	*****	-.162	*****	-.117	*****	-.064	*****	*****	.008	-.028	-.049	*****
.807	*****	-.173	*****	-.138	*****	-.129	*****	*****	-.045	-.043	-.058	-.053
.821	*****	*****	*****	-.173	*****	-.182	*****	*****	-.085	-.075	-.076	-.076
.835	*****	-.155	*****	-.193	*****	-.219	*****	*****	-.150	-.115	-.101	-.108
.849	*****	-.107	*****	*****	*****	-.243	*****	*****	-.182	-.154	-.146	-.143
.863	*****	-.105	*****	-.183	*****	-.240	*****	*****	-.232	-.199	*****	-.178
.877	-.100	-.110	*****	-.181	*****	-.215	*****	*****	*****	*****	*****	*****
.891	-.164	-.189	*****	-.206	*****	-.254	*****	*****	-.330	-.275	-.269	-.255
.916	-.242	-.253	-.321	*****	-.287	*****	-.309	-.307	-.334	-.329	-.319	-.326
.928	-.275	*****	-.344	*****	-.301	-.241	-.229	-.183	-.218	-.265	-.336	-.356
.940	-.211	*****	-.157	*****	-.168	-.096	-.078	-.057	-.066	-.109	-.144	-.161
.952	*****	*****	-.050	*****	-.031	-.008	-.001	.028	.023	.018	-.012	-.017
.962	.022	.020	.033	*****	.045	.052	.060	.085	.086	.079	.066	.061
.974	.089	.086	*****	*****	.096	.100	.114	.124	.114	.126	.114	.116
.986	.131	.132	.138	*****	.125	.119	.136	.140	.137	.139	.133	.136
.996	.132	.142	*****	*****	.133	.140	.152	.150	.146	.140	.155	.148

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0527
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Table A27. Continued

(b) NPR = 1.960

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	STAG TAILS	POINT NUMBER	HORIZONTAL TAILS				VERTICAL TAIL					
			X/C	UPPER SURFACE		LOWER SURFACE		Y/B				
				0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.950											
ALPHA, DEG	.021		0.05	-.094	*****	*****	*****	*****	-.047	-.072		
			0.10	-.118	-.185	-.061	-.155	-.072	-.095			
NPR	1.960		0.20	-.166	-.237	-.129	-.208	-.115	-.135			
			0.30	-.205	*****	-.192	-.275	-.164	-.183			
PTD, PSI	14.784		0.40	-.296	-.289	-.260	*****	-.221	-.247			
			0.50	-.327	-.265	-.283	-.253	-.230	-.254			
PD, PSI	8.274		0.60	-.362	-.274	-.355	-.265	-.226	-.256			
			0.70	-.379	-.290	-.364	-.285	-.187	-.198			
QD, PSI	5.223		0.80	-.284	*****	-.252	-.214	-.161	-.141			
			0.90	.035	*****	.042	*****	-.049	-.012			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	.001	-.005	*****	-.001	*****	*****	*****	-.005	.004	-.002	.010	*****
.598	.006	.010	*****	-.006	*****	-.009	*****	-.011	-.009	-.010	*****	*****
.612	.024	.026	*****	.006	*****	.001	*****	-.003	-.009	-.010	*****	*****
.626	.090	.067	*****	.021	*****	.000	*****	.001	-.007	-.009	*****	*****
.640	*****	.092	*****	.025	*****	-.005	*****	-.003	-.015	-.016	*****	*****
.654	*****	.030	*****	.005	*****	-.005	*****	-.022	-.021	-.034	*****	*****
.668	*****	*****	*****	-.020	*****	-.013	*****	-.014	-.018	-.023	*****	*****
.682	*****	-.056	*****	-.044	*****	-.040	*****	-.039	-.037	-.026	-.032	*****
.696	*****	-.089	*****	-.058	*****	-.051	*****	-.053	-.040	-.037	-.034	-.029
.710	*****	-.107	*****	*****	*****	-.063	*****	-.048	-.049	-.039	-.042	-.034
.724	*****	-.147	*****	-.105	*****	-.084	*****	-.069	-.058	-.048	-.042	-.038
.738	*****	-.172	*****	-.126	*****	*****	*****	-.074	-.080	-.052	-.051	-.042
.752	*****	-.179	*****	-.119	*****	-.085	*****	-.076	-.061	-.048	-.039	*****
.766	*****	-.196	*****	-.143	*****	-.074	*****	-.048	-.054	-.050	-.051	-.059
.779	*****	-.177	*****	-.104	*****	-.013	*****	.156	.025	-.015	-.034	-.033
.793	*****	-.172	*****	-.113	*****	-.054	*****	*****	.013	-.028	-.045	*****
.807	*****	-.156	*****	-.131	*****	-.124	*****	*****	-.042	-.048	-.050	-.048
.821	*****	*****	*****	-.166	*****	-.176	*****	*****	-.094	-.082	-.079	-.070
.835	*****	-.140	*****	-.180	*****	-.229	*****	*****	-.150	-.114	-.108	-.109
.849	*****	-.096	*****	*****	*****	-.239	*****	*****	-.190	-.162	-.142	-.138
.863	*****	-.109	*****	-.177	*****	-.274	*****	*****	-.244	-.207	*****	-.174
.877	-.093	-.113	*****	-.173	*****	-.254	*****	*****	*****	*****	*****	*****
.891	-.159	-.175	*****	-.203	*****	-.249	*****	*****	-.325	-.274	-.258	-.248
.916	-.211	-.233	-.290	*****	-.272	*****	-.283	-.300	-.316	-.308	-.306	-.314
.928	-.237	*****	-.282	*****	-.219	-.193	-.184	-.156	-.182	-.228	-.302	-.277
.940	-.179	*****	-.118	*****	-.106	-.066	-.063	-.042	-.050	-.076	-.109	-.109
.952	*****	*****	-.017	*****	-.004	.012	.021	.046	.036	.022	.007	.000
.962	.062	.064	.072	*****	.075	.080	.083	.095	.097	.090	.081	.080
.974	.132	.137	*****	*****	.137	.125	.125	.132	.120	.139	.132	.137
.986	.163	.171	.175	*****	.172	.160	.155	.147	.139	.149	.158	.167
.996	.191	.191	*****	*****	.183	.185	.180	.170	.166	.161	.168	.180

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0377

Table A27. Continued

(c) NPR = 3.020

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG	TAILS		HORIZONTAL TAILS				VERTICAL TAIL			
POINT NUMBER		15		UPPER SURFACE	LOWER SURFACE						
			X/C	Y/B	Y/B	Y/B	Y/B	Y/B	Y/B		
MACH NUMBER		.951		0.1	0.2	0.1	0.2	0.1	0.2		
ALPHA, DEG		.021	0.05	-.090	*****	*****	*****	-.055	-.063		
			0.10	-.109	-.182	-.065	-.155	-.065	-.096		
NPR		3.020	0.20	-.156	-.239	-.126	-.207	-.104	-.141		
			0.30	-.211	*****	-.185	-.270	-.162	-.192		
PTQ, PSI		14.786	0.40	-.281	-.287	-.257	*****	-.221	-.248		
			0.50	-.320	-.258	-.280	-.258	-.230	-.253		
PD, PSI		8.264	0.60	-.357	-.271	-.352	-.264	-.225	-.236		
			0.70	-.360	-.293	-.357	-.283	-.192	-.198		
QD, PSI		5.230	0.80	-.211	*****	-.290	-.224	-.169	-.150		
			0.90	.062	*****	.028	*****	-.057	-.018		

AFTERBODY PRESSURE COEFFICIENTS												
	PHI, DEG											
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.008	-.005	*****	.003	*****	*****	*****	-.001	-.003	.002	.008	*****
.598	.034	.004	*****	.000	*****	-.012	*****	-.008	-.012	-.011	*****	*****
.612	.032	.024	*****	.007	*****	.002	*****	-.003	-.012	-.010	*****	*****
.626	.104	.065	*****	.024	*****	.008	*****	.000	-.008	-.002	*****	*****
.640	*****	.088	*****	.033	*****	-.001	*****	-.010	-.016	-.019	*****	*****
.654	*****	.031	*****	.001	*****	-.003	*****	-.023	-.022	-.026	*****	*****
.668	*****	*****	*****	-.008	*****	-.014	*****	-.018	-.015	-.026	*****	*****
.682	*****	-.053	*****	-.049	*****	-.030	*****	-.031	-.040	-.034	-.029	*****
.696	*****	-.091	*****	-.060	*****	-.047	*****	-.037	-.042	-.039	-.033	-.027
.710	*****	-.111	*****	*****	*****	-.062	*****	-.048	-.053	-.042	-.031	-.032
.724	*****	-.152	*****	-.107	*****	-.075	*****	-.062	-.061	-.050	-.048	-.044
.738	*****	-.176	*****	-.132	*****	*****	*****	-.073	-.072	-.058	-.049	-.052
.752	*****	-.180	*****	-.134	*****	-.084	*****	-.070	-.066	-.050	-.041	*****
.766	*****	-.209	*****	-.152	*****	-.073	*****	-.049	-.044	-.056	-.055	-.057
.779	*****	-.165	*****	-.107	*****	-.017	*****	.163	.017	-.023	-.027	-.034
.793	*****	-.154	*****	-.115	*****	-.055	*****	*****	.009	-.025	-.045	*****
.807	*****	-.156	*****	-.134	*****	-.126	*****	*****	-.038	-.039	-.051	-.051
.821	*****	*****	*****	-.170	*****	-.160	*****	*****	-.095	-.075	-.071	-.079
.835	*****	-.151	*****	-.167	*****	-.211	*****	*****	-.146	-.111	-.098	-.104
.849	*****	-.104	*****	*****	*****	-.248	*****	*****	-.192	-.149	-.142	-.141
.863	*****	-.102	*****	-.166	*****	-.246	*****	*****	-.243	-.199	*****	-.173
.877	-.097	-.122	*****	-.171	*****	-.235	*****	*****	*****	*****	*****	*****
.891	-.168	-.178	*****	-.211	*****	-.261	*****	*****	-.333	-.275	-.266	-.259
.916	-.241	-.237	-.306	*****	-.271	*****	-.279	-.301	-.316	-.322	-.301	-.320
.928	-.237	*****	-.280	*****	-.247	*****	-.202	-.182	-.179	-.181	-.256	-.291
.940	-.158	*****	-.123	*****	-.109	*****	-.072	-.071	-.047	-.050	-.080	-.115
.952	*****	*****	-.022	*****	-.006	.006	.012	.035	.042	.025	.000	.000
.962	.051	.058	.065	*****	.066	.074	.080	.091	.087	.083	.083	.077
.974	.136	.129	*****	*****	.132	.129	.129	.124	.132	.132	.134	.133
.986	.175	.169	.172	*****	.170	.163	.154	.151	.152	.158	.150	.163
.996	.188	.189	*****	*****	.188	.179	.172	.166	.167	.161	.165	.163

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0393
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ORIGINAL PAGE IS
OF POOR QUALITY

Table A27. Concluded

(d) NPR = 5.036

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	STAG TAILS	HORIZONTAL TAILS								VERTICAL TAIL			
		POINT NUMBER	16	UPPER SURFACE				LOWER SURFACE				Y/B	
				X/C	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.948												
ALPHA, DEG	.021	0.05	-.097	*****	*****	*****	*****	*****	*****	-.042	-.071		
NPR	5.036	0.10	-.116	-.182	*****	*****	*****	*****	*****	-.077	-.096		
		0.20	-.163	-.228	*****	*****	*****	*****	*****	-.108	-.144		
		0.30	-.209	*****	*****	*****	*****	*****	*****	-.164	-.184		
PTD, PSI	14.726	0.40	-.289	-.299	*****	*****	*****	*****	*****	-.219	-.245		
		0.50	-.323	-.256	*****	*****	*****	*****	*****	-.229	-.250		
		0.60	-.371	-.269	*****	*****	*****	*****	*****	-.234	-.242		
PD, PSI	8.259	0.70	-.373	-.288	*****	*****	*****	*****	*****	-.194	-.193		
		0.80	-.208	*****	*****	*****	*****	*****	*****	-.162	-.164		
QD, PSI	5.193	0.90	.057	*****	*****	*****	*****	*****	*****	-.055	-.004		

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.003	-.016	*****	.002	*****	*****	*****	-.001	.000	.002	.010	*****
.598	.005	.005	*****	-.002	*****	-.012	*****	-.018	-.011	-.009	*****	*****
.612	.030	.027	*****	.009	*****	.000	*****	-.010	-.006	-.012	*****	*****
.626	.097	.071	*****	.022	*****	.010	*****	-.008	-.006	-.005	*****	*****
.640	*****	.095	*****	.030	*****	.002	*****	-.010	-.013	-.013	*****	*****
.654	*****	.032	*****	.011	*****	-.008	*****	-.017	-.029	-.025	*****	*****
.668	*****	*****	*****	-.005	*****	-.012	*****	-.019	-.014	-.020	*****	*****
.682	*****	-.053	*****	-.040	*****	-.034	*****	-.036	-.036	-.029	-.031	*****
.696	*****	-.087	*****	-.055	*****	-.052	*****	-.045	-.038	-.038	-.034	-.036
.710	*****	-.108	*****	*****	*****	-.064	*****	-.053	-.051	-.039	-.031	-.038
.724	*****	-.145	*****	-.108	*****	-.076	*****	-.063	-.055	-.055	-.042	-.048
.738	*****	-.168	*****	-.141	*****	*****	*****	-.076	-.072	-.055	-.051	-.050
.752	*****	-.176	*****	-.132	*****	-.093	*****	-.072	-.061	-.055	-.044	*****
.766	*****	-.213	*****	-.149	*****	-.072	*****	-.049	-.045	-.055	-.057	-.061
.779	*****	-.174	*****	-.102	*****	-.010	*****	.163	.021	-.021	-.033	-.040
.793	*****	-.167	*****	-.116	*****	-.051	*****	*****	.009	-.025	-.046	*****
.807	*****	-.164	*****	-.134	*****	-.127	*****	*****	-.046	-.043	-.051	-.057
.821	*****	*****	*****	-.167	*****	-.167	*****	*****	-.089	-.074	-.072	-.077
.835	*****	-.157	*****	-.173	*****	-.228	*****	*****	-.153	-.111	-.107	-.111
.849	*****	-.106	*****	*****	*****	-.235	*****	*****	-.187	-.154	-.142	-.147
.863	*****	-.097	*****	-.176	*****	-.235	*****	*****	-.245	-.199	*****	-.180
.877	-.097	-.109	*****	-.171	*****	-.219	*****	*****	*****	*****	*****	*****
.891	-.153	-.171	*****	-.210	*****	-.248	*****	*****	-.338	-.283	-.264	-.257
.916	-.235	-.232	-.307	*****	-.251	*****	-.286	-.292	-.305	-.300	-.299	-.325
.928	-.242	*****	-.251	*****	-.199	*****	-.178	-.167	-.161	-.238	-.270	-.280
.940	-.136	*****	-.113	*****	-.080	*****	-.056	-.042	-.032	-.037	-.096	-.106
.952	*****	*****	-.005	*****	.010	.026	.032	.048	.055	.040	.014	.013
.962	.069	.073	*****	*****	.084	.088	.091	.098	.098	.103	.096	.088
.974	.148	.143	*****	*****	.151	.144	.141	.134	.138	.142	.143	.142
.986	.184	.191	.184	*****	.188	.177	.173	.153	.156	.152	.163	.165
.996	.200	.194	*****	*****	.201	.196	.190	.182	.181	.176	.171	.179

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0323

Table A28. Effect of Angle of Attack on Pressure Distributions for Staggered Tails Configuration at $M = 0.95$ and $NPR = 1.096$

(a) $\alpha = -2.977^\circ$

TEST PARAMETERS				TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL				
			UPPER SURFACE		LOWER SURFACE		Y/B				
POINT NUMBER	18		0.1	0.2	0.1	0.2	0.1	0.2			
MACH NUMBER	.949										
ALPHA, DEG	-2.977	0.05	-.316	*****	*****	*****	-.046	-.078			
		0.10	-.295	.019	-.227	.017	-.084	-.107			
NPR	1.096	0.20	-.283	-.049	-.226	-.062	-.125	-.150			
		0.30	-.310	*****	-.284	-.106	-.172	-.203			
PT0, PSI	14.789	0.40	-.374	-.163	-.334	*****	-.233	-.261			
		0.50	-.419	-.183	-.369	-.175	-.247	-.271			
PU, PSI	8.279	0.60	-.434	-.223	-.426	-.219	-.247	-.251			
		0.70	-.459	-.242	-.432	-.243	-.125	-.116			
Q0, PSI	5.224	0.80	-.381	*****	-.296	-.251	-.041	-.018			
		0.90	-.030	*****	-.039	*****	.027	.053			

AFTERBODY PRESSURE COEFFICIENTS													
X/L	PHI, DEG												
	0	18	36	45	54	72	81	90	108	135	162	180	
.584	-.033	-.020	*****	-.011	*****	*****	*****	-.014	-.011	.001	.014	*****	
.598	.022	.006	*****	-.009	*****	-.020	*****	-.021	-.026	-.014	*****	*****	
.612	.044	.026	*****	.003	*****	-.010	*****	-.016	-.015	-.017	*****	*****	
.626	.103	.081	*****	.020	*****	-.002	*****	-.020	-.022	-.018	*****	*****	
.640	*****	.103	*****	.017	*****	-.012	*****	-.028	-.027	-.022	*****	*****	
.654	*****	.028	*****	-.006	*****	-.024	*****	-.035	-.044	-.032	*****	*****	
.668	*****	*****	*****	-.020	*****	-.036	*****	-.031	-.037	-.031	*****	*****	
.682	*****	-.076	*****	-.066	*****	-.052	*****	-.047	-.053	-.045	-.034	*****	
.696	*****	-.095	*****	-.079	*****	-.072	*****	-.064	-.064	-.048	-.038	-.0	
.710	*****	-.130	*****	*****	*****	-.083	*****	-.071	-.068	-.052	-.045	-.0	
.724	*****	-.158	*****	-.119	*****	-.102	*****	-.078	-.081	-.056	-.048	-.0	
.738	*****	-.190	*****	-.149	*****	*****	*****	-.095	-.085	-.061	-.048	-.0	
.752	*****	-.186	*****	-.149	*****	-.115	*****	-.094	-.075	-.056	-.049	*****	
.766	*****	-.218	*****	-.187	*****	-.100	*****	-.062	-.055	-.060	-.064	-.0	
.779	*****	-.168	*****	-.088	*****	.021	*****	.155	-.012	-.039	-.049	-.0	
.793	*****	-.125	*****	-.059	*****	.029	*****	*****	-.081	-.071	-.069	*****	
.807	*****	-.081	*****	-.045	*****	-.012	*****	*****	-.148	-.098	-.087	-.0	
.821	*****	*****	*****	-.050	*****	-.042	*****	*****	-.181	-.131	-.119	-.1	
.835	*****	-.078	*****	-.047	*****	-.071	*****	*****	-.241	-.182	-.151	-.1	
.849	*****	-.020	*****	*****	*****	-.100	*****	*****	-.264	-.216	-.191	-.1	
.863	*****	-.034	*****	-.088	*****	-.128	*****	*****	-.313	-.255	*****	-.2	
.877	*****	-.059	*****	-.100	*****	-.161	*****	*****	*****	*****	*****	*****	
.891	-.115	-.136	*****	-.157	*****	-.201	*****	*****	-.398	-.343	-.310	-.3	
.916	-.202	-.214	-.292	*****	-.240	*****	-.268	-.263	-.306	-.352	-.353	-.3	
.928	-.275	*****	-.357	*****	-.297	*****	-.221	-.172	-.123	-.147	-.201	-.273	-.3
.940	-.321	*****	-.301	*****	-.236	-.111	-.082	-.046	-.038	-.103	-.096	-.1	
.952	*****	*****	-.084	*****	-.101	-.032	-.045	.015	-.001	.021	-.019	-.0	
.962	-.026	-.020	-.012	*****	.009	.004	.024	.029	.034	.043	.034	.0	
.974	.060	.047	*****	*****	.057	.036	.040	.036	.036	.044	.052	.0	
.986	.101	.103	.092	*****	.091	.062	.071	.058	.063	.072	.067	.0	
.996	.110	.105	*****	*****	.089	.077	.085	.079	.096	.069	.072	.0	

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0675
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Table A28. Continued

(b) $\alpha = 0.022^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B	0.1	0.2	LOWER SURFACE Y/B	0.1	0.2	
MACH NUMBER	.952								
ALPHA, DFG	.022	0.05	-.089	*****	*****	*****	*****	-.047	-.074
NPR	1.119	0.10	-.109	-.185	-.071	-.148	-.070	-.092	
PTD, PSI	14.789	0.20	-.157	-.233	-.121	-.207	-.112	-.141	
		0.30	-.210	*****	-.185	-.270	-.167	-.189	
PG, PSI	8.257	0.40	-.287	-.296	-.251	*****	-.225	-.253	
		0.50	-.322	-.285	-.285	-.260	-.232	-.254	
QD, PSI	5.236	0.60	-.367	-.271	-.357	-.265	-.238	-.243	
		0.70	-.369	-.291	-.355	-.290	-.194	-.200	
		0.80	-.309	*****	-.306	-.296	-.173	-.166	
		0.90	.020	*****	.010	*****	-.068	-.034	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.019	-.006	*****	.004	*****	*****	*****	-.003	-.006	.000	.010	*****
.598	-.002	-.001	*****	-.003	*****	-.010	*****	-.016	-.009	-.002	*****	*****
.612	.022	.025	*****	.015	*****	-.001	*****	-.003	-.009	-.006	*****	*****
.626	.096	.065	*****	.026	*****	.006	*****	.001	-.007	-.008	*****	*****
.640	*****	.090	*****	.027	*****	-.001	*****	-.008	-.009	-.015	*****	*****
.654	*****	.038	*****	.010	*****	-.006	*****	-.020	-.028	-.025	*****	*****
.668	*****	*****	*****	-.011	*****	-.017	*****	-.022	-.021	-.018	*****	*****
.682	*****	-.061	*****	-.040	*****	-.036	*****	-.038	-.033	-.032	-.028	*****
.696	*****	-.084	*****	-.058	*****	-.046	*****	-.046	-.047	-.035	-.035	-.035
.710	*****	-.117	*****	*****	*****	-.062	*****	-.059	-.048	-.038	-.038	-.034
.724	*****	-.144	*****	-.103	*****	-.082	*****	-.063	-.061	-.049	-.046	-.039
.738	*****	-.177	*****	-.133	*****	*****	*****	-.072	-.073	-.054	-.049	-.048
.752	*****	-.176	*****	-.131	*****	-.092	*****	-.067	-.061	-.050	-.043	*****
.766	*****	-.218	*****	-.152	*****	-.079	*****	-.046	-.045	-.053	-.056	-.057
.779	*****	-.176	*****	-.109	*****	-.009	*****	.157	.025	-.019	-.033	-.039
.793	*****	-.165	*****	-.118	*****	-.063	*****	*****	.004	-.027	-.043	*****
.807	*****	-.174	*****	-.133	*****	-.124	*****	*****	-.041	-.046	-.053	-.048
.821	*****	*****	*****	-.167	*****	-.185	*****	*****	-.087	-.074	-.075	-.074
.835	*****	-.154	*****	-.203	*****	-.229	*****	*****	-.148	-.114	-.105	-.103
.849	*****	-.129	*****	*****	*****	-.257	*****	*****	-.186	-.158	-.141	-.144
.863	*****	-.113	*****	-.171	*****	-.257	*****	*****	-.242	-.199	*****	-.177
.877	-.101	-.115	*****	-.159	*****	-.242	*****	*****	*****	*****	*****	*****
.891	-.173	-.187	*****	-.212	*****	-.256	*****	*****	-.333	-.277	-.265	-.255
.916	-.249	-.251	-.318	*****	-.275	*****	-.315	-.323	-.342	-.336	-.321	-.335
.928	-.306	*****	-.331	*****	-.298	-.255	-.229	-.213	-.233	-.307	-.370	-.373
.940	-.246	*****	-.184	*****	-.150	-.104	-.088	-.067	-.074	-.098	-.146	-.182
.952	*****	*****	-.057	*****	-.023	-.009	.010	.027	.035	.021	-.004	-.015
.962	.009	.023	.041	*****	.045	.060	.059	.080	.075	.086	.066	.064
.974	.081	.093	*****	*****	.101	.107	.114	.112	.107	.120	.110	.110
.986	.122	.128	.129	*****	.128	.128	.133	.131	.133	.128	.130	.132
.996	.130	.136	*****	*****	.142	.134	.143	.140	.142	.137	.148	.152

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0547

Table A28. Continued

(c) $\alpha = 3.018^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.951								
ALPHA, DEG	3.018	0.05	.105	*****	*****	*****	-.034	-.066	
		0.10	.043	-.349	.073	-.291	-.060	-.087	
NPR	1.103	0.20	-.048	-.362	-.010	-.317	-.096	-.125	
		0.30	-.114	*****	-.083	-.374	-.149	-.169	
PTD, PSI	14.788	0.40	-.200	-.450	-.166	*****	-.199	-.219	
		0.50	-.221	-.490	-.197	-.470	-.206	-.227	
PD, PSI	8.263	0.60	-.289	-.473	-.279	-.457	-.196	-.203	
		0.70	-.296	-.393	-.288	-.400	-.205	-.211	
QD, PSI	5.232	0.80	-.233	*****	-.279	-.209	-.224	-.224	
		0.90	.039	*****	-.016	*****	-.212	-.168	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.003	.007	*****	.008	*****	*****	*****	-.005	.002	.001	.012	*****
.598	.004	.011	*****	-.001	*****	-.014	*****	-.019	-.009	-.002	*****	*****
.612	.027	.027	*****	.013	*****	-.007	*****	-.008	-.009	-.001	*****	*****
.626	.091	.060	*****	.028	*****	.008	*****	-.009	-.004	-.006	*****	*****
.640	*****	.080	*****	.024	*****	.000	*****	-.011	-.009	-.012	*****	*****
.654	*****	.040	*****	.010	*****	-.003	*****	-.017	-.021	-.017	*****	*****
.668	*****	*****	*****	.002	*****	-.006	*****	-.014	-.012	-.010	*****	*****
.682	*****	-.049	*****	-.026	*****	-.028	*****	-.033	-.024	-.025	-.024	*****
.696	*****	-.070	*****	-.045	*****	-.042	*****	-.035	-.031	-.032	-.028	-.02
.710	*****	-.092	*****	*****	*****	-.056	*****	-.044	-.043	-.028	-.031	-.02
.724	*****	-.133	*****	-.088	*****	-.074	*****	-.052	-.054	-.041	-.033	-.04
.738	*****	-.154	*****	-.109	*****	*****	*****	-.065	-.060	-.045	-.038	-.03
.752	*****	-.155	*****	-.107	*****	-.070	*****	-.051	-.047	-.036	-.025	*****
.766	*****	-.177	*****	-.122	*****	-.058	*****	-.023	-.022	-.038	-.041	-.04
.779	*****	-.158	*****	-.107	*****	-.027	*****	.184	.073	.013	-.001	-.01
.793	*****	-.170	*****	-.144	*****	-.128	*****	*****	.104	.024	-.010	*****
.807	*****	-.195	*****	-.186	*****	-.216	*****	*****	.056	.022	-.009	-.01
.821	*****	*****	*****	-.231	*****	-.271	*****	*****	.009	-.014	-.028	-.03
.835	*****	-.249	*****	-.280	*****	-.321	*****	*****	-.062	-.042	-.046	-.05
.849	*****	-.245	*****	*****	*****	-.364	*****	*****	-.102	-.085	-.086	-.09
.863	*****	-.224	*****	-.326	*****	-.410	*****	*****	-.163	-.137	*****	-.11
.877	-.192	-.211	*****	-.299	*****	-.413	*****	*****	*****	*****	*****	*****
.891	-.262	-.277	*****	-.317	*****	-.420	*****	*****	-.264	-.218	-.203	-.21
.916	-.324	-.320	-.388	*****	-.344	*****	-.268	-.278	-.313	-.277	-.262	-.27
.928	-.255	*****	-.282	*****	-.246	-.173	-.141	-.181	-.250	-.310	-.355	-.33
.940	-.112	*****	-.102	*****	-.092	-.047	-.072	-.072	-.117	-.178	-.287	-.33
.952	*****	*****	-.003	*****	.026	.037	-.001	.024	-.022	-.040	-.072	-.07
.962	.046	.043	.044	*****	.051	.063	.066	.048	.032	.032	.014	.01
.974	.082	.079	*****	*****	.073	.089	.075	.064	.060	.093	.080	.09
.986	.099	.095	.101	*****	.089	.099	.091	.090	.099	.114	.112	.11
.996	.106	.108	*****	*****	.110	.109	.101	.101	.106	.116	.113	.11

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0644

Table A28. Concluded

(d) $\alpha = 5.990^\circ$

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	STAG TAILS	HORIZONTAL TAILS								VERTICAL TAIL	
		X/C	UPPER SURFACE		LOWER SURFACE		Y/B		Y/B		
			0.1	0.2	0.1	0.2	0.1	0.2			
POINT NUMBER	21										
MACH NUMBER	.951										
ALPHA, DEG	5.990	0.05	.261	*****	*****	*****				-.016	-.042
		0.10	.179	*****	*****	*****	.222	-.460		-.045	-.058
NPR	1.079	0.20	.069	-.480		.104	-.437			-.078	-.104
		0.30	-.011	*****	*****	.021	-.464			-.122	-.147
PTD, PSI	14.784	0.40	-.089	-.534		-.069	*****			-.163	-.190
		0.50	-.157	-.570		-.111	-.548			-.167	-.185
PD, PSI	8.260	0.60	-.198	-.579		-.198	-.555			-.168	-.192
		0.70	-.188	-.529		-.184	-.487			-.210	-.219
QD, PSI	5.232	0.80	-.182	*****	*****	-.183	-.182			-.253	-.249
		0.90	-.019	*****	*****	-.056	*****			-.280	-.251

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	.010	.015	*****	.000	*****	*****	*****	-.019	-.010	.001	.030	*****
.598	.019	.015	*****	-.001	*****	-.014	*****	-.027	-.023	-.006	*****	*****
.612	.033	.027	*****	.007	*****	-.003	*****	-.019	-.019	-.003	*****	*****
.626	.090	.060	*****	.019	*****	-.005	*****	-.012	-.017	-.003	*****	*****
.640	*****	.078	*****	.022	*****	-.004	*****	-.023	-.022	-.013	*****	*****
.654	*****	.034	*****	.008	*****	-.005	*****	-.023	-.029	-.021	*****	*****
.668	*****	*****	*****	-.002	*****	-.008	*****	-.014	-.017	-.009	*****	*****
.682	*****	-.029	*****	-.025	*****	-.025	*****	-.037	-.037	-.020	-.010	*****
.696	*****	-.059	*****	-.038	*****	-.037	*****	-.039	-.040	-.017	-.015	-.004
.710	*****	-.082	*****	*****	*****	-.051	*****	-.042	-.037	-.020	-.006	-.006
.724	*****	-.102	*****	-.074	*****	-.056	*****	-.056	-.050	-.027	-.019	-.010
.738	*****	-.124	*****	-.084	*****	*****	*****	-.053	-.061	-.032	-.015	-.020
.752	*****	-.119	*****	-.088	*****	-.053	*****	-.043	-.037	-.014	.001	*****
.766	*****	-.138	*****	-.097	*****	-.035	*****	-.007	-.004	-.014	-.013	-.011
.779	*****	-.140	*****	-.110	*****	-.045	*****	.224	.128	.052	.037	.028
.793	*****	-.177	*****	-.168	*****	-.226	*****	*****	.205	.080	.036	*****
.807	*****	-.218	*****	-.225	*****	-.323	*****	*****	.171	.090	.041	.038
.821	*****	*****	*****	-.290	*****	-.365	*****	*****	.110	.069	.036	.019
.835	*****	-.302	*****	-.343	*****	-.406	*****	*****	.033	.033	.013	.002
.849	*****	-.324	*****	*****	*****	-.451	*****	*****	-.020	-.012	-.022	-.025
.863	*****	-.320	*****	-.405	*****	-.488	*****	*****	-.079	-.057	*****	-.057
.877	-.274	-.312	*****	-.404	*****	-.503	*****	*****	*****	*****	*****	*****
.891	-.344	-.380	*****	-.425	*****	-.516	*****	*****	-.193	-.140	-.139	-.143
.916	-.346	-.353	-.390	*****	-.270	*****	-.266	-.263	-.242	-.204	-.195	-.199
.928	-.254	*****	-.182	*****	-.114	-.123	-.128	-.133	-.233	-.275	-.294	-.281
.940	-.128	*****	-.090	*****	-.084	-.086	-.091	-.087	-.195	-.303	-.370	-.362
.952	*****	*****	-.081	*****	-.085	-.078	-.076	-.079	-.120	-.147	-.223	-.199
.962	-.039	-.049	-.060	*****	-.086	-.070	-.076	-.049	-.071	-.050	-.065	-.073
.974	-.032	-.030	*****	*****	-.058	-.052	-.052	-.036	-.035	.012	.016	.016
.986	-.009	-.005	-.002	*****	-.026	.001	-.006	.004	.019	.051	.049	.061
.996	.040	.037	*****	*****	.019	.045	.045	.028	.041	.061	.054	.061

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0957

Table A29. Effect of Nozzle Pressure Ratio on Pressure Distributions for Staggered Tails Configuration at $M = 0.90$ and $\alpha = 0.020^\circ$

(a) NPR = 1.113

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS									
CONFIGURATION	STAG TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL				
				UPPER SURFACE		LOWER SURFACE		Y/B				
MACH NUMBER	.901		0.1	0.2	0.1	0.2	0.1	0.2				
ALPHA, DEG	.020		0.05	-.109	*****	*****	*****	-.079	-.086			
NPR	1.113		0.10	-.134	-.161	-.082	-.153	-.089	-.100			
PTD, PSI	14.786		0.20	-.181	-.196	-.145	-.179	-.122	-.154			
PD, PSI	8.732		0.30	-.220	*****	-.202	-.226	-.173	-.203			
QD, PSI	4.963		0.40	-.299	-.275	-.270	*****	-.221	-.243			
			0.50	-.326	-.278	-.296	-.263	-.223	-.236			
			0.60	-.326	-.265	-.333	-.279	-.196	-.199			
			0.70	-.172	-.162	-.215	-.196	-.151	-.149			
			0.80	-.064	*****	-.091	-.102	-.107	-.083			
			0.90	.023	*****	.004	*****	-.045	-.022			

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.023	-.004	*****	-.005	*****	*****	*****	-.017	-.011	-.015	-.003	*****
.598	-.012	-.006	*****	-.017	*****	-.023	*****	-.030	-.021	-.014	*****	*****
.612	.016	.011	*****	.001	*****	-.017	*****	-.014	-.019	-.020	*****	*****
.626	.080	.051	*****	.006	*****	-.012	*****	-.012	-.020	-.024	*****	*****
.640	*****	.067	*****	.001	*****	-.019	*****	-.020	-.023	-.031	*****	*****
.654	*****	.003	*****	-.023	*****	-.023	*****	-.039	-.037	-.039	*****	*****
.668	*****	*****	*****	-.031	*****	-.036	*****	-.036	-.033	-.032	*****	*****
.682	*****	-.041	*****	-.058	*****	-.052	*****	-.048	-.049	-.037	-.039	*****
.696	*****	-.106	*****	-.070	*****	-.058	*****	-.055	-.056	-.040	-.040	-.046
.710	*****	-.136	*****	*****	*****	-.067	*****	-.066	-.056	-.037	-.036	-.039
.724	*****	-.152	*****	-.099	*****	-.075	*****	-.068	-.063	-.049	-.046	-.042
.738	*****	-.174	*****	-.123	*****	*****	*****	-.074	-.072	-.055	-.053	-.046
.752	*****	-.172	*****	-.118	*****	-.075	*****	-.055	-.060	-.045	-.045	*****
.766	*****	-.185	*****	-.126	*****	-.063	*****	-.039	-.043	-.055	-.064	-.065
.779	*****	-.145	*****	-.094	*****	-.016	*****	.150	.010	-.029	-.044	-.051
.793	*****	-.146	*****	-.105	*****	-.061	*****	*****	-.002	-.045	-.056	*****
.807	*****	-.129	*****	-.112	*****	-.107	*****	*****	-.046	-.061	-.067	-.063
.821	*****	*****	*****	-.122	*****	-.153	*****	*****	-.099	-.096	-.085	-.088
.835	*****	-.106	*****	-.141	*****	-.181	*****	*****	-.152	-.133	-.120	-.122
.849	*****	-.095	*****	*****	*****	-.205	*****	*****	-.195	-.169	-.150	-.157
.863	*****	-.111	*****	-.173	*****	-.237	*****	*****	-.255	-.214	*****	-.179
.877	-.104	-.121	*****	-.168	*****	-.231	*****	*****	*****	*****	*****	*****
.891	-.155	-.174	*****	-.208	*****	-.247	*****	*****	-.308	-.253	-.218	-.207
.916	-.170	-.167	-.215	*****	-.175	*****	-.175	-.178	-.181	-.184	-.178	-.197
.928	-.173	*****	-.198	*****	-.161	-.141	-.133	-.115	-.140	-.174	-.182	-.185
.940	-.162	*****	-.138	*****	-.133	-.103	-.092	-.078	-.102	-.140	-.158	-.159
.952	*****	*****	-.083	*****	-.071	-.046	-.039	-.027	-.036	-.069	-.086	-.086
.962	-.014	-.003	.006	*****	.012	.019	.023	.030	.027	.026	.003	-.009
.974	.077	.079	*****	*****	.090	.095	.086	.098	.096	.098	.090	.089
.986	.139	.141	.144	*****	.143	.140	.142	.145	.146	.143	.145	.145
.996	.157	.163	*****	*****	.163	.163	.164	.169	.170	.169	.168	.169

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0450
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Table A29. Continued

(b) NPR = 2.027

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	STAG TAILS	TAIL SURFACE PRESSURE COEFFICIENTS							
		X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	23	0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.900								
ALPHA, DEG	.021	0.05	-.112	*****	*****	*****	*****	-.069	-.096
NPR	2.027	0.10	-.129	-.172	-.079	-.149	-.085	-.107	
		0.20	-.179	-.203	-.148	-.188	-.124	-.162	
		0.30	-.227	*****	-.195	-.223	-.175	-.204	
PTD, PSI	14.782	0.40	-.289	-.269	-.264	*****	-.216	-.235	
		0.50	-.318	-.275	-.290	-.245	-.209	-.227	
		0.60	-.286	-.245	-.306	-.252	-.177	-.198	
PO, PSI	8.741	0.70	-.151	-.146	-.182	-.172	-.144	-.140	
		0.80	-.051	*****	-.076	-.083	-.093	-.076	
QD, PSI	4.955	0.90	.034	*****	.016	*****	-.040	-.016	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.016	-.010	*****	.000	*****	*****	*****	-.009	-.015	-.012	-.001	*****
.598	-.012	-.009	*****	-.013	*****	-.020	*****	-.016	-.022	-.014	*****	*****
.612	.017	.010	*****	.002	*****	-.012	*****	-.008	-.019	-.016	*****	*****
.626	.083	.051	*****	.010	*****	-.009	*****	-.009	-.018	-.017	*****	*****
.640	*****	.072	*****	.005	*****	-.014	*****	-.018	-.026	-.026	*****	*****
.654	*****	.011	*****	-.013	*****	-.021	*****	-.034	-.038	-.038	*****	*****
.668	*****	*****	*****	-.027	*****	-.035	*****	-.030	-.030	-.028	*****	*****
.682	*****	-.077	*****	-.054	*****	-.048	*****	-.045	-.045	-.043	-.041	*****
.696	*****	-.103	*****	-.080	*****	-.062	*****	-.052	-.051	-.045	-.039	-.030
.710	*****	-.127	*****	*****	*****	-.068	*****	-.062	-.053	-.041	-.042	-.032
.724	*****	-.150	*****	-.106	*****	-.085	*****	-.066	-.061	-.053	-.042	-.039
.738	*****	-.174	*****	-.130	*****	*****	*****	-.068	-.070	-.056	-.046	-.041
.752	*****	-.165	*****	-.120	*****	-.079	*****	-.055	-.055	-.050	-.042	*****
.766	*****	-.177	*****	-.125	*****	-.060	*****	-.032	-.042	-.056	-.062	-.059
.779	*****	-.143	*****	-.096	*****	-.012	*****	.155	.016	-.028	-.039	-.036
.793	*****	-.136	*****	-.095	*****	-.059	*****	*****	-.006	-.038	-.057	*****
.807	*****	-.133	*****	-.114	*****	-.099	*****	*****	-.060	-.054	-.063	-.059
.821	*****	*****	*****	-.115	*****	-.149	*****	*****	-.100	-.087	-.087	-.084
.835	*****	-.107	*****	-.136	*****	-.171	*****	*****	-.165	-.125	-.116	-.118
.849	*****	-.099	*****	*****	*****	-.205	*****	*****	-.194	-.160	-.149	-.138
.863	*****	-.103	*****	-.160	*****	-.226	*****	*****	-.254	-.197	*****	-.163
.877	-.103	-.113	*****	-.166	*****	-.224	*****	*****	*****	*****	*****	*****
.891	-.147	-.160	*****	-.180	*****	-.243	*****	*****	-.274	-.232	-.202	-.189
.916	-.145	-.149	*****	-.198	*****	-.156	*****	-.154	-.162	-.158	-.158	-.161
.928	-.147	*****	*****	-.182	*****	-.139	*****	-.111	-.100	-.118	-.153	-.157
.940	-.135	*****	*****	-.113	*****	-.107	*****	-.066	-.060	-.080	-.112	-.129
.952	*****	*****	*****	-.050	*****	-.040	*****	-.014	-.008	-.009	-.043	-.058
.962	.030	.033	*****	.041	*****	.046	*****	.052	.053	.060	.057	.051
.974	.123	.120	*****	*****	*****	.126	*****	.126	.123	.124	.124	.123
.986	.179	.173	*****	.178	*****	.177	*****	.178	.176	.168	.171	.173
.996	.196	.203	*****	*****	*****	.198	*****	.198	.194	.191	.194	.195

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0280

Table A29. Continued

(c) NPR = 2.997

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION	STAG TAILS	POINT NUMBER	X/C	HORIZONTAL TAILS		VERTICAL TAIL		Y/B	
				UPPER SURFACE	LOWER SURFACE	0.1	0.2	0.1	0.2
MACH NUMBER	.900	24		0.1	0.2	0.1	0.2	0.1	0.2
ALPHA, DEG	.021		0.05	-.112	*****	*****	*****	-.088	-.087
NPR	2.997		0.10	-.139	-.166	-.094	-.142	-.092	-.117
PTD, PSI	14.780		0.20	-.181	-.192	-.149	-.189	-.123	-.148
PD, PSI	8.736		0.30	-.222	*****	-.207	-.220	-.175	-.200
QD, PSI	4.957		0.40	-.300	-.263	-.265	*****	-.220	-.236
			0.50	-.314	-.267	-.277	-.252	-.218	-.228
			0.60	-.300	-.245	-.299	-.264	-.188	-.189
			0.70	-.158	-.145	-.192	-.183	-.147	-.144
			0.80	-.050	*****	-.076	-.091	-.103	-.081
			0.90	.035	*****	.018	*****	-.048	-.014

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.015	-.008	*****	-.001	*****	*****	*****	-.013	-.010	-.017	-.002	*****
.598	-.010	-.004	*****	-.017	*****	-.020	*****	-.026	-.021	-.014	*****	*****
.612	.017	.012	*****	.002	*****	-.012	*****	-.013	-.021	-.010	*****	*****
.626	.084	.049	*****	.016	*****	-.005	*****	-.016	-.018	-.019	*****	*****
.640	*****	.072	*****	.006	*****	-.016	*****	-.023	-.025	-.024	*****	*****
.654	*****	.001	*****	-.013	*****	-.020	*****	-.032	-.033	-.036	*****	*****
.668	*****	*****	*****	-.030	*****	-.030	*****	-.030	-.033	-.028	*****	*****
.682	*****	-.077	*****	-.055	*****	-.051	*****	-.046	-.049	-.042	*****	*****
.696	*****	-.108	*****	-.076	*****	-.065	*****	-.049	-.050	-.048	-.037	-.0
.710	*****	-.126	*****	*****	*****	-.064	*****	-.060	-.058	-.044	-.040	-.0
.724	*****	-.158	*****	-.109	*****	-.081	*****	-.065	-.063	-.041	-.049	-.0
.738	*****	-.172	*****	-.114	*****	*****	*****	-.076	-.069	-.052	-.049	-.0
.752	*****	-.161	*****	-.114	*****	-.071	*****	-.053	-.052	-.037	-.041	*****
.766	*****	-.176	*****	-.124	*****	-.062	*****	-.027	-.041	-.052	-.057	-.0
.779	*****	-.142	*****	-.095	*****	-.015	*****	.159	.018	-.026	-.042	-.0
.793	*****	-.136	*****	-.101	*****	-.058	*****	*****	-.014	-.040	-.060	*****
.807	*****	-.127	*****	-.104	*****	-.117	*****	*****	-.069	-.055	-.058	-.0
.821	*****	*****	*****	-.129	*****	-.157	*****	*****	-.103	-.091	-.087	-.0
.835	*****	-.099	*****	-.142	*****	-.173	*****	*****	-.174	-.125	-.118	-.1
.849	*****	-.089	*****	*****	*****	-.197	*****	*****	-.200	-.160	-.153	-.1
.863	*****	-.106	*****	-.170	*****	-.220	*****	*****	-.241	-.205	*****	-.1
.877	-.099	-.117	*****	-.158	*****	-.228	*****	*****	*****	*****	*****	*****
.891	-.146	-.160	*****	-.176	*****	-.229	*****	*****	-.281	-.224	-.209	-.1
.916	-.147	-.148	-.201	*****	-.156	*****	-.151	-.172	-.159	-.161	-.158	-.1
.928	-.152	*****	-.178	*****	-.143	-.121	-.111	-.103	-.118	-.150	-.166	-.1
.940	-.132	*****	-.115	*****	-.111	-.078	-.066	-.054	-.076	-.115	-.136	-.1
.952	*****	*****	-.053	*****	-.040	-.019	-.013	-.005	-.014	-.043	-.063	-.1
.962	.027	.034	.039	*****	.046	.050	.054	.056	.057	.048	.033	.0
.974	.118	.119	*****	*****	.122	.123	.121	.120	.124	.125	.121	.0
.986	.179	.173	.176	*****	.173	.178	.174	.174	.170	.169	.169	.0
.996	.197	.200	*****	*****	.199	.200	.192	.195	.190	.190	.195	.0

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0289

Table A29. Concluded

(d) NPR = 5.033

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS												
CONFIGURATION	STAG TAILS	POINT NUMBER	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PD, PSI	QQ, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
									UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
									X/C	0.1	0.2	0.1	0.2	0.1	0.2
		25	.900	.021	5.033	14.775	8.733	4.955	0.05	-.113	*****	*****	*****	-.067	-.096
									0.10	-.132	-.158	-.087	-.144	-.090	-.108
									0.20	-.192	-.189	-.150	-.175	-.127	-.151
									0.30	-.228	*****	-.199	-.220	-.176	-.198
									0.40	-.303	-.262	-.265	*****	-.217	-.239
									0.50	-.309	-.266	-.292	-.249	-.215	-.229
									0.60	-.298	-.242	-.300	-.252	-.182	-.187
									0.70	-.147	-.139	-.179	-.162	-.158	-.142
									0.80	-.051	*****	-.071	-.079	-.100	-.080
									0.90	.039	*****	.027	*****	-.042	-.006

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.017	.000	*****	.003	*****	*****	*****	-.014	-.013	-.009	-.006	*****
.598	-.013	-.007	*****	-.009	*****	-.026	*****	-.015	-.018	-.013	*****	*****
.612	.015	.016	*****	.004	*****	-.010	*****	-.016	-.022	-.017	*****	*****
.626	.086	.049	*****	.009	*****	-.006	*****	-.017	-.022	-.024	*****	*****
.640	*****	.072	*****	.002	*****	-.014	*****	-.021	-.019	-.025	*****	*****
.654	*****	.022	*****	-.011	*****	-.020	*****	-.035	-.032	-.034	*****	*****
.668	*****	*****	*****	-.023	*****	-.032	*****	-.037	-.034	-.028	*****	*****
.682	*****	-.079	*****	-.054	*****	-.047	*****	-.047	-.049	-.039	-.039	*****
.696	*****	-.104	*****	-.071	*****	-.060	*****	-.049	-.049	-.044	-.041	-.031
.710	*****	-.174	*****	*****	*****	-.072	*****	-.053	-.058	-.042	-.042	-.038
.724	*****	-.157	*****	-.108	*****	-.083	*****	-.061	-.066	-.046	-.045	-.047
.738	*****	-.179	*****	-.117	*****	*****	*****	-.067	-.064	-.048	-.049	-.046
.752	*****	-.164	*****	-.118	*****	-.068	*****	-.053	-.052	-.041	-.044	*****
.766	*****	-.187	*****	-.121	*****	-.062	*****	-.032	-.038	-.048	-.059	-.061
.779	*****	-.150	*****	-.092	*****	-.013	*****	.153	.019	-.033	-.039	-.037
.793	*****	-.136	*****	-.105	*****	-.051	*****	*****	-.004	-.039	-.055	*****
.807	*****	-.120	*****	-.100	*****	-.104	*****	*****	-.054	-.060	-.063	-.069
.821	*****	*****	*****	-.119	*****	-.153	*****	*****	-.099	-.090	-.090	-.087
.835	*****	-.097	*****	-.140	*****	-.177	*****	*****	-.161	-.125	-.117	-.122
.849	*****	-.089	*****	*****	*****	-.202	*****	*****	-.195	-.169	-.146	-.138
.863	*****	-.100	*****	-.154	*****	-.215	*****	*****	-.244	-.203	*****	-.172
.877	*****	-.095	*****	-.158	*****	-.222	*****	*****	*****	*****	*****	*****
.891	-.138	-.147	*****	-.180	*****	-.223	*****	*****	-.287	-.226	-.197	-.191
.916	-.149	-.143	-.190	*****	-.144	*****	-.147	-.156	-.151	-.158	-.152	-.156
.928	-.144	*****	-.164	*****	-.132	*****	-.111	-.102	-.093	-.108	-.138	-.156
.940	-.122	*****	-.104	*****	-.100	-.068	-.057	-.042	-.061	-.099	-.121	-.127
.952	*****	*****	-.037	*****	-.022	-.008	.004	.011	.002	-.027	-.046	-.047
.962	.043	.052	*****	*****	.066	.072	.068	.073	.071	.064	.051	.051
.974	.134	.139	*****	*****	.141	.143	.139	.138	.140	.141	.136	.136
.986	.193	.189	.191	*****	.186	.190	.188	.186	.180	.185	.187	.182
.996	.214	.213	*****	*****	.216	.208	.211	.206	.200	.201	.201	.207

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0208

Table A30. Effect of Angle of Attack on Pressure Distributions for Staggered Tails Configuration at $M = 0.90$ and $NPR = 1.098$

(a) $\alpha = -2.981^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS								
CONFIGURATION	STAG TAILS		HORIZONTAL TAILS						VERTICAL TAIL		
POINT NUMBER	27		UPPER SURFACE	LOWER SURFACE		Y/B		Y/B			
MACH NUMBER	.900	X/C	0.1	0.2	0.1	0.2	0.1	0.2			
ALPHA, DEG	-2.981	0.05	-.342	*****	*****	*****	-.084	-.106			
		0.10	-.335	.016	-.267	.035	-.098	-.130			
NPR	1.098	0.20	-.340	-.041	-.276	-.048	-.134	-.165			
		0.30	-.360	*****	-.315	-.107	-.180	-.205			
PTD, PSI	14.776	0.40	-.415	-.164	-.384	*****	-.229	-.249			
		0.50	-.436	-.188	-.400	-.164	-.203	-.210			
PD, PSI	8.738	0.60	-.463	-.178	-.441	-.201	-.149	-.148			
		0.70	-.241	-.124	-.279	-.155	-.097	-.088			
QD, PSI	4.953	0.80	-.054	*****	-.083	-.091	-.037	-.033			
		0.90	.033	*****	.012	*****	.006	.031			

AFTERBODY PRESSURE COEFFICIENTS												
PHI, DEG												
X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.024	-.015	*****	-.012	*****	*****	*****	-.018	-.021	-.015	.003	*****
.598	-.015	-.006	*****	-.022	*****	-.030	*****	-.037	-.034	-.021	*****	*****
.612	.020	.013	*****	-.007	*****	-.018	*****	-.028	-.032	-.029	*****	*****
.626	.093	.059	*****	-.002	*****	-.013	*****	-.029	-.031	-.027	*****	*****
.640	*****	.078	*****	-.002	*****	-.026	*****	-.031	-.042	-.033	*****	*****
.654	*****	.007	*****	-.027	*****	-.036	*****	-.047	-.050	-.039	*****	*****
.668	*****	*****	*****	-.041	*****	-.048	*****	-.049	-.052	-.038	*****	*****
.682	*****	-.094	*****	-.073	*****	-.072	*****	-.055	-.060	-.050	-.035	*****
.696	*****	-.113	*****	-.088	*****	-.071	*****	-.070	-.062	-.050	-.040	-.041
.710	*****	-.136	*****	*****	*****	-.084	*****	-.080	-.065	-.049	-.038	-.040
.724	*****	-.158	*****	-.125	*****	-.090	*****	-.078	-.069	-.049	-.050	-.047
.738	*****	-.168	*****	-.129	*****	*****	*****	-.084	-.079	-.058	-.046	-.048
.752	*****	-.159	*****	-.122	*****	-.082	*****	-.064	-.062	-.047	-.051	*****
.766	*****	-.166	*****	-.123	*****	-.059	*****	-.044	-.048	-.064	-.068	-.064
.779	*****	-.106	*****	-.053	*****	.038	*****	.151	-.025	-.056	-.065	-.065
.793	*****	-.084	*****	-.043	*****	.056	*****	*****	-.116	-.082	-.082	*****
.807	*****	-.069	*****	-.029	*****	.016	*****	*****	-.159	-.112	-.105	-.105
.821	*****	*****	*****	-.030	*****	-.023	*****	*****	-.207	-.161	-.133	-.130
.835	*****	-.040	*****	-.045	*****	-.062	*****	*****	-.259	-.196	-.180	-.167
.849	*****	-.041	*****	*****	*****	-.113	*****	*****	-.294	-.234	-.208	-.216
.863	*****	-.049	*****	-.096	*****	-.136	*****	*****	-.340	-.286	*****	-.243
.877	-.054	-.064	*****	-.106	*****	-.162	*****	*****	*****	*****	*****	*****
.891	-.101	-.114	*****	-.150	*****	-.173	*****	*****	-.391	-.334	-.307	-.276
.916	-.147	-.151	-.218	*****	-.148	*****	-.166	-.185	-.180	-.200	-.191	-.209
.928	-.173	*****	-.215	*****	-.152	-.136	-.120	-.113	-.116	-.150	-.165	-.169
.940	-.184	*****	-.154	*****	-.142	-.103	-.083	-.058	-.059	-.109	-.130	-.131
.952	*****	*****	-.101	*****	-.080	-.055	-.026	-.017	.011	-.019	-.054	-.065
.962	-.037	-.024	-.019	*****	.000	.026	.016	.044	.065	.025	.014	.015
.974	.062	.063	*****	*****	.079	.083	.097	.085	.109	.104	.099	.090
.986	.122	.119	.123	*****	.122	.106	.122	.125	.125	.113	.123	.120
.996	.132	.136	*****	*****	.131	.117	.126	.126	.134	.138	.140	.135

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0468
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Table A30. Continued

ORIGINAL PAGE IS
OF POOR QUALITY

(b) $\alpha = 0.021^\circ$

TFST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION POINT NUMBER	STAG TAILS 28	MACH NUMBER .900	ALPHA, DEG .021	NPR 1.119	PTD, PSI 14.773	PO, PSI 8.730	QD, PSI 4.955	HORIZONTAL TAILS						VERTICAL TAIL			
								UPPER SURFACE			LOWER SURFACE			Y/B		0.1	0.2
								Y/B	0.1	0.2	Y/B	0.1	0.2	0.1	0.2		
								X/C	0.1	0.2	0.1	0.2	0.1	0.2			
								0.05	-.104	*****	*****	*****	-.081	-.107			
								0.10	-.125	-.183	*****	-.150	-.091	-.110			
								0.20	-.182	-.200	-.143	-.185	-.126	-.163			
								0.30	-.227	*****	-.202	-.234	-.174	-.203			
								0.40	-.288	-.277	-.269	*****	-.212	-.243			
								0.50	-.318	-.291	-.293	-.265	-.210	-.234			
								0.60	-.323	-.271	-.320	-.286	-.183	-.205			
								0.70	-.175	-.156	-.208	-.201	-.155	-.150			
								0.80	-.064	*****	-.093	-.100	-.105	-.085			
								0.90	.023	*****	.004	*****	-.046	-.017			

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.027	-.010	*****	.004	*****	*****	*****	-.008	-.019	-.011	.000	*****
.598	-.015	-.014	*****	-.012	*****	-.019	*****	-.018	-.030	-.016	*****	*****
.612	.008	.003	*****	.001	*****	-.011	*****	-.017	-.020	-.017	*****	*****
.626	.078	.052	*****	.009	*****	-.013	*****	-.016	-.023	-.020	*****	*****
.640	*****	.067	*****	.005	*****	-.018	*****	-.022	-.027	-.025	*****	*****
.654	*****	.005	*****	-.015	*****	-.024	*****	-.042	-.039	-.034	*****	*****
.668	*****	*****	*****	-.028	*****	-.033	*****	-.036	-.038	-.030	*****	*****
.682	*****	-.077	*****	-.059	*****	-.048	*****	-.054	-.041	-.035	-.035	*****
.696	*****	-.098	*****	-.066	*****	-.056	*****	-.055	-.050	-.045	-.040	-.033
.710	*****	-.127	*****	*****	*****	-.070	*****	-.064	-.055	-.042	-.041	-.042
.724	*****	-.157	*****	-.106	*****	-.082	*****	-.065	-.055	-.048	-.045	-.045
.738	*****	-.165	*****	-.126	*****	*****	*****	-.069	-.069	-.049	-.044	-.050
.752	*****	-.176	*****	-.126	*****	-.078	*****	-.056	-.053	-.045	-.048	*****
.766	*****	-.189	*****	-.140	*****	-.067	*****	-.035	-.039	-.050	-.064	-.057
.779	*****	-.157	*****	-.094	*****	-.007	*****	.153	.016	-.028	-.038	-.039
.793	*****	-.148	*****	-.113	*****	-.059	*****	*****	-.002	-.045	-.052	*****
.807	*****	-.141	*****	-.110	*****	-.119	*****	*****	-.061	-.056	-.062	-.067
.821	*****	*****	*****	-.132	*****	-.149	*****	*****	-.101	-.088	-.086	-.091
.835	*****	-.106	*****	-.137	*****	-.174	*****	*****	-.165	-.134	-.112	-.115
.849	*****	-.106	*****	*****	*****	-.205	*****	*****	-.199	-.165	-.146	-.145
.863	*****	-.116	*****	-.165	*****	-.229	*****	*****	-.253	-.202	*****	-.176
.877	-.120	-.112	*****	-.170	*****	-.242	*****	*****	*****	*****	*****	*****
.891	-.155	-.164	*****	-.197	*****	-.242	*****	*****	-.291	-.252	-.214	-.216
.916	-.174	-.177	-.226	*****	-.170	*****	-.170	-.180	-.179	-.183	-.174	-.182
.928	-.182	*****	-.204	*****	-.159	-.139	-.129	-.120	-.140	-.171	-.187	-.184
.940	-.167	*****	-.146	*****	-.132	-.102	-.091	-.075	-.105	-.140	-.151	-.161
.952	*****	*****	-.078	*****	-.067	-.049	-.038	-.035	-.044	-.067	-.089	-.093
.962	-.013	-.002	.001	*****	.017	.021	.023	.032	.027	.017	-.003	-.003
.974	.073	.074	*****	*****	.091	.092	.088	.089	.095	.096	.084	.087
.986	.141	.139	.141	*****	.144	.141	.141	.149	.137	.142	.153	.143
.996	.165	.176	*****	*****	.167	.163	.161	.157	.158	.172	.167	.163

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0453

Table A30. Concluded

(c) $\alpha = 6.030^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	POINT NUMBER	MACH NUMBER	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
					UPPER SURFACE		LOWER SURFACE		Y/B	
		29			0.1	0.2	0.1	0.2	0.1	0.2
ALPHA, DEG	6.030			0.05	.255	*****	*****	*****	-.052	-.067
				0.10	.170	-.651	.203	-.559	-.064	-.076
NPR	1.075			0.20	.064	-.542	.094	-.506	-.094	-.127
				0.30	-.018	*****	.013	-.529	-.129	-.166
PT0, PSI	14.774			0.40	-.086	-.592	-.065	*****	-.174	-.203
				0.50	-.129	-.599	-.106	-.569	-.185	-.220
PD, PSI	8.736			0.60	-.131	-.386	-.129	-.401	-.208	-.242
				0.70	-.107	-.153	-.125	-.191	-.259	-.274
QD, PSI	4.952			0.80	-.052	*****	-.079	-.078	-.296	-.294
				0.90	.014	*****	.000	*****	-.240	-.175

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	.002	.010	*****	-.009	*****	*****	*****	-.027	-.021	-.015	.010	*****
.598	.002	.007	*****	-.016	*****	-.035	*****	-.031	-.034	-.017	*****	*****
.612	.025	.017	*****	-.005	*****	-.025	*****	-.026	-.029	-.015	*****	*****
.626	.080	.048	*****	.003	*****	-.023	*****	-.023	-.036	-.015	*****	*****
.640	*****	.056	*****	.004	*****	-.030	*****	-.033	-.039	-.021	*****	*****
.654	*****	.015	*****	-.004	*****	-.028	*****	-.042	-.051	-.035	*****	*****
.668	*****	*****	*****	-.018	*****	-.031	*****	-.035	-.039	-.022	*****	*****
.682	*****	-.052	*****	-.038	*****	-.048	*****	-.047	-.059	-.035	-.019	*****
.696	*****	-.080	*****	-.057	*****	-.051	*****	-.051	-.055	-.041	-.017	-.007
.710	*****	-.098	*****	*****	*****	-.058	*****	-.050	-.061	-.030	-.011	-.010
.724	*****	-.126	*****	-.086	*****	-.066	*****	-.070	-.063	-.039	-.017	-.009
.738	*****	-.139	*****	-.106	*****	*****	*****	-.069	-.071	-.037	-.014	-.014
.752	*****	-.140	*****	-.102	*****	-.074	*****	-.054	-.039	-.025	-.010	*****
.766	*****	-.171	*****	-.125	*****	-.066	*****	-.023	-.016	-.022	-.022	-.013
.779	*****	-.176	*****	-.145	*****	-.093	*****	.202	.112	.035	.017	.022
.793	*****	-.220	*****	-.220	*****	-.278	*****	*****	.182	.053	.023	*****
.807	*****	-.263	*****	-.289	*****	-.390	*****	*****	.144	.060	.031	.029
.821	*****	*****	*****	-.348	*****	-.441	*****	*****	.092	.044	.025	.015
.835	*****	-.351	*****	-.402	*****	-.461	*****	*****	.011	.012	-.008	-.005
.849	*****	-.331	*****	*****	*****	-.502	*****	*****	-.030	-.030	-.025	-.026
.863	*****	-.289	*****	-.381	*****	-.503	*****	*****	-.087	-.067	*****	-.052
.877	-.242	-.287	*****	-.357	*****	-.458	*****	*****	*****	*****	*****	*****
.891	-.260	-.311	*****	-.332	*****	-.362	*****	*****	-.145	-.114	-.100	-.095
.916	-.175	-.187	-.233	*****	-.199	*****	-.175	-.185	-.157	-.148	-.132	-.139
.928	-.159	*****	-.198	*****	-.161	-.131	-.116	-.115	-.151	-.180	-.186	-.179
.940	-.137	*****	-.133	*****	-.120	-.082	-.074	-.075	-.135	-.179	-.192	-.186
.952	*****	*****	-.084	*****	-.057	-.032	-.026	-.035	-.092	-.115	-.149	-.138
.962	-.023	-.031	-.021	*****	-.002	.007	.008	.005	-.027	-.036	-.053	-.051
.974	.048	.029	*****	*****	.024	.033	.037	.038	.029	.043	.043	.043
.986	.085	.070	.065	*****	.049	.054	.057	.060	.064	.086	.098	.100
.996	.080	.063	*****	*****	.069	.079	.084	.082	.059	.093	.095	.097

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0683
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Table A31. Effect of Nozzle Pressure Ratio on Pressure Distributions for Staggered Tails Configuration at $M = 0.60$ and $\alpha = 0.029^\circ$

(a) NPR = 1.043

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS											
CONFIGURATION POINT NUMBER	STAG TAILS	MACH NUMBER	ALPHA, DEG	NPR	PTD, PSI	PO, PSI	QD, PSI	HORIZONTAL TAILS				VERTICAL TAIL		
								UPPER SURFACE		LOWER SURFACE		Y/B		Y/B
								X/C	0.1	0.2	0.1	0.2	0.1	0.2
	30	.602	.029	1.043	14.784	11.573	2.936	0.05	-.129	*****	*****	*****	-.109	-.094
								0.10	-.140	-.132	-.100	-.126	-.117	-.117
								0.20	-.165	-.168	-.137	-.167	-.130	-.143
								0.30	-.189	*****	-.165	-.200	-.150	-.162
								0.40	-.207	-.195	-.196	*****	-.167	-.176
								0.50	-.189	-.182	-.179	-.185	-.158	-.160
								0.60	-.162	-.150	-.169	-.176	-.132	-.132
								0.70	-.116	-.099	-.126	-.134	-.117	-.105
								0.80	-.059	*****	-.072	-.086	-.077	-.061
								0.90	.002	*****	-.010	*****	-.034	-.011

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.017	-.013	*****	-.003	*****	*****	*****	-.024	-.026	-.023	-.013	*****
.598	-.013	-.013	*****	-.019	*****	-.029	*****	-.031	-.031	-.026	*****	*****
.612	.003	.000	*****	-.016	*****	-.029	*****	-.029	-.032	-.030	*****	*****
.626	.050	.020	*****	-.020	*****	-.026	*****	-.029	-.029	-.035	*****	*****
.640	*****	.026	*****	-.030	*****	-.035	*****	-.035	-.038	-.035	*****	*****
.654	*****	-.031	*****	-.038	*****	-.037	*****	-.044	-.046	-.041	*****	*****
.668	*****	*****	*****	-.041	*****	-.039	*****	-.035	-.038	-.035	*****	*****
.682	*****	-.082	*****	-.060	*****	-.052	*****	-.050	-.042	-.041	-.043	*****
.696	*****	-.092	*****	-.066	*****	-.059	*****	-.053	-.047	-.038	-.042	-.037
.710	*****	-.114	*****	*****	*****	-.059	*****	-.052	-.047	-.035	-.039	-.038
.724	*****	-.125	*****	-.077	*****	-.058	*****	-.045	-.044	-.038	-.045	-.042
.738	*****	-.125	*****	-.082	*****	*****	*****	-.045	-.049	-.043	-.045	-.044
.752	*****	-.122	*****	-.081	*****	-.051	*****	-.034	-.041	-.037	-.045	*****
.766	*****	-.122	*****	-.088	*****	-.045	*****	-.023	-.032	-.050	-.055	-.059
.779	*****	-.108	*****	-.075	*****	-.014	*****	.140	-.003	-.037	-.046	-.049
.793	*****	-.113	*****	-.081	*****	-.061	*****	*****	-.027	-.054	-.062	*****
.807	*****	-.100	*****	-.091	*****	-.090	*****	*****	-.058	-.068	-.066	-.064
.821	*****	*****	*****	-.095	*****	-.124	*****	*****	-.094	-.082	-.076	-.077
.835	*****	-.088	*****	-.109	*****	-.157	*****	*****	-.131	-.103	-.090	-.088
.849	*****	-.083	*****	*****	*****	-.158	*****	*****	-.146	-.120	-.103	-.100
.863	*****	-.087	*****	-.120	*****	-.163	*****	*****	-.164	-.130	*****	-.108
.877	-.068	-.077	*****	-.116	*****	-.161	*****	*****	*****	*****	*****	*****
.891	-.095	-.108	*****	-.127	*****	-.158	*****	*****	-.157	-.128	-.125	-.116
.916	-.112	-.119	-.171	*****	-.129	*****	-.131	-.133	-.132	-.131	-.126	-.130
.928	-.133	*****	-.171	*****	-.135	-.123	-.114	-.099	-.123	-.138	-.145	-.146
.940	-.142	*****	-.130	*****	-.128	-.110	-.097	-.084	-.109	-.134	-.146	-.146
.952	*****	*****	-.098	*****	-.092	-.080	-.067	-.061	-.077	-.101	-.115	-.112
.962	-.042	-.044	-.040	*****	-.030	-.022	-.023	-.015	-.020	-.039	-.051	-.050
.974	.027	.033	*****	*****	.039	.046	.040	.043	.040	.040	.030	.025
.986	.093	.098	.096	*****	.099	.092	.095	.093	.096	.091	.085	.086
.996	.121	.123	*****	*****	.123	.115	.116	.114	.110	.111	.110	.111

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT	.0445
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Table A31. Continued

(b) NPR = 2.040

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	31		0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.600									
ALPHA, DEG	.028	0.05	-.130	*****	*****	*****	-.106	-.103		
		0.10	-.140	-.128	-.102	-.120	-.093	-.105		
NPR	2.040	0.20	-.172	-.162	-.149	-.158	-.120	-.143		
		0.30	-.176	*****	-.153	-.192	-.153	-.160		
PTD, PSI	14.784	0.40	-.193	-.188	-.182	*****	-.163	-.176		
		0.50	-.187	-.173	-.167	-.183	-.153	-.164		
PD, PSI	11.587	0.60	-.153	-.143	-.162	-.163	-.134	-.132		
		0.70	-.107	-.098	-.118	-.125	-.109	-.103		
QD, PSI	2.923	0.80	-.054	*****	-.065	-.070	-.074	-.059		
		0.90	.004	*****	.001	*****	-.031	-.010		

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.019	-.009	*****	-.002	*****	*****	*****	-.024	-.021	-.021	-.015	*****
.598	-.013	-.009	*****	-.019	*****	-.030	*****	-.032	-.030	-.022	*****	*****
.612	.006	.002	*****	-.011	*****	-.029	*****	-.029	-.031	-.026	*****	*****
.626	.056	.023	*****	-.016	*****	-.027	*****	-.028	-.032	-.027	*****	*****
.640	*****	.015	*****	-.019	*****	-.034	*****	-.036	-.035	-.034	*****	*****
.654	*****	-.026	*****	-.036	*****	-.037	*****	-.044	-.044	-.039	*****	*****
.668	*****	*****	*****	-.040	*****	-.042	*****	-.037	-.035	-.035	*****	*****
.682	*****	-.083	*****	-.062	*****	-.050	*****	-.047	-.045	-.041	-.035	*****
.696	*****	-.100	*****	-.069	*****	-.050	*****	-.047	-.042	-.038	-.042	-.037
.710	*****	-.105	*****	*****	*****	-.057	*****	-.046	-.044	-.041	-.033	-.040
.724	*****	-.121	*****	-.080	*****	-.056	*****	-.045	-.047	-.042	-.038	-.041
.738	*****	-.128	*****	-.087	*****	*****	*****	-.045	-.048	-.037	-.045	-.045
.752	*****	-.118	*****	-.076	*****	-.049	*****	-.030	-.039	-.041	-.044	*****
.766	*****	-.123	*****	-.084	*****	-.040	*****	-.018	-.032	-.045	-.057	-.061
.779	*****	-.110	*****	-.076	*****	-.019	*****	.148	-.008	-.038	-.048	-.048
.793	*****	-.104	*****	-.087	*****	-.055	*****	*****	-.031	-.050	-.052	*****
.807	*****	-.094	*****	-.087	*****	-.092	*****	*****	-.065	-.063	-.068	-.062
.821	*****	*****	*****	-.094	*****	-.118	*****	*****	-.108	-.083	-.070	-.077
.835	*****	-.082	*****	-.105	*****	-.140	*****	*****	-.135	-.098	-.090	-.091
.849	*****	-.076	*****	*****	*****	-.153	*****	*****	-.156	-.116	-.093	-.098
.863	*****	-.078	*****	-.113	*****	-.157	*****	*****	-.164	-.128	*****	-.108
.877	-.062	-.078	*****	-.111	*****	-.157	*****	*****	*****	*****	*****	*****
.891	-.091	-.100	*****	-.121	*****	-.152	*****	*****	-.155	-.127	-.113	-.113
.916	-.107	-.107	-.158	*****	-.117	*****	-.120	-.123	-.123	-.124	-.118	-.123
.928	-.119	*****	-.158	*****	-.122	-.111	-.101	-.093	-.111	-.129	-.132	-.134
.940	-.125	*****	-.111	*****	-.114	-.093	-.085	-.073	-.096	-.121	-.126	-.132
.952	*****	*****	-.081	*****	-.072	-.053	-.048	-.037	-.057	-.076	-.092	-.092
.962	-.021	-.012	-.010	*****	-.003	.004	.004	.014	.004	-.012	-.024	-.025
.974	.064	.065	*****	*****	.074	.081	.074	.071	.072	.071	.066	.061
.986	.132	.131	.134	*****	.135	.133	.131	.129	.131	.131	.131	.129
.996	.165	.166	*****	*****	.168	.167	.164	.166	.162	.168	.160	.162

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0297

Table A31. Continued

(c) NPR = 2.961

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG	TAILS	HORIZONTAL TAILS				VERTICAL TAIL			
			X/C	UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	32	0.1		0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.600									
ALPHA, DEG	.028		0.05	-.137	*****	*****	*****	-.086	-.101	
NPR	2.961		0.10	-.147	-.131	-.091	-.132	-.104	-.112	
			0.20	-.173	-.144	-.134	-.163	-.116	-.141	
			0.30	-.190	*****	-.166	-.196	-.146	-.164	
PTO, PSI	14.785		0.40	-.206	-.190	-.185	*****	-.156	-.175	
			0.50	-.196	-.173	-.176	-.183	-.148	-.155	
PO, PSI	11.592		0.60	-.165	-.145	-.160	-.165	-.128	-.135	
			0.70	-.119	-.100	-.116	-.128	-.114	-.099	
			0.80	-.060	*****	-.063	-.076	-.075	-.059	
QO, PSI	2.920		0.90	.001	*****	.000	*****	-.029	-.005	

AFTERBODY PRESSURE COEFFICIENTS												
X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.018	-.010	*****	.000	*****	*****	*****	-.018	-.020	-.022	-.016	*****
.598	-.009	-.008	*****	-.019	*****	-.032	*****	-.029	-.029	-.030	*****	*****
.612	.011	.002	*****	-.018	*****	-.024	*****	-.032	-.026	-.029	*****	*****
.626	.060	.027	*****	-.016	*****	-.028	*****	-.030	-.029	-.032	*****	*****
.640	*****	.022	*****	-.025	*****	-.032	*****	-.032	-.037	-.032	*****	*****
.654	*****	-.021	*****	-.034	*****	-.035	*****	-.044	-.043	-.038	*****	*****
.668	*****	*****	*****	-.040	*****	-.041	*****	-.032	-.036	-.034	*****	*****
.682	*****	-.078	*****	-.058	*****	-.045	*****	-.041	-.049	-.041	-.035	*****
.695	*****	-.104	*****	-.067	*****	-.049	*****	-.042	-.047	-.041	-.038	-.033
.710	*****	-.114	*****	*****	*****	-.053	*****	-.049	-.044	-.039	-.035	-.042
.724	*****	-.119	*****	-.081	*****	-.053	*****	-.043	-.041	-.040	-.035	-.041
.738	*****	-.124	*****	-.083	*****	*****	*****	-.045	-.045	-.038	-.038	-.041
.752	*****	-.127	*****	-.077	*****	-.049	*****	-.037	-.037	-.041	-.042	*****
.766	*****	-.119	*****	-.085	*****	-.041	*****	-.021	-.031	-.047	-.059	-.053
.779	*****	-.104	*****	-.067	*****	-.026	*****	.143	-.005	-.042	-.041	-.045
.793	*****	-.101	*****	-.082	*****	-.059	*****	*****	-.030	-.047	-.056	*****
.807	*****	-.098	*****	-.084	*****	-.085	*****	*****	-.072	-.063	-.062	-.065
.821	*****	*****	*****	-.089	*****	-.117	*****	*****	-.105	-.079	-.075	-.074
.835	*****	-.081	*****	-.103	*****	-.133	*****	*****	-.141	-.094	-.081	-.081
.849	*****	-.078	*****	*****	*****	-.149	*****	*****	-.154	-.114	-.095	-.094
.863	*****	-.081	*****	-.115	*****	-.155	*****	*****	-.164	-.124	*****	-.111
.877	-.063	-.082	*****	-.115	*****	-.156	*****	*****	*****	*****	*****	*****
.891	-.083	-.104	*****	-.124	*****	-.152	*****	*****	-.160	-.129	-.110	-.110
.916	-.102	-.106	-.163	*****	-.120	*****	-.118	-.126	-.124	-.120	-.115	-.120
.928	-.114	*****	-.154	*****	-.123	-.112	-.101	-.093	-.112	-.130	-.132	-.139
.940	-.122	*****	-.115	*****	-.112	-.094	-.083	-.072	-.095	-.115	-.122	-.132
.952	*****	*****	-.085	*****	-.070	-.059	-.049	-.041	-.055	-.074	-.087	-.091
.962	-.017	-.012	-.012	*****	-.007	.007	.006	.009	.006	-.010	-.023	-.022
.974	.067	.067	*****	*****	.072	.073	.074	.072	.075	.070	.067	.057
.986	.134	.137	.133	*****	.139	.132	.132	.130	.132	.138	.135	.129
.996	.164	.170	*****	*****	.169	.163	.165	.165	.165	.166	.168	.165

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0292

Table A31. Concluded

(d) NPR = 4.975

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL			
			UPPER SURFACE		LOWER SURFACE		Y/B			
POINT NUMBER	33		0.1	0.2	0.1	0.2	0.1	0.2		
MACH NUMBER	.601									
ALPHA, DEG	.028	0.05	-.135	*****	*****	*****	-.098	-.108		
		0.10	-.126	-.135	-.103	-.137	-.103	-.110		
NPR	4.975	0.20	-.166	-.157	-.135	-.158	-.121	-.147		
		0.30	-.182	*****	-.168	-.180	-.148	-.166		
PTD, PSI	14.785	0.40	-.205	-.185	-.190	*****	-.168	-.173		
		0.50	-.191	-.170	-.167	-.169	-.153	-.155		
PD, PSI	11.587	0.60	-.158	-.140	-.156	-.156	-.135	-.133		
		0.70	-.115	-.093	-.115	-.117	-.109	-.095		
QD, PSI	2.925	0.80	-.057	*****	-.056	-.063	-.069	-.059		
		0.90	.005	*****	.007	*****	-.030	-.006		

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.013	-.004	*****	.000	*****	*****	*****	-.023	-.023	-.018	-.016	*****
.598	-.013	-.010	*****	-.015	*****	-.030	*****	-.033	-.028	-.028	*****	*****
.612	.009	.003	*****	-.013	*****	-.025	*****	-.026	-.028	-.025	*****	*****
.626	.057	.023	*****	-.012	*****	-.026	*****	-.028	-.027	-.028	*****	*****
.640	*****	.028	*****	-.022	*****	-.031	*****	-.033	-.037	-.031	*****	*****
.654	*****	-.025	*****	-.035	*****	-.037	*****	-.040	-.043	-.041	*****	*****
.668	*****	*****	*****	-.045	*****	-.040	*****	-.039	-.036	-.031	*****	*****
.682	*****	-.079	*****	-.055	*****	-.049	*****	-.044	-.046	-.039	-.042	*****
.696	*****	-.098	*****	-.065	*****	-.055	*****	-.049	-.048	-.037	-.041	-.037
.710	*****	-.113	*****	*****	*****	-.055	*****	-.044	-.044	-.043	-.037	-.037
.724	*****	-.120	*****	-.083	*****	-.057	*****	-.044	-.046	-.044	-.047	-.041
.738	*****	-.126	*****	-.089	*****	*****	*****	-.040	-.047	-.044	-.044	-.043
.752	*****	-.116	*****	-.078	*****	-.047	*****	-.034	-.035	-.043	-.044	*****
.766	*****	-.124	*****	-.083	*****	-.039	*****	-.016	-.033	-.051	-.058	-.060
.779	*****	-.106	*****	-.073	*****	-.015	*****	.147	-.002	-.038	-.046	-.047
.793	*****	-.102	*****	-.080	*****	-.058	*****	*****	-.029	-.050	-.063	*****
.807	*****	-.087	*****	-.084	*****	-.078	*****	*****	-.071	-.064	-.065	-.064
.821	*****	*****	*****	-.086	*****	-.123	*****	*****	-.111	-.082	-.075	-.075
.835	*****	-.080	*****	-.108	*****	-.139	*****	*****	-.140	-.098	-.088	-.090
.849	*****	-.077	*****	*****	*****	-.145	*****	*****	-.158	-.115	-.103	-.096
.863	*****	-.078	*****	-.108	*****	-.158	*****	*****	-.165	-.126	*****	-.105
.877	-.062	-.075	*****	-.111	*****	-.153	*****	*****	*****	*****	*****	*****
.891	-.086	-.101	*****	-.115	*****	-.149	*****	*****	-.156	-.127	-.121	-.108
.916	-.101	-.104	-.155	*****	-.115	*****	-.113	-.117	-.120	-.119	-.114	-.120
.928	-.111	*****	-.149	*****	-.115	-.106	-.097	-.090	-.107	-.125	-.130	-.129
.940	-.122	*****	-.106	*****	-.107	-.086	-.073	-.070	-.090	-.112	-.128	-.124
.952	*****	*****	-.070	*****	-.060	-.045	-.036	-.034	-.042	-.072	-.085	-.080
.962	-.005	.000	.003	*****	.009	.025	.022	.027	.017	.003	-.010	-.011
.974	.085	.086	*****	*****	.092	.092	.090	.087	.093	.089	.082	.079
.986	.157	.156	.157	*****	.156	.158	.156	.149	.153	.154	.146	.151
.996	.199	.196	*****	*****	.194	.192	.192	.187	.187	.184	.187	.191

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0223

Table A32. Effect of Angle of Attack on Pressure Distributions for Staggered Tails Configuration at $M = 0.60$ and $NPR = 1.049$

(a) $\alpha = -2.980^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	35		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.598								
ALPHA, DEG	-2.980	0.05	-.392	*****	*****	*****	-.112	-.110	
		0.10	-.359	.049	-.297	.011	-.112	-.117	
NPR	1.049	0.20	-.322	-.032	-.261	-.045	-.117	-.129	
		0.30	-.299	*****	-.263	-.105	-.143	-.161	
PT0, PSI	14.786	0.40	-.307	-.109	-.265	*****	-.158	-.162	
		0.50	-.265	-.111	-.228	-.139	-.138	-.142	
PD, PSI	11.613	0.60	-.220	-.100	-.201	-.146	-.107	-.110	
		0.70	-.162	-.071	-.149	-.116	-.076	-.074	
Q0, PSI	2.904	0.80	-.096	*****	-.085	-.080	-.041	-.037	
		0.90	-.026	*****	-.019	*****	.003	.014	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.021	-.005	*****	-.009	*****	*****	*****	-.033	-.035	-.027	-.014	*****
.598	-.015	-.010	*****	-.027	*****	-.042	*****	-.045	-.044	-.033	*****	*****
.612	.010	.003	*****	-.020	*****	-.038	*****	-.038	-.038	-.034	*****	*****
.626	.063	.029	*****	-.021	*****	-.038	*****	-.040	-.040	-.032	*****	*****
.640	*****	.030	*****	-.023	*****	-.047	*****	-.046	-.049	-.038	*****	*****
.654	*****	-.036	*****	-.047	*****	-.048	*****	-.060	-.053	-.045	*****	*****
.668	*****	*****	*****	-.049	*****	-.054	*****	-.054	-.050	-.041	*****	*****
.682	*****	-.090	*****	-.068	*****	-.062	*****	-.058	-.061	-.052	-.042	*****
.696	*****	-.099	*****	-.074	*****	-.063	*****	-.061	-.058	-.050	-.042	-.042
.710	*****	-.106	*****	*****	*****	-.064	*****	-.057	-.062	-.053	-.043	-.043
.724	*****	-.121	*****	-.083	*****	-.063	*****	-.054	-.053	-.050	-.054	-.049
.738	*****	-.108	*****	-.074	*****	*****	*****	-.056	-.062	-.057	-.054	-.053
.752	*****	-.107	*****	-.070	*****	-.045	*****	-.045	-.056	-.055	-.058	*****
.766	*****	-.106	*****	-.070	*****	-.030	*****	-.028	-.060	-.075	-.074	-.074
.779	*****	-.076	*****	-.034	*****	.032	*****	.133	-.066	-.078	-.071	-.073
.793	*****	-.073	*****	-.033	*****	.045	*****	*****	-.154	-.102	-.086	*****
.807	*****	-.052	*****	-.030	*****	.010	*****	*****	-.170	-.120	-.097	-.093
.821	*****	*****	*****	-.037	*****	-.024	*****	*****	-.196	-.137	-.110	-.107
.835	*****	-.043	*****	-.045	*****	-.056	*****	*****	-.219	-.156	-.124	-.119
.849	*****	-.041	*****	*****	*****	-.085	*****	*****	-.221	-.166	-.130	-.131
.863	*****	-.046	*****	-.075	*****	-.103	*****	*****	-.220	-.169	*****	-.134
.877	-.035	-.053	*****	-.077	*****	-.110	*****	*****	*****	*****	*****	*****
.891	-.065	-.083	*****	-.095	*****	-.114	*****	*****	-.193	-.158	-.146	-.133
.916	-.104	-.105	-.162	*****	-.112	*****	-.114	-.140	-.142	-.145	-.130	-.137
.928	-.128	*****	-.164	*****	-.127	*****	-.109	-.107	-.123	-.144	-.144	-.143
.940	-.144	*****	-.127	*****	-.125	-.106	-.096	-.080	-.102	-.129	-.141	-.141
.952	*****	*****	-.112	*****	-.092	-.078	-.067	-.055	-.057	-.086	-.104	-.100
.962	-.063	-.058	-.047	*****	-.041	-.031	-.019	-.009	.003	-.032	-.038	-.043
.974	.018	.020	*****	*****	.029	.037	.038	.048	.067	.050	.033	.033
.986	.087	.091	.091	*****	.099	.091	.099	.100	.103	.112	.091	.089
.996	.110	.113	*****	*****	.115	.106	.116	.112	.133	.131	.113	.112

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0435

Table A32. Continued

(b) $\alpha = 0.02^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION POINT NUMBER	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE Y/B		LOWER SURFACE Y/B		Y/B		
MACH NUMBER			0.1	0.2	0.1	0.2	0.1	0.2	
ALPHA, DEG	.020	0.05	-.132	*****	*****	*****	-.102	-.109	
		0.10	-.143	-.127	-.091	-.134	-.109	-.111	
NPR	1.055	0.20	-.179	-.160	-.142	-.173	-.126	-.139	
		0.30	-.203	*****	-.167	-.195	-.150	-.163	
PTD, PSI	14.785	0.40	-.216	-.192	-.185	*****	-.165	-.172	
		0.50	-.198	-.175	-.174	-.194	-.151	-.158	
PD, PSI	11.610	0.60	-.166	-.148	-.165	-.173	-.136	-.137	
		0.70	-.122	-.099	-.129	-.134	-.111	-.100	
QD, PSI	2.906	0.80	-.063	*****	-.072	-.090	-.077	-.058	
		0.90	-.006	*****	-.010	*****	-.034	-.014	

AFTERBODY PRESSURE COEFFICIENTS

X/L	PHI, DEG											
	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.021	-.011	*****	-.002	*****	*****	*****	-.022	-.021	-.022	-.011	****
.598	-.016	-.011	*****	-.023	*****	-.029	*****	-.032	-.029	-.029	*****	****
.612	.004	.001	*****	-.019	*****	-.029	*****	-.025	-.031	-.027	*****	****
.626	.055	.021	*****	-.016	*****	-.027	*****	-.030	-.035	-.027	*****	****
.640	*****	.012	*****	-.022	*****	-.036	*****	-.032	-.038	-.035	*****	****
.654	*****	-.026	*****	-.037	*****	-.035	*****	-.044	-.045	-.044	*****	****
.668	*****	*****	*****	-.047	*****	-.043	*****	-.039	-.041	-.035	*****	****
.682	*****	-.089	*****	-.063	*****	-.049	*****	-.049	-.041	-.041	-.038	****
.696	*****	-.094	*****	-.070	*****	-.053	*****	-.048	-.047	-.044	-.042	-.0
.710	*****	-.111	*****	*****	*****	-.059	*****	-.048	-.046	-.041	-.039	-.0
.724	*****	-.126	*****	-.084	*****	-.059	*****	-.045	-.042	-.038	-.043	-.0
.738	*****	-.122	*****	-.083	*****	*****	*****	-.047	-.047	-.040	-.044	-.0
.752	*****	-.171	*****	-.078	*****	-.051	*****	-.037	-.040	-.036	-.042	****
.766	*****	-.125	*****	-.085	*****	-.045	*****	-.019	-.036	-.047	-.060	-.0
.779	*****	-.108	*****	-.075	*****	-.016	*****	.148	-.007	-.036	-.045	-.0
.793	*****	-.107	*****	-.089	*****	-.057	*****	*****	-.025	-.054	-.059	****
.807	*****	-.095	*****	-.089	*****	-.095	*****	*****	-.073	-.064	-.067	-.0
.821	*****	*****	*****	-.097	*****	-.115	*****	*****	-.104	-.088	-.078	-.0
.835	*****	-.087	*****	-.103	*****	-.141	*****	*****	-.144	-.104	-.087	-.0
.849	*****	-.080	*****	*****	*****	-.161	*****	*****	-.153	-.117	-.100	-.1
.863	*****	-.085	*****	-.120	*****	-.169	*****	*****	-.159	-.134	*****	-.1
.877	-.065	-.078	*****	-.117	*****	-.159	*****	*****	*****	*****	*****	****
.891	-.093	-.107	*****	-.126	*****	-.158	*****	*****	-.159	-.134	-.122	-.1
.916	-.114	-.114	-.171	*****	-.126	*****	-.130	-.136	-.131	-.128	-.125	-.1
.928	-.130	*****	-.164	*****	-.132	-.122	-.117	-.103	-.123	-.143	-.147	-.1
.940	-.138	*****	-.123	*****	-.125	-.108	-.096	-.084	-.113	-.134	-.147	-.1
.952	*****	*****	-.095	*****	-.091	-.074	-.066	-.061	-.076	-.098	-.113	-.1
.962	-.044	-.039	-.040	*****	-.031	-.023	-.022	-.019	-.020	-.037	-.053	-.0
.974	.034	.037	*****	*****	.040	.041	.038	.039	.037	.033	.027	.0
.986	.102	.098	.095	*****	.101	.097	.090	.092	.088	.090	.080	.0
.996	.131	.133	*****	*****	.122	.115	.116	.112	.115	.105	.105	.1

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0446

Table A32. Continued

(c) $\alpha = 3.030^\circ$

TEST PARAMETERS		TAIL SURFACE PRESSURE COEFFICIENTS							
CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	37		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.599								
ALPHA, DEG	3.030	0.05	.088	*****	*****	*****	-.081	-.094	
		0.10	.023	-.333	.060	-.330	-.095	-.113	
NPR	1.048	0.20	-.055	-.292	-.017	-.291	-.114	-.142	
		0.30	-.100	*****	-.069	-.298	-.150	-.168	
PTD, PSI	14.786	0.40	-.141	-.275	-.110	*****	-.169	-.180	
		0.50	-.147	-.237	-.119	-.247	-.164	-.168	
PD, PSI	11.605	0.60	-.126	-.192	-.115	-.221	-.154	-.163	
		0.70	-.096	-.132	-.089	-.171	-.144	-.130	
QD, PSI	2.911	0.80	-.048	*****	-.048	-.110	-.112	-.091	
		0.90	.005	*****	.002	*****	-.066	-.037	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.019	-.010	*****	-.007	*****	*****	*****	-.025	-.027	-.024	-.009	*****
.598	-.015	-.014	*****	-.023	*****	-.033	*****	-.032	-.030	-.027	*****	*****
.612	.006	.001	*****	-.018	*****	-.027	*****	-.033	-.031	-.025	*****	*****
.626	.048	.020	*****	-.017	*****	-.035	*****	-.035	-.031	-.028	*****	*****
.640	*****	.024	*****	-.023	*****	-.037	*****	-.039	-.038	-.029	*****	*****
.654	*****	-.020	*****	-.033	*****	-.041	*****	-.052	-.047	-.037	*****	*****
.668	*****	*****	*****	-.042	*****	-.043	*****	-.042	-.040	-.031	*****	*****
.682	*****	-.076	*****	-.056	*****	-.050	*****	-.050	-.050	-.040	-.031	*****
.696	*****	-.097	*****	-.069	*****	-.053	*****	-.053	-.048	-.037	-.031	-.028
.710	*****	-.111	*****	*****	*****	-.059	*****	-.051	-.048	-.040	-.031	-.033
.724	*****	-.125	*****	-.089	*****	-.068	*****	-.056	-.047	-.038	-.035	-.033
.738	*****	-.133	*****	-.099	*****	*****	*****	-.056	-.054	-.037	-.031	-.032
.752	*****	-.139	*****	-.098	*****	-.068	*****	-.044	-.034	-.030	-.029	*****
.766	*****	-.144	*****	-.113	*****	-.071	*****	-.029	-.020	-.035	-.043	-.041
.779	*****	-.129	*****	-.114	*****	-.085	*****	.148	.044	-.008	-.018	-.026
.793	*****	-.140	*****	-.131	*****	-.176	*****	*****	.060	-.009	-.030	*****
.807	*****	-.131	*****	-.148	*****	-.203	*****	*****	.037	-.017	-.030	-.035
.821	*****	*****	*****	-.157	*****	-.216	*****	*****	-.021	-.026	-.042	-.045
.835	*****	-.126	*****	-.162	*****	-.219	*****	*****	-.053	-.049	-.049	-.055
.849	*****	-.119	*****	*****	*****	-.229	*****	*****	-.091	-.072	-.064	-.067
.863	*****	-.116	*****	-.166	*****	-.219	*****	*****	-.105	-.084	*****	-.081
.877	-.094	-.111	*****	-.153	*****	-.209	*****	*****	*****	*****	*****	*****
.891	-.112	-.129	*****	-.154	*****	-.194	*****	*****	-.123	-.105	-.098	-.094
.916	-.124	-.126	*****	*****	-.141	*****	-.133	-.132	-.117	-.115	-.109	-.117
.928	-.128	*****	-.165	*****	-.140	*****	-.126	-.108	-.116	-.136	-.147	-.143
.940	-.132	*****	-.120	*****	-.126	-.103	-.088	-.087	-.113	-.133	-.154	-.151
.952	*****	*****	-.090	*****	-.084	-.068	-.060	-.055	-.079	-.102	-.127	-.123
.962	-.039	-.037	-.026	*****	-.009	-.004	-.006	-.007	-.027	-.045	-.061	-.061
.974	.037	.037	*****	*****	.042	.048	.064	.042	.038	.028	.018	.013
.986	.098	.097	.110	*****	.091	.115	.113	.096	.089	.089	.077	.076
.996	.121	.110	*****	*****	.129	.118	.099	.130	.103	.106	.098	.099

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0442

Table A32. Continued

(d) $\alpha = 6.004^\circ$

TEST PARAMETERS			TAIL SURFACE PRESSURE COEFFICIENTS						
CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL		
			UPPER SURFACE		LOWER SURFACE		Y/B		
POINT NUMBER	38		0.1	0.2	0.1	0.2	0.1	0.2	
MACH NUMBER	.599								
ALPHA, DEG	6.004	0.05	.263	*****	*****	*****	-.077	-.100	
		0.10	.176	-.432	.201	-.551	-.090	-.103	
NPR	1.033	0.20	.062	-.415	.094	-.433	-.107	-.134	
		0.30	-.002	*****	.030	-.393	-.147	-.163	
PTD, PSI	14.786	0.40	-.055	-.337	-.033	*****	-.171	-.190	
		0.50	-.079	-.277	-.045	-.300	-.179	-.186	
PD, PSI	11.601	0.60	-.069	-.218	-.064	-.249	-.182	-.178	
		0.70	-.055	-.149	-.053	-.179	-.186	-.157	
QD, PSI	2.914	0.80	-.026	*****	-.020	-.107	-.140	-.119	
		0.90	.016	*****	.027	*****	-.097	-.061	

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG.

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.030	-.032	*****	-.014	*****	*****	*****	-.042	-.055	-.023	-.001	*****
.598	-.035	-.025	*****	-.027	*****	-.047	*****	-.052	-.053	-.030	*****	*****
.612	-.019	-.006	*****	-.026	*****	-.042	*****	-.054	-.050	-.026	*****	*****
.626	.025	.012	*****	-.023	*****	-.042	*****	-.046	-.047	-.028	*****	*****
.640	*****	.017	*****	-.027	*****	-.044	*****	-.057	-.051	-.034	*****	*****
.654	*****	-.023	*****	-.035	*****	-.051	*****	-.083	-.061	-.043	*****	*****
.668	*****	*****	*****	-.047	*****	-.051	*****	-.083	-.055	-.037	*****	*****
.682	*****	-.073	*****	-.066	*****	-.066	*****	-.097	-.062	-.042	-.024	*****
.696	*****	-.093	*****	-.075	*****	-.074	*****	-.097	-.061	-.038	-.021	-.011
.710	*****	-.110	*****	*****	*****	-.078	*****	-.091	-.061	-.034	-.017	-.011
.724	*****	-.130	*****	-.099	*****	-.087	*****	-.073	-.068	-.033	-.015	-.011
.738	*****	-.149	*****	-.111	*****	*****	*****	-.074	-.063	-.029	-.014	-.011
.752	*****	-.171	*****	-.137	*****	-.095	*****	-.071	-.043	-.019	-.008	*****
.766	*****	-.196	*****	-.152	*****	-.117	*****	-.054	-.022	-.016	-.019	-.011
.779	*****	-.199	*****	-.163	*****	-.171	*****	.126	.076	.015	.011	-.001
.793	*****	-.212	*****	-.193	*****	-.312	*****	*****	.147	.032	.001	*****
.807	*****	-.203	*****	-.210	*****	-.348	*****	*****	.140	.037	.008	.001
.821	*****	*****	*****	-.226	*****	-.344	*****	*****	.081	.032	-.001	-.011
.835	*****	-.169	*****	-.235	*****	-.317	*****	*****	.027	.011	-.008	-.021
.849	*****	-.164	*****	*****	*****	-.293	*****	*****	-.019	-.015	-.026	-.031
.863	*****	-.162	*****	-.209	*****	-.274	*****	*****	-.051	-.032	*****	-.031
.877	-.126	-.145	*****	-.200	*****	-.249	*****	*****	*****	*****	*****	*****
.891	-.140	-.162	*****	-.188	*****	-.215	*****	*****	-.086	-.066	-.064	-.061
.916	-.165	-.153	-.191	*****	-.158	*****	-.123	-.120	-.094	-.090	-.091	-.101
.928	-.172	*****	-.178	*****	-.149	*****	-.093	-.083	-.097	-.115	-.133	-.121
.940	-.178	*****	-.136	*****	-.134	-.062	-.052	-.050	-.093	-.122	-.143	-.141
.952	*****	*****	-.104	*****	-.084	-.002	-.001	-.009	-.064	-.098	-.128	-.121
.962	-.088	-.077	-.047	*****	-.025	-.008	.059	.046	-.011	-.035	-.069	-.071
.974	-.006	-.001	*****	*****	.027	.033	.084	.070	.048	.035	.012	-.001
.986	.052	.057	.061	*****	.055	.072	.079	.089	.081	.079	.070	.061
.996	.053	.061	*****	*****	.062	.091	.101	.101	.062	.078	.074	.061

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0486

Table A32. Concluded

(e) $\alpha = 9.031^\circ$

TEST PARAMETERS

TAIL SURFACE PRESSURE COEFFICIENTS

CONFIGURATION	STAG TAILS	X/C	HORIZONTAL TAILS				VERTICAL TAIL	
			UPPER SURFACE		LOWER SURFACE		Y/B	
			0.1	0.2	0.1	0.2	0.1	0.2
POINT NUMBER	39							
MACH NUMBER	.600							
ALPHA, DEG	9.031	0.05	.392	*****	*****	*****	-.072	-.089
NPR	1.047	0.10	.300	-1.727	.334	-.405	-.080	-.095
		0.20	.172	-.515	.199	-.494	-.099	-.127
		0.30	.091	*****	.107	-.463	-.140	-.169
		0.40	.026	-.325	.034	*****	-.179	-.200
PTD, PSI	14.786	0.50	-.012	-.300	.003	-.334	-.200	-.202
		0.60	-.027	-.267	-.027	-.284	-.208	-.204
		0.70	-.020	-.186	-.030	-.207	-.217	-.184
PD, PSI	11.589	0.80	.001	*****	-.011	-.130	-.185	-.144
		0.90	.027	*****	.027	*****	-.137	-.089

AFTERBODY PRESSURE COEFFICIENTS

PHI, DEG

X/L	0	18	36	45	54	72	81	90	108	135	162	180
.584	-.019	-.021	*****	-.034	*****	*****	*****	-.081	-.079	-.031	.011	*****
.598	-.017	-.032	*****	-.037	*****	-.071	*****	-.087	-.088	-.040	*****	*****
.612	-.004	-.027	*****	-.037	*****	-.068	*****	-.084	-.081	-.043	*****	*****
.626	.048	-.002	*****	-.037	*****	-.066	*****	-.084	-.080	-.043	*****	*****
.640	*****	-.001	*****	-.038	*****	-.068	*****	-.090	-.085	-.047	*****	*****
.654	*****	-.038	*****	-.049	*****	-.063	*****	-.109	-.096	-.050	*****	*****
.668	*****	*****	*****	-.056	*****	-.074	*****	-.102	-.096	-.041	*****	*****
.682	*****	-.098	*****	-.066	*****	-.083	*****	-.119	-.099	-.049	-.008	*****
.696	*****	-.111	*****	-.078	*****	-.089	*****	-.121	-.090	-.049	-.004	.002
.710	*****	-.130	*****	*****	*****	-.097	*****	-.117	-.087	-.047	.004	.005
.724	*****	-.145	*****	-.114	*****	-.107	*****	-.110	-.090	-.038	-.001	.001
.738	*****	-.167	*****	-.125	*****	*****	*****	-.109	-.093	-.035	.002	.005
.752	*****	-.188	*****	-.150	*****	-.133	*****	-.106	-.071	-.015	.023	*****
.766	*****	-.223	*****	-.188	*****	-.182	*****	-.094	-.035	-.009	.012	.008
.779	*****	-.231	*****	-.219	*****	-.307	*****	.067	.105	.037	.042	.033
.793	*****	-.259	*****	-.266	*****	-.508	*****	*****	.237	.064	.038	*****
.807	*****	-.261	*****	-.293	*****	-.488	*****	*****	.211	.086	.049	.033
.821	*****	*****	*****	-.295	*****	-.443	*****	*****	.151	.084	.046	.027
.835	*****	-.235	*****	-.295	*****	-.396	*****	*****	.075	.061	.034	.017
.849	*****	-.225	*****	*****	*****	-.367	*****	*****	.013	.038	.016	.007
.863	*****	-.236	*****	-.265	*****	-.327	*****	*****	-.020	.012	*****	-.005
.877	-.167	-.203	*****	-.241	*****	-.290	*****	*****	*****	*****	*****	*****
.891	-.179	-.226	*****	-.232	*****	-.259	*****	*****	-.066	-.034	-.042	-.042
.916	-.186	-.205	-.271	*****	-.195	*****	-.167	-.156	-.100	-.074	-.074	-.085
.928	-.203	*****	-.257	*****	-.178	-.152	-.130	-.129	-.114	-.114	-.124	-.117
.940	-.223	*****	-.194	*****	-.153	-.111	-.088	-.088	-.125	-.132	-.147	-.141
.952	*****	*****	-.151	*****	-.109	-.058	-.048	-.058	-.106	-.111	-.141	-.127
.962	-.133	-.125	-.069	*****	-.043	-.005	-.008	-.014	-.053	-.050	-.077	-.076
.974	-.045	-.041	*****	*****	.027	.044	.044	.027	.023	.025	.006	-.002
.986	.037	.053	.068	*****	.092	.084	.114	.087	.078	.077	.067	.059
.996	.081	.082	*****	*****	.118	.124	.123	.094	.093	.094	.087	.084

AFTERBODY INTEGRATED PRESSURE DRAG COEFFICIENT .0612

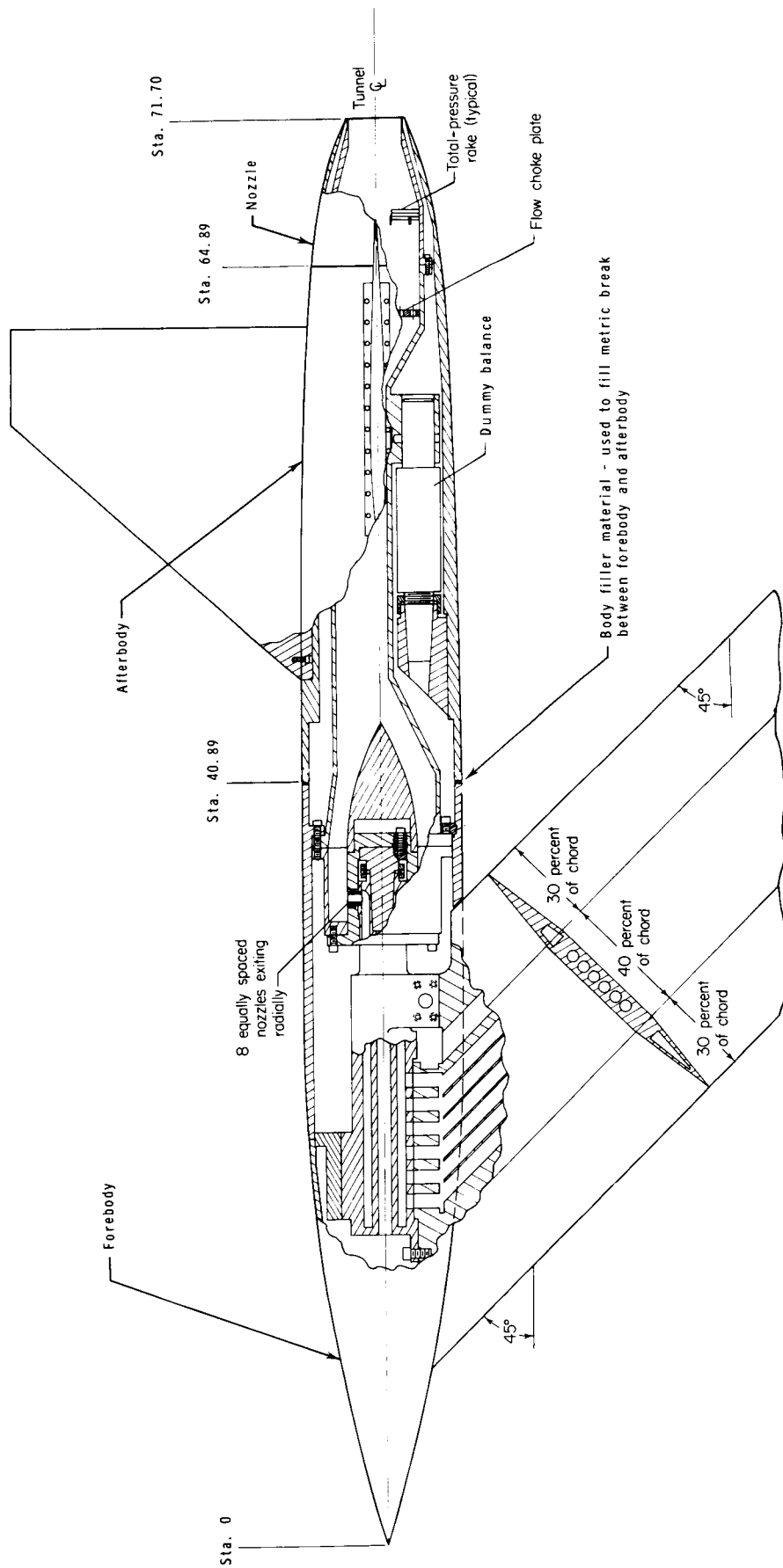
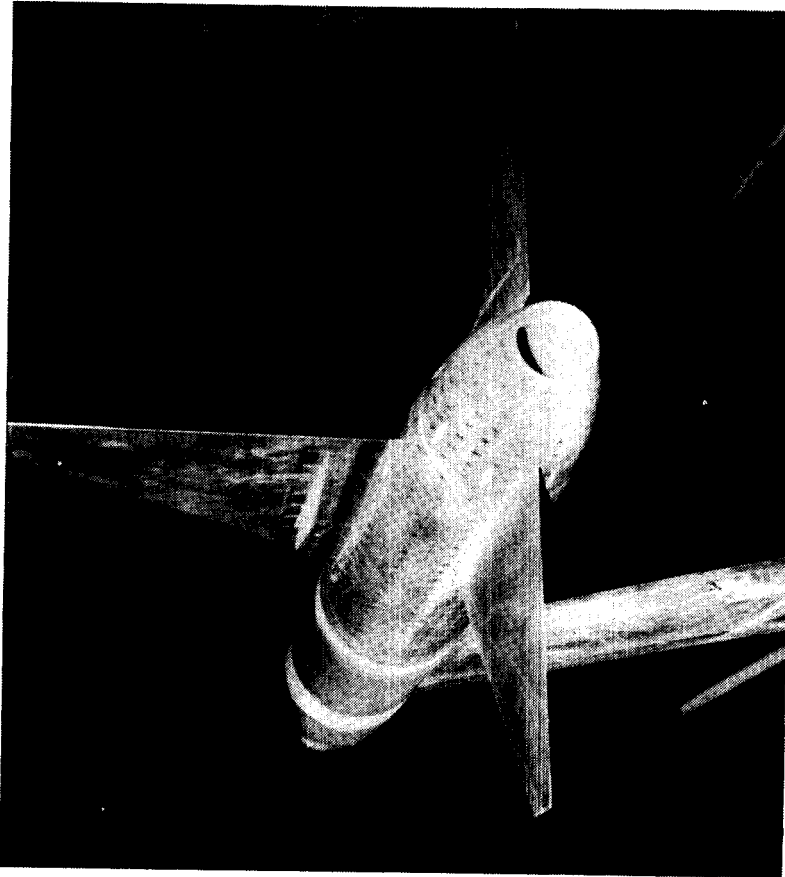


Figure 1. Sketch of air-powered, single-engine model with tails installed in staggered empennage arrangement. Linear dimensions are in inches.

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L-85-2295



Looking upstream

Figure 2. Model installed in test section of Langley 16-Foot Transonic Tunnel. Tail surfaces are shown in staggered arrangement.

L-85-2292



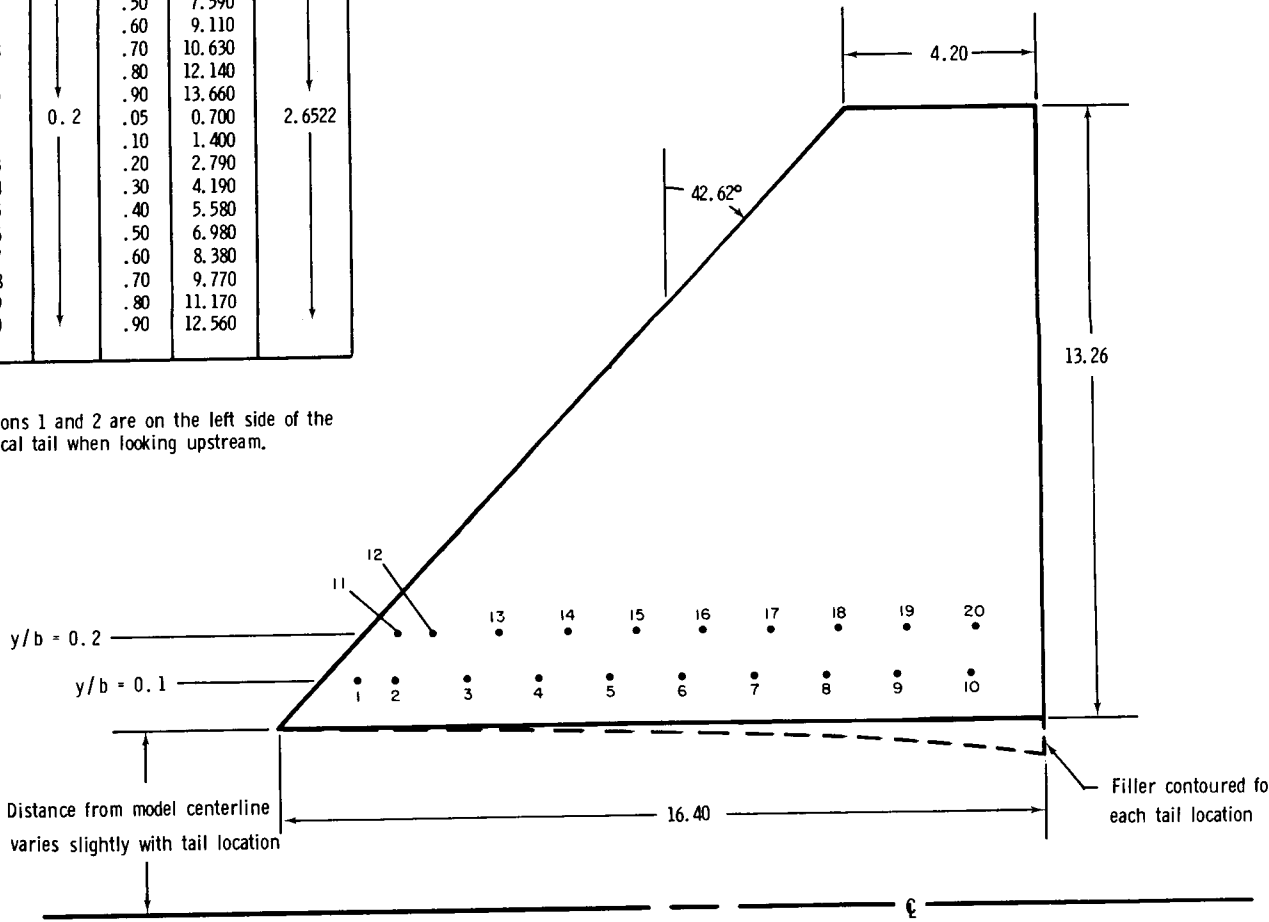
Looking downstream

Orifice	y/b	x/c	x, in.	y, in.
1	0.1	.05	0.760	1.326
2		.10	1.518	
3		.20	3.040	
4		.30	4.550	
5		.40	6.070	
6		.50	7.590	
7		.60	9.110	
8		.70	10.630	
9		.80	12.140	
10		.90	13.660	
11	0.2	.05	0.700	2.6522
12		.10	1.400	
13		.20	2.790	
14		.30	4.190	
15		.40	5.580	
16		.50	6.980	
17		.60	8.380	
18		.70	9.770	
19		.80	11.170	
20		.90	12.560	

Airfoil sections

Root NACA 64-005
 Tip NACA 64-003

Stations 1 and 2 are on the left side of the vertical tail when looking upstream.



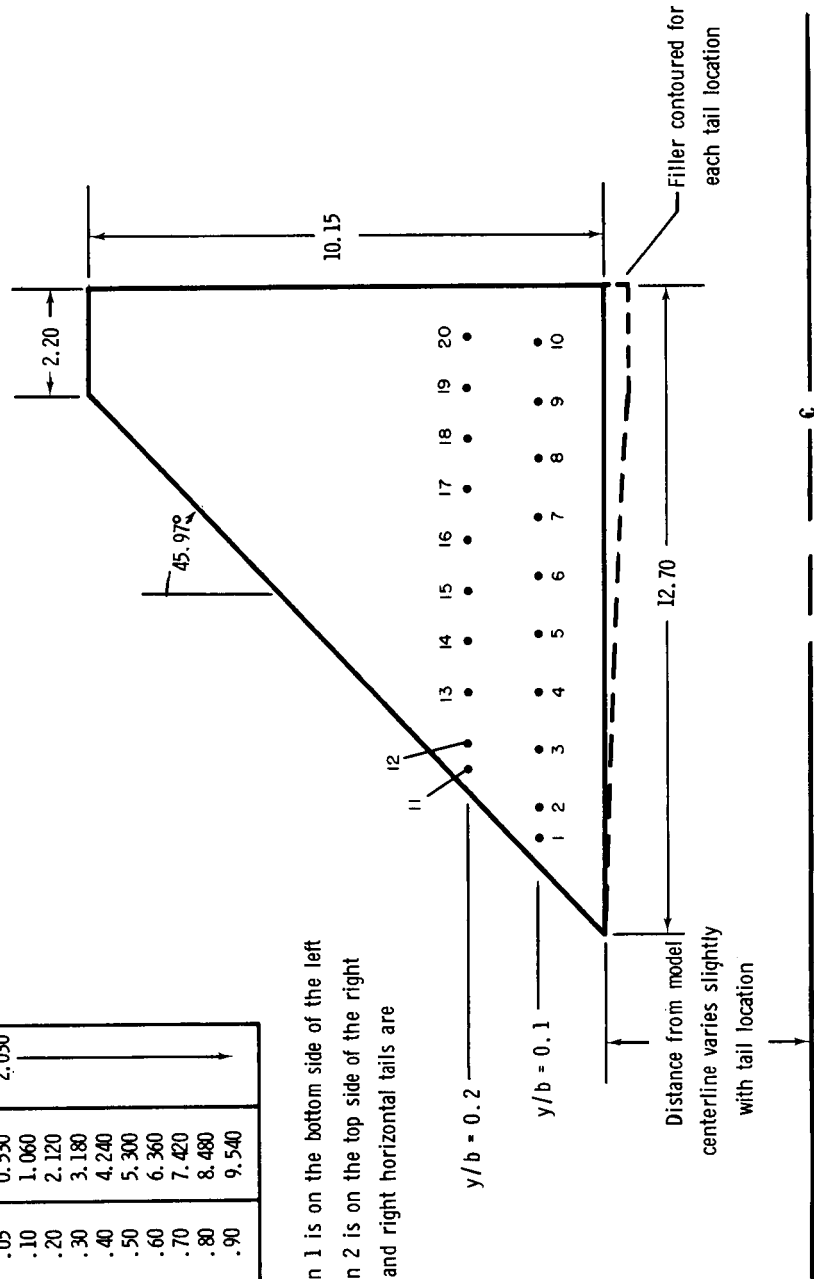
(a) Vertical tail.

Figure 3. Geometric details of horizontal and vertical tails including static pressure orifice locations. Line dimensions are in inches.

Orifice	y/b	x/c	$x, \text{ in.}$	$y, \text{ in.}$
1	0.1	.05	0.583	1.015
2		.10	1.165	
3		.20	2.330	
4		.30	3.495	
5		.40	4.660	
6		.50	5.825	
7		.60	6.990	
8		.70	8.155	
9		.80	9.320	
10		.90	10.485	
11	0.2	.05	0.530	2.030
12		.10	1.060	
13		.20	2.120	
14		.30	3.180	
15		.40	4.240	
16		.50	5.300	
17		.60	6.360	
18		.70	7.420	
19		.80	8.480	
20		.90	9.540	

Airfoil sections

Root..... NACA 64-005
 Tip..... NACA 64-003



Looking upstream, station 1 is on the bottom side of the left horizontal tail and station 2 is on the top side of the right horizontal tail. The left and right horizontal tails are interchangeable.

(b) Horizontal tails.

Figure 3. Concluded.

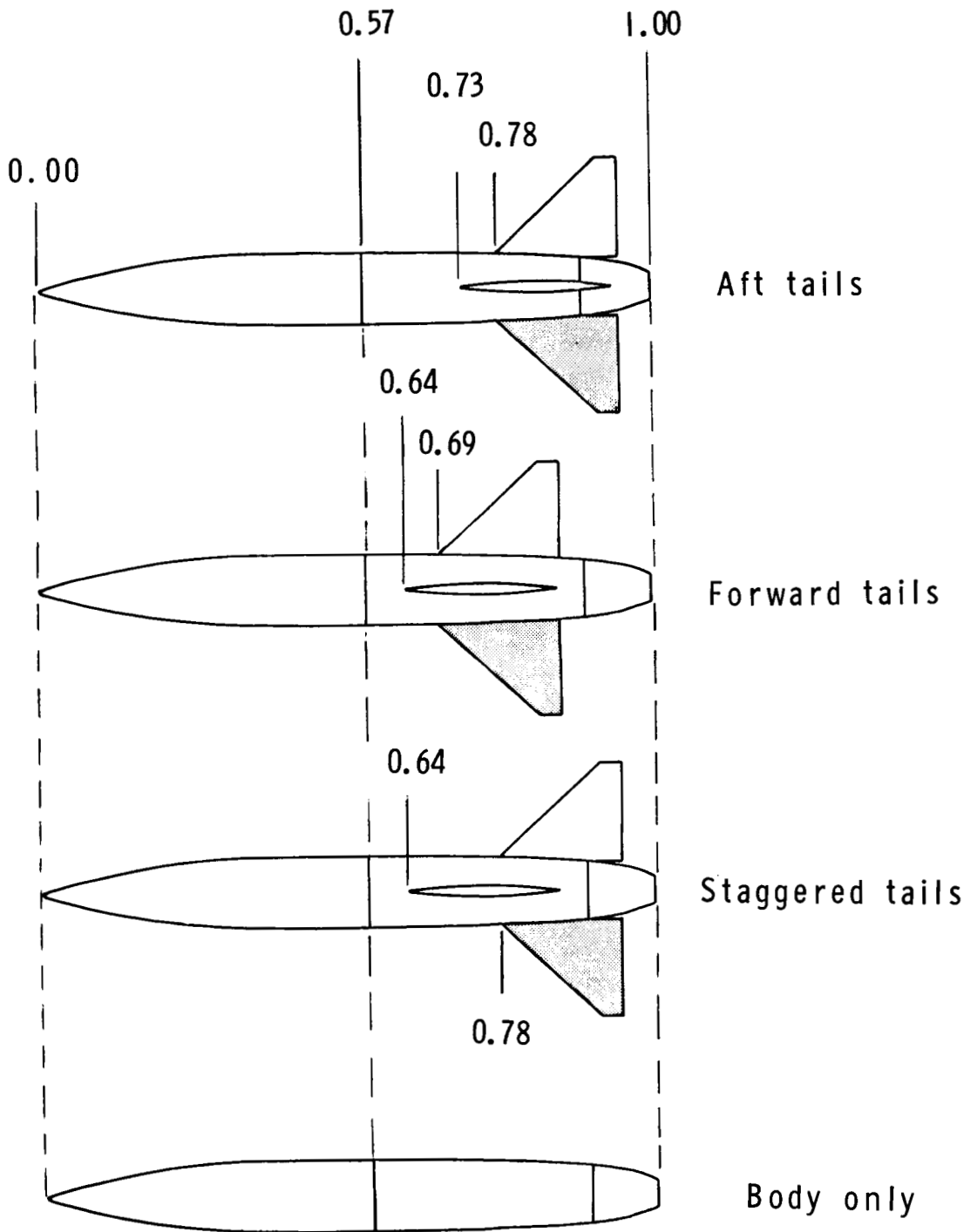
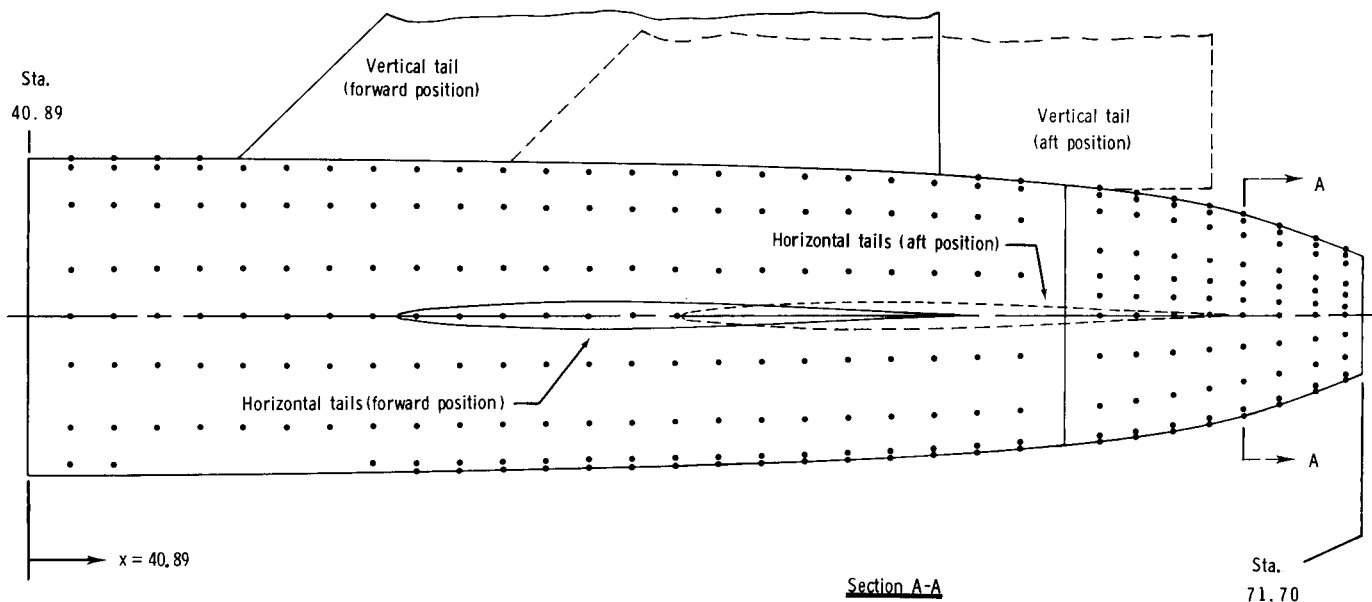
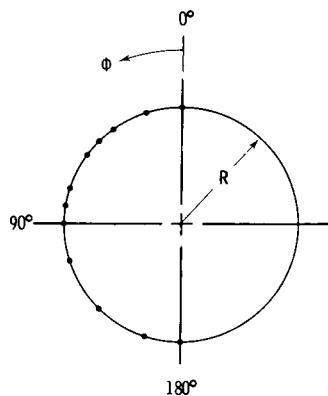


Figure 4. Planform view of model configurations tested. Dimensions are in fractions of body length.



Nozzle/afterbody external geometry

x, in.	R, in.
40.888	3.670
42.888	3.664
44.888	3.654
46.888	3.636
48.888	3.612
50.888	3.580
52.888	3.539
54.888	3.488
56.888	3.425
58.888	3.348
60.888	3.248
61.388	3.217
61.888	3.184
62.388	3.147
62.888	3.108
63.488	3.056
64.888	3.000
65.700	2.919
67.181	2.726
67.700	2.635
68.700	2.400
69.700	2.098
70.700	1.750
71.700	1.374

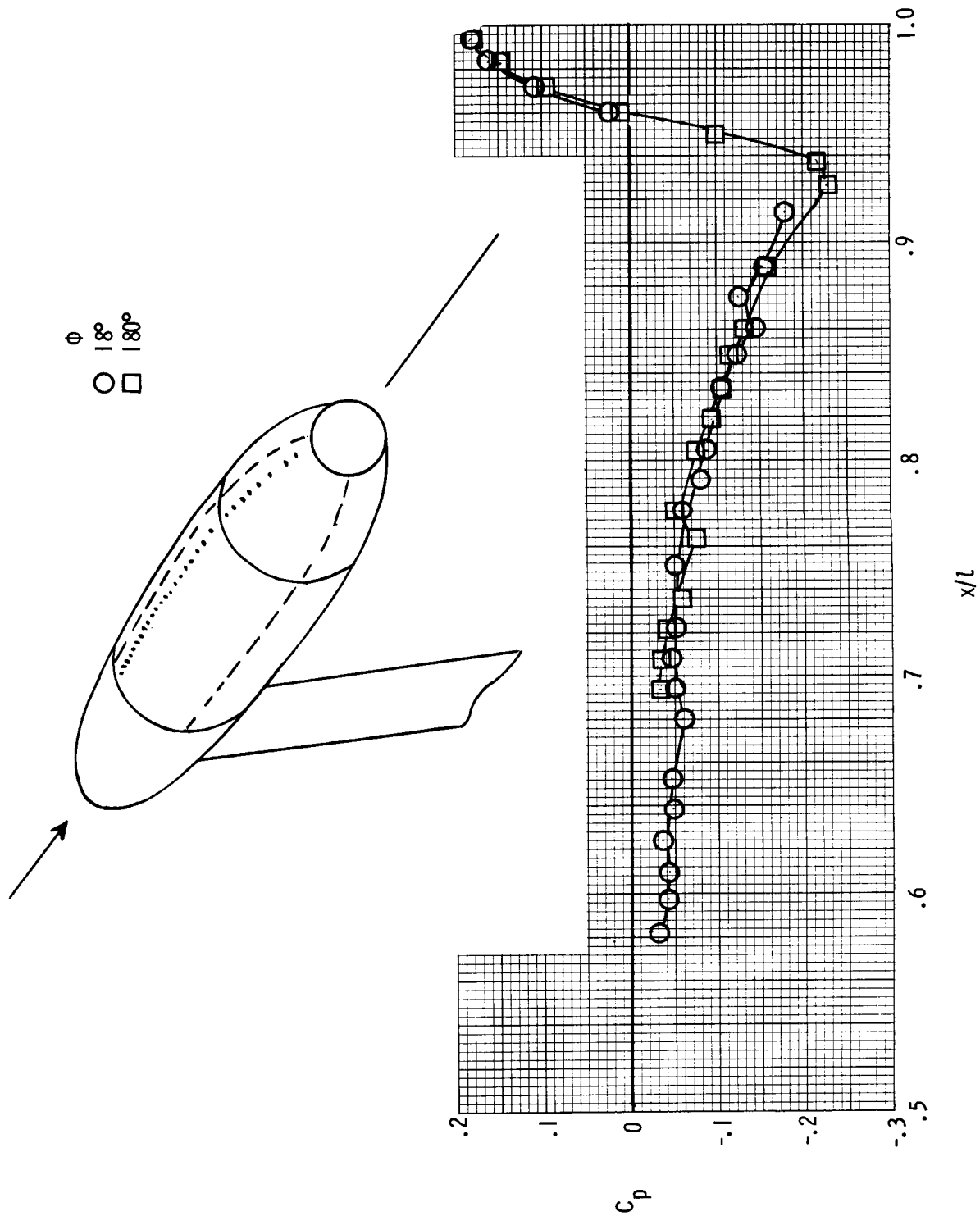


Pressure taps are on the left side of the afterbody and nozzle when looking upstream.

Pressure orifice locations (see tables A2 through A8)

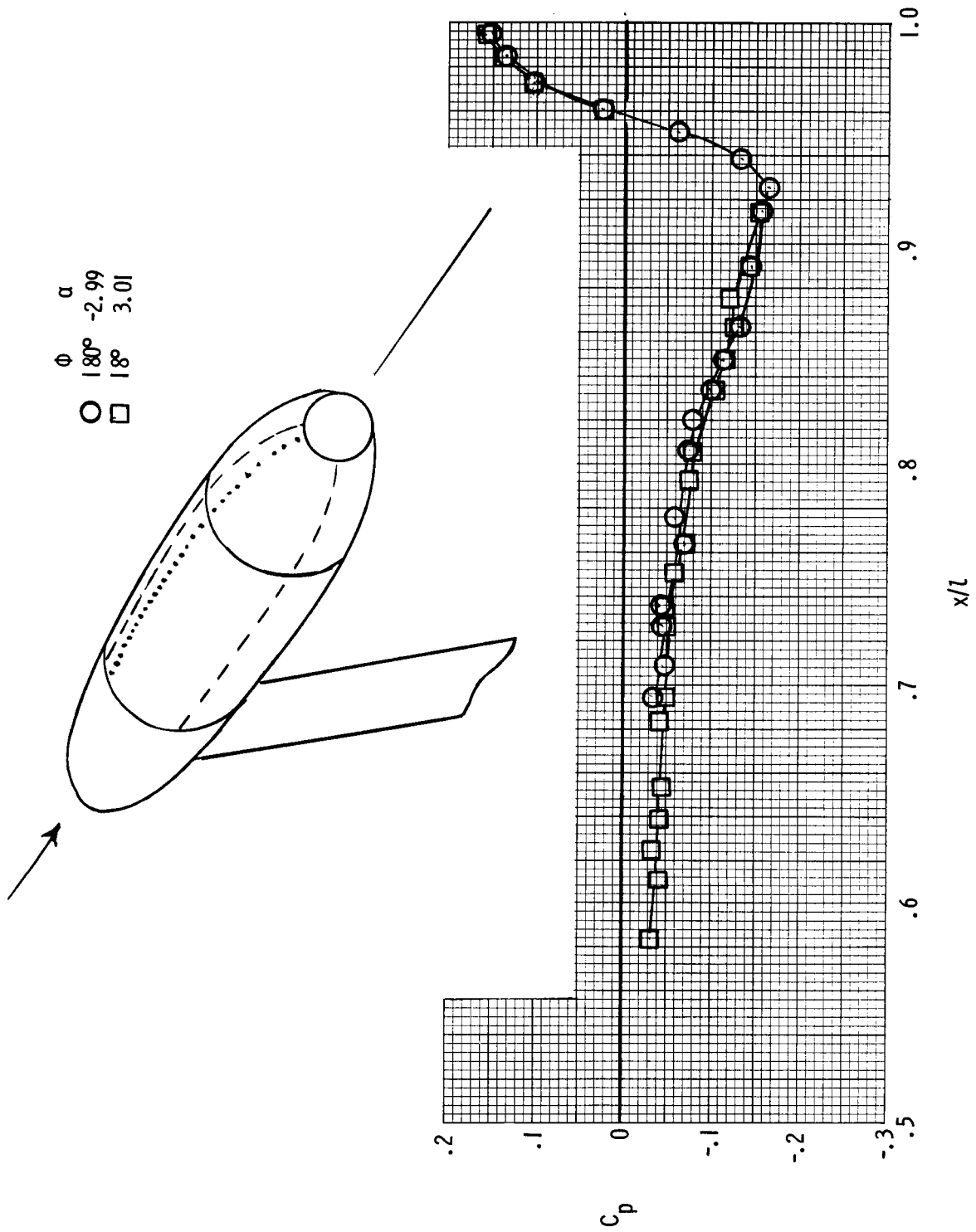
x, in.	x/l	ϕ , deg												
		0	18	36	45	54	72	81	90	108	135	162	180	
41.878	574	x	x		x									
42.938	598	x	x		x									
43.888	612	x	x		x									
44.778	626	x	x		x									
45.977	640	x	x		x									
46.588	654	y												
47.588	668	y												
48.898	682	x												
49.988	696	x												
50.858	710	x												
51.884	724	x												
52.886	738	x												
53.888	752	x												
54.888	766	x												
55.888	780	x												
56.888	794	x												
57.898	808	x												
58.888	822	x												
59.888	836	y												
60.852	850	x												
61.888	864	x												
62.898	878	x												
63.888	892	x												
65.700	916	x												
66.750	928	x												
67.800	940	x												
68.750	952	x												
69.000	962	x												
69.750	974	x												
70.700	986	x												
71.400	996	x												

Figure 5. Afterbody and nozzle pressure instrumentation and external geometry details. Linear dimensions are in inches.



(a) $\alpha = 0.0^\circ$.

Figure 6. Effect of model support system on pressure coefficients at two meridian angles for body alone at $M = 0.95$ and $NPR = 1.0$.

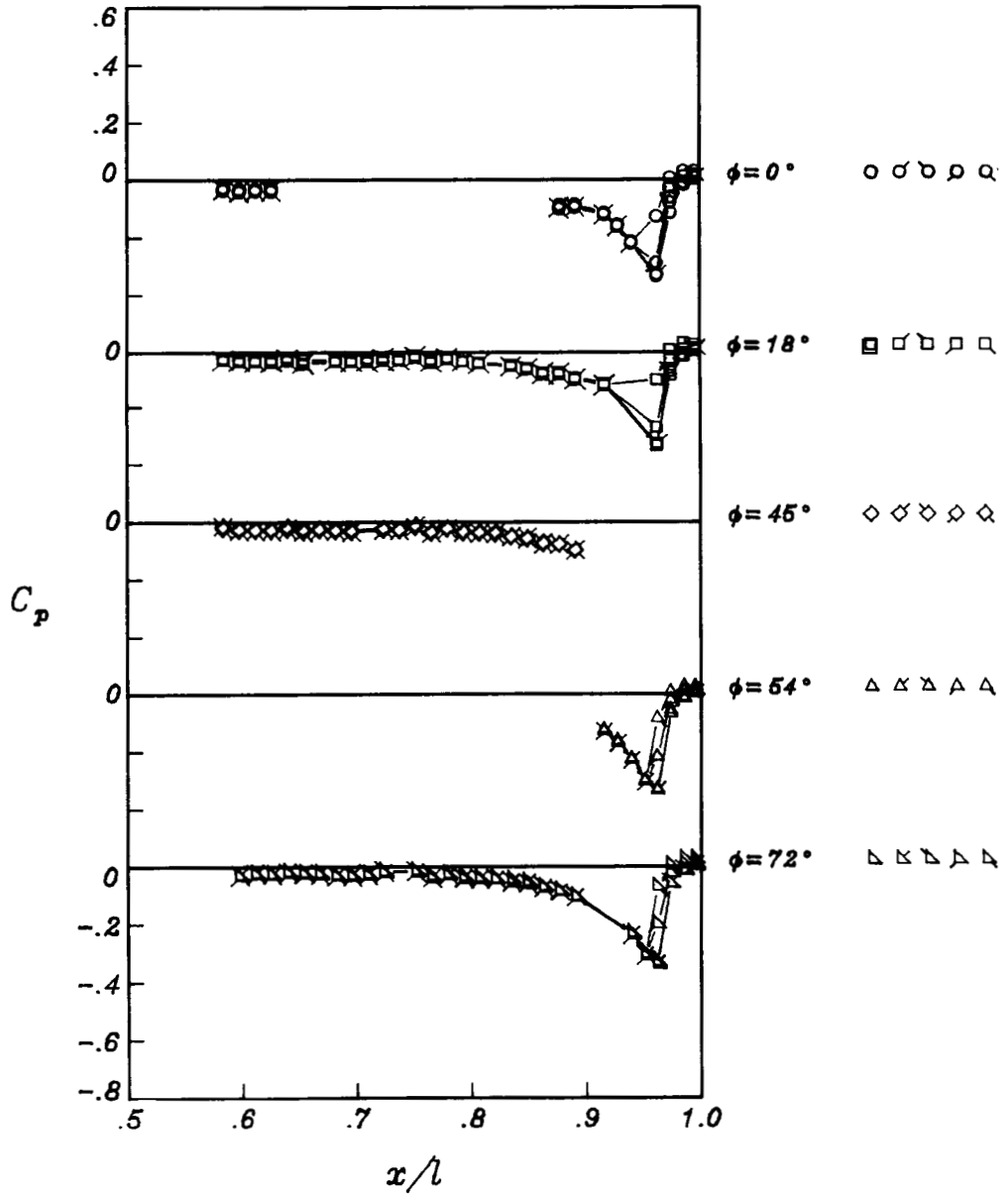


(b) $\alpha = \pm 3.0^\circ$.

Figure 6. Concluded.



NPR	
○	1.06
◊	2.04
◻	4.07
◊	6.03
◻	8.00

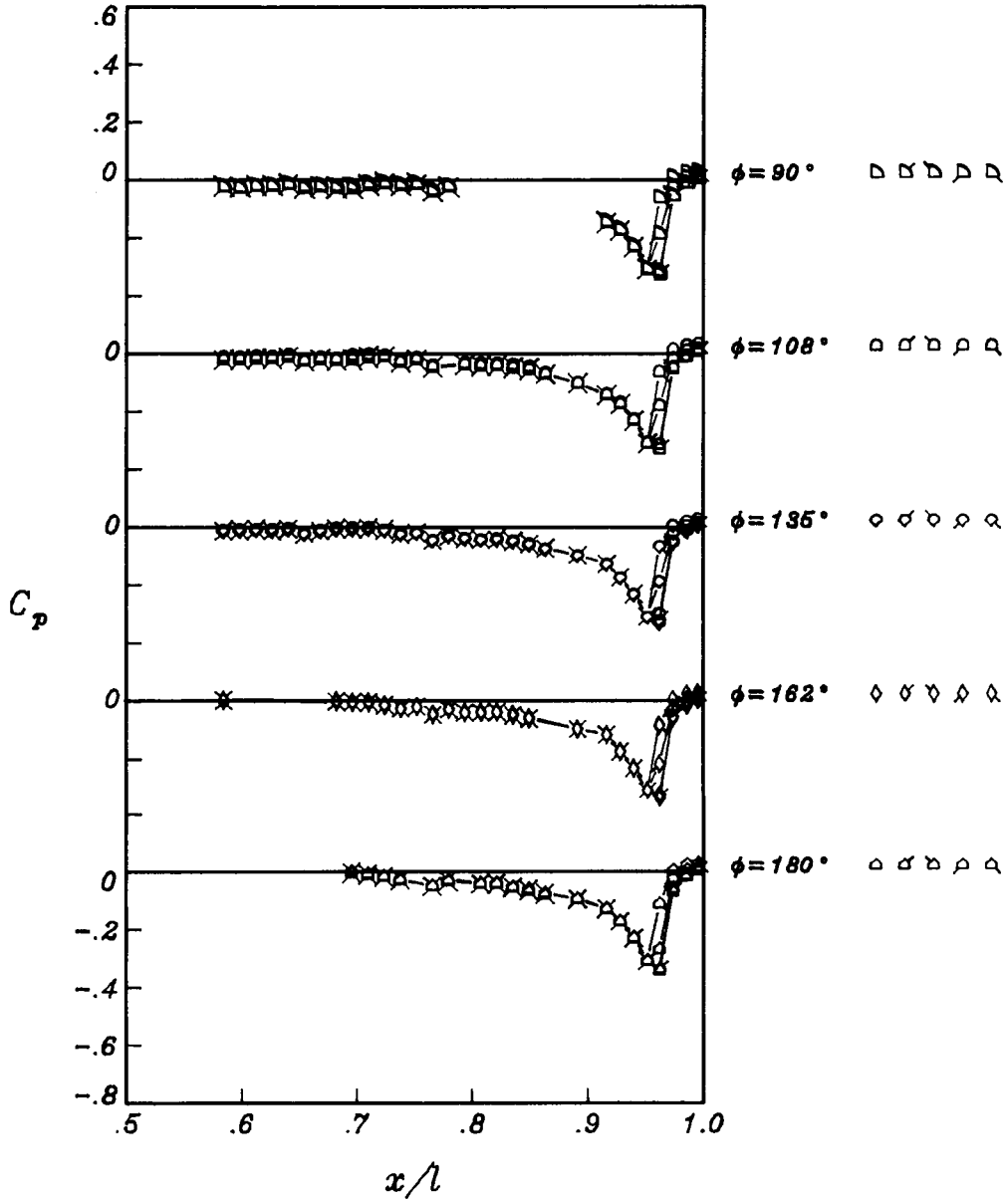


(a) $M = 1.20; \alpha = 0.01^\circ$.

Figure 7. Effect of nozzle pressure ratio on nozzle/afterbody pressures for body alone.



	<i>NPR</i>
○	1.06
○	2.04
○	4.07
○	6.03
○	8.00

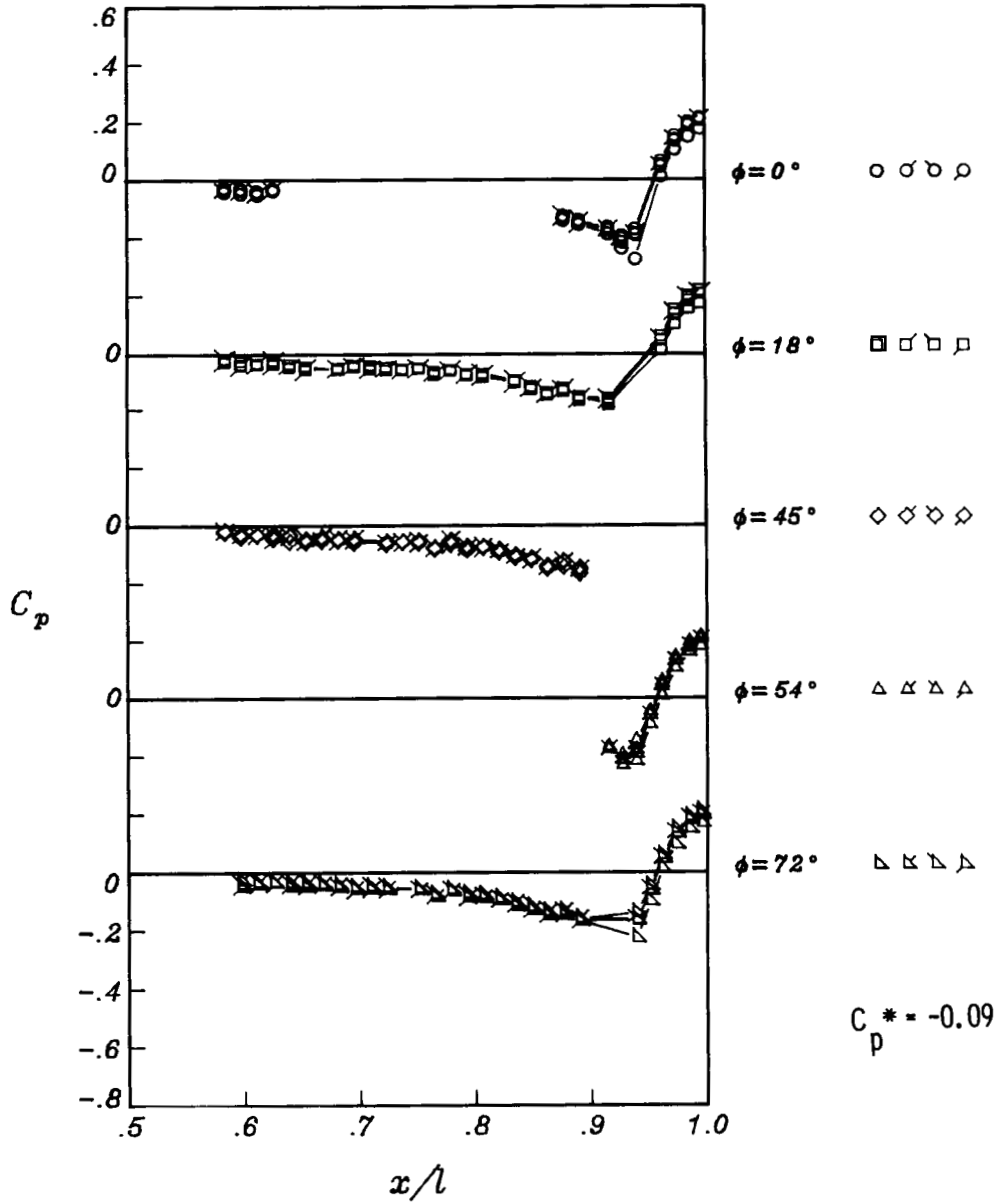


(a) Concluded.

Figure 7. Continued.



NPR	
○	1.11
◐	2.04
◑	3.04
◒	5.01

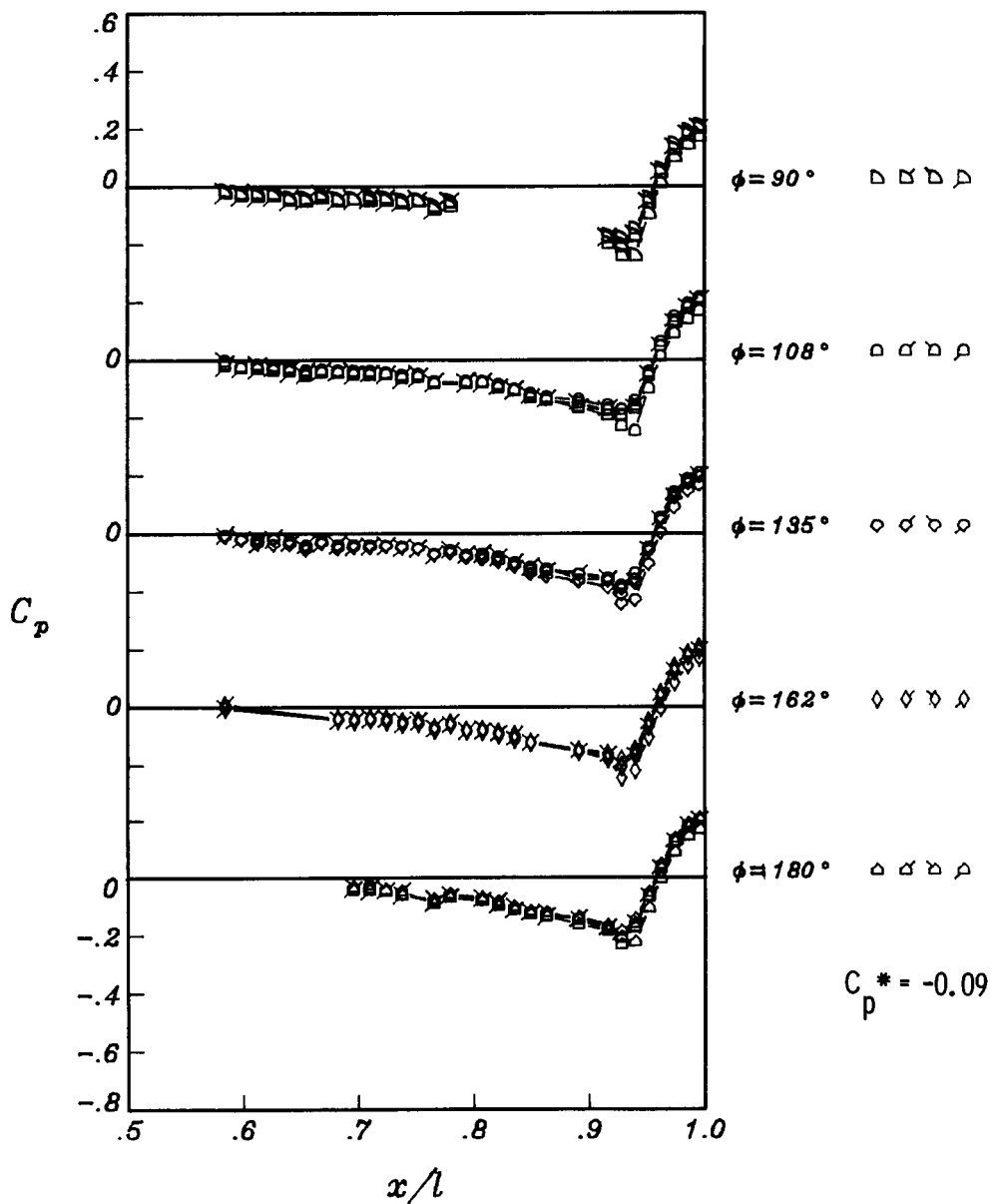


(b) $M = 0.95; \alpha = 0.01^\circ$.

Figure 7. Continued.



NPR	
○	1.11
◊	2.04
◐	3.04
◑	5.01

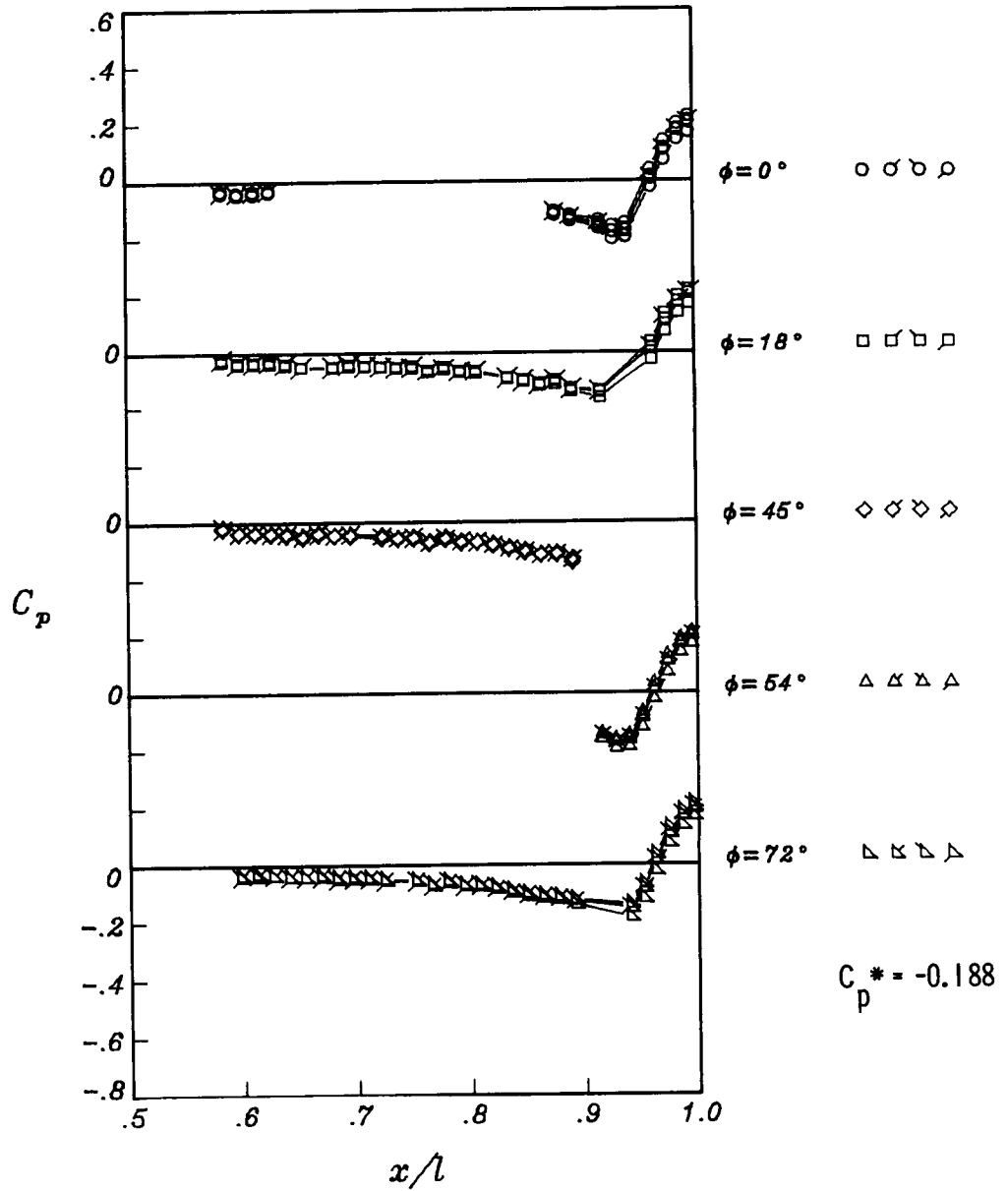


(b) Concluded.

Figure 7. Continued.



<i>NPR</i>	
○	1.11
◊	2.03
◡	3.06
◩	4.99

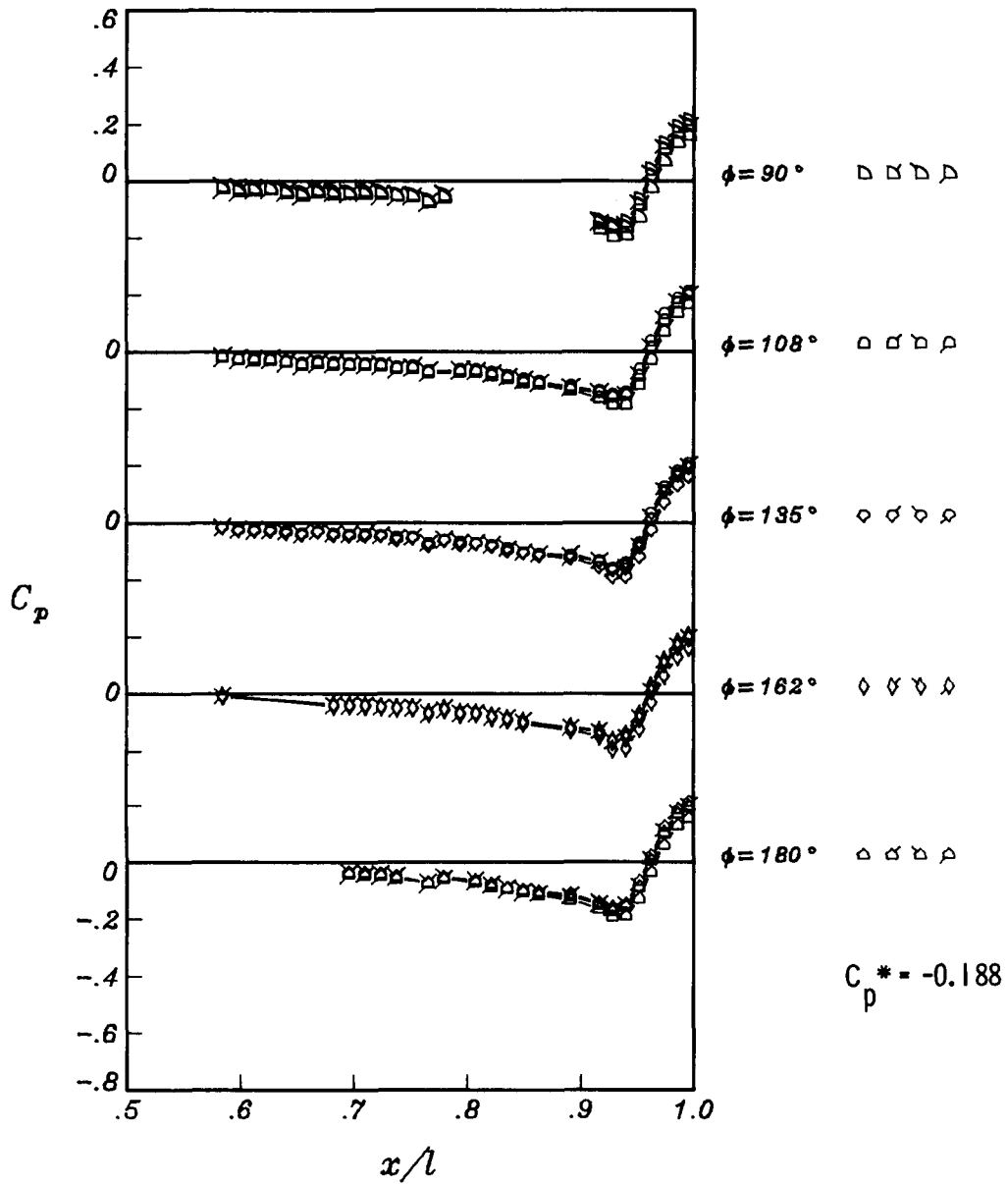


(c) $M = 0.90$; $\alpha = 0.01^\circ$.

Figure 7. Continued.



NPR	
○	1.11
α	2.03
σ	3.06
ρ	4.99

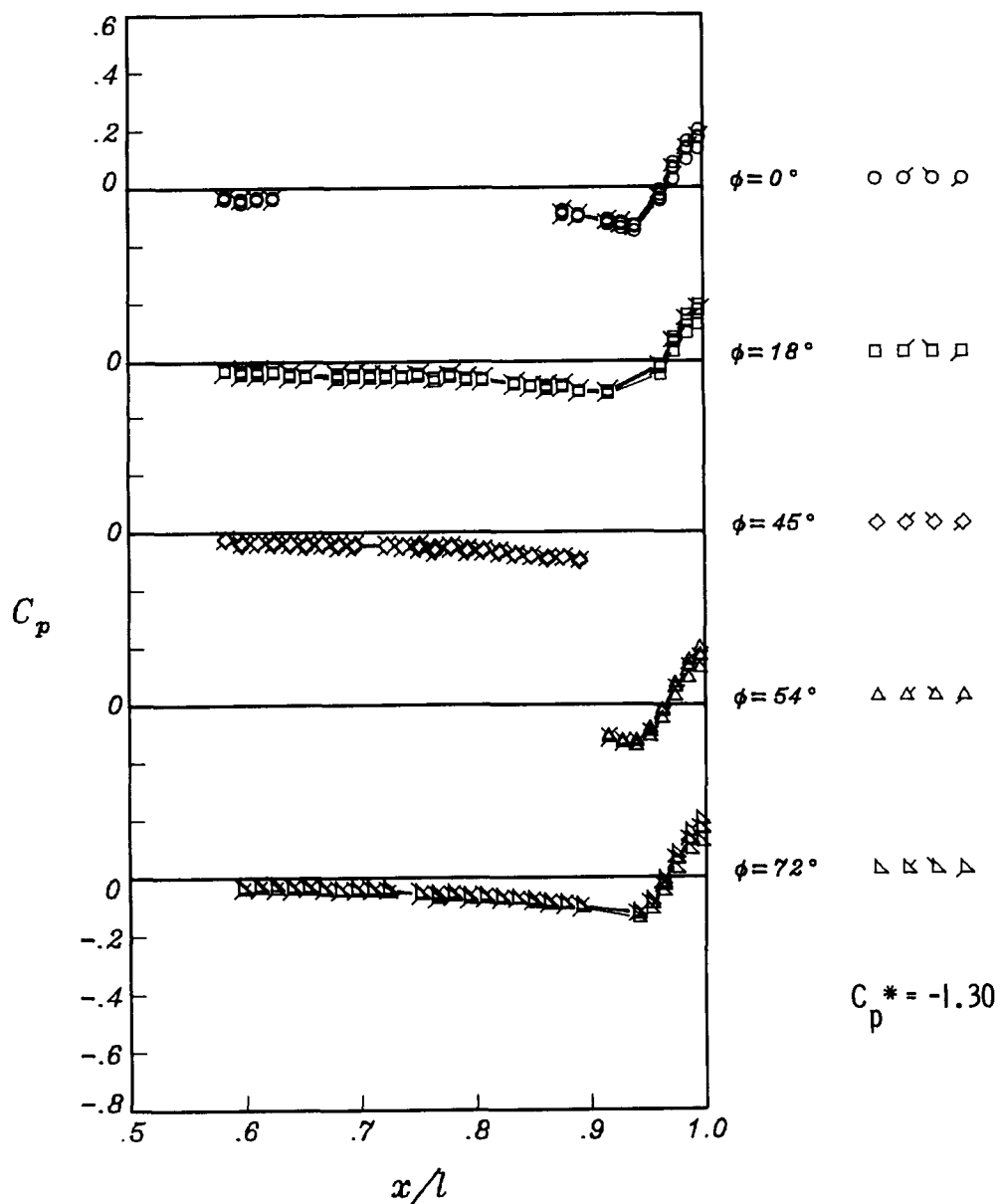


(c) Concluded.

Figure 7. Continued.



NPR	
○	1.04
◊	1.99
◐	3.03
◑	4.99

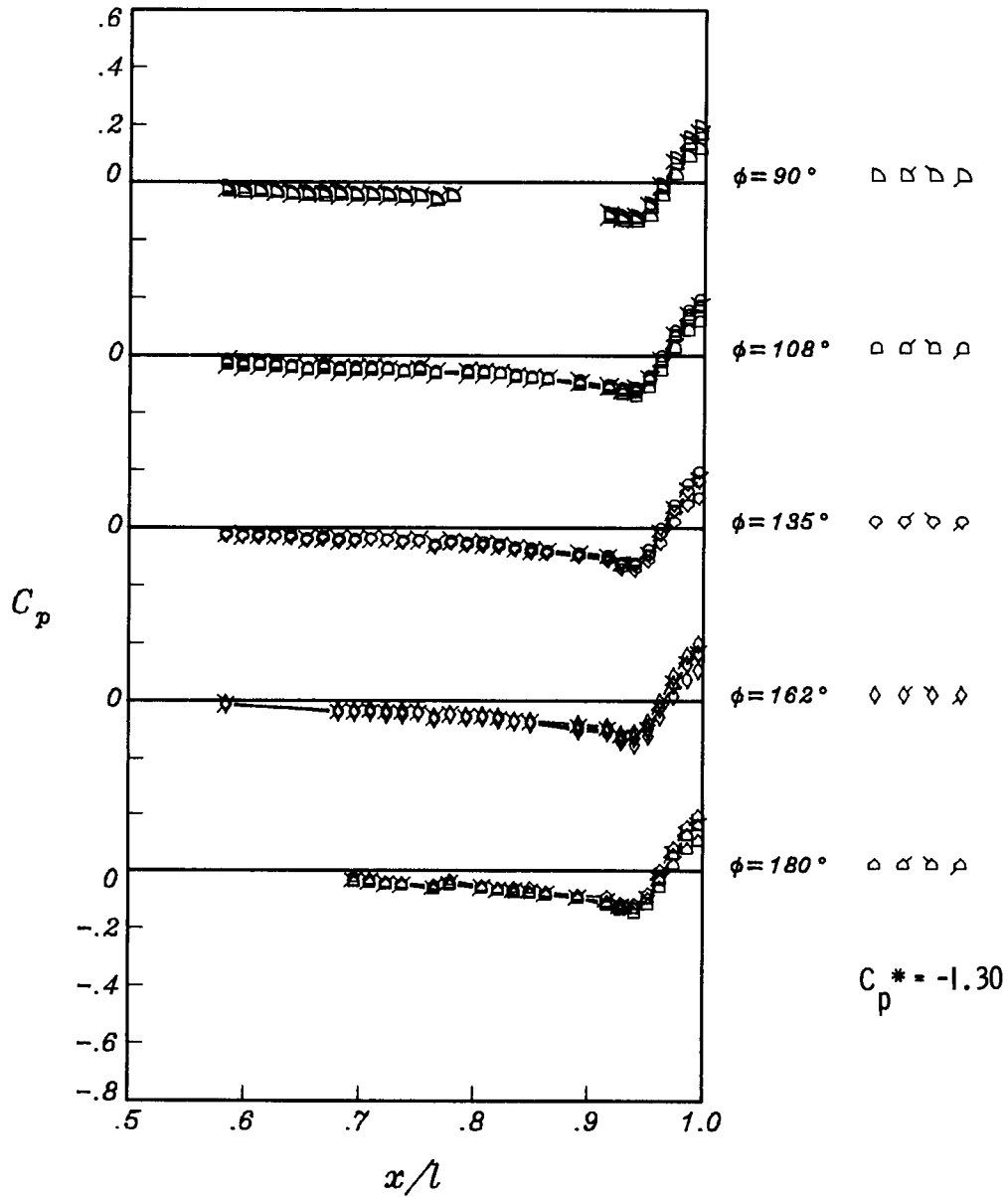


(d) $M = 0.60$; $\alpha = 0.01^\circ$.

Figure 7. Continued.

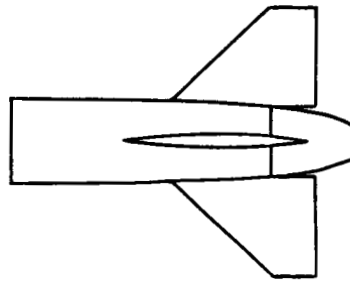


NPR	
○	1.04
◊	1.99
◇	3.03
▷	4.99

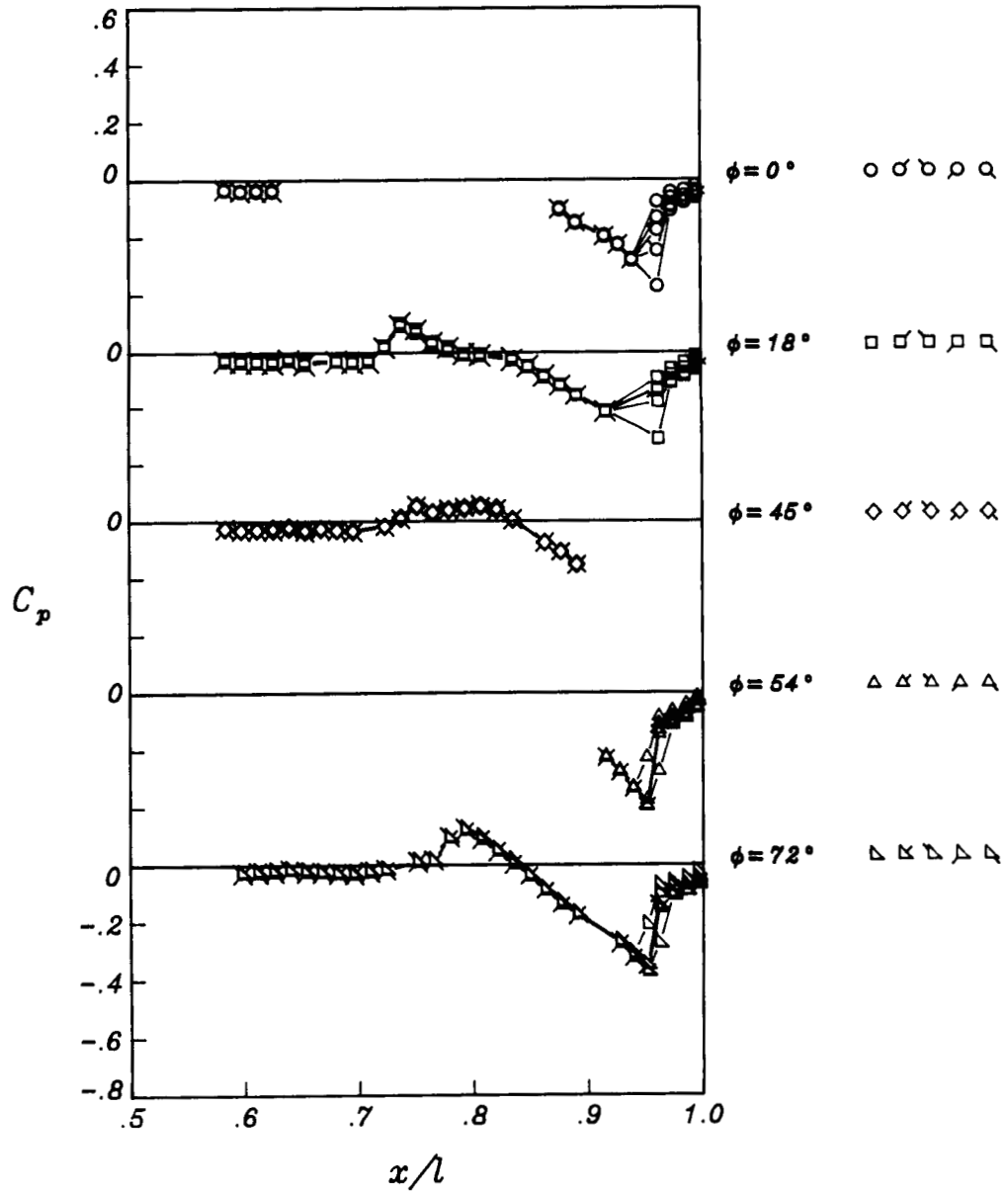


(d) Concluded.

Figure 7. Concluded.

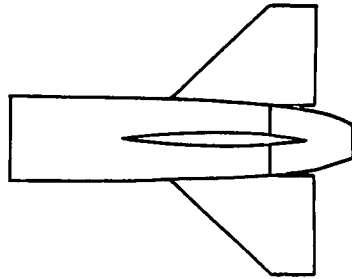


NPR	
○	1.03
○	2.00
○	4.00
○	5.99
○	7.96

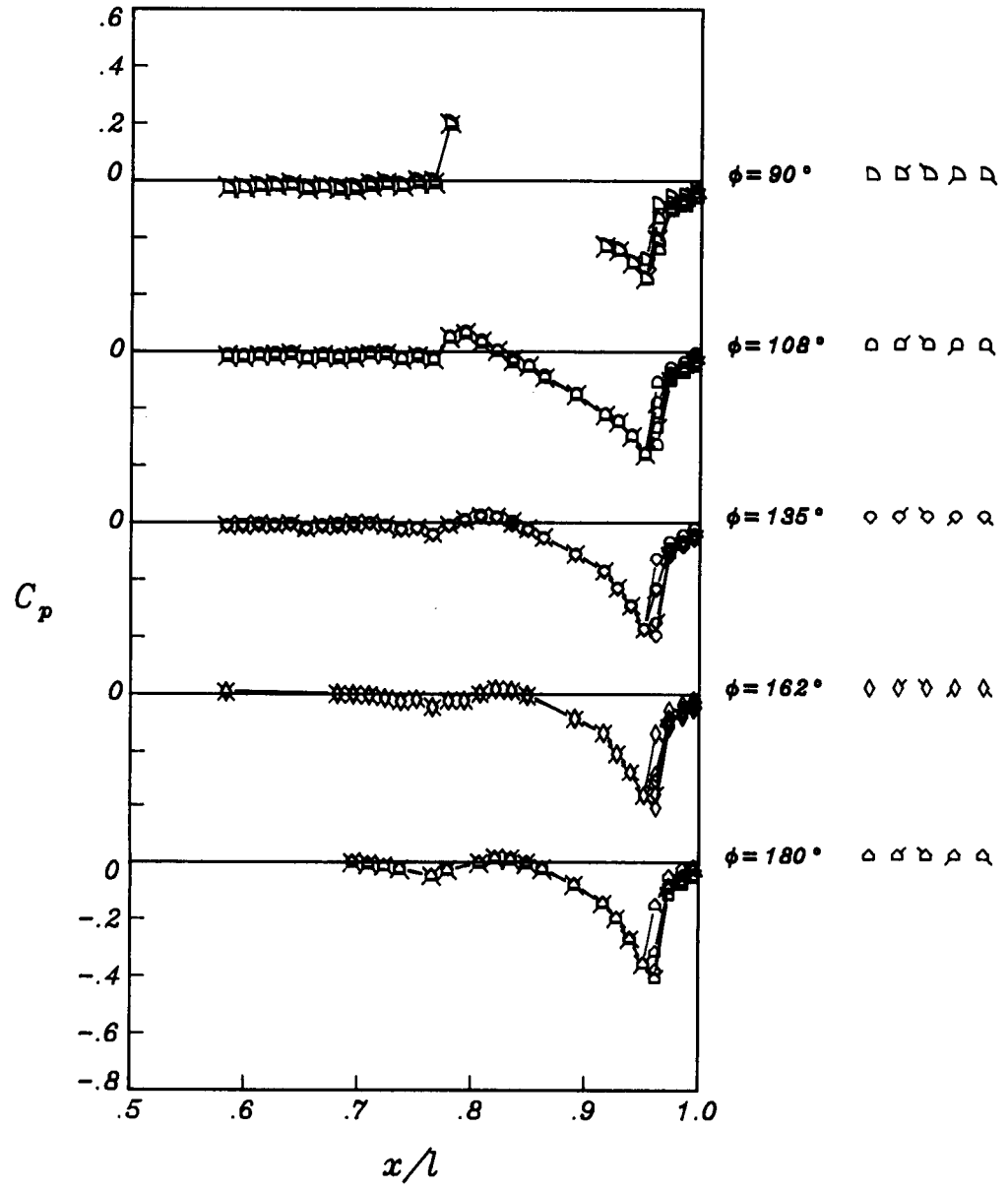


(a) $M = 1.20$; $\alpha = 0.03^\circ$.

Figure 8. Effect of nozzle pressure ratio on nozzle/afterbody pressures for body with horizontal and vertical tails in aft location.

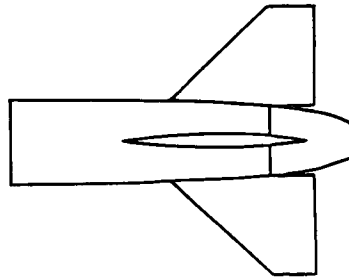


NPR	
○	1.03
□	2.00
◇	4.00
▽	5.99
△	7.96



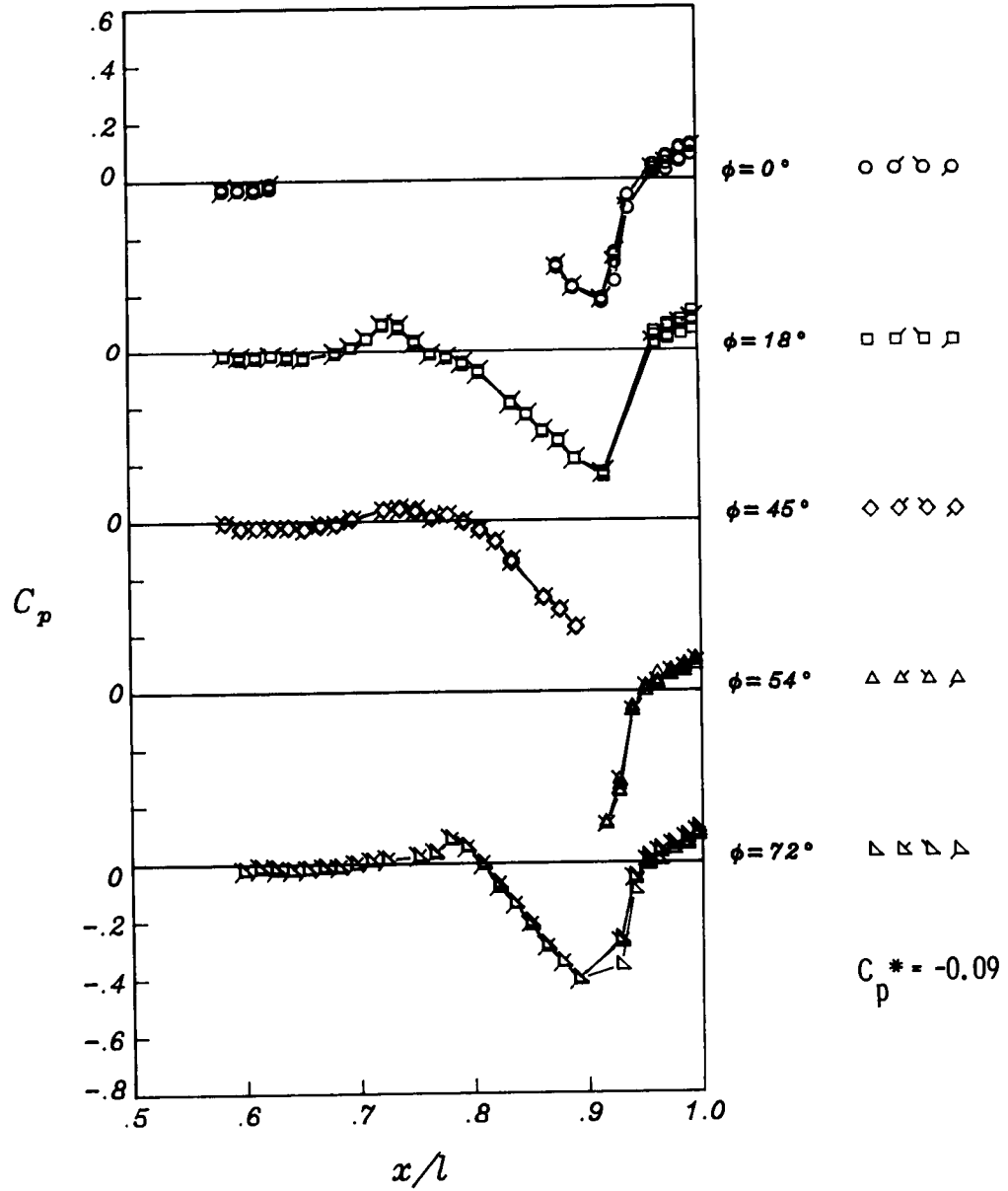
(a) Concluded.

Figure 8. Continued.



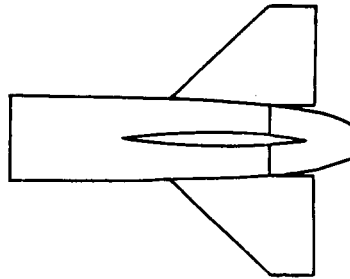
NPR

- 1.06
- ◊ 2.02
- ◻ 3.02
- ◐ 5.00

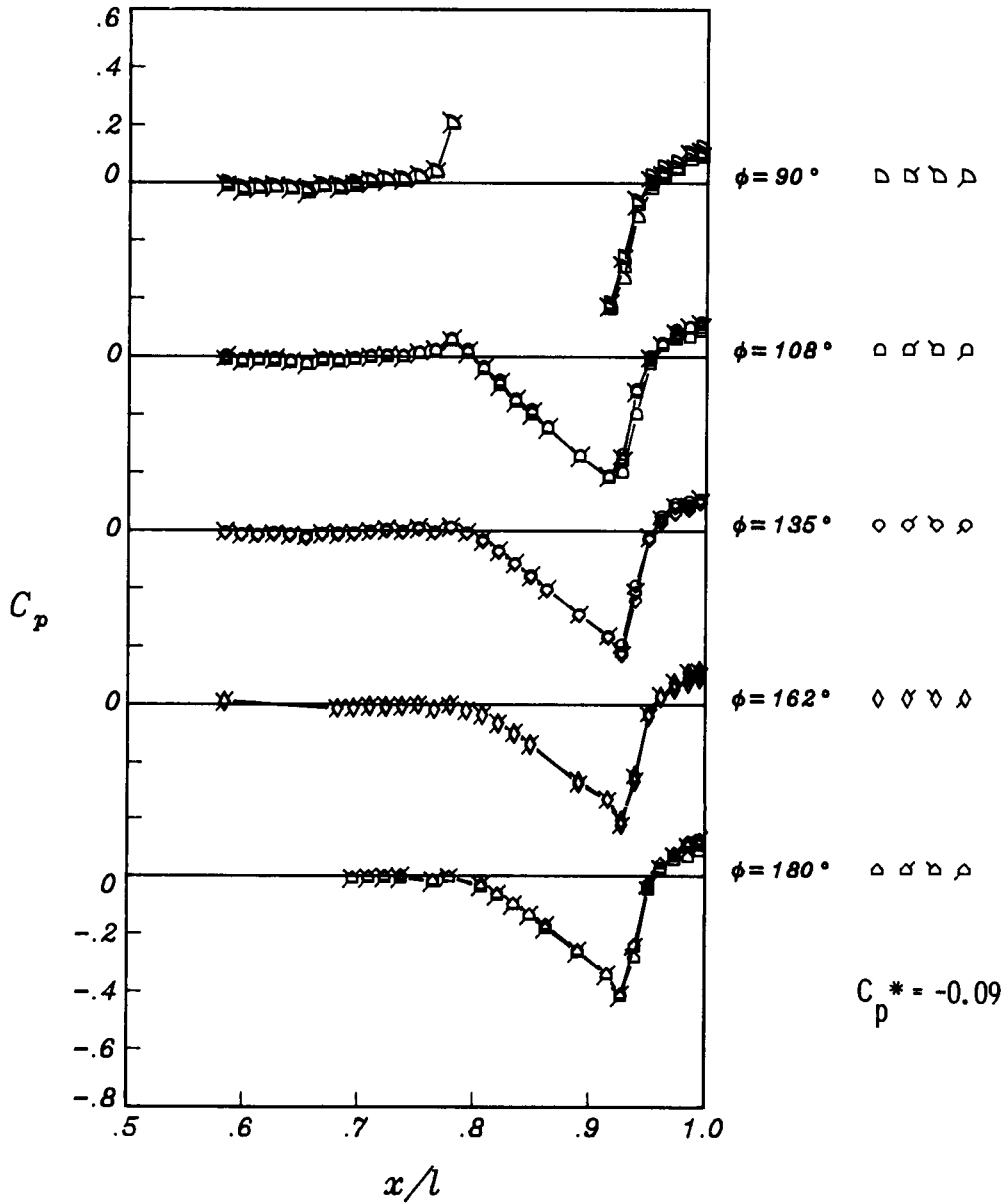


(b) $M = 0.95; \alpha = 0.02^\circ$.

Figure 8. Continued.

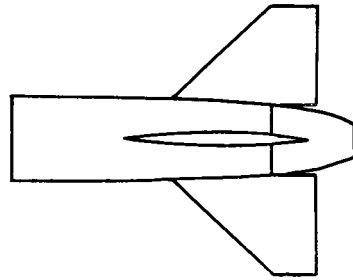


	<i>NPR</i>
○	1.06
◊	2.02
◐	3.02
◑	5.00



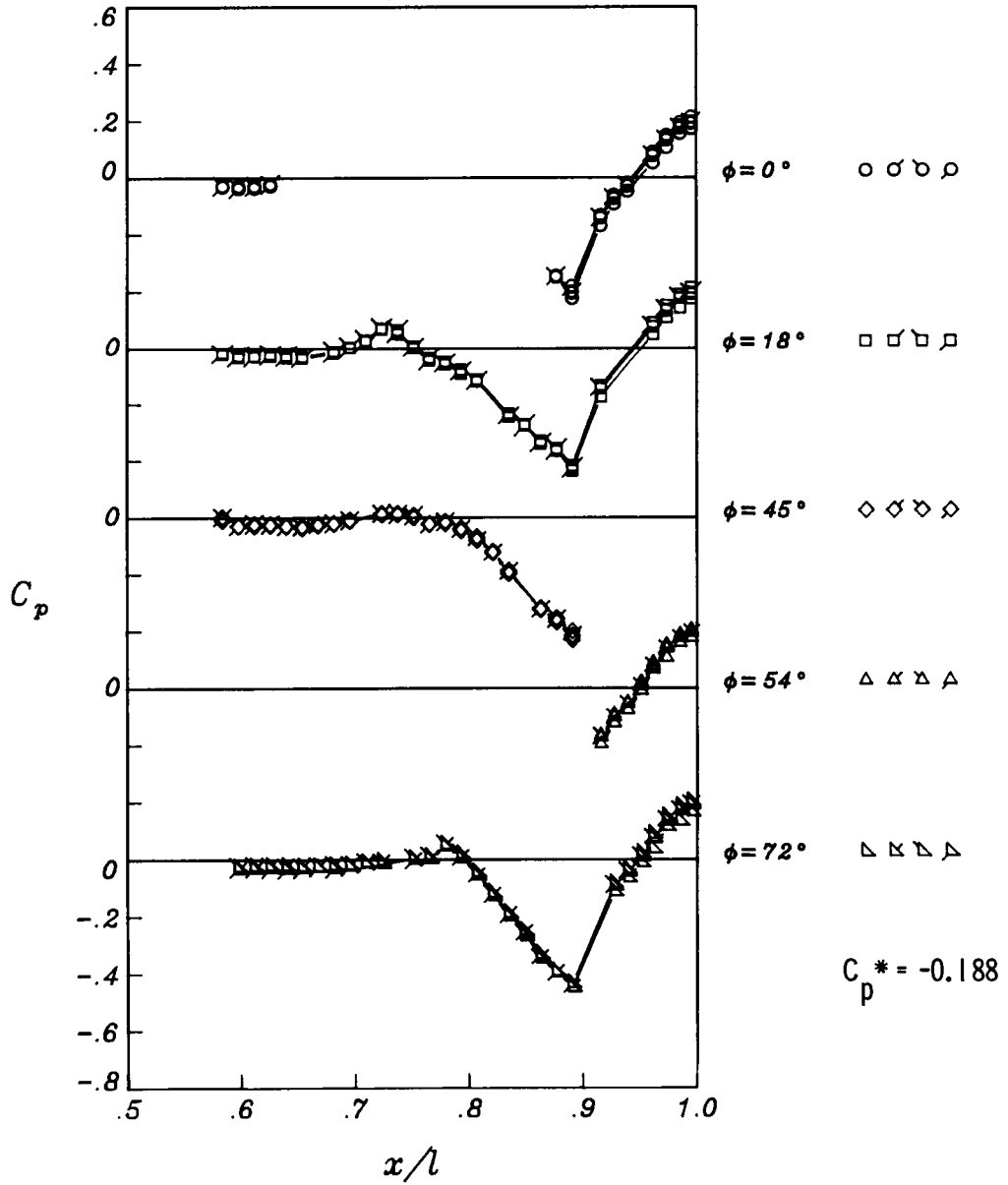
(b) Concluded.

Figure 8. Continued.



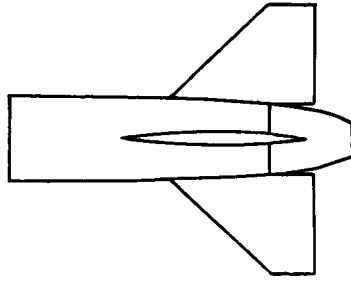
NPR

- 1.10
- ◐ 2.02
- ◑ 3.02
- ◒ 5.03

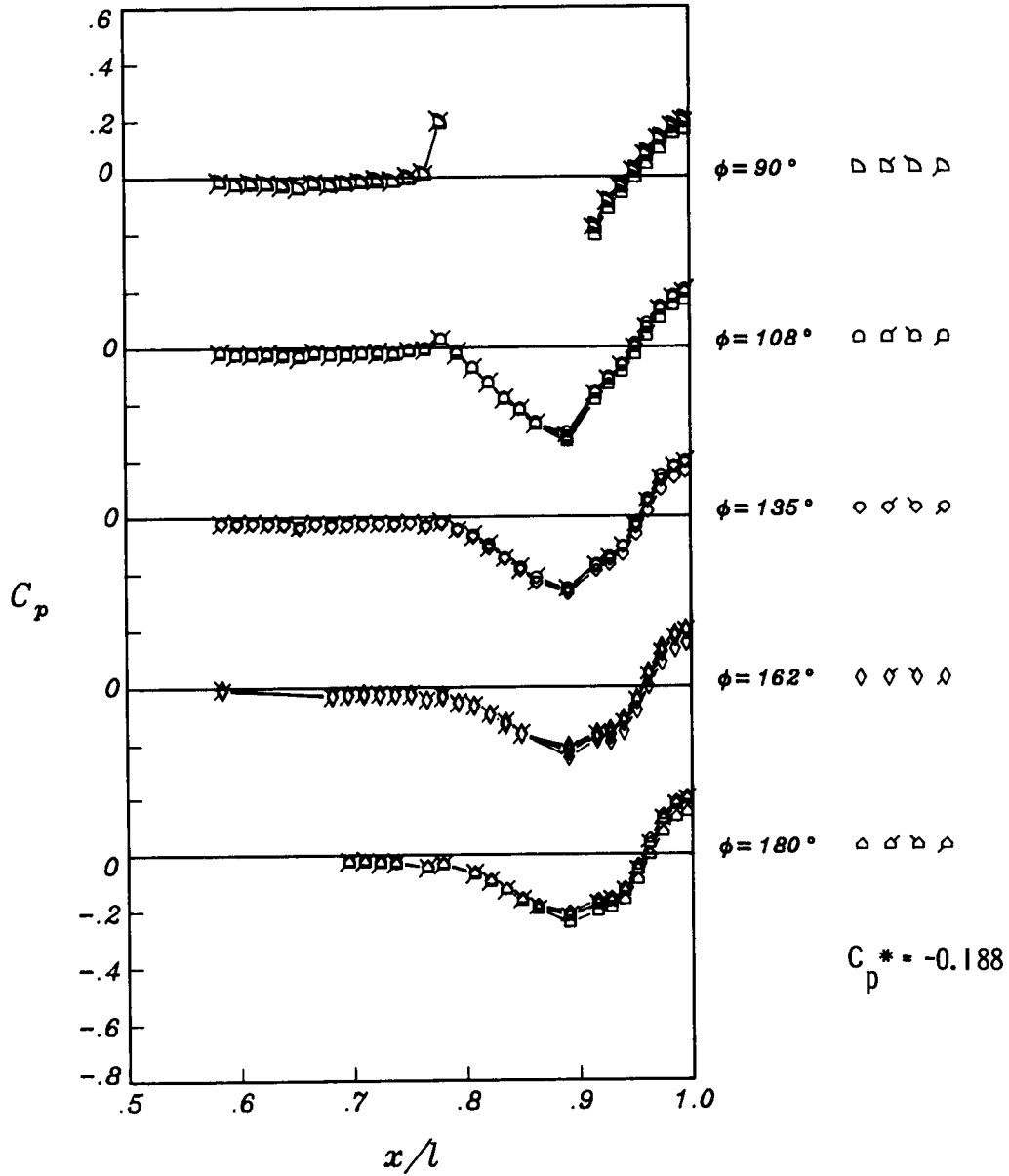


(c) $M = 0.90; \alpha = 0.02^\circ$.

Figure 8. Continued.

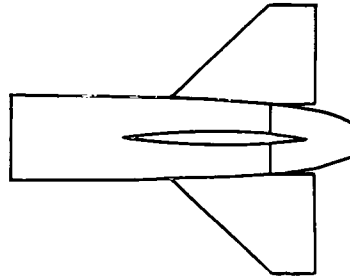


NPR	
○	1.10
◊	2.02
◐	3.02
◑	5.03

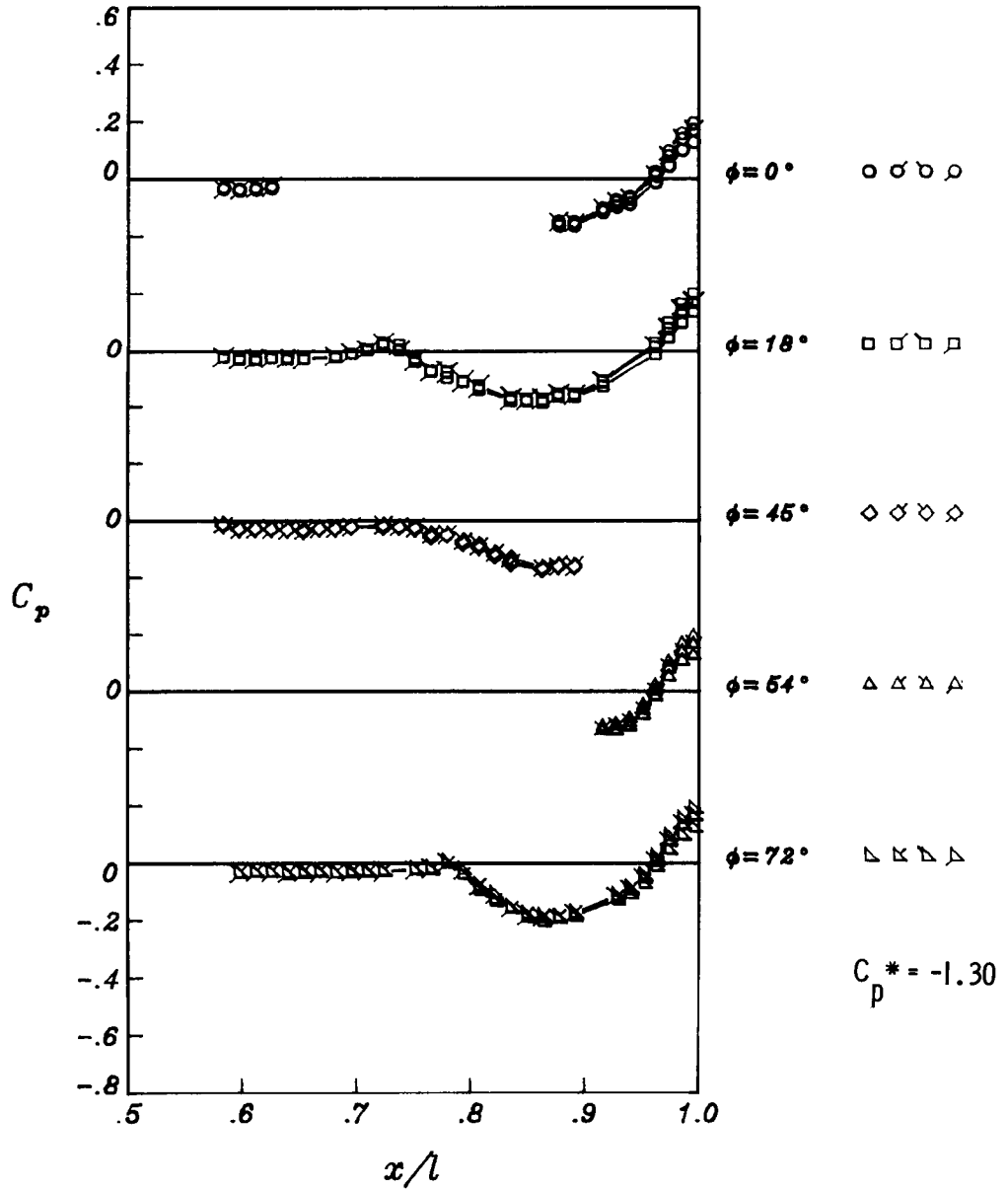


(c) Concluded.

Figure 8. Continued.

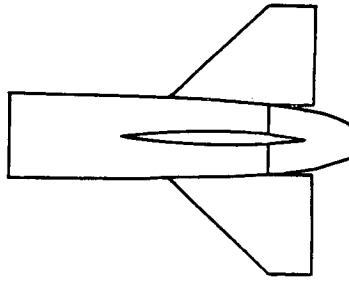


NPR	
○	1.04
○	2.06
○	3.04
○	4.99

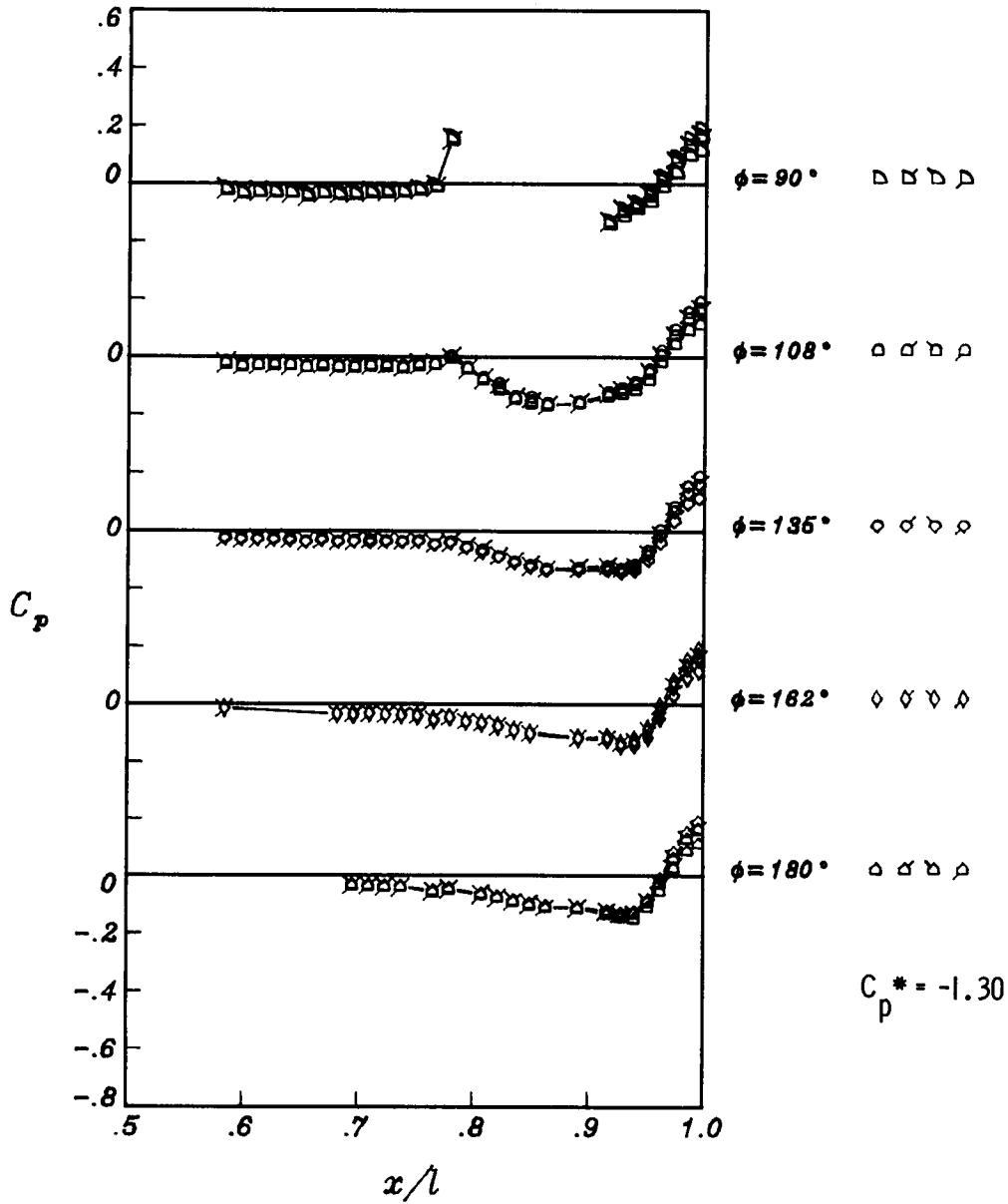


(d) $M = 0.60$; $\alpha = 0.03^\circ$.

Figure 8. Continued.

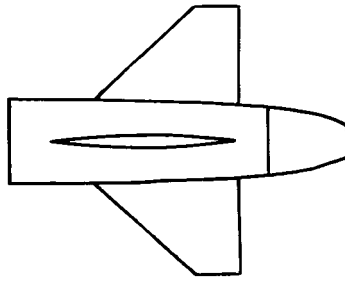


NPR	
○	1.04
◐	2.06
◑	3.04
◒	4.99

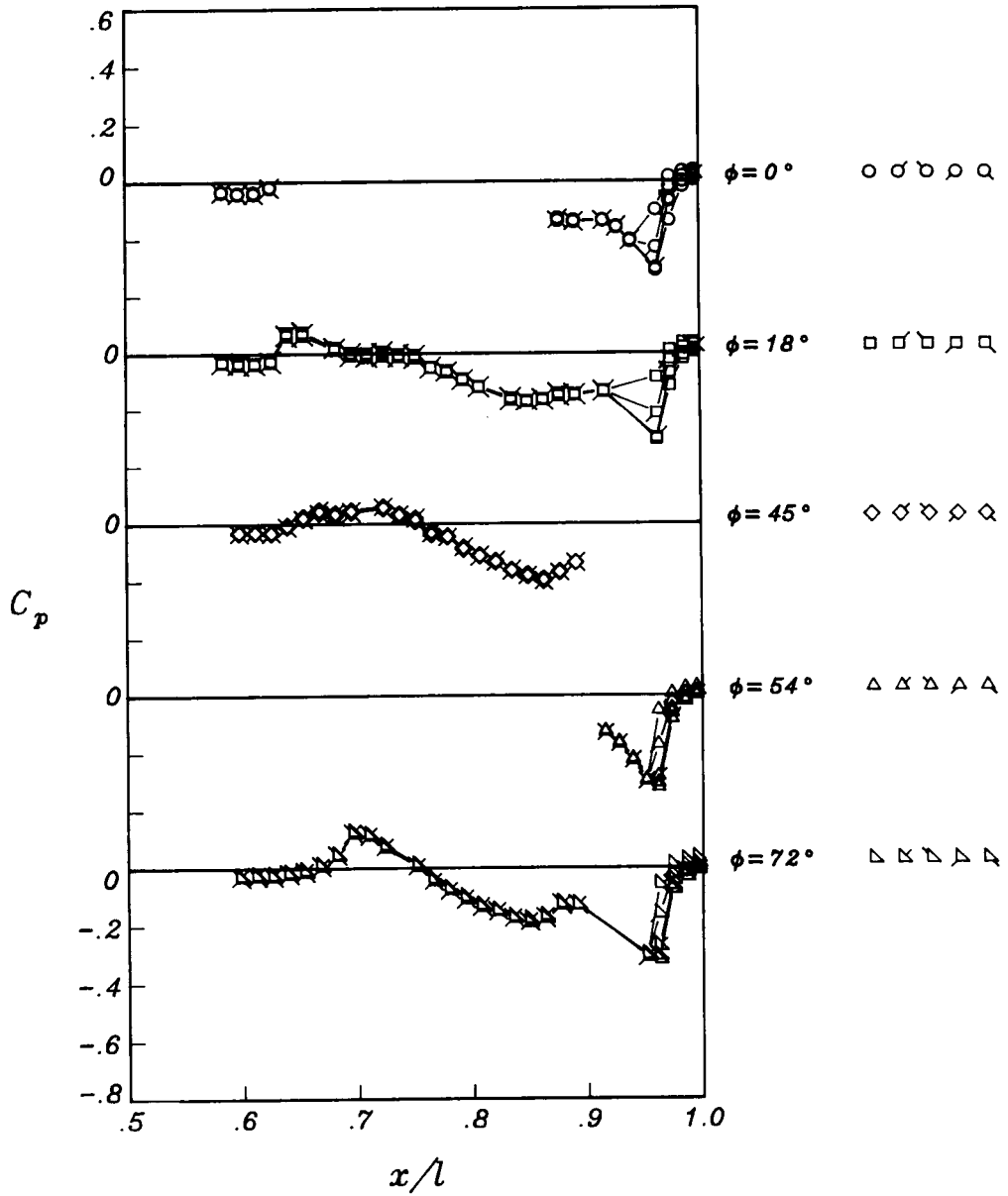


(d) Concluded.

Figure 8. Concluded.

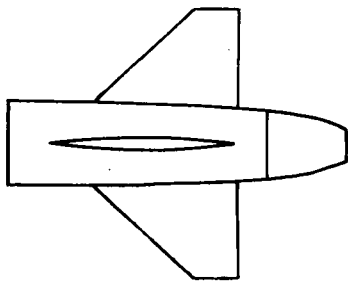


NPR	
○	1.06
◊	1.99
◐	3.95
◑	6.01
◒	8.05

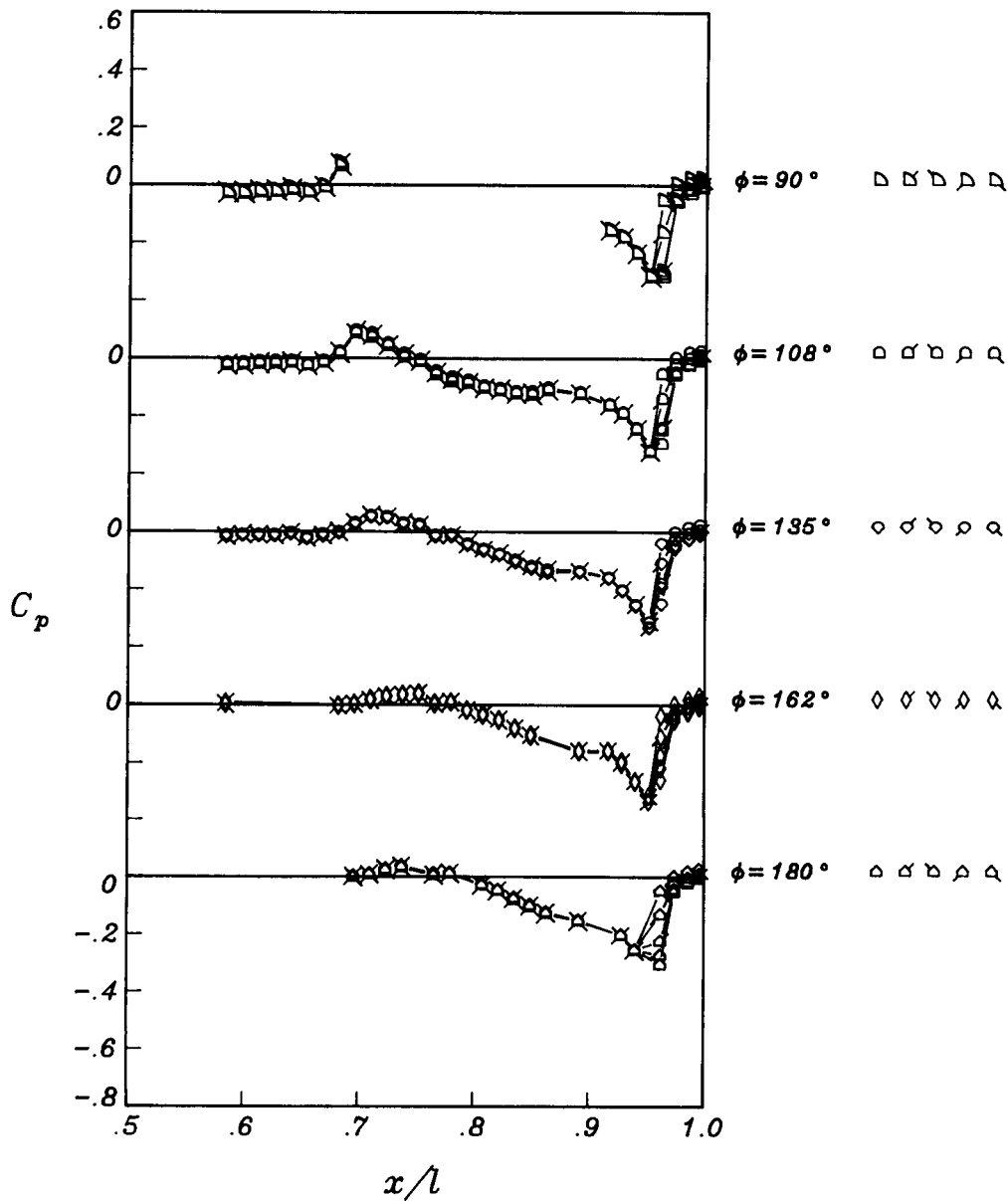


(a) $M = 1.20$; $\alpha = 0.0^\circ$.

Figure 9. Effect of nozzle pressure ratio on nozzle/afterbody pressures for body with horizontal and vertical tails in forward location.

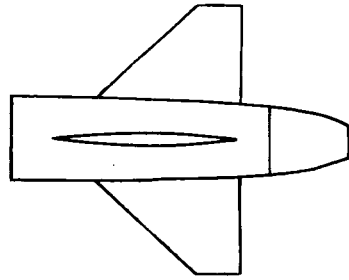


	NPR
○	1.06
◊	1.99
◐	3.95
◑	6.01
◒	8.05

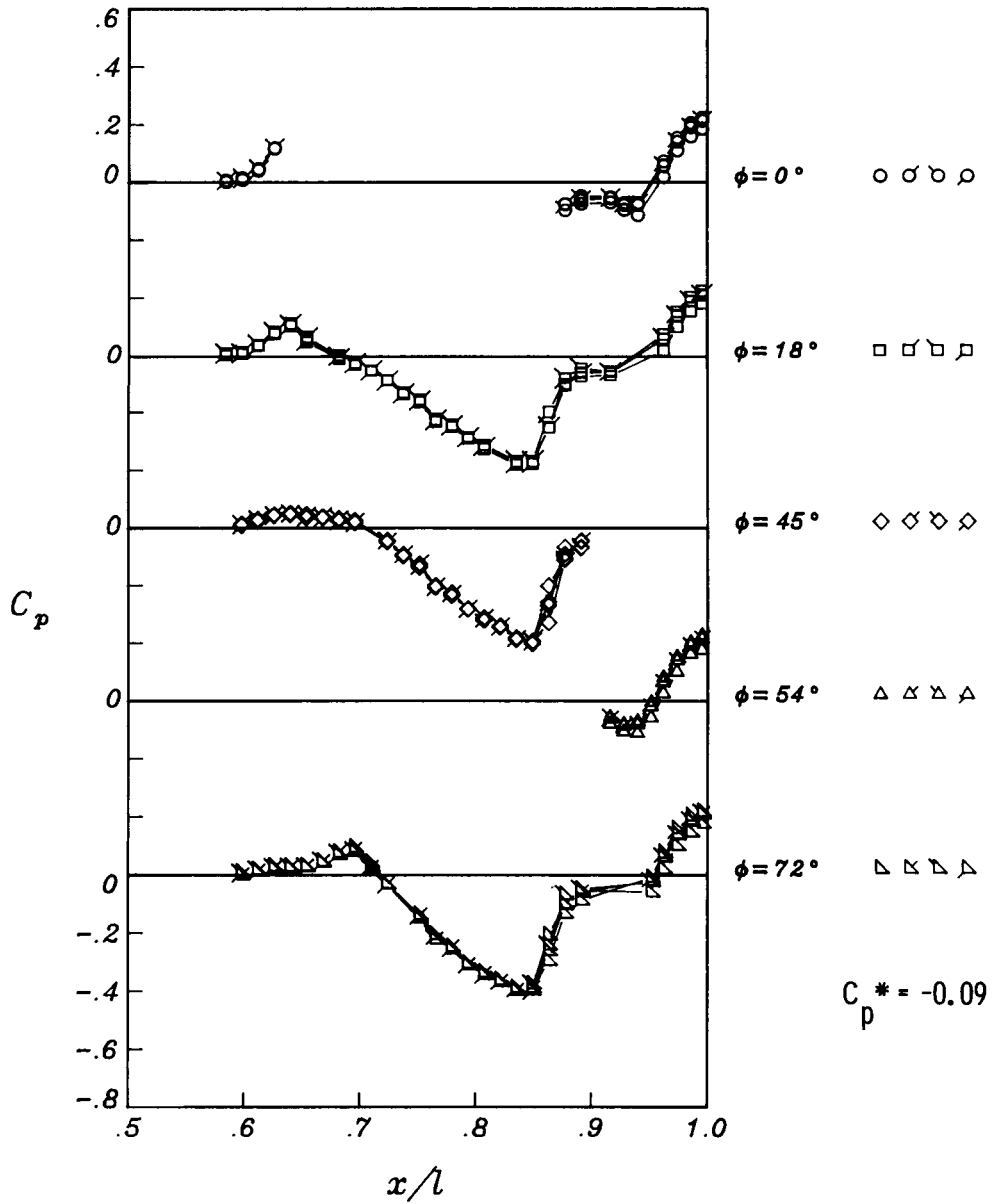


(a) Concluded.

Figure 9. Continued.

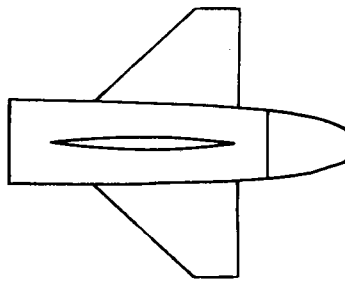


NPR	
○	1.13
α	2.01
σ	2.99
ρ	5.01

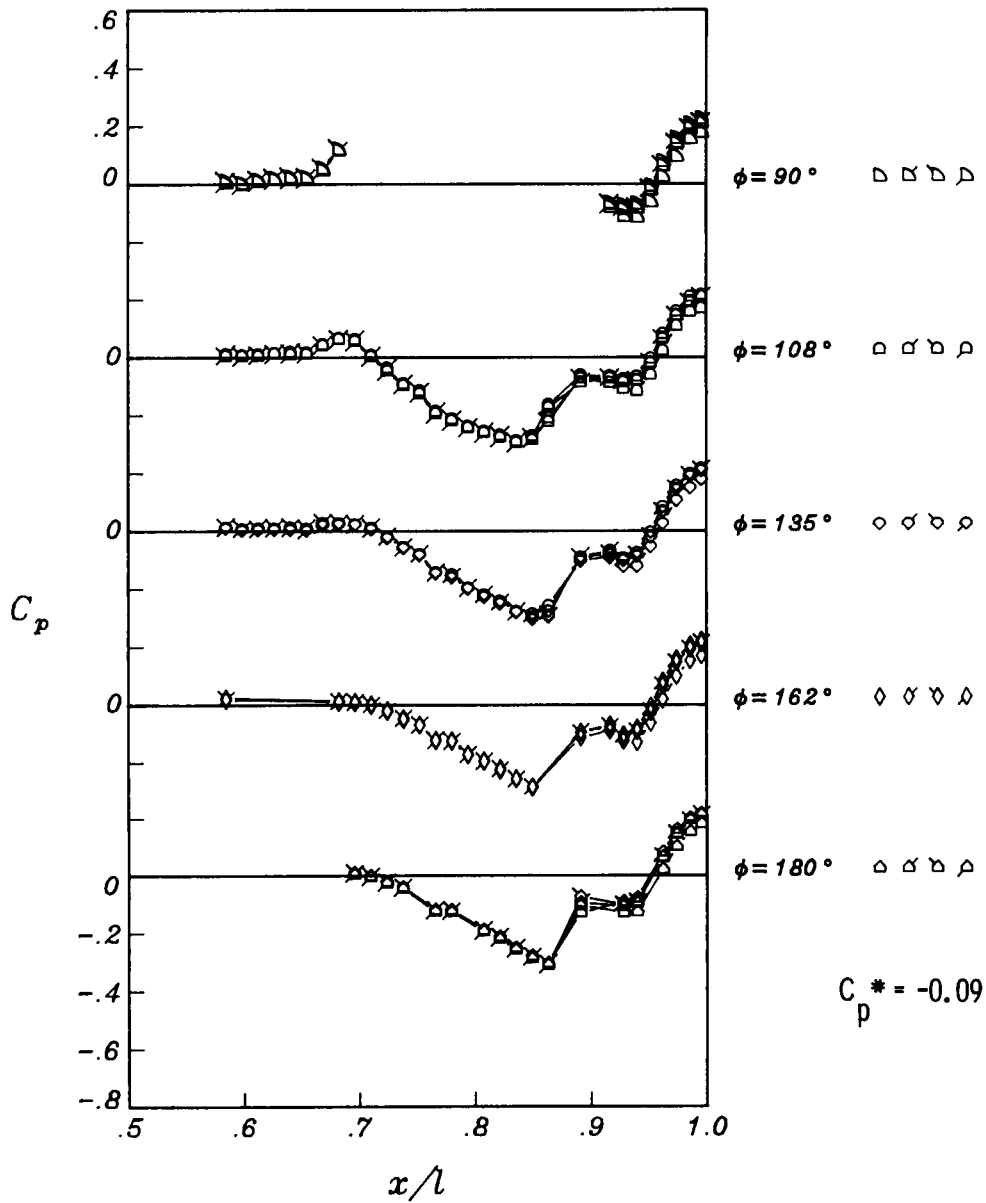


(b) $M = 0.95; \alpha = 0.02^\circ$.

Figure 9. Continued.

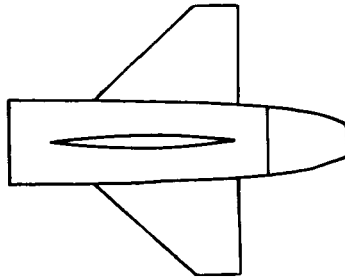


<i>NPR</i>	
○	1.13
◊	2.01
◐	2.99
◑	5.01



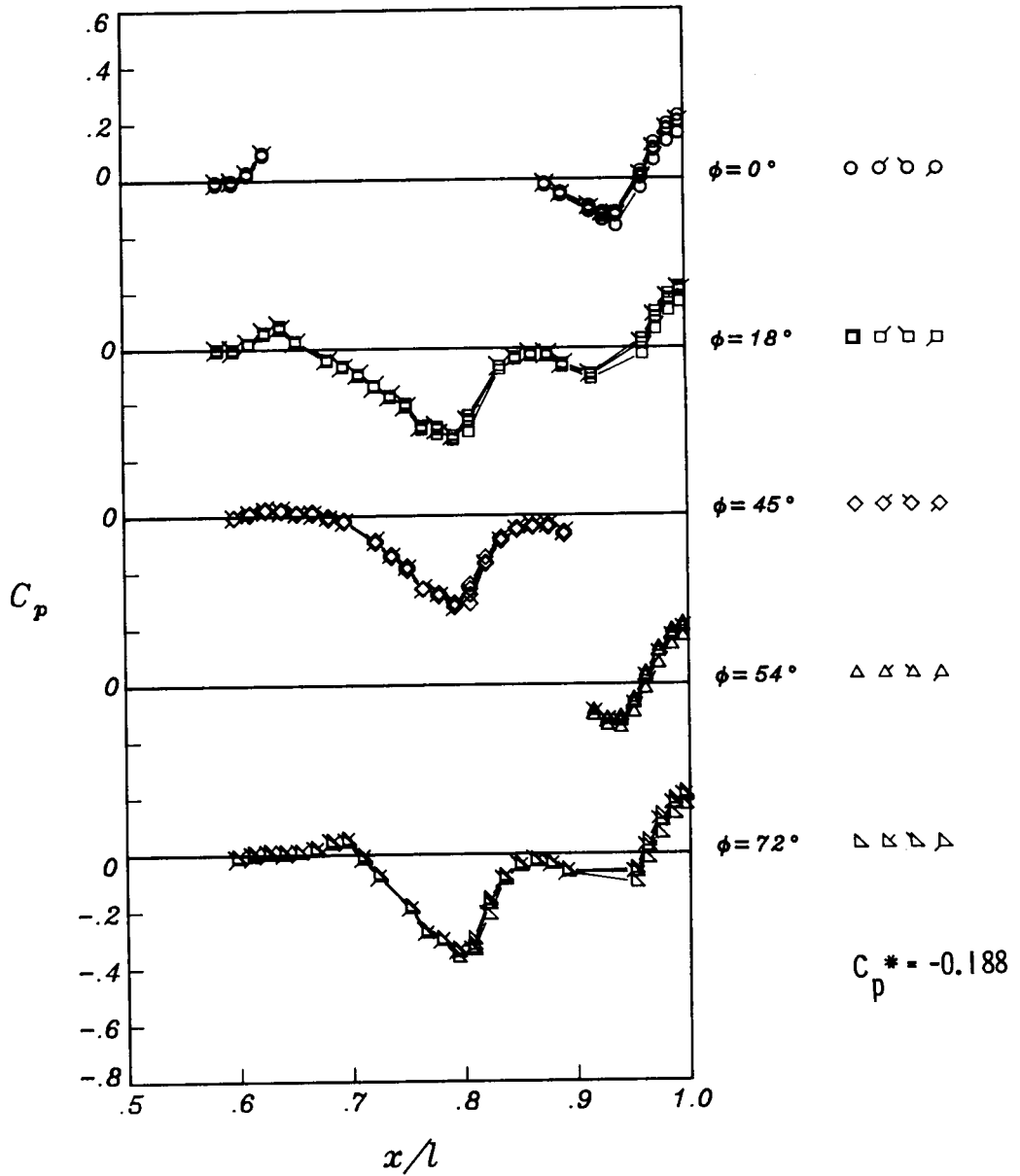
(b) Concluded.

Figure 9. Continued.



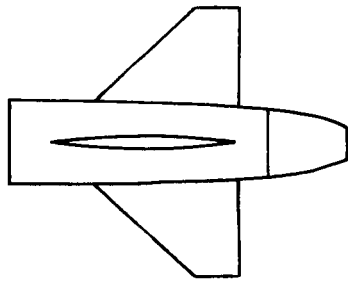
NPR

- 1.11
- ◊ 2.00
- ◐ 3.01
- ◑ 4.98

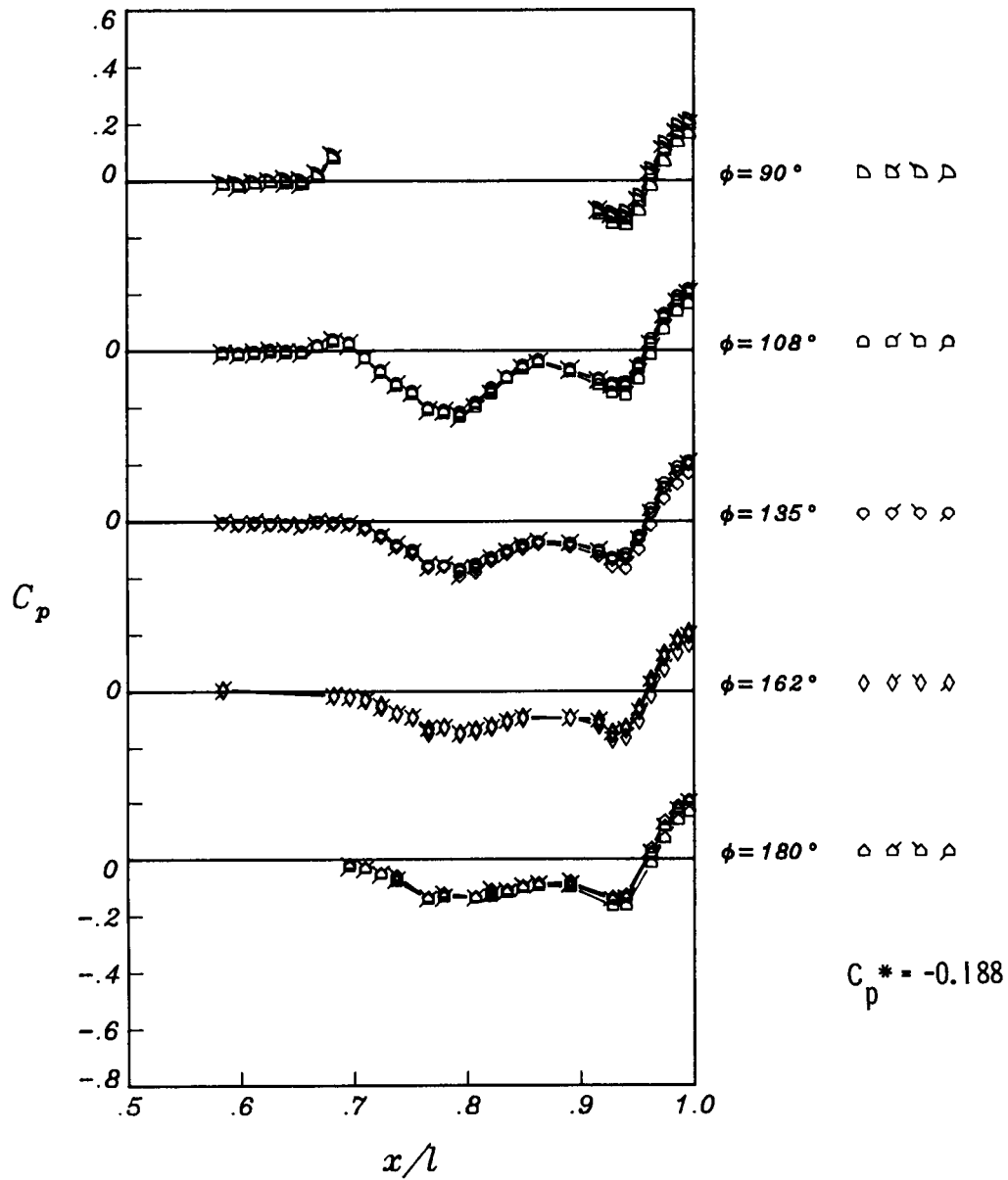


(c) $M = 0.90; \alpha = 0.02^\circ$.

Figure 9. Continued.

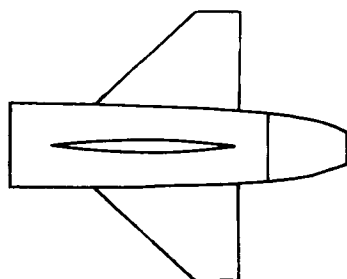


<i>NPR</i>	
○	1.11
◐	2.00
◑	3.01
◒	4.98

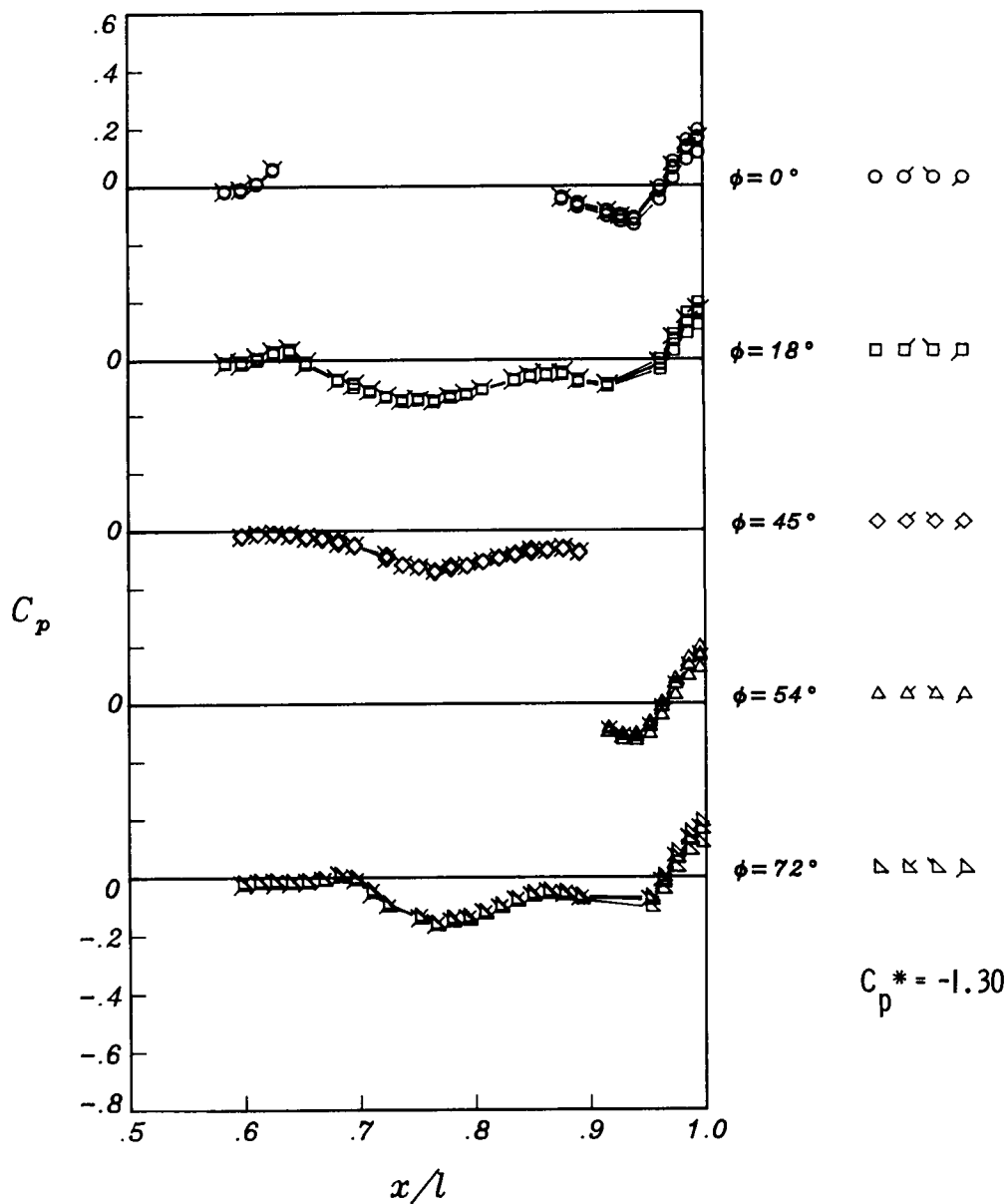


(c) Concluded.

Figure 9. Continued.

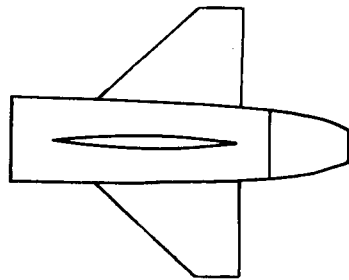


	<i>NPR</i>
○	1.04
○	2.11
○	3.14
○	5.09

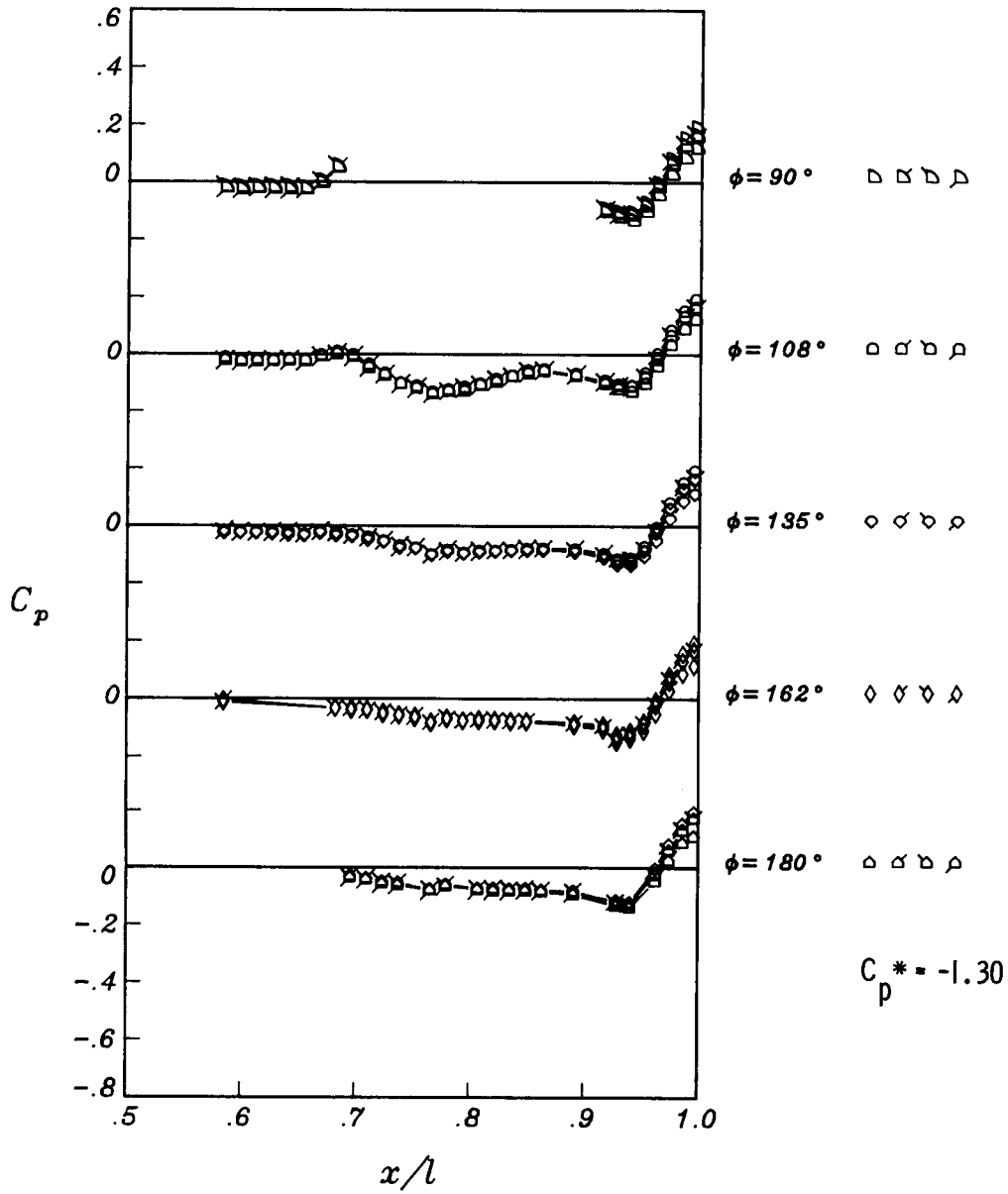


(d) $M = 0.60; \alpha = 0.01^\circ$.

Figure 9. Concluded.

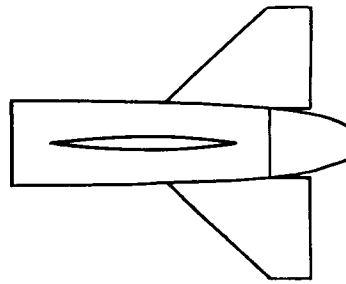


NPR	
○	1.04
◐	2.11
◑	3.14
◒	5.09

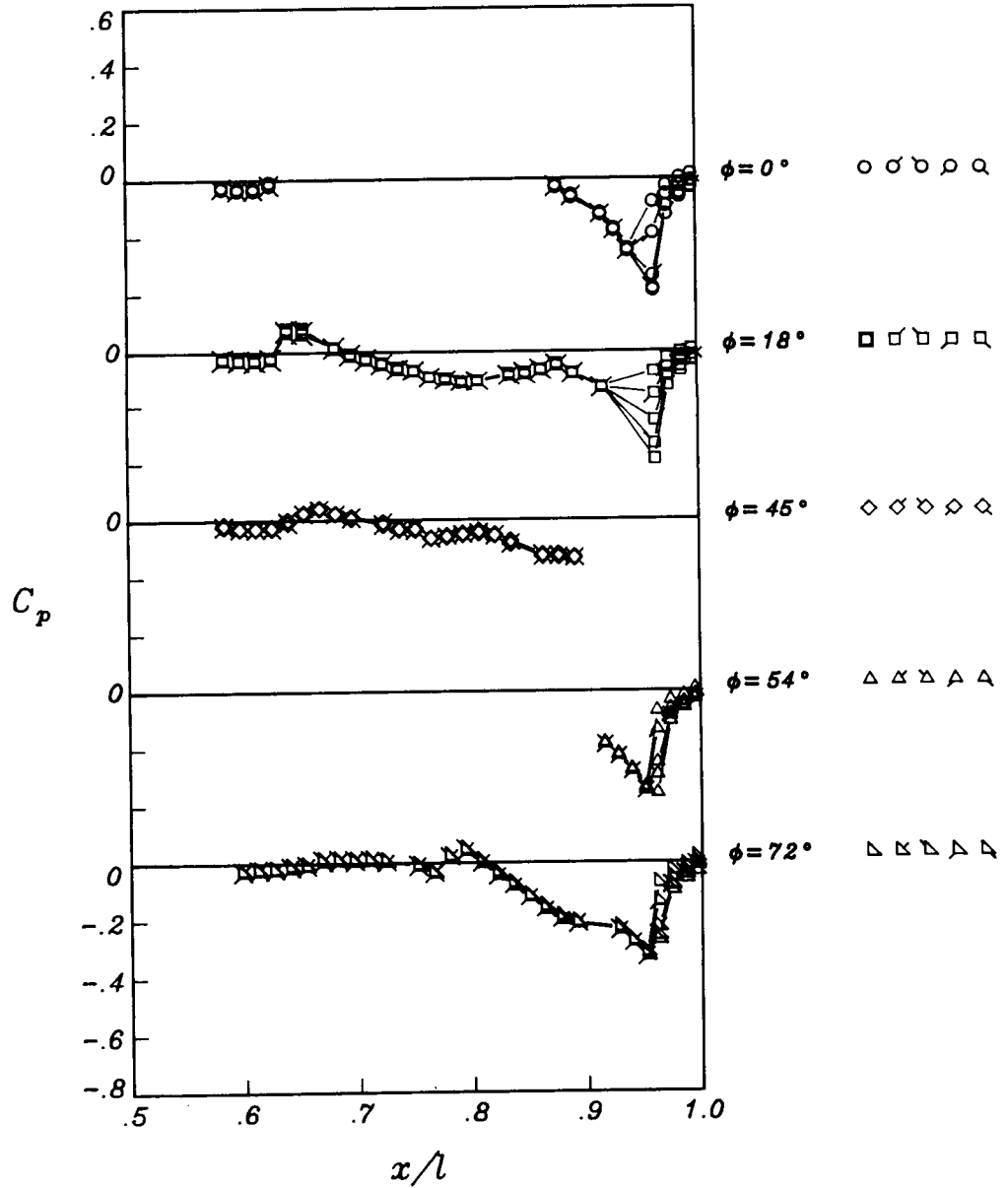


(d) Concluded.

Figure 9. Concluded.

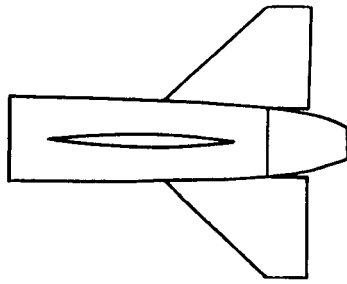


NPR	
○	1.04
◊	2.01
◐	3.99
◑	6.02
◒	8.07

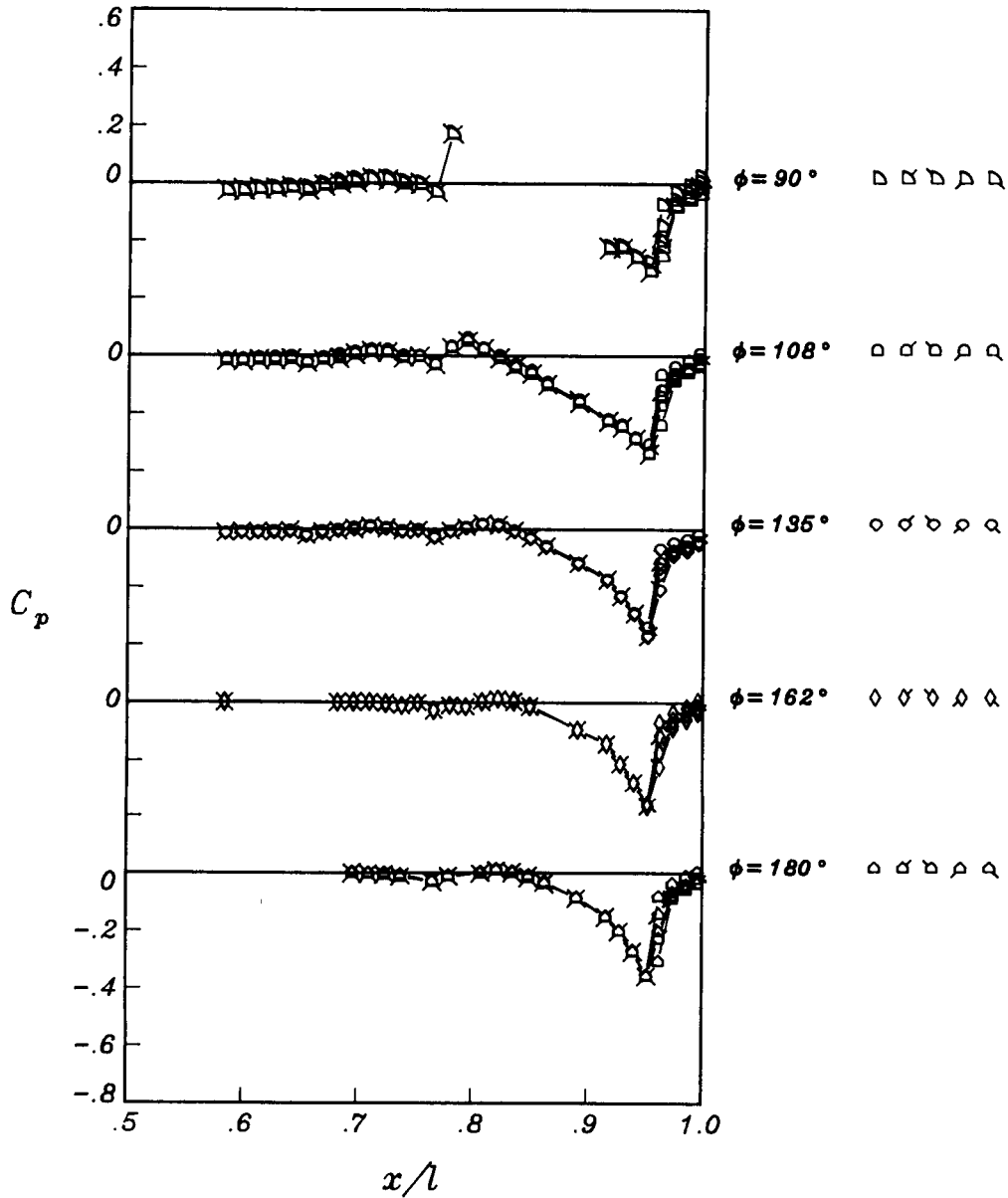


(a) $M = 1.20; \alpha = 0.02^\circ$.

Figure 10. Effect of nozzle pressure ratio on nozzle/afterbody pressures for body with horizontal tails in location and vertical tail in forward location.

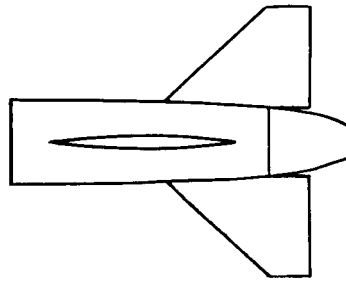


NPR	
○	1.04
○	2.01
○	3.99
○	6.02
○	8.07

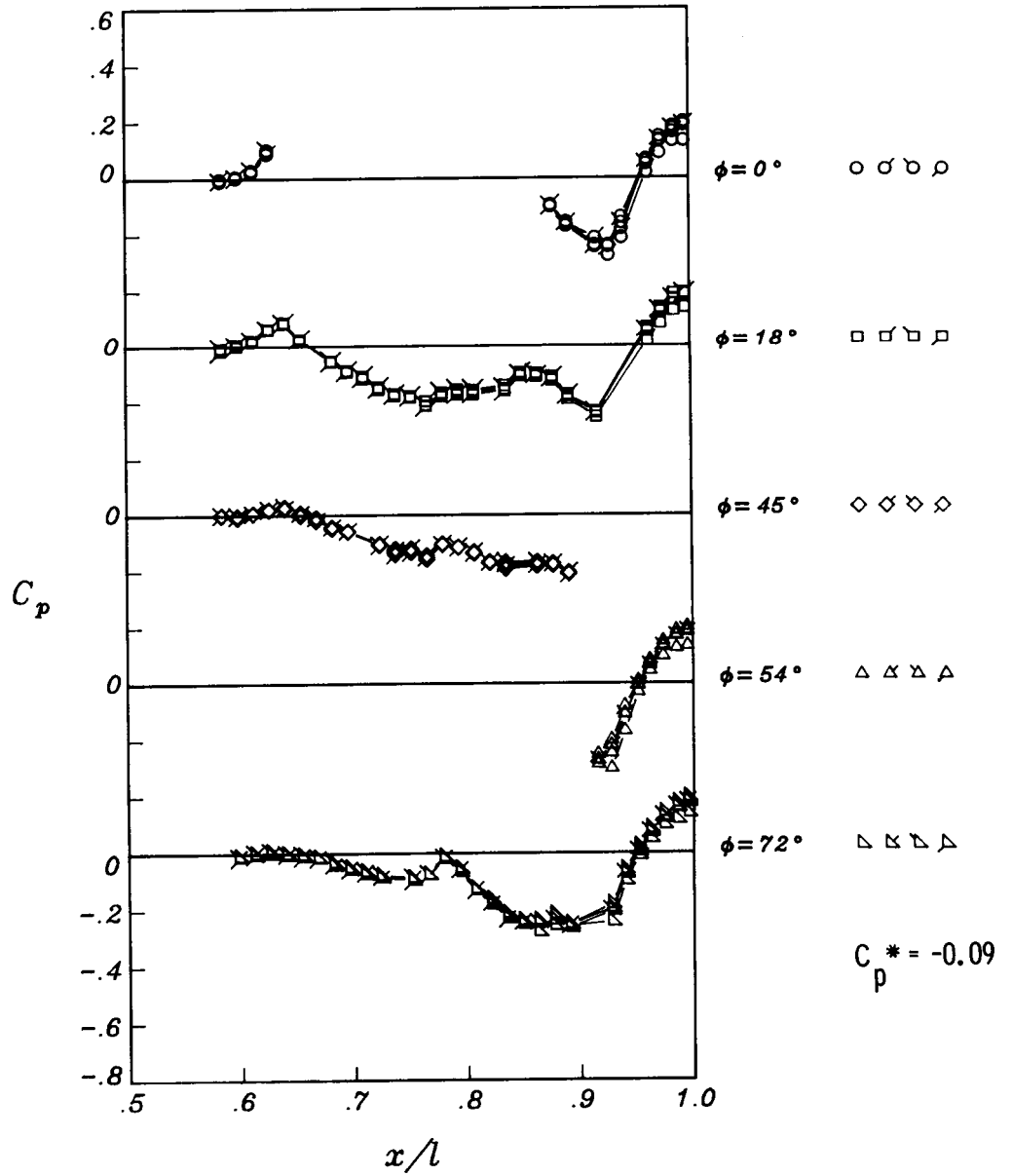


(a) Concluded.

Figure 10. Continued.

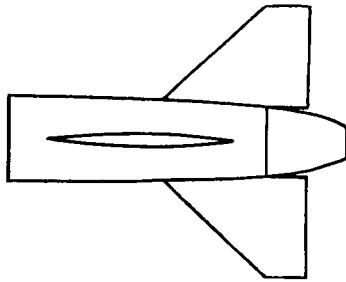


NPR	
○	1.10
◊	1.96
◐	3.02
◑	5.04

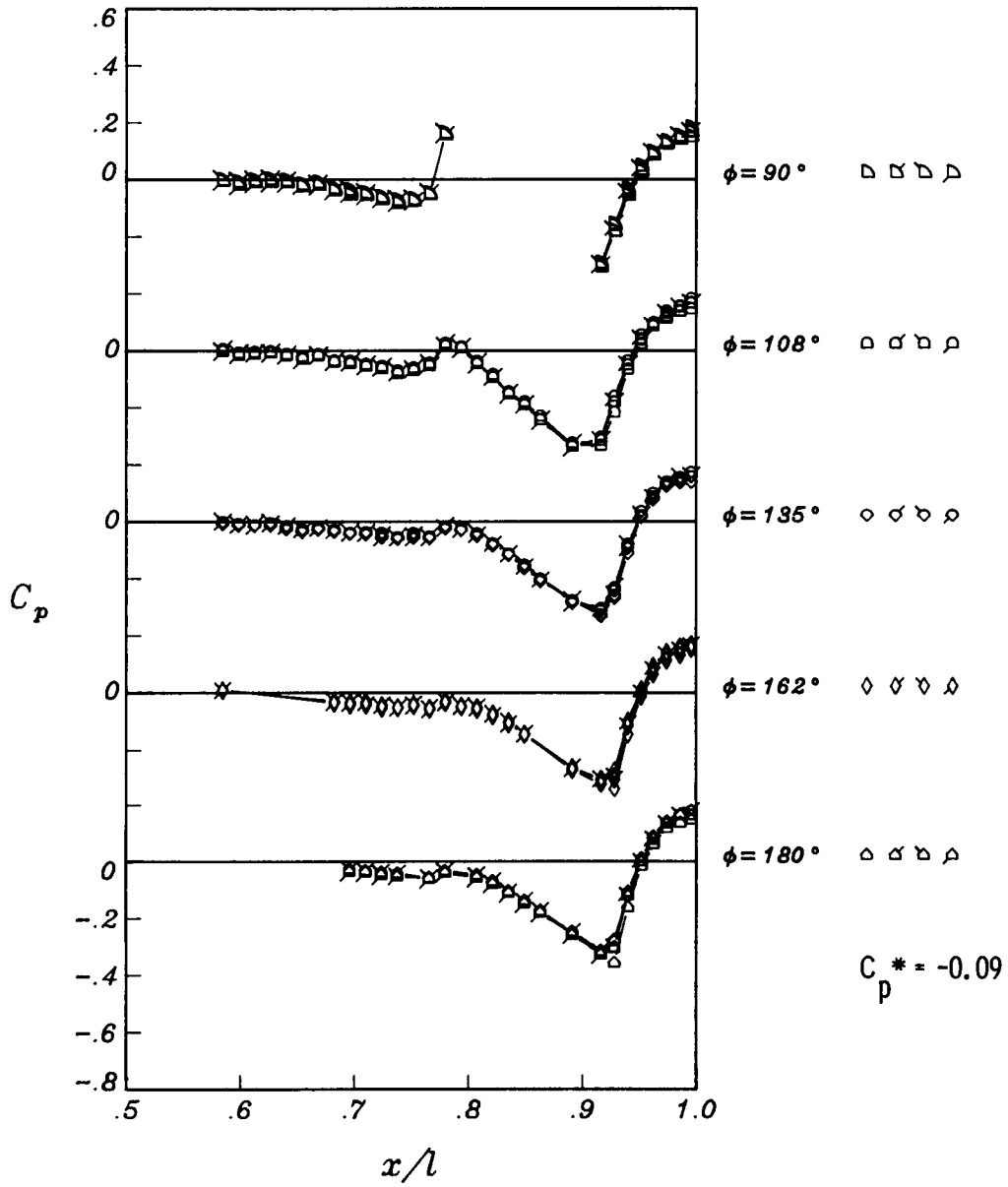


(b) $M = 0.95; \alpha = 0.02^\circ$.

Figure 10. Continued.

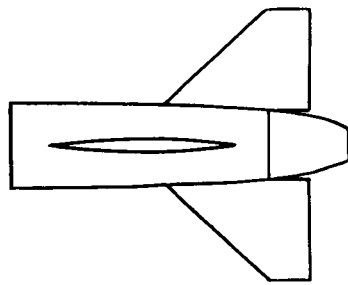


	<i>NPR</i>
○	1.10
◐	1.96
◑	3.02
◒	5.04

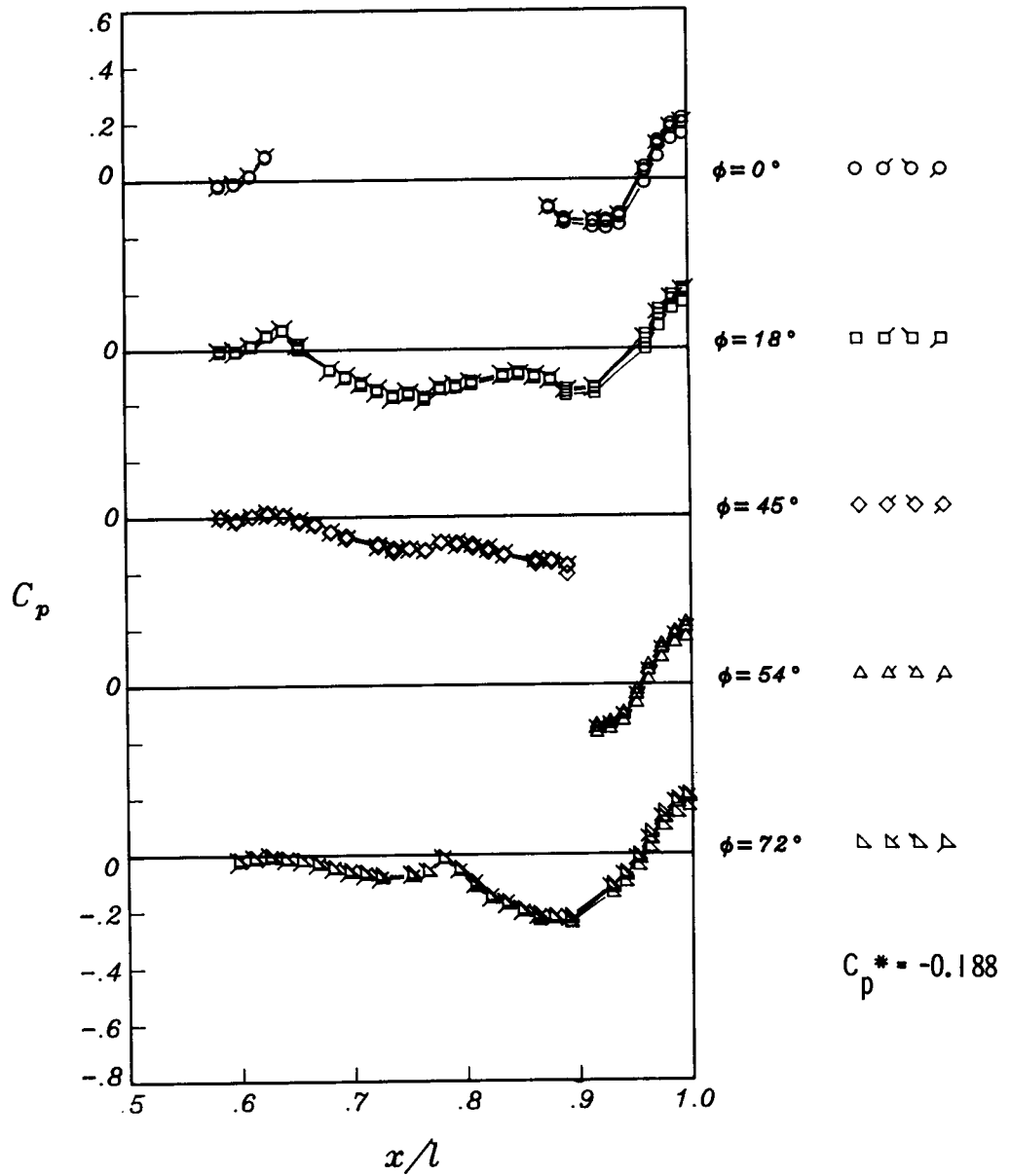


(b) Concluded.

Figure 10. Continued.

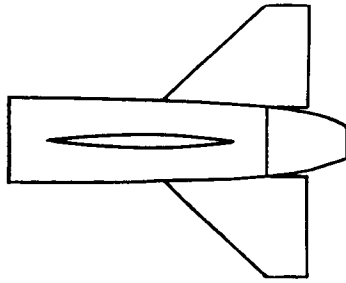


<i>NPR</i>	
○	1.11
◊	2.03
◐	3.00
◑	5.03

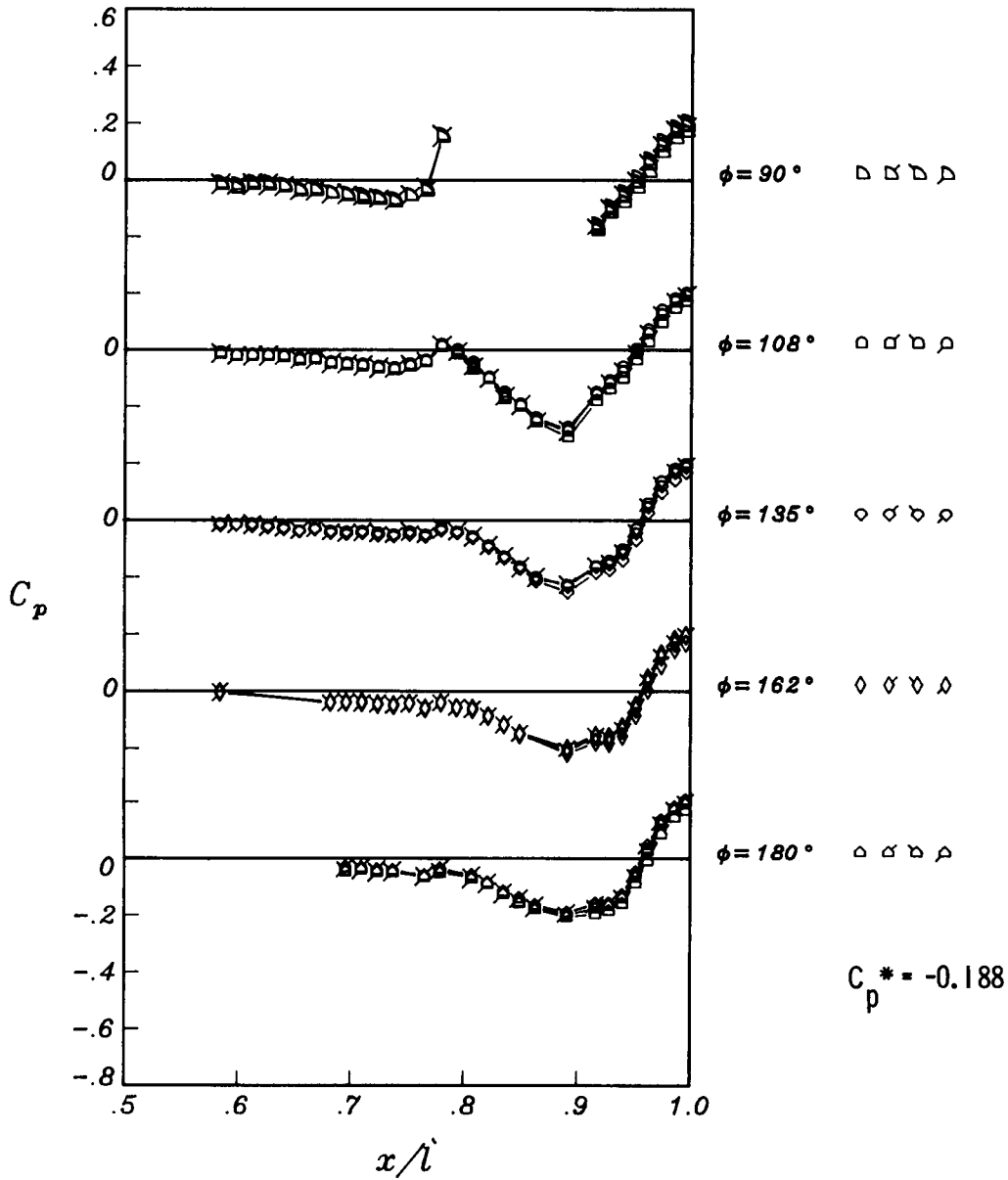


(c) $M = 0.90$; $\alpha = 0.02^\circ$.

Figure 10. Continued.

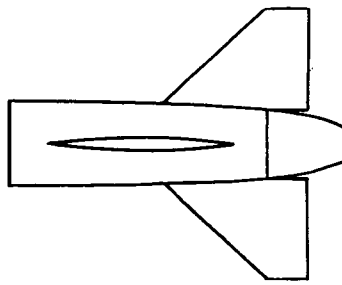


NPR	
○	1.11
□	2.03
◇	3.00
▽	5.03

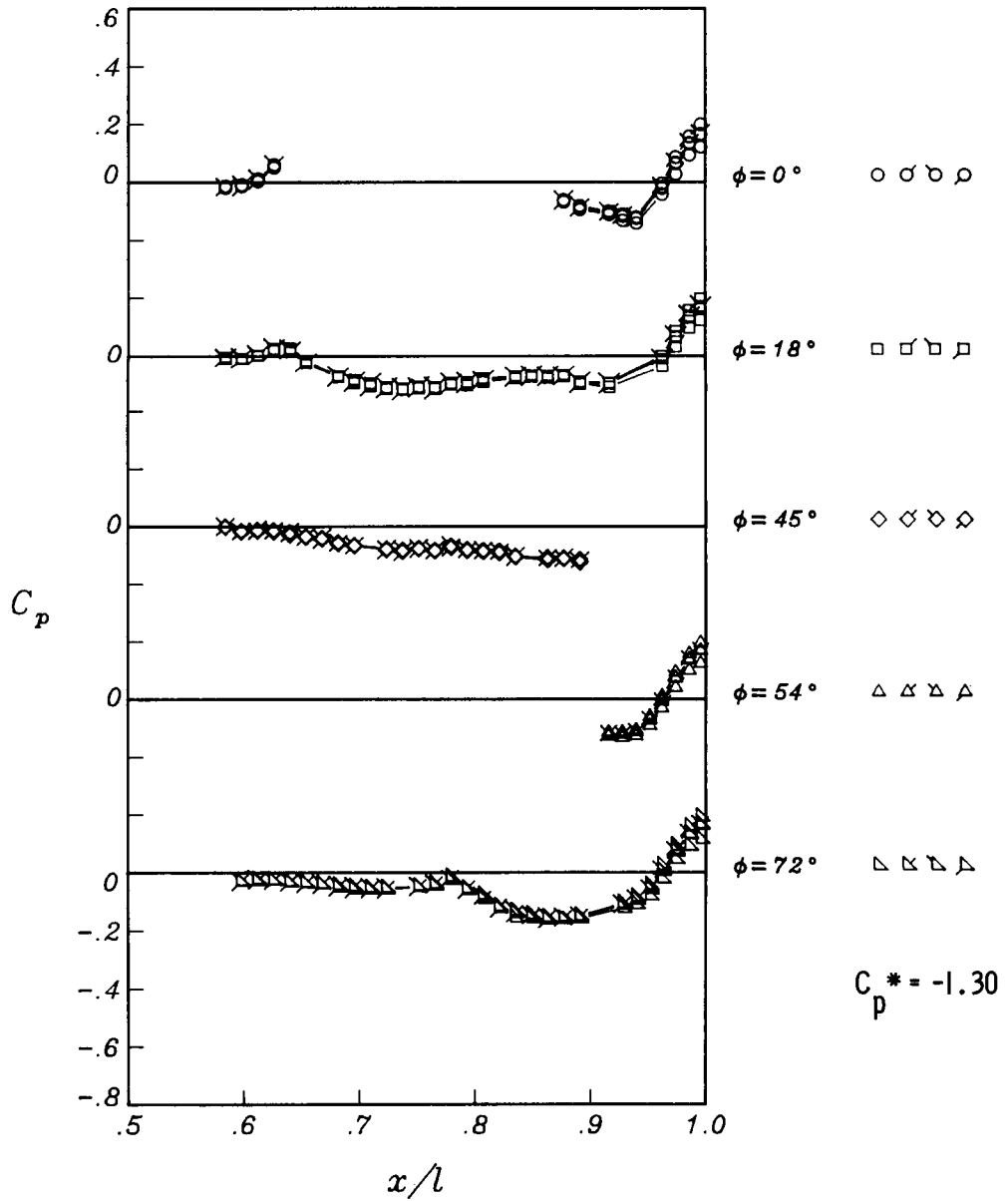


(c) Concluded.

Figure 10. Continued.

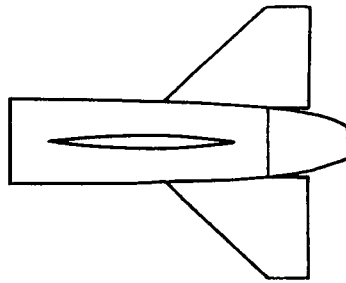


<i>NPR</i>	
○	1.04
○	2.04
○	2.96
○	4.98

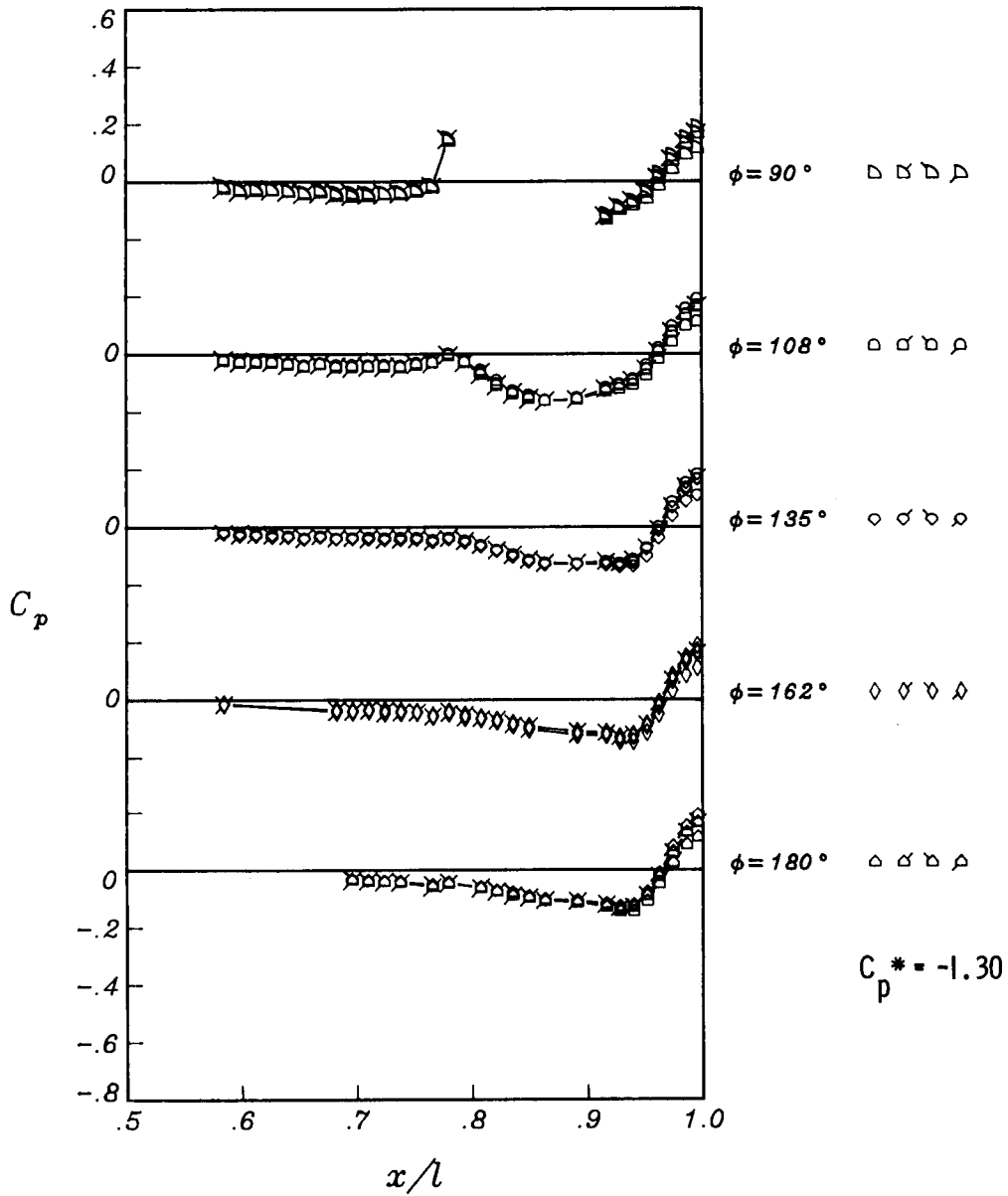


(d) $M = 0.60$; $\alpha = 0.03^\circ$.

Figure 10. Continued.



NPR	
○	1.04
◊	2.04
◐	2.96
◑	4.98

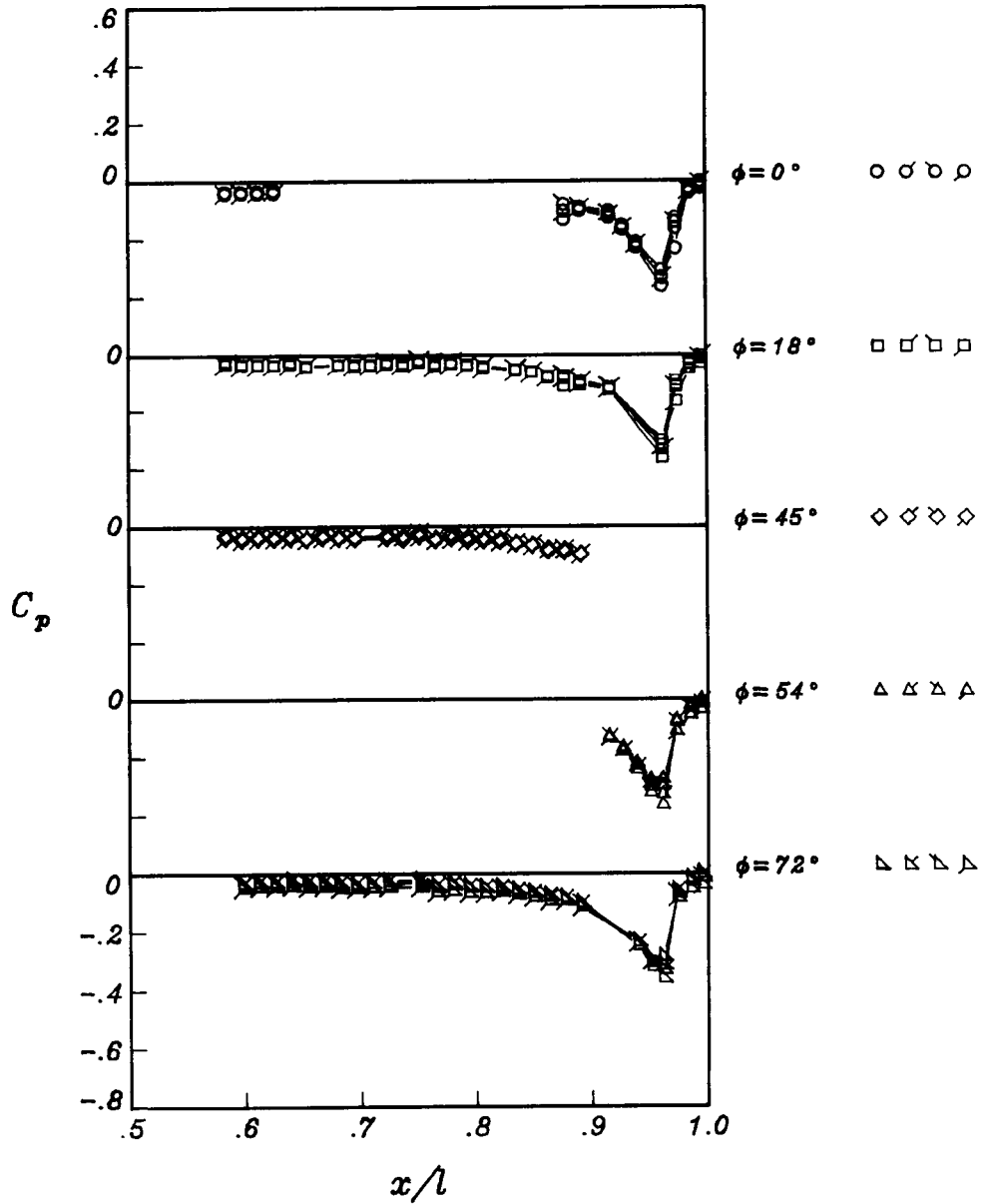


(d) Concluded.

Figure 10. Concluded.



ALPHA	
○	-2.99
◊	.01
◻	3.01
◻	5.98

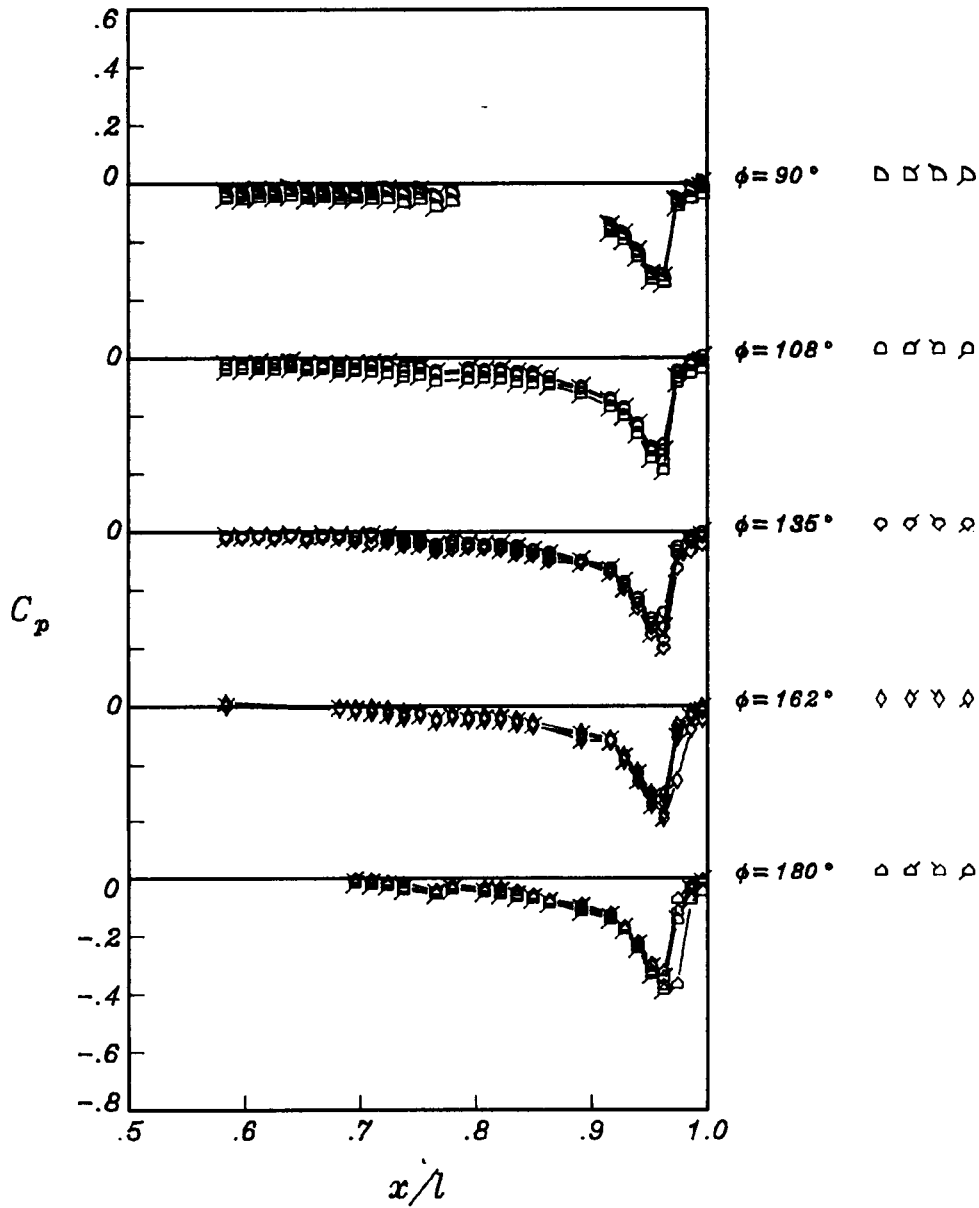


(a) $M = 1.20$; $NPR = 1.037$.

Figure 11. Effect of angle of attack on nozzle/afterbody pressures for body alone.



	ALPHA
○	-2.99
□	.01
◇	3.01
▷	5.98



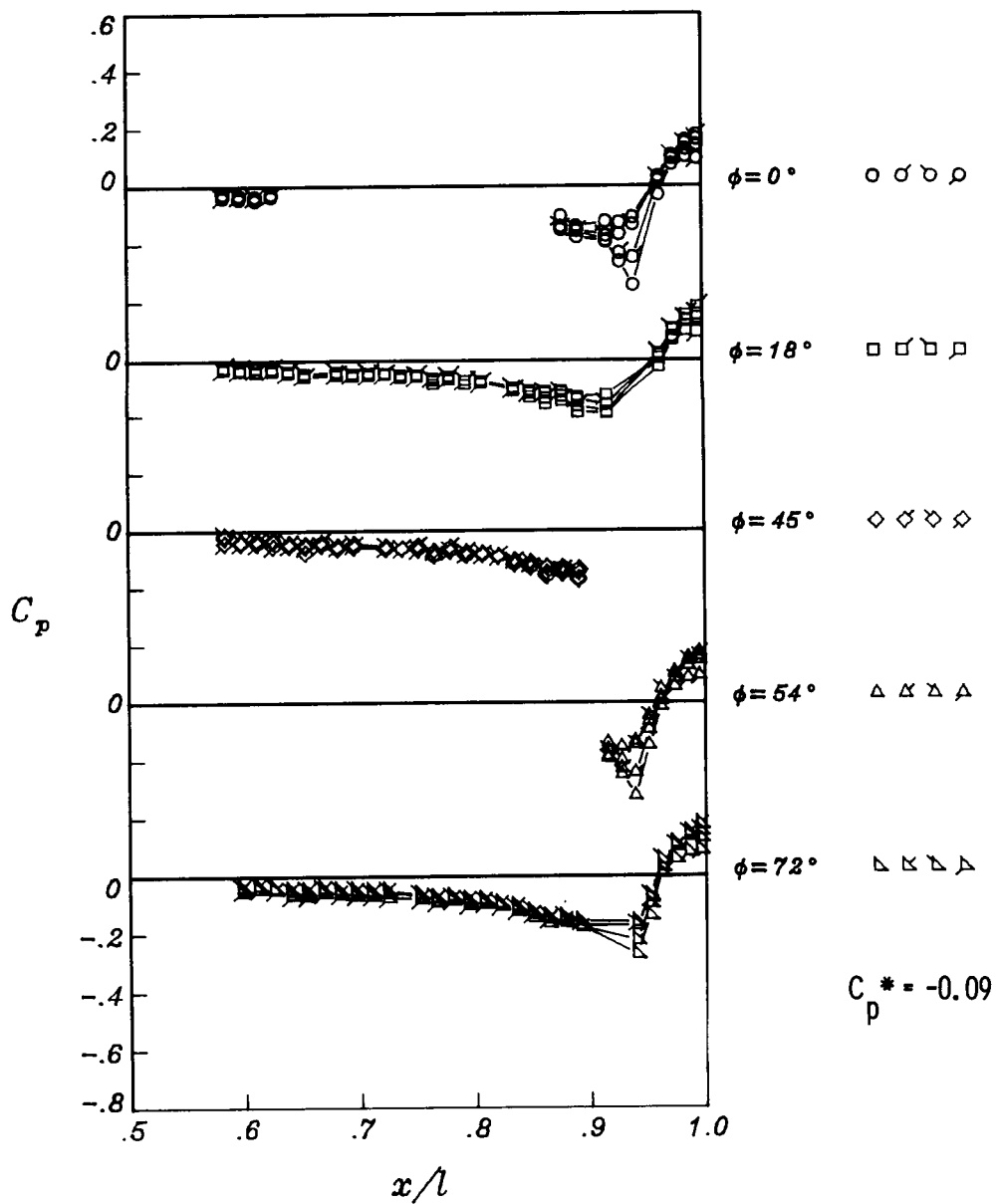
(a) Concluded.

Figure 11. Continued.



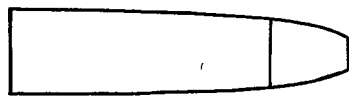
ALPHA

- -2.99
- ◊ .01
- ◻ 3.01
- ◐ 5.98



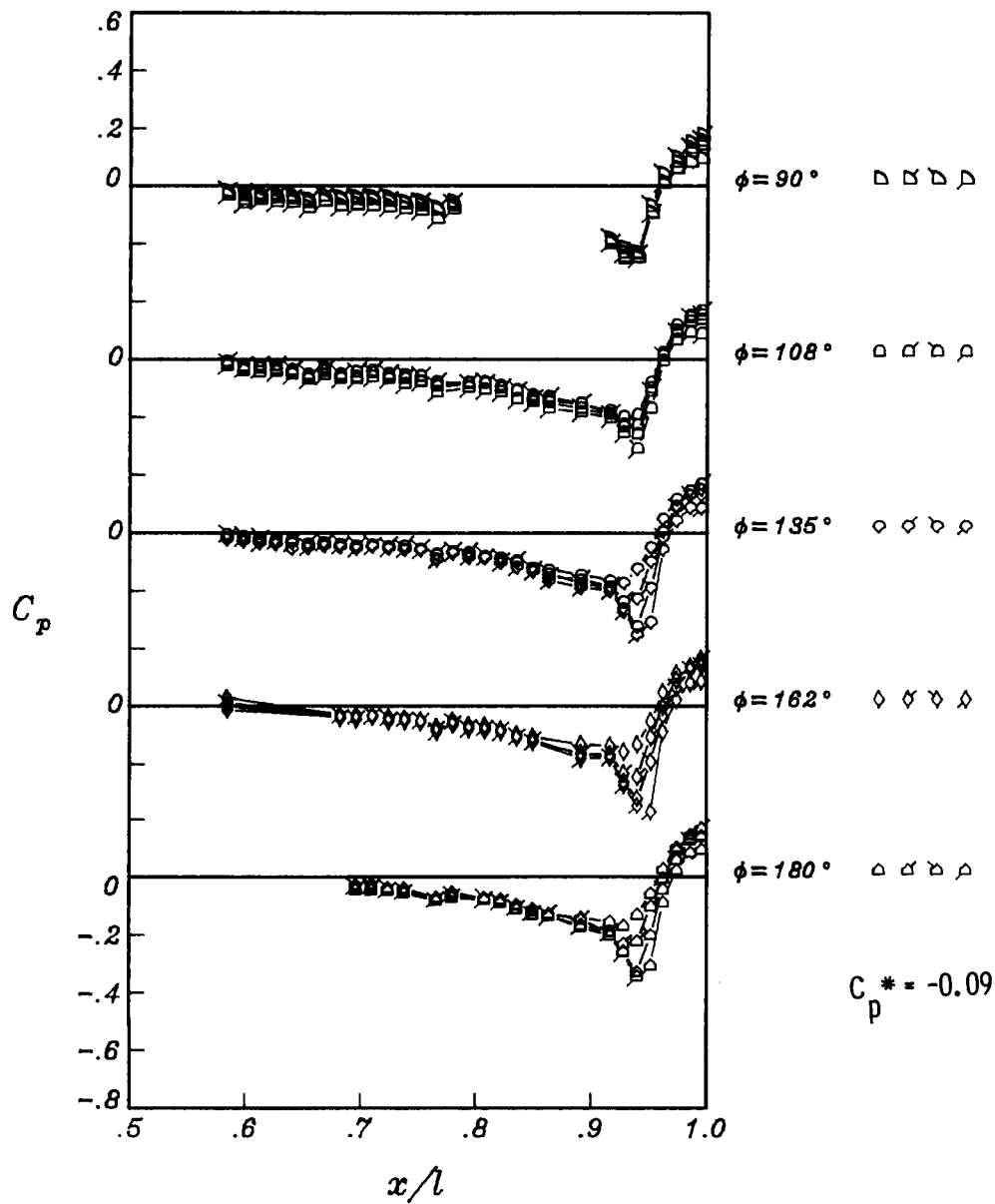
(b) $M = 0.95$; $NPR = 1.115$.

Figure 11. Continued.



ALPHA

- -2.99
- ◊ .01
- ◐ 3.01
- ◑ 5.98



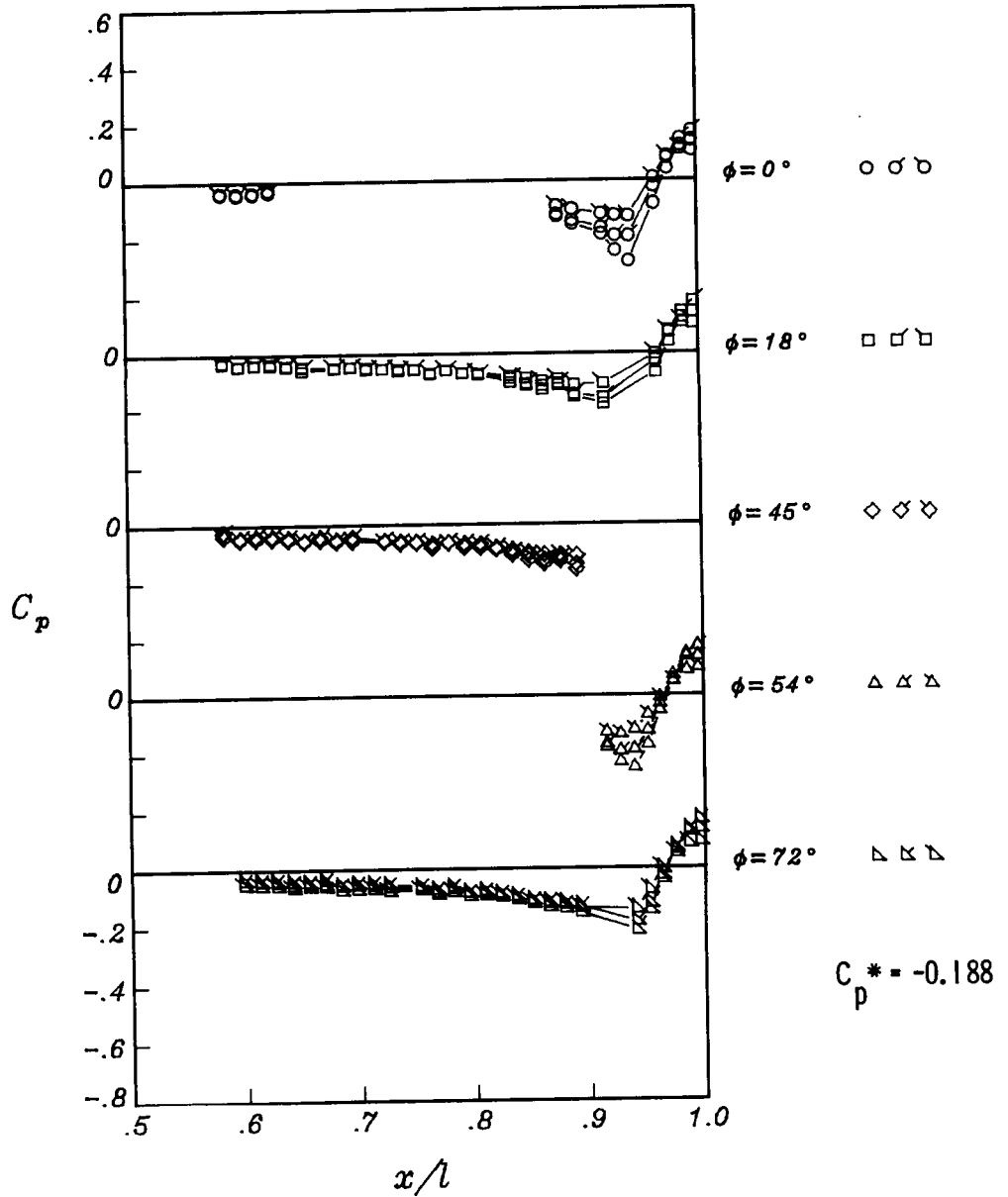
(b) Concluded.

Figure 11. Continued.



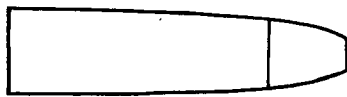
ALPHA

- -2.98
- ◊ .01
- ◻ 6.01



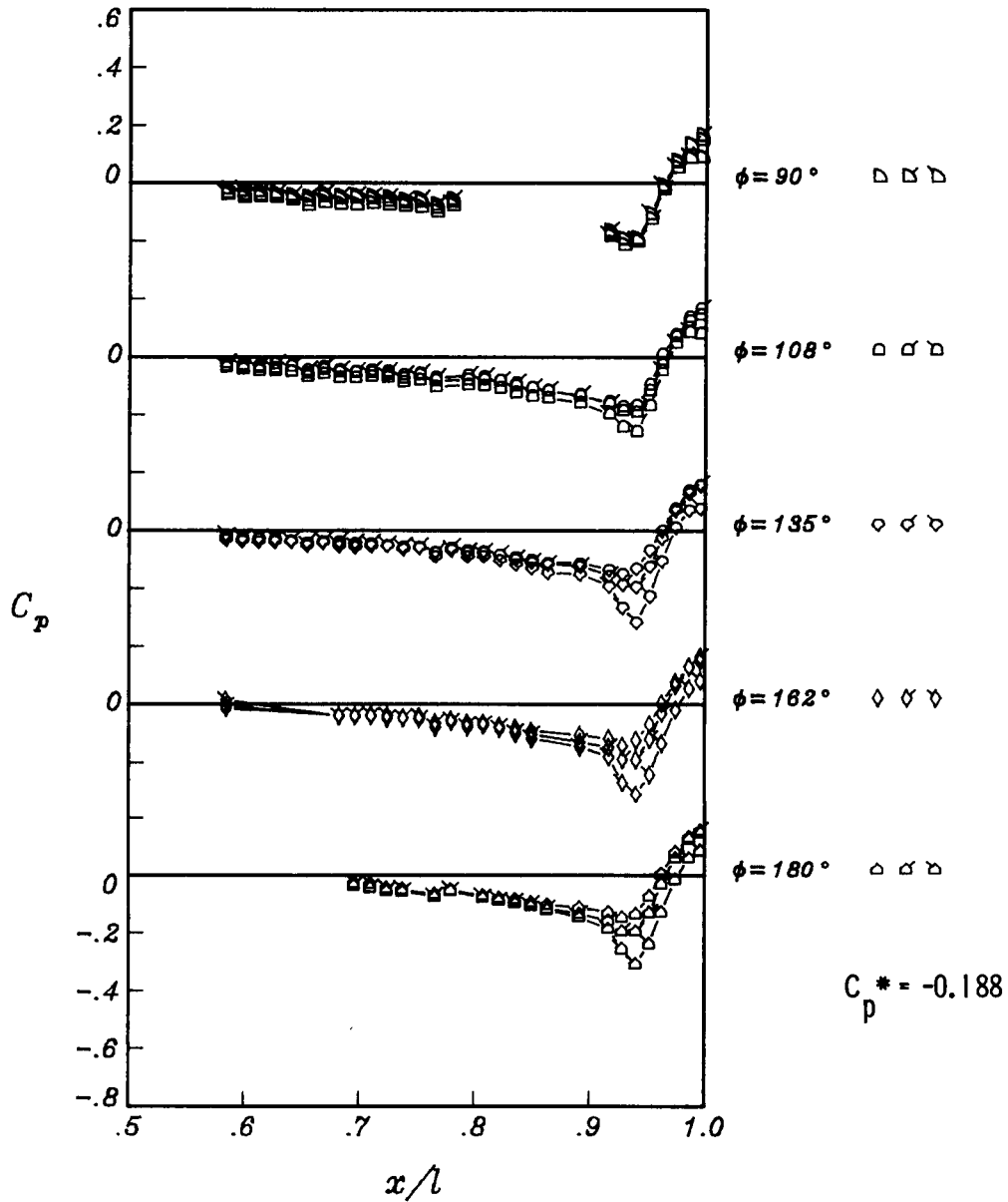
(c) $M = 0.90$; $NPR = 1.111$.

Figure 11. Continued.



ALPHA

o -2.98
 α .01
 ∇ 6.01



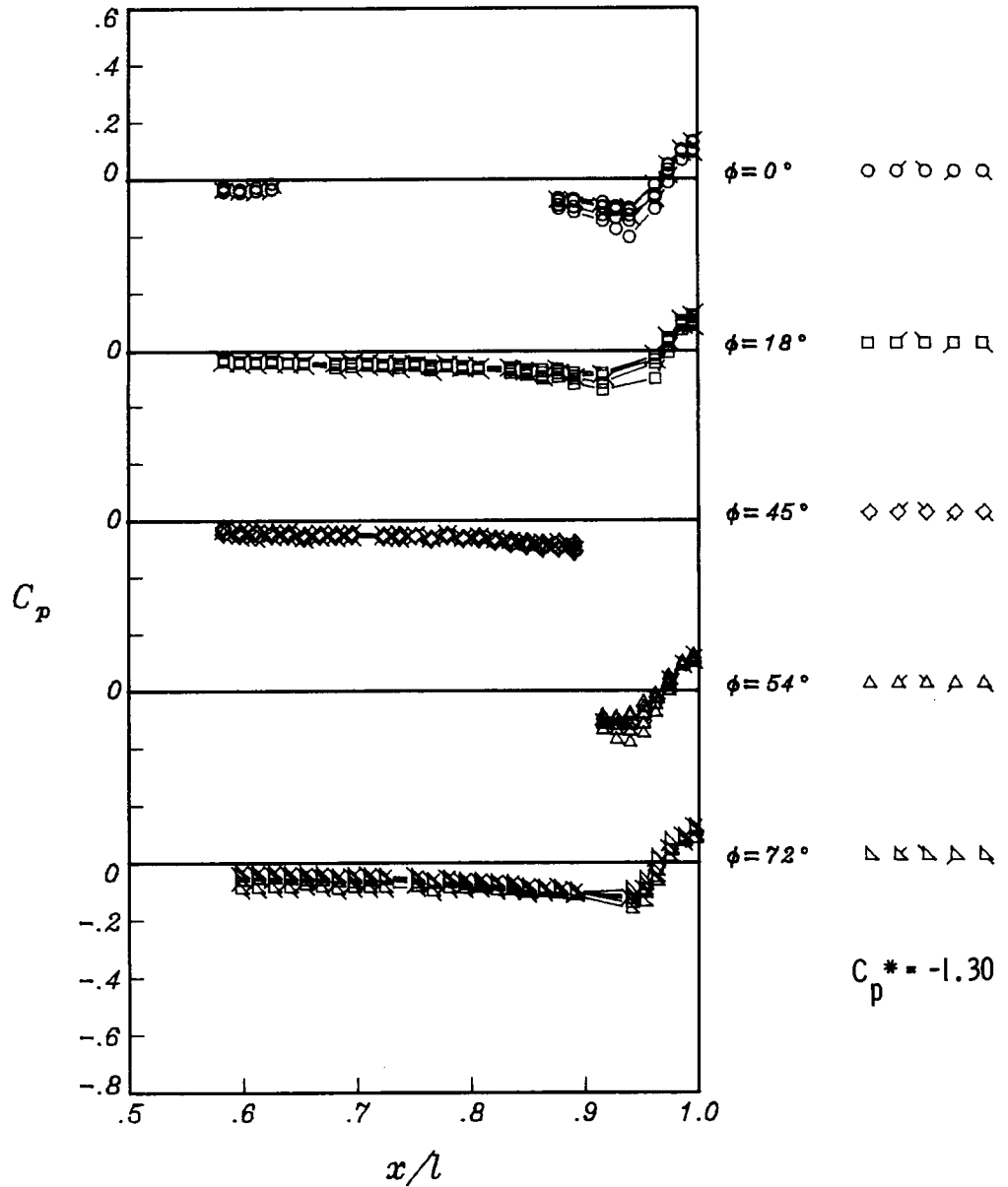
(c) Concluded.

Figure 11. Continued.



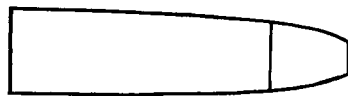
ALPHA

- -2.98
- .02
- 3.01
- 5.98
- 9.02



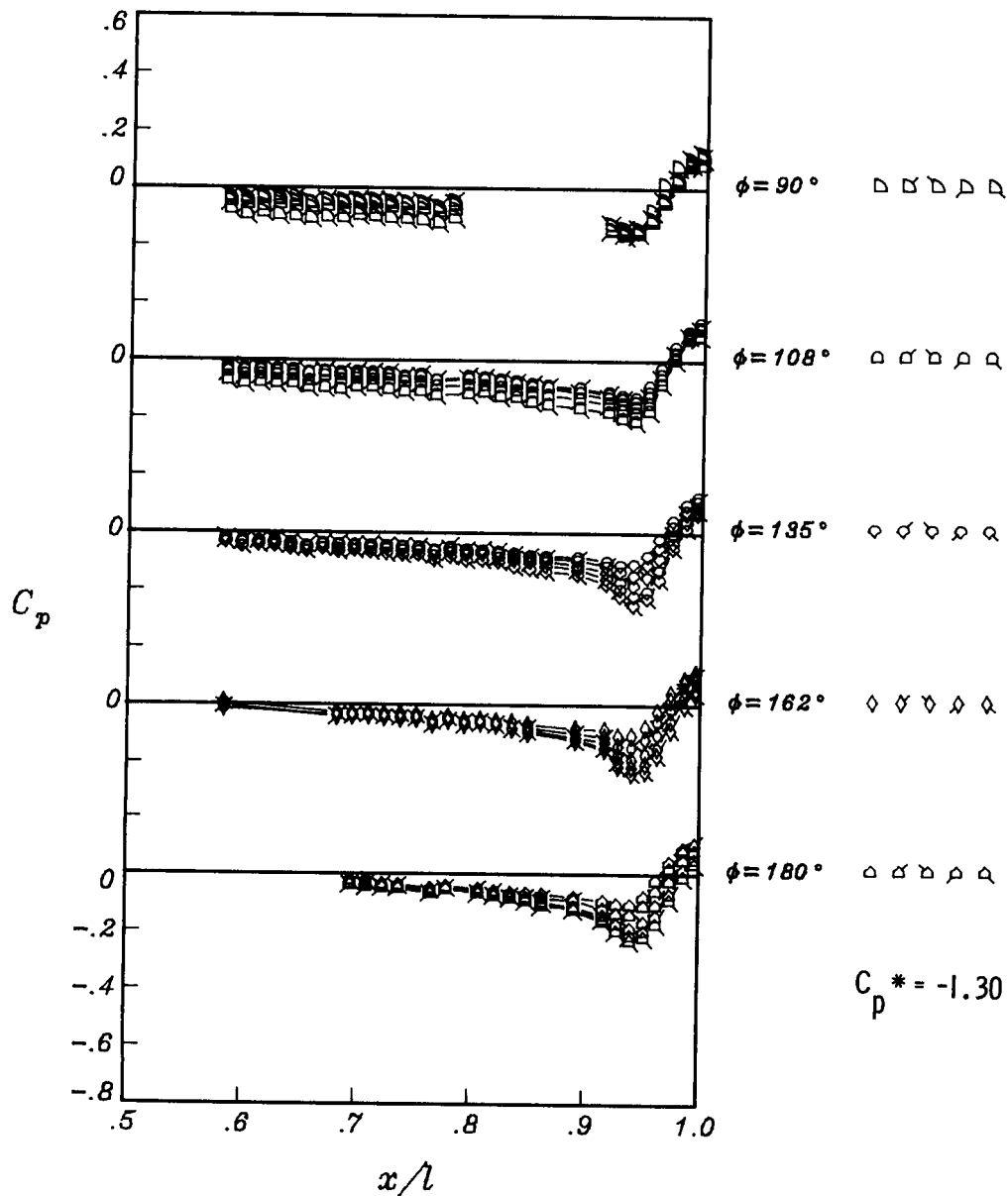
(d) $M = 0.60$; $NPR = 1.051$.

Figure 11. Continued.



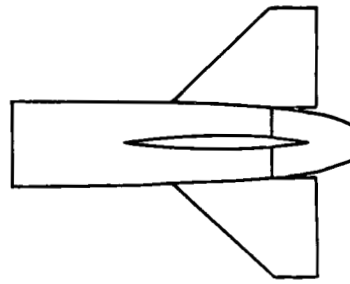
ALPHA

o	-2.98
o	.02
σ	3.01
▷	5.98
◁	9.02

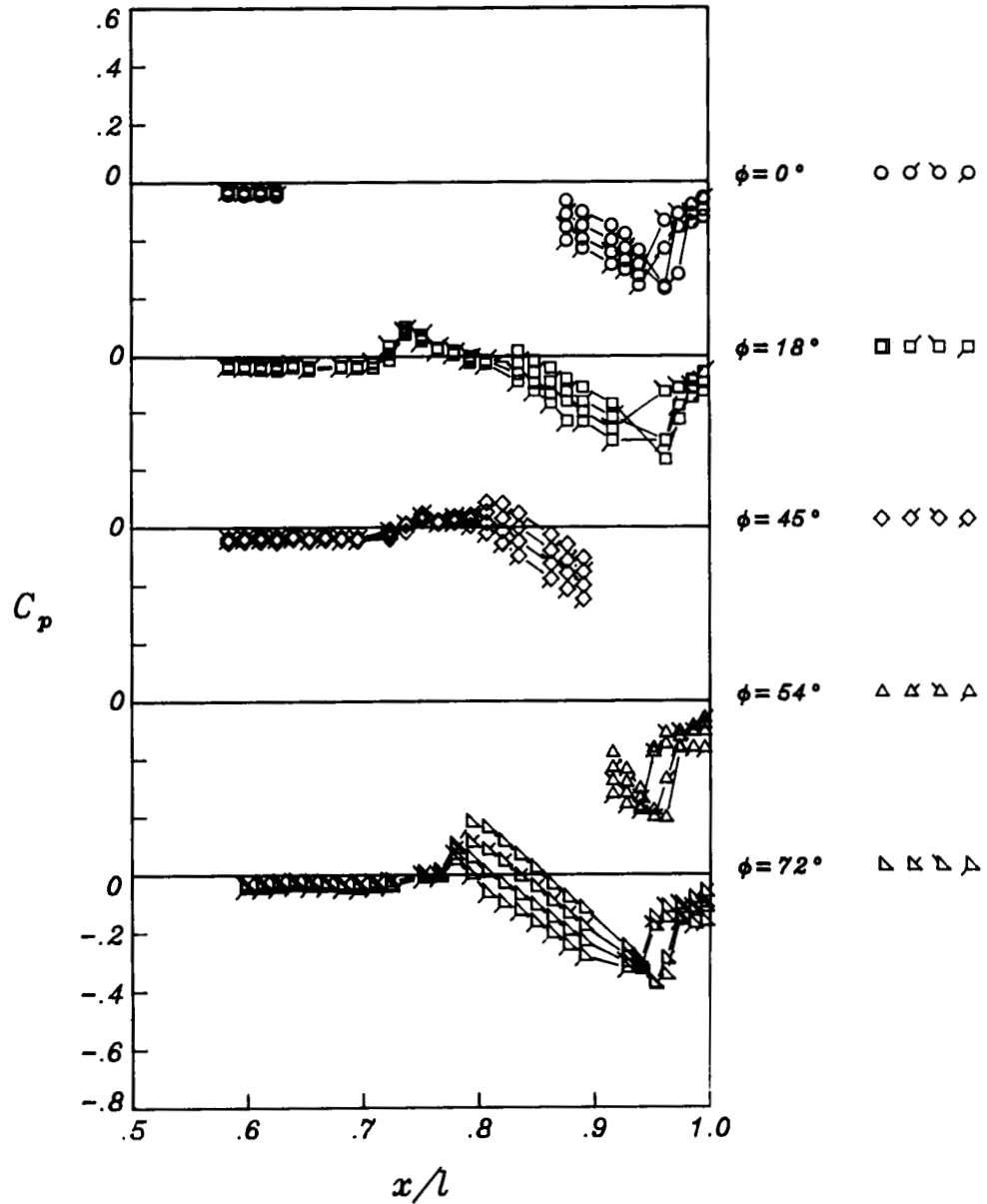


(d) Concluded.

Figure 11. Concluded.

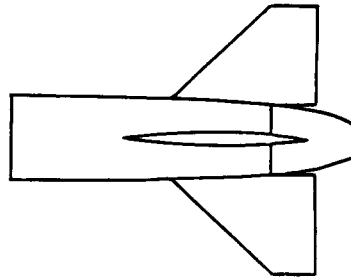


ALPHA	
○	-2.98
◊	.02
◻	3.02
◻	5.98

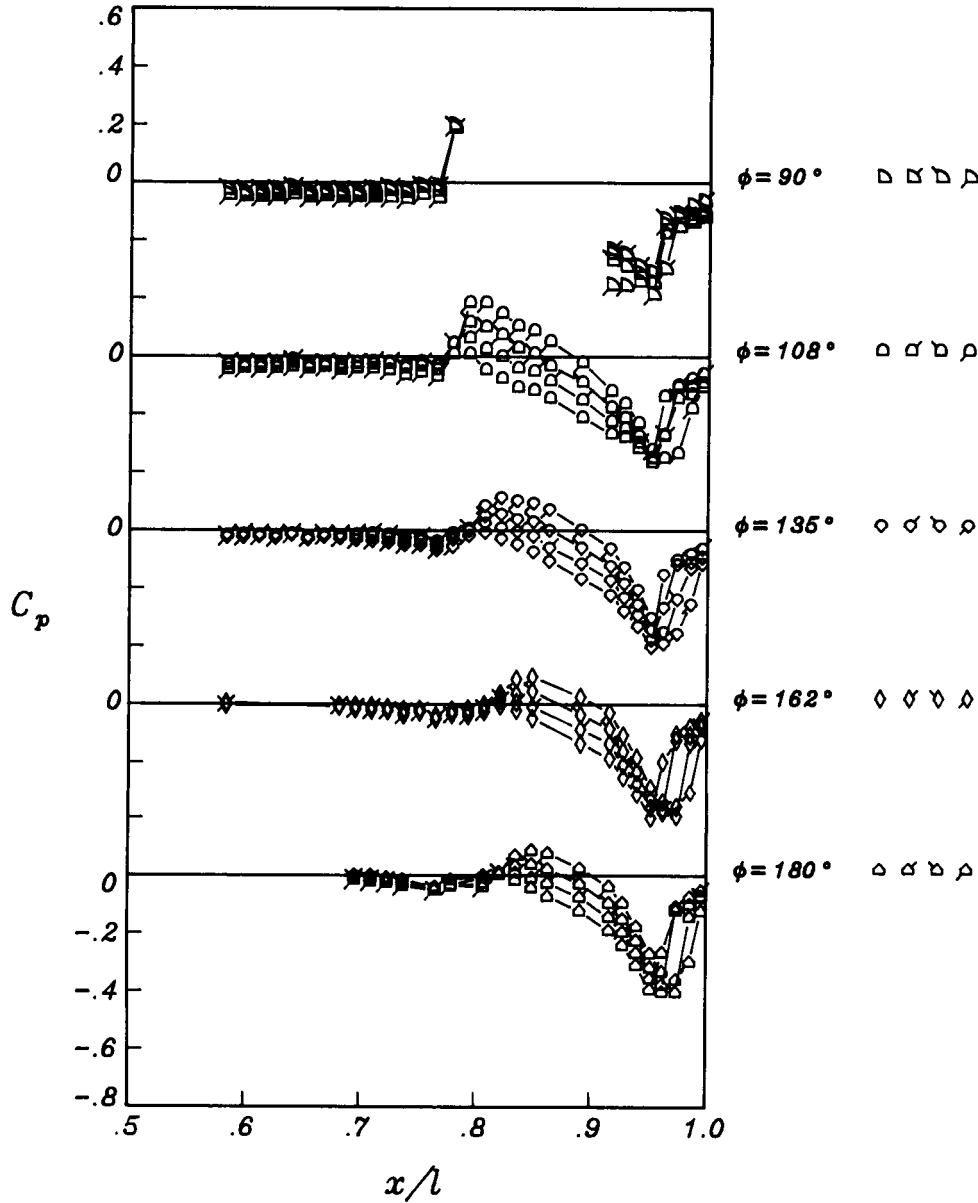


(a) $M = 1.20$; $NPR = 0.985$.

Figure 12. Effect of angle of attack on nozzle/afterbody pressures for body with horizontal and vertical ta in aft location.

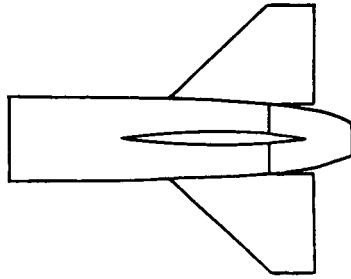


ALPHA	
○	-2.98
○	.02
○	3.02
○	5.98

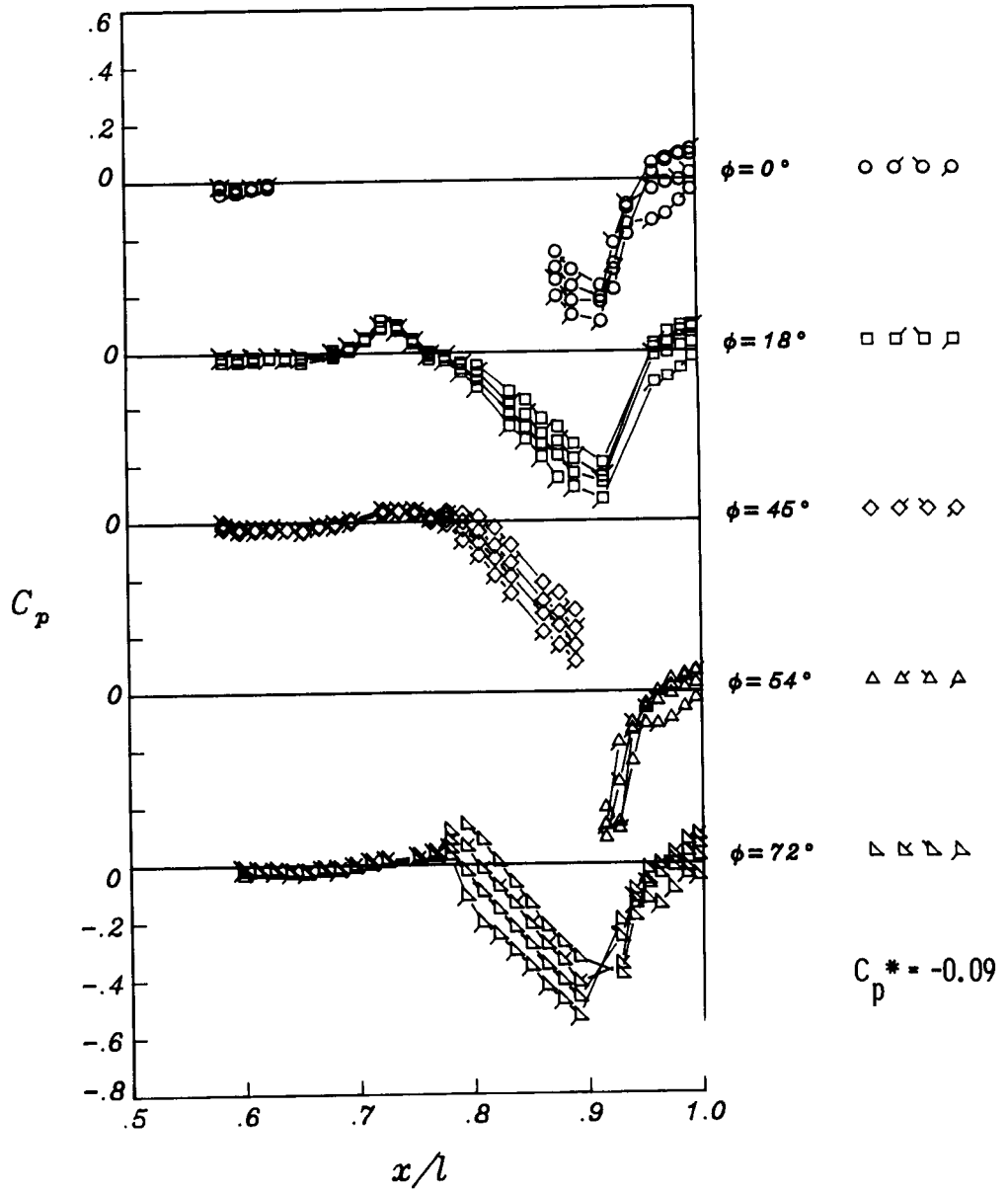


(a) Concluded.

Figure 12. Continued.

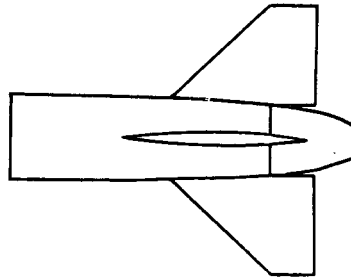


ALPHA	
○	-2.99
○	.03
○	3.03
○	5.97

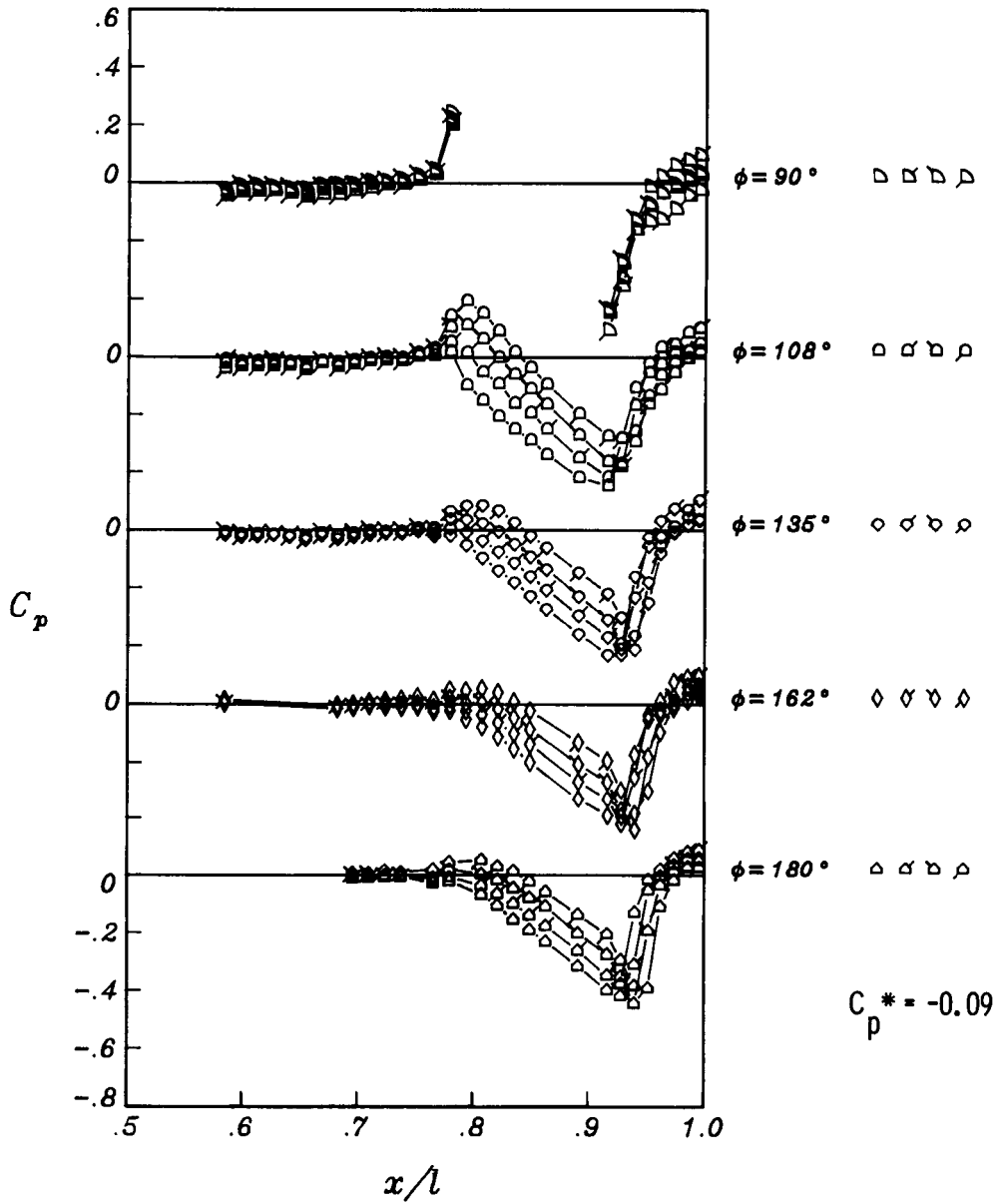


(b) $M = 0.95$; $NPR = 1.067$.

Figure 12. Continued.

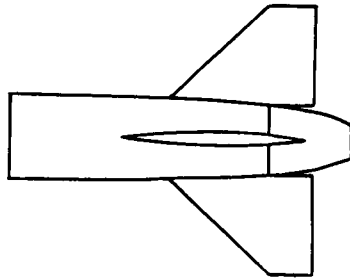


ALPHA	
○	-2.99
○	.03
○	3.03
○	5.97

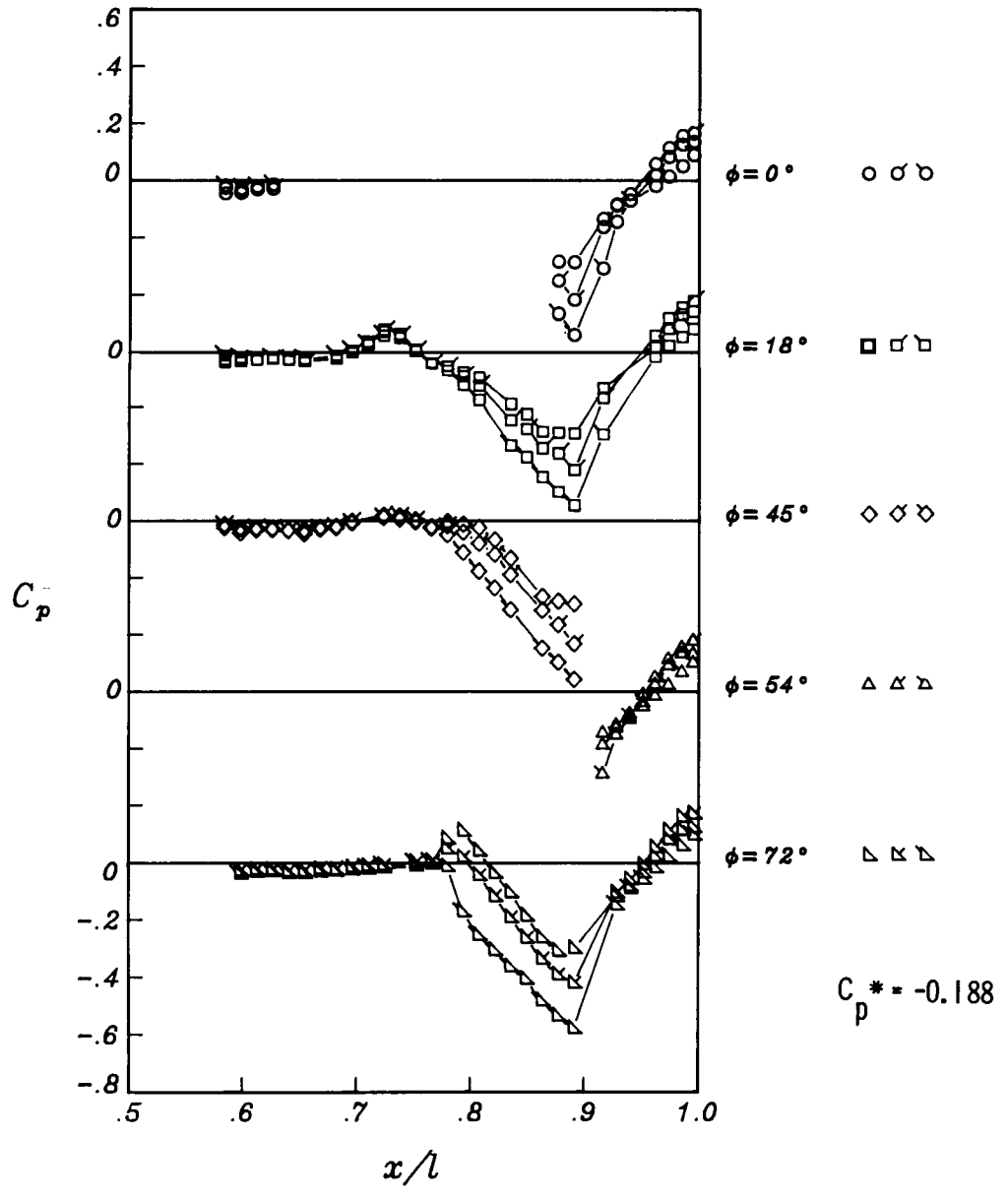


(b) Concluded.

Figure 12. Continued.

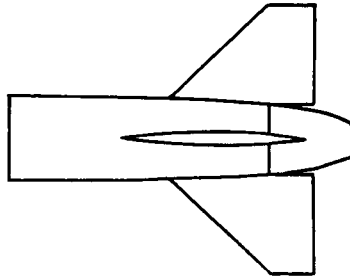


ALPHA
 0 -2.98
 1 .02
 2 6.02

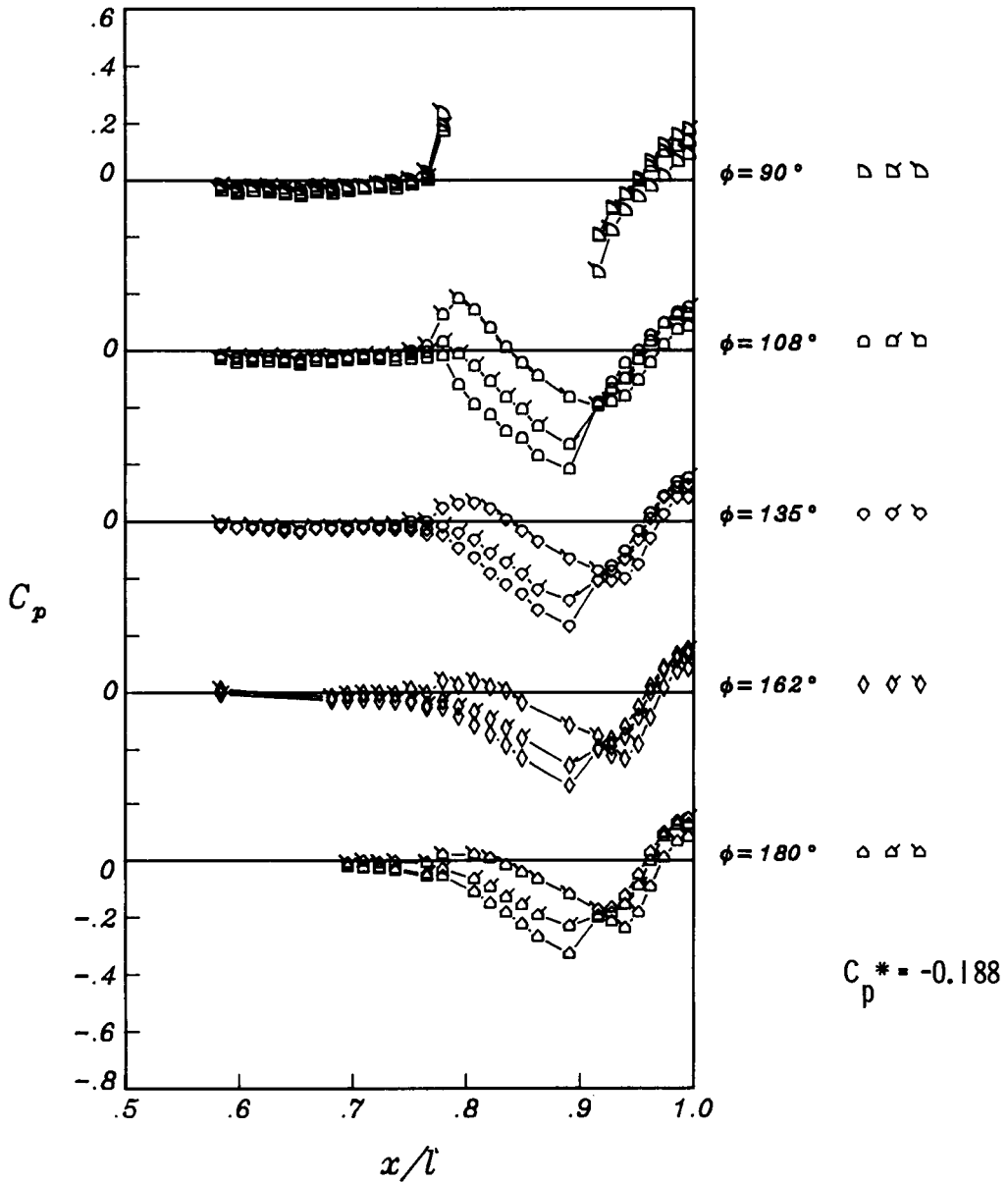


(c) $M = 0.90$; $NPR = 1.099$.

Figure 12. Continued.



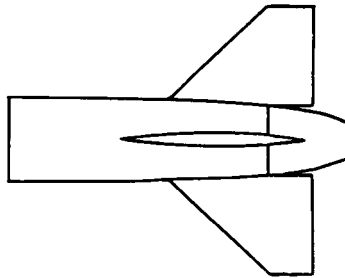
ALPHA
 o -2.98
 α .02
 ∇ 6.02



(c) Concluded.

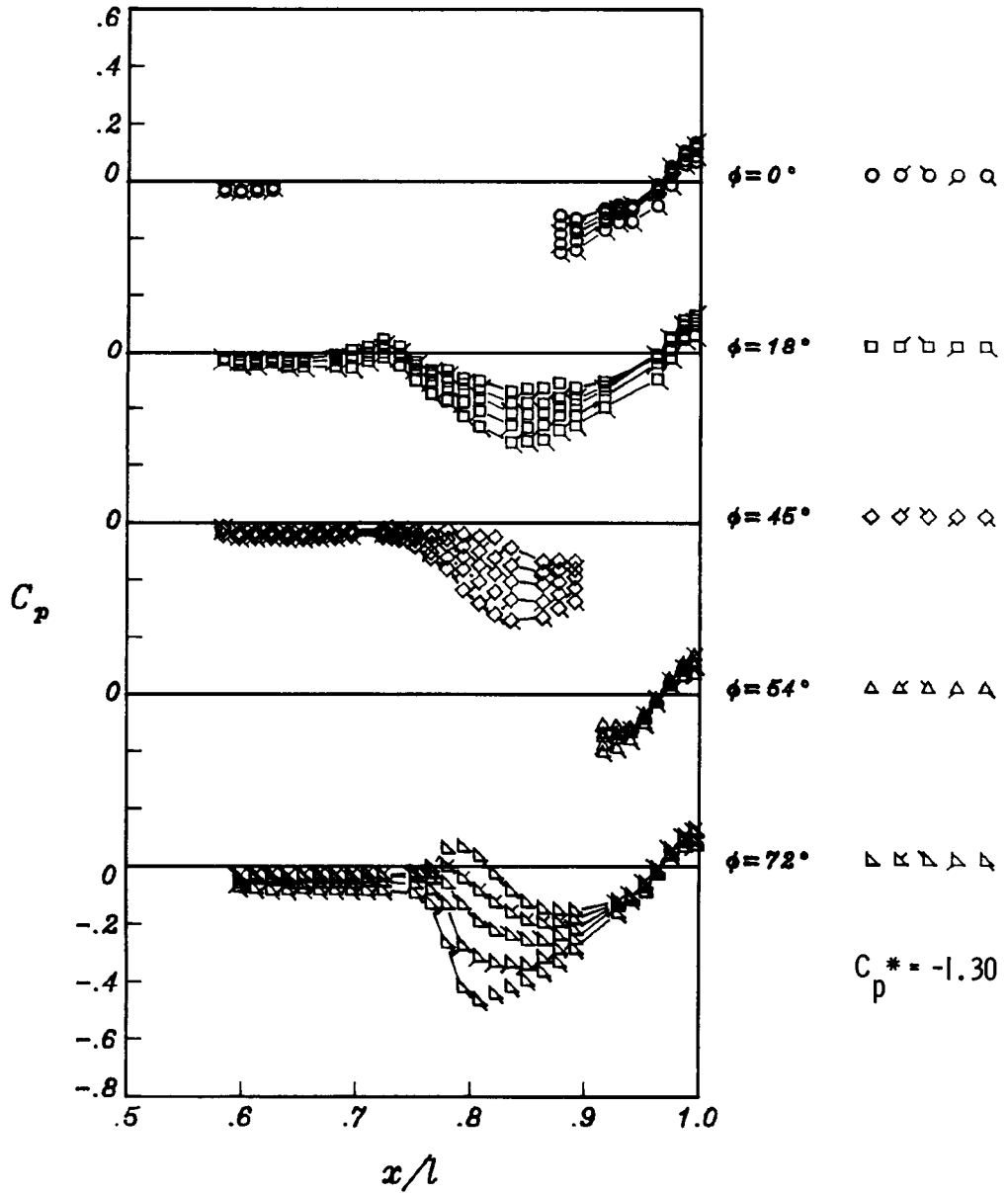
Figure 12. Continued.

C-3



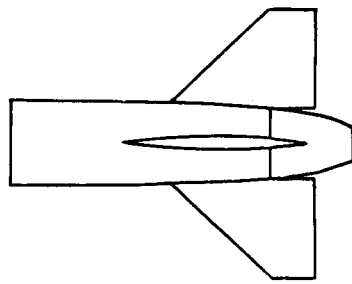
ALPHA

- -2.98
- .02
- 3.02
- 5.97
- 9.01

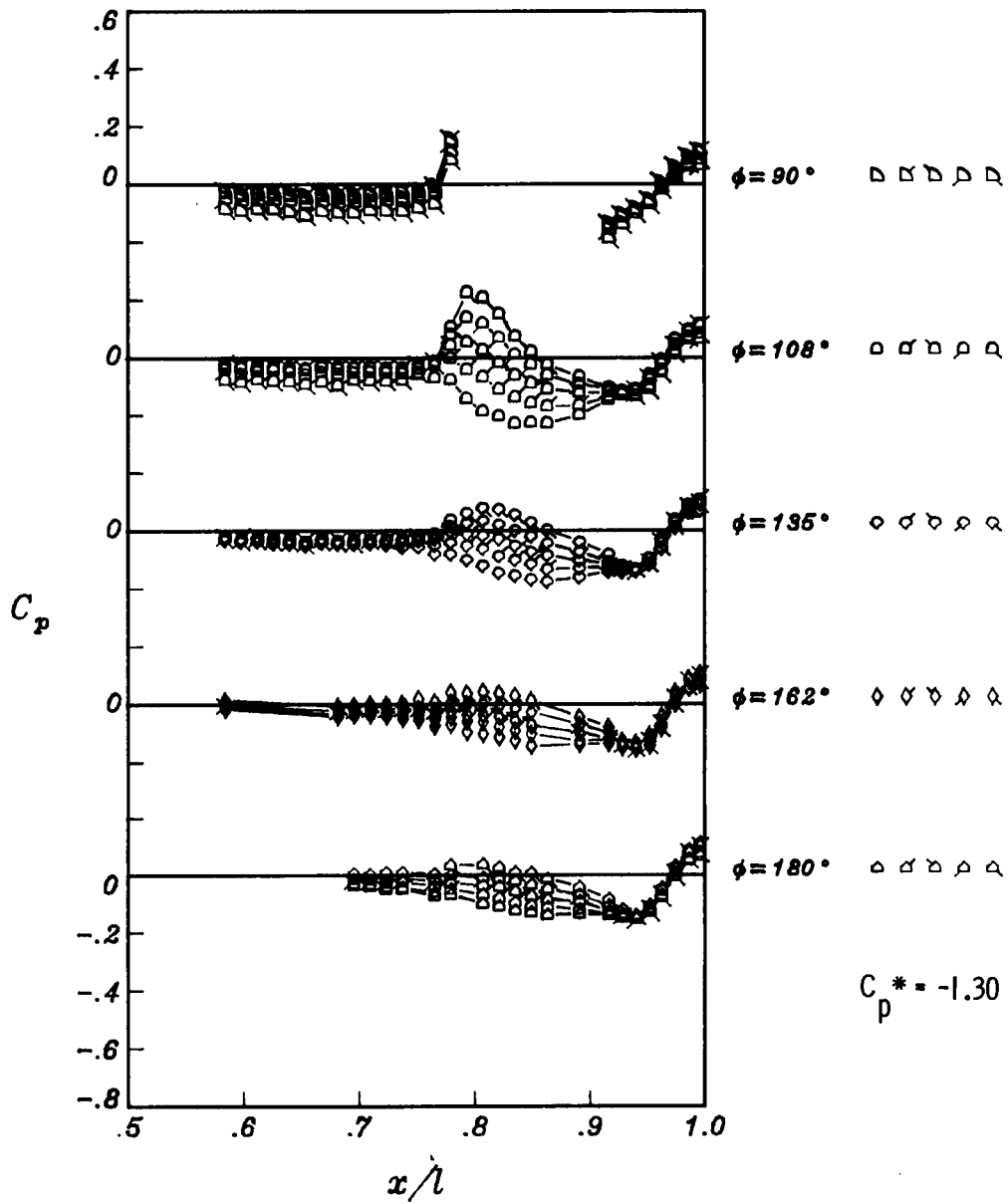


(d) $M = 0.60$; $NPR = 1.050$.

Figure 12. Continued.

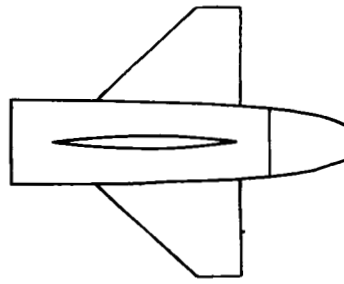


ALPHA	
○	-2.98
◊	.02
◐	3.02
◑	5.97
◒	9.01

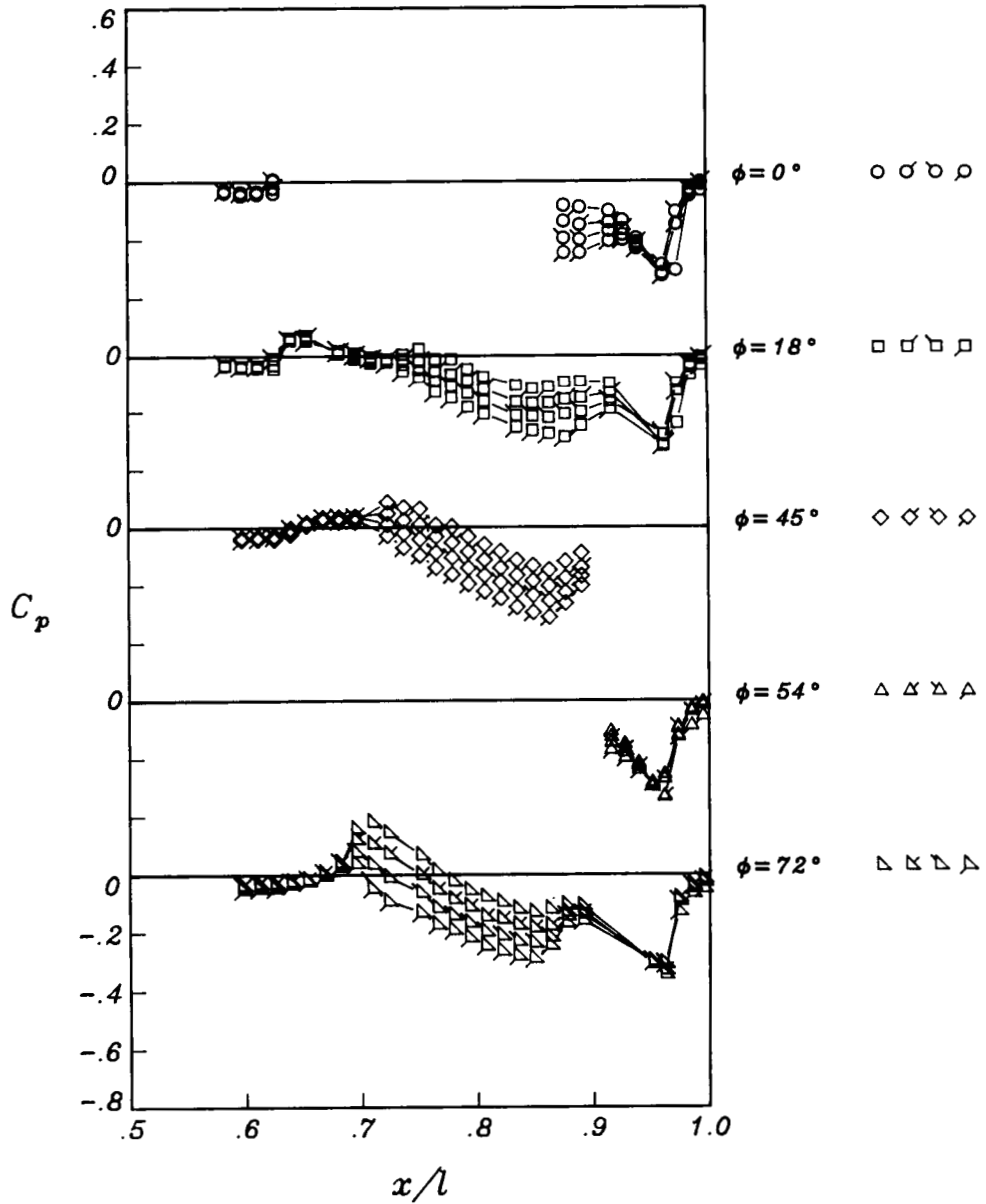


(d) Concluded.

Figure 12. Concluded.

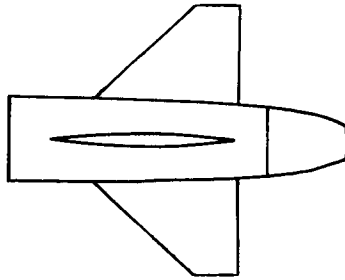


ALPHA	
○	-2.98
◐	.01
◑	3.02
○	6.02

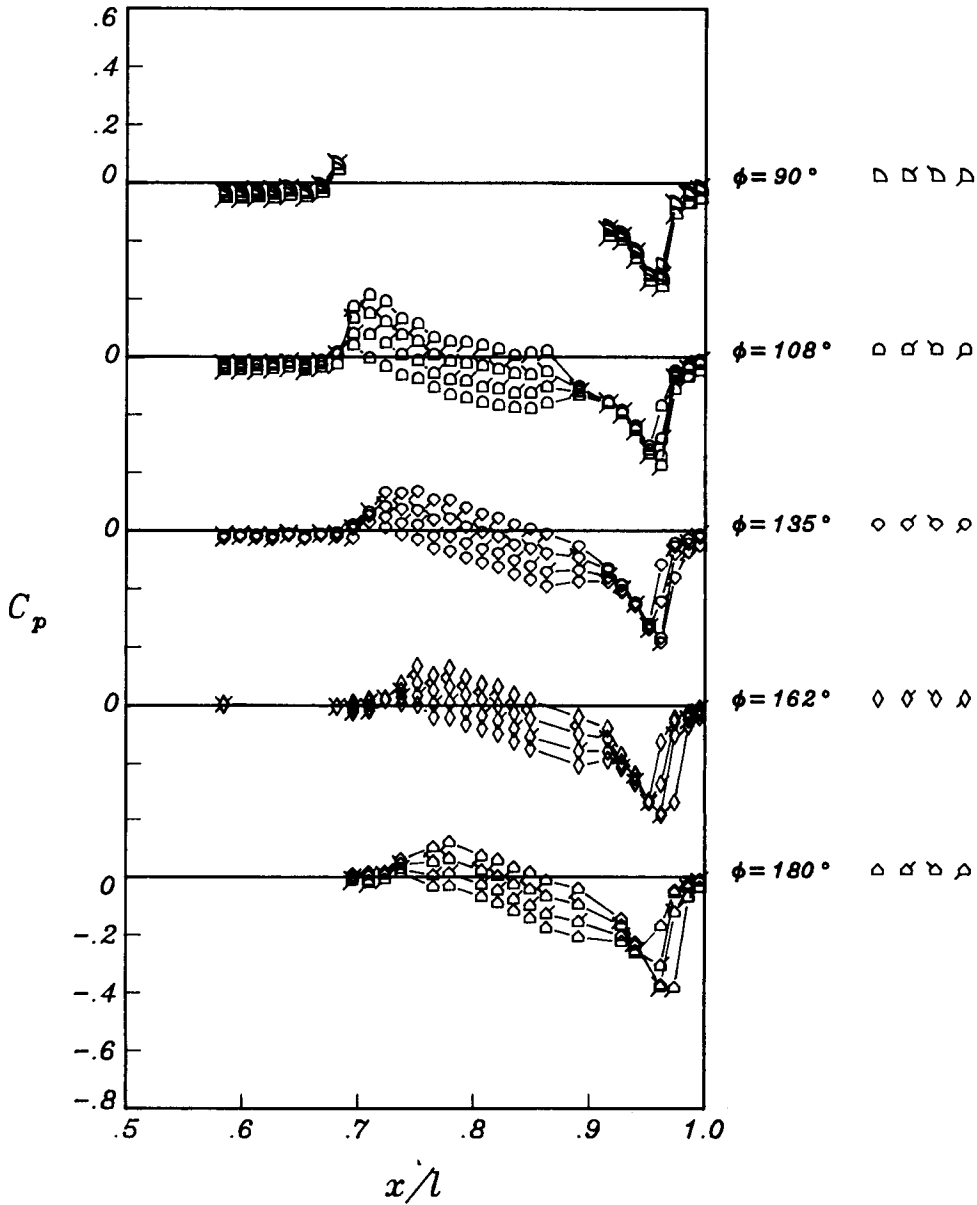


(a) $M = 1.20$; $NPR = 1.052$.

Figure 13. Effect of angle of attack on nozzle/afterbody pressures for body with horizontal and vertical tails in forward location.

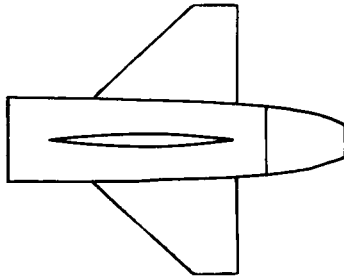


ALPHA	
○	-2.98
◊	.01
◐	3.02
◑	6.02

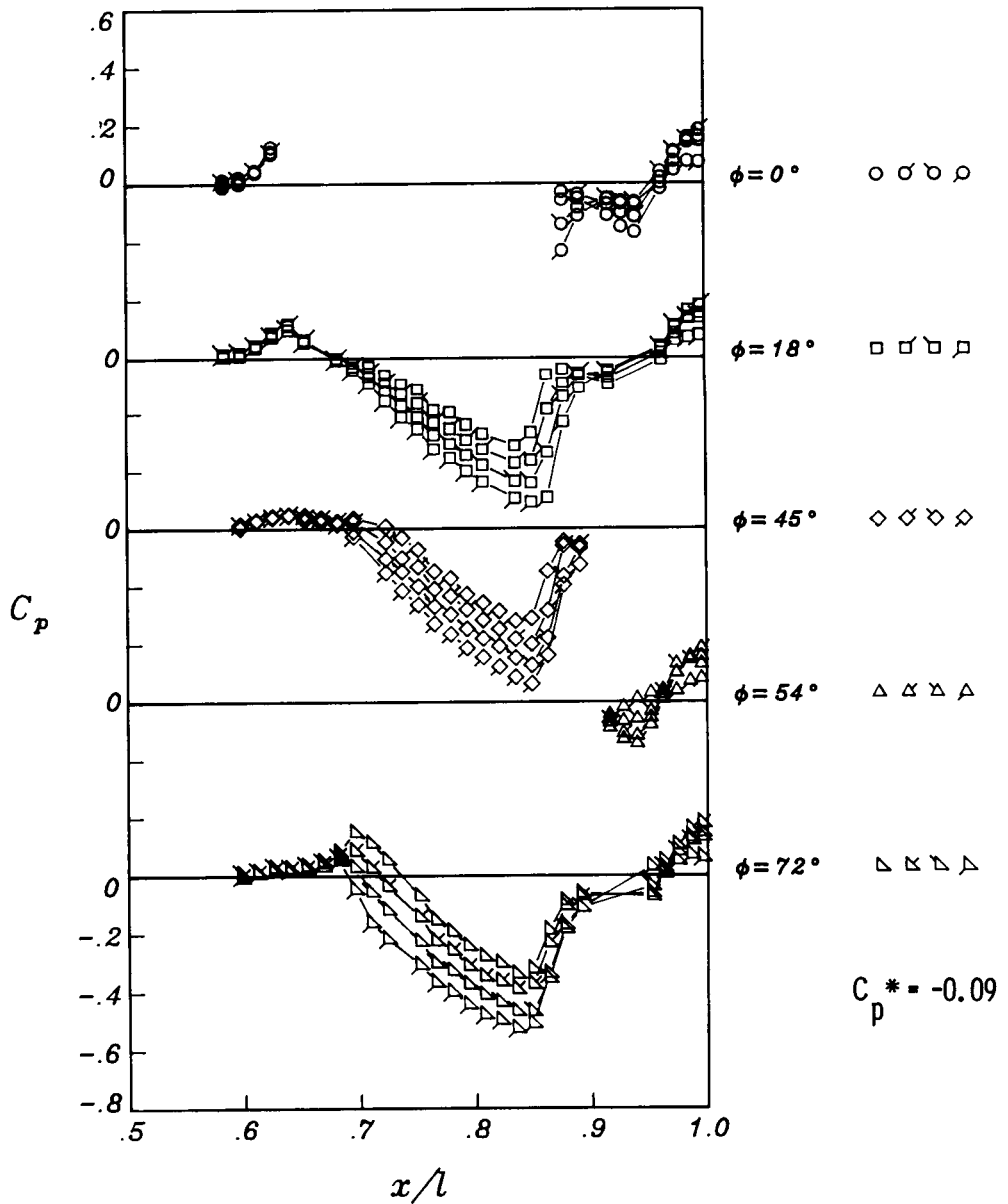


(a) Concluded.

Figure 13. Continued.

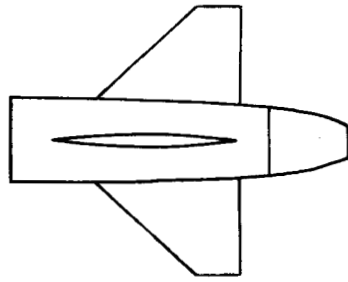


ALPHA	
○	-2.99
◊	.00
◡	3.01
◢	6.01

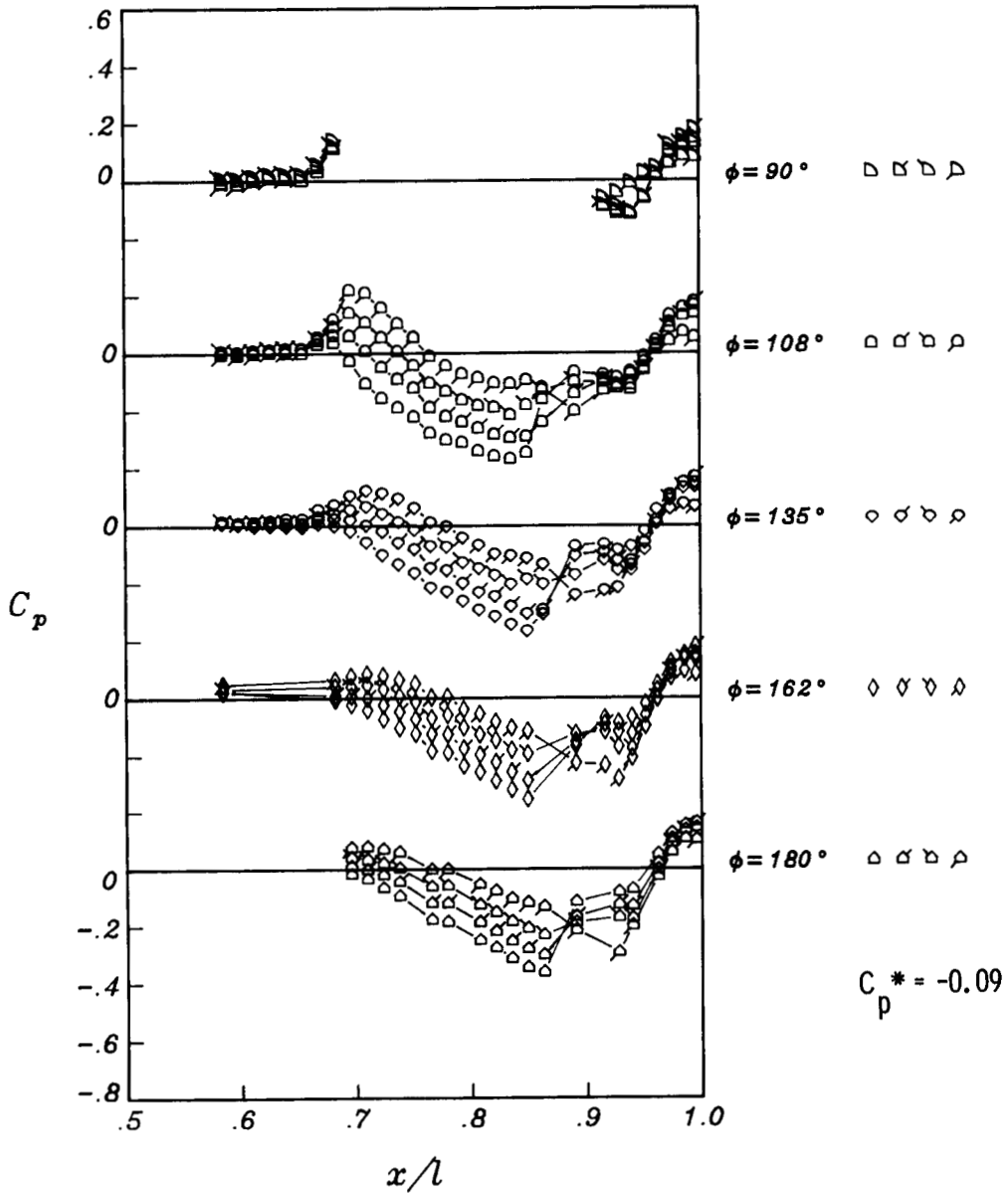


(b) $M = 0.95$; $NPR = 1.138$.

Figure 13. Continued.

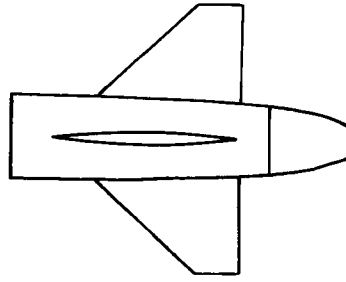


ALPHA	
○	-2.99
◊	.00
◐	3.01
◑	6.01

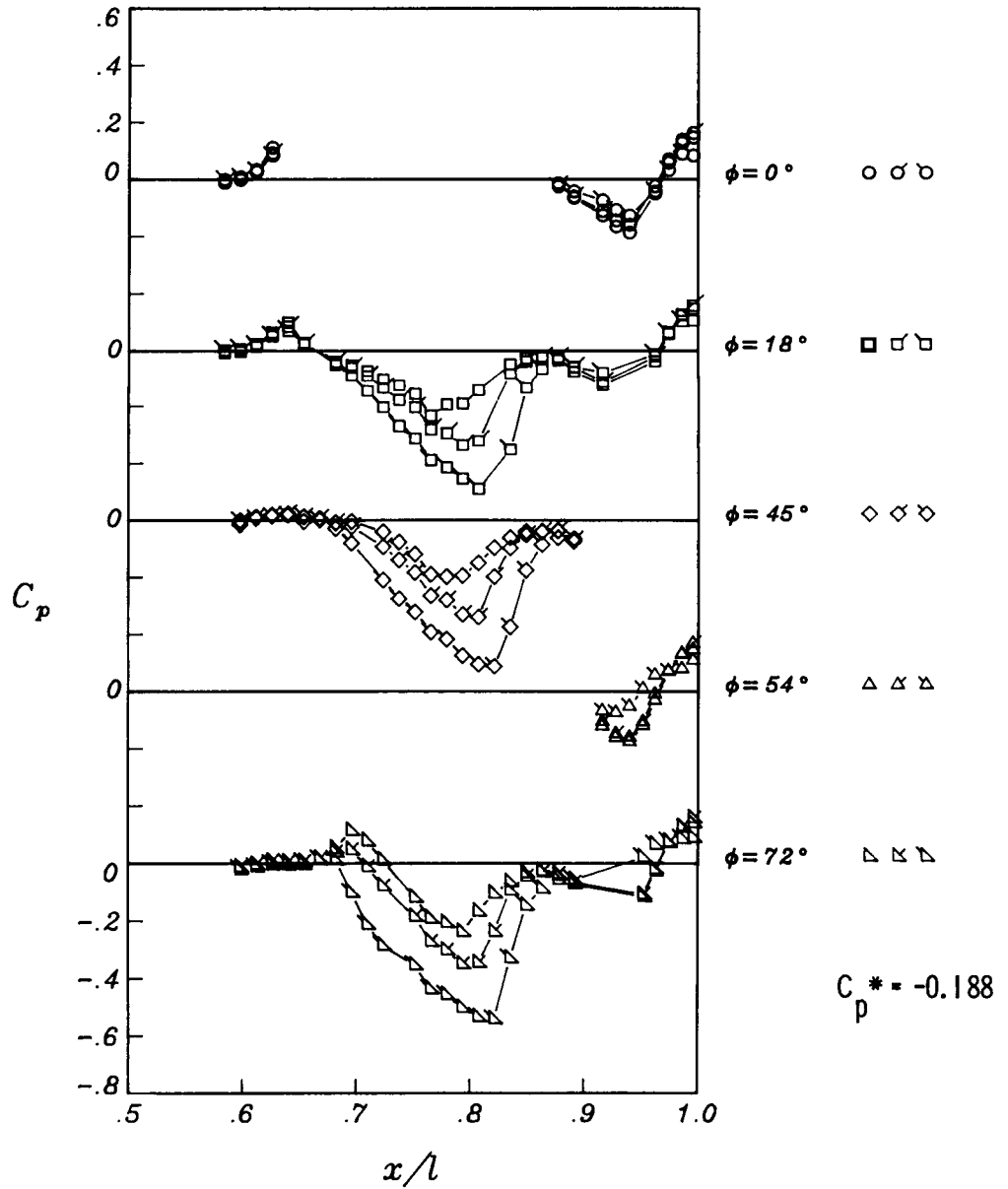


(b) Concluded.

Figure 13. Continued.

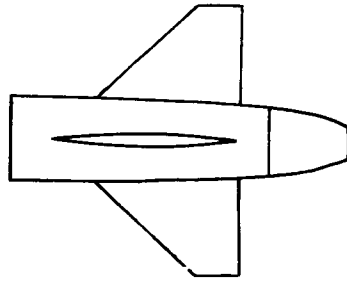


ALPHA
 ○ -2.99
 ◻ .01
 ◊ 6.01



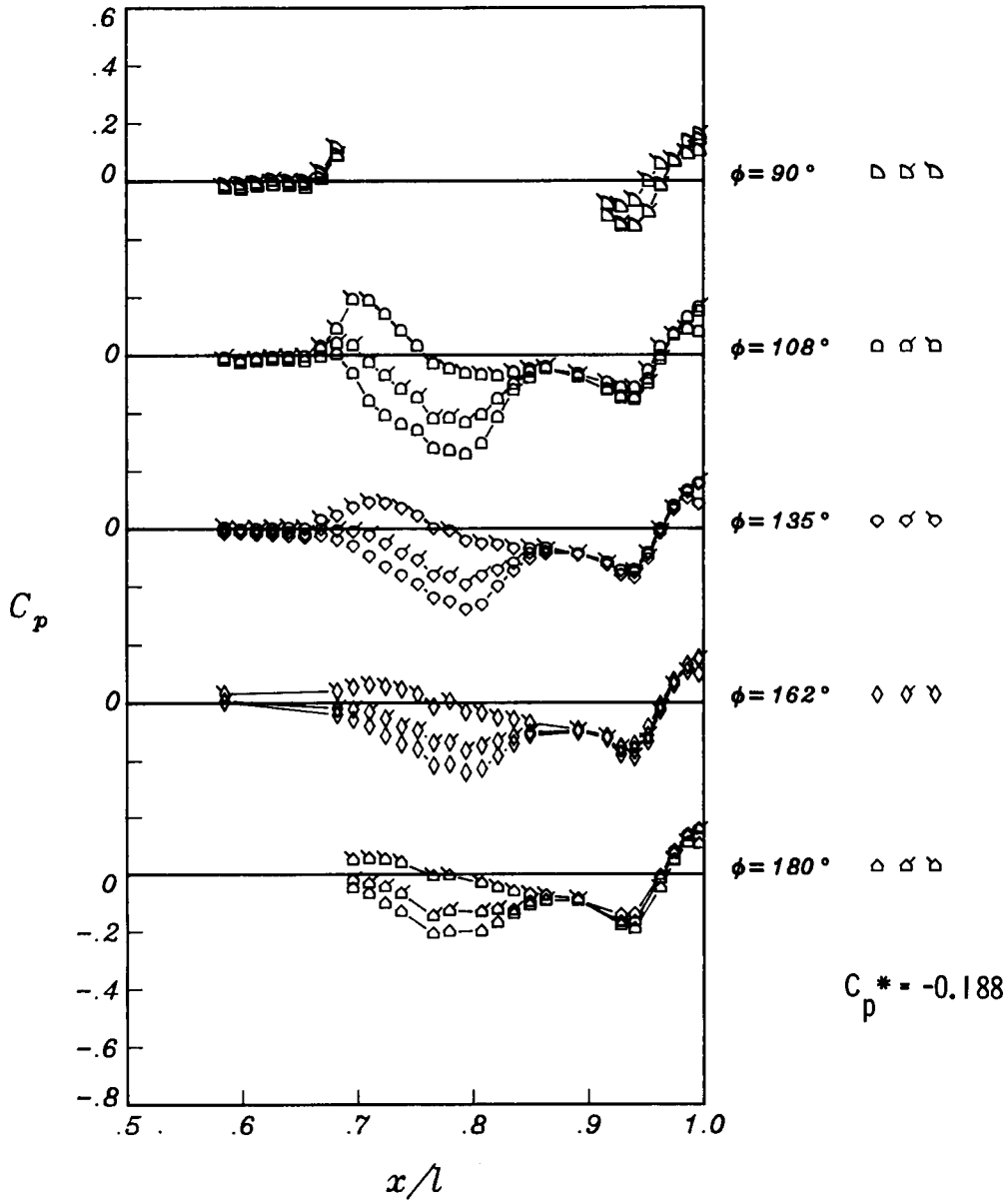
(c) $M = 0.90$; $NPR = 1.119$.

Figure 13. Continued.



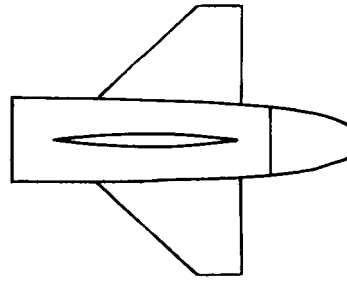
ALPHA

α 0
 α .01
 α 6.01

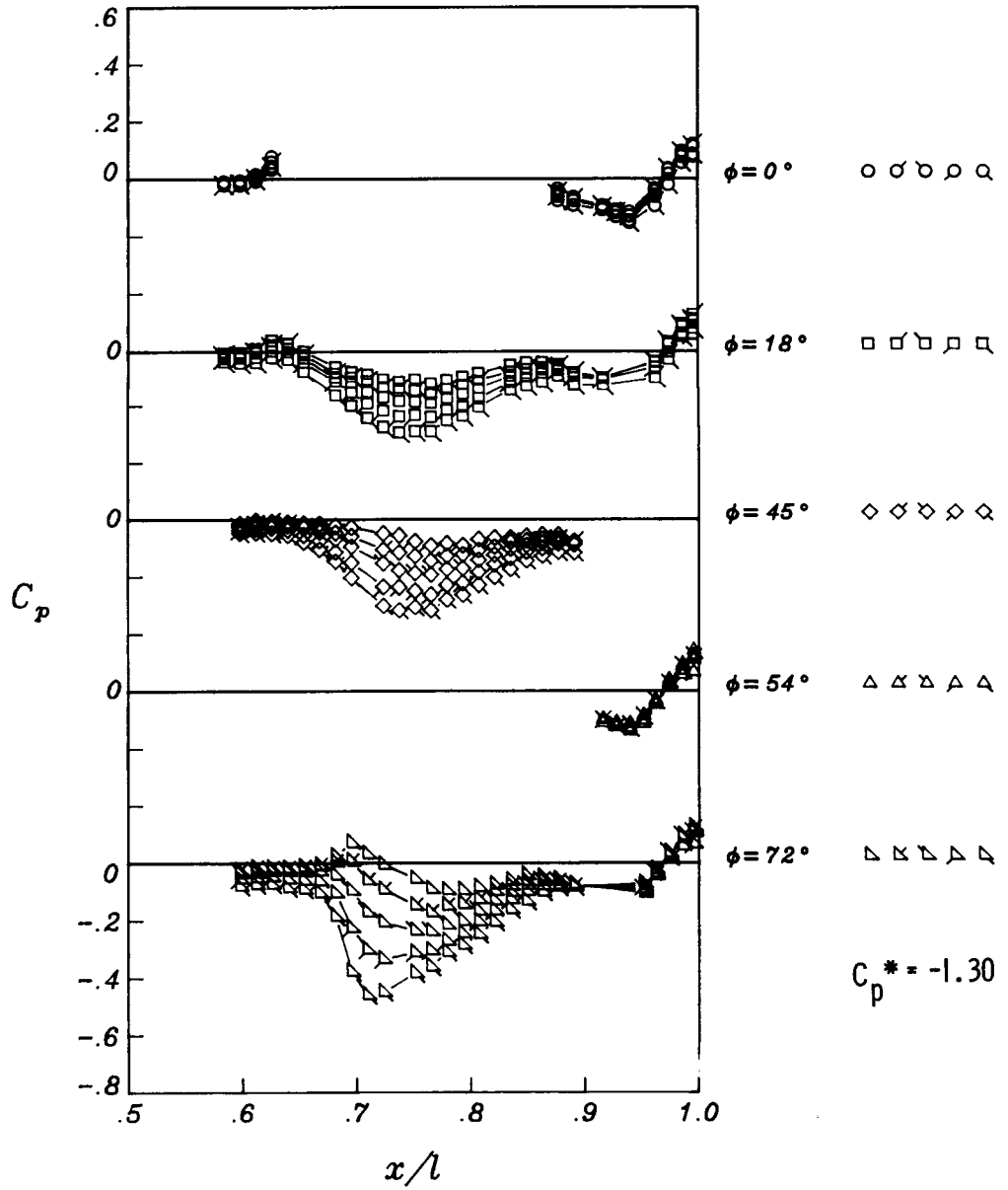


(c) Concluded.

Figure 13. Continued.

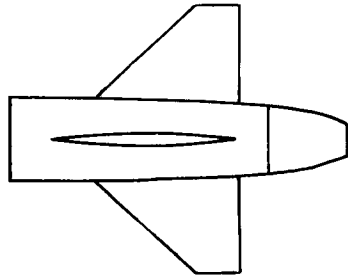


ALPHA	
○	-2.99
○	.01
○	3.02
○	6.02
○	9.01



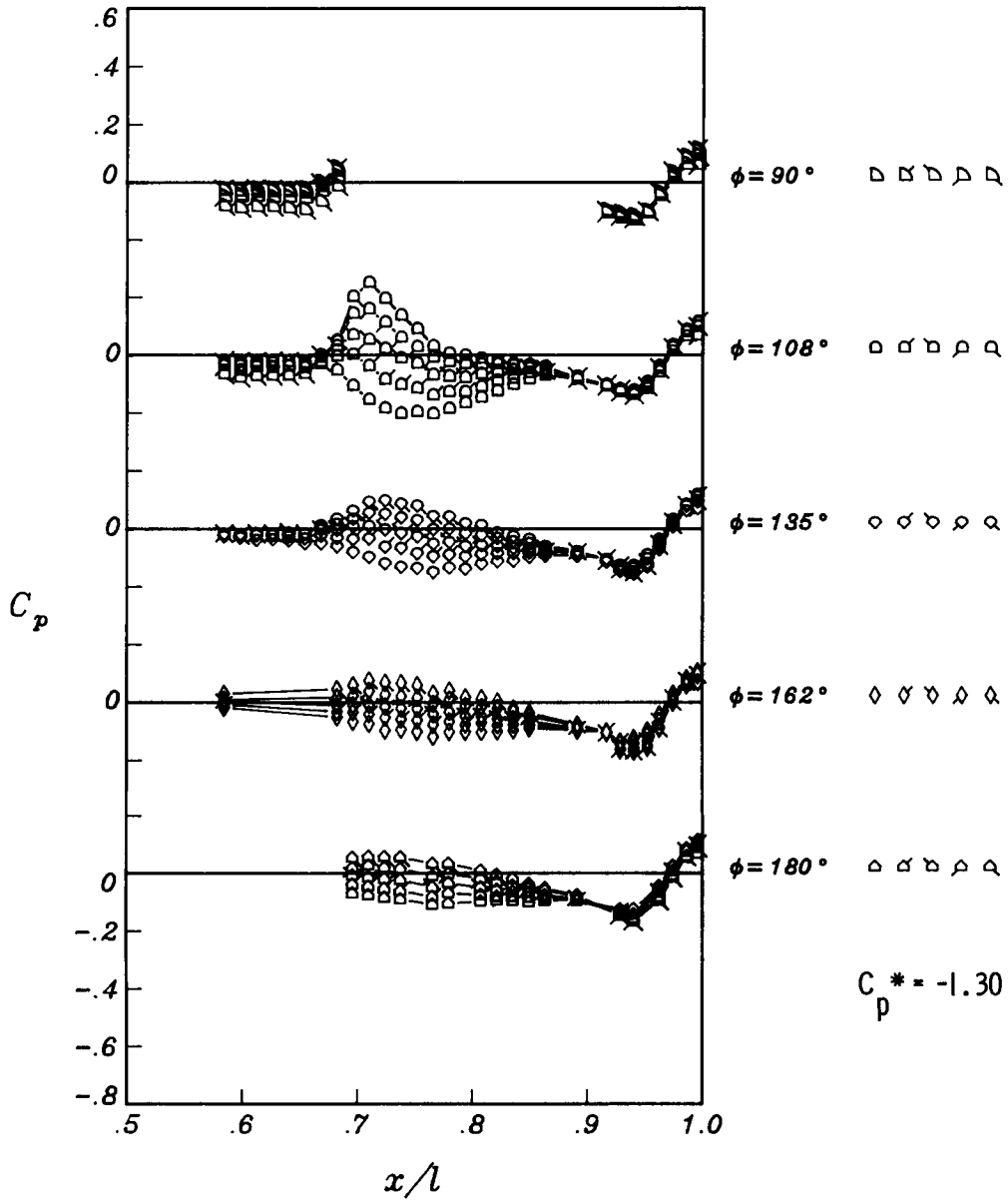
(d) $M = 0.60$; $NPR = 1.056$.

Figure 13. Continued.



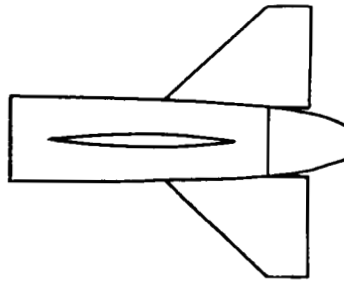
ALPHA

- o -2.99
- o .01
- o 3.02
- o 6.02
- o 9.01

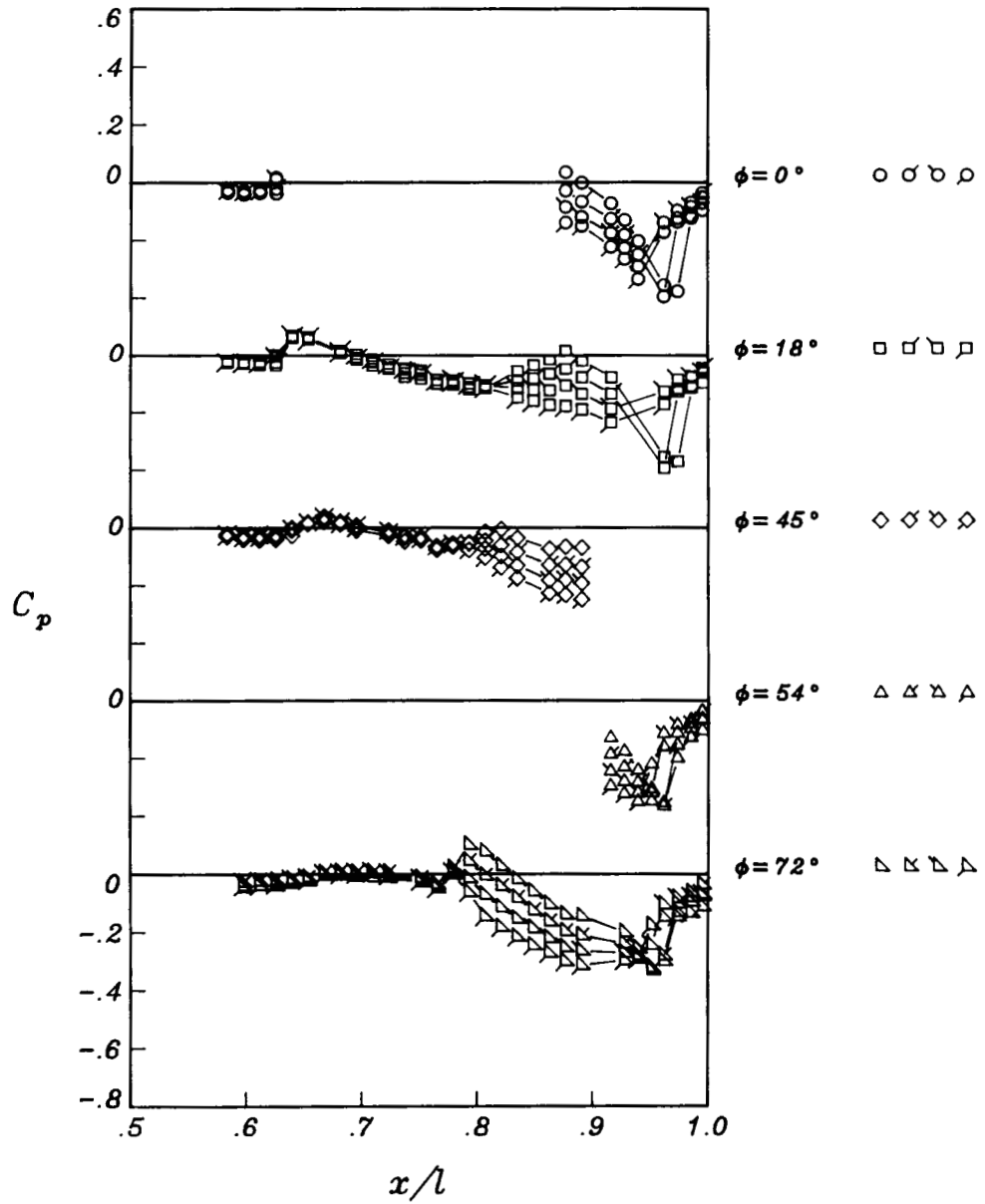


(d) Concluded.

Figure 13. Concluded.

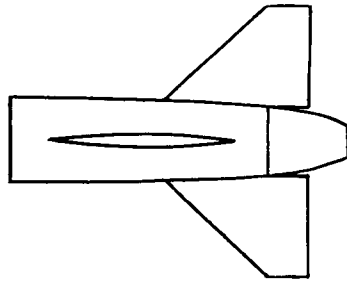


ALPHA	
○	-2.98
◊	.02
◻	3.02
◻	5.99



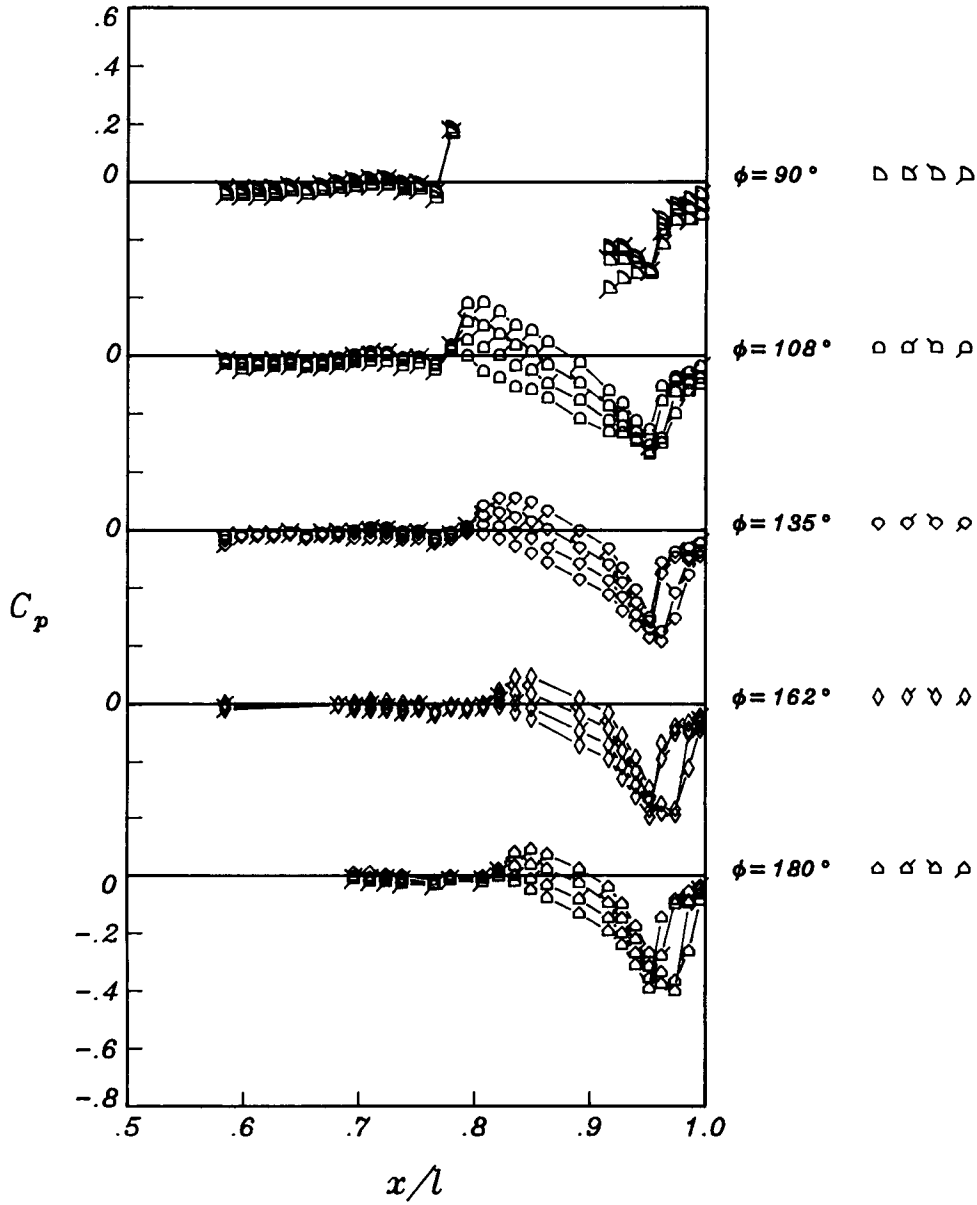
(a) $M = 1.20$; NPR = 1.006.

Figure 14. Effect of angle of attack on nozzle/afterbody pressures for body with horizontal tails in aft locatic and vertical tail in forward location.



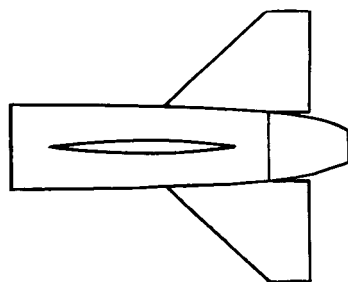
ALPHA

- -2.98
- .02
- 3.02
- 5.99

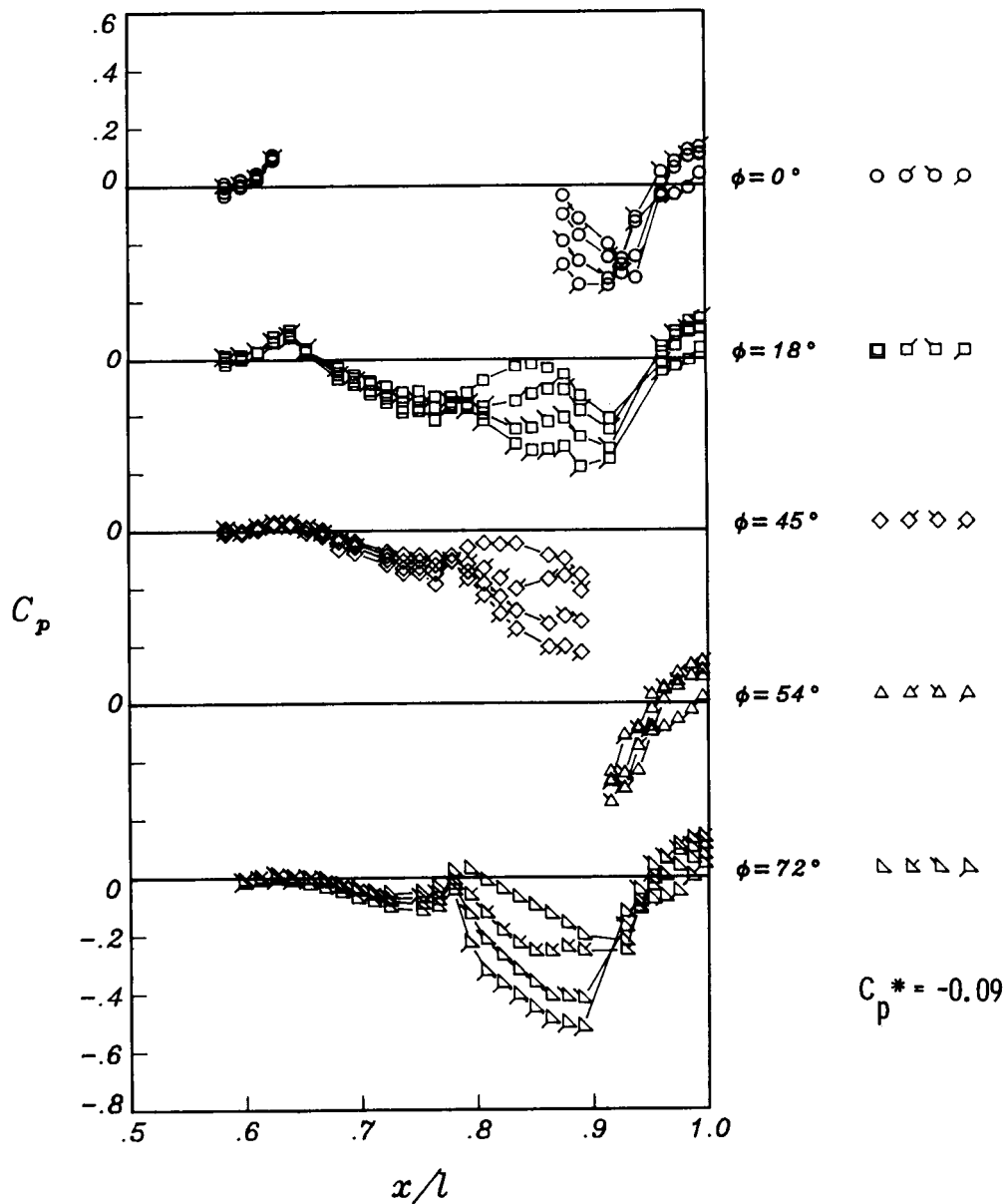


(a) Concluded.

Figure 14. Continued.

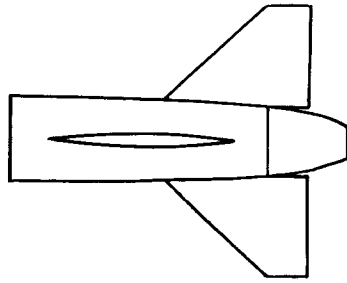


ALPHA	
○	-2.98
◊	.02
◐	3.02
◑	5.99



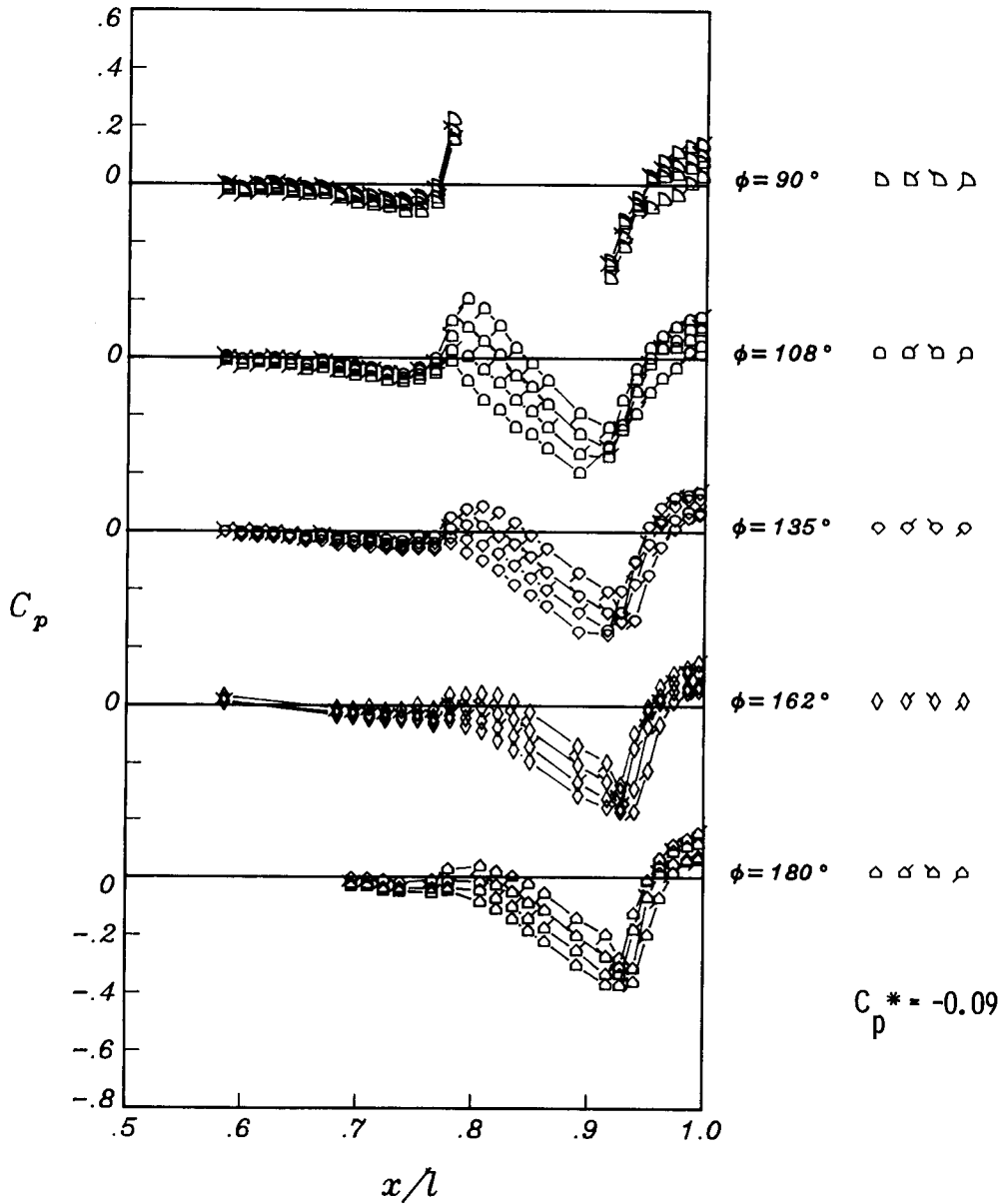
(b) $M = 0.95$; $NPR = 1.096$.

Figure 14. Continued.



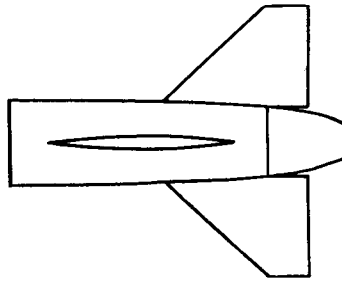
ALPHA

- -2.98
- ◊ .02
- ◐ 3.02
- ◑ 5.99



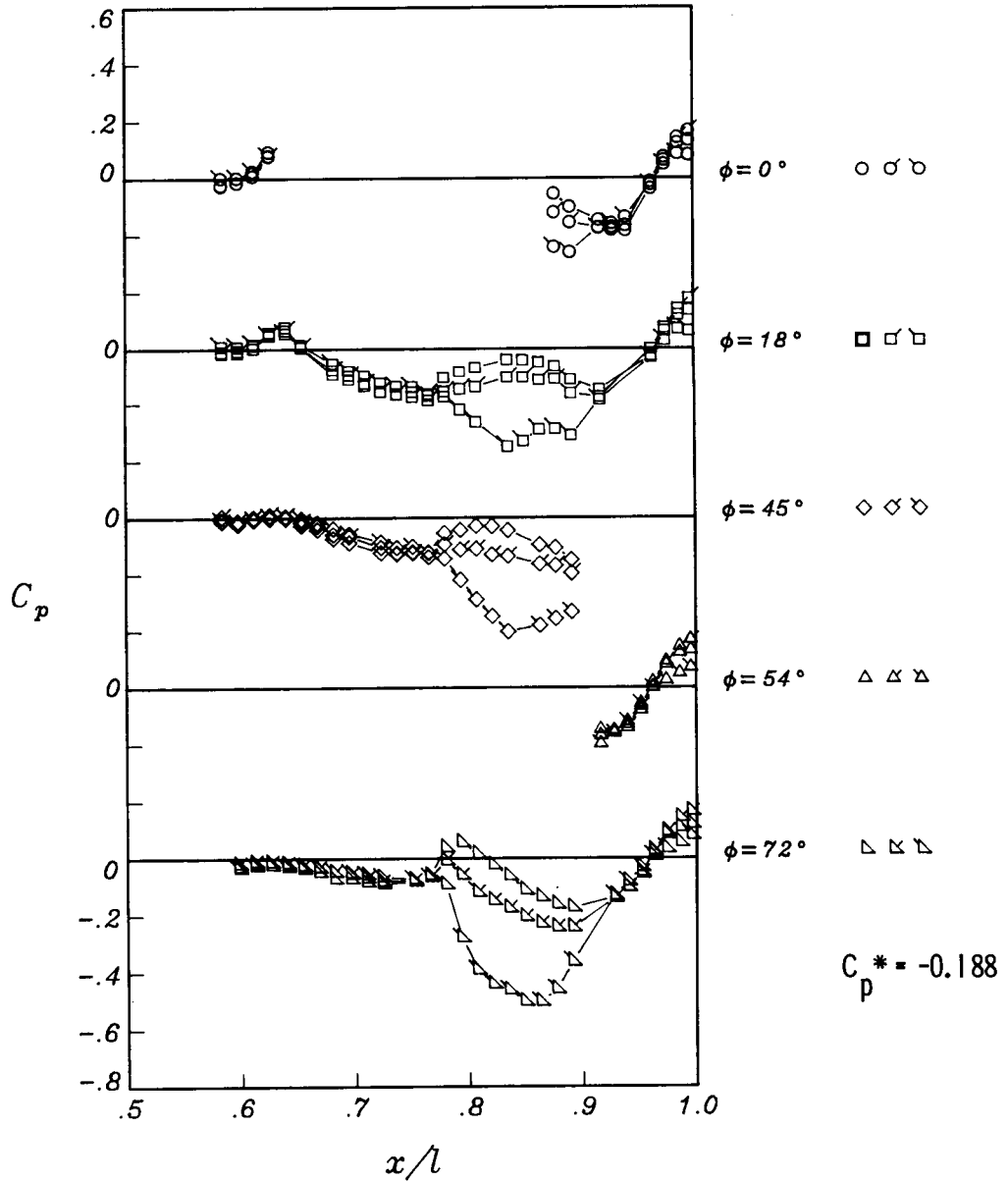
(b) Concluded.

Figure 14. Continued.



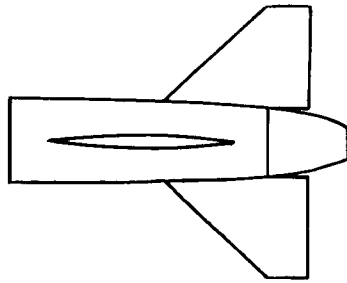
ALPHA

- -2.98
- ◊ .02
- ◻ 6.03

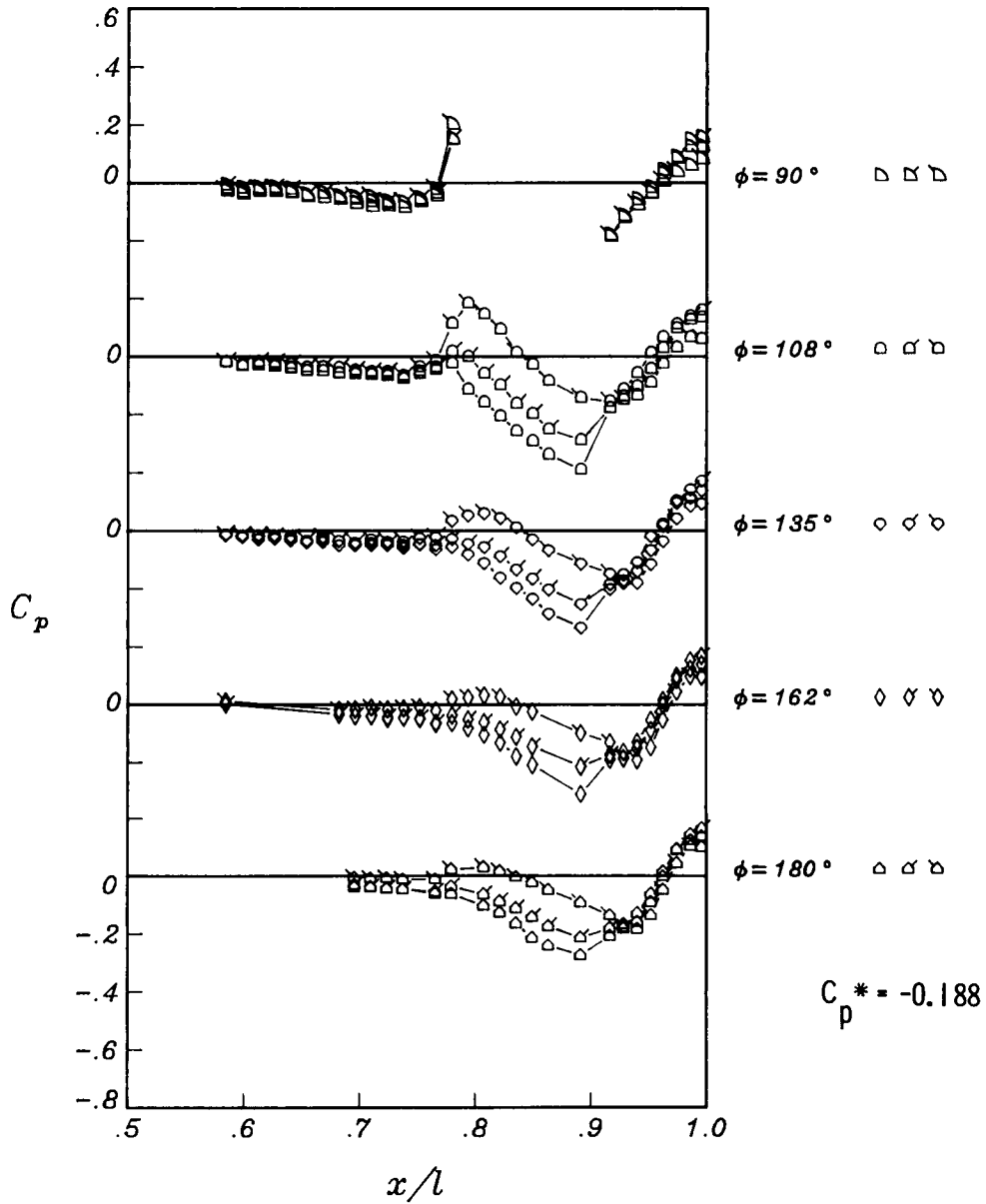


(c) $M = 0.90$; $NPR = 1.098$.

Figure 14. Continued.

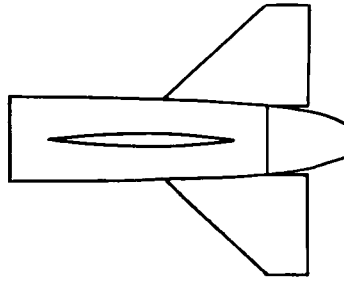


ALPHA
 ○ -2.98
 ◊ .02
 ◡ 6.03

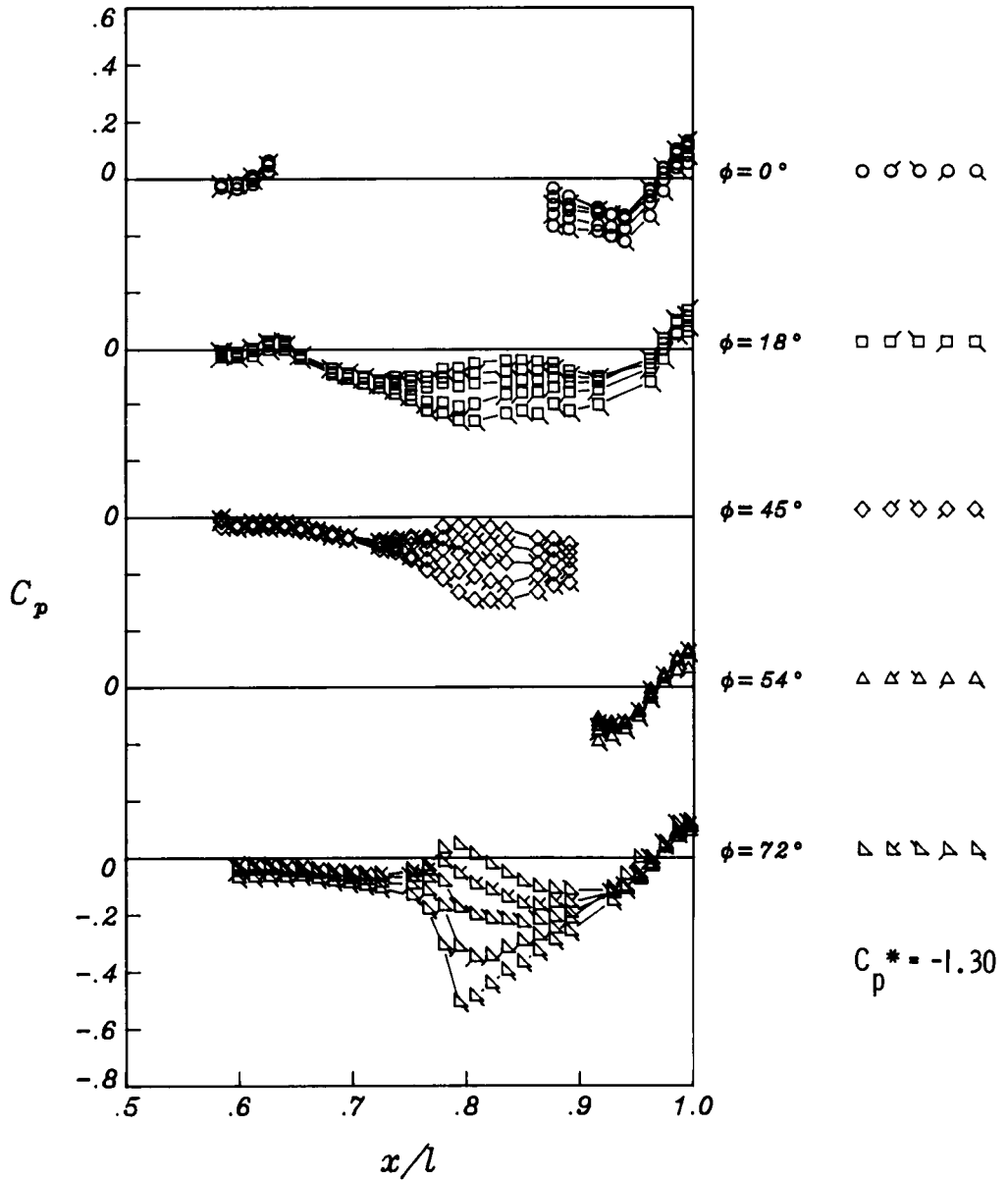


(c) Concluded.

Figure 14. Continued.

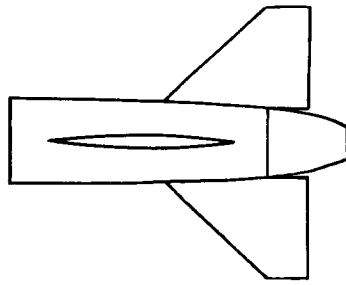


ALPHA	
○	-2.98
○	.02
○	3.03
○	6.00
○	9.03

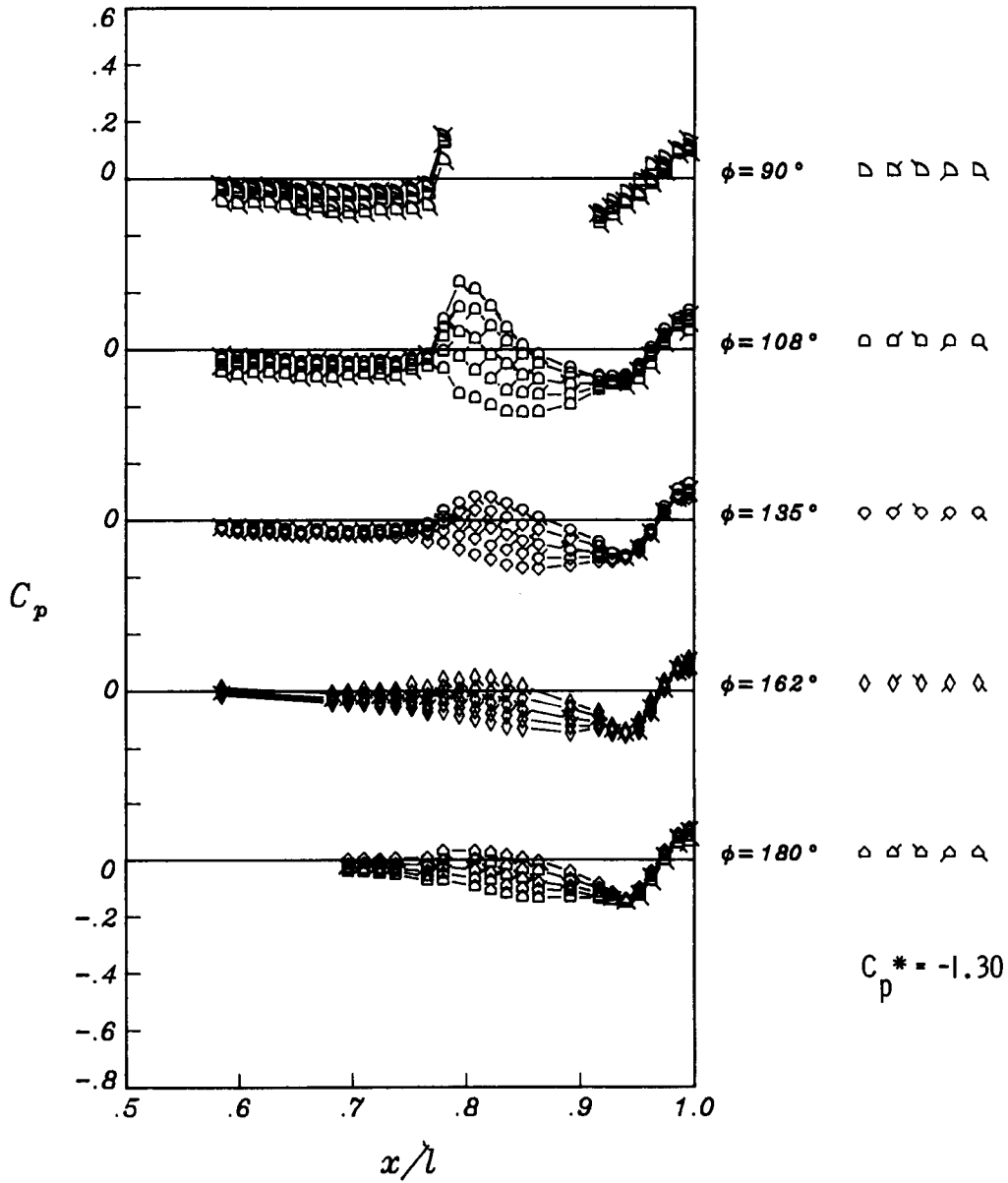


(d) $M = 0.60$; $NPR = 1.049$.

Figure 14. Continued.

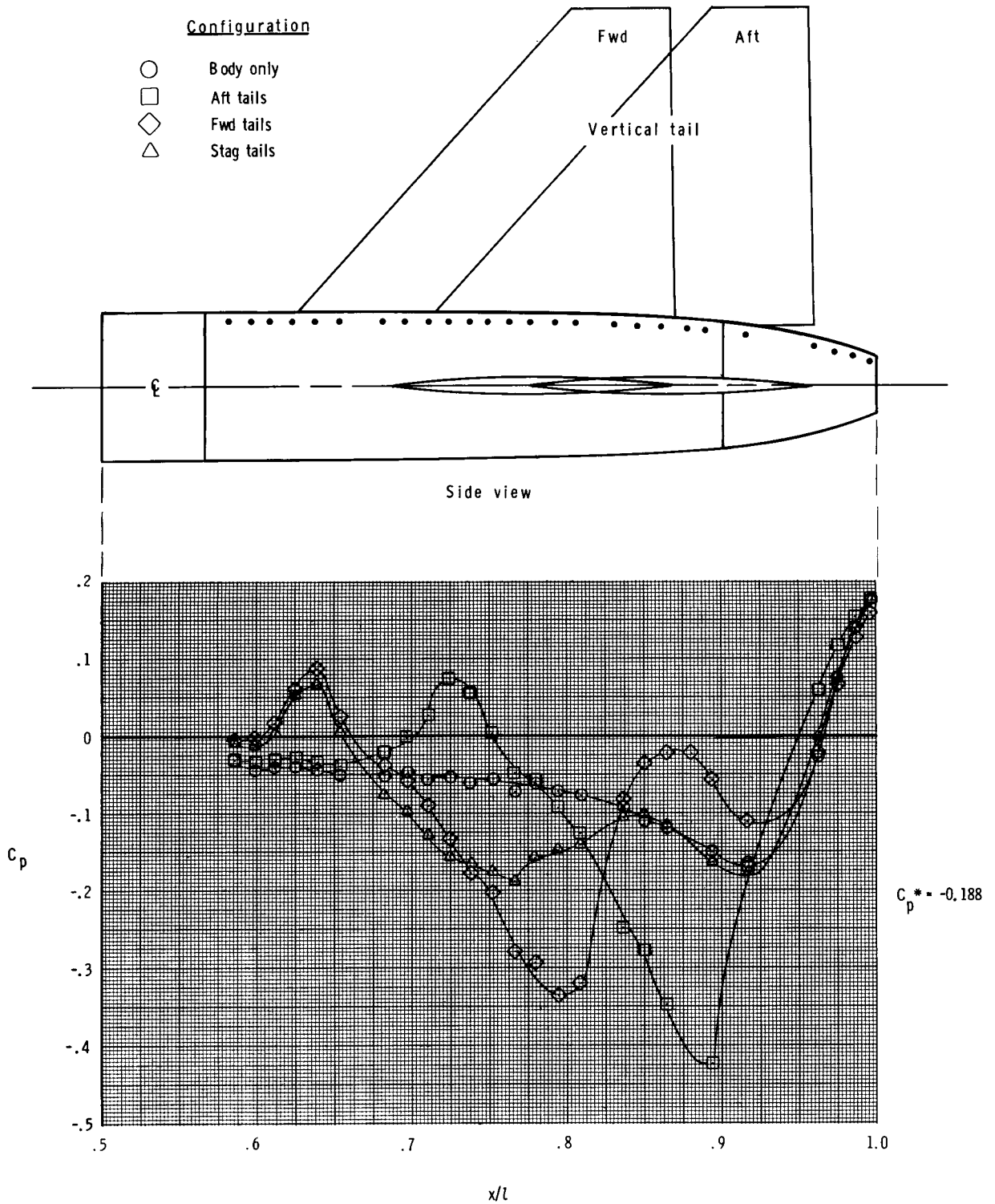


<i>ALPHA</i>	
○	-2.98
○	.02
○	3.03
○	6.00
○	9.03



(d) Concluded.

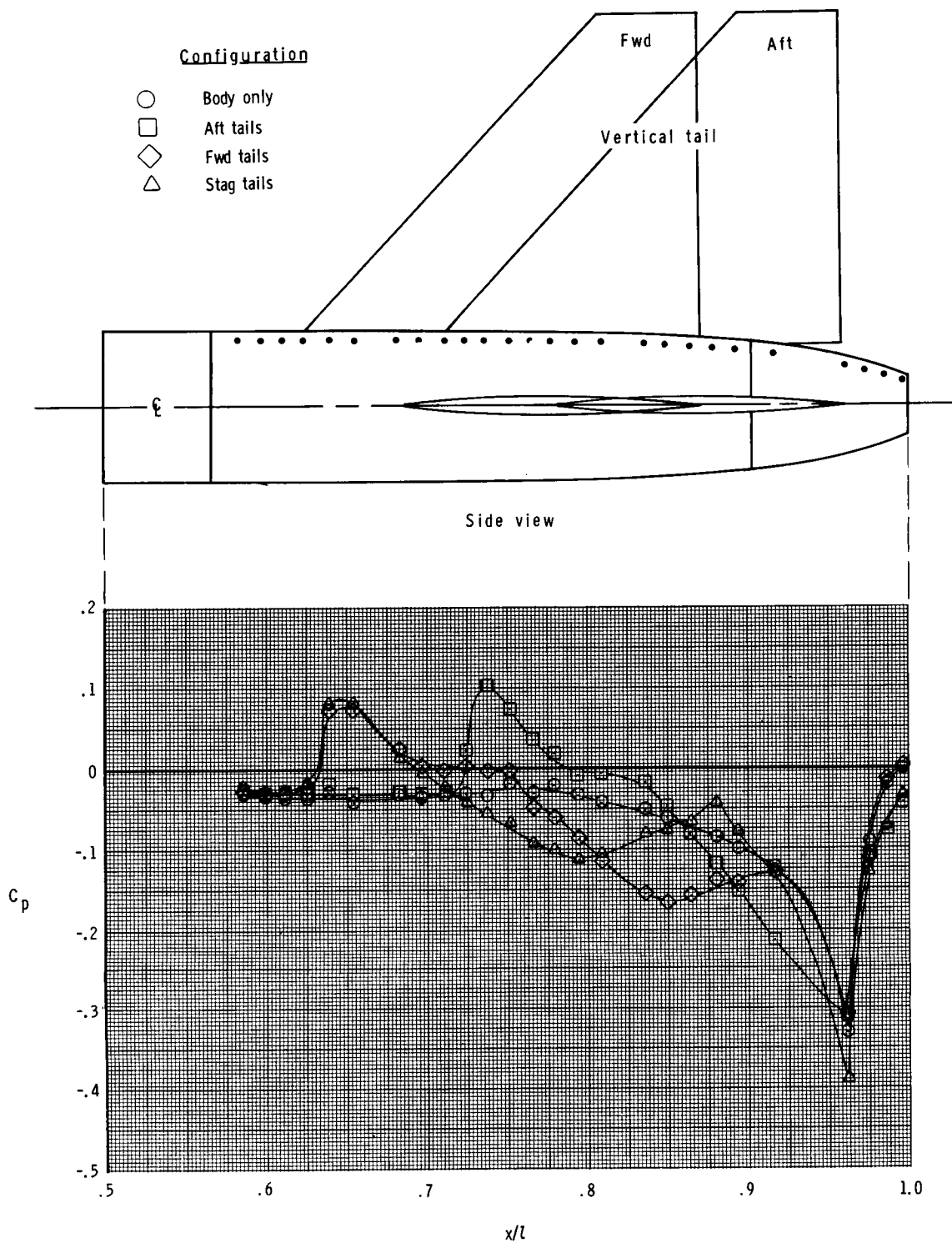
Figure 14. Concluded.



(a) $M = 0.90$.

Figure 15. Effect of empennage arrangement on nozzle/afterbody pressure coefficients at $NPR = 1.0$ and $\alpha = 0^\circ$ for $\phi = 18^\circ$.

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(b) $M = 1.20$.

Figure 15. Concluded.

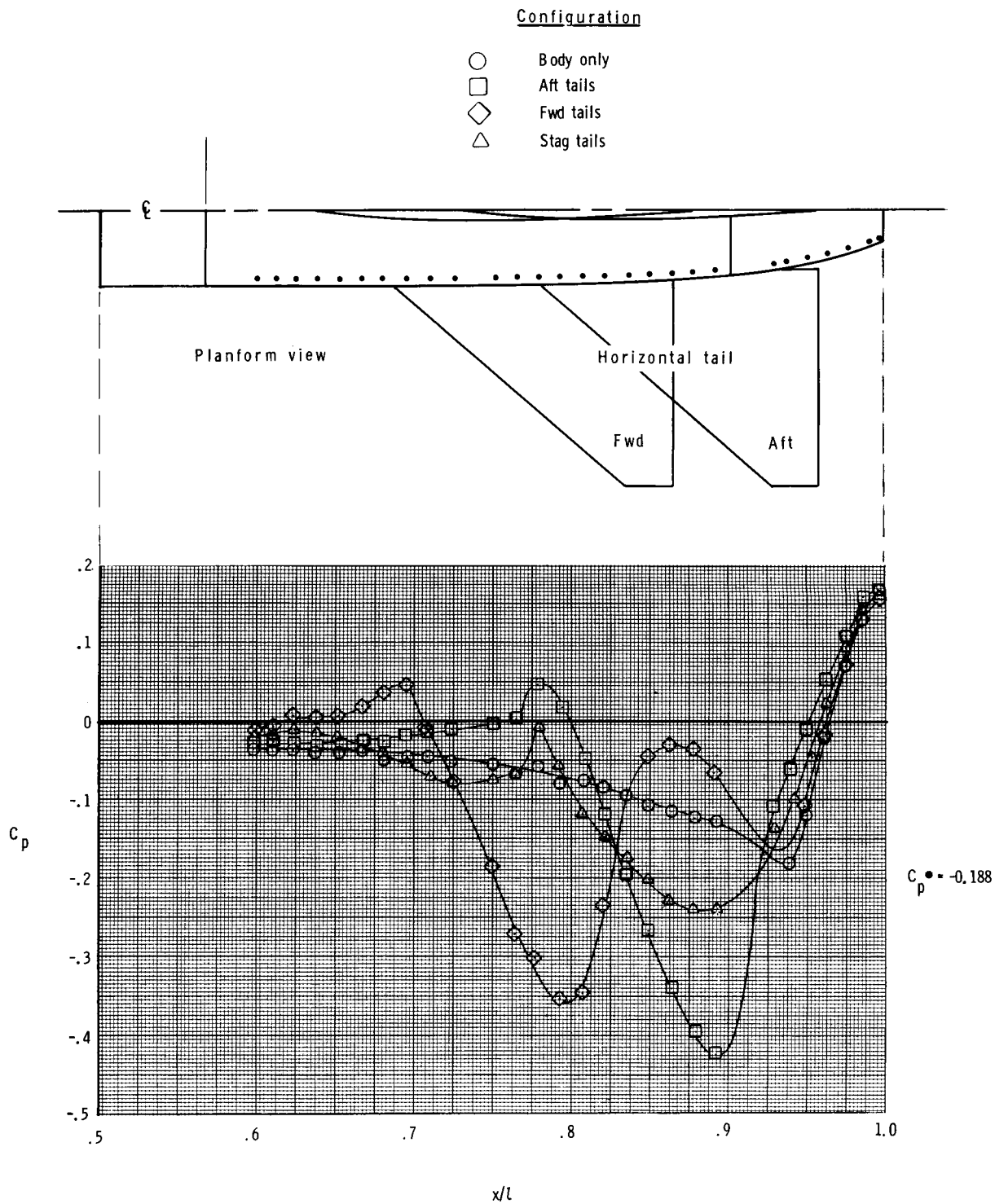
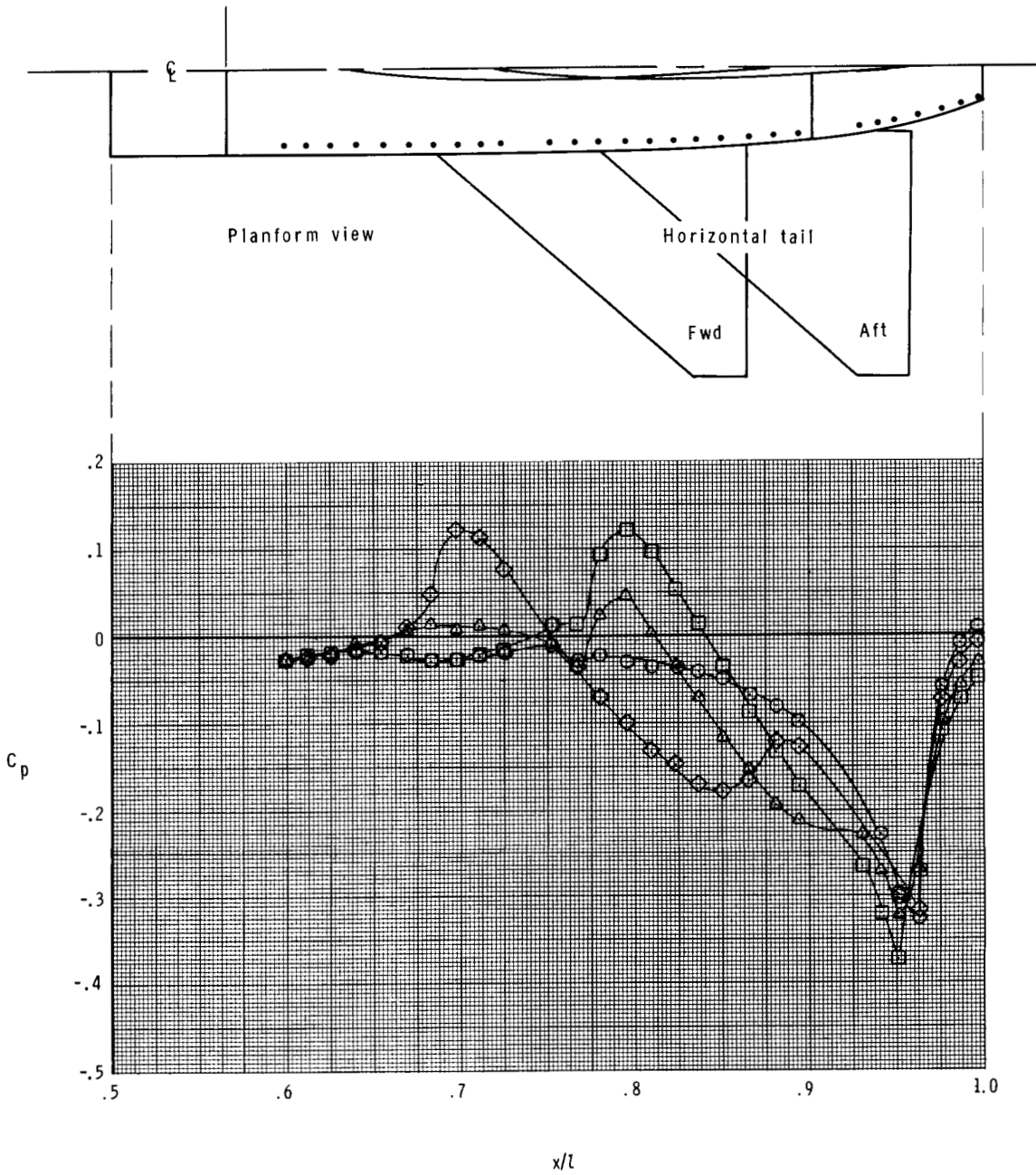


Figure 16. Effect of empennage arrangement on afterbody/nozzle pressure coefficients at $NPR = 1.0$ and $\alpha = 0^\circ$ for $\phi = 72^\circ$.

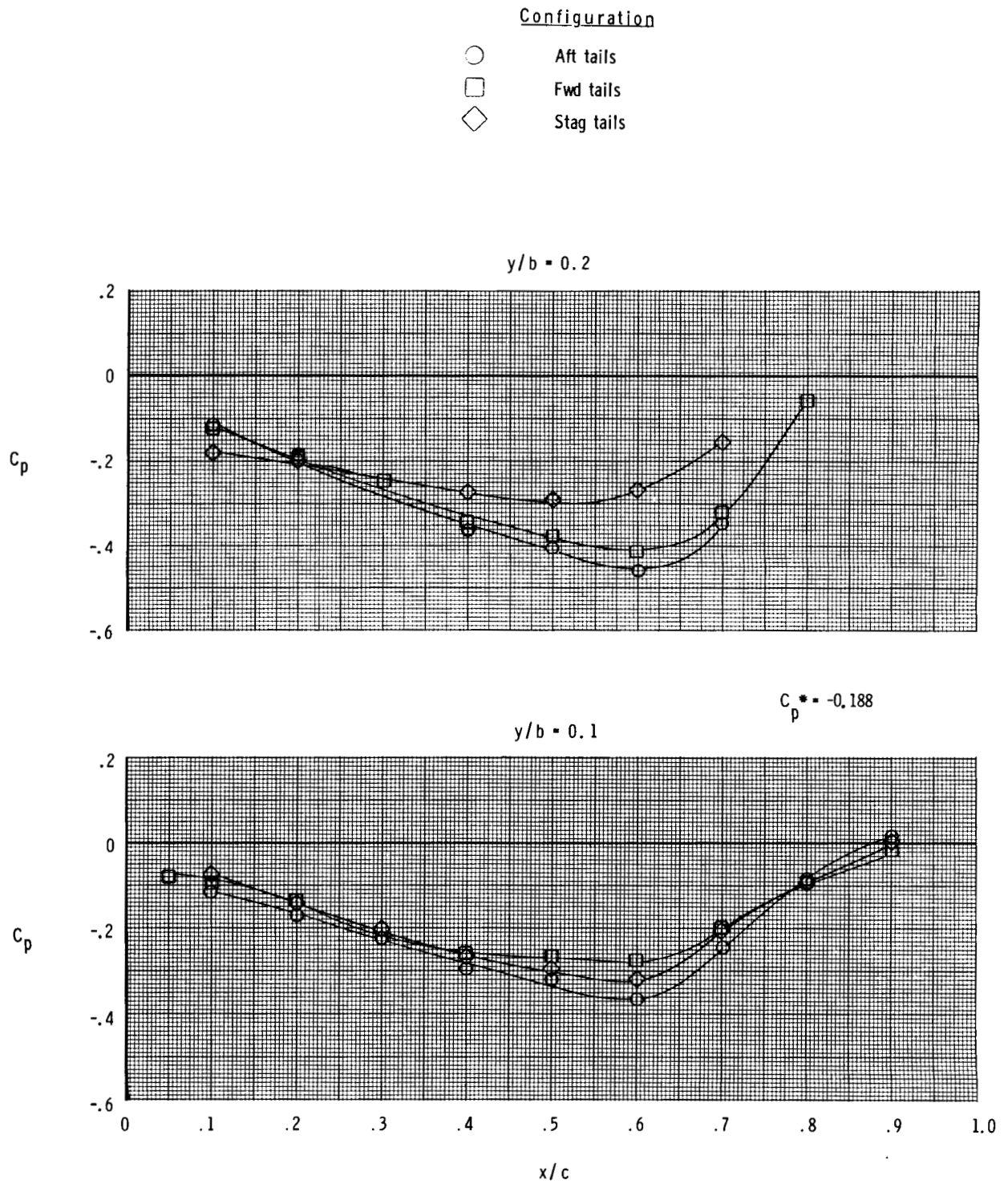
Configuration

- Body only
- Aft tails
- ◇ Fwd tails
- △ Stag tails



(b) $M = 1.20$.

Figure 16. Concluded.



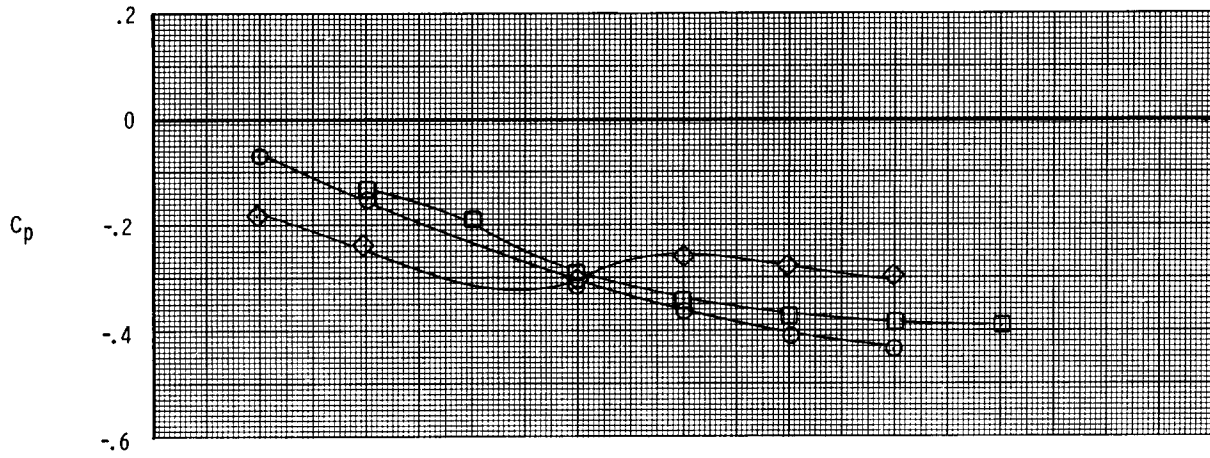
(a) $M = 0.90$.

Figure 17. Effect of empennage arrangement on horizontal tail pressure coefficients at $NPR = 1.0$ and $\alpha =$

Configuration

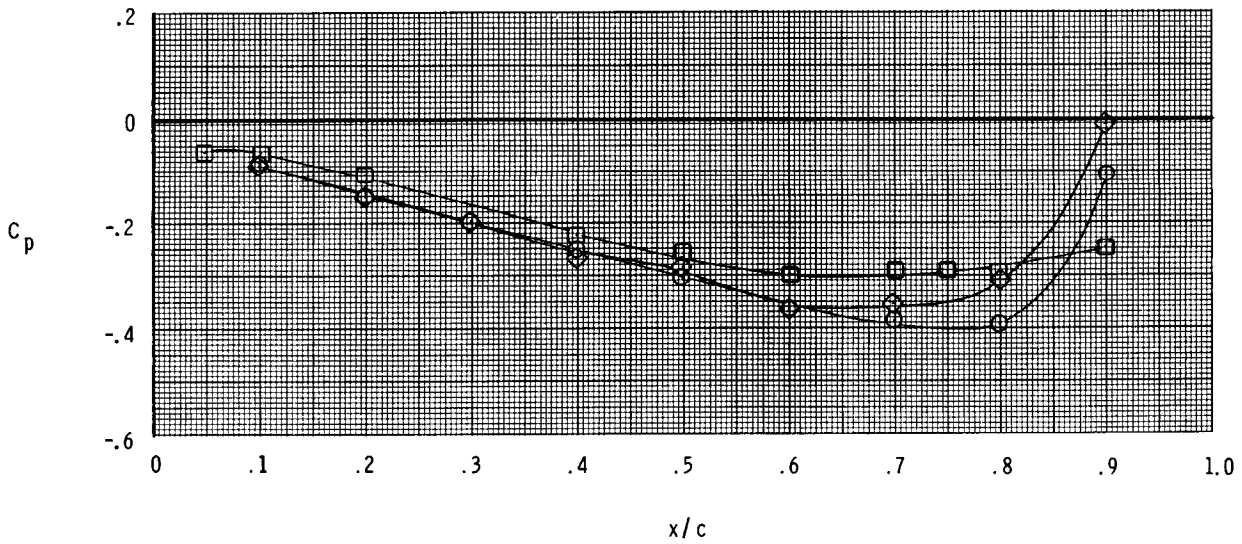
- Aft tails
- Fwd tails
- ◇ Stag tails

$y/b = 0.2$



$C_p^{**} = -0.09$

$y/b = 0.1$

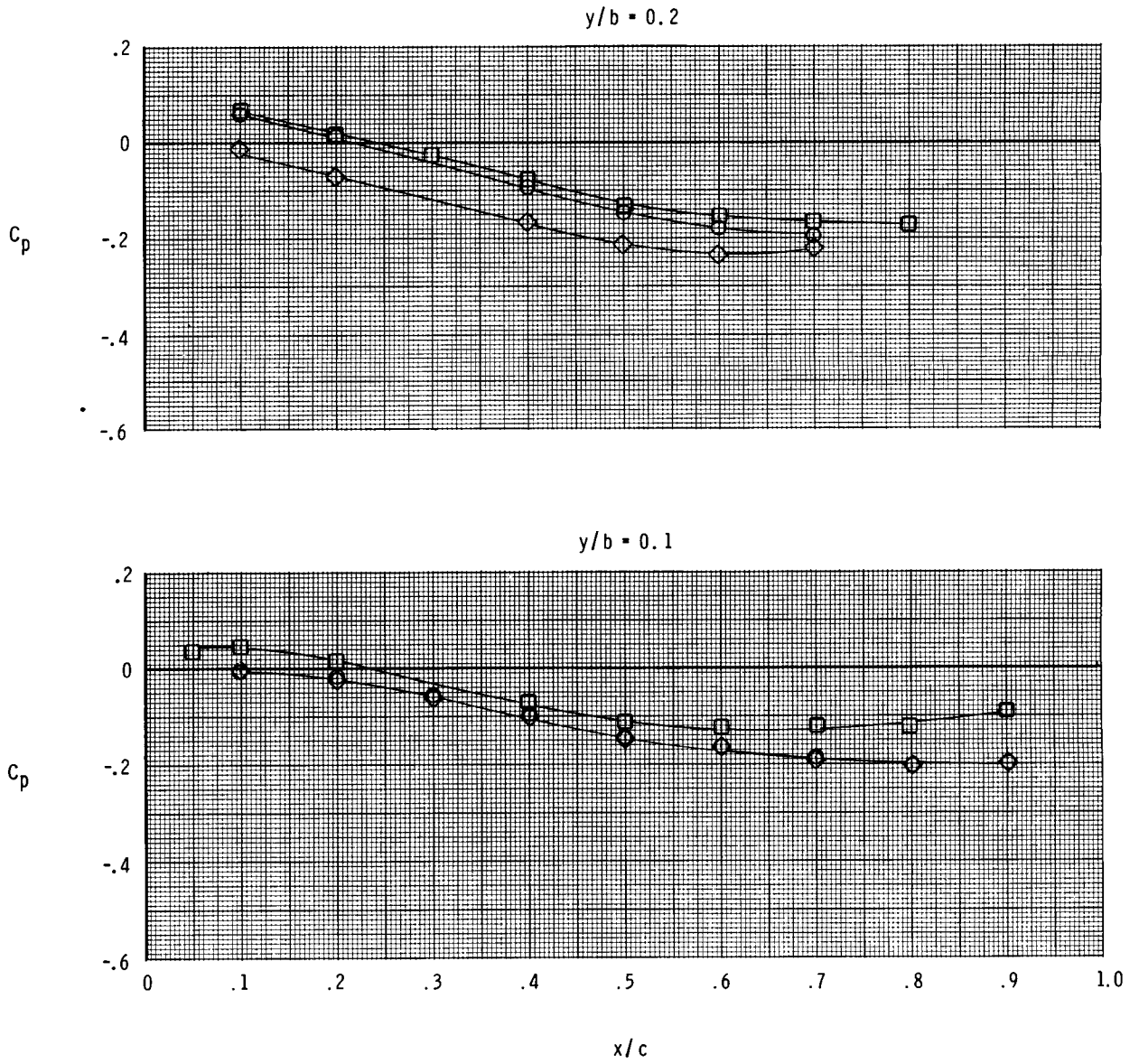


(b) $M = 0.95$.

Figure 17. Continued.

Configuration

- Aft tails
- Fwd tails
- ◇ Stag tails



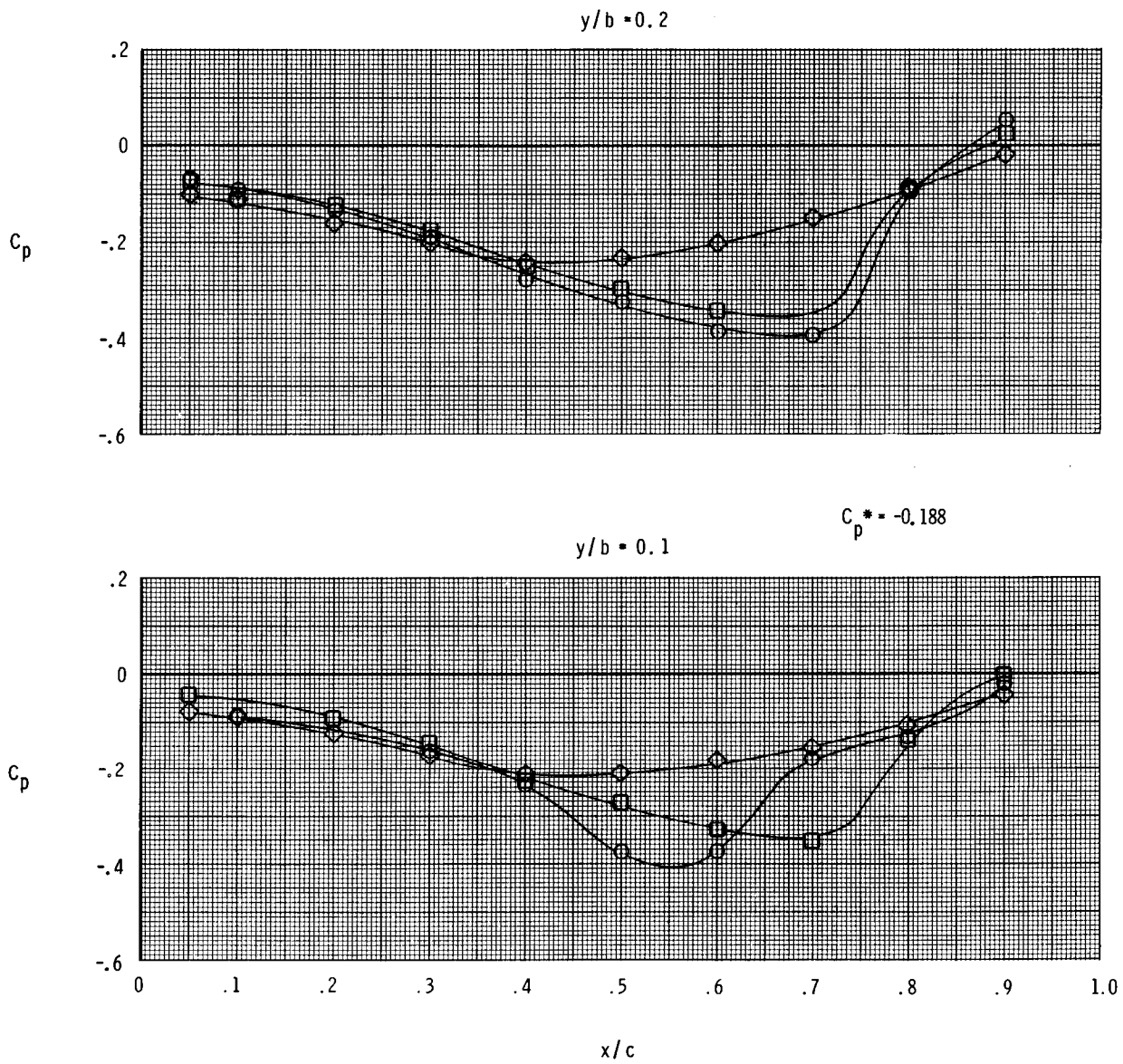
(c) $M = 1.20$.

Figure 17. Concluded.

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Configuration

- Aft tails
- Fwd tails
- ◇ Stag tails

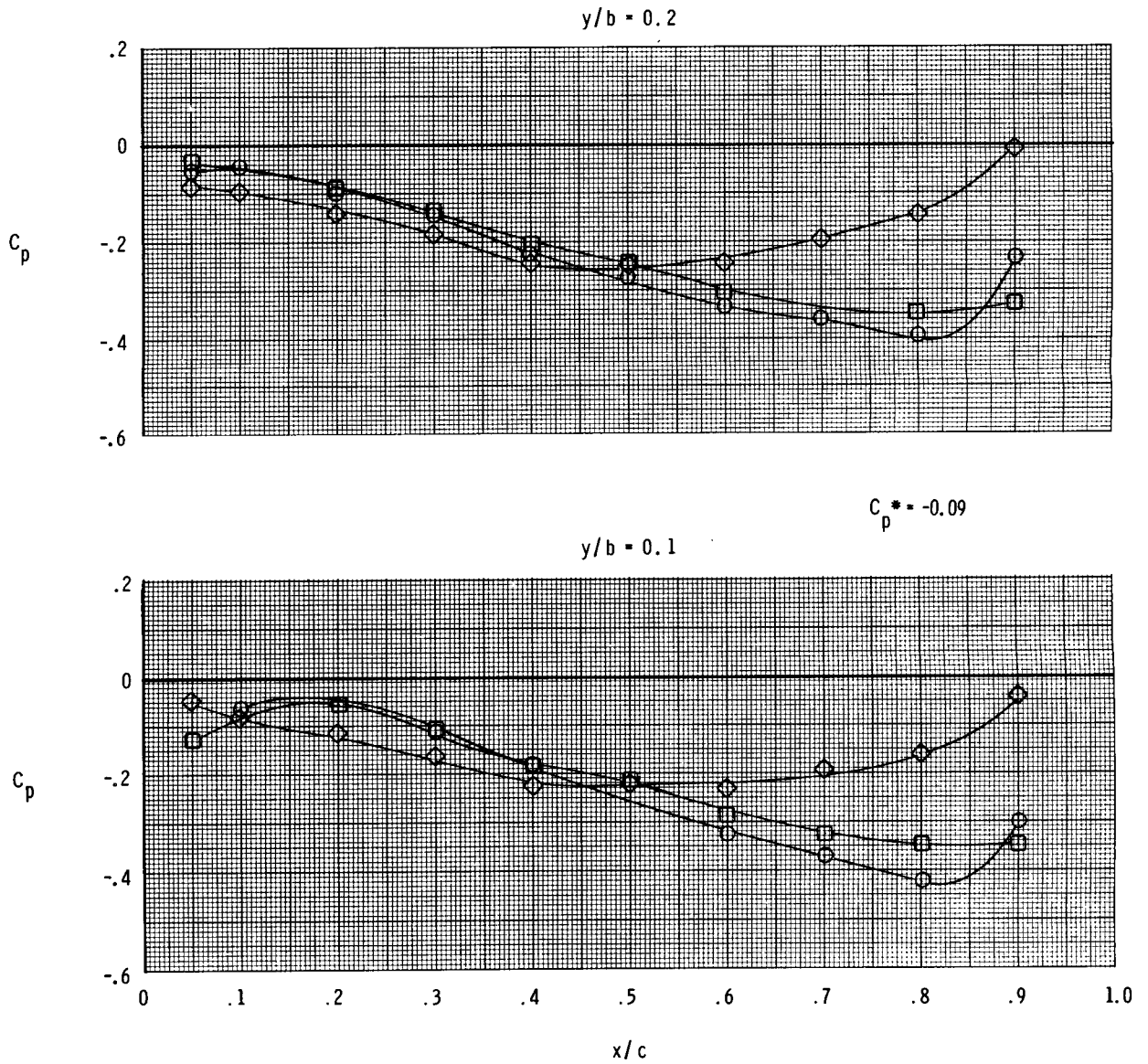


(a) $M = 0.90$.

Figure 18. Effect of empennage arrangement on vertical tail pressure coefficients at $NPR = 1.0$ and $\alpha = 0^\circ$.

Configuration

- Aft tails
- Fwd tails
- ◇ Stag tails

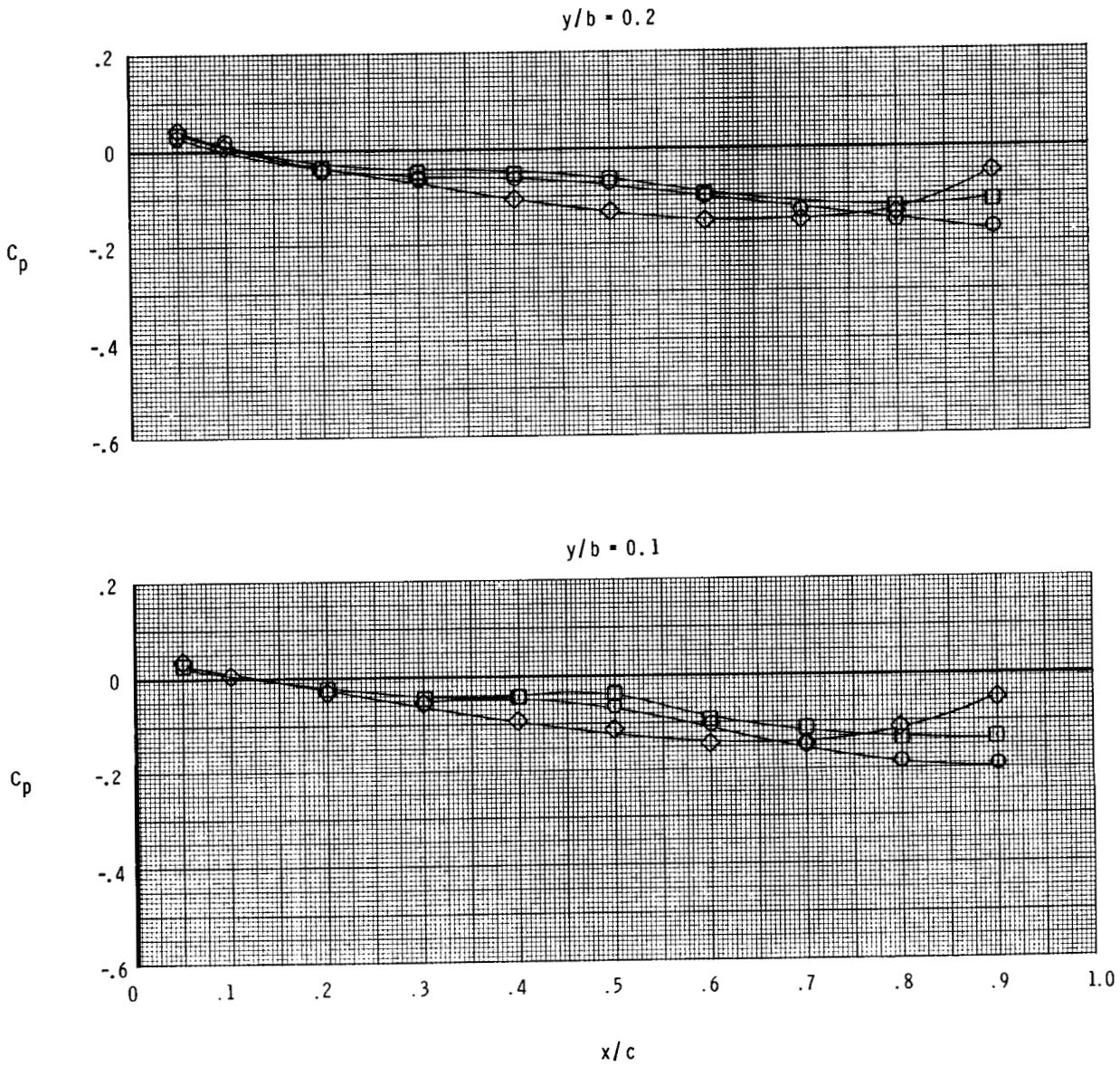


(b) $M = 0.95$.

Figure 18. Continued.

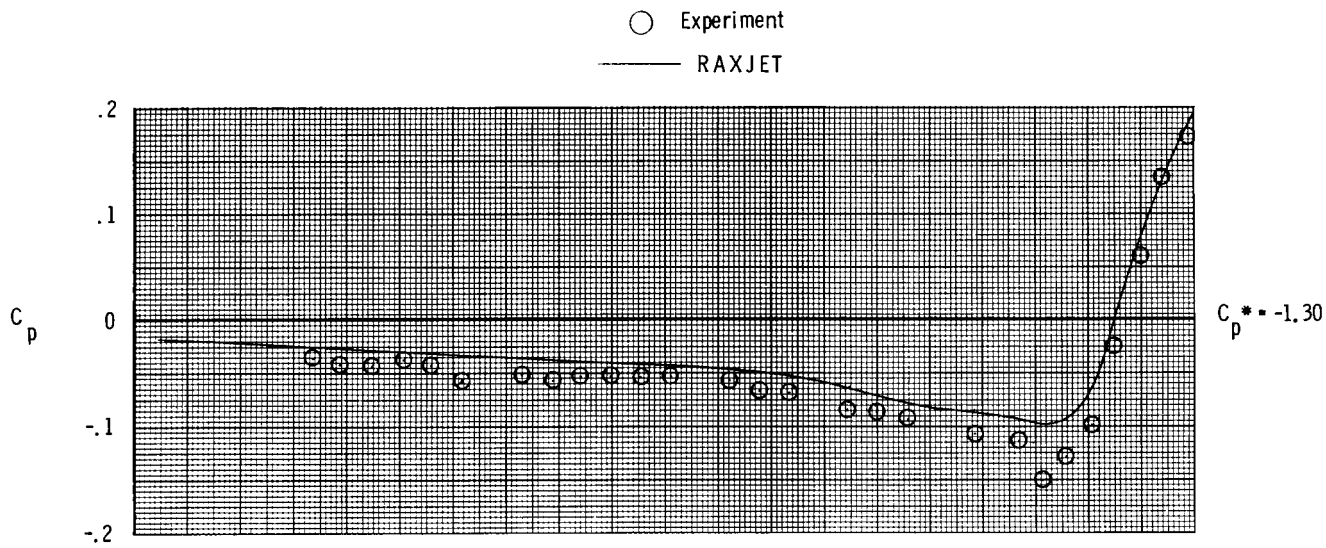
Configuration

- Aft tails
- Fwd tails
- ◇ Stag tails

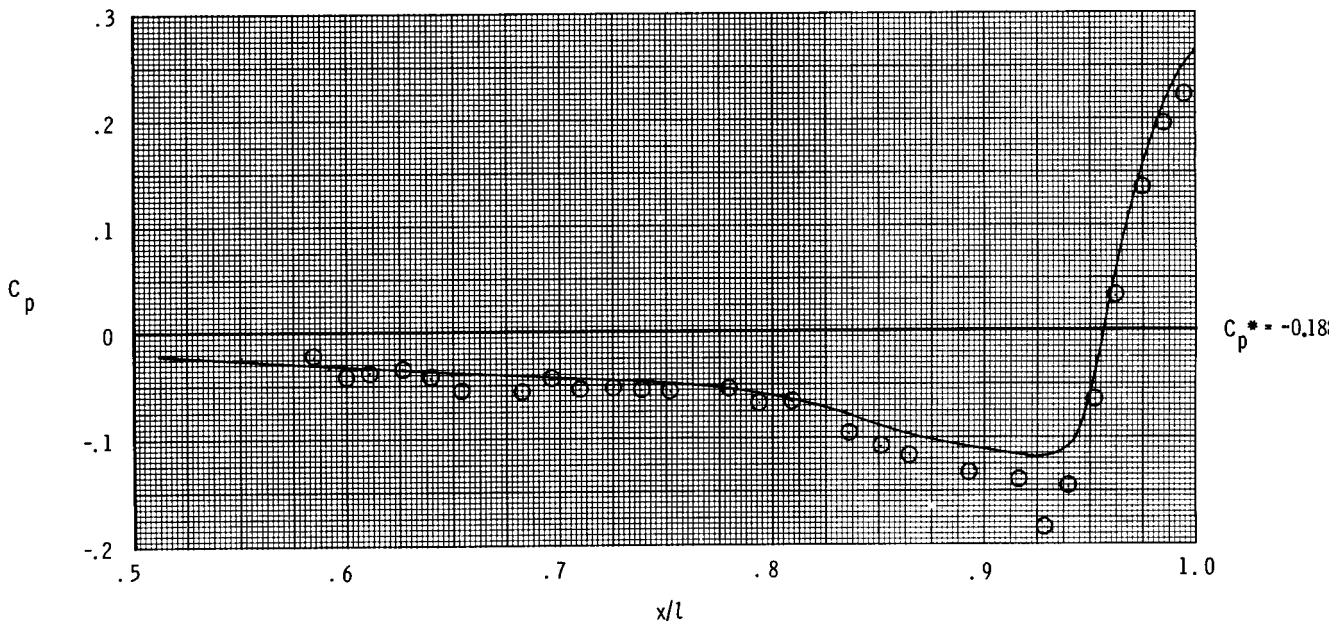


(c) $M = 1.20$.

Figure 18. Concluded.

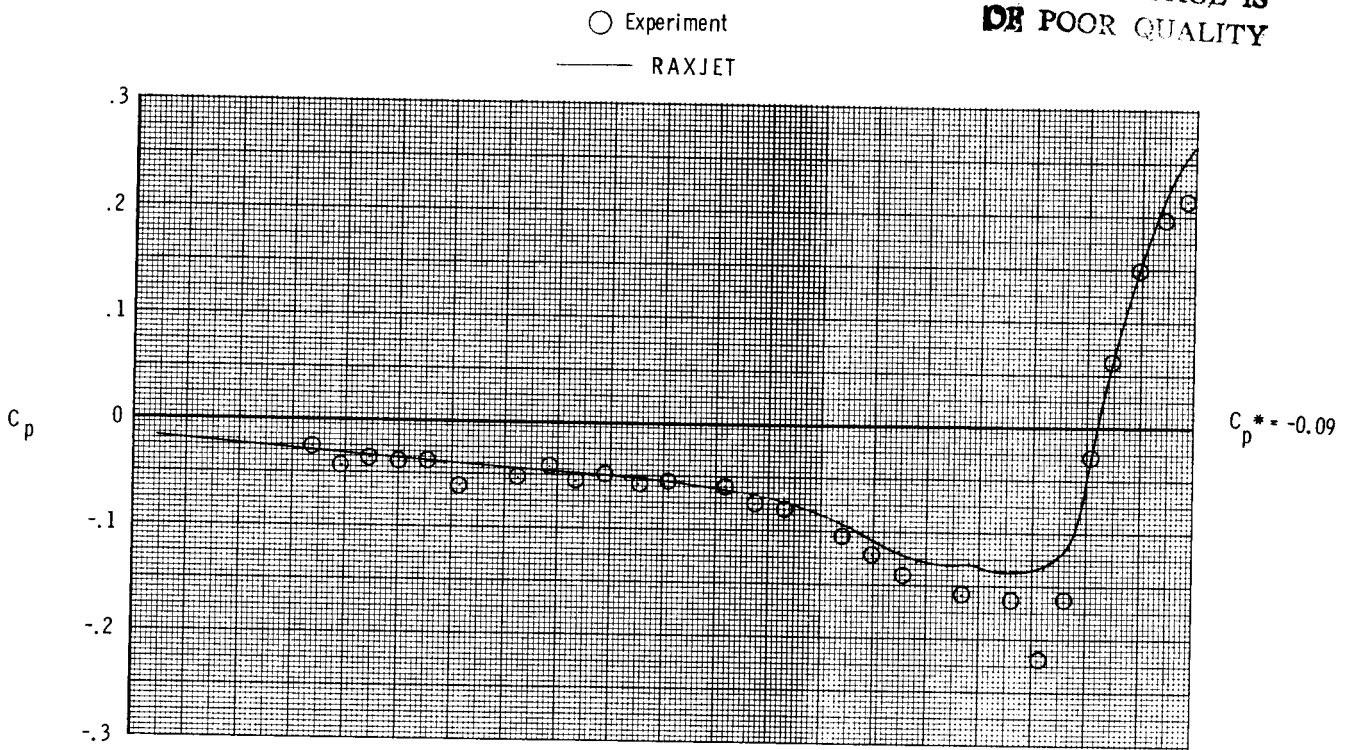


(a) $M = 0.60$; $NPR = 3.0$.

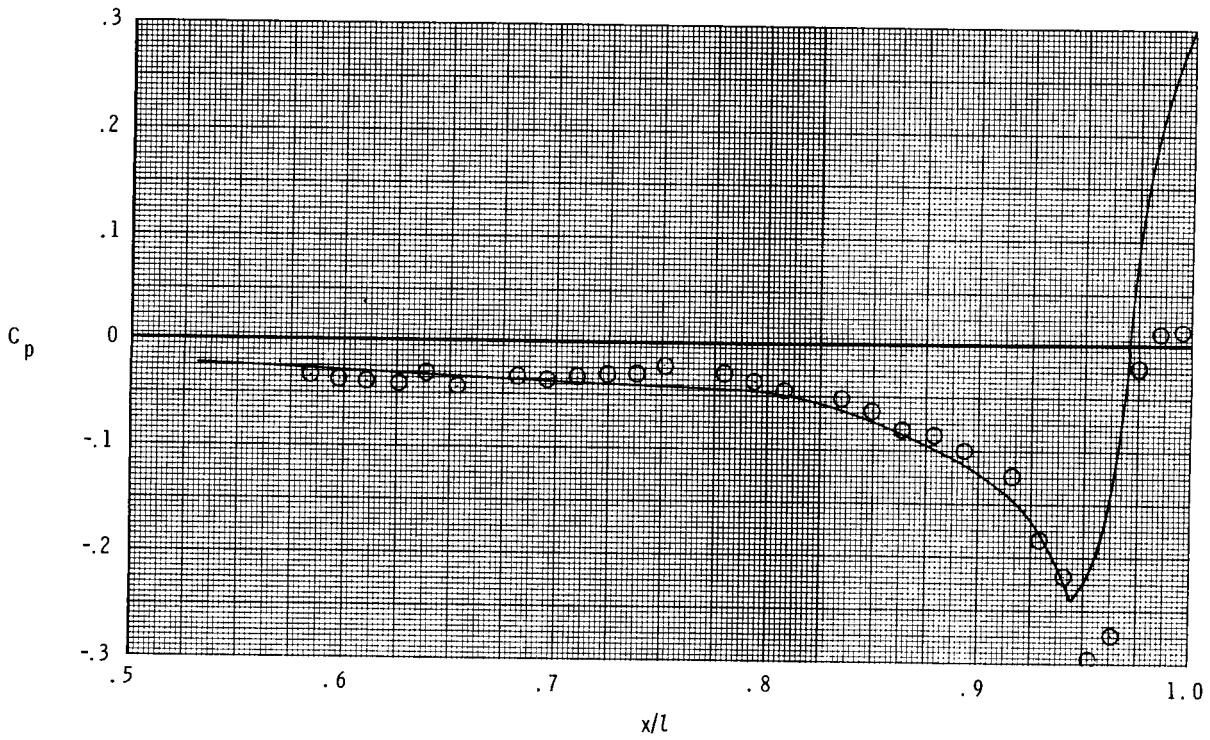


(b) $M = 0.90$; $NPR = 5.0$.

Figure 19. Comparison of calculated and experimental pressure coefficients at $\alpha = 0^\circ$ on nozzle/afterbody for body alone.

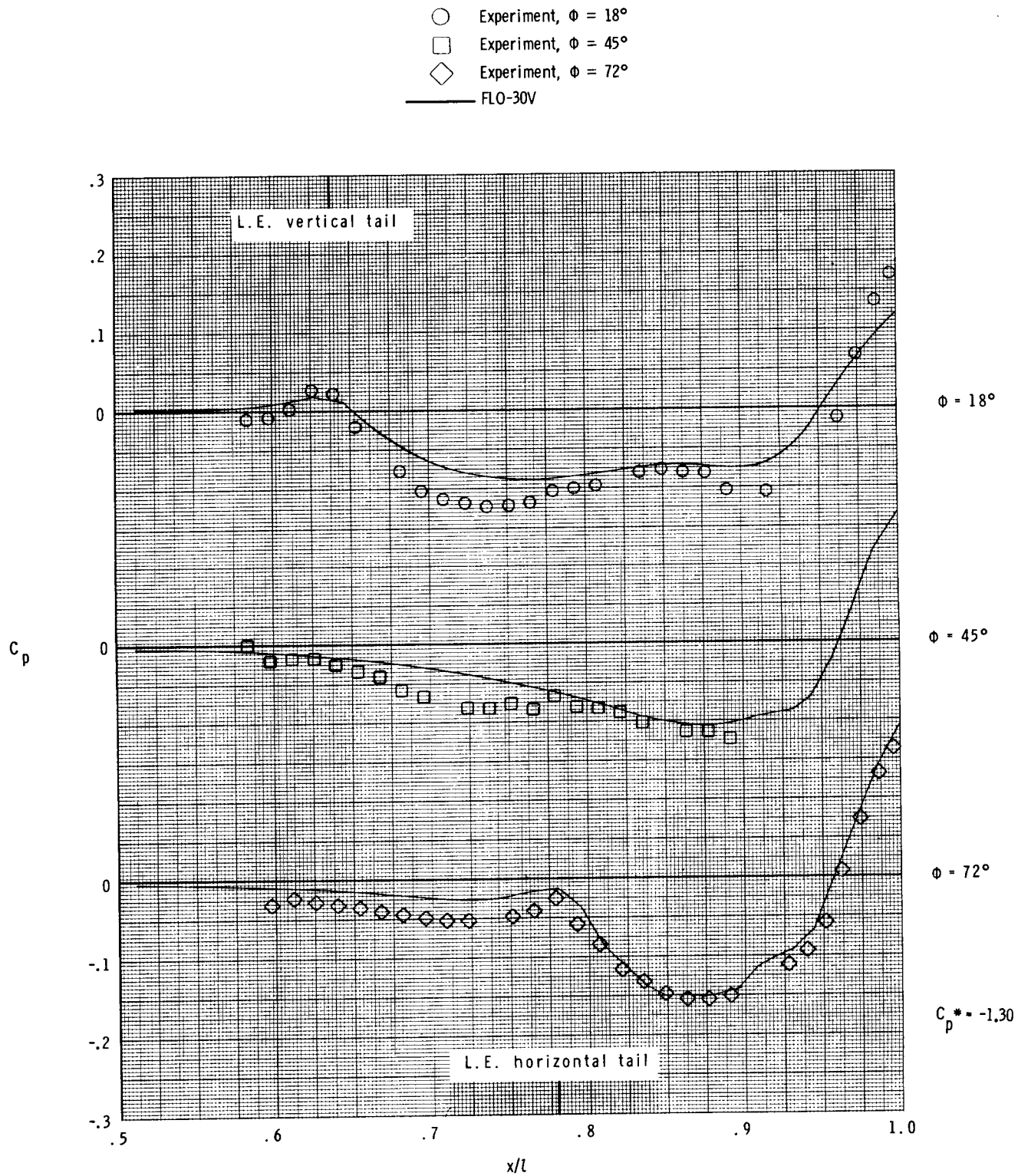


(c) $M = 0.95$; $NPR = 5.0$.



(d) $M = 1.20$; $NPR = 6.0$.

Figure 19. Concluded.

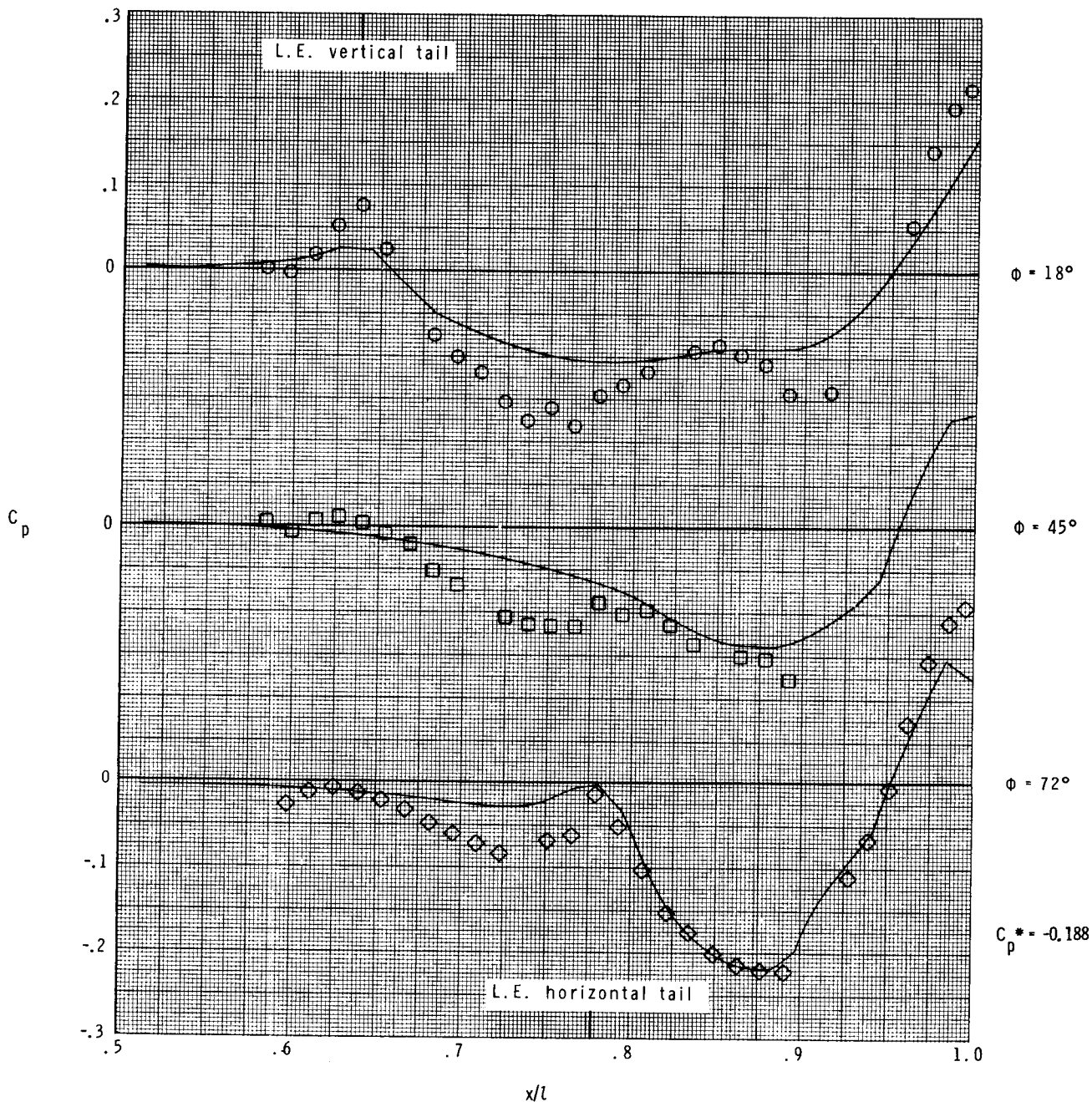


(a) $M = 0.60$; $NPR = 3.0$.

Figure 20. Comparison of calculated and experimental pressure coefficients at $\alpha = 0^\circ$ on nozzle/afterbody for staggered tail configuration at three meridian angles located between vertical and horizontal tails.

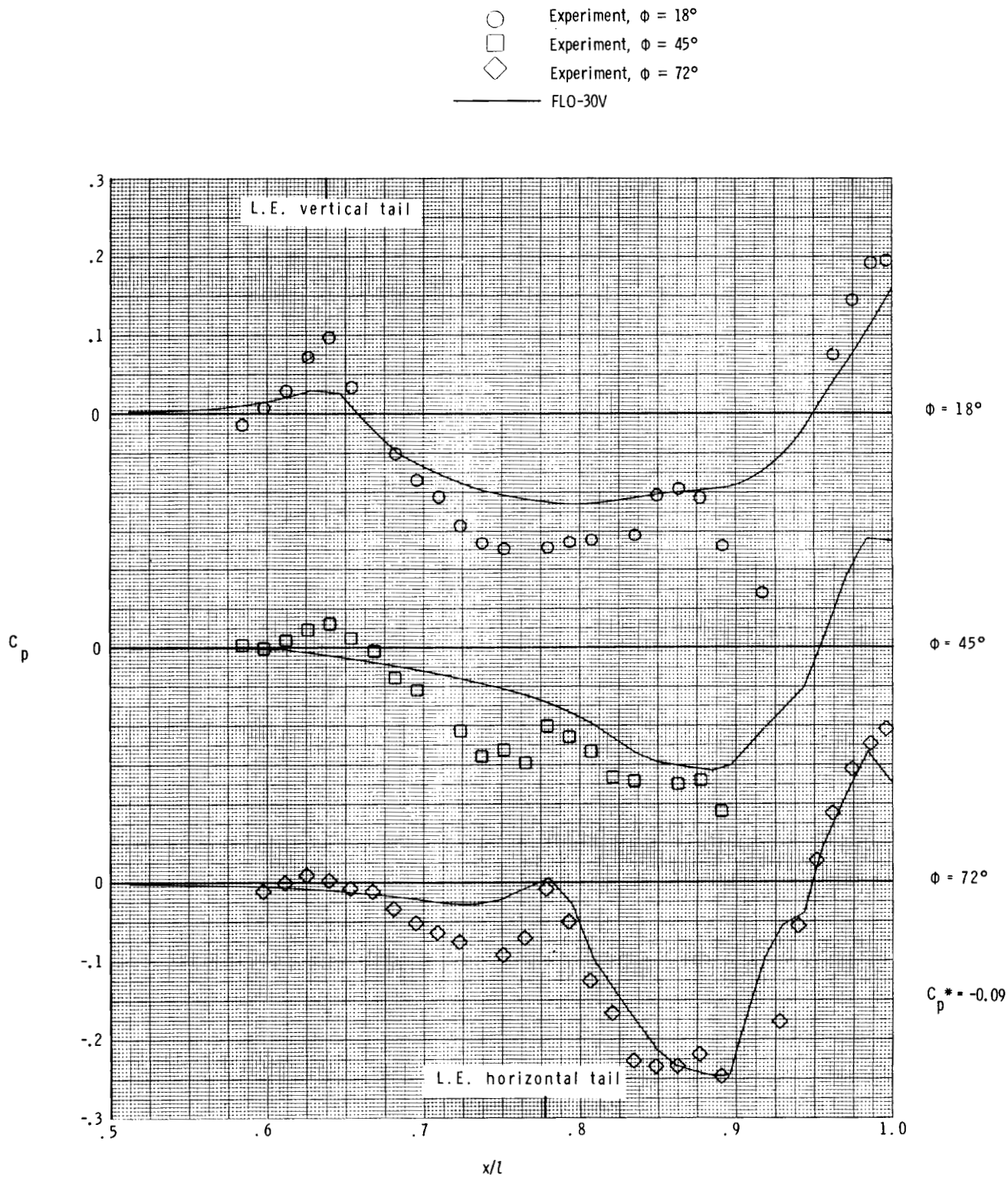
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- Experiment, $\phi = 18^\circ$
- Experiment, $\phi = 45^\circ$
- ◇ Experiment, $\phi = 72^\circ$
- FLO-30V



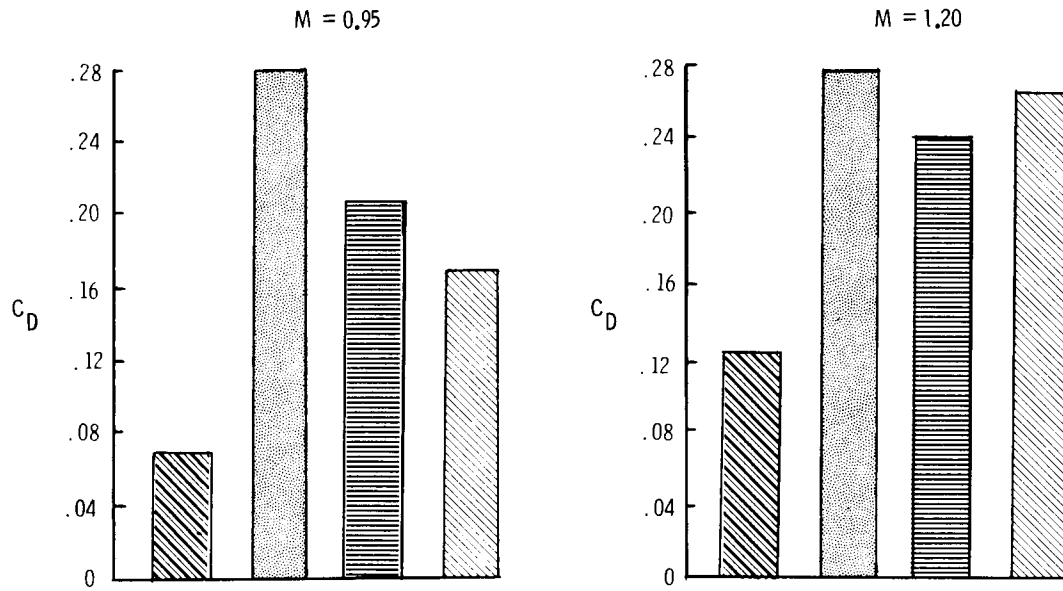
(b) $M = 0.90$; $NPR = 5.0$.

Figure 20. Continued.



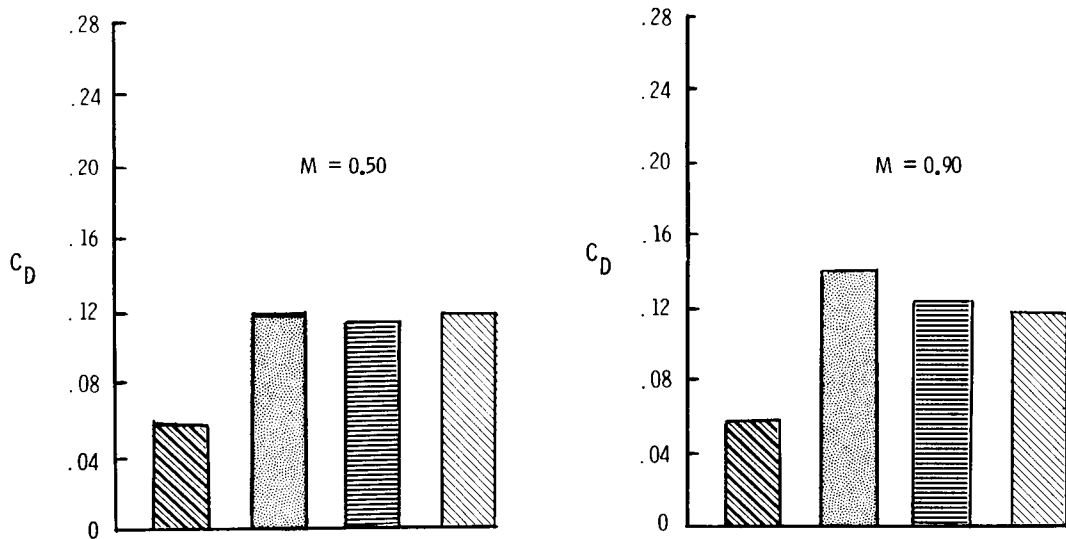
(c) $M = 0.95$; $NPR = 5.0$.

Figure 20. Concluded.



(a) $M = 0.95$ and 1.20 .

Empennage
 Off
 Aft
 Forward
 Staggard



(b) $M = 0.50$ and 0.90 .

Figure 21. Drag coefficient due to various empennage arrangements. (Data from figs. 21 and 22 of ref. 3.)



Report Documentation Page

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16. Abstract An investigation has been conducted in the Langley 16-Foot Transonic Tunnel to determine the effects of empennage arrangement on single-engine nozzle/afterbody static pressures. Tests were conducted at Mach numbers from 0.60 to 1.20, nozzle pressure ratios from 1.0 (jet off) to 8.0, and angles of attack from -3° to 9° (at jet-off conditions), depending on Mach number. Three empennage arrangements (aft, staggered, and forward) were investigated. Extensive measurements were made of static pressure on the nozzle/afterbody in the vicinity of the tail surfaces.			
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