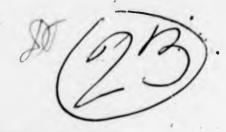
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WING ROLL CONTROL DEVICES FOR TRANSONIC HIGH LIFT CONDITIONS

PART 1-FIXED WING CONFIGURATION

VOL. II — APPENDICES

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GENERAL DYNAMICS, FORT WORTH DIVISION

TECHNICAL REPORT AFFDL-TR-69-124, PART I, VOL. II

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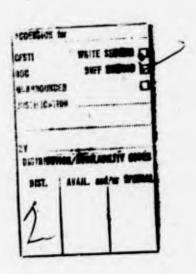
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LIST OF SYMBOLS AND ABBREVIATIONS

Symbols |

b .	wing span
c -	chord
c	wing mean geometric chord
c_D	drag coefficient, Drag/q Sref
CDmin	minimum value of drag coefficient at particular Mach number
c_1	rolling moment coefficient, rolling moment/qSrefb
c_{1P}	damping due to roll rate coefficient, $\frac{\partial c_1}{\partial \underline{\phi} \underline{b}}$
$c_{1\delta_a}$	aileron effectiveness coefficient, $\frac{\partial C_1}{\partial \hat{k}_2}$
$\mathbf{c_L}$	lift coefficient, lift/qSref
c_{L}_{lpha}	lift curve slope, $\frac{\partial c_L}{\partial \alpha}$
c_{L_C}	lift coefficient at which drag polar becomes non-parabolic, see Figure 39,pg 105
$c_{LC_{Dmin}}$	lift coefficient for minimum drag coefficient
C _m	pitching moment coefficient, pitching moment/qSrefc
c_n	yawing moment coefficient, yawing moment/qSrefb
g	acceleration due to gravity
GW	gross weight
Ix	moment of inertia about longitudinal stability axis

LIST OF SYMBOLS AND ABBREVIATIONS (CONT'D)

$\mathbf{I}_{\mathbf{z}}$	moment of inertia about z stability axis
I _{xz}	cross product of inertia
K .	drag due to lift factor defined by equation (1) pg 103
L	fuselage length
L _{δa}	roll acceleration per unit lateral control input
L./Ď	lift to drag ratio
- M	Mach number
Pss	steady state roll rate
q	dynamic pressure
Rn	Reynolds number
RI	inertia ratio, Ix/Iz
R β	stability ratio, directional stability/effective dihedral, $C_{n_{\beta}}/C_{l_{\beta}}$
Rδ	control moment ratio, $\left[\Delta C_n/\Delta C_1\right]$ roll control or $C_{n\delta_a}/C_{l\delta_a}$
S _f	planform area of flap segment
S _{ref}	reference area, area of wing planform excluding the highly swept inboard glove
S _w	reference wing area
s	Laplace operator
t	local thickness of wing section

LIST OF SYMBOLS AND ABBREVIATIONS (CONT'D)

t	time
V	velocity
प्र	lateral distance to centroid of flap segment planform
α	wing angle of attack
αLO	angle of attack for zero lift
β	aircraft point angle, see Figure 94, page 213
δ	deflection, positive leading edge down (leading edge devices), or trailing edge down (trailing edge devices)
δα	average aileron deflection, $1/2$ (δ_{right} - δ_{left}
$\zeta_{m{\phi}}$	damping ratio of numerator quadratic in \emptyset/δ_a transfer function
ζd	damping ratio of dutch roll mode
φ	roll angle
٨	sweep angle
T_{R}	time constant of the rolling convergence mode
s	time constant of the spiral mode
$\mathbf{r_1}$	time to obtain maximum control input, see Appendix I
ωφ	natural frequency of numerator quadratic in \emptyset/δ_a transfer function
ωd	natural frequency of the dutch roll mode

LIST OF SYMBOLS AND ABBREVIATIONS (CONT'D)

Subscripts

aero aerodynamic contribution

eff effective value of coefficient including approximation of control system effects

FCS gain control system feedback gain

o initial condition pa principal axis value

Abbreviations

AEDC Arnold Engineering Development Center

CAL Cornell Aeronautical Laboratory

FDCC Control Criteria Branch of USAF Flight Dynamics

Laboratory

F.S. Fuselage Station

H.T. Horizontal Tail

L.E. Leading Edge

LEDE Leading Edge Device Effectiveness

L/R Left/Right Surface Deflection in Degrees

M.S. Model Scale

NACA National Advisory Committee for Aeronautics

NASA National Aeronautics and Space Administration

à

PWT Propulsion Wind Tunnel

RMS root-mean-square

VG Vortex Generators

APPENDIX I ROLL RATE EFFECTS ON AIR-TO-AIR COMBAT

A brief study of the effect of roll response on battle dominance during air-to-air combat was accomplished using a digital air combat program, ATAC. The objective of this effort was to select a roll control sizing criteria compatible with the transonic maneuvering requirements of advanced fighter aircraft. An additional objective was to evaluate the sensitivity of battle dominance in air-to-air combat to roll capability.

1. SIMULATION

The specific features of General Dynamics, Fort Worth Division digital air combat program ATAC utilized in this study are reviewed in this section. A more general discussion of ATAC may be found in Reference 24. The air combat situation is simulated in three spatial dimensions with identical situations-dependent guidance laws for both the attacker and target aircraft. For the case utilized, the guidance laws minimize the pointing angle (defined in Figure 94) by selecting the best values of angle of attack and roll angle attainable within the small time increment of integration. This is accomplished by a two-dimensional Fibonaccian search.

The parameters directly influencing basic aircraft performance i.e. drag polar, thrust, fuel flow, weight, the various structural and aerodynamic limits are simulated in detail. Roll response is specified by a maximum roll rate limit and sideslip is considered to be zero for all calculations.

Experience with this program has demonstrated that the simple simulation of lateral-directional response yields valid data for tactical effects of roll capability when the metric chosen is time to change bank angle. The following observations illustrate the underlying reasons that the simulation is adequate. For the major portion of an air combat encounter, the demands on roll are quite small. During this time the objective is to maintain the lift vector (turn force) in the plane defined by the aircraft velocity vector

Note: Plan view. Each aircraft initially at ninety degrees bank angle.

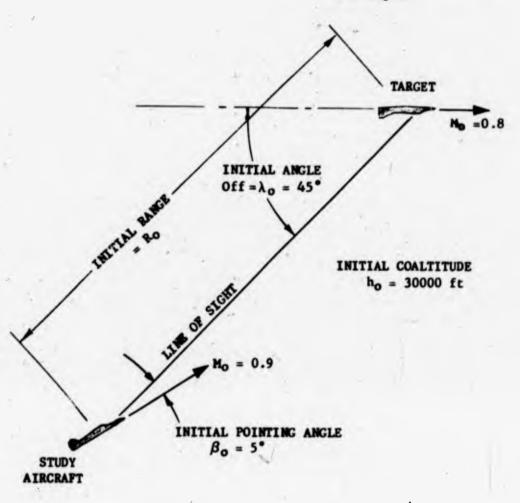


Figure 94 BATTLE CONDITIONS

and the range vector. However when a sudden large change in the direction of the relative range vector occurs a major re-orientation of the attacker's lift vector through change in bank angle is dictated. The foremost example of such a situation is the classical scissors maneuver. In such cases a relatively small time increment when the lift vector is not properly orientated can result in a major degradation in battle dominance.

A plan view of the initial conditions is given in Figure 94. The battle was begun with the aircraft at a co-altitude of 30,000 feet with each rolled ninety degrees toward the other. The study aircraft had an initial angle off the target, β_o , of fourty-five degrees and a pointing angle, λ_o , of five degrees. Six values of maximum roll rate for the study aircraft were evaluated at each of four initial ranges, 2,000, 3,000, 4,000, and 6,000 feet. The target aircraft had a fixed roll capability corresponding to the ability to roll through two hundred degrees and stop roll rate in 1.90 seconds.

The two parameters found to be most indicative of the tactical situation are the pointing angle from the study aircraft to the target aircraft and a corresponding AIM score. The AIM score is a numerical rating of the pointing angle with a maximum value of 25 for angles less than 2.5 degrees, 24 angles between 2.5 and 5.0 degrees, etc.

Analysis of simulated engagements must be done at several discrete times in a battle and conclusions drawn from the individual results when viewed as a whole. This is so because although battles have the same general trends, the critical portions occur at different times. Thus instantaneous or even averaged values at any given time for parameters such as pointing angle, and battle score may yield scattered results. It was found useful to average the pointing angle from the start of battle up to specific elapsed times of five, ten, fifteen, and twenty seconds. For the AIM score, integrations with time as the independent variable where accomplished for the same elapsed time increments.

2. RESULTS

It is important to first note that depending upon the initial range, two basic types of battles occured over the

long term, as shown in Figure 95. For the shorter initial ranges (2000 and 3000 feet) the target reversed after the initial study aircraft overshoot leading to the classical scissors maneuver. For longer initial ranges (4000 and 6000 feet) with small overshoots, a circular tail chase developed. In both battle types, the study aircraft initially performed a rapid turn reversal by changing bank angle between 190 and 210 degrees. Thus the time to roll through 200 degrees and stop was chosen as the roll performance metric with minor adjustments being made whenever bank angle changes were slightly different from 200 degrees.

As mentioned above, average pointing angle and accumulated AIM score were evaluated for the first five, ten, fifteen and twenty seconds of battle. Results for the first fifteen sesonds were found to be the most representative and are shown in Figures 96 and 97. Note that the accumulated AIM score'indicates the improvement in battle dominance with reduced time to roll more clearly that the average pointing angle. found that the somewhat irregular trends in accumulated AIM score could be removed by averaging the values accumulated over the four time intervals, five, ten, fifteen, and twenty This averaging results in a heavier weighting for the first portion of the battle when the initial reversal Such averaged AIM scores are given in Figure 98. For the longer ranges, 4,000 and 6,000 feet (resulting in a tail chase maneuver) reduction in time to roll below a specific value does not yield any tactical advantage. For the case of scissors maneuvers (developing when the initial range is 2,000 or 3,000 feet) the highest possible roll capability comparable with pilot technique and general flying qualities appears to be desirable.

One other aspect of the combat simulation is of interest in selecting a roll performance criteria. That is the time to reacquire the target after initiating the first rapid reversal. Reacquisitions was defined as reduction of the pointing angle to less than fifteen degrees. This data, given in Figure 99, demonstrates that the time to roll 200 degrees and stop should be 1.9 seconds or less. For the case of 2,000 feet initial range it was not found possible to establish a small steady state pointing angle after the initial roll reversal for any roll capability investigated.

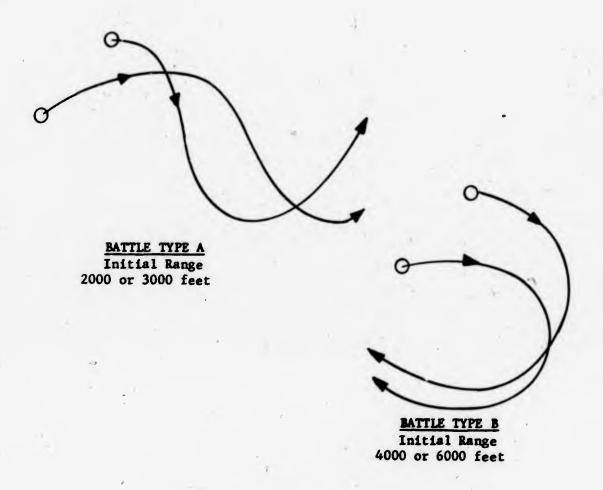


Figure 95 PLAN VIEWS OF BATTLE TYPES

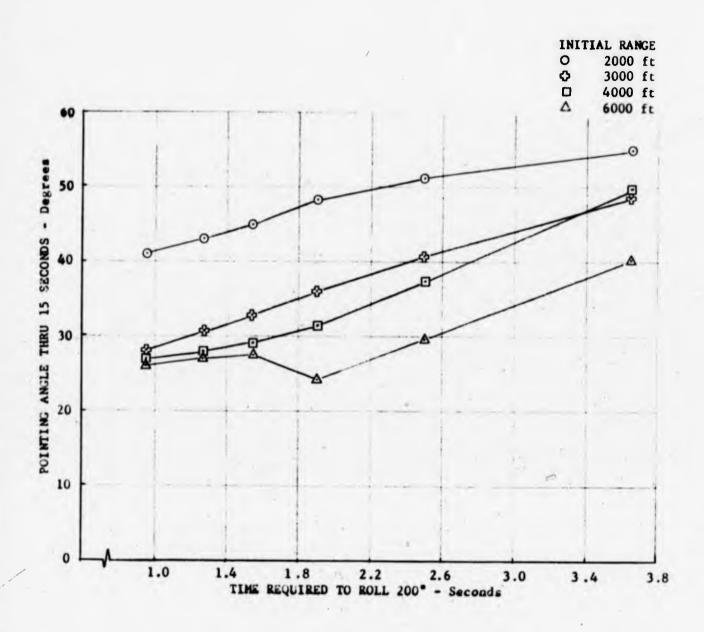


Figure 96 AVERAGE POINTING ANGLE

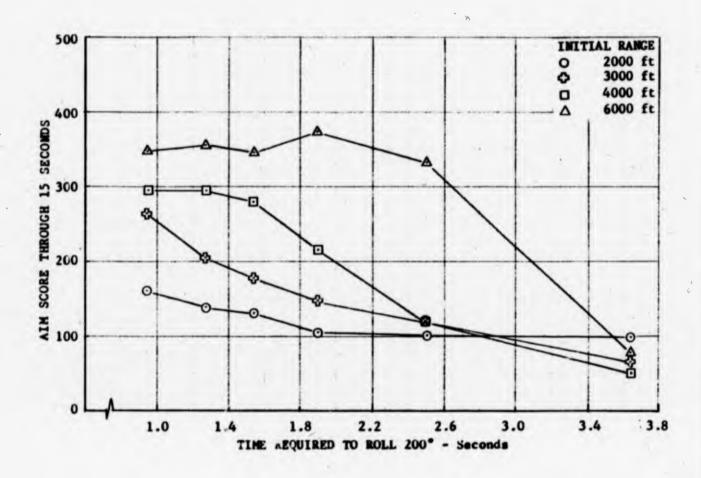


Figure 97 AIM SCORE

INITIAL RANGE ○ 2000' ☆ 3900' ☆ 4000' △ 6000'

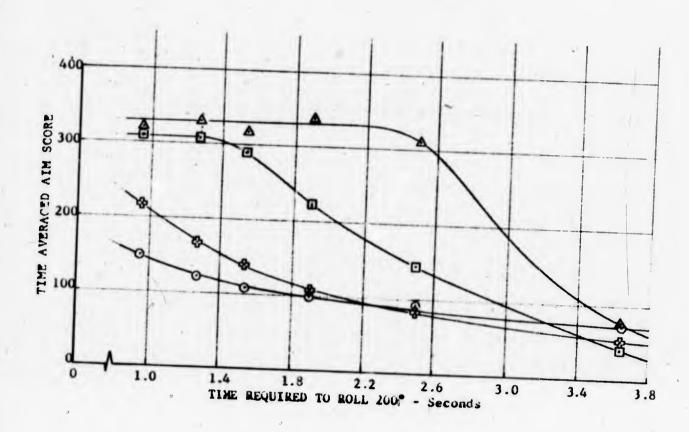


Figure 98 AVERAGED BATTLE SCORE

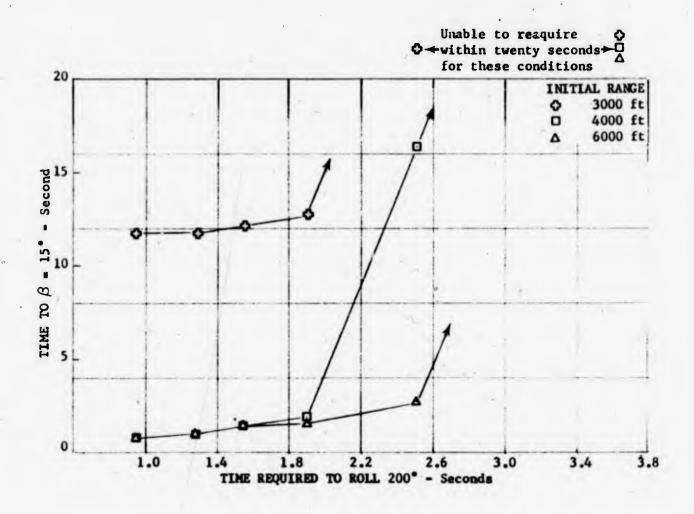


Figure 99 REACQUISITION TIME ANALYSIS

A nominal air-to-air performance criteria of 1.8 seconds for a 200 degree bank change and stop maneuver was selected based on the consideration of AIM score and reacquisition discussed above. This criteria is compared with handling qualities data and military specifications in Appendix II.

APPENDIX II ROLL CONTROL POWER CRITERIA

Selection of a roll control criteria may be divided into three tasks. First, convenient relationships between control power, steady state roll rate, and time to accomplish a specified bank angle change are required to interrelate the several measures of roll performance. Second, the capabilities and preferences of the human pilot for execution of rolling maneuvers are necessary to match the performance characteristics of the controller to those of the vehicle. Third, the tactical advantages of various levels of roll performance must be related to the vehicle capabilities and pilot perferences.

1. GENERAL RESPONSE ANALYSIS

The simple single degree of freedom rolling moment equation was used for roll performance analysis to focus attention upon the rolling convergence mode and allow concise presentation of results. However, the information is presented in terms of two key response parameters, the steady state roll rate and the roll time constant, so the effects of additional degrees of freedom and the flight control system may be approximated. The general development proceeds as follows.

First consider the rolling moment equation:

$$I_{x}\phi + g5bC_{s_{x}}\frac{\phi_{b}}{2V} + g5bC_{s_{x}}\delta_{a} = 0$$
 (2)

The Steady State response is:

and solution of the homogeneous case:

$$\int_{-\infty}^{\infty} \dot{\phi} + \frac{85b^2}{2V} C_{I_p} \dot{\phi} = 0$$

$$\dot{\phi} = C_1 + C_2 e^{-t/\tau_p}$$
(3)

gives

where the roll time constant is given by

$$T_{R} = \frac{21 - I_{x}}{gSb^{2}C_{f_{p}}} \tag{4}$$

The rolling moment equation may now be expressed in terms of more general parameters, steady state roll rate and roll time constant.

$$\dot{\phi} + \frac{\phi}{T_R} = \frac{P_{ss}}{T_R} \frac{S_n}{S_{\alpha_{max}}}$$
 (5)

Before proceeding to the solution of this equation for the desired control inputs, several simple methods for approximating the effects of other degrees of freedom and flight control system augmentation will be mentioned briefly. Effects of yaw response on roll performance may be approximated by use of the system of primed coefficients as set forth in reference 26 where:

$$C_{\lambda_{i}} = \frac{C_{\lambda_{i}} + C_{n_{i}} \frac{I_{\lambda_{i}}}{I_{\lambda_{i}}}}{1 - \frac{I_{\lambda_{i}}}{I_{\lambda_{i}}}}$$
(6)

together with a steady state roll rate as derived below from the basic roll angle to lateral control transfer function.

In general

$$\frac{\varphi}{\delta_a} = -\frac{L_{\delta_a} \left(S^2 + 2 \int_{\varphi} \omega_{\varphi} + \omega_{\varphi}^2 \right)}{\left(3 + \frac{1}{7_5} \right) \left(S + \frac{1}{7_6} \right) \left(S^2 + 2 \int_{\omega} \omega_{\varphi} + \omega_{\varphi}^2 \right)}$$
(7)

where

$$L_{\delta_{\alpha}} = L_{x} - C_{k\delta_{\alpha}}$$
 (8)

Now

neglect the spiral mode $T_s \ll 5$ employ a step aileron input $T_s \ll 5$ and use the final value theorem $T_{ss} = \frac{5}{5} \times \frac$

then
$$P_{s} = \lim_{n \to \infty} s[s \psi] = -T_R \lim_{n \to \infty} \left(\frac{\omega_{\psi}}{\omega_{s}}\right)^2$$
 (9)

Similarity at time zero:

$$\varphi(s) = \lim_{s \to \infty} s[s^2 \varphi] = -L_{\delta_a} \delta_{a_{max}}$$

Thus L_{δ} is the initial roll acceleration per unit step control input. Note that from the single degree of freedom development, equations (3) and (4) yield

$$P_{ss} = -T_R L_{\delta_L} \delta_{\alpha_{max}}$$
 where $b_{\delta_R} = \frac{75b}{I_x} - C_{\delta_R}$

while the general transfer function yields

$$P_{cs} = -T_R L_{S_a}' S_{nox} \left(\frac{\omega_{\psi}}{\omega_d}\right)^2 \text{ with } L_{S_a}' = \frac{85b}{\sqrt{1x}} C_{1S_a}'$$

Hence the effects of additional degrees of freedom on roll response may be accounted for by use of the parameter $(\omega_{\rm Y}/\omega_{\rm d})$ together with a primed system of stability and control coefficients.

Two methods may be employed to approximate the flight control system effects on roll performance. In cases where a detailed description of the stability augmentation and the corresponding effects on vehicle dynamics are not available, values of parameters such as P_{ss} , T_{R} , and $(\omega_{\varphi}/\omega_{d})$, augmentation ON, may be selected based on design objectives and previous experience with similar systems. These parameters may then be used in the simplified single degree of freedom analysis. In cases where rate and/or acceleration feedback is employed for stability augmentation, effective values may be estimated for key derivatives. As an example, the effects of roll rate feedback may be approximated by:

The basic rolling moment equation (5) (repeated below) was solved for two control inputs of particular interest using Laplace transform techniques.

$$\dot{\phi} + \frac{\dot{\phi}}{7e} = \frac{F_{55}}{7e} \left(\frac{8a}{5a_{max}} \right) \tag{5}$$

The first control input shown below is a ramp to maximum control input, corresponding to a rapid roll through a specific bank angle change with no attempt to zero roll rate at the end of the maneuver.



Current flying qualities requirements on roll performance, MIL-F-8785A(USAF), are stated in terms of the time to accomplish specific bank angle changes using this type control input. For zero initial values of bank angle and rol! rate, the response is given in terms of the simple analytical expressions below.

Step Input,
$$T_1 = 0$$

$$\frac{\phi}{T_R P_{ss}} = \frac{t}{T_R} - 1 = e^{-t/\tau_R}$$
(10)

Ramp to Maximum Command

1) For
$$t/\tau_R \le \tau_1/\tau_R$$

$$\frac{\psi}{\tau_{\kappa} \tau_{ss}} = \frac{\tau_{\kappa}}{\tau_{1}} - \frac{t}{\tau_{R}} + \frac{t^2}{2\tau_{1}\tau_{R}} - \frac{\tau_{R}}{\tau_{1}} e^{-t/\tau_{R}}$$
(11)

2) For $t/T_R \ge T_1/T_R$

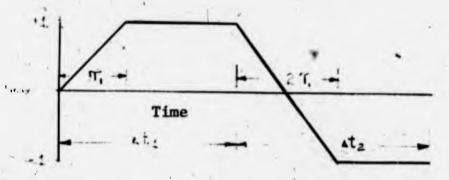
$$\frac{\Phi}{T_R P_{ss}} = \frac{1}{T_R} - 1 - \frac{1}{2} \frac{T_R}{T_R} + \frac{1}{2} \left(\frac{-\tau_r Y_r}{2T_R} - \frac{-\tau_r Y_r}{2T_R} \right)$$
 (12)

Note that for $t/T_R > 4$

$$\frac{\phi}{T_R P_{ss}} \simeq \frac{t}{T_R} - 1 - \frac{1}{2} \frac{T_I}{T_R} \qquad \text{(Error less than 1\%)}$$

These results are presented in graphical form on Figure 100 for a wide range of the key parameters.

Response for a second typical control input (indicated schematically below) was obtained to provide rolling performance data for the roll and stop maneuver indicative of air-to-air combat usage.



The conditions used with equation (5) were zero initial bank angle and roll rate and zero final roll rate. The analytical solution by Laplace transforms is rather lengthy. After considerable simplification, the results may be expressed in the form given below.

$$\frac{\Delta \varphi}{T_R P_{sc}} = \frac{3}{2} \frac{T_i}{T_R} + \frac{\Delta \dot{t}_1 - \Delta \dot{t}_2}{T_R}$$
 (13)

$$\frac{\Delta t_2}{T_k} = \lambda , \left\{ \frac{T_k}{T_i} \left(e^{\frac{T_i}{T_k}} - 1 \right) \left(1 + e^{\frac{T_i}{T_k}} - e^{\frac{T_i}{T_k}} \right) \right\}$$
 (14)

0

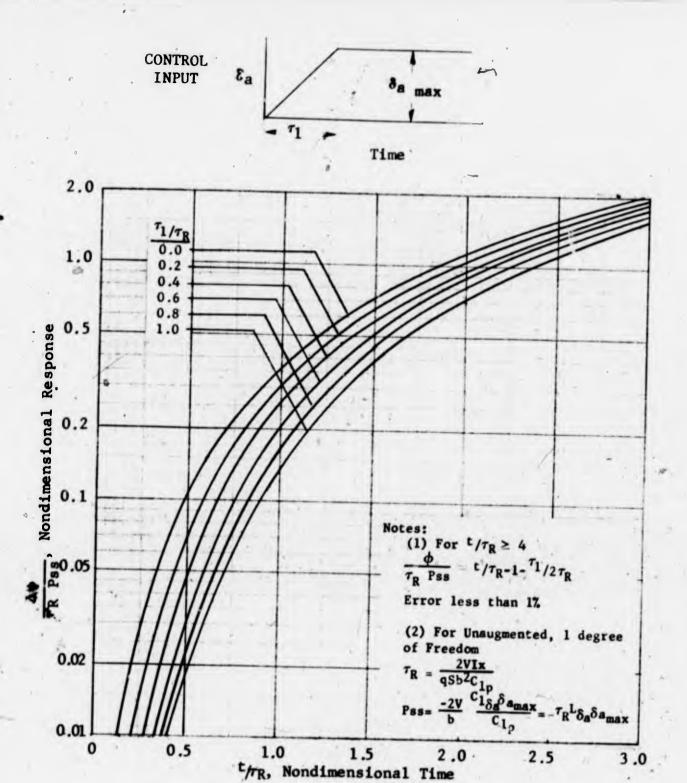


Figure 100 GENERALIZED ROLL PERFORMANCE

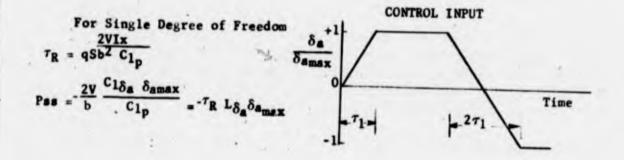
Substitution of specific values of $\Delta t_1/T_R$ in these expressions yields generalized characteristics for the roll and stop maneuver with T_1/T_R as a parameter (noting that the total maneuver time, t_{total} , is the sum of Δt_1 and Δt_2). This information is given in graphical form in Figure 101.

2. HANDLING QUALITIES CONSIDERATIONS

For purposes of roll control surface sizing, it is most convenient to consider handling qualities in terms of the maximum roll acceleration, L_{δ} a_{max}. Normal operation boundaries from the work of Creer et al, aReference 27, are given in Figure 102 in terms of the maximum roll acceleration and roll time constant. A desirable region for precision tracking tasks taken from Reference 28 is also indicated in this Figure. Results for the two rolling maneuvers, discussed in subsection 1, are given for a typical control input time, T₁ of 0.2 seconds and the single degree of freedom approximation, $\omega \varphi/\omega_d$ of 1.0. It is significant to note that the control power for the MIL-F-8785A (USAF) requirement to roll through 90 degrees bar! angle in one second is almost identical to that for a 200 degree bank and stop within 1.8 seconds (selected from ATAC simulations of air-to-air combat). The control power requirement for othermaneuvers is also good agreement with the boundary of Creer.

Based upon the considerations reviewed above, the control power criteria for this study was selected to be a maximum roll acceleration, $L_{0a} \mathcal{D}_a$, of seven radians per second squared. Selection of the corresponding control rolling moment coefficient is given in subsection 3.

A brief study of general lateral coordination effects was accomplished to provide guide lines on acceptable values for the ratio of yawing moment to rolling moment produced by lateral control deflection and to compare the effects of this parameter to the effects resulting from lateral-directional stability and cross product of inertia variations. A convenient metric for studying these effects is the ratio of roll numerator frequency to dutch roll frequency, $\omega_{\varphi}/\omega_{d}$ (this parameter also gives an indication of the correction to single degree of freedom steady roll rate). Since the corresponding damping factors β_{φ} and β_{d} are normally about equal, when $\omega_{\varphi}/\omega_{d}$ is near unity the dutch roll roots are essentially cancelled by complex



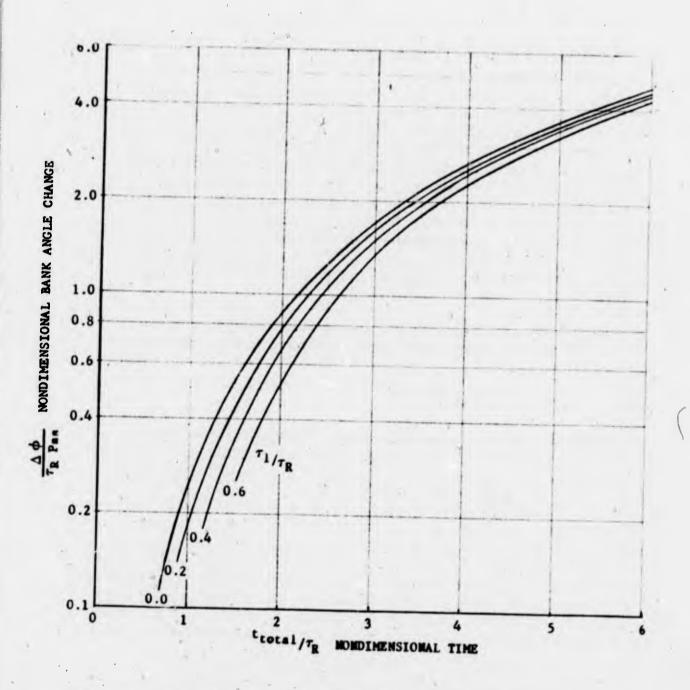


Figure 101 GENERALIZED PERFORMANCE FOR ROLL AND STOP MANEUVER

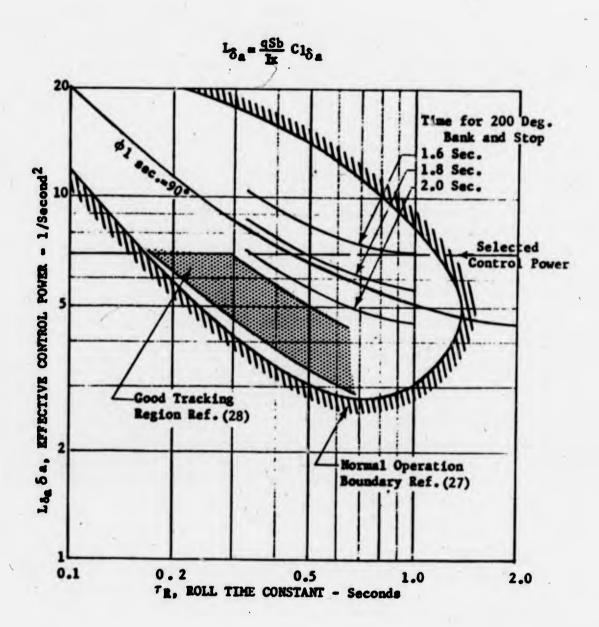


Figure 102 SUMMARY OF ROLL HANDLING QUALITIES CRITERIA

zeroes in the transfer function numerator thus suppressing the objectionable dutch roll mode. For adverse yaw, $\omega \varphi/\omega_{\rm d} < 1$, the primary effect is reduction of roll response. As shown previously, neglecting the spiral mode, the steady state response is

$$P_{SS} = -T_R L_{\delta_a} \delta_a \left(\frac{\omega_{\bullet}}{\omega_d}\right)^2$$
 (9)

It should be noted that so called "favorable" yaw $\omega_{\varphi}/\omega_{\downarrow} > 1$ does not yield desirable handling qualities. Although the steady state response is improved in such cases, aileron inputs to stop or modify roll response then induce objectionable dutch roll oscillations with notable tendencies for pilot coupling. A typical desired range might be $0.8 < \omega_{\varphi}/\omega_{c} < 1.1$ with a value of 1.0 being optimum.

A convenient analytical expression for ω_{q}/ω_{d} is given in Reference 26, repeated below.

$$\left(\frac{\omega_{\theta}}{\omega_{d}}\right)^{2} = 1 - \frac{C_{n_{S_{1}}} + \frac{I_{xz}}{I_{x}}C_{R_{S_{1}}}}{C_{R_{S_{2}}} + \frac{I_{xz}}{I_{z}}C_{r_{1}}} \frac{C_{I_{A}} + \frac{I_{xz}}{I_{z}}C_{r_{1}}}{C_{r_{1}} + \frac{I_{xz}}{I_{x}}C_{R_{S_{2}}}}$$
(15)

Note that the lateral control characteristics and the stability characteristics have similar effects on $\omega_{\varphi}/\omega_{d}$ and that in both cases the inertial characteristics modify aerodynamic characteristics about the stability axes. General inertia characteristics were established from the data of Reference 29.

$$R_{I} = \frac{I_{x}}{I_{z}} \sim \frac{1.44}{(1+L/b)^{2}}$$
 with a typical length/wing span, L/b,

for a fighter being 1.5 to yield

$$R_{I} = 0.23$$

Neglecting differences between stability and principal axes for yawing and rolling inertias

$$I_{xz} \simeq \frac{I_x - I_z}{2} \sin 2\infty_{Pa}$$

where $\alpha_{pa} = \alpha_{wing} + i_{pa}$

Then using the short hand notation

$$R_{\delta} \equiv \frac{C_{n_{\delta a}}}{C_{l_{\delta a}}}$$

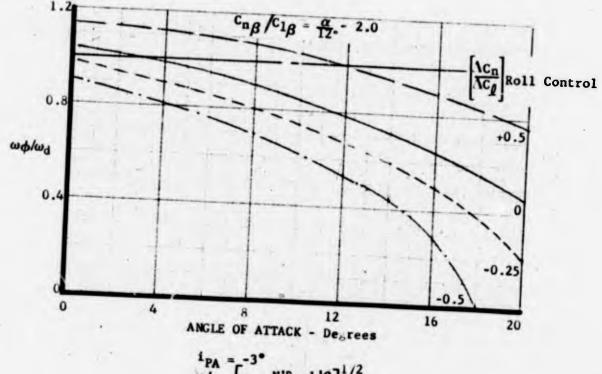
together with the numerical estimate for R_{I} , we obtain

$$\left(\frac{G_{00}}{G_{00}}\right)^{2} = 1 - \frac{R_{8} - 1.67 \sin 2x pa}{1 - 0.385 R_{8} \sin 2x pa} = \frac{1 - 0.385 R_{8} \sin 2x pa}{R_{3} - 1.67 \sin 2x pa}$$

Trends for R; with angle of attack were obtained from lateral-directional characteristics of several fighter type aircraft at transonic speeds. At low angles of attack a good rule of thumb is to have directional stability twice the magnitude of the effective dihedral. The configurations surveyed generally substantiated this criteria. Due to increases in effective dihedral and decreases in directional stability, R; exhibits an approximately linear variation with angle of attack up to the angle for zero stability. An adequate approximation (tending to favor the data with higher static stability) is

$$R_f \simeq \frac{\omega}{12}$$
, -2.0

Variations of 4 // with angle of attack using the above discussed data and a principal axis three degrees below the wing chord plane are shown in Figure 103. Note that the combined adverse trends of cross product of inertia and decreased stability ratio (-R:) with angle of attack are such that excessive adverse yaw occurs beyond twelve degrees even in the absence of aileron The addition of a small amount of adverse aileron yaw further deteriorates the overall control coordination at high angles of attack. A second plot was prepared with R_{eta} constant at -2.0 to show the effects of aileron yaw and cross product of inertia in the presence of desirable stability characteristics. In this case, the inertia effects alone are strong enough to yield excessive adverse yaw for angles of attack greater than sixteen degrees. Also, the effects of aileron yaw are not as severe as those due to representative loss of stability with angle of attack.



$$\frac{i_{PA}}{\omega \phi} = \begin{bmatrix} 1 & -\frac{N'\delta_a}{L'\delta_a} & \frac{L'\beta}{N'\beta} \end{bmatrix}^{1/2}$$

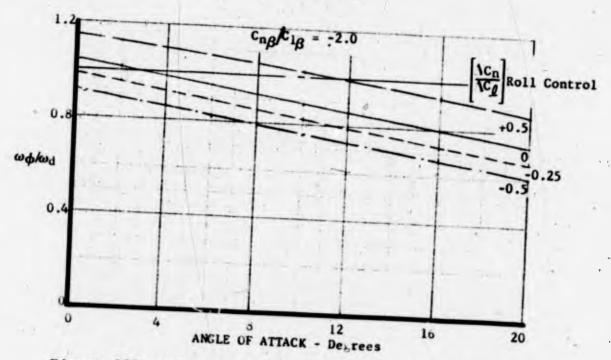


Figure 103 GENERALIZED LATERAL COORDINATION EFFECTS

The specific effects of aileron yaw variations with angle of attack on $\omega_{\ell}/\omega_{\rm d}$ and the attendant implications for coordination via the flight control system are more evident when the data of Figure 103 is presented as lines of constant $\omega_{\ell}/\omega_{\rm d}$ in the plane of the yawing moment to rolling moment ratio versus angle of attack. The data is given in this form in Figure 104 to show the extent that specific bounds on $\omega_{\ell}/\omega_{\rm d}$ limit the allowable combinations of $\Delta C_{\rm n}/\Delta C_{\rm l}$ and angle of attack or conversely indicate conditions where specific compensation should be provided by the flight control system.

The results of this brief study must be considered only qualitative due to simplifications used and the neglection of damping effects. However, some general effects are evident for roll coordination at high angles of attack. The inertia effects alone are strong enough to yield poor characteristics even with optimum aerodynamics. For representative configurations, the loss in directional stability and increase in effective dihedral with angle of attack can easily overshadow effects due to aileron yaw. Major compensation through the flight control system would be required to obtain suitable lateral control coordination at high angles of attack. This would be in the form of autmented directional stability and/or effective "favorable" yaw ac high angles of attack. In the case of effective "favorable" yaw, such as by interconnecting the lateral and directional controls, the gain would require scheduling as a function of x to preclude pilot induced oscillation at low angles of attack.

3. ROLLING MOMENT REQUIREMENT

The design value of rolling moment coefficient to be produced by the lateral control was obtained from the roll acceleration requirement in the following manner.

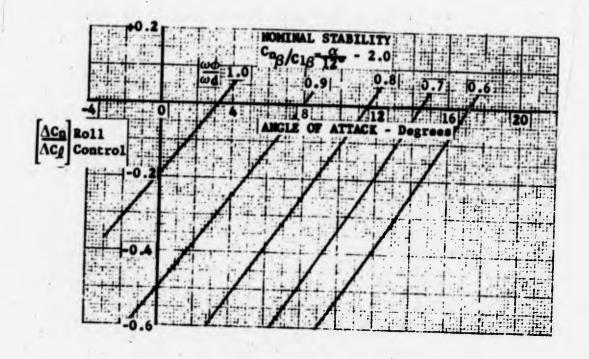
$$L_{h_{\alpha}}S_{\alpha} = \frac{75b}{I_{x}} L_{x_{rel}}C_{x_{rel}}$$

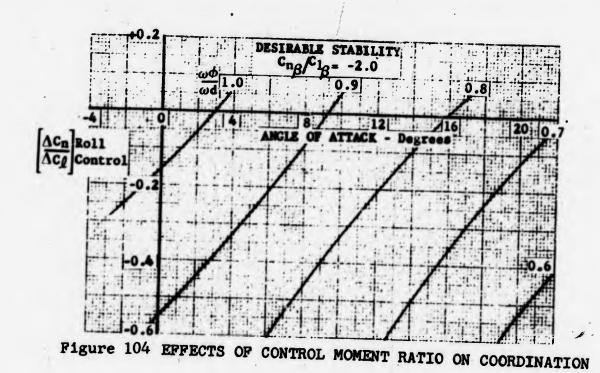
$$I_{x} = \left(R_{x} \frac{b}{2}\right)^{2} \frac{GV}{3}$$

giving

$$\Delta C_{\text{log}} = \left(\frac{3W}{85}\right) \left(\frac{B_{\text{x}}}{2}\right)^{2} \left(\frac{R_{\text{x}}}{2}\right)^{2} = 5.0.$$

(16)





The following representative values were used to obtain a numerical value:

$$\frac{GW}{85} \le 0.3$$

Wing Span

$$b = 45 ft.$$

Roll radius of gyration based on general data of Reference 28

$$R_x = 0.22$$

Effective Control Power

Giving

$$L_{2a}\delta_{a} = 7 \text{ sec.}^{2}$$
 $AC_{1} = 0.0356$

For 1.2 Mach number, the one "g" Lift Coefficient was reduced by the dynamic pressure ratio to yield the value given below.

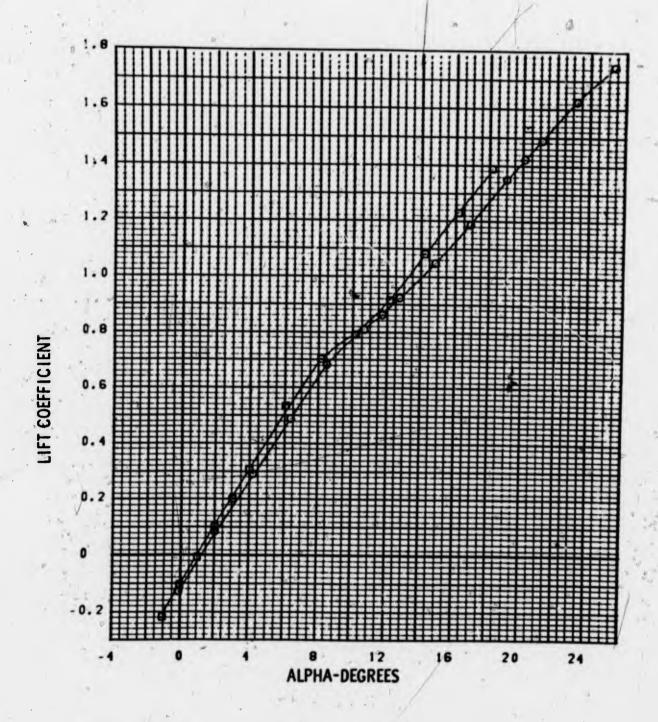
$$\Delta C_{k_{req}} = 0.0356 \left(\frac{0.9}{1.2}\right)^2 = 0.0200$$

APPENDIX III FORCE AND MOMENT COMPARISONS VARIOUS WIND TUNNELS USED

This appendix presents comparison plots which show the relative standing of the aerodynamic data obtained during the tests of the LEDE configuration in the 4T and 16T facilities. Plots are also presented for the tie-in configuration data obtained during the 4T tests to provide a continuity of all the data with other test results.

1. TIE-IN RUNS

The basic longitudinal aerodynamic data obtained for the F-111 configuration tested during the 4T tests are compared with similar data obtained in the Cornell Aeronautical Laboratory 8-foot transonic tunnel. These data are presented in this subsection in Figure 105.

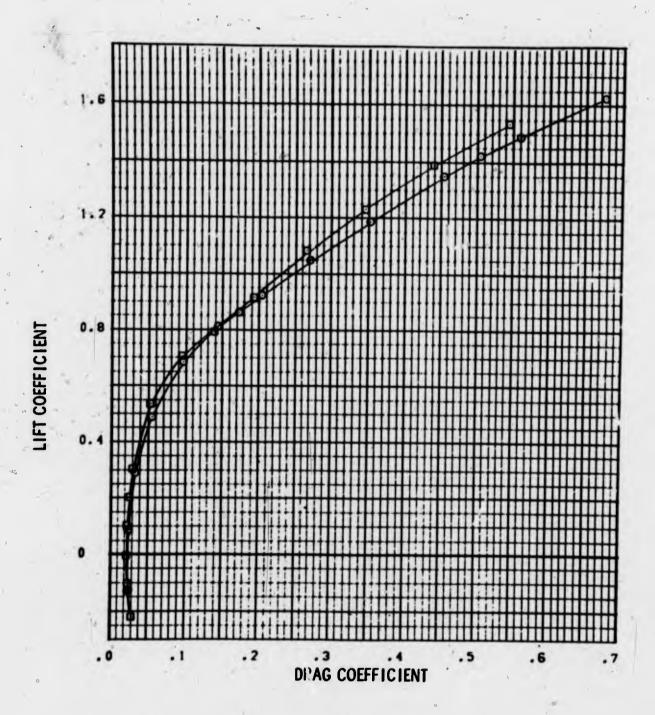


 SYM
 TEST
 PART
 RN/FT

 Ø
 AEDC PWT TC 043
 13
 3.0 MILLION

 Ø
 CAL G52-253
 269
 3.0 MILLION

FIGURE 105a TIE-IN COMPARISON BETWEEN CAL AND PYT 4T AT L.E. SWEEP = 45 DEG. . M = 0.9

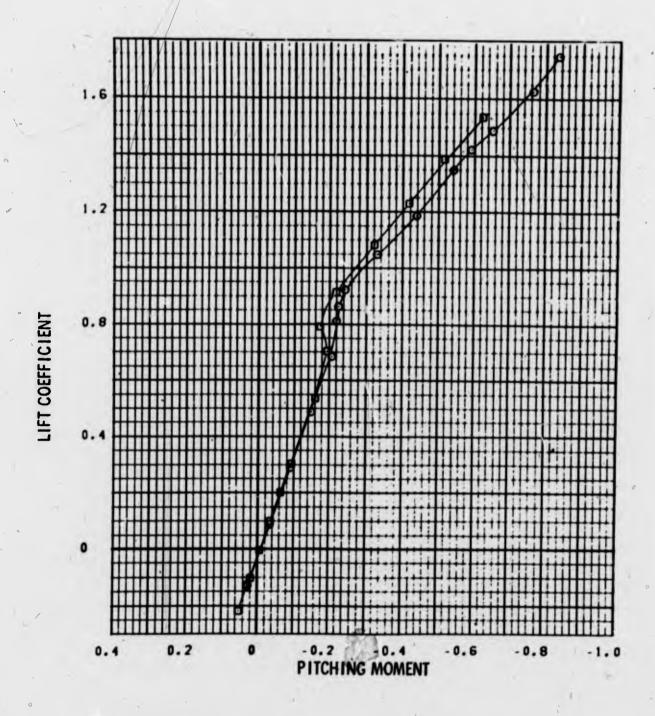


SYM 155' PART 2N/5'

O AEDC PWT IC 043 , 13 3.0 MILLION

CAL 652-253 269 3.0 MILLION

FIGURE 105a TIE-IN COMPARISON BETWEEN CAL AND PUT 4T AT.L.E. SWEEP = 45 DEG. M = 0.9

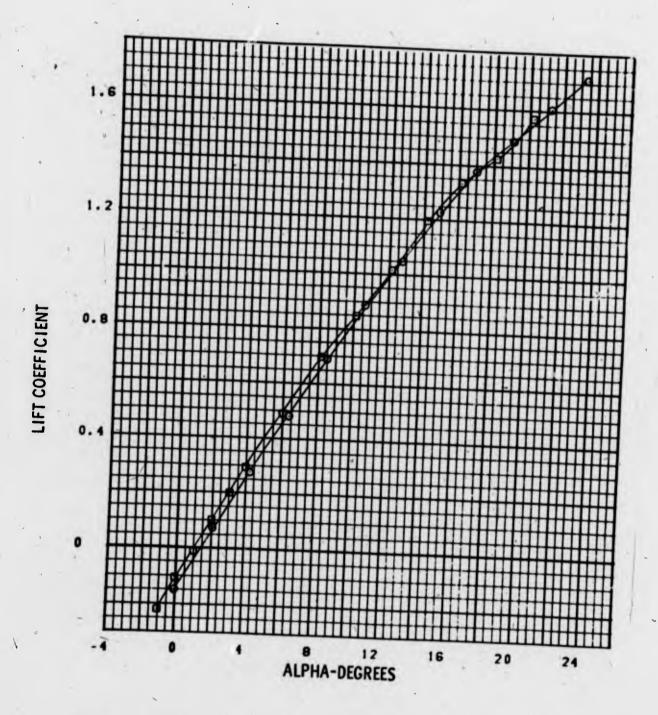


 SYM
 TEST
 PART
 RN/FT

 0
 AEDC PWT TC 043
 13
 3.0 MILLION

 0
 CAL G52-253
 269
 3.0 MILLION

FIGURE 105a TIE-IN COMPARISON BETWEEN CAL AND PWT 4T AT L.E. SWEEP = 45 DEG. . M = 0.9

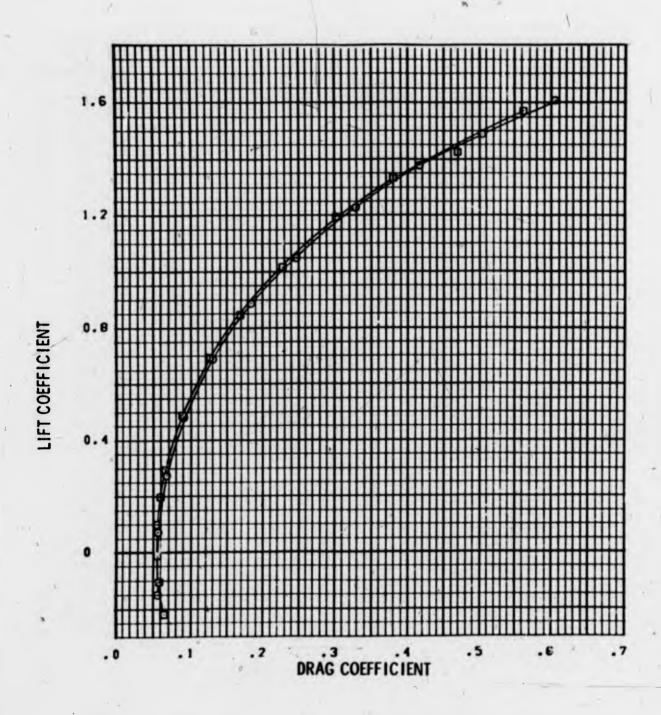


SYM TEST PART RN/FT

Ø AEDC PWT TC-043 14 3.0 MILLION

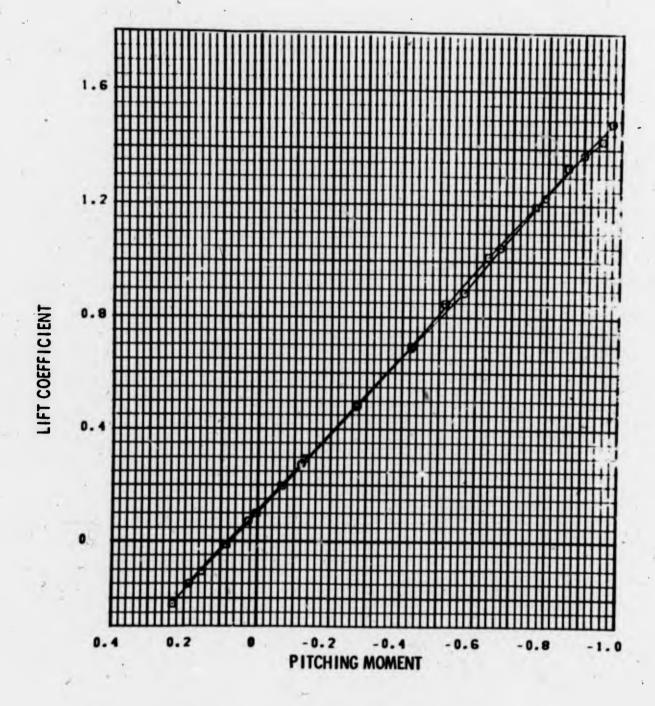
CAL G52-253 266 3.0 MILLION

FIGURE 1056 TIE-IN COMPARISON BETWEEN CAL AND PUT 4T AT L.E. SWEEP = 45 DEG. . M = 1.2



TEST SYM AEDC PWT TC-043 CAL G52-253 FIGURE 1056 TIE-IN COMPARISON BETWEEN CAL AND PUT 4T

AT L.E. SWEEP = 45 DEG. . M = 1.2

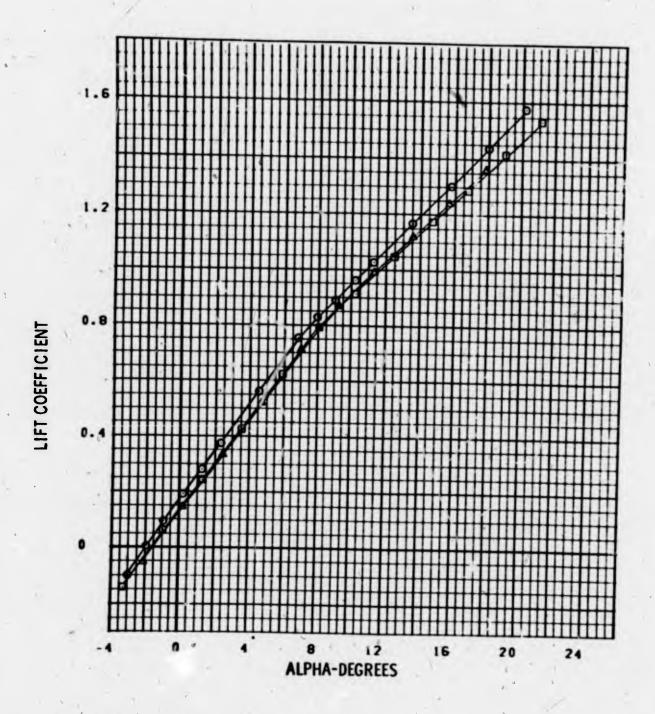


SYM	TEST	PART	RN/FT	
9	AEDC PVT TC-043 CAL G52-253	14 266	3.0 MILLION	

FIGURE 1056 TIE-IN COMPARISON BETWEEN CAL AND PUT 4T AT L.E. SWEEP = 45 DEG. . H = 1.2

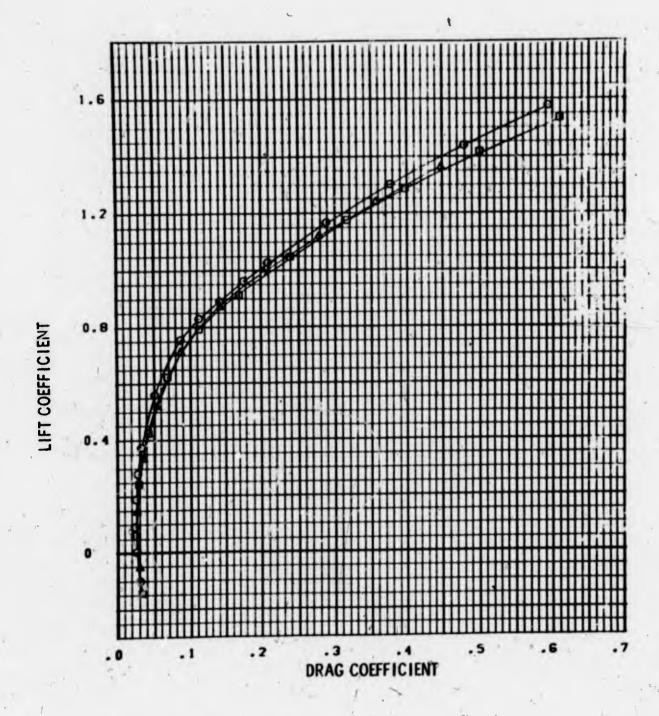
2. LEDE CONFIGURATION LONGITUDINAL DATA

*A complete set of the longitudinal aerodynamic data for the LEDE configuration obtained during both entires into the 4-foot tunnel, and the 16-foot tunnel are compared in this subsection in Figure 106.



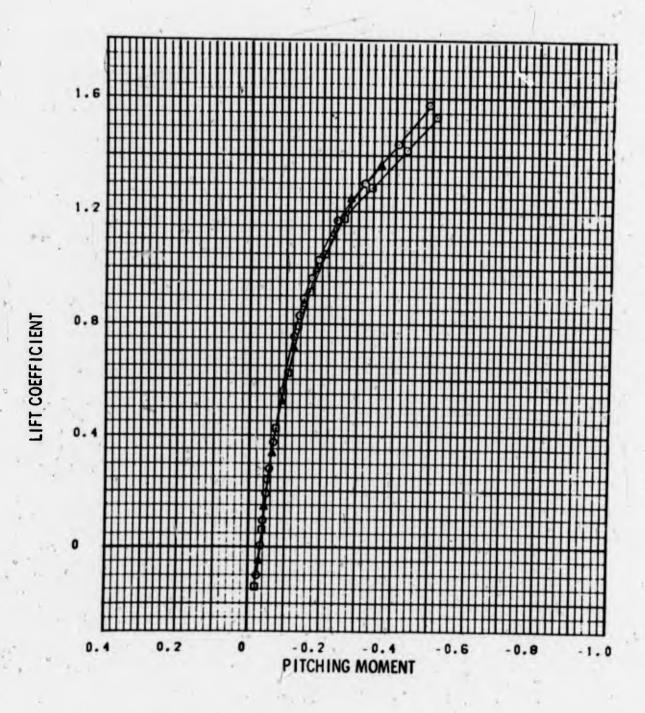
SYM	3,	TES	51	PART
•	PYT	161	TF -216	49
0	PYT	4T	TC-043	268
	PWI	415	TC-043	438

FIGURE 106a LEDE. CLEAN WING COMPARISON BETWEEN PWT 4T AND 16T M = 0.7



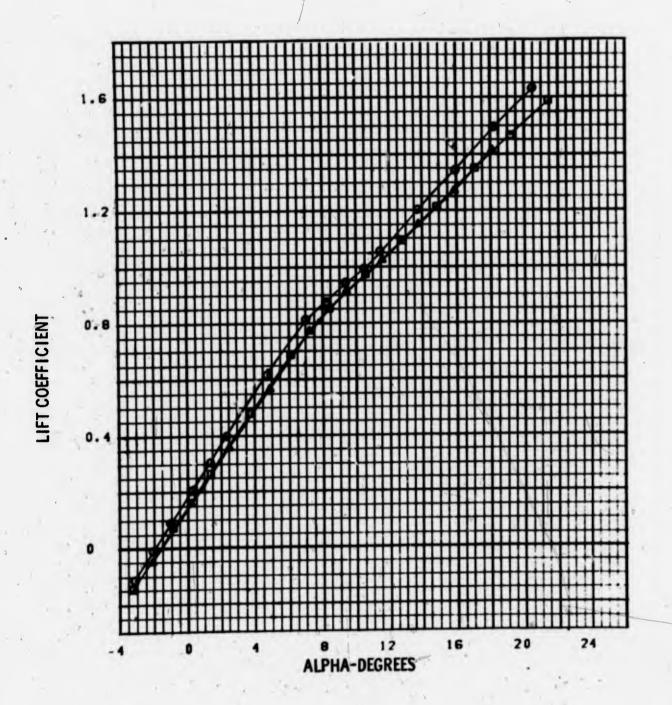
SYM	ð	TES	51	۵	PART
0	PYT	161	TF-216		· 49 a
0	PYT		TC-043		268
•	OUT	AT	TC 042		420

FIGURE 1062 LEDE. CLEAN WING COMPARISON BETWEEN PUT 4T AND 161



SYM		TES	5 <i>'</i>	PART
⊙ 3	PWT PWT	41	TF 216 TC-043 TC-043	49 268 438

FIGURE 106a LEDE. CLEAN WING COMPARISON BETWEEN PWT 4T AND 161 M = 0.7



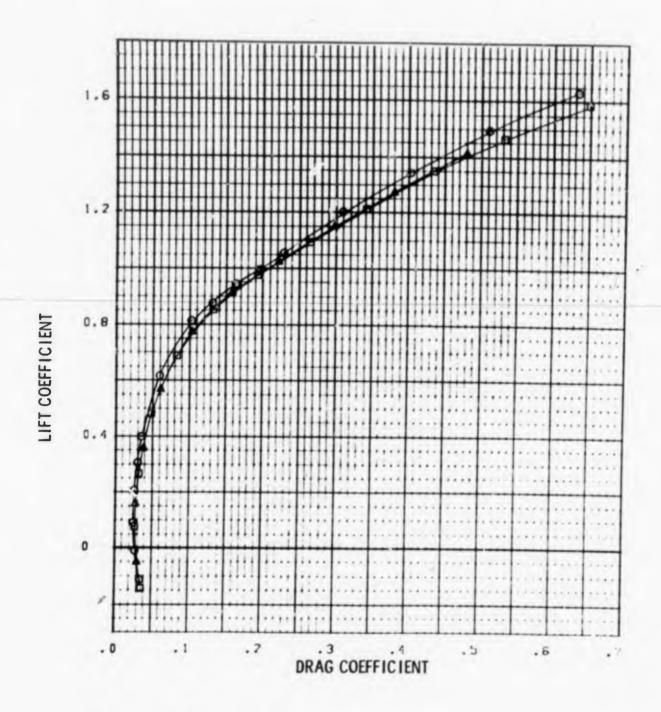
SYM TEST" PART

O PWT 16T TF-216 50

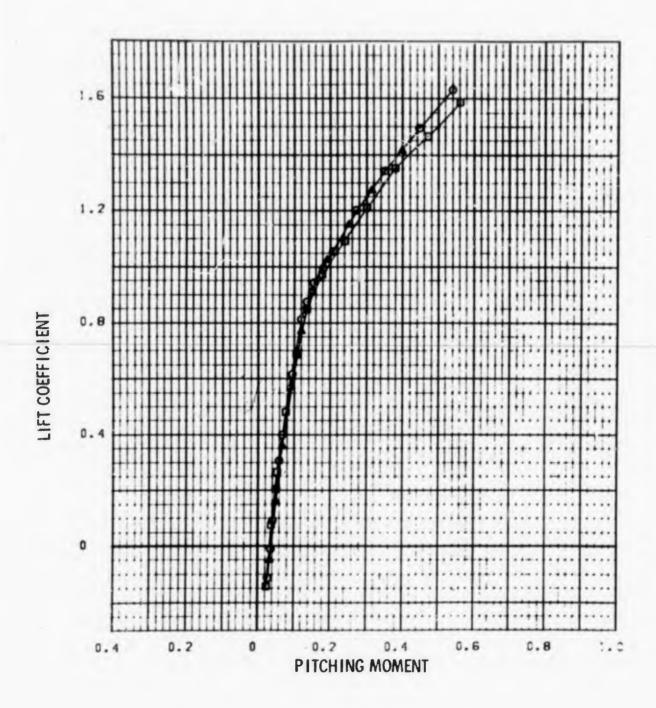
PWT 4T TC-043 267

A PWT 4T TC-043 440

FIGURE 1066 LEDE. CLEAN WING COMPARISON BETWEEN PAT 41 AND 161 M = 0.8

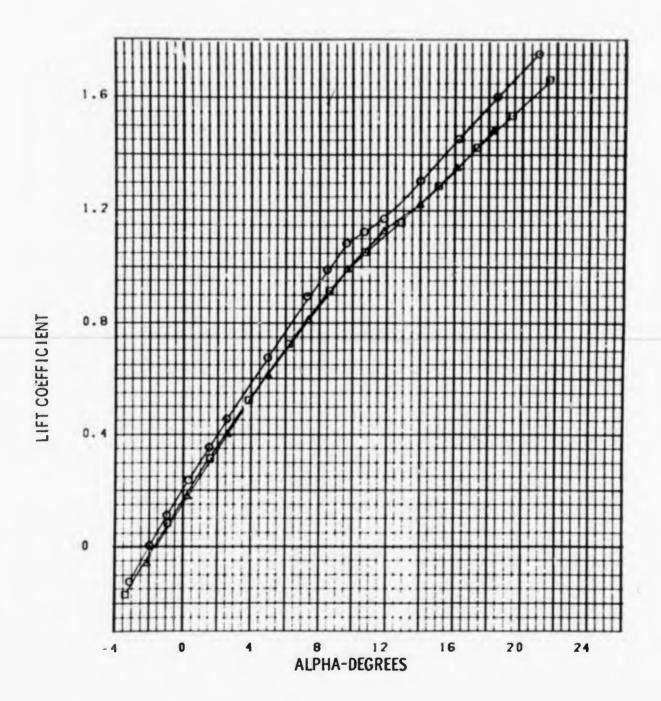


GUP 1066 HOL. CHAN WING COMPARISON BENEN AT ANT 16



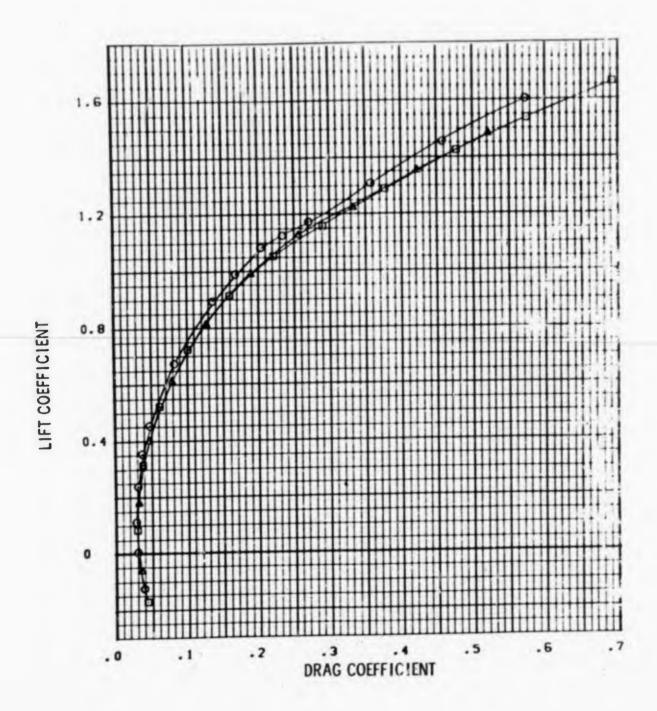
C 4 44		PART			
0	. 2 of 1	:6:	16	216	50
6	FWT	41	I C	043	267
A	PWI	41	IC	043	440

FIGURE 1065 FEDE . CLEAN WING COMPARISON BETWEEN PW. 4" AND 16"



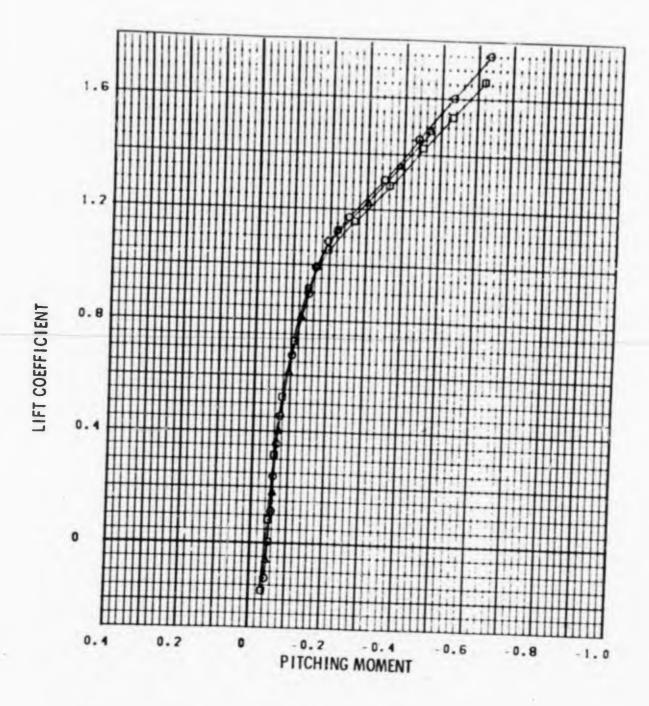
SYM		165	5'		- PAR
0	py1	16:	T.E	2:6	52
0	PWI	41	TC	043	264
A	PWI	41		043	441

FIGURE 1060 LEDE. CLEAN WING COMPARISON BETWEEN PUT 41 AND 161 M = 0.9



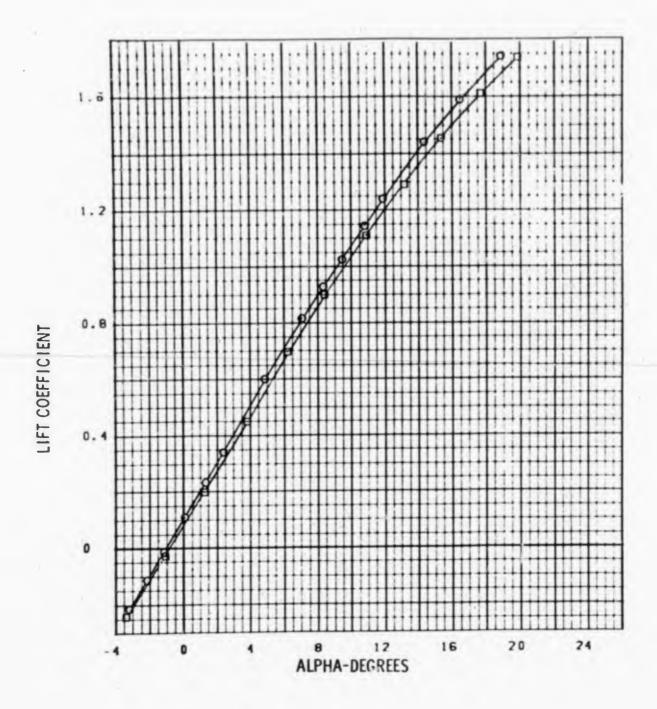
SYM		TEST				
0	PWT	161	TF -216	52		
Ø	PWT	4 T	TC-043	264		
A	PWT	41	TC-043	441		

FIGURE 106c LEDE. CLEAN WING COMPARISON BETWEEN PWT 4T AND 16T M = 0.9



SYM		TES	51	PAR
⊙	PWT PWT	41	TF-216 TC-043 TC-043	52 264

FIGURE 106c LEDE. CLEAN WING COMPARISON BETWEEN PUT 41 AND 161 M = 0.9

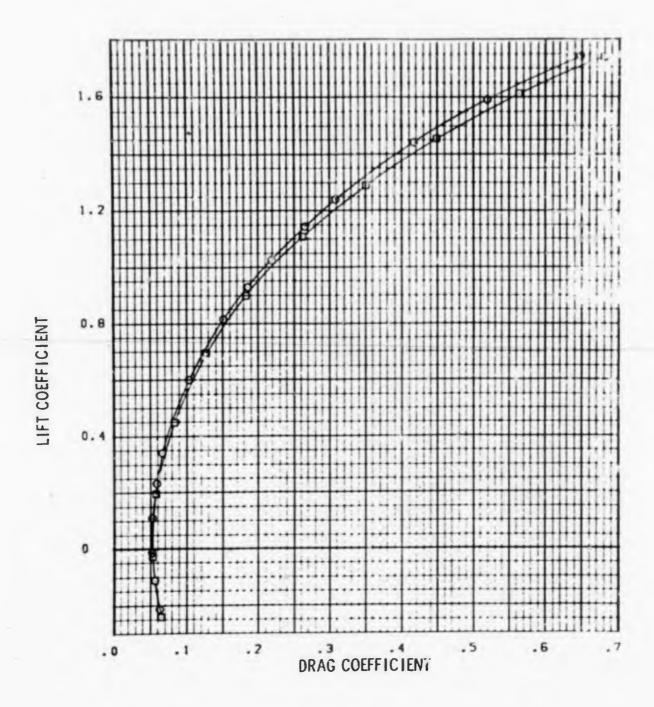


SYM TEST PART

O PWT 16T TF 216 54

O PWT 4T TC 043 269

FIGURE 106d LEDE. CLEAN WING COMPARISON BETWEEN PWT 4T AND 161 M = 1.2

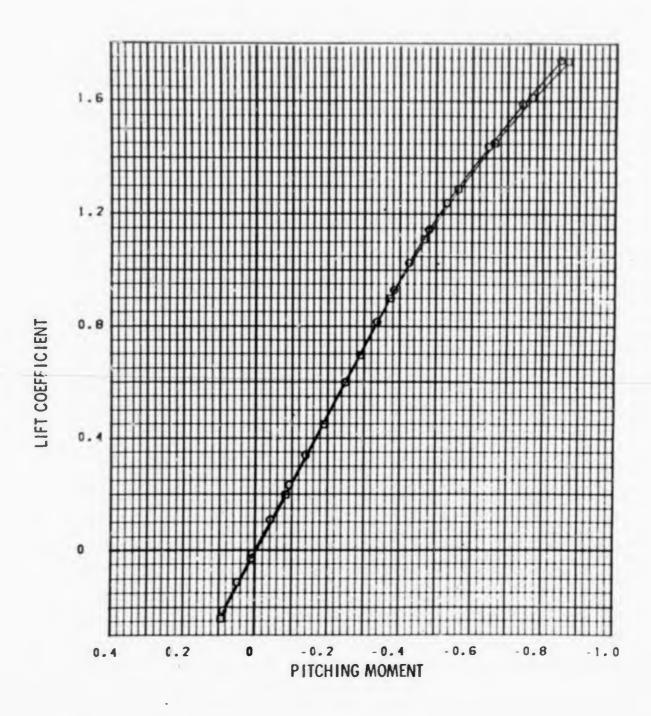


SY* 'FS' PAR'

0 Par 16' 'F 216 54

0 Par 41 TC 043 269

FIGURE 106d CFDE. C FAN WING COMPARISON BETWEEN PW' 4" AND 16" M = 1.2



SYM IEST PART

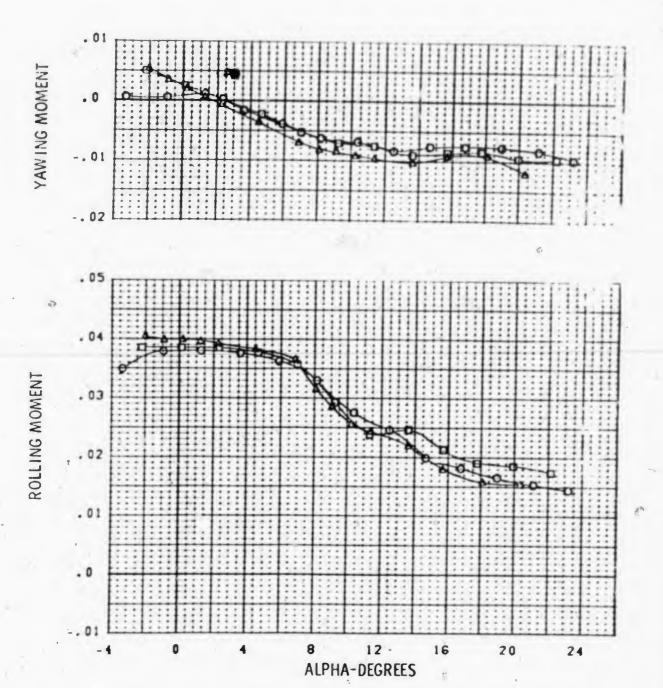
O PWI 161 IF 216 54

D PWI 4T IC-043 269

FIGURE 106d LEDE. CLEAN WING COMPARISON BETWEEN PWT 41 AND 161 M = 1.2

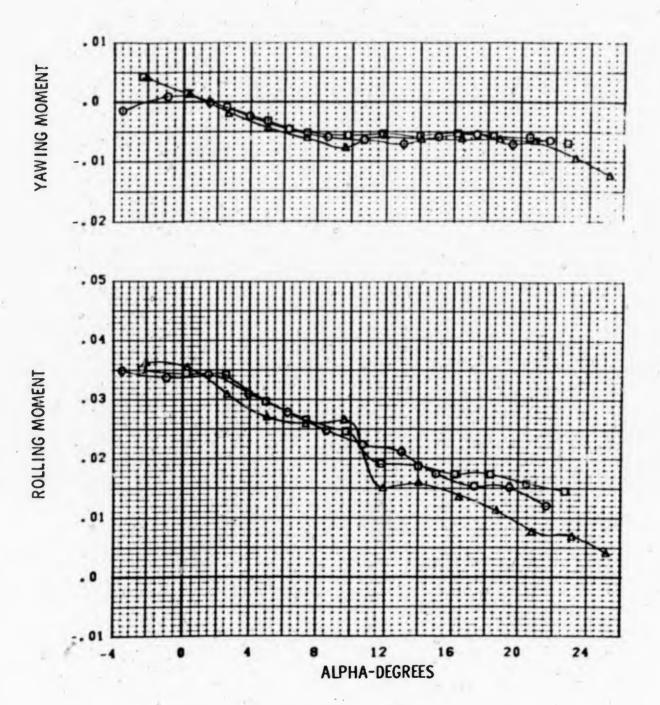
3. LEDE CONFIGURATION LATERAL-DIRECTIONAL DATA

Rolling and yawing moment data for the LEDE configuration obtained during the two entries into the 4-foot tunnel, and the 16-foot tunnel data are compared in this subsection in Figures 107 through 109.



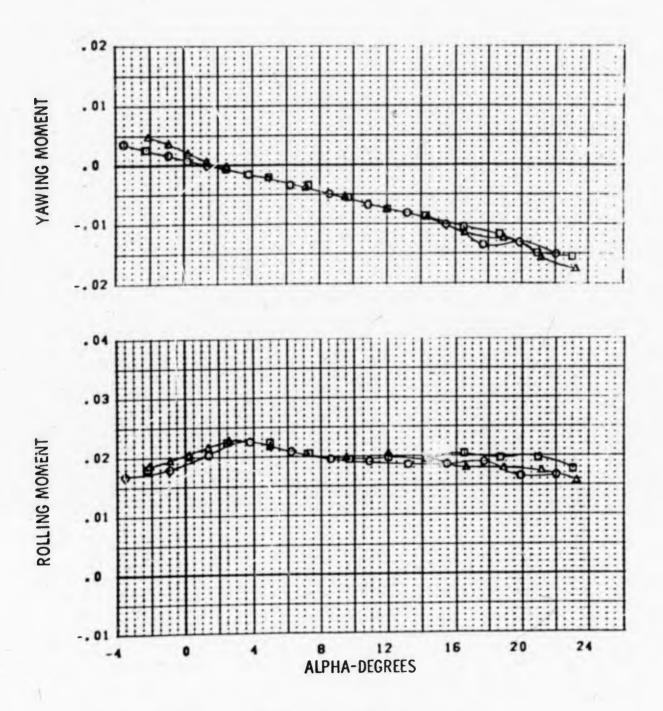
SYM		TES	ST '	PART	L.E.	(L/R)	AILERON	(L/R)
0	PWT	41	TC-043	215	K1	0/0	MID	20/-20
	PWT	41	TC-043	410		0/0		20/-20
_	PWT	161	TF-216	13	K1	0/0		20/-20

FIGURE 107a LEDE. MID AILERONS. COMPARISONS BETWEEN PUT 4T AND 16T. M = 0.7



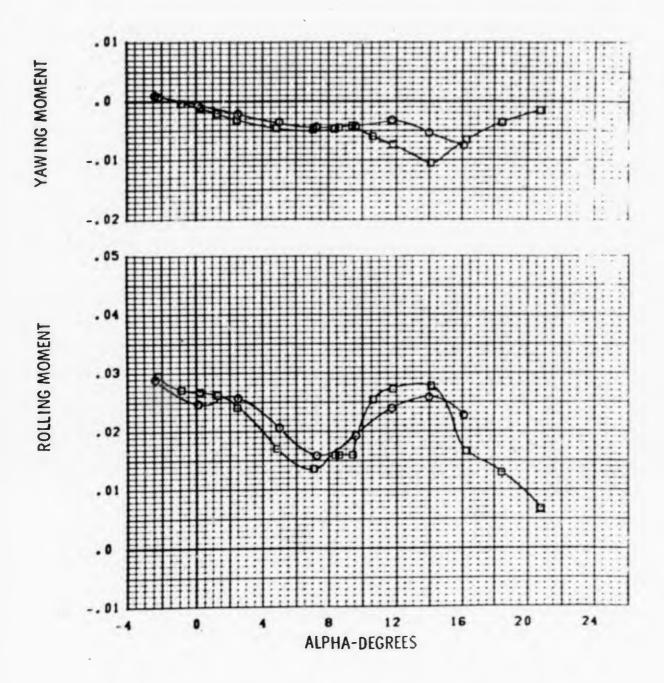
SYH		TES	ST	PART	L.E.	(L/R)	AILERON	(L/R)
ò	PWT	4T	TC-043	213	K1	0/0	MID	20/-20
0	PWT	4T	TC-043	412	K1	0/0	HID	20/-20
A =	PWT	16T	TF-216	8	K1	0/0	HID -	20/-20

FIGURE 107b LEDE. MID AILERONS. COMPARISONS BETWEEN PUT 4T AND 16T. M = 0.9



SYM		TEST	PART	L.E.	(L/R)	AILERON	(L/R)
0		4T TC-043					20/-20
○	_	4T TC-043 16T TF-216	10	K1 K1	0/0	MID	20/-20

FIGURE 107c LEDE. MID AILERONS. COMPARISONS BETWEEN PWT 4T AND 16T. M = 1.2

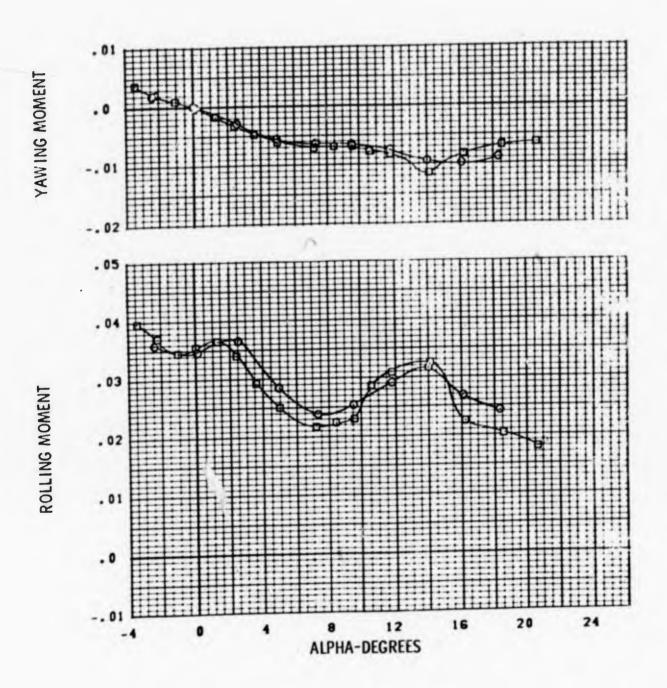


SYM TEST PART L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 425 K1 10/0 MID 20/-20

D PWT 16T TF-216 31 K1 10/0 MID 20/-20

FIGURE 108 LEDE, DIFFERENTIAL L.E.FLAP AND MID AILERONS COMPARISON BETWEEN PWT 4T AND 16T M = 0.9



SYM TEST PART L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 513 K1 10/0 3 SEGM. 20/-20

PWT 16T TF-216 68 K1 10/0 3 SEGM. 20/-20

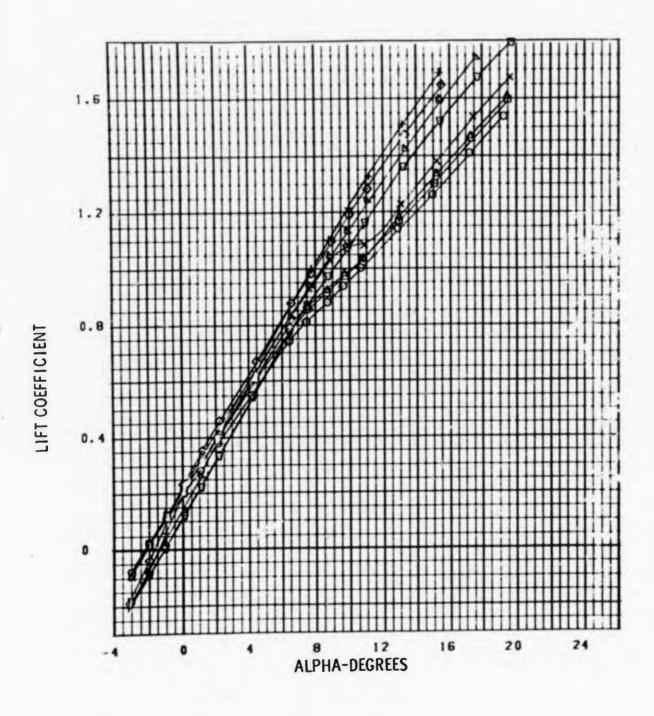
FIGURE 109 LEDE. DIFFERENTIAL L.E. FLAP AND EXTENDED AILERONS COMPARISON BETWEEN PWT 4T AND 16T M = 0.9

APPENDIX IV - FORCE AND MOMENT COMPARISONS SYMMETRICAL CONFIGURATIONS

A complete set of comparison plots are presented in this appendix which show the effect of symmetrical configuration test variables on the longitudinal aerodynamic characteristics of the LEDE test configuration. These plots are presented in the same order as the discussion of symmetrical configuration effects (Section VI) and cover the complete range of conditions tested. Both the basic force data and incremental plots are shown for each configuration.

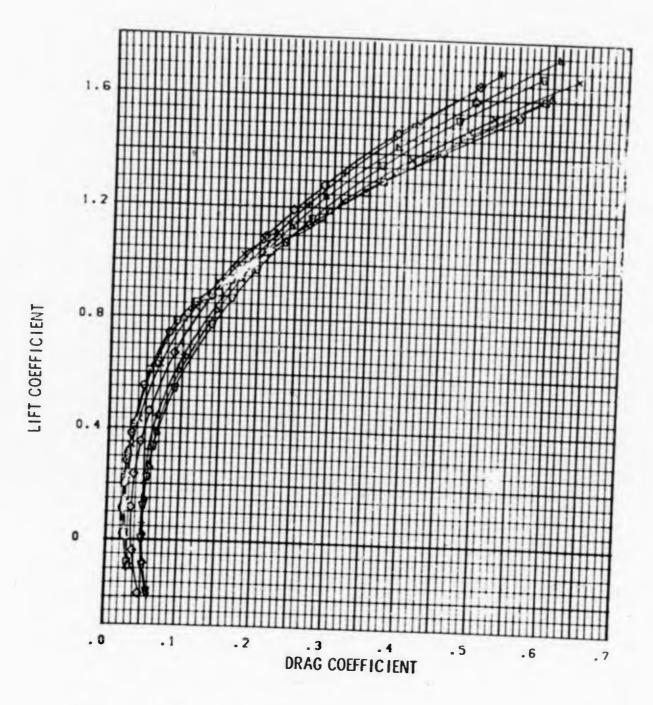
1. LEDE CONFIGURATION LONGITUDINAL CHARACTERISTICS

The lift, drag, and pitching moment characteristics of the basic configuration (tail-on) are presented in the following subsection. These data are from the 16T facility and were chosen as the baseline for evaluation the general characteristics of the configuration.



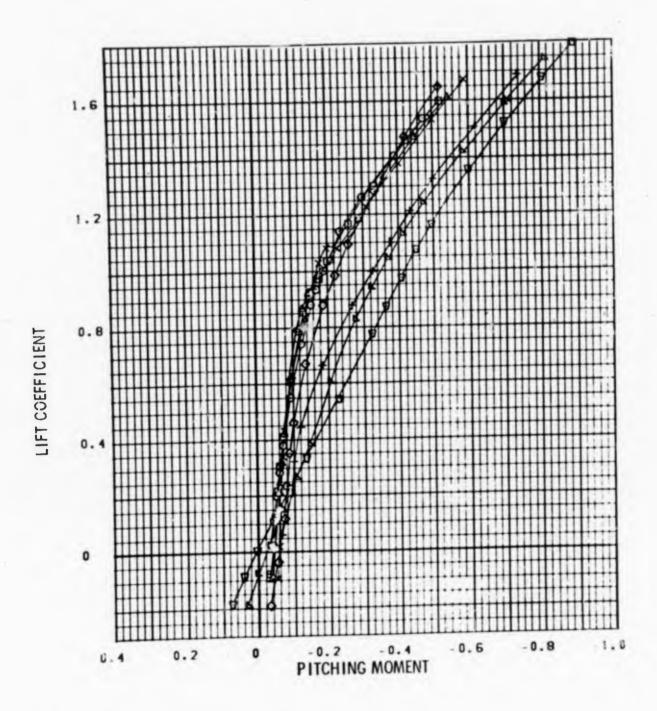
SYM		165	51	PART	MACH NO.
0	PWT	161	TF -216	39	0.70
0	PYT	161	TF -216	40	0.80
Δ	PWT	161	TF -216	46	0.85
×	PWT	161	TF-216	47	0.90
0	PWT	161	TF-216	42	0.95
+	PYT	161	TF-216	43	1.00
	PWT	161	TF-216	44	1.10
8	PWT	161	TF-216	45	1.20

FIGURE 110 MACH NUMBER EFFECTS ON LEDE CLEAN WING RN/FT \pm 3.0 MILLION



SYM		16	ST	PART	MACH NO.
0	PWI	161	IF 216	20	
0	PWT			39	0.70
_	- WI	161	TF -216	40	0.00
A	PWT	161	TF - 216		0.80
	***	101	16 - 519	46	0.85
×	PWI	161	TF -216	47	_
0	Dur	101	77 -210	47	0.90
•	PWI	161	TF -216	42	
+	PWT	101	15 210		0.95
	-		TF-216	43	1.00
	PWI	161	TF -216	_	
8	0		-216	44	1.10
G	PWT	161	TF -216	45	1 20

FIGURE 110 MACH NUMBER EFFECTS ON LEDE CLEAN WING RN/FT = 3.0 MILLION

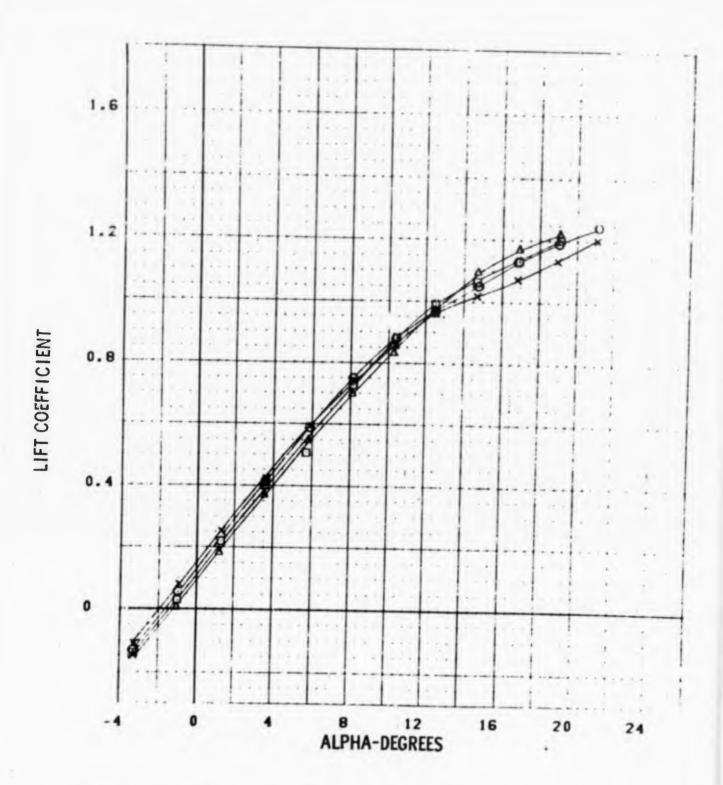


SYM		TE S	; 1	PART	MACH NO.
0	PWI	161	IF 216	39	0.70
0	PWT	161	TF -216	40	0.80
<u>A</u>	PNI	161	TF - 216	46	. 0.85
×	PWT	161	TF - 216	47	0.90
ô	PWT	161	TF 216	42	0.95
+	PWT	161	IF -216	43	1.00
	PWT	161	TF -216	44	1.10
9	PWT	161	TF - 216	45	1.20

FIGURE 110 MACH NUMBER EFFECTS ON LEDE CIFAN WING RN/FT = 3.0 MILLION

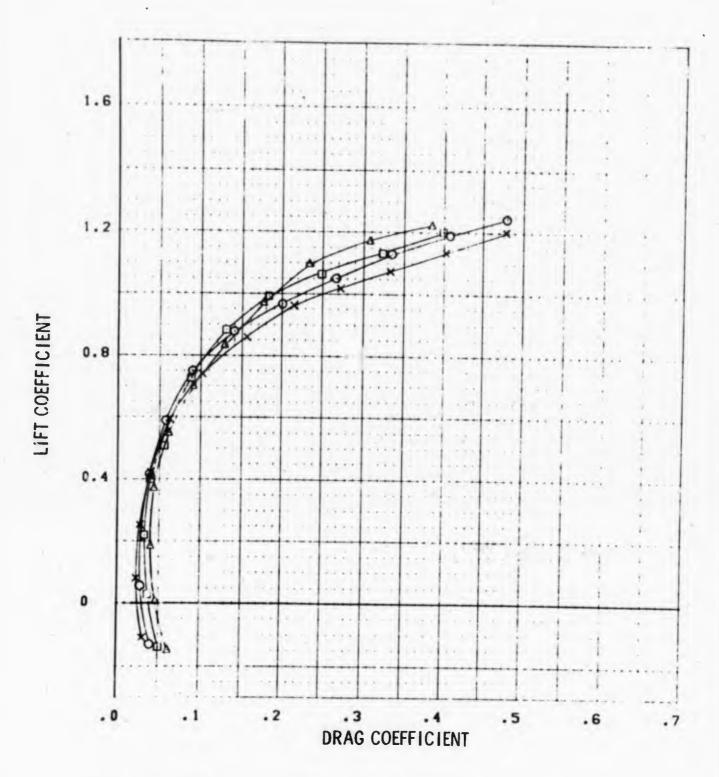
2. LEADING EDGE FLAP EFFECTS

The effects of symmetrical leading edge flap deflection on the aerodynamic characteristics of the LEDE configuration are presented in this subsection. Comparison plots for the configuration with the tail off are presented first, followed by the tail-on plots.



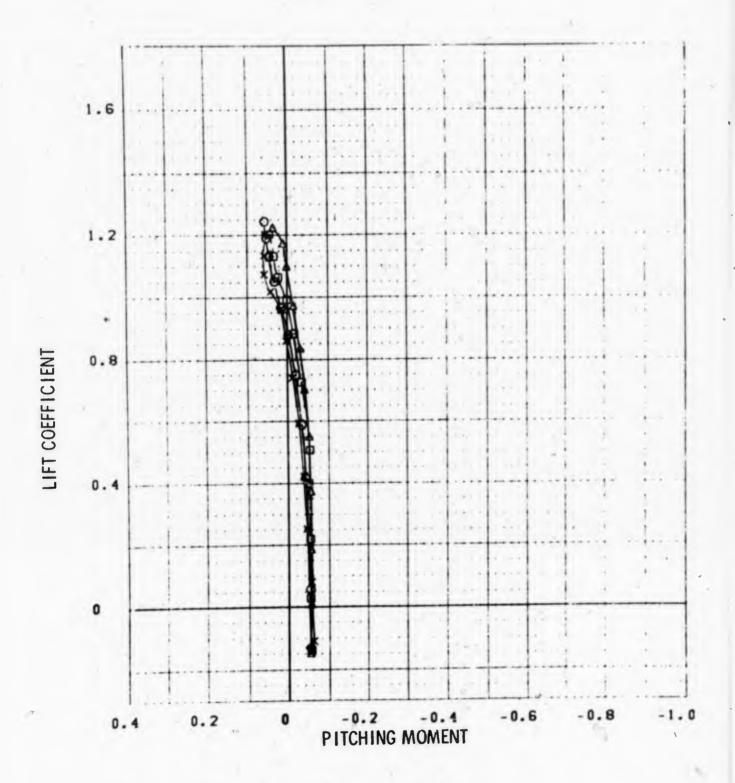
SYM		TE	ST	PART	L.E. (L/R)
0	PWT	4T	TC-043	42	K1 5/5
0	PWT	4T	TC-043	49	KI 10/10
Δ	PWT	4T	TC-043	56	K1 15/15
×	PWT	4T	TC-043	32	K1 13/13

FIGURE 111a SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.7



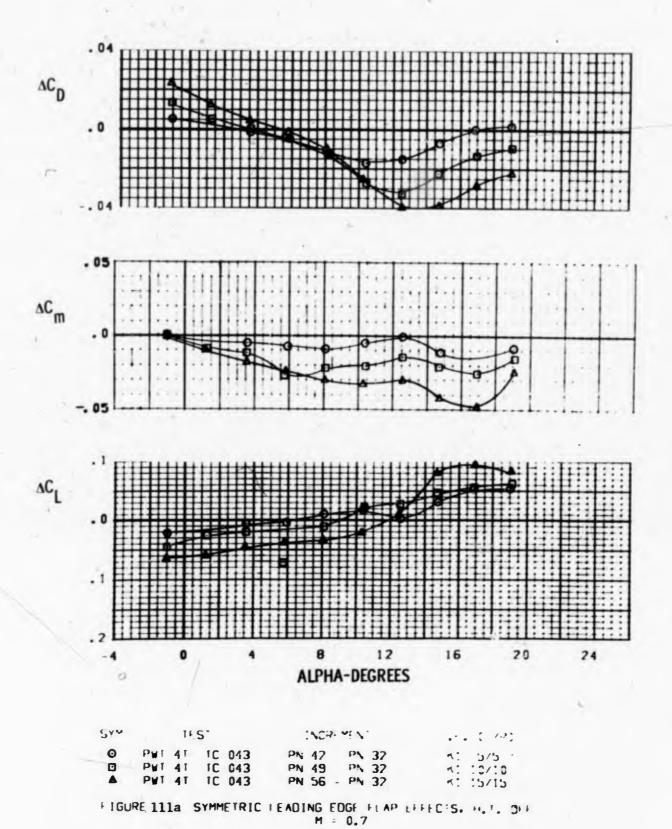
SYM		TE	ST	PART	L.E. (L/R)
0	PWT	4T	TC-043	42	K1 5/5
0	PWT	4T	TC-043	49	K1 10/10
Δ	PWT	4T	TC-043	56	K1 15/15
X	PWT	4T	TC-043	32	K1 0/0

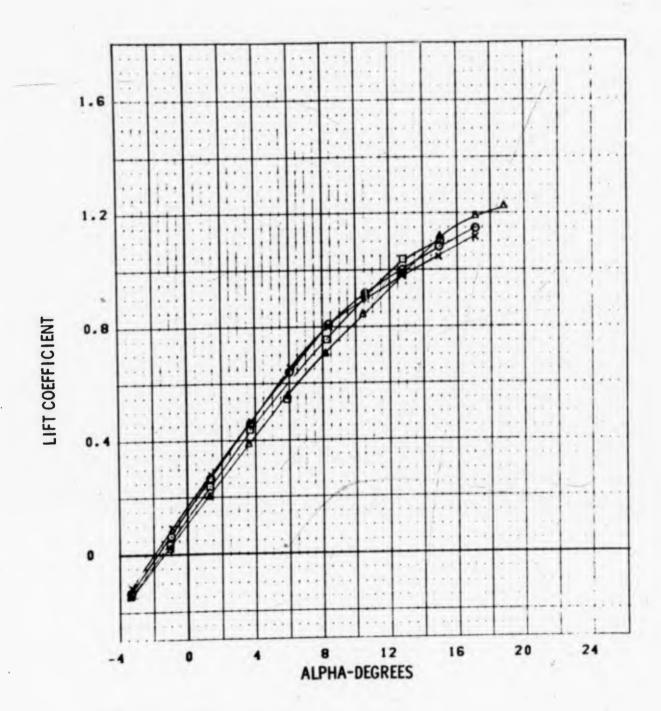
FIGURE 111a SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M=0.7



SYM		TE	ST	PART	L.E. (L/R)
0	PWT	4T	TC-043	42	K1 5/5
	PWT	4T	TC-043	45	K1 10/10
Δ	PWT	4T	TC-043	56	KI 15/15
×	PWT	41	TC-043	32	K1 0/0

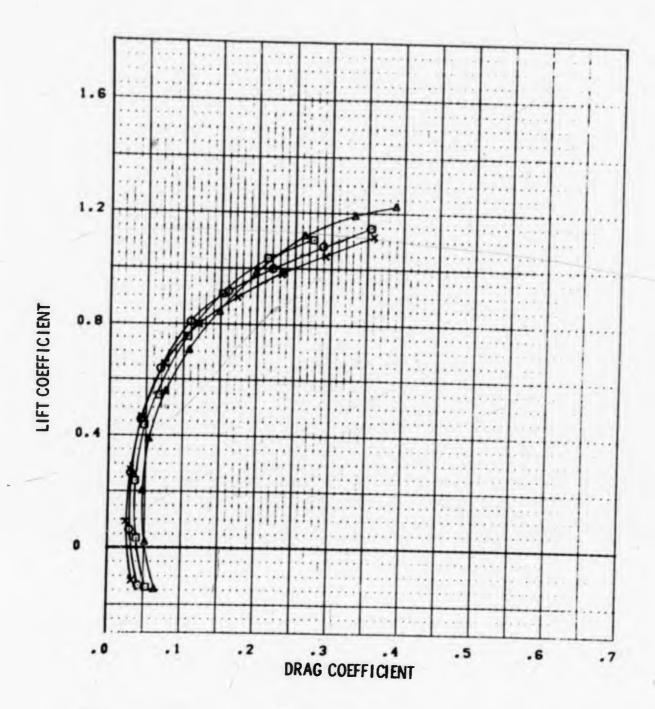
FIGURE 111a SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.7





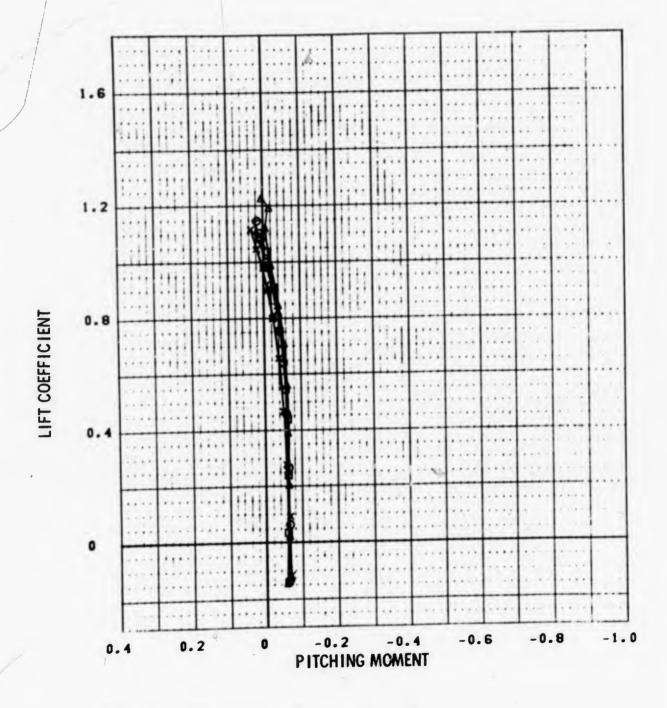
SYM		TE	ST	PART	L.E.	(L/R)_
0	PWT	4T	TC-043	. 38	K1 :	5/5
0	PWT	4T	TC-043	48	K1 1	0/10
Δ	PWT	4T	TC-043	55	K1 1	5/15
×	PYT	41	TC-043	31	K1	0/0

FIGURE 1116 SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.8



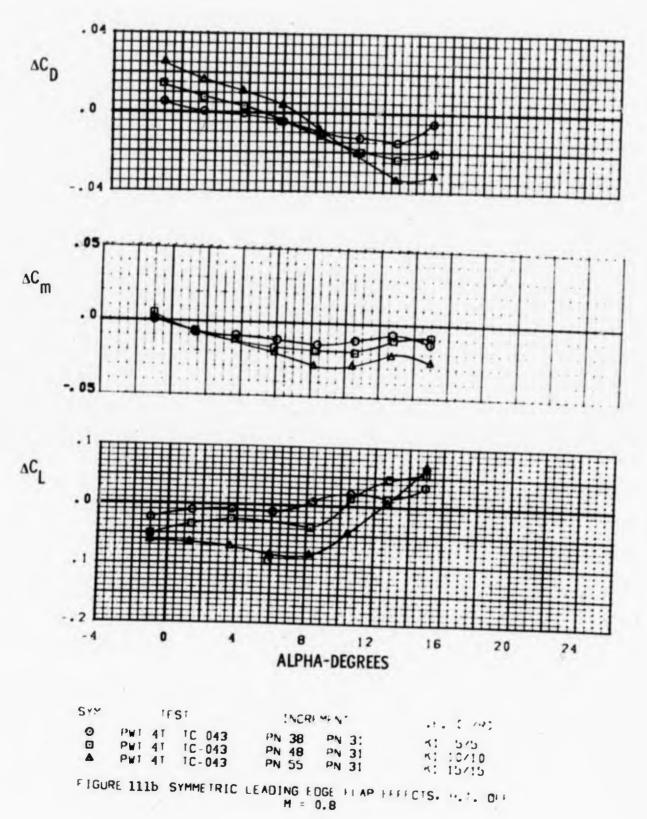
SYM		TE	ST	PART	L.E. (L/R)
⊙ △ ×	PWT PWT PWT	4T 4T	TC-043 TC-043 TC-043 TC-043	38 48 55	K1 5/5 K1 10/10 K1 15/15 K1 0/0

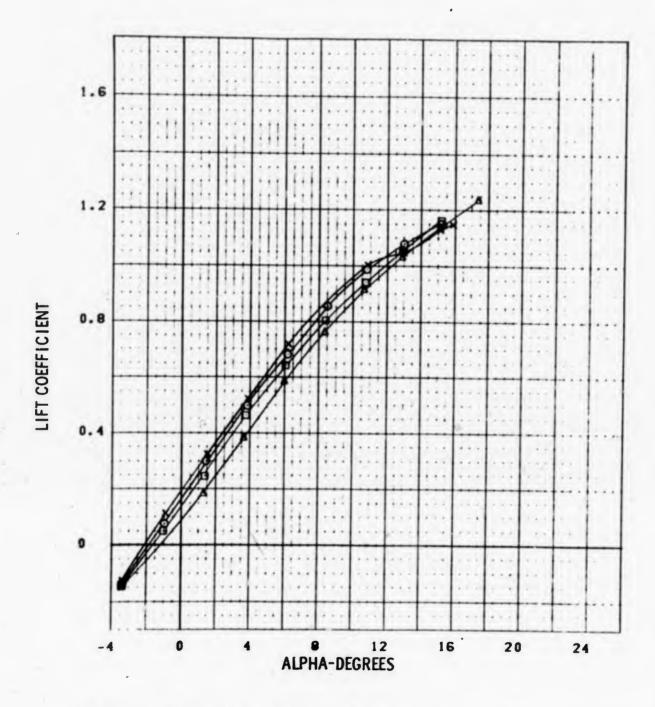
FIGURE 111b SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.8



SYM		TE	ST	PART	L.E. (L/R)
0	PWT	41	TC-043	38	K1 5/5
Ö	PYT	-	TC-043	48	K1 10/10
A	PWT	41	TC-043	55	K1 15/15
×	PWT	41	TC-043	31	K1 0/0

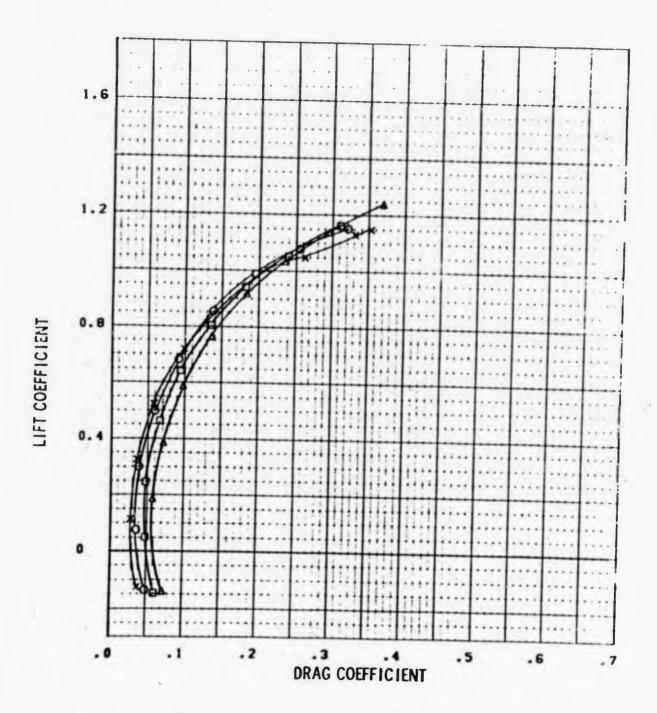
FIGURE 111b SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M=0.8





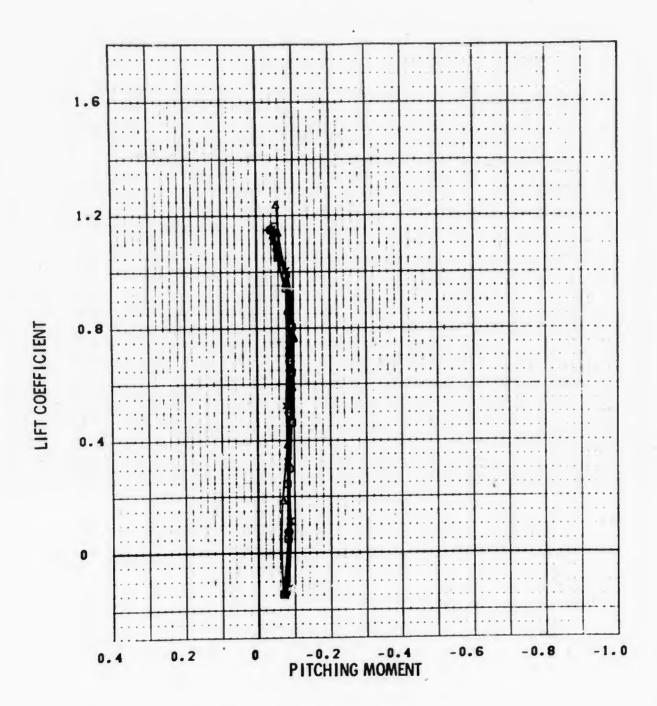
SYM		TE	ST	PART	L.E. (L/R)
0	PWT	4T	TC-043	37	K1 5/5
0	PWT	4T	TC-043	47	K1 10/10
Δ	PWT	4T	TC-043	54	KI 15/15
×	PWT	4T	TC-043	30	K1 0/0

FIGURE 111c SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.9



SYH		TE	ST	PART	L.E.	(L/R)
0	PWT		TC-043	37	K1	5/5
Δ	PYT		TC-043 TC-043	47 54		10/10 15/15
×	PWT	4T	TC-043	30		0/0

FIGURE 111c SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.9



SYM		TE	ST	PART	L.E. (L/R)
0	PWT	4T	TC-043	37	K1 5/5
0	PWT	4T	TC-043	47	K1 10/10
A	PWT	41	TC-043	54	K1 15/15
×	PYT	4T	TC-043	30	K1 0/0

FIGURE 111c SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 0.9

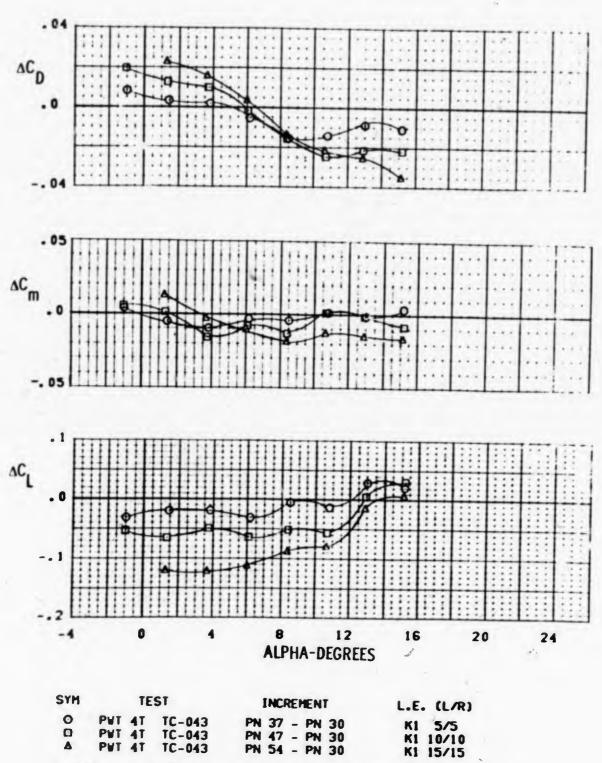
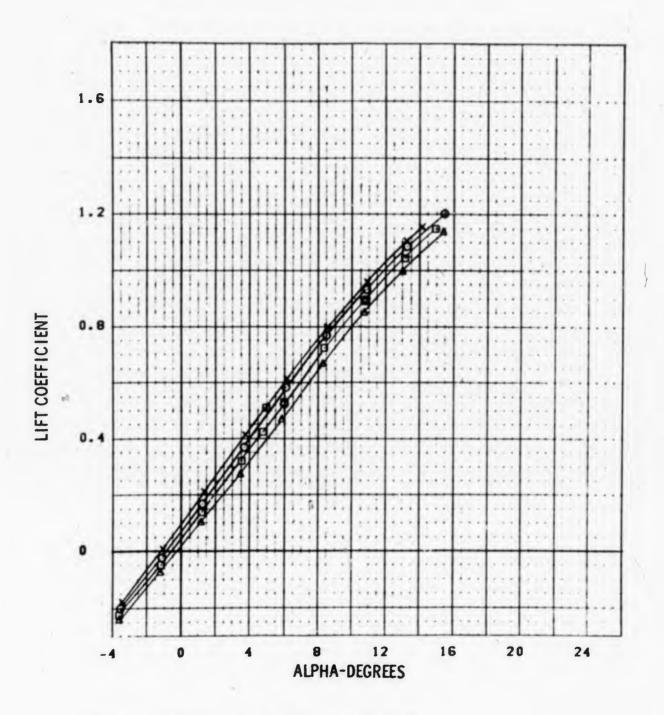
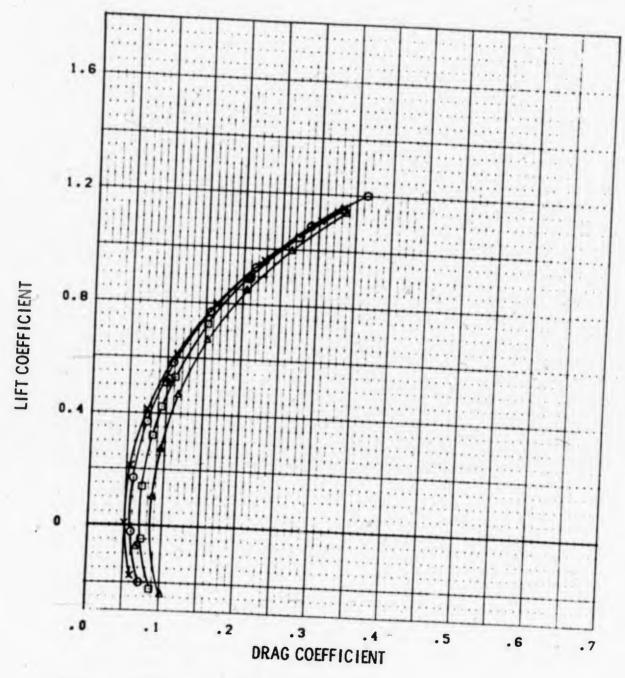


FIGURE 111c SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF' H = 0.9



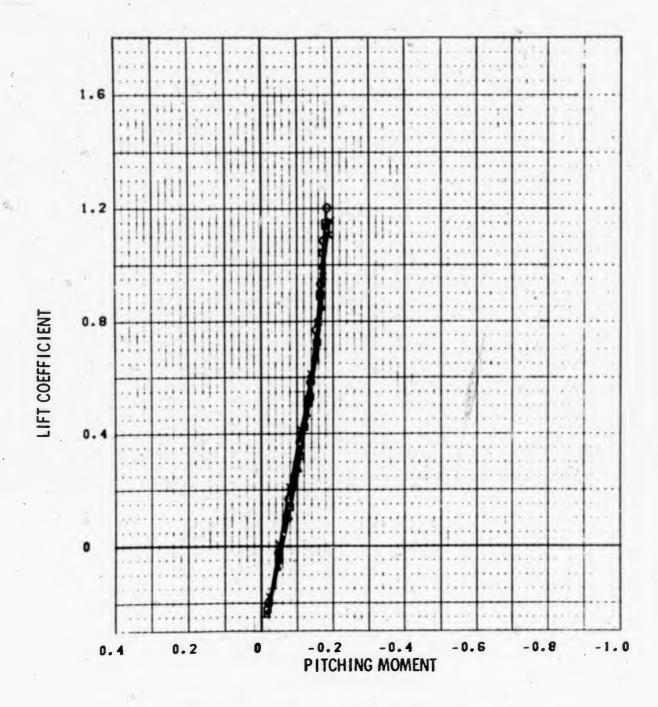
SYH		TE	ST	PART	L.E. (L/R)
0	PWT	4T	TC-043	43	K1 5/5
•	PWT	41	TC-043	50	K1 10/10
Δ	PWT	41	TC-043	57	KI 15/15
×	PWT	4 T	TC-043	33	K1 0/0

FIGURE 111d SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 1.2



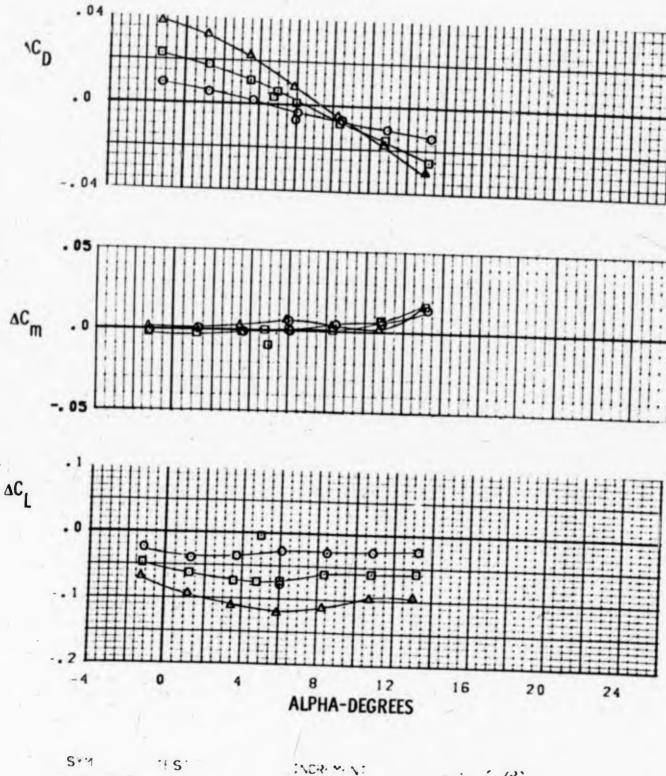
SYM	TEST	PART	1.5.0
0 4 X	PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043	43 50 57 33	K1 5/5 K1 10/10 K1 15/15 K1 0/0

FIGURE 111d SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF



SYM		TE	ST	PART	L.E. (L/R)
0	PHT	4T	TC-043	43	K1 5/5
0	PWT	41	TC-043	50	K1 10/10
Δ	PWT	4T	TC-043	57	K1 15/15
×	PYT	4T	TC-043	33	K1 0/0

FIGURE 111d SYMMETRIC LEADING EDGE FLAP EFFECTS. H.T. OFF M = 1.2



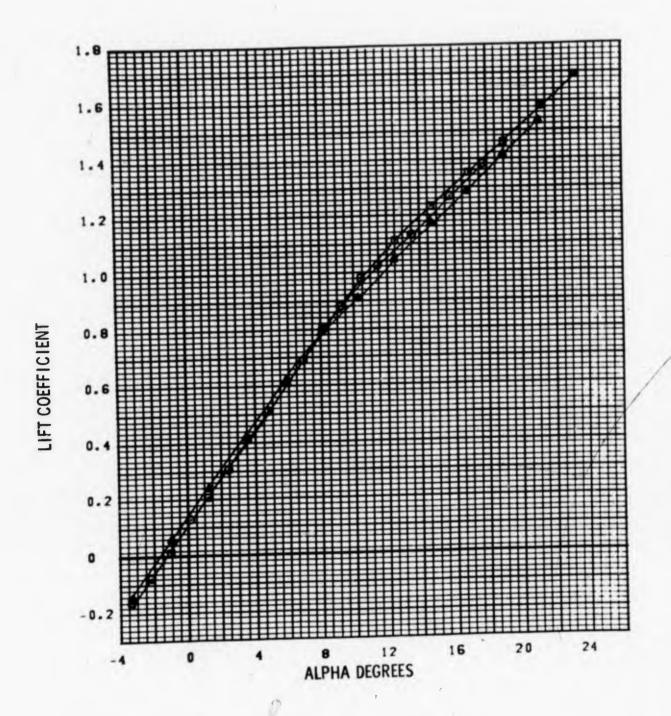
SYM TIST INCREMENTS (1/R)

O PWI 41 1C 043 PN 43 PN 33 KI 5/5

PWI 41 1C 043 PN 50 PN 33 KI 10/10

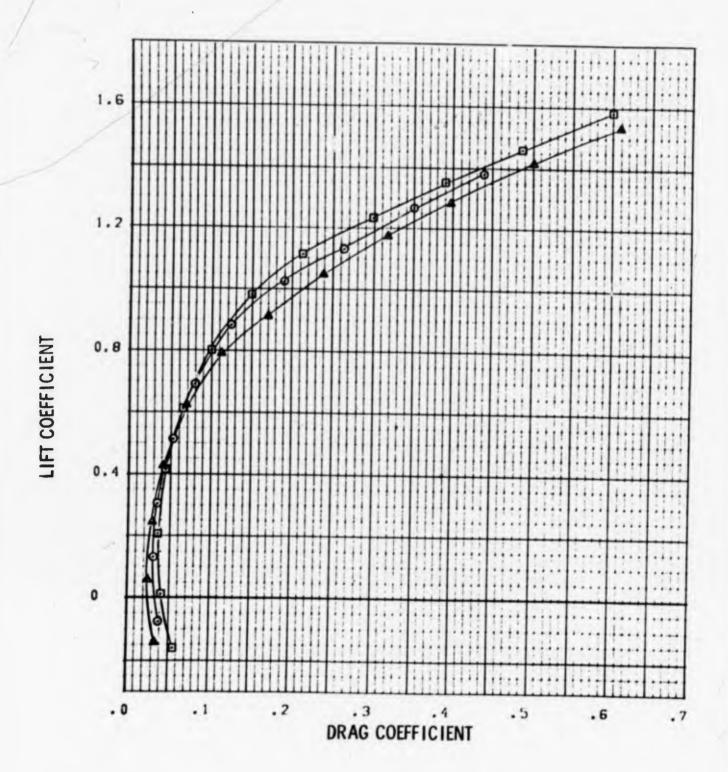
A PWI 41 1C-043 PN 57 PN 33 KI 15/15

FIGURE 111d SYMMETRIC LEADING FOOF FLAP EFFECTS. H.T. CFF



SYM		TES	T	PART	L.E. (L/R)
0	PWT 4	4 T	TC-043	448	K1 5/5
	PWT 4	-	TC-043	128 268	K1 10/10 K1 0/0

FIGURE 112a SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. CN M = 0.7



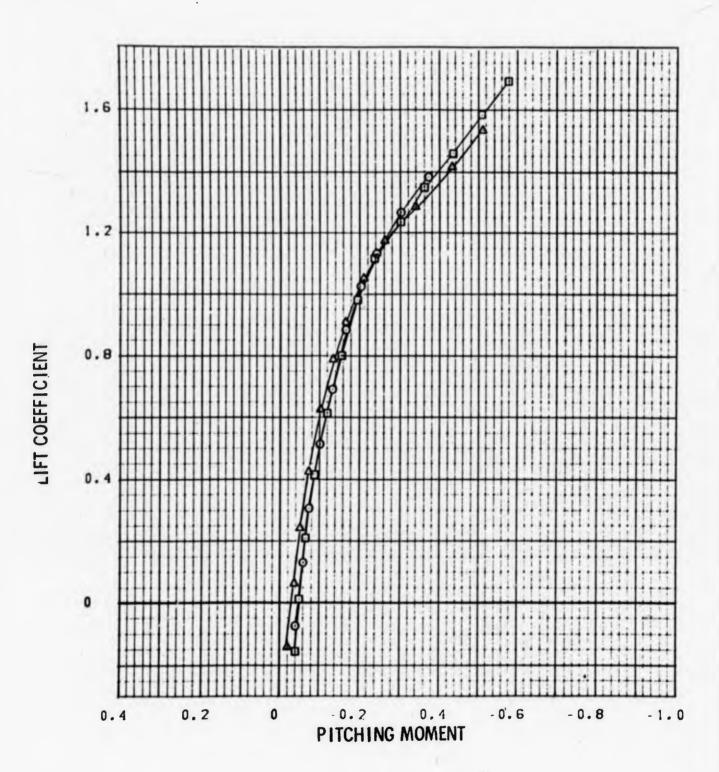
```
    SYM
    HST
    PAJT
    (.7R)

    Φ
    PWI 41 IC 043 448
    <1.575</td>

    Φ
    PWI 41 IC 043 128
    <1.10/10</td>

    Δ
    PWI 41 IC 043 268
    <1.00</td>
```

FIGURE 112a SYMMETRIC LEADING FORF FLAP EFFECTS, H.T. ON M 0.7



\$

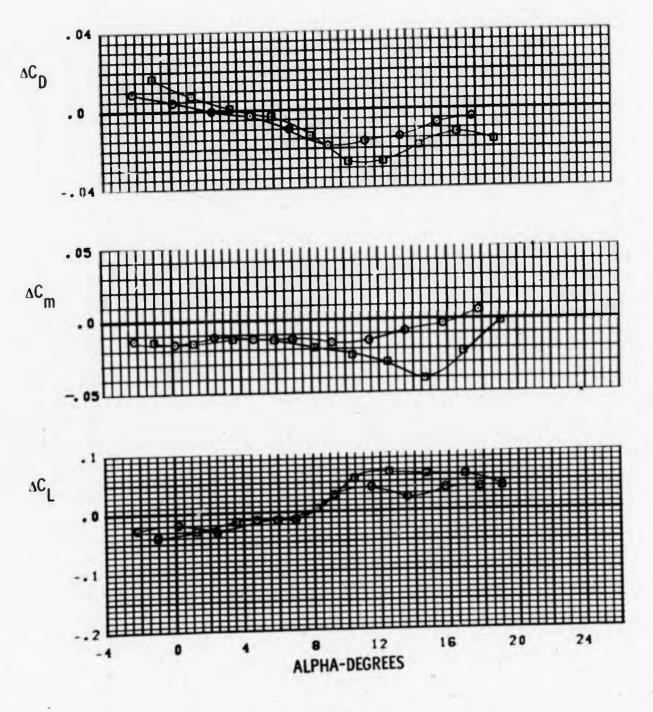
```
    SYM
    TEST
    PART
    T.F. (F/R)

    © PWT 4T TC 043
    448
    .K1 5/5

    D PWT 4T TC 043
    128
    K1 10/10

    A PWT 4T TC 043
    268
    K1 0/0
```

FIGURE 112a SYMMETRIC LEADING FUGE FLAP (FFECTS, H.T. CN M 0.7



SYM TEST INCREMENT L.E. (L/R)

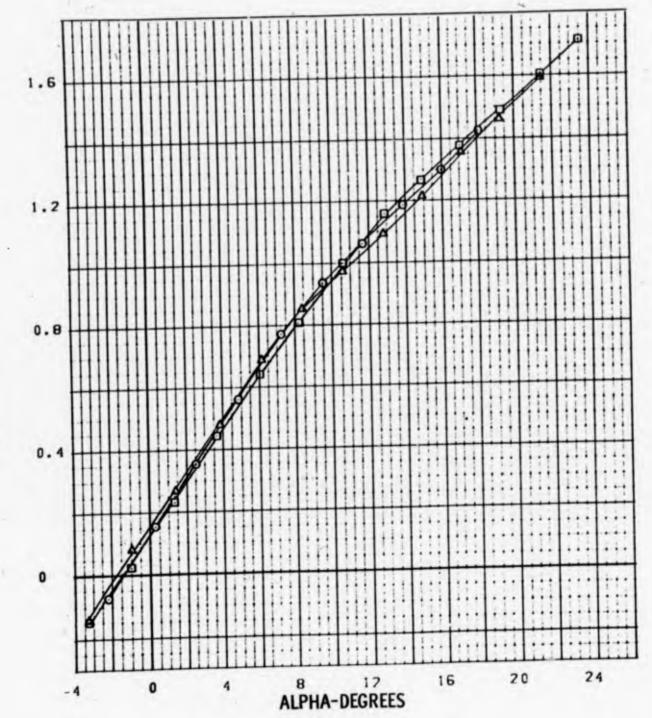
O PWT 4T TC-043 PN 448 - PN 268 K1 5/5

O PWT 4T TC-043 PN 128 - PN 268 K1 10/10

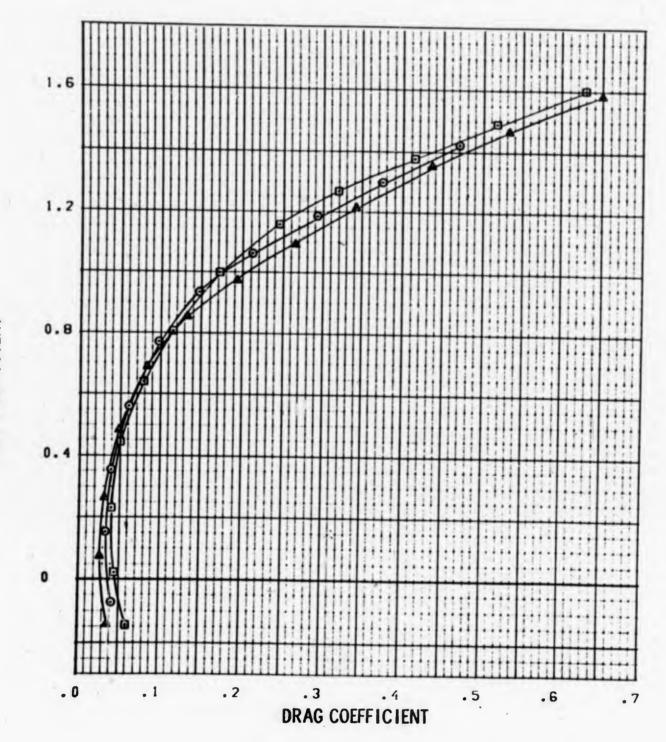
FIGURE 112a SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. CV

M = 0.7



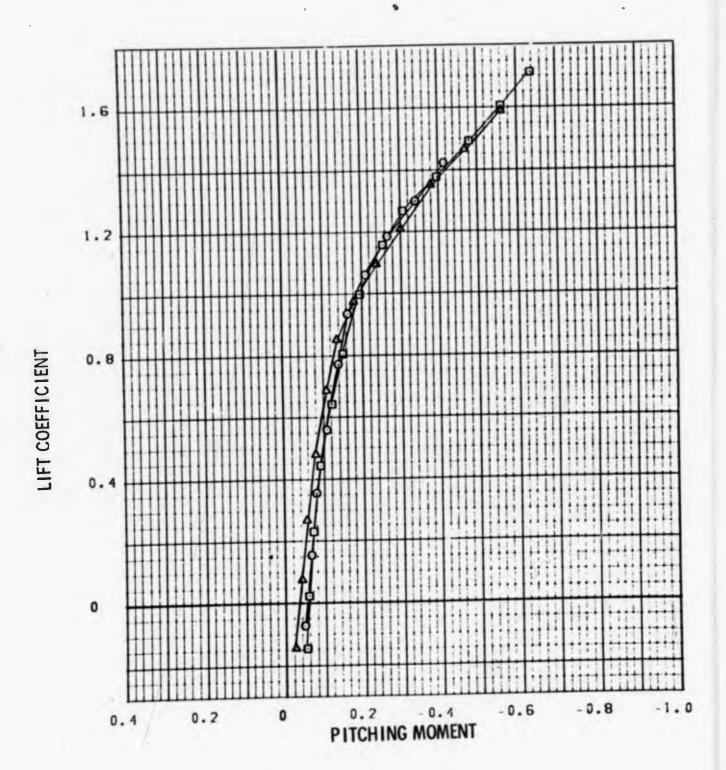


SIM		* :	S.		34.3"	L.E.	(L/R)		
	PWI PWI IWG	41		043	447 127 267	K1	5/5 10/10 0/0		
I I GU	RI 11	2ь	SYMM	RIC	HADING H	icci Fi 8	AP tret	C:S,H.T.	CN



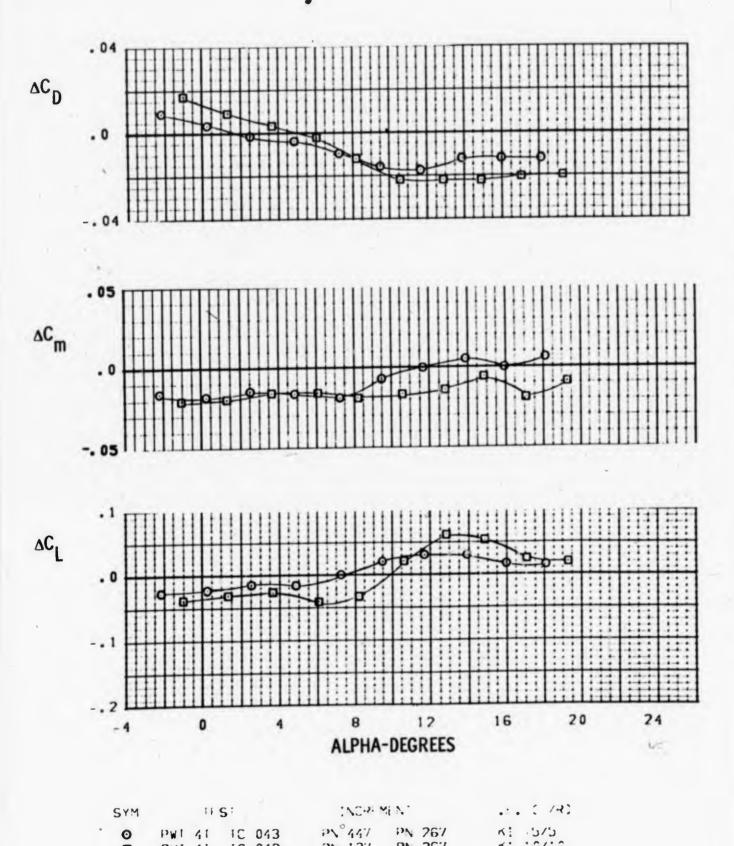
SYM		: 1	s:		72A-21	L.E. (L/R)
0	PWI	41	10	043	441	K1 5/5
0	PWI	•	10	043	127	K1 10/10
á	PWI	41	iC	043	267	K1 0/0

FIGURE 1126 SYMMETRIC FEADING FOR FLAP EFFECTS, H.T. ON M 0.8

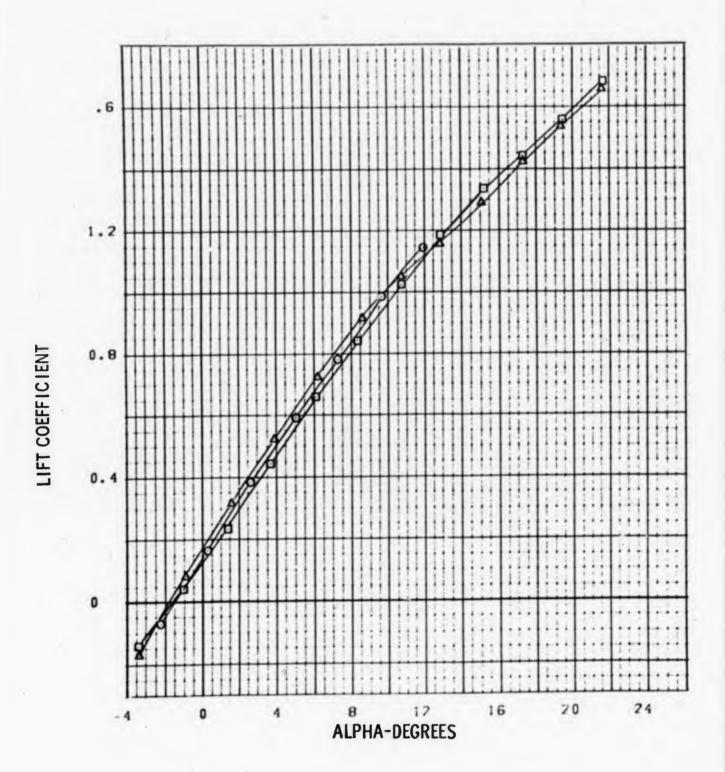


SYM	1.6	S:	15415.	:.f. (1/R)	
D PW	1 41	TC 043 TC 043 TC 043	447 127 267	K1 5/5 K1 10/10 K1 0/0	

FIGURE 1126 SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. ON M 0.8



PWI 41 TC 043 PN 127 - PN 267 KI 10/10
FIGURE 112b SYMMETRIC LEADING FOGE FLAP EFFECTS, H.T. ON M = 0.8

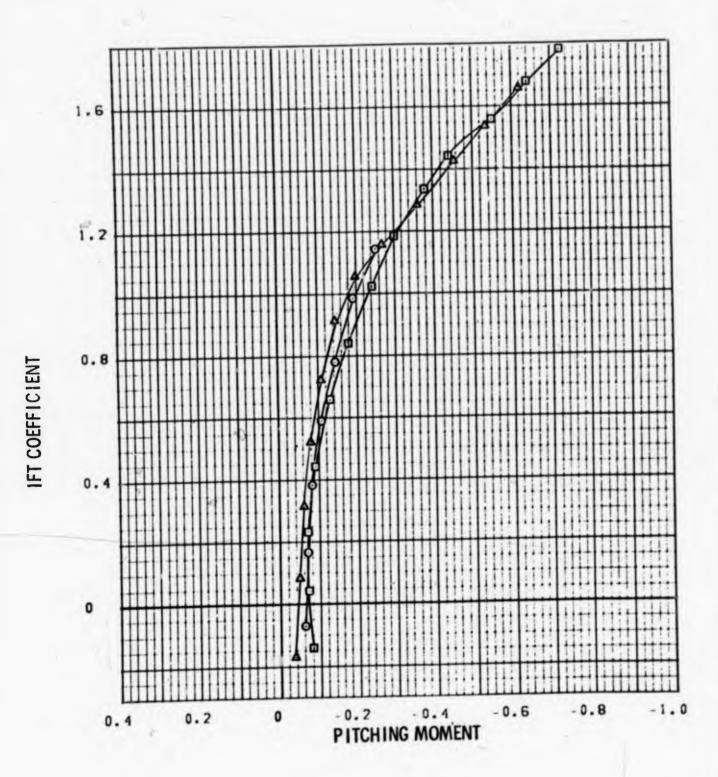


SYM		* :	S'		1545)	.: . (/२)
0	12%	4!	:0	043	445	4: 5/5
0	PWI	41	1C	043	126	4: :0/10
A	PW:	41	10	043	264	K: 0/0

FIGURE 112c SYMMETRIC FEADING FORF FEAD FFFECTS, H.T. GN M 0.9

SYM		TE	ST		PART	L.E.	(L/R)
0	Part	4"	.0	043	445	K1	5/5
0	PWI	4:	:0	043	126	K1	10/10
A	PHI	4:	10	043	264	K1	0/0

FIGURE 112c SYMMETRIC LEADING EDGE FLAP EFFECTS H.T. ON M - 0.9



SYM	11	St	PAR!	1.F. (1/R)
⊙	PWT 4T	IC - 043 IC - 043 IC - 043	445 126 264	K1 5/5 K1 10/10 K1 0/0
FIGU	RE 112c	SYMME IRIC	HADING H	DGE FLAP EFFECTS, H.T. ON

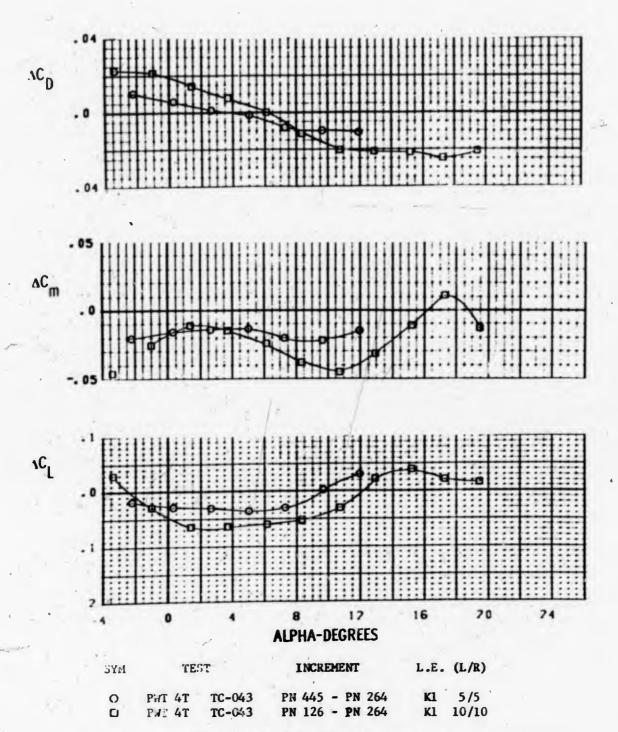
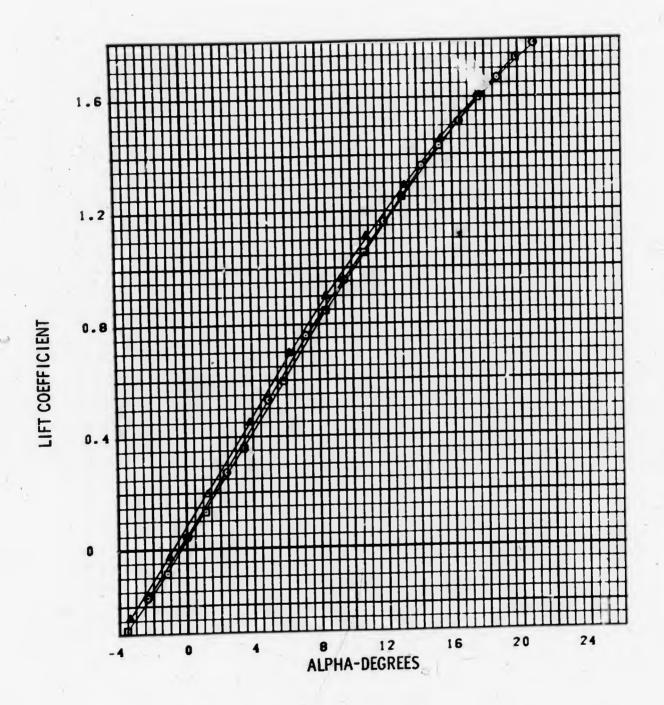
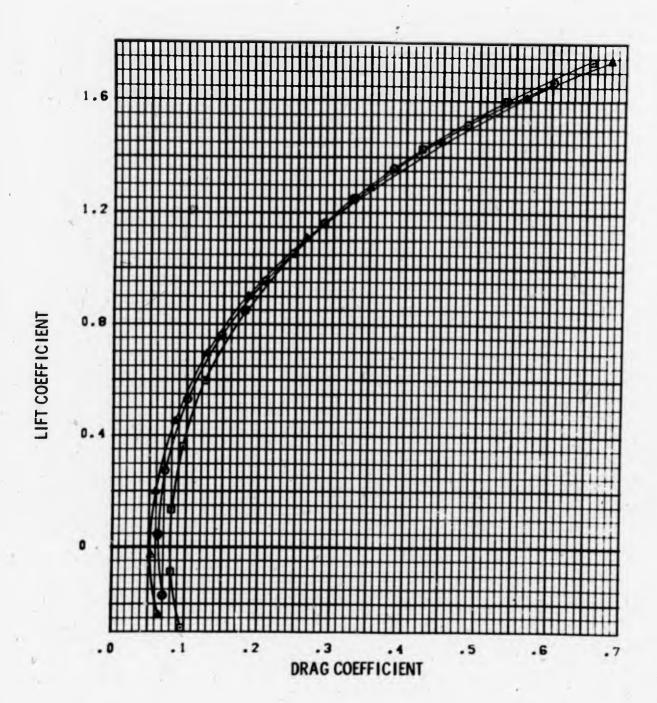


Figure 112c SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. ON M = 0.9



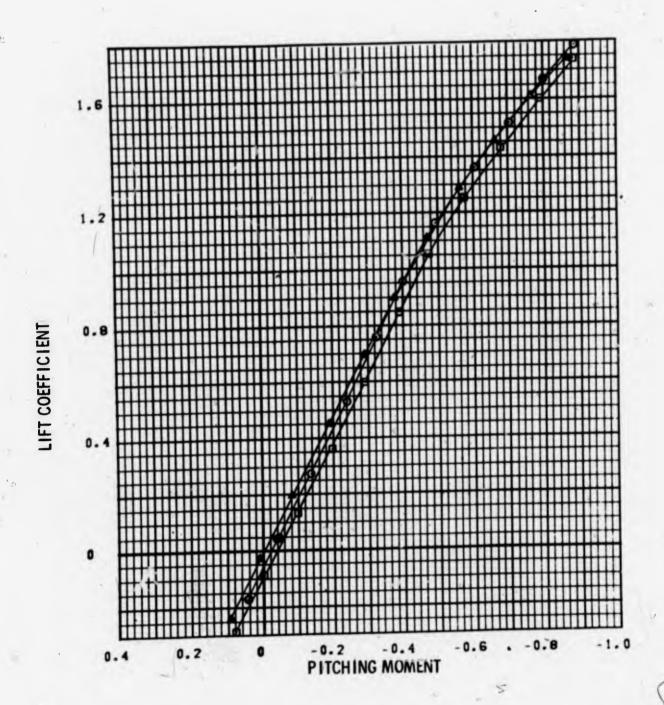
SYM		TE	ST	PART	L.E. (L/	R)
0	PHT	41	TC-043	449	K1 5/5	
0	PVT			129	K1 10/1	
A	PWT	41	TC-043	269	K1 0/0	3

FIGURE 112d SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. GN M = 1.2



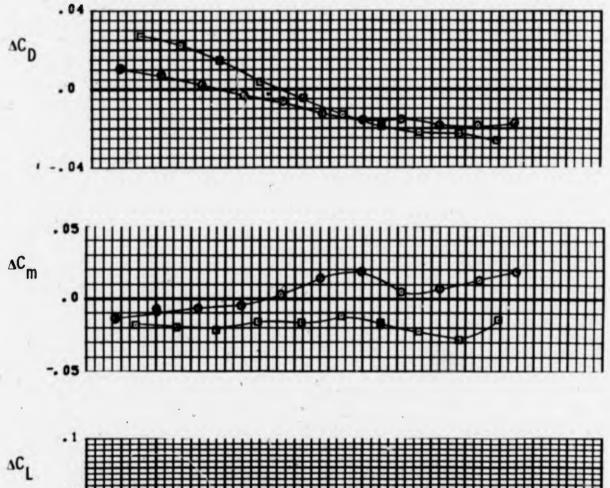
SYM		TE	ST	PART	L.E.	(L/R)
0	PWT	41	TC-043	449	К1	5/5
0	PWT		TC-043	129		10/10
	PYT	41	TC-043	269	_	0/0

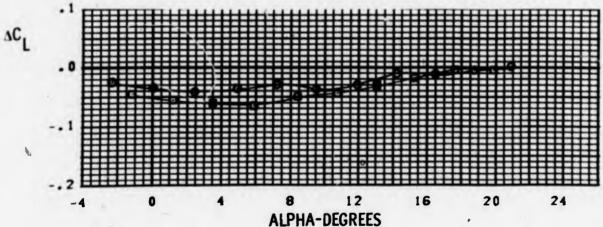
FIGURE 112d SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. CN M = 1.2



SYM	TE	ST	PART	L.E.	(L/R)
0	PHT 4T	TC-043	449		5/5
ō	PWT 4T	TC-043	129	-	10/10
A	PUT 4T	TC-043	269	K1	0/0

FIGURE 112d SYMMETRIC LEADING EDGE FLAP EFFECTS, H. T. ON M = 1.2





SYM TEST INCREMENT L.E. (L/R)

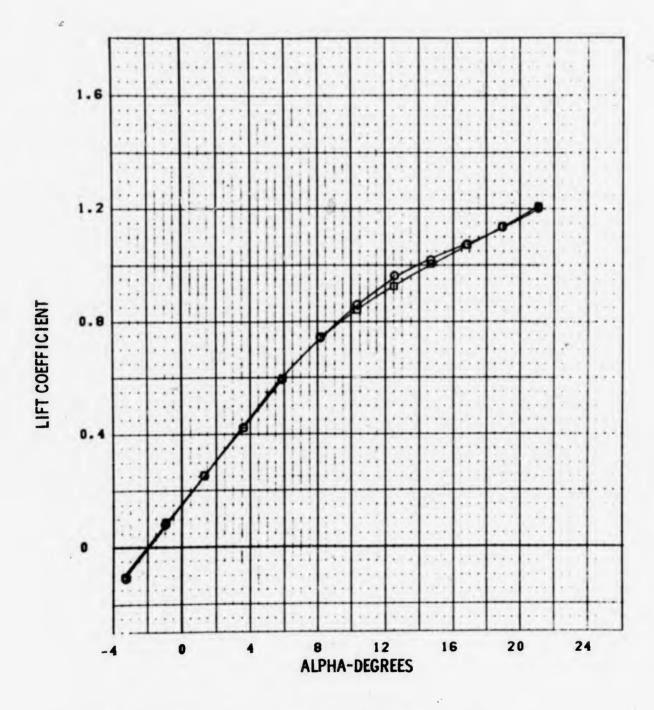
© PWT 4T TC-043 PN 449 - PN 269 K1 5/5

© PWT 4T TC-043 PN 129 - PN 269 K1 10/10

FIGURE 112d SYMMETRIC LEADING EDGE FLAP EFFECTS, H.T. CN M = 1.2

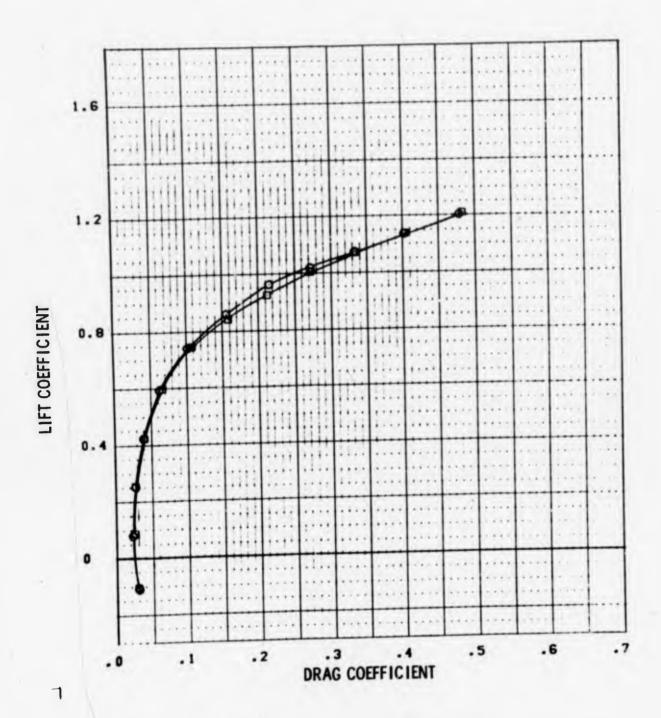
3. ALTERNATE LEADING EDGE

Comparison plots showing the effect of the alternate leading edge airfoil geometry in comparison to the basic leading edge are presented in this subsection.



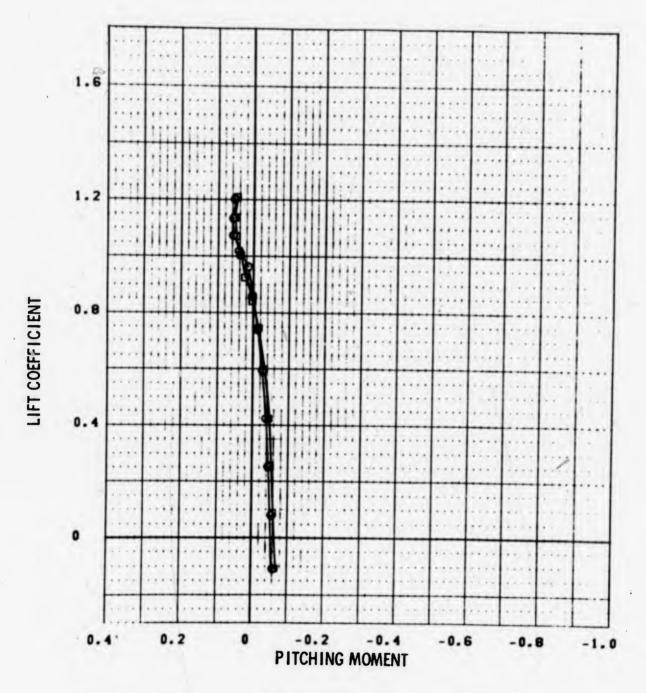
SYH	TEST		PART	L.E.	(L/R)	H.T.	
0	PWT	4T	TC-043	32	K1	0/0	OFF
0	PWT	4T	TC-043	63	K2	0/0	OFF

FIGURE 113a EFFECT OF ALTERNATE LEADING EDGE M = 0.7



SYM	TEST		PART	L.E.	(L/R)	н. т.
0		TC-043 TC-043	32 63		0/0	OFF

FIGURE 113a EFFECT OF ALTERNATE LEADING EDGE M = 0.7



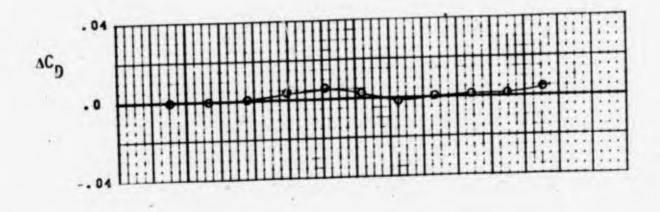
SYM TEST PART L.E. (L/R) H.T.

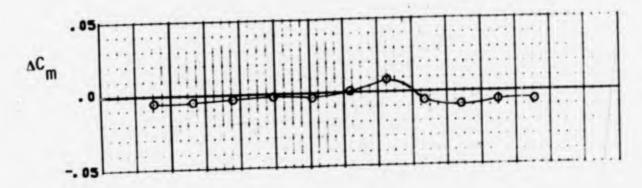
O PWT 4T TC-043 32 K1 0/0 OFF

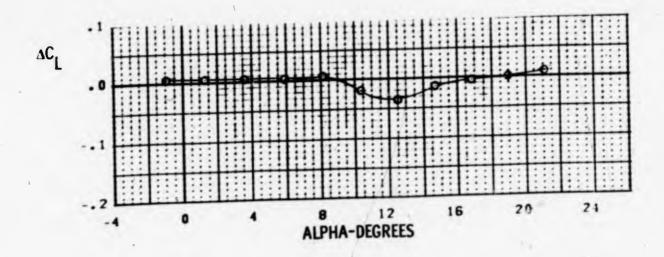
PWT 4T TC-043 63 K2 0/0 OFF

FIGURE 113a EFFECT OF ALTERNATE LEADING EDGE

M = 0.7





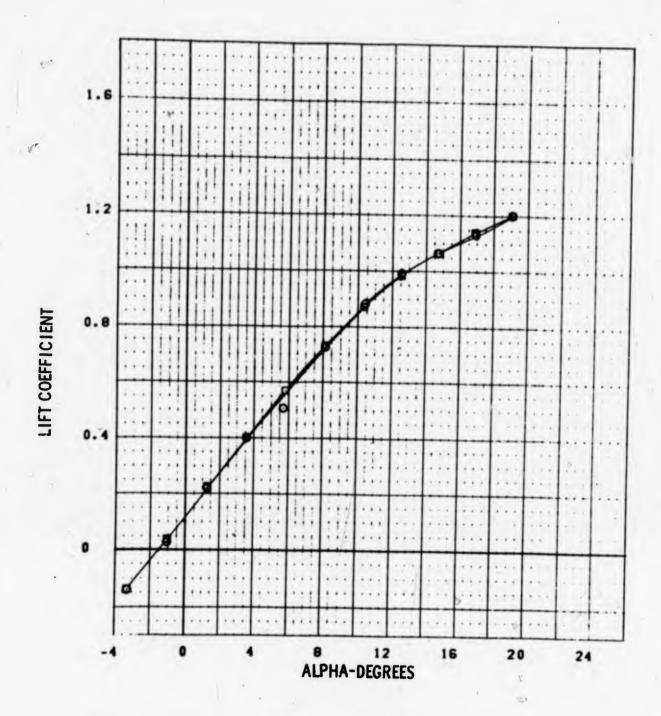


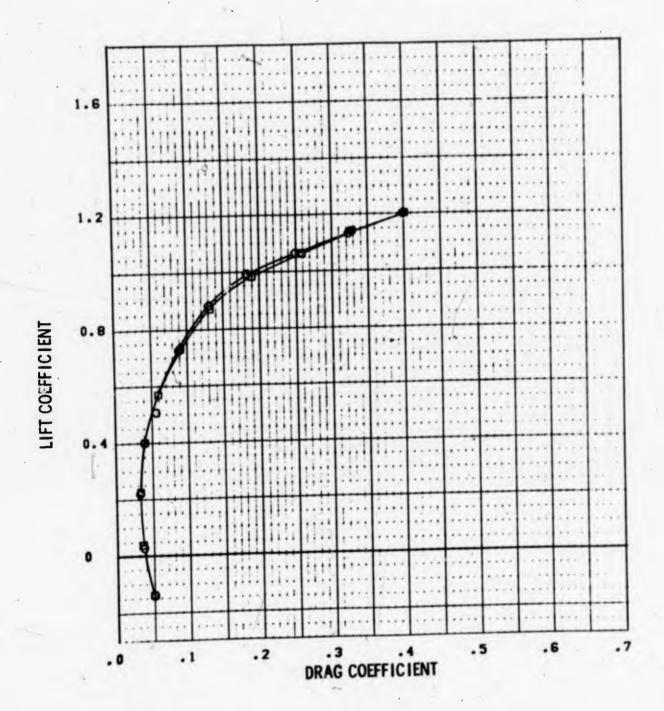
SYM TEST INCREMENT (K2 - K1) L.E. (/R) M. .

O PWT 4T TC-043 PN 63 - PN 32 0/0 0FF

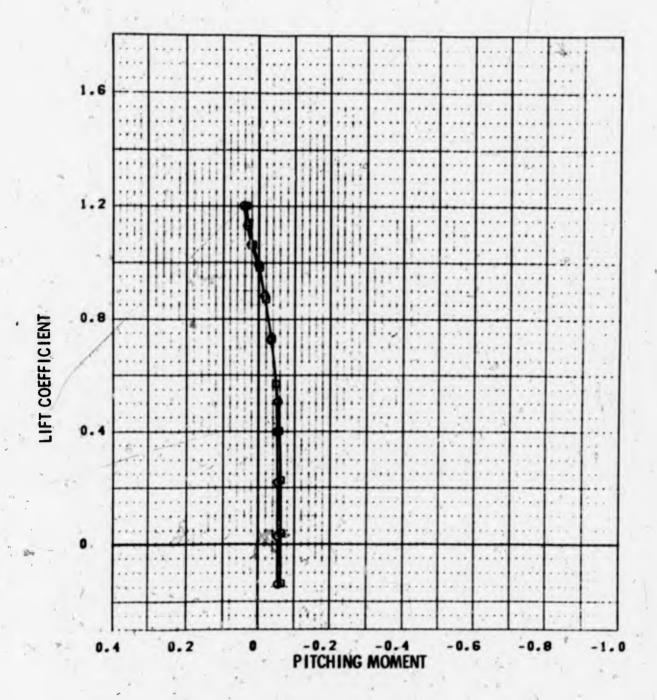
FIGURE 113a EFFECT OF ALTERNATE LEADING EDGE

M = 0.7





SYM	SYM TEST		PART	L.E. (L/R)	H.T.
0		TC-043 TC-043	49 74	K1 10/10 K2 10/10	OFF
FIGU	RE 113b	EFFECT OF	ALTERNATE	LEADING EDGE	



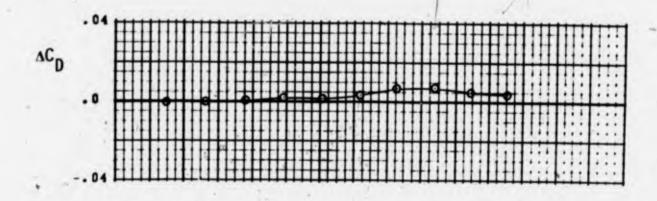
SYM TEST PART L.E. (L/R) H.T.

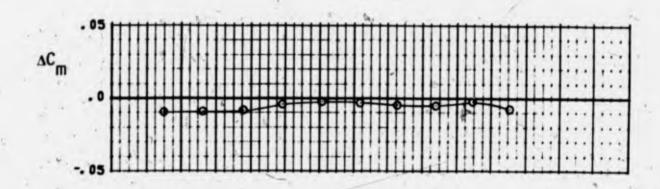
O PWT 4T TC-043 49 K1 10/10 OFF

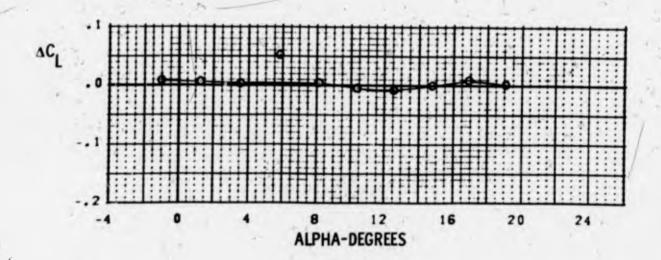
D PWT 4T TC-043 74 K2 10/10 OFF

FIGURE 113b EFFECT OF ALTERNATE LEADING EDGE

M = 0.7







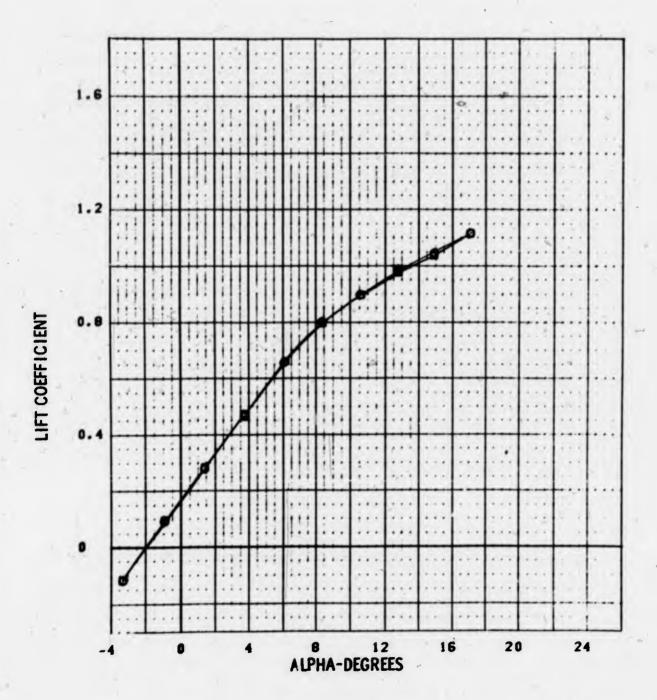
SYM TEST INCREMENT (K2 - K1) L.E. (L/R) H.:.

© PWT 4T TC-043 PN 74 - FN 49 10/10 OFF

FIGURE 113b EFFECT OF ALTERNATE LEADING EDGE

M = 0.7

322

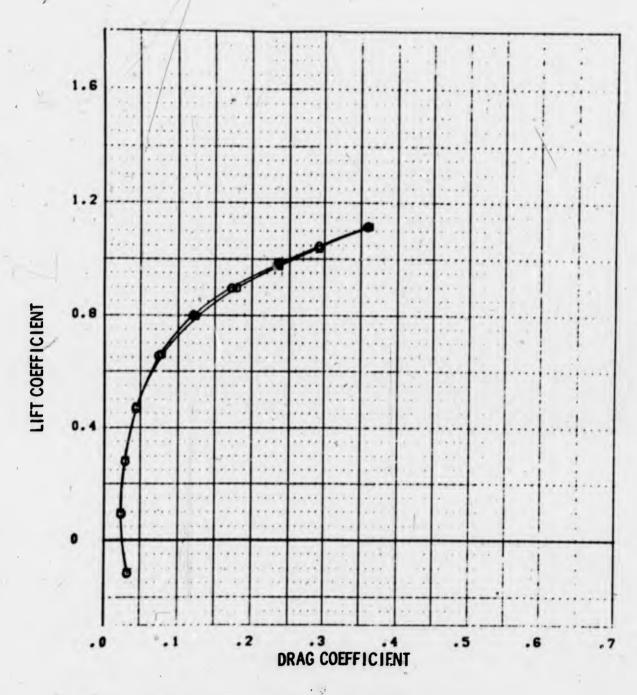


 SYM
 TEST
 PART
 L.E. (L/R)
 H.T.

 O
 PWT 4T TC-043
 31
 K1 0/0
 OFF

 D
 PWT 4T TC-043
 62
 K2 0/0
 OFF

FIGURE 113c EFFECT OF ALTERNATE LEADING EDGE M = 0.8



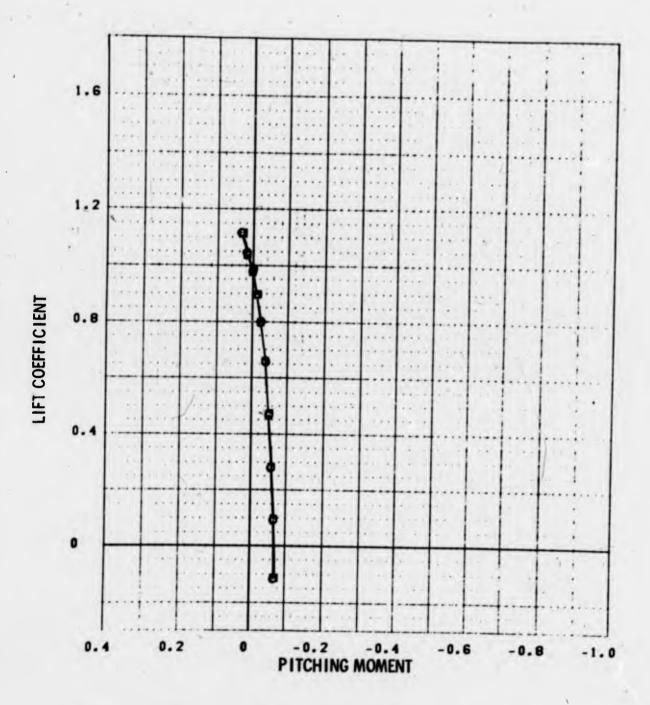
SYM TEST PART L.E. (L/R) H.T.

O PWT 4T TC-043 31 K1 0/0 OFF

PWT 4T TC-043 62 K2 0/0 OFF

FIGURE 113c EFFECT OF ALTERNATE LEADING EDGE

H = 0.8



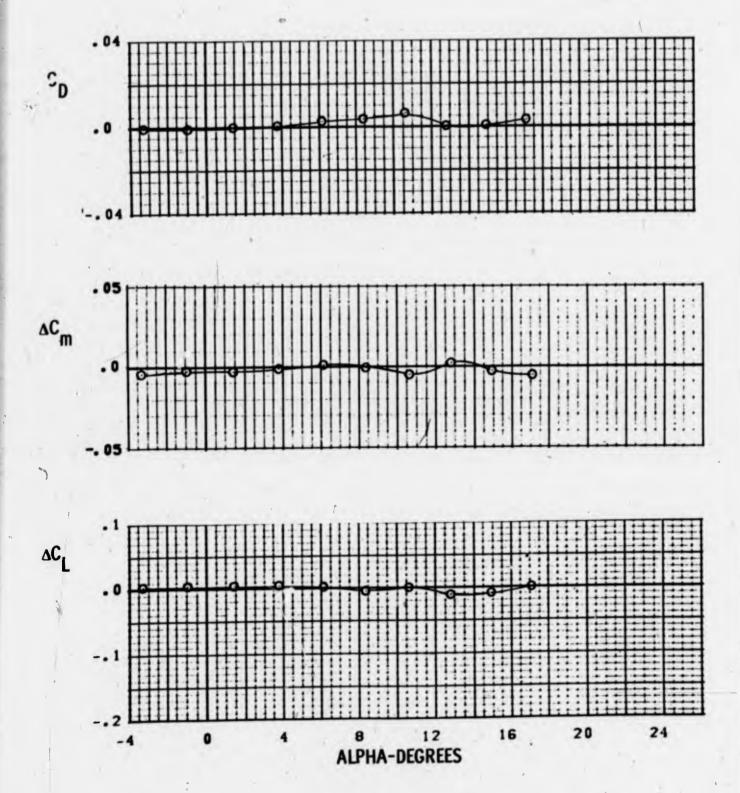
SYM TEST PART L.E. (L/R) H.T.

O PWT 4T TC-043 31 K1 0/0 OFF

D PWT 4T TC-043 62 K2 0/0 OFF

FIGURE 113c EFFECT OF ALTERNATE LEADING EDGE

M = 0.8

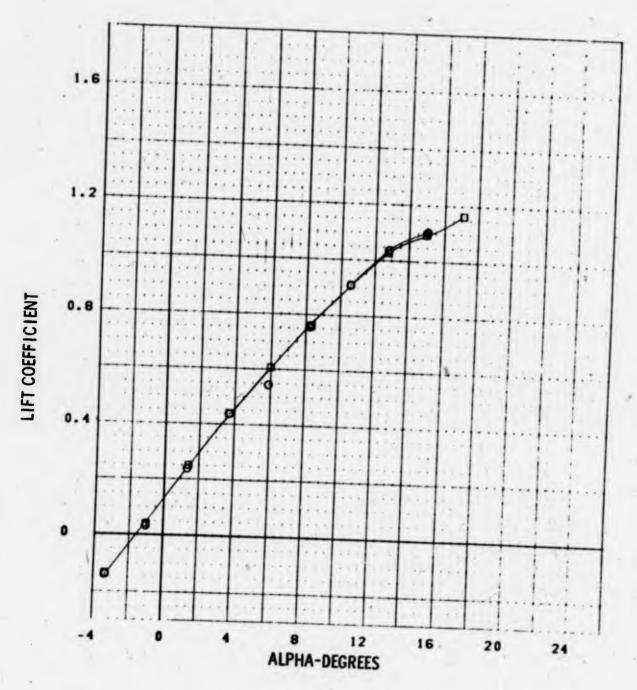


SYM TEST INCREMENT (K2 - K1) L.E. (L/R) H.T.

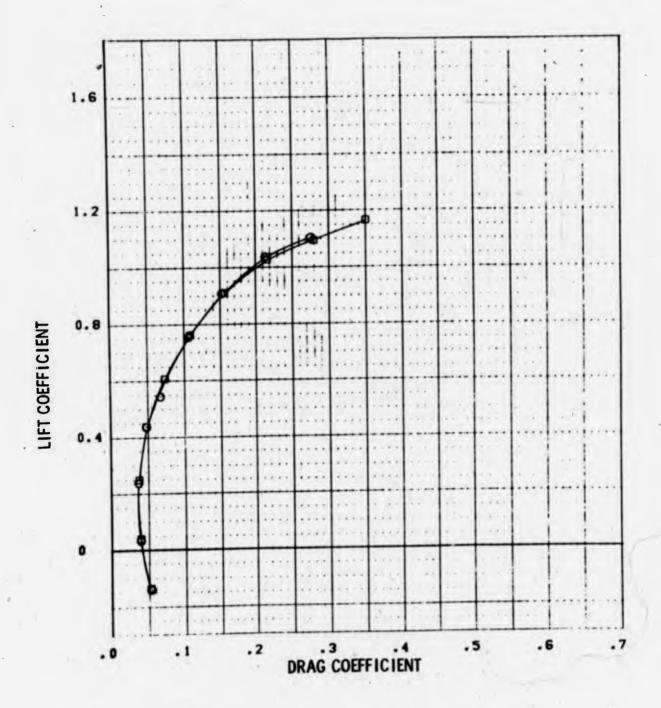
Ø PWT 4T TC-043 PN 62 - PN 31 0/0 OFF

FIGURE 113c EFFECT OF ALTERNATE LEADING EDGE

M = 0.8



SYM .	TEST		PART	L.E. (L/R)		
0	PWT	4T 4T	TC-043 TC-043	48 73	K1 10/10 K2 10/10	H.T. OFF
FIGUR	E 11:	3d (EFFECT OF	ALTERNATE M = 0.	LEADING FOGE	



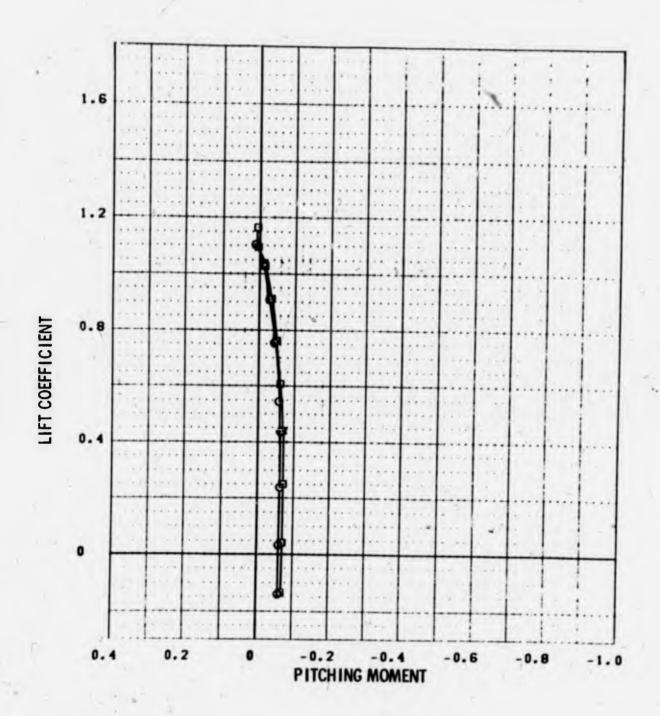
SYM TEST PART L.E. (L/R) H.T.

O PWT 4T TC-043 48 K1 10/10 OFF

D PWT 4T TC-043 73 K2 10/10 OFF

FIGURE 113d EFFECT OF ALTERNATE LEADING EDGE

H = 0.8



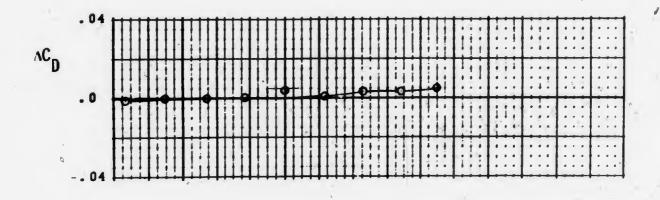
SYM TEST PART L.E. (L/R) H.T.

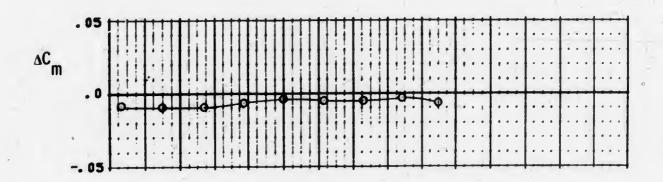
O PWT 4T TC-043 48 K1 10/10 OFF

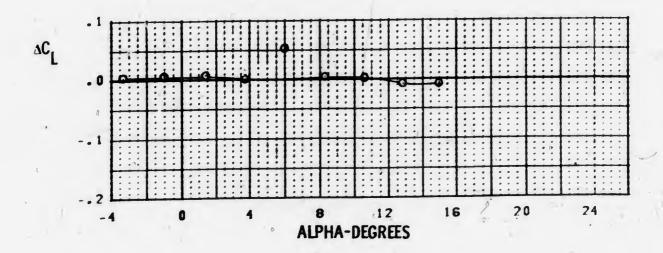
PWT 4T TC-043 73 K2 10/10 OFF

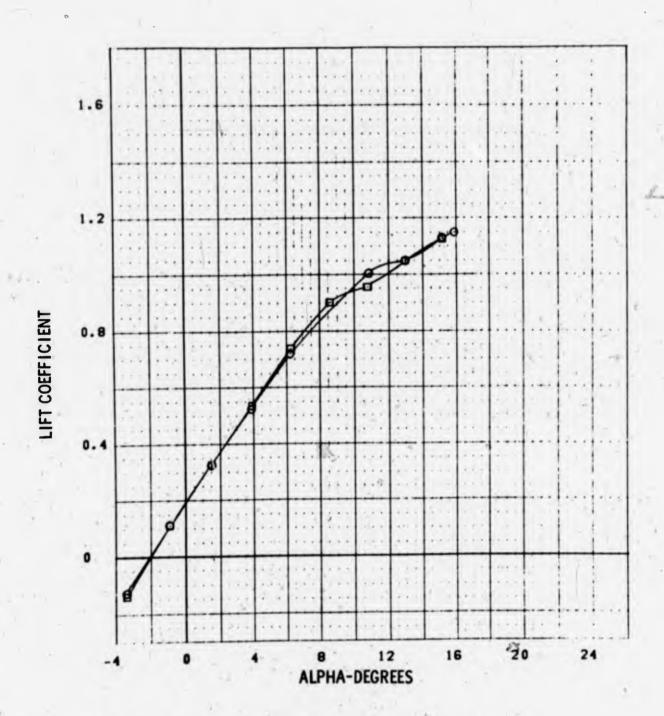
FIGURE 113d EFFECT OF ALTERNATE LEADING EDGE

H = 0.8







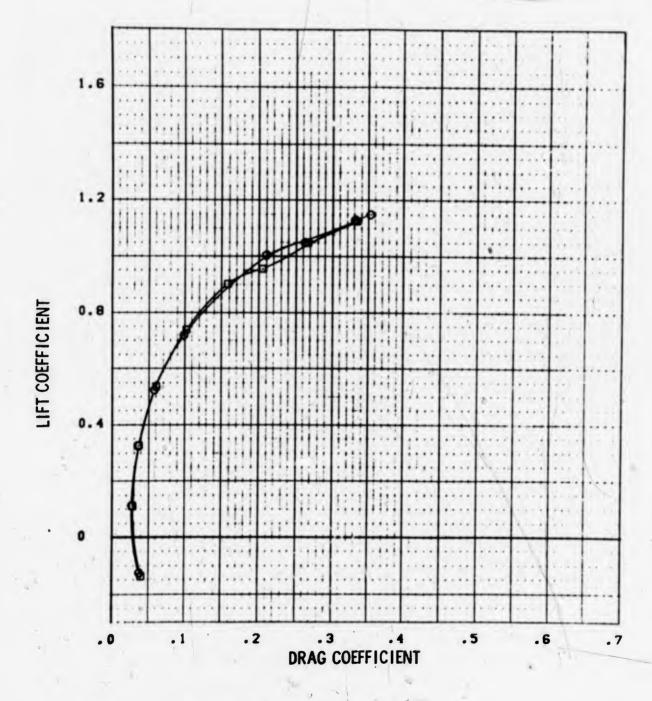


SYM TEST PART L.E. (L/R) H.T.

O PWT 4T TC-043 30 K1 0/0 OFF

D PWT 4T TC-043 61 K2 0/0 OFF

FIGURE 113e EFFECT OF ALTERNATE LEADING EDGE M = 0.9



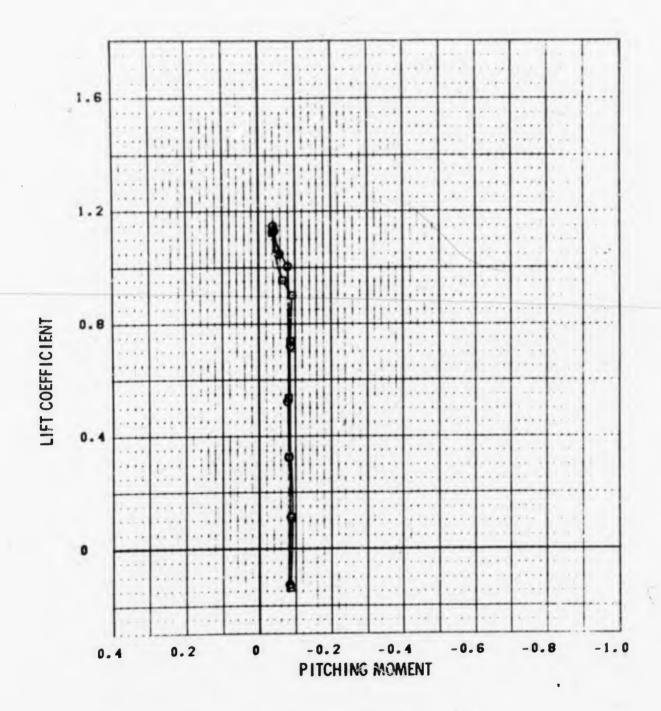
SYM TEST PART L.E. (L/R) H.T.

O PWT 4T TC-043 30 K1 0/0 OFF

D PWT 4T TC-043 61 K2 0/0 OFF

FIGURE 113e EFFECT OF ALTERNATE LEADING EDGE

M = 0.9

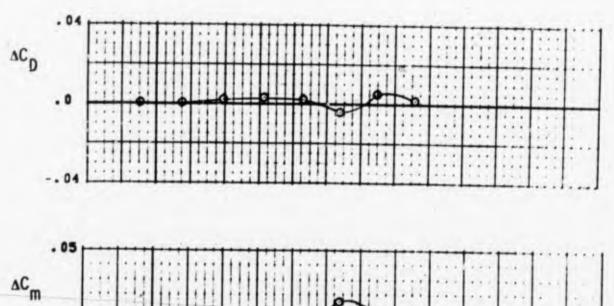


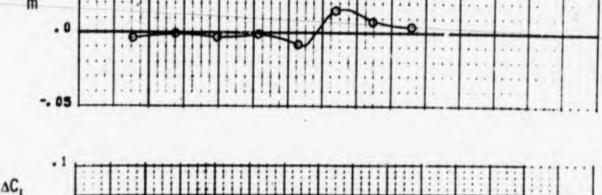
SYM TEST PART L.E. (L/R) H.T.

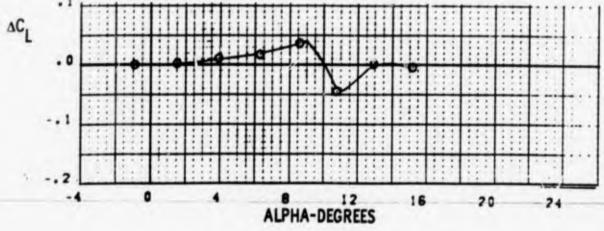
O PWT 4T TC-043 30 K1 0/0 OFF

D PWT 4T TC-043 61 K2 0/0 OFF

FIGURE 113e EFFECT OF ALTERNATE LEADING EDGE M = 0.9





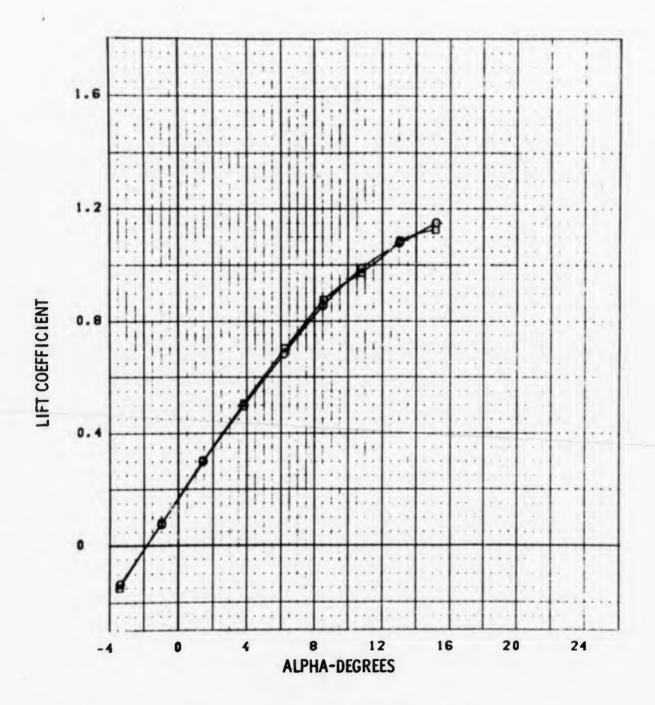


SYM TEST INCREMENT (K2 - K1) ..E. (!/R) ...

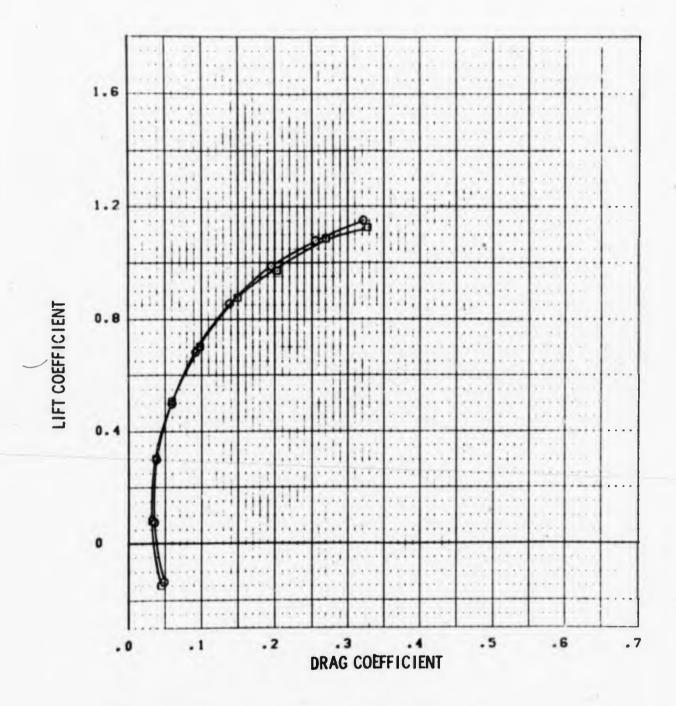
PWT 4T TC-043 PN 61 - PN 30 0/0 044

FIGURE 113e EFFECT OF ALTERNATE LEADING EDGE

M = 0.9

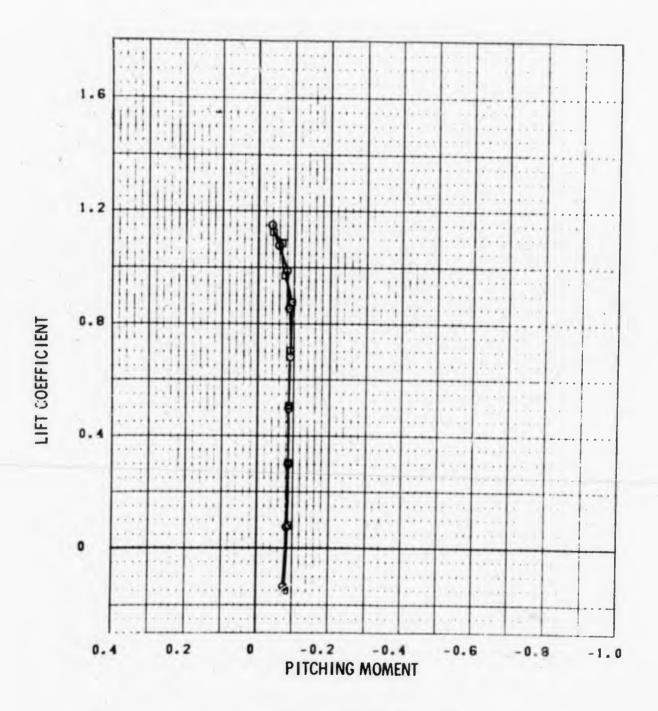


SYM	т	EST	PART	L.E.	(L/R)	н. т.
0		TC-043 TC-043	37 68		5/5 5/5	OFF OFF
FIGU	RE 113f	EFFECT OF	ALTERNATE	LEADI	NG EDGE	

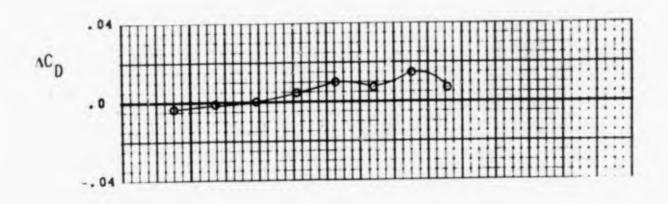


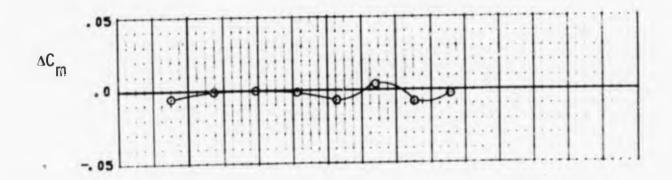
SYM	SYM TEST .		PART	L.E. (L/R)		H.T.	
0	PWT	41	TC-043	37	K1	5/5	OFF
0			TC-043	68	K2	5/5	OFF

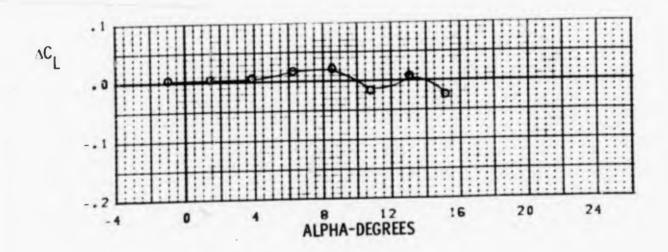
FIGURE 113f EFFECT OF ALTERNATE LEADING EDGE # = 0.9



SYM		T	EST	PART	L.E.	(L/R)	н.т.
0			TC-043 TC-043	37 60		5/5 5/5	OFF OFF
FIGU	RE 11	3£	EFFECT OF	ALTERNATE	LEADI	NG EDGE	





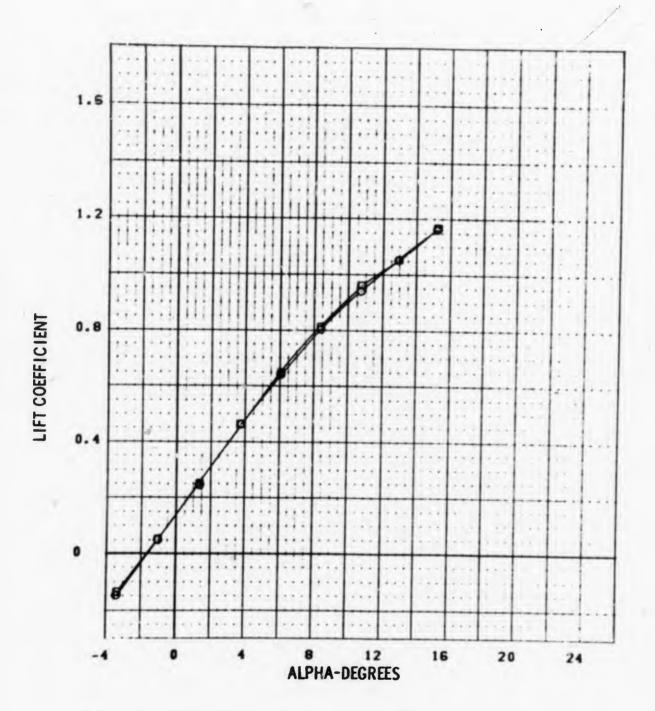


SYM TEST INCREMENT (K2 - K1) L.E. (L/R)

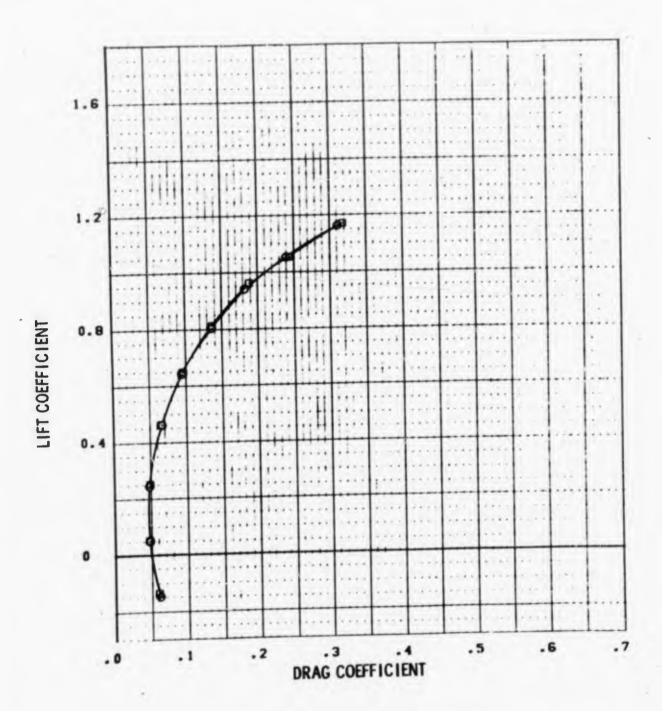
O PWT 4T TC-043 PN 68 - PN 37 5/5 OFF

FIGURE 113f EFFECT OF ALTERNATE LEADING EDGE

M = 0.9

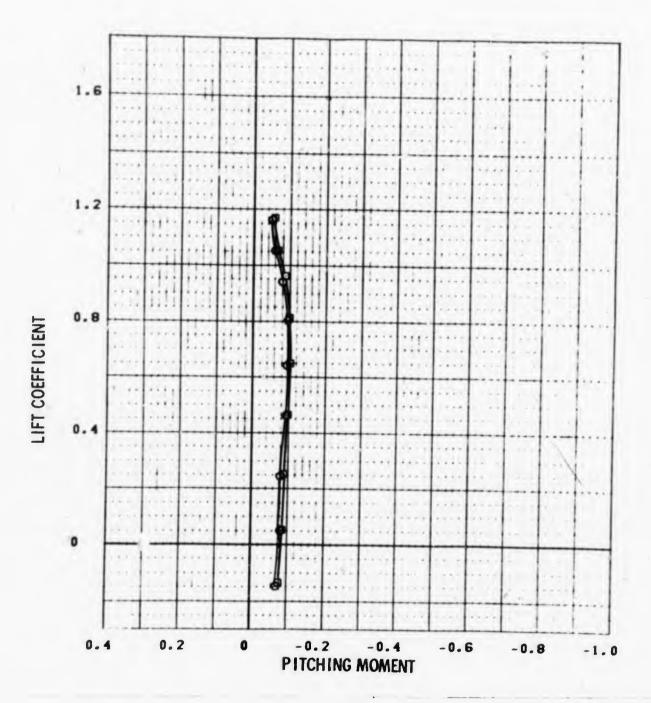


SYM	TEST		PART	L.E. (L/R)	н. т.	
0			TC-043 TC-043	47 72	K1 10/10 K2 10/10	OFF OFF
FIGU	RE 113	g	EFFECT OF	ALTERNATE H = 0.	LEADING EDGE	



SYH	TEST		PART	L.E. (L/R)	H.T.
0		TC-043	47 72	K1 10/10 K2 10/10	OFF
	or 110	CCCCCT AC	AL TERMAT	E I FADING FORE	

FIGURE 113g EFFECT OF ALTERNATE LEADING EDGE M = 0.9



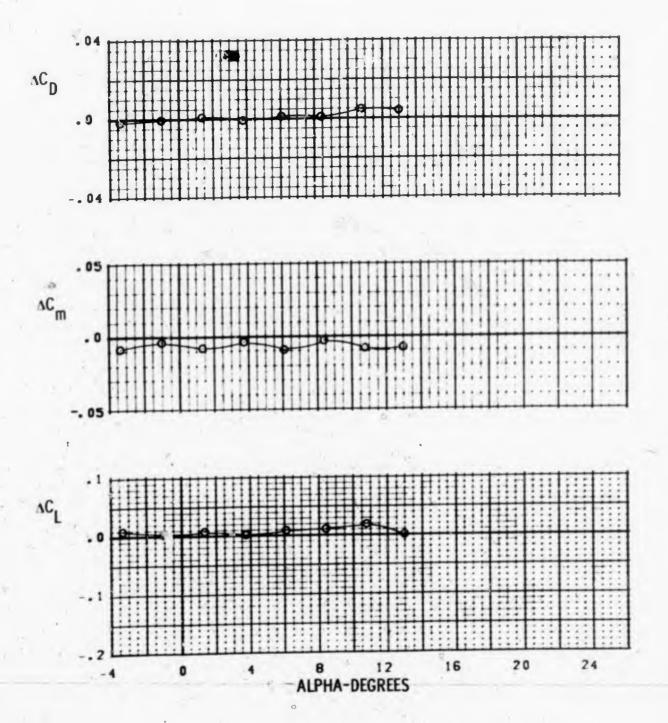
SYM TEST PART L.E. (L/R) H.T.

O PWT 4T TC-043 47 K1 10/10 OFF

PWT 4T TC-043 72 K2 10/10 OFF

FIGURE 113g EFFECT OF ALTERNATE LEADING EDGE

H = 0.9



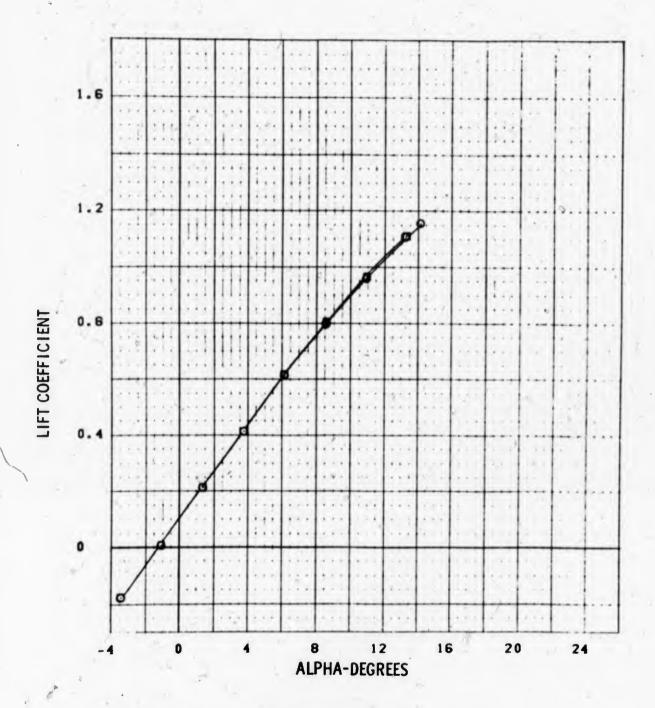
SYM TEST INCREMENT (K2 - K1) L.E. (L/R) H.T.

O PWT 4T TC-043 PN 72 - PN 47 10/10 OFF

FIGURE 113g EFFECT OF ALTERNATE LEADING EDGE

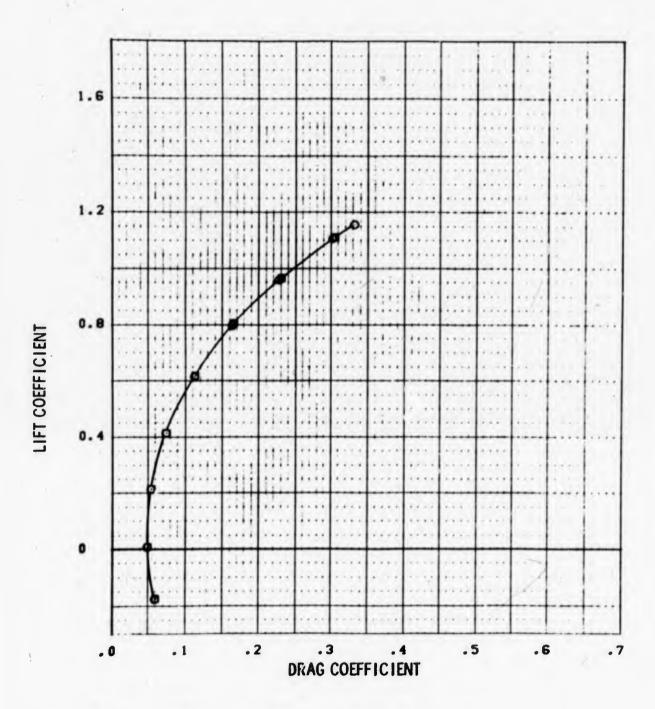
M = 0.9

342

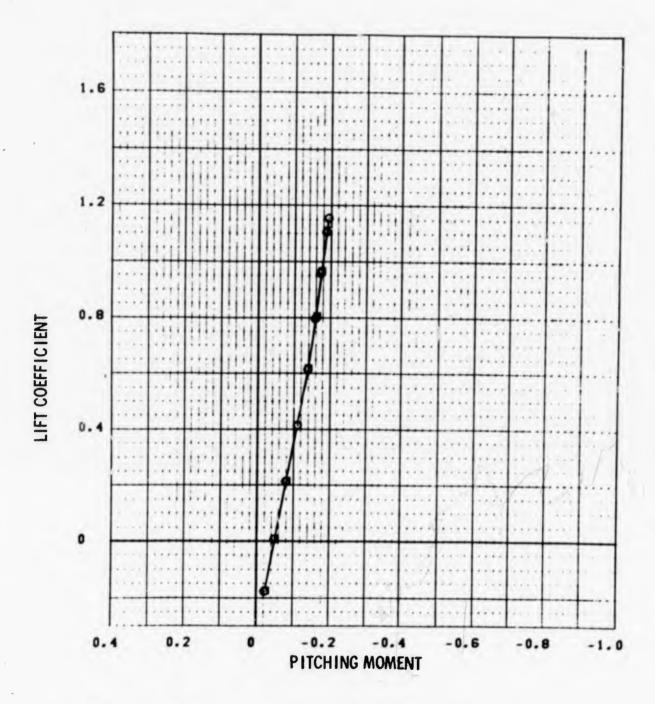


SYM	TEST		PART		1E.	(L/R)	H.T.	
0	PWT	4T	TC-043	33	-	K1	0/0	OFF
0	PWT	4 T	TC-043	64		K2	0/0	OFF

FIGURE 113h EFFECT OF ALTERNATE LEADING EDGE M = 1.2

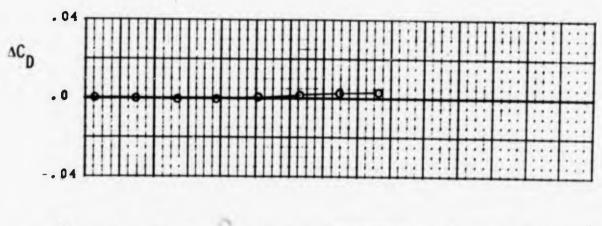


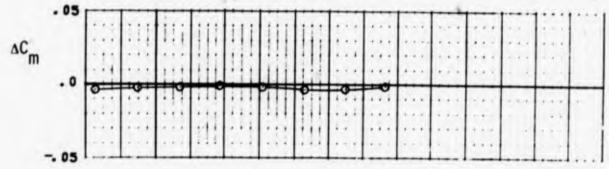
SYM TEST PART L.E. (L/R) H.T. \odot PWT 4T TC-043 33 K1 0/0 OFF D PWT 4T TC-043 64 K2 0/0 OFF FIGURE 113h EFFECT OF ALTERNATE LEADING EDGE M = 1.2

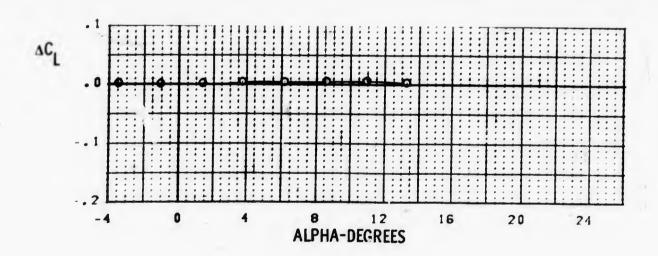


SYM	TEST		PART	L.E.	(L/R)	н. т.
0		TC-043	33	K1	• •	OFF
•	PW1 41	TC-043	64	K2	0/0	OFF
FIGU	oc 112h		** ****			

FIGURE 113h EFFECT OF ALTERNATE LEADING EDGE M = 1.2







SYM TEST INCREMENT (K2 - K1) L.F. (/R) ...

PWT 4T TC-043 PN 64 - PN 33 G/G ...

FIGURE 113h EFFECT OF ALTERNATE LEADING EDGE

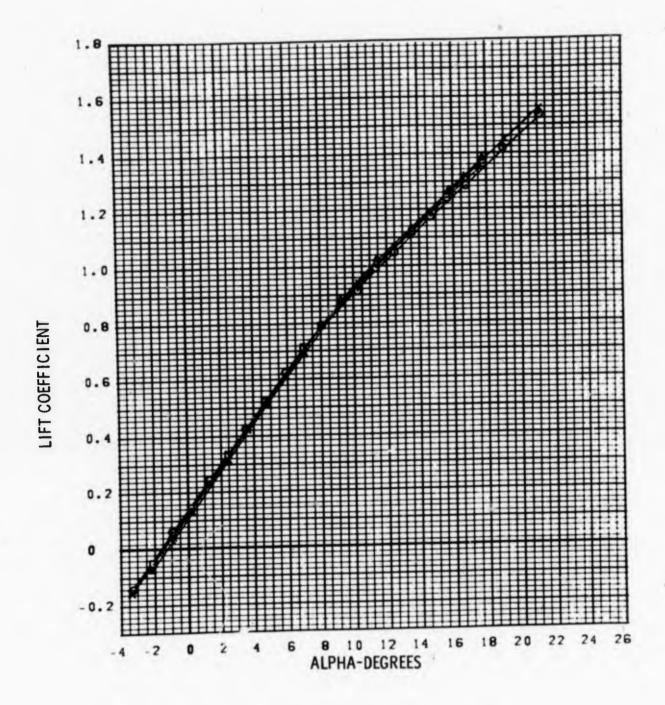
M = 1.2

4. AUXILIARY DEVICES

The effect of the three types of auxiliary devices tested on the longitudinal aerodynamic characteristics of the test configuration are shown by the comparison plots presented in this subsection.

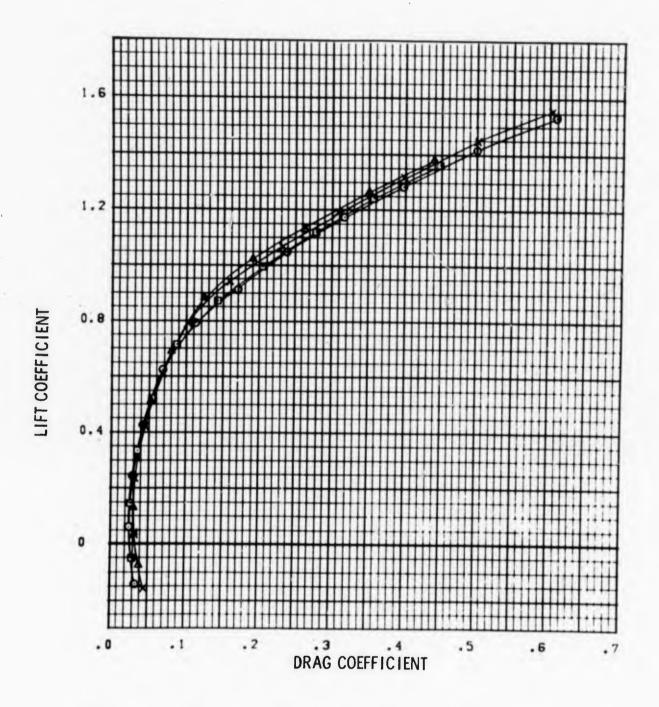
a. Vortex Generators

Comparison plots showing the longitudinal characteristics of the LEDE configuration with and without the vortex general pattern are presented in the following subsection. A direct comparison between the configurations with and without the generators in the same tunnel entry is not possible. As a result, a comparison is also shown between the two entries into the four foot tunnel to establish a basis for comparison of the two sets of data. The first entry into the 4T are denoted by part numbers prior to part number 317. The second entry begins with part number 400.



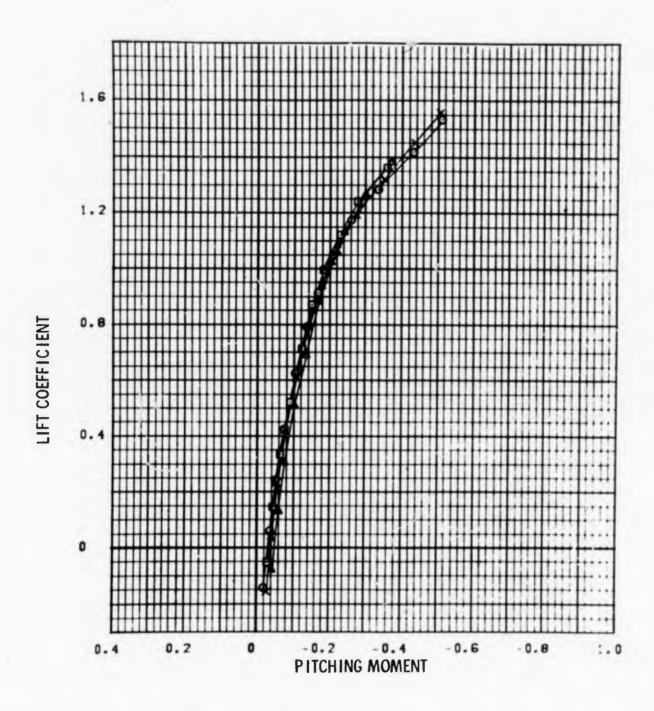
SYM	16	ST	PART	L.E.	(L/R)	v.G.
0	PWT 4T	TC-043	268		0/0	OFF
0		TC-043	438 448		0/0 5/5	OE E
×	PWT 4T	TC-043	243		5/5	ON

FIGURE 114a EFFECT OF VORTEX GENERATORS M = 0.7



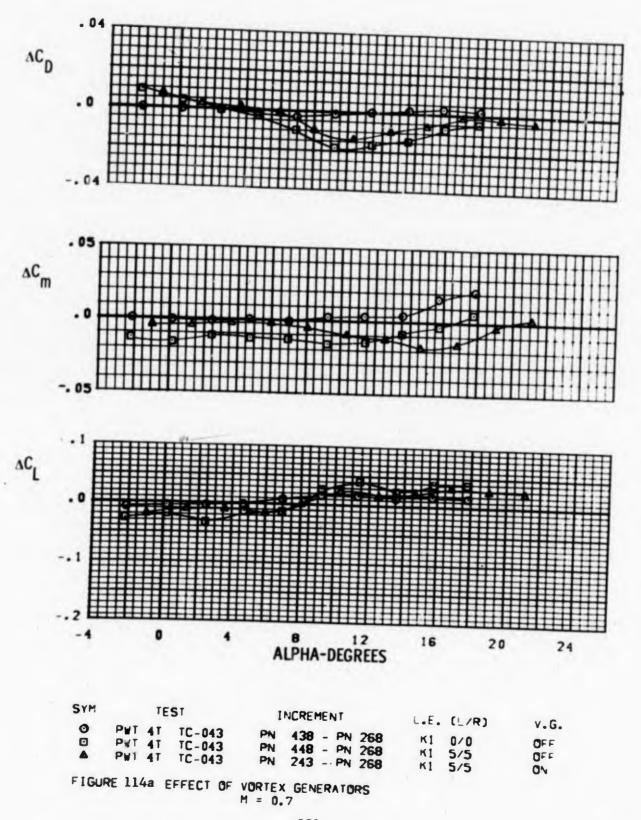
SYM	TE	ST	PART	L.E.	(_ ?)	v.G.
0	PWT 4T	TC-043	268	K1	0/0	OFF
0	PWT 4T	TC-043	438	KI	0/0	OFF
A	PWT 4T		448	K1	5/5	OFF
×	PWT 4T	TC-043	243	K1	5/5	ON

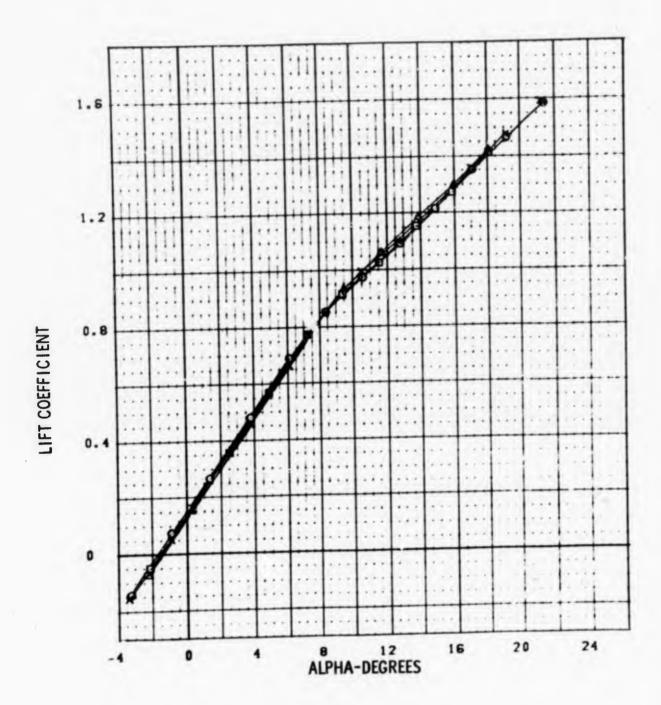
FIGURE 114a EFFECT OF VORTEX GENERATORS M = 0.7



SYM		IE	ST	PART	L.E.	(L/R)	v.G.
0	PWT	41	TC-043	268	K1	0/0	OFF
•	PWT	41	TC-043	438	K1	0/0	OFF
A	PWT	41	TC-043	448	K1	5/5	OFF
×	PWT	4 T	TC-043	243	KI	5/5	ON

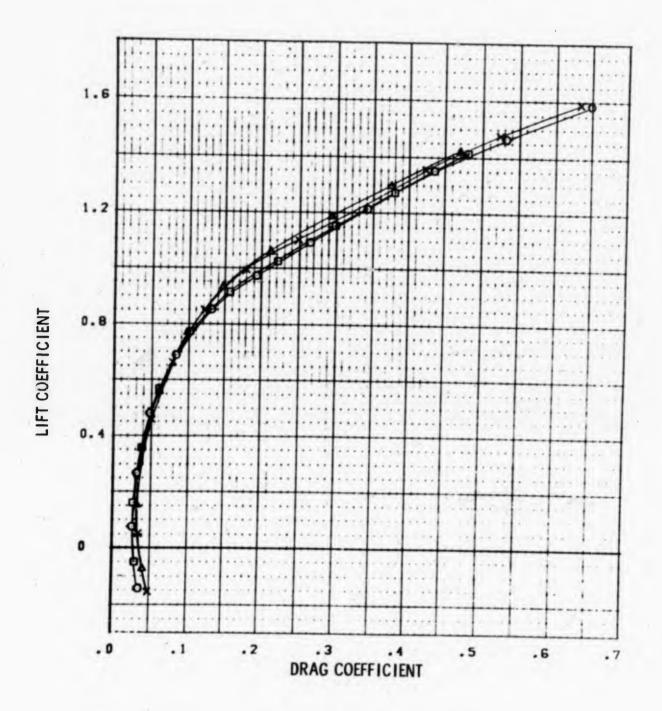
FIGURE 114a EFFECT OF VORTEX GENERATORS M = 0.7





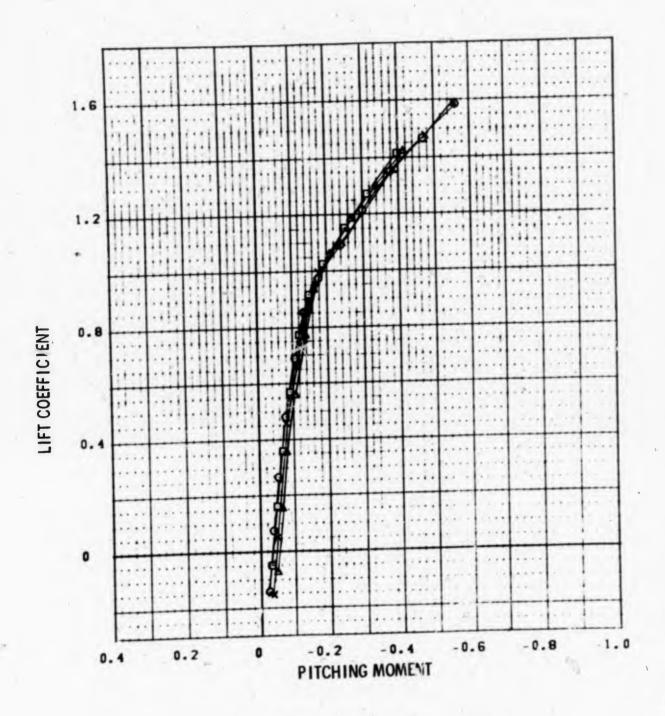
SYM		TEST	PART	L.E.	(L/R)	v.G.
0		T TC-043	267	K1	0/0	OFF
Ō	PWT 4		440	K1	7 2	OFF OFF
	PWT 4	T TC-043	447 242		5/5 5/5	ON

FIGURE 114b EFFECT OF VORTEX GENERATORS M = 0.8



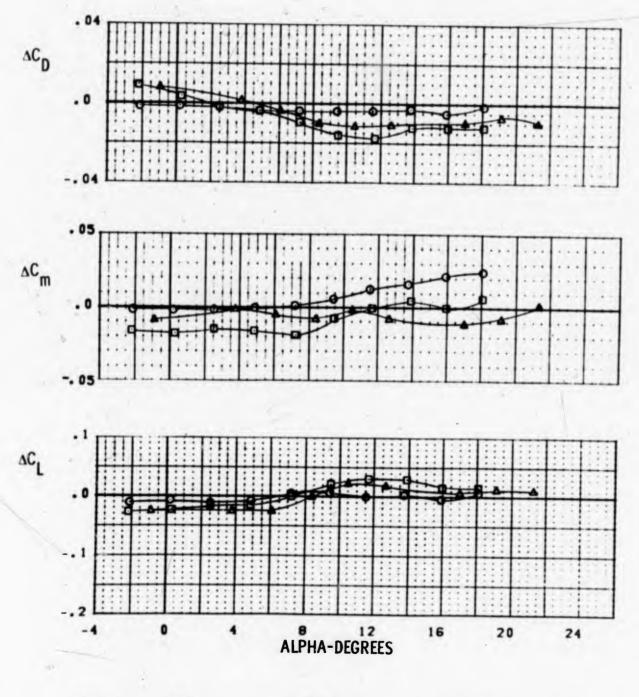
SYM		TE	ST	PART	L.E.	(L/R)	V.G.
0	PWT	4T	TC-043	267	К1	0/0	OFF
0	PWT	41	TC-043	440	KI	0/0	OFF
A	PWT	•	TC-043	447	K1	5/5	OFF
×	PWT	4 T	TC-043	242	K1	5/5	ON

FIGURE 114b EFFECT OF VORTEX GENERATORS M = 0.8



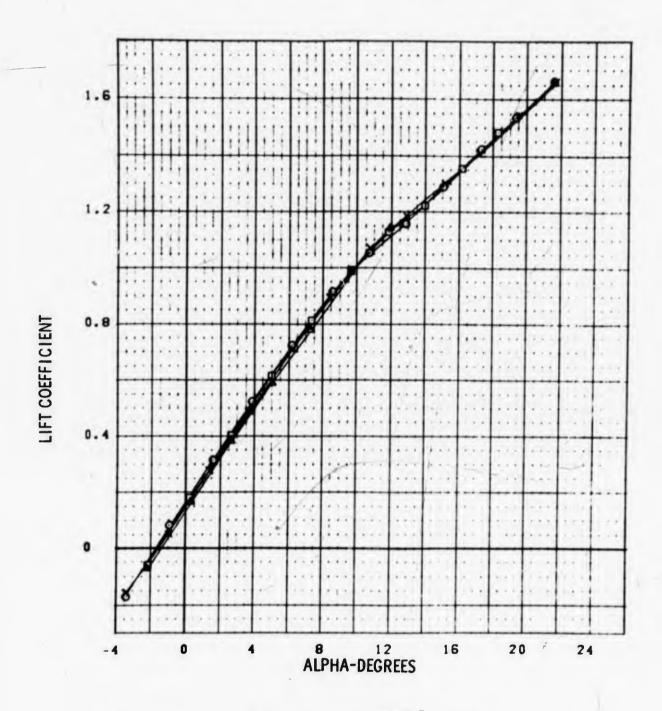
SYM		TES	T	PART	L.E.	(L/R)		v.G.
0	PWT 4 PWT 4 PWT 4	IT IT	TC-043 TC-043 TC-043 TC-043	267 440 447 242	KI KI	0/0 0/0 5/5 5/5	-	OFF OFF ON

FIGURE 114b EFFECT OF VORTEX GENERATORS M = 0.8

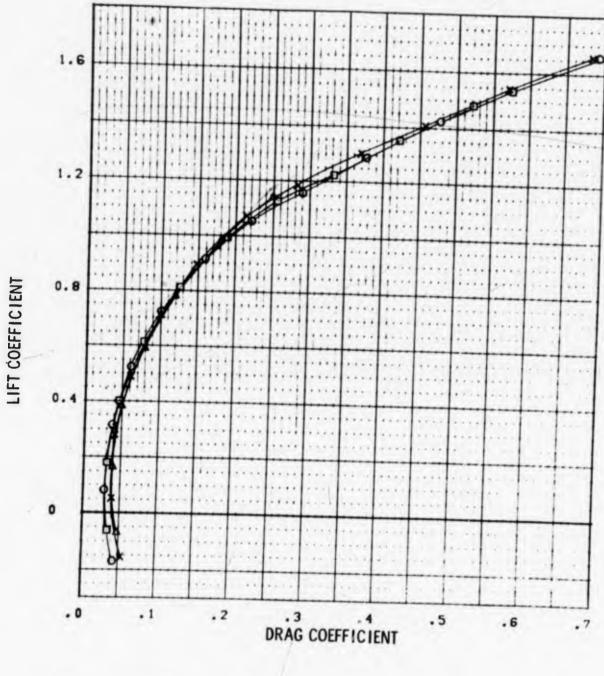


SYM	1	EST		INCR	EME	ENT		L.E.	(L/R)	V.G.
⊙ △	PWT 41	TC-043 TC-043 TC-043	PN	447	-	PN	267 267 267	K1	0/0 5/5 5/5	OFF OFF ON
FIGU	DE 11/h	EFFECT AF	VADTO	v or						

FIGURE 114b EFFECT OF VORTEX GENERATORS

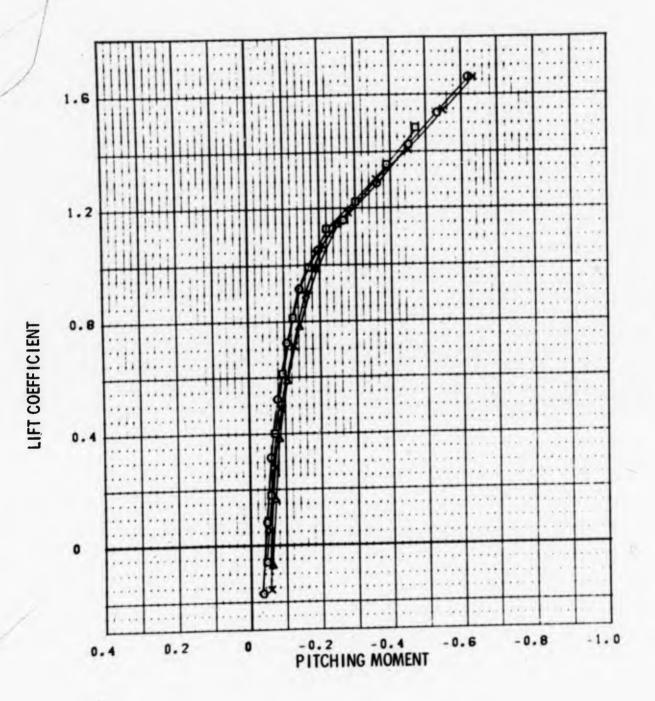


SYM		TE	ST .	PART	L.E.	(L/R)	V.G.
0	PWT	4T	TC-043	264	K1	0/0	UFF
O	PWT	4 T	TC-043	441	K1	0/0	DEF
Δ	PWT	4T	TC-043	445	K1	5/5	DEF
×	PWT	4T	TC-043	241	KI	5/5	ON
FIGU	RE 1	14c	EFFECT OF	VORTEX G	ENERATO	RS	/



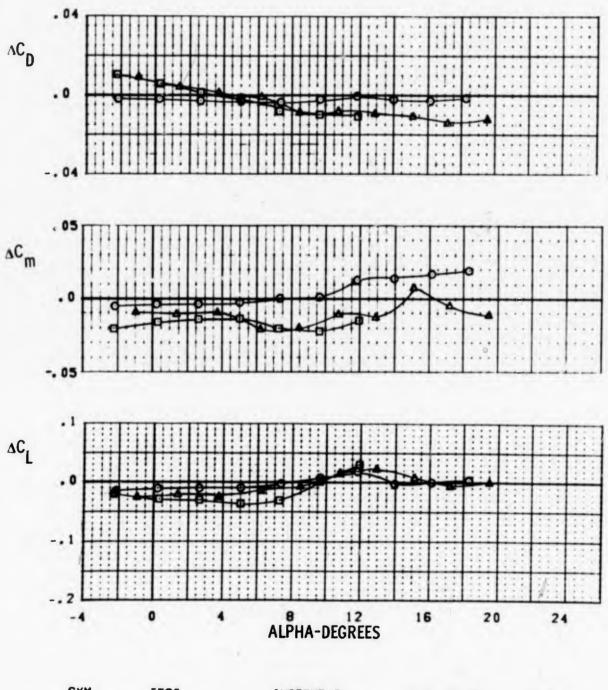
SYM		TE	ST	PART	L.E.	(L/R)	v.G.
0	PWT PWT	4T 4T	TC-043 TC-043 TC-043	264 441 445	KI KI KI	0/0 0/0 5/5	OFF OFF
×	PWT	41	TC-043	241	K1	5/5	ON

FIGURE 114c EFFECT OF VORTEX GENERATORS M = 0.9



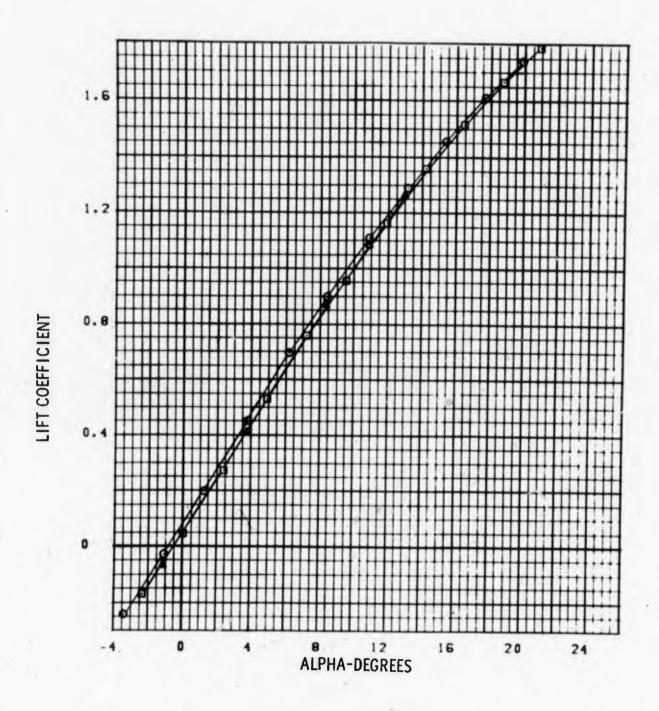
SYM		TE	S T	PART	L.E.	(L/R)	v.G.
0 0 A X	PWT PWT PWT	4T 4T	TC-043 TC-043 TC-043 TC-043	264 441 445 241	K1 K1	0/0 0/0 5/5 5/5	OFF OFF ON

FIGURE 114c EFFECT OF VORTEX GENERATORS M = 0.9



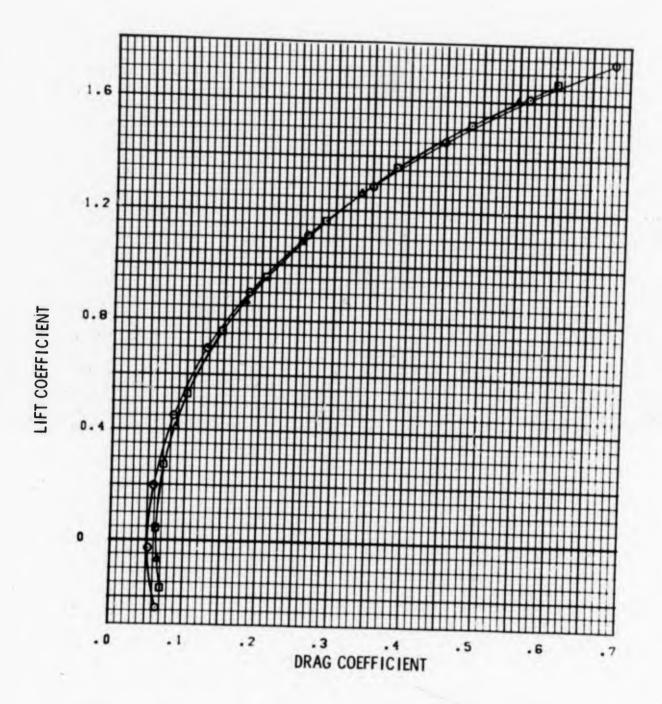
SYM	TE	ST	I	NCRE	ME	NT		L.E.	(L/R)	v.G.
⊙ △	PWT 4T	TC-043 TC-043 TC-043	PN	441 445 241	-	PN	264	K1	0/0 5/5 5/5	OFF ON

FIGURE 114c EFFECT OF VORTEX GENERATORS M = 0.9



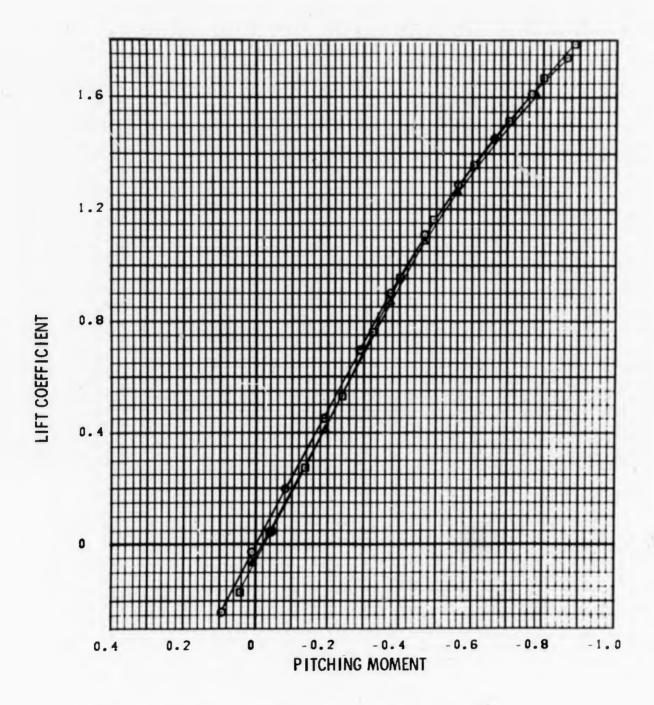
SYM		TE	ST	PART	L.E.	(L/R)	v.G.
O D	PWT PWT	4 T	TC-043 TC-043	269 449	K1	0.0	OFF
_	- W 1	41	TC-043	246	KI	5/5	ON

FIGURE 114d EFFECT OF VORTEX GENERATORS M = 1.2



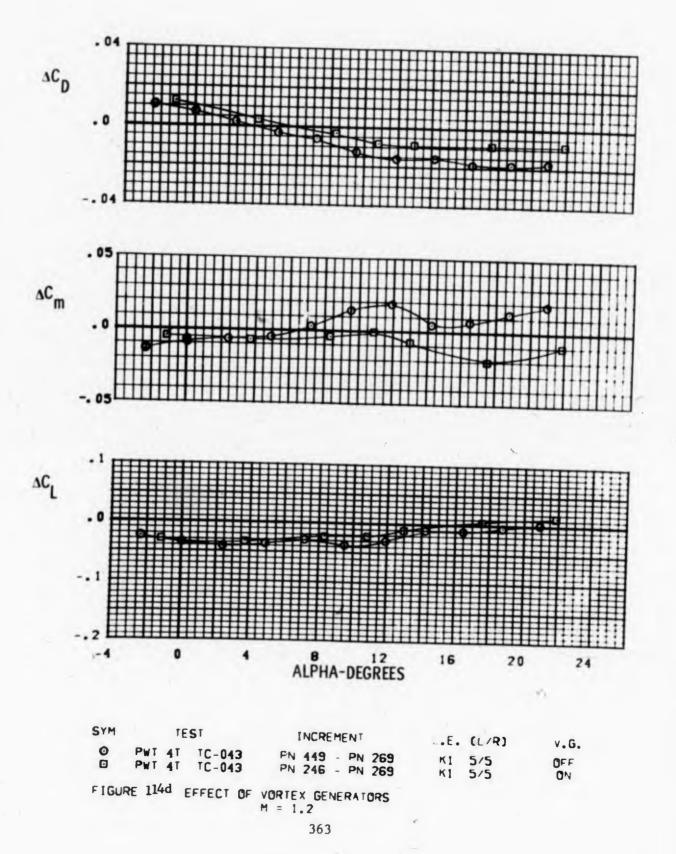
SYM	= 1	EST	PART	L.E.	(L/R)	V.G.
⊙	PWT 4T PWT 4T PWT 4T	TC-043 TC-043 TC-043	269 449 246	K1 K1 K1		OFF OFF ON

FIGURE 114d EFFECT OF VORTEX GENERATORS M = 1.2



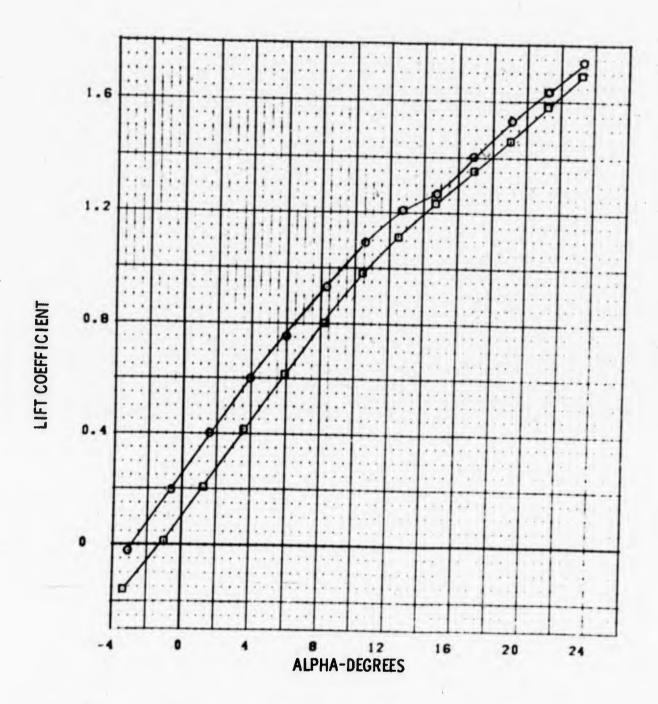
SYM		TE	ST	PART	L.E.	(L/R)	v.G.
0	PWT	41	TC-043	269	K1	0/0	OFF
0	PWT	4T	TC-043	449	K1	5/5	OFF
A	PWT	41	TC-043	246	K1	5/5	DN

FIGURE 114d EFFECT OF VORTEX GENERATORS
M = 1.2

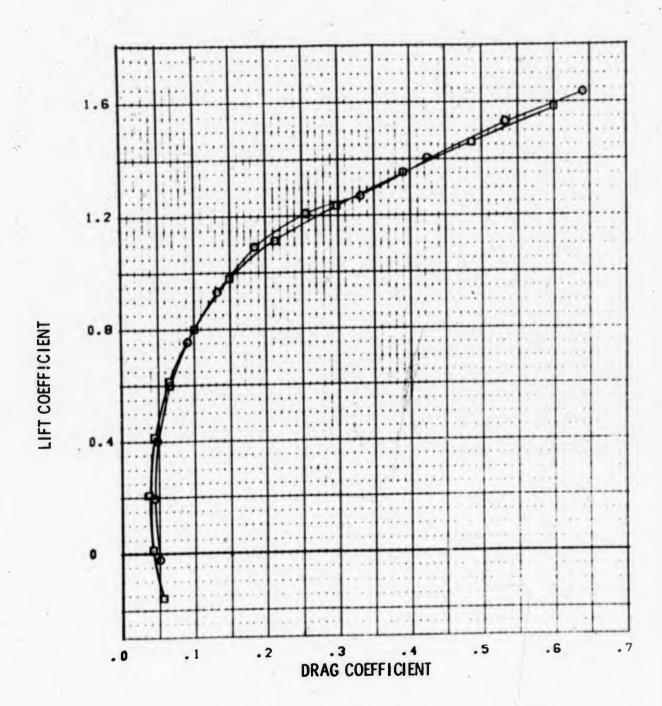


b. Drooped Trailing Edge

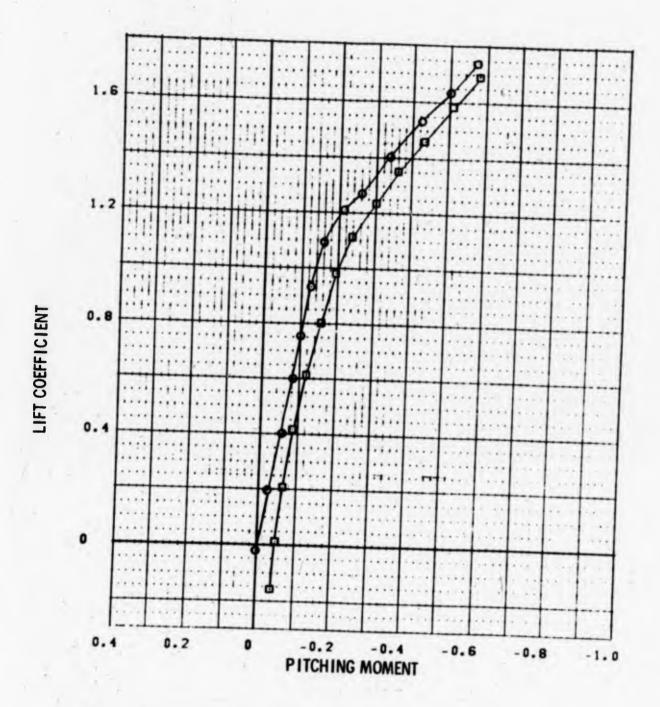
The effects of the drooped trailing edge (F1 deflected 10 degrees full span) on the longitudinal aerodynamic characteristics of the LEDE test configuration are presented in this subsection.



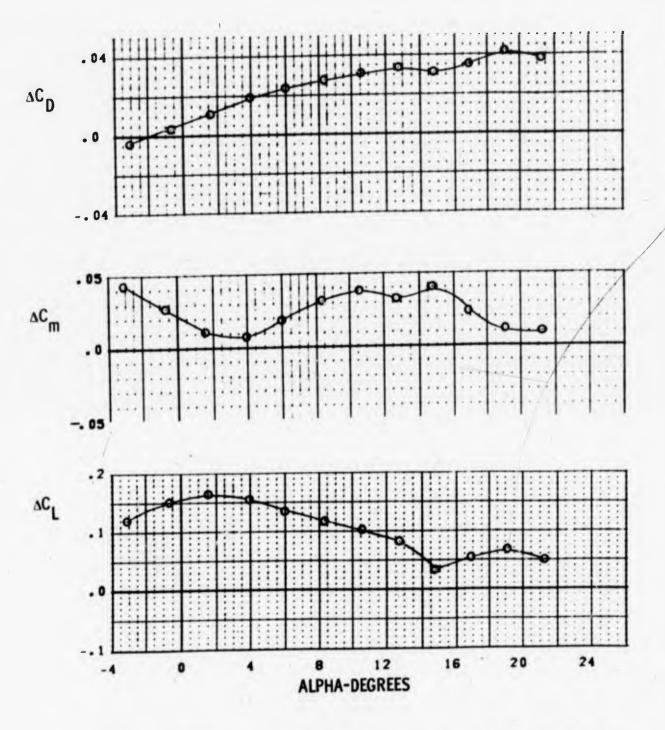
SYM	TE	ST	PART	T.E. DRI JP	L.E. (L/R)
0	PWT 4T	TC-043 TC-043	194 128	1 O 0	K1 10/10 K1 10/10
FIGU	RE 115a	EFFECT OF	DROOPED	TRAILING EDGE	



	SYM		T	EST	PART	T.E. D	ROOP	L.E.	(L/R)
•	0	PWT	41 41	TC-043 TC-043	194 128	10			10/10
	FIGU	RE 11	5a	EFFECT OF	DROOPED	TRAILING	EDGE		



SYM	TEST		PART	T.E. DROOP	1 5 0 5
0	PWT 4T PWT 4T	TC-043 TC-043	194 128	10	K1 10/10 K1 10/10 K1 10/10
FIGU	RE 115a	EFFECT OF	DROOPED M = 0.7	TRAILING EDGE	10/10



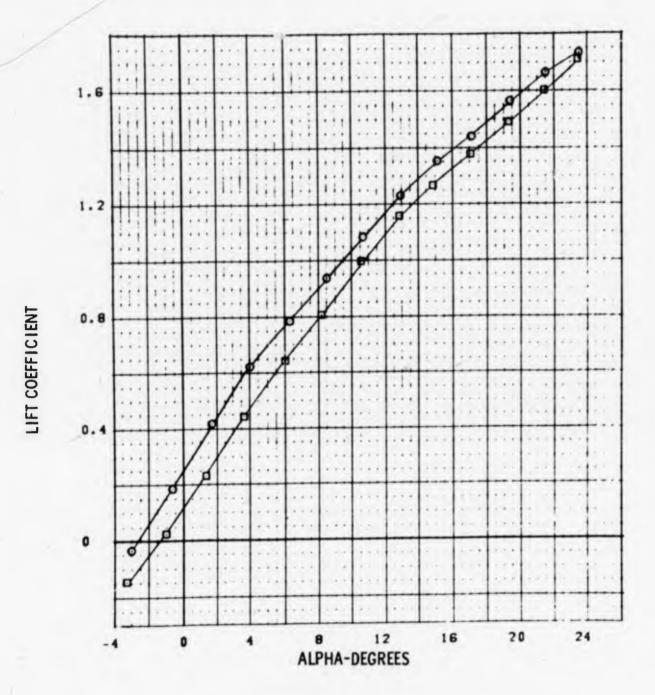
SYM TEST INCREMENT T.E. DROOP L.E. (L/R)

© PWT 4T TC-043 PN 194 - PN 128 10 K1 10/10

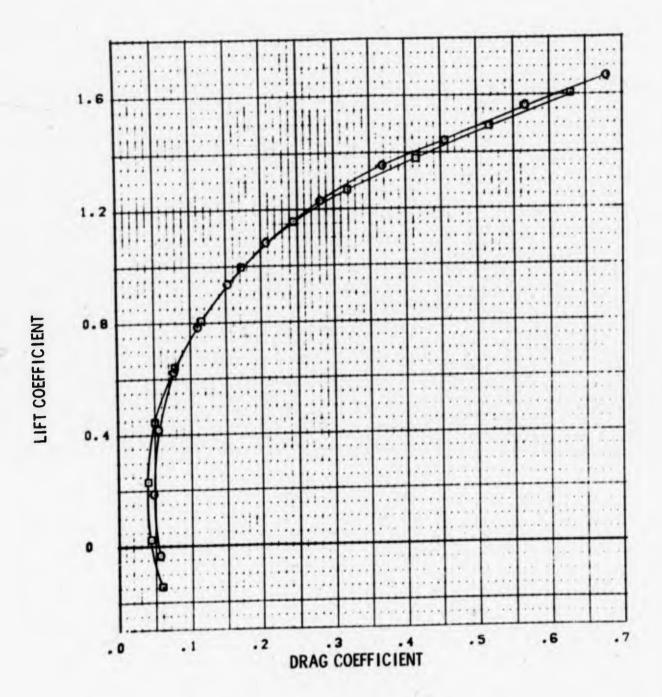
FIGURE 115a EFFECT OF DROOPED TRAILING EDGE

M = 0.7

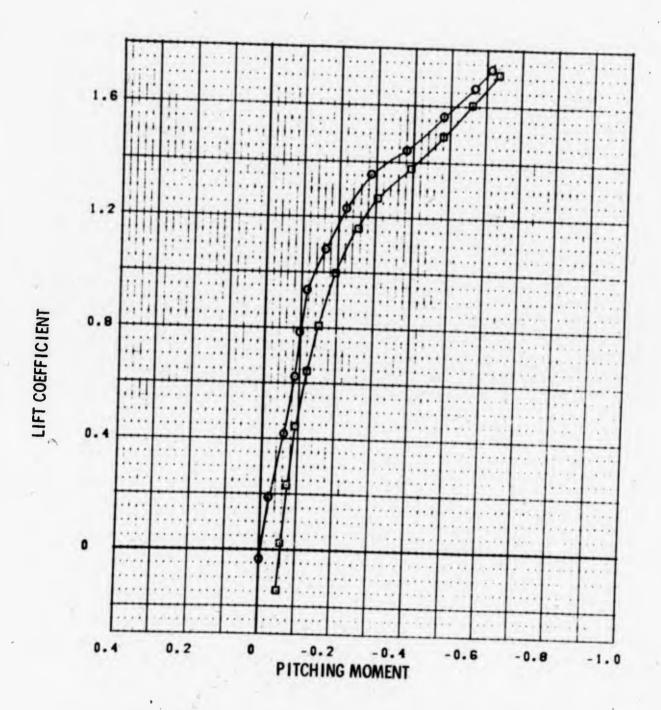
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SYM	TEST		PART	T.E. DROOP	L.E. (L/R)
0	PWT 4T		193 127	10	K1 10/10 K1 10/10
FIGU	RE 115b	EFFECT OF	DROCPED	TRAILING EDGE	



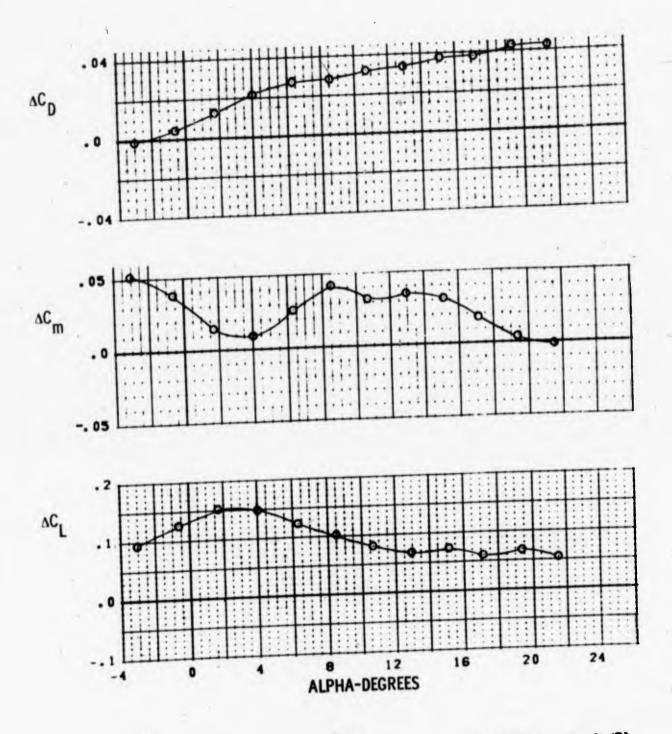
SYM		T	EST	PART	T.E. D	ROOP	L.E.	(L/R)
0			TC-043 TC-043	1 93 1 2 7	10			0/10
FIGU	RE 11	5Ъ	EFFECT OF	DROOPED	TRAILING	EDGE	1	



SYM TEST PART T.E. DROOP L.E. (L/R) PWT 4T TC-043 PWT 4T TC-043 193 127 10 KI 10/10 KI 10/10 FIGURE 115b EFFECT OF DROOPED TRAILING EDGE M = 0.8

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B

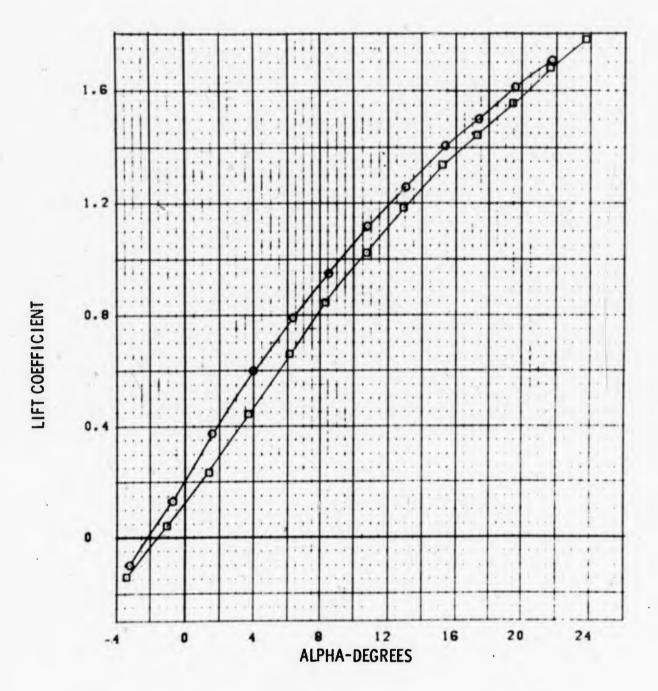


SYM TEST INCREMENT T.E. DROOP L.E. (L/R)

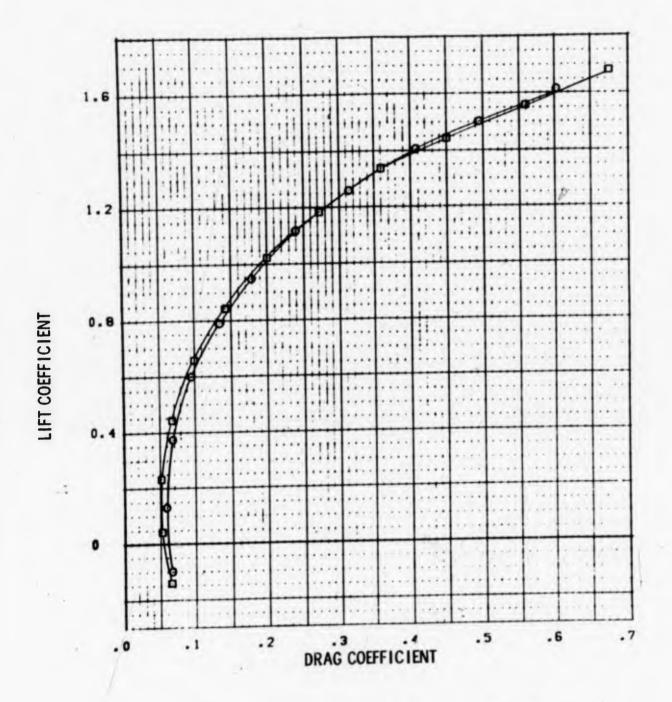
O PWT 4T TC-043 PN 193 - PN 127 10 K1 10/10

FIGURE 115b EFFECT OF DROOPED TRAILING EDGE

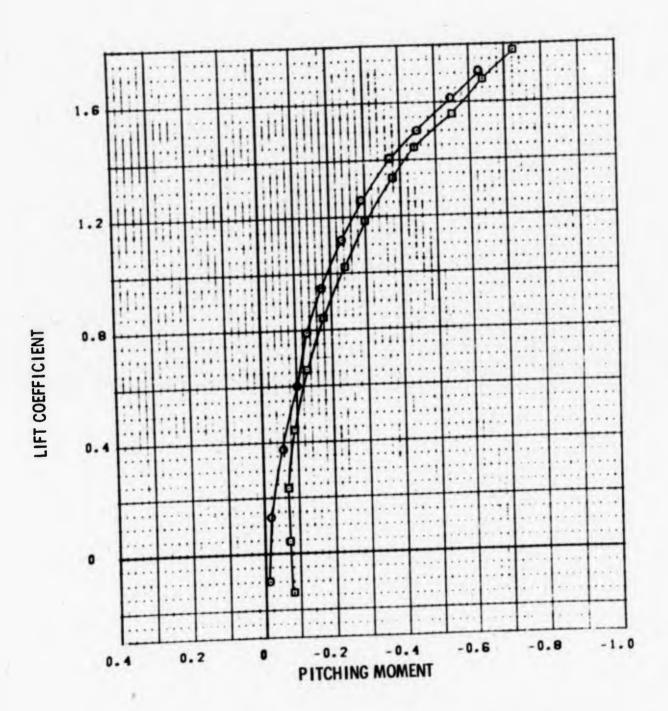
M = 0.8



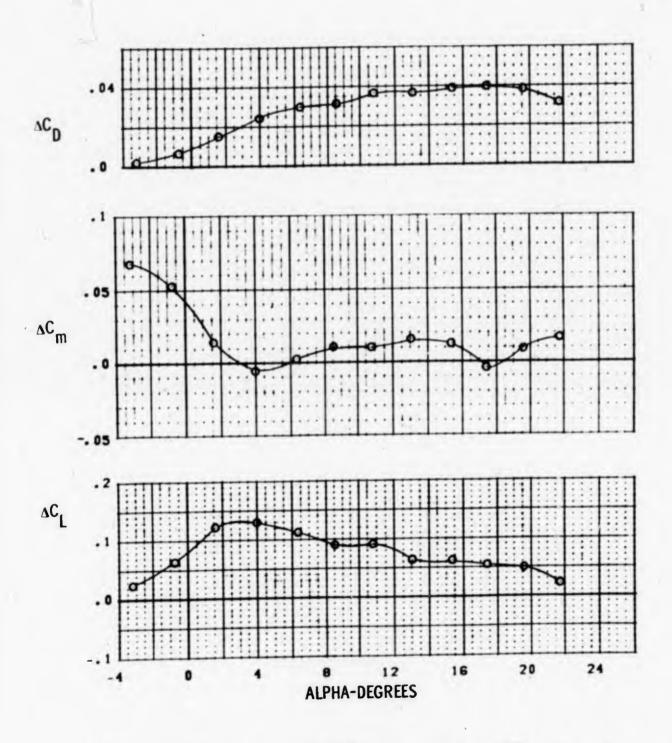
SYM		TE	ST	PART	T.E. D	ROOP	L.E.	(L/R)
0		-	TC-043 TC-043	192 126	10			10/10 10/10
FIGU	RE 11	5c (EFFECT OF	DROOPED M = 0.9		EDGE		



SYM	YM TEST		PART	T.E. D	ROOP	L.E.	(L/R)	
0		-	TC-043 TC-043	192 126	10			10/10
FIGU	RF 11	5c	EFFECT OF	OROOPED	TRAILING	EDGE		

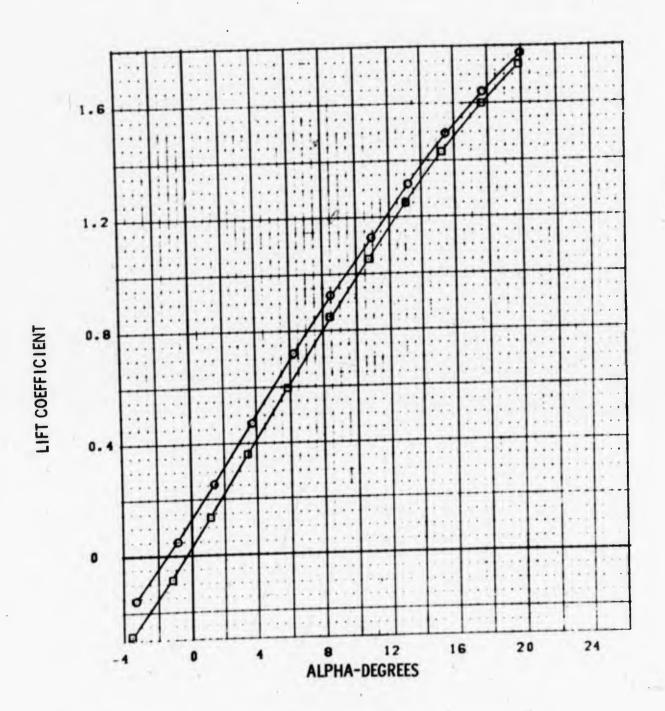


SYM	TE	ST	PART	T.E. DROOP	L.E. (L/R		
0	PWT 4T	TC-043 TC-043	192 126	10	K1 10/		
FIGU	RE 115c	EFFECT OF	DROOPED	TRAILING EDGE			



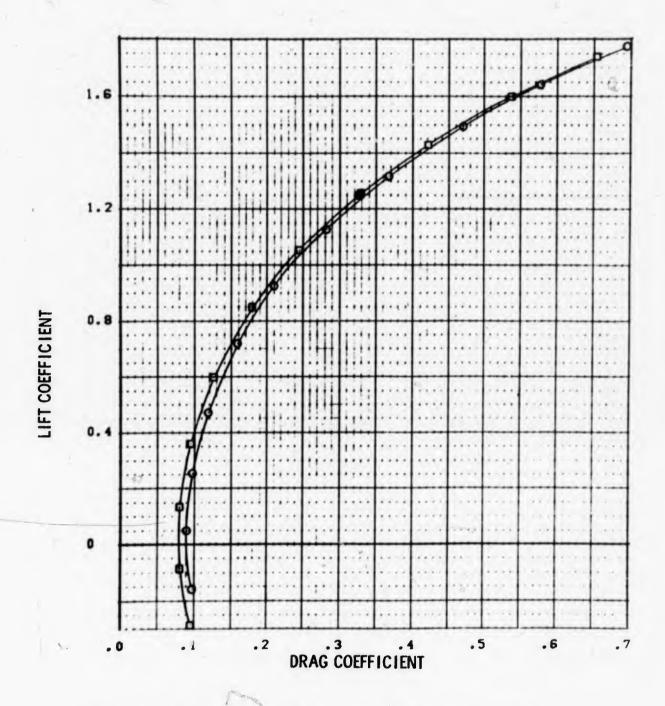
SYM TEST INCREMENT T.E. DROOP L.E. (L/R)
O PYT 4T TC-043 PN 192 - PN 126 10 K1 10/10

FIGURE 115c EFFECT OF DROOPED TRAILING EDGE
M = 0.9



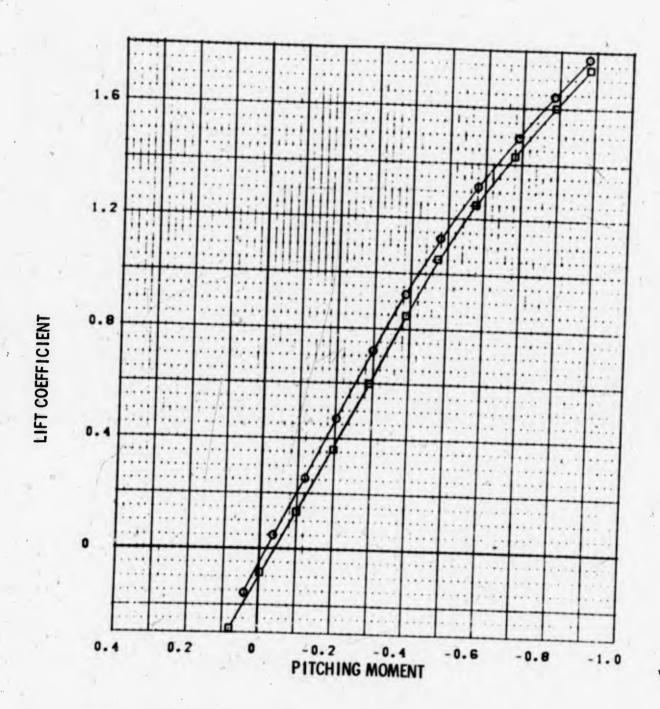
SYM		ĩΕ	ST	PART	T.E. DROOP	L.E. (L/R)
0			TC-043 TC-043	195 129	1 O 0	K1 10/10 K1 10/10
-10.	oc 11	6.4	FEEELT ME	DRAMPED	TRAILING EDGE	`

FIGURE 115d EFFECT OF DROOPED TRAILING EDGE M = 1.2

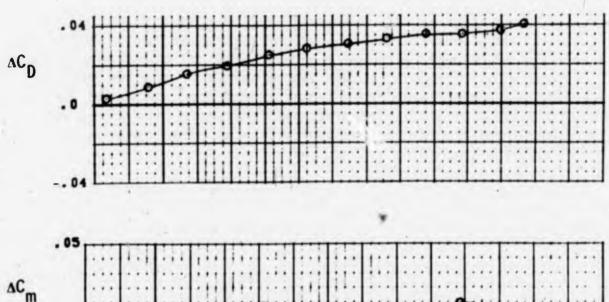


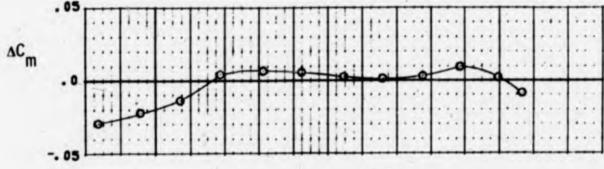
SYM	TEST		PART	T.E. DROOP	L.E. (L/R)	
0	PWT	41	TC-043	195	10	K1 10/10
0	PWT	41	TC-043	129	0	K1 10/10
-		3'	10-043	123	U	WI INVI

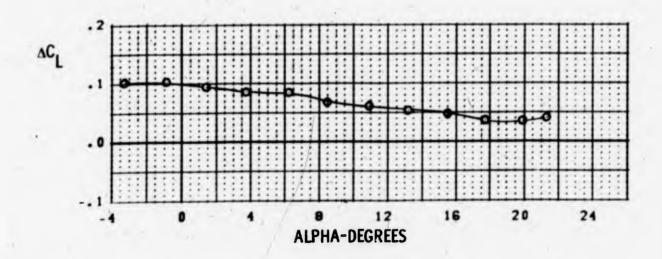
FIGURE 115d EFFECT OF DROOPED TRAILING EDGE M = 1.2



SYM	ТЕ	ST	PART 195 129	1.E. DROOP	L.E. (L/R) K1 10/10 K1 10/10
0	PWT 4T	TC-043 TC-043			
FIGU	RE 115d (FFECT OF	DROOPED 1 M = 1.2	RAILING EDGE	







SYM TEST INCREMENT T.E. DROOP L.E. (L/R)

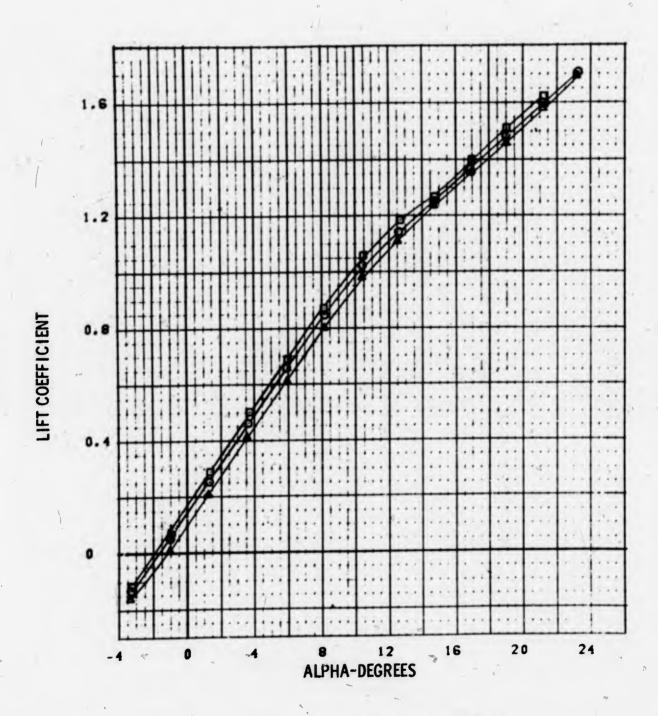
Ø PWT 4T TC-043 PN 195 - PN 129 10 K1 10/10

FIGURE 115d EFFECT OF DROOPED TRAILING EDGE

M = 1.2

c. Split Trailing Edge Flaps

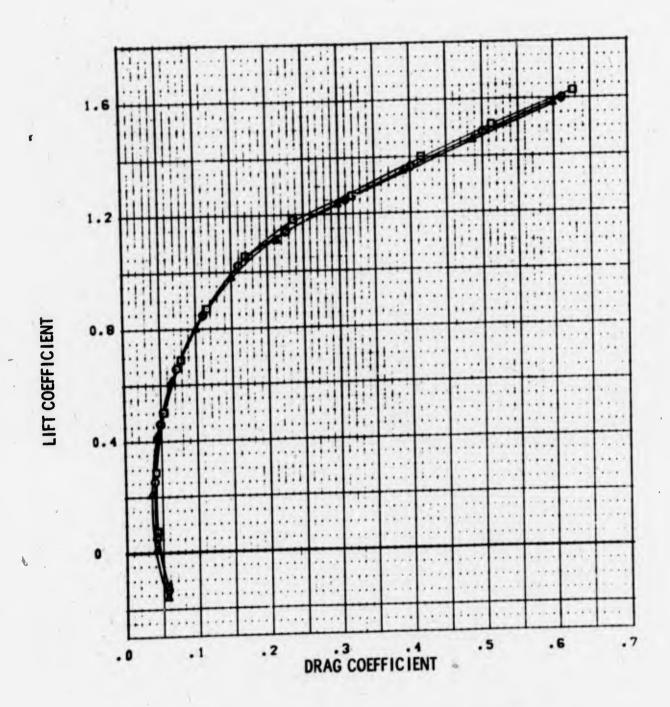
The effect of the two split trailing edge flaps (F2 and F3) on the longitudinal aerodynamic characteristics of the LEDE configuration with a clean trailing edge are compared in this subsection. These two flaps are attached to the two midspan aileron segments (segments 2 and 3) and are fabricated as a single piece so that the lower surfaces have equivalent deflection angles of 4.70 degrees (F2) and 9.46 degrees (F3), respectively.



SYM	TEST		PART	FLAP	L.E. (L/R)
0	PWT 4	T TC-043	168	F2	K1 10/10
0	PWT 4	T TC-043	149	F3	K1 10/10
A	PWT 4	T TC-043	129	F1	K1 10/10

FIGURE 116a EFFECT OF SPLIT TRAILING EDGE FLAPS M = 0.7

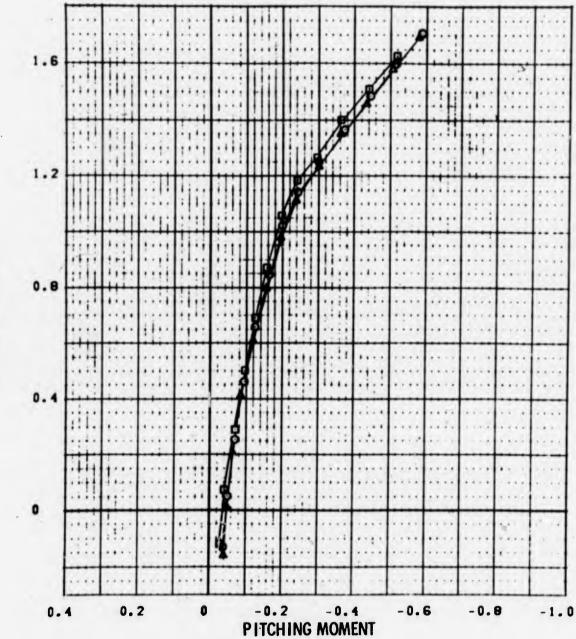




SYM	TEST		PART	FLAP	L.E. (L/R)
0	PWT 4T PWT 4T	TC-043 TC-043 TC-043	169 149 128	F2 F3 F1	K1 10/10 K1 10/10 K1 10/10

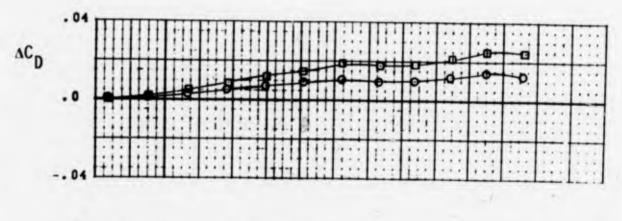
FIGURE 116a EFFECT OF SPLIT TRAILING EDGE FLAPS M = 0.7

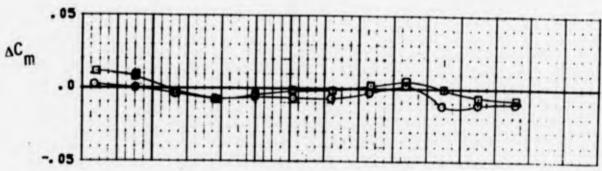


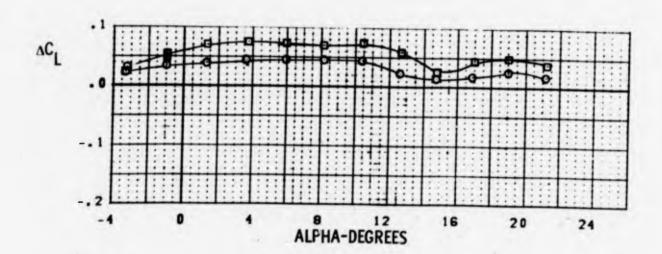


SYM	YM TEST		ST	PART	FLAP	L.E. (L/R)	
0	PWT	41	TC-043	168	F2	K1 10/10	
0	PYT	4T	TC-043	149	F3	K1 10/10	
Δ	PWT	4T	TC-043	128	F1	K1 -10/10	

FIGURE 116a EFFECT OF SPLIT TRAILING EDGE FLAPS M = 0.7





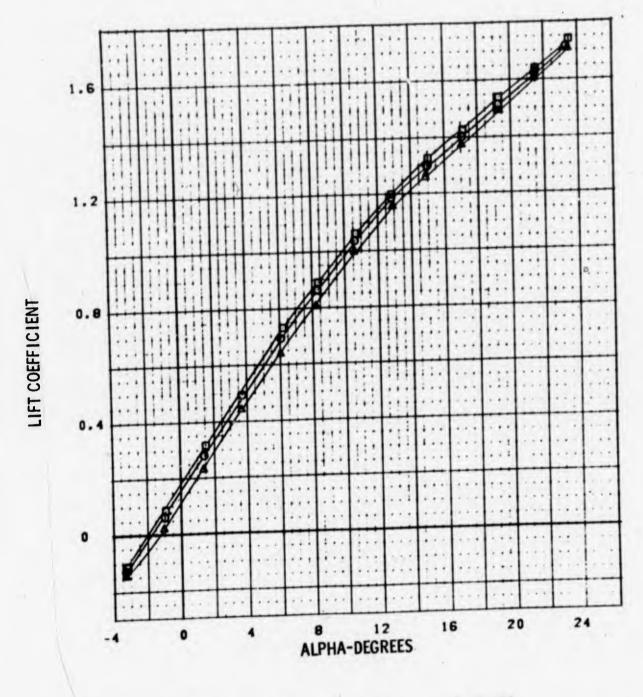


SYM TEST INCREMENT FLAP L.E. (L/R)

O PWT 4T TC-043 PN 168 - PN 128 F2 K1 10/10

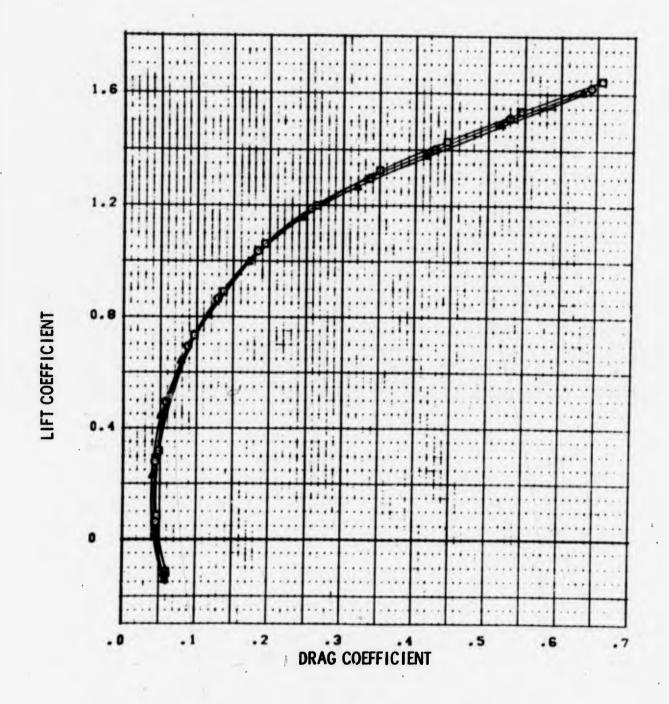
D PWT 4T TC-043 PN 149 - PN 128 F3 K1 10/10

FIGURE 116a EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 0.7



SYM	• TEST	PART	FLAP	L.E. (L/R)
0	PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043	167 148 127	F2 F3 F1	K1 10/10 K1 10/10 K1 10/10

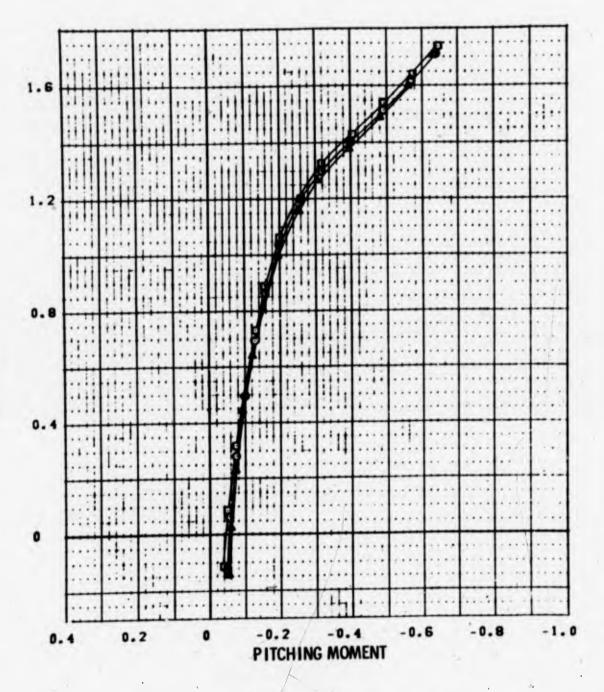
FIGURE 116b EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 0.8



SYM	TEST			PART	FLAP	L.E. (L/R)	
0	PWT	4T	TC-043	167	F2	K1 10/10	
0	PWT	41	TC-043	148	F3	K1 10/10	
	PWT	4T	TC-043	127	F1	K1 10/10	

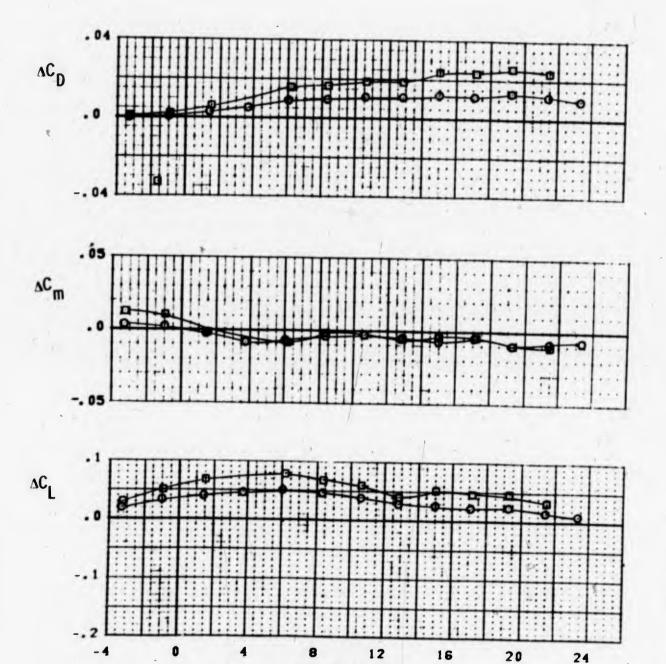
FIGURE 116b EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 0.8

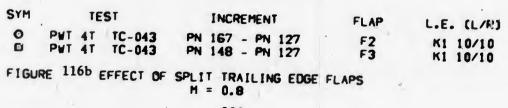




SYM		TE	ST	PART	FLAP .	L.E. (L/R)	
0	PYT	4T	TC-043	167	F2	K1 10/10	
ø	PWT	41	TC-043	148	F3	K1 10/10	
A	-	_	TC-043	127	F1	K1 10/10	

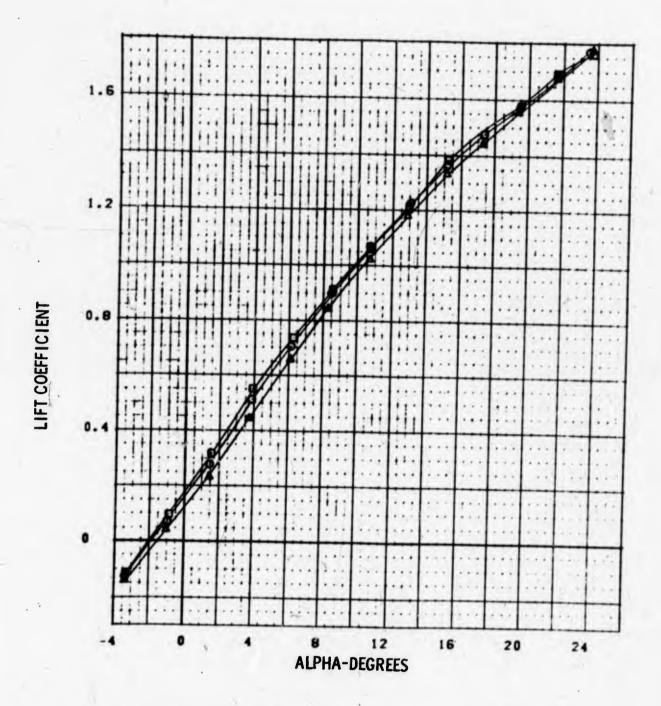
FIGURE 116b EFFECT OF SPL1T TRAILING EDGE FLAPS M = 0.8





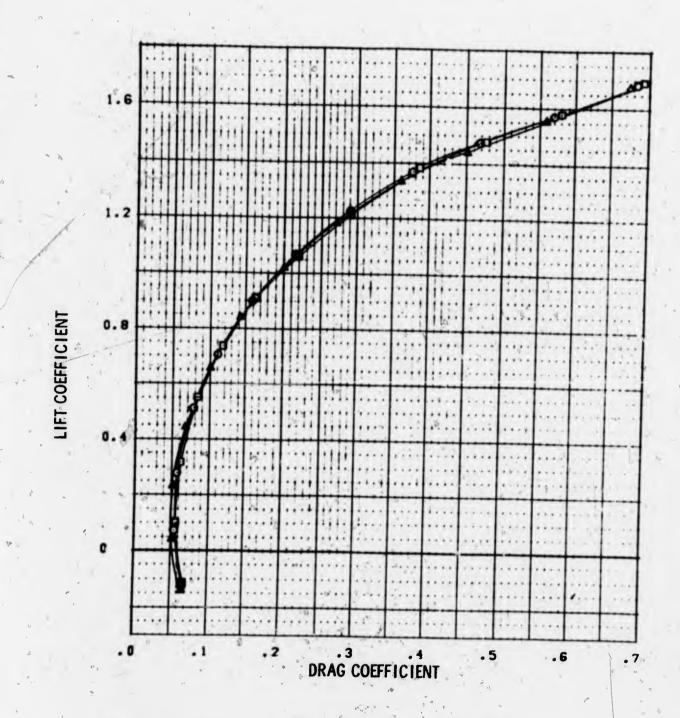
ALPHA-DEGREES

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SYM	SYM TEST		ST	PART	FLAP	L.E. (L/R)	
0	PWT		TC-043 TC-043	166 147	F2 F3	K1 10/10	
A	PWT	4 T	TC-043	126	F1	KI 10/10 KI 10/10	

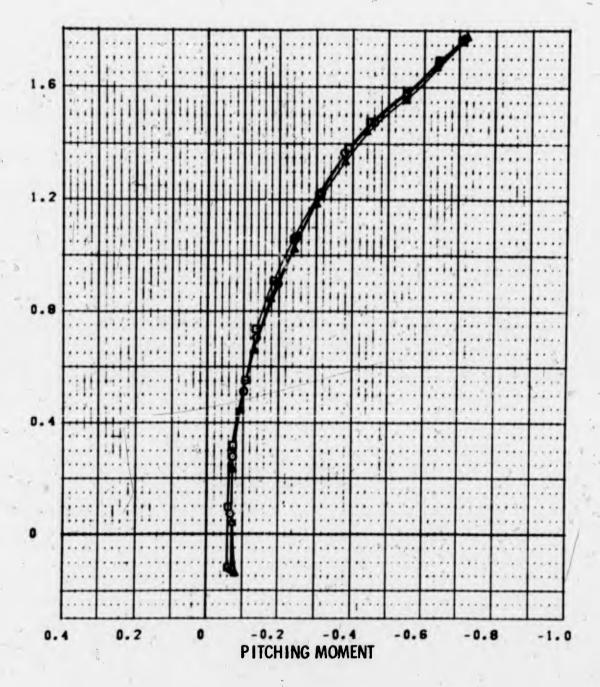
FIGURE 116c EFFECT OF SPLIT TRAILING EDGE FLAPS
N = 0.9



SYM.	TE	ST	PART	FLAP	L.E. (L/R)		
⊙ ↓ . .	PWT 4T PWT 4T PWT 4T	TC-043 TC-043 TC-043	166 147 126	F2 F3 F1		K1 10/10 K1 10/10 K1 10/10	

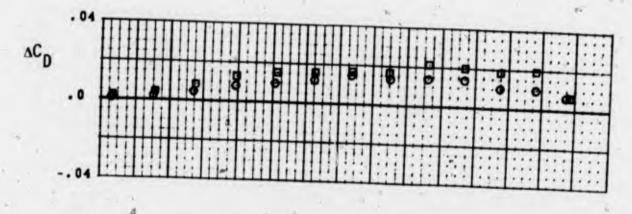
FIGURE 116c EFFECT OF SPLIT TRAILING EDGE FLAPS

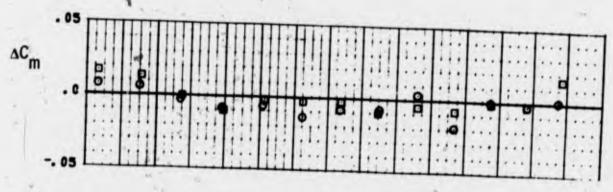


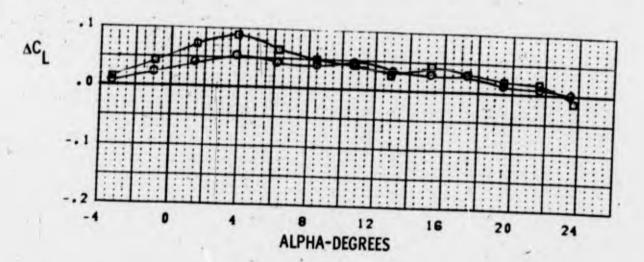


SYM	TEST			PART	*	FLAP	L.E. (L/R)	
0	PWT .	4T	TC-043	166		F2	K1 10/10	
0	PWT .	4T	TC-043	147		F3	K1 10/10	
	PWT	4T	TC-043	126		F1	K1 10/10	

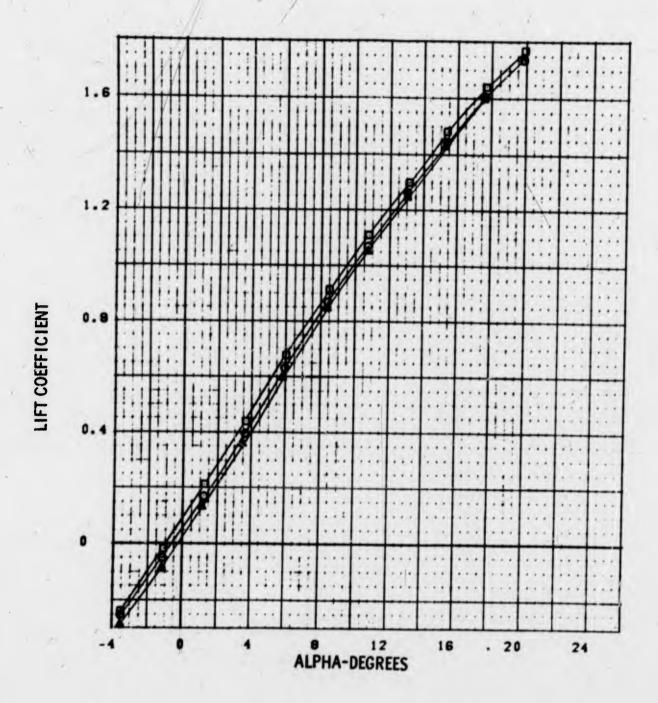
FIGURE 116c EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 0.9





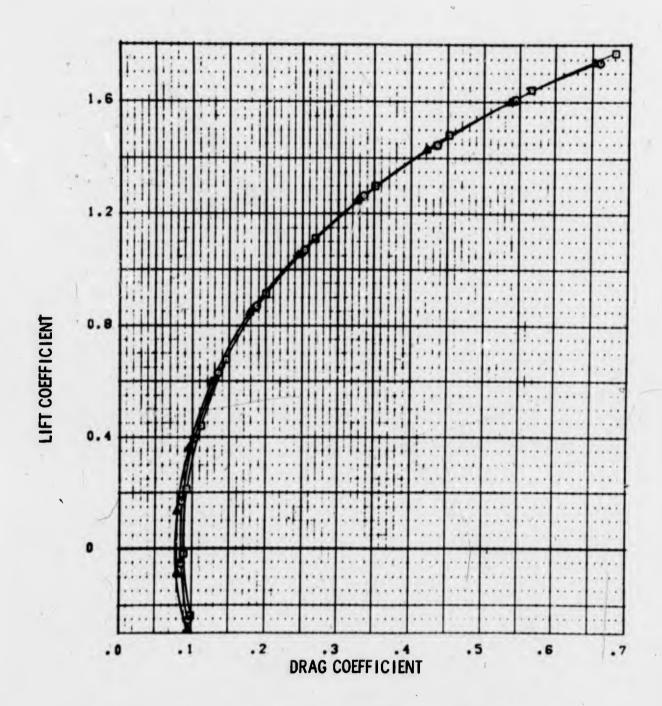


SYM TEST INCREMENT FLAP PWT 4T TC-043 PWT 4T TC-043 L.E. (L/R) PN 166 - PN 126 PN 147 - PN 126 F2 F3 0 K1 10/10 K1 10/10 FIGURE 116c EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 0.9



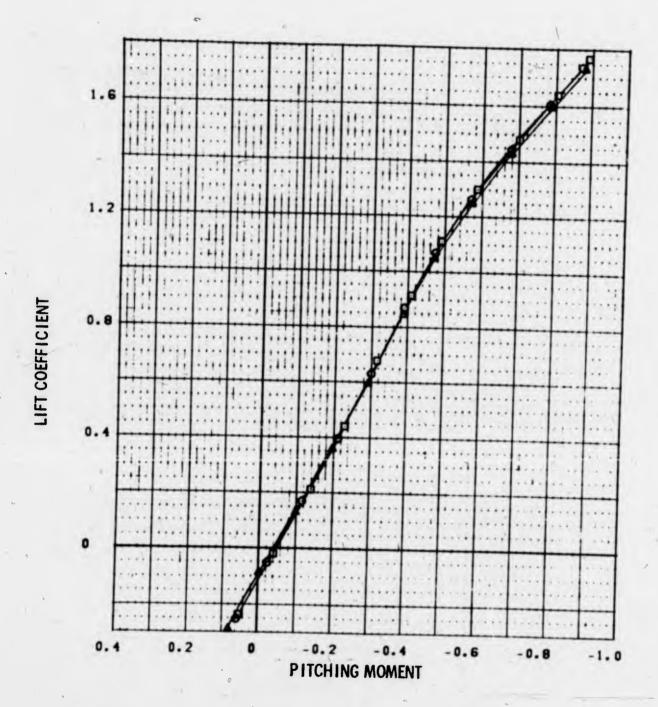
SYM		TE	ST	PART	FLAP	L.E. (L/R)
0	PWT	41	TC-043	169	F2	K1 10/10
0	PWT		TC-043	150	F3	K1 10/10
A	PWT	4 T	TC-043	129	F1	K1 10/10

FIGURE 116d EFFECT OF SPLIT TRAILING EDGE FLAPS M = 1.2



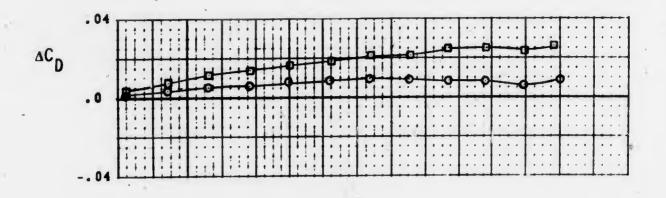
SYM	TEST			PART	FLAP	L.E. (L/R)
0	PWT	4T	TC-043	169	F2	K1 10/10
0	PWT	41	TC-043	150	F3	K1 10/10
A	PWT	41	TC-043	129	F1	K1 10/10

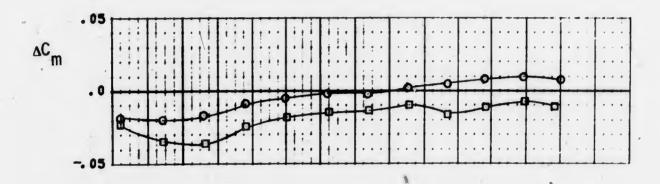
FIGURE 116d EFFECT OF SPL1T TRAILING EDGE FLAPS
M = 1.2

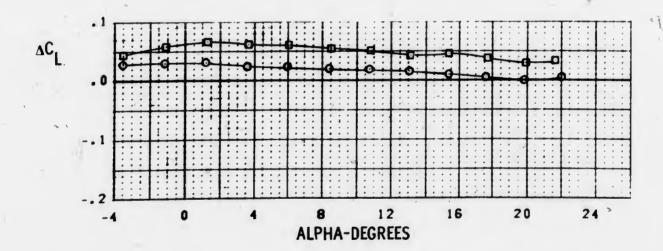


SYM	TE	ST	PART	FLAP	L.E. (L/R)	
0	PWT 4T	TC-043	169	F2	K1 10/10	
0	PWT 4T	TC-043	150	F3	K1 10/10	
A	PWT 4T	TC-043	129	FI	K1 10/10	

FIGURE 116d EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 1.2







SYM	T	ST	INCREMENT	FLAP	L.E. (L/R)	
0	PWT 4T	TC-043	PN 169 - PN 129	F2	K1 10/10	
0	PWT 4T	TC-043	PN 150 - PN 129	F3	K1 10/10	

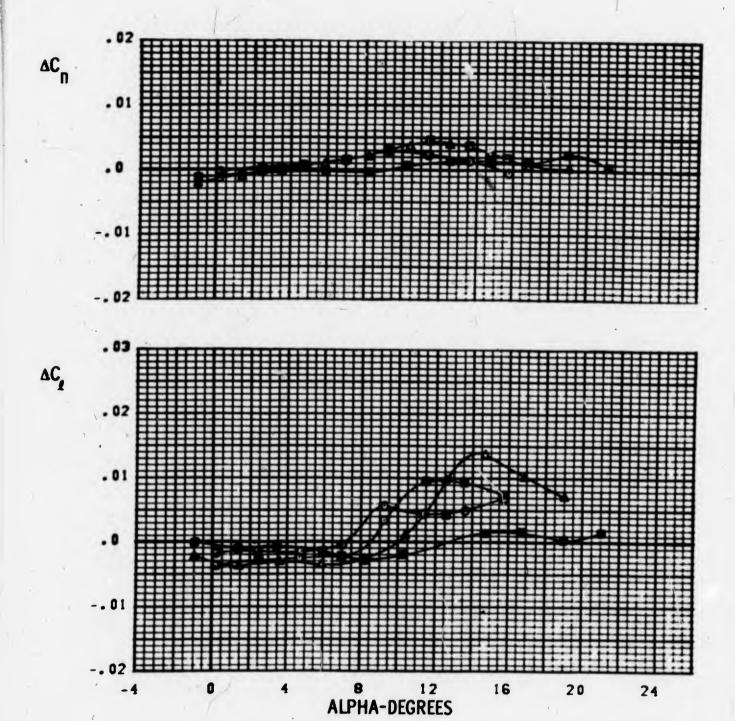
FIGURE 116d EFFECT OF SPLIT TRAILING EDGE FLAPS
M = 1.2

APPENDIX V

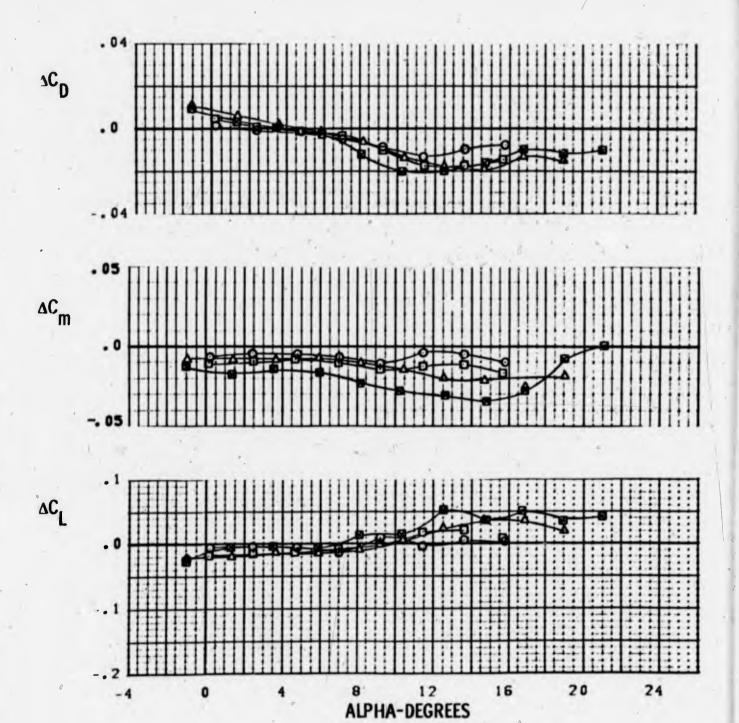
FORCE AND MOMENT COMPARISONS - ROLL CONTROL DEVICES

1. DIFFERENTIAL LEADING EDGE FLAPS

Incremental force and moment coefficients for various differential deflections of the leading edge flaps are presented in Figure 117. This data is also given in numerical form, Table V as an aid for estimating effects for other configurations.

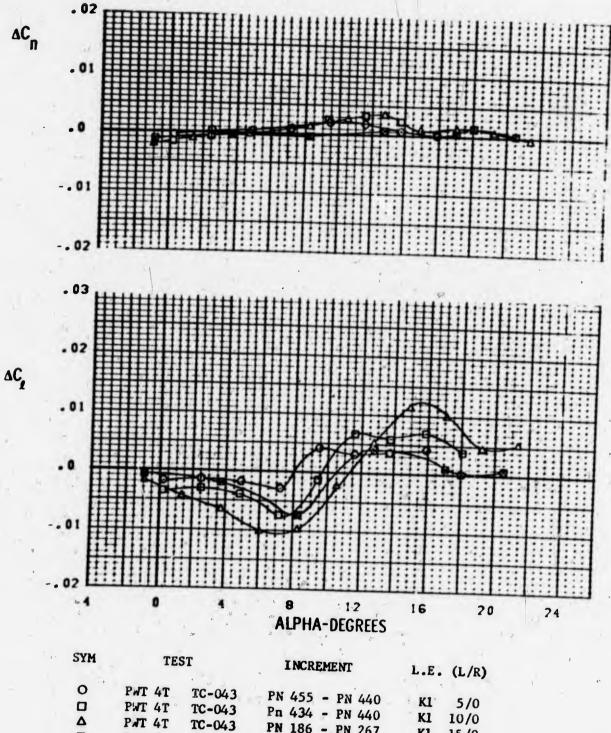


SYM	M TEST			INCREMENT					L.E.	[_/2]
. 0			TC-043	PN	454	-	PN	438	K1	5/0
0	PWT	4T	TC-043	PN	433	-	PN	438	K1	10/0
\rightarrow	PWT	4T	TC-043	PN	187	_	PN	268	K1	15/0
, •	PWT	41	TC-043	PN	257	-	PN	268	K1	10/5
FIGU	RE 11	.7a	DIFFERE	NTIA	L L.	E.	FL	AP EF	FECTS	



SYM		7	ES:			: NCR	EMEN	T "	L.E.	(/2)
Q	PAT	41	TC.	043	PN	454	PN	438		5/0
0	PWT	41	1 C	043	PN	433	IN	438	K:	:0/0
Δ	DAT	41	TC	043	PN	:87	· PN	268	K:	15/0
8	PWT	41	IC	043	PN	25%	PN	268	KI	:0/5

FIGURE 1178 DIFFERENTIAL ... F. AP EFFEC'S



O	PWT 4T PWT 4T PWT 4T PWT 4T	TC-043 TC-043 TC-043 TC-043	PN 455 - PN 440 Pn 434 - PN 440 PN 186 - PN 267 PN 254 - ON 267	, K1	5/0 10/0 15/0 10/5
F4 access	1171				

Figure 117b DIFFERENTIAL L.E. FLAP EFFECTS
M = 0.8

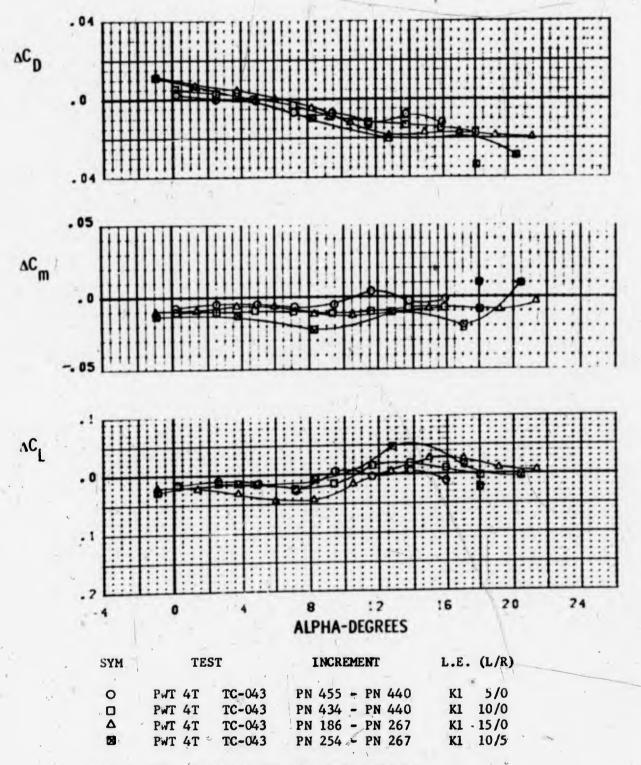
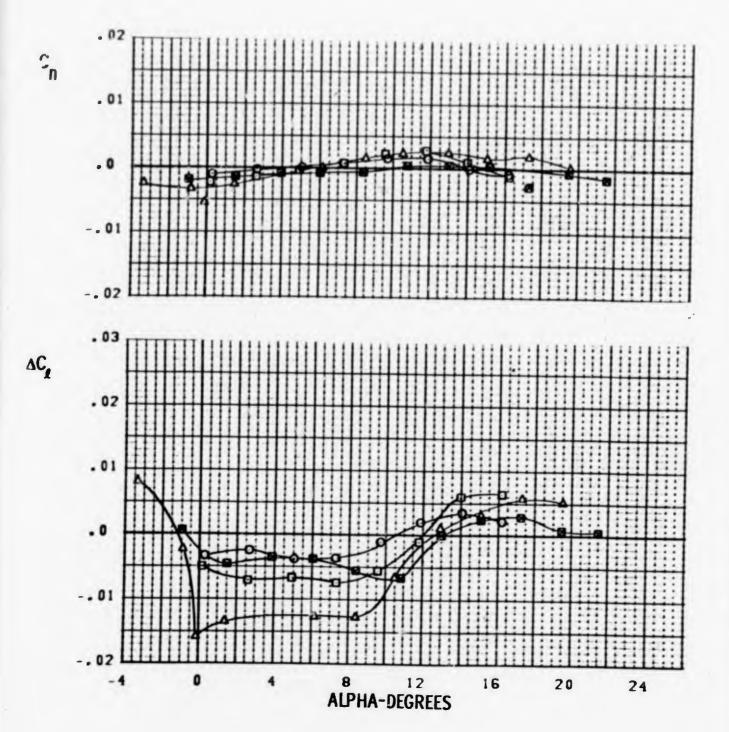


Figure 117b DIFFERENTIAL L.E. FLAP EFFECTS M = 0.8



```
        SYM
        TEST
        INCREMENT
        L.E. (L/R)

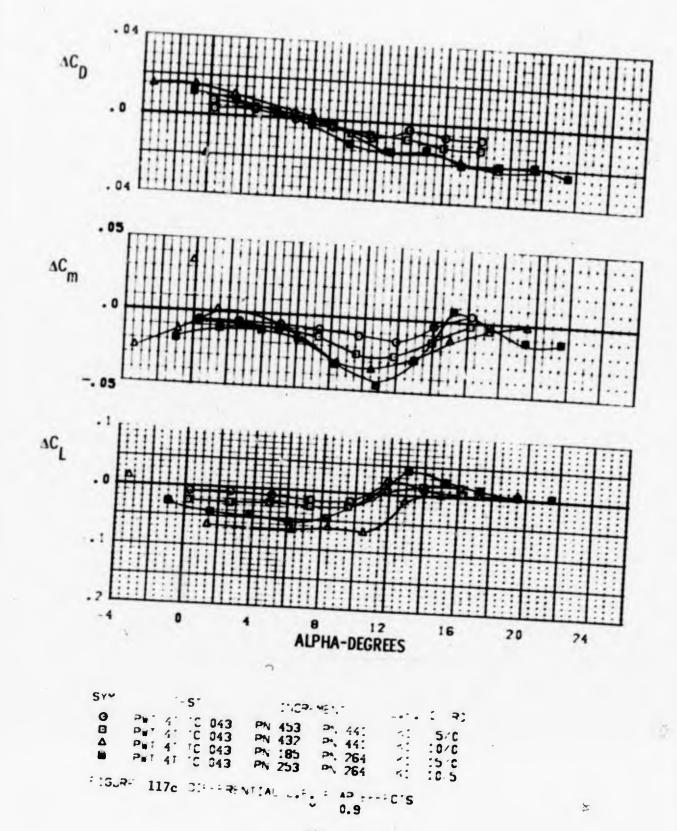
        O
        PWT 4T TC 043
        PN 453 - PN 441
        K1 5/0

        D
        PWT 4T TC-043
        PN 437
        PN 441
        K1 10/0

        Δ
        PWT 4T TC-043
        PN 185
        PN 764
        K1 15/0

        PWT 4T TC-043
        PN 753
        PN 264
        K1 10/5
```

FIGURE 117c DIFFERENTIAL L.F. FLAP EFFECTS



>		REFERENCE	BASE							ar 3							248											
IMMAR		TEST REFER	PATA NUN	264						433							77				1							
DATA SU		TE	TUNNEL	PWT 4T						TA TWO							DWT 4T											
REMENTAL	Neutral		ტ ტ	0.00040-	0,00000	0.07130	0.10300	0.03230	-0.00049	-0.00140	-1.00010	0.00150	0.00332	0,00440	0.0334	0.031100	-0.93223	-0.00110	0.000.0	0.00040	0-00369	0.00327	0.37327	0.00300	0.00400	0.3000	0.00260	0.0000
NTROL INC	Ailerons Neutra		DCA	02100 0-	-0.00150	-0.00046	0.00560	0.00441	0.00686	-0.00370	-0.00280	06200-0-	0.00330	0.00041	1,0000.0	0.00740	-0.00261	J6100.0-	-0.00331	-0-00340	0.00000	0.00221	0.00231	0.00061	190000	1356.0		
AP ROLL CC			ΦCD	0.00164	-0.00041	-0.00001	-0.00x78	-0.01324	-0.00778	0.00494	0.00109	-0.00345	-0.0000	-0.01744	-0-41723	-0.01434	0.01075	0.00576	0.0016E	-0.00670	-0.01306	-0.01446	-0.01400	-0.01791	-0-01548	21010.01	10.01	
NG EDGE FL	_		ΔCm	-0.90614	-0.00487	-0.00611	-0.01056	-0.00100	-0.00970	F1010-0-	40.00app	-0-010-0-	-0.01421	-0.01231	-0.01130	-0.01636	79700.0-	-0.00748	200000	-0.00041	-0.0162R	-0.01320	-0.01403	-0.01865	0.4.0	-0.01 443	-2.92367	
DIFFERENTIAL LEADING EDGE FLAP ROLL CONTROL INCREMENTAL DATA SUMMARY	Horizontal Tail Cn	(۵۵	-0.00704	-0.00550	-0-01400	0.0000	9790000	0.00419	-0.01767	10.01258	-0.01174	0.20271	0.71758	•	0.00074	-0.02281	01170-0-	E 44.10.01	-0.00A00	0.01303	0.00677	0.00843	0.02419	100000	0.03566	0.33532	11 31036
DIFFEREN	Horiz	-	ALTHA	0.20300	• •	•	9.23200	3	15. 78toc	0.14000	4.45300	6.57800	9.22100	11.43600	13.54700	•	-0.581CO	1.39400	5. 866.00	•		•	•	12 53400	•	•	16.85749	00000
Table V			7.8 (7.8)	0/5						1010							15/0											
T _a		L.E.	TYPE	<u>-</u>						<u>-</u>							<u>-</u>							, `			1	
		MACH		2.7						0.7							0.7									ı		

				T										T	-									-	_			
		ACE	BASE	ZOZ ;	247						8	w.			645							055						
		TEST REFERENCE	DATA	757				PED	400	OI OI	3				4 2 2							434						
		TE	TUNNEL	DUT AT		•	ON															DWT LT				_		
		7	بر ا	-0.30129	0-000-0-	-C.00C50	-0.00060	02000	0.00.0	0.00110	0.00131	0.00248	0.00063	-0-00062	0.000.0	0.00040	0.100	0.00239	0.20189	0.000RC	0.00000	-0.00159	0.00000	0.000	0.00271	0.00330	0.00230	0.000.0
		700	7	-0.00051	-0.00100	-0.00070	0.00150	-0.00199	0.00423	0.00140	0.00170	0.01041	0.00177	-0.001 RO	-0.00140	-2.001R1	-1.000 HD	0.00421	0.00318	0.00000	5 700	0000000	-0.0330	-0.00736	-0.00114	0.00679	0.00000	
Table V CONT'D		DC _P	2	0.01006	0.00377	0.000.0	-0.01247	-0.02063	-0.01973	-0.01571	-0.01014	-0.01246	-0.0103R	0.00247	0.00042	-0.000R2	-0.73675	-0.00717	-0.01289	-0.01207	0.0056.4	0.00271					-0-01/95	-0.01701
Table V		ΔCm		-0.01184	07510-0-	0,010,01	-0.0222a	-0.02665	-0.02955	-0.0338B	-0.0240R	-0.0068¤	-0.30052	-0.0060p	-0.00432	-0.70509	11900-0-			-0.00179				-	67110		69200	06800
		ΔC		-0.02742	-0.00844	-0. 20835	0.7996R	0.74936	0.05146	719617	0.04867	0.03487	0.04754	-0.01545	-0.00R82	-0.02063	0.00533		2 0				-0.01669					- 1
		ALPHA		-1.0500	3.47500	•	8.13200	•	37.000	14 79 305		•		2 53000	•	7.21600	3.44600	11.61500	13.78390	15.94700		- 51900	7. 12700				. 91400	3.07199
	FLAP	DEFL	(K)	S .					,					0/5		*	- 1				10/0							
	L.E.	TYPE	5	č									;	-						+	-							1
		H) W	0.7										0								ar C							
										,	06						_						-			_		J

	9	BASE	S S N	267											267						177	-						
	TEST RESERVING	DATA	S .	196											45.7						453							
	750	TUNNEL		- × - × -											2 2						DWT 4T							
,		₽₽	200	-0.00220	-0.00110	-0.10059	0.00021	0.00132	0.00271	0.00340	0.00120	0.00101	-0.0000-	01110	-0.00060	-0.00050	0.00100	0.000.0	42100.0	0.00038	-0.00100	-0.00030	-n.000.n-	0.000.0	0.00150	C.70147	c. 1.1	-17. 17. 78
		DCA	00000	-0.00200	-0.00450	-0.00660	-0.01027	O 00 0 0 -	15200.0-	0-01111	0.01000	0.00421	0.70529	07000 0-	-0.00220	-0.00750	0.70391	0.03110	0.00010	0.00092	-0.30340	-0.03250	-0.00380	-0.00344	-0.01110	201100	0.1334;	10111
Table V CONT'D		ΦCD	0.01094	.011	0.00681	0.0386	-0-00011	20210-0-	01000	-0.01742	-n.71748	-0.01891	-0.020ng	0.01007	0.93187	-0.010R1	-0.01955	-0.01845	-0.0339C	DC220-0-	0.00350				-0.00785	-0.0013	-0.00.035	
Table		ΔCm	-0.01044	-0.01209	-0.008H7	-0.00513	-0.00562	-0.01200	-0.01133	-0.00849	-0.02179	-0.00853	-0.00377	-0.01365	-0.01320	-0.02356	-0.07997	-0.01916	1,600.0	0 0 0	-0.13563	-0.00611	-0.00651	-7.90R92	55210-0-	66511.0-	0.00427	
		ΔCL	-0.02346		-0.02495	-0.03175	0.04952	-0-01526	0.07650	0.02622	0.02527	0.00855	0.00513	-0.07936	-0.01522	-D.01048	0.04573	0.01815	-0.00.00		-0.00864	20100-0-	-C-01040	96410-0-	20.01	20000	0.00000	
		ALPHA	-0.54830	•	3 30400	20000			12.71200		•	. 2479	21. 18499	-0.8900C	3 - 787CO	P . 2630C	12. 4340C	10.09590	20.51390		3 65,00	•	23300	00100	•	14.07500		
	L.E. FLAP	DEFL (L/R)	15/0											10/5						6 70								
	L.E.	TYPE	×											<u>~</u>						2								
	MACA		0.8											e: •						0.0								

	TEST REFERENCE	TUNNEL BATA	1 432							-								_		_					-			\neg
	TES	NE	-						185										253									
	-	5 N	PWT 4T						TA TWG										PWT 4T									
		ΔCn	-0.00220	-0.00060	0.00000	0.00211	0000	-0.00140	-0.00241	-0.00330	-0.00557	-0.90271	-0.00030	0.000	0.000	0.00170	0.00178	0.00007	-0.90177	-0.00130	00100-0-	-0.00046	90000	6-22063	0.000	-0.30262	-7,11052	-0.00100
		DCA	-0.00501	-0.00670	-0.00748	75500-0-	010000	0.00639	0.00799	-0.07260	-0.01590	-0.01330	-0.01269	C8210.0-	2000	0.00100	0.0000	0.00500	0.00085	-0.00450	-0.00330	-0.00348	-0.00543	-0.00678	0.00000	0.00301	0.00082	A. 30393
CONT'D		ΔCD	0.00780		.00283	_	-0.00744	-0.01195	0.01444	0.01449	-0.02036	0.01045	0.00151	1690000-	19510-0-	19510-0-	26810-0-	-0.02114	0.01291		0.00315	-0.00276	-0.21210	-0.01499	10.010.0-	-0.01054	-0.02028	-0.02287
Table V		DC _m	-0.30725	-0.00700	-0.01412	-0.02479		-0.01414	+	210	0.03575	0.00199	-0.01512	-0.03099	-0.03443	-0.0772	-0.01303	-0.00516	-0.31709	-0.01049	-0.01119	-0.01597	-0.03234	-0.044RO	-0.02576	200000	-0 01302	-0.71266
	-	ΔCL					0.00511	0.01527	916.90	0.01330	-1-8099R	-0-06343	-0.06527	-0.05989	-0.06463	-0.01021	0.00062	0.00532	-0.02641	-0.04109	-0.0455R	-0.05197	-0.04538	-0.00596	0.03967	0.72634	0.01733	0.00738
		ALPHA	0.16800	59400		58000		94400	3	00000		40500		.42500	. 52100	. 92000	00066 .	17. 28899	0000	1.53300	3.89276	6. Cé 30C	8. 39CCO	10.84400	12.97600	15.12330	•	21 67209
		PER PER	10/01							15/0									1	5/01								
	1	MACH TYPE	¥						+	0.0 KI	_	,							+						-			

						_	_		-		-					-		-							
	- C	2	RASE	340	342											24.0	70								
	TECT DECEDENCE	NETEREI	PATA NA	454	000											435									
	TE		TUNNEL	DWT GT	•											72 729									
		\ \	F 1	-0.00210	-0.00220	-0.001A0	-0.00113	-0.00011	0.00000	0.00165	0.00265	0.00315	0.00500	0.00330	0.00315	-0.00370	0-0.380	-0.00264	-0.00121	0.0000			0.00485	0.00490	0.00631
		\ \ \	7	-0.00285		4	0043R	00365	00285	_	-0.00130	-0.00015	0.00108	0.00221	0.00496	-0.00345	-0.00546	-0.00687	-0.00726	-0.00586	-0.00495	-0.00433	-0.00285	-0.00032	0.00029
CONT'D		AC.	0,1	0.00428	0.00479	0.00253	-0.00054	-0.00296	-0.00545	-0.00811	-0.01024	-0.71015	-0.01138	-0.01084	-0.01357	0.11125	0.70860	0.00454	0.00018	-0.00431	-0.00974	-0.01386	-0.11572	-0.11758	-0.01863
Table V CONT'D		DC.		90200-0-	-0.00359		0.00179	0.00261	0.01299	0.01777	02220	0.01570	21910	. 0195P	0.73245	74400-0-	-0.30360	-0.00085	•		0.01752	.02148	10510.	_	0.0109R
		ΔC	,		-0.01779	-0.02210	-0.02570	-0.020-0-	-0.02801	-0.07154	-0.01718	-0.00P63	-0.0000	-0.302R4	-0.00667	-0.02405	3	-0-0371R	-0.03960	-0.03822				-0.01493	οl
		ALPHA		-2.26700	•	0.13800	•	4.91400	005220	00649.6	12.04100	14.34100	•		000 × 000	-2.27300	•	•	00000	•	•		0006	700	00100.0
	L.E. FLAP	DEFL	(L/R)	2/6												10/0									
	L.E.	202														~ ~									
		MACA		1.2												1.2									

0.01782 -0.03318 0.01803 -0.03306 0.01265 0.01677 0.01265 0.01295 0.01366 0.01295 0.00851 -0.00672 0.00661 -0.01303	-0.01265 -0.01366 -0.01366 -0.00994 -0.00661
	-0.01395
010	-0.038 -0.025 -0.013

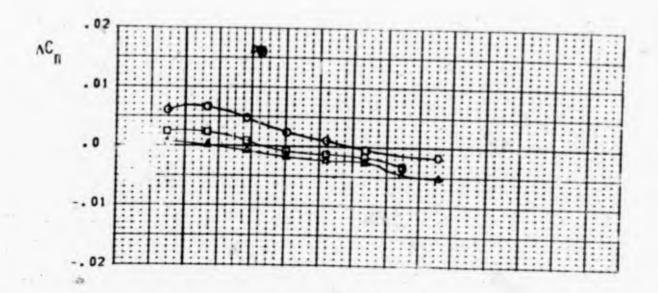
2. AILERONS

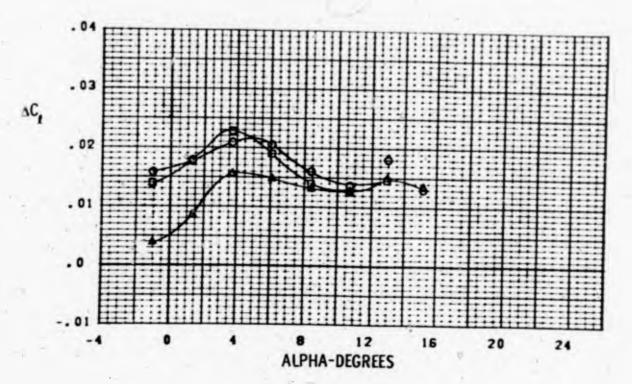
Characteristics for several specific effects associated with aileron type controls are given in this subsection. Data for the three basic span-wise locations, without horizontal tail, are presented in Figure 118. Similar characteristics for the mid-span and outboard ailerons, horizontal tail on, are given in Figure 119. Incremental differences due to the horizontal tail are given in Figures 120 and 121. The horizontal tail contributions to longitudinal characteristics illustrate the angle of attack ranges when the wing wake is near the horizontal tail.

The effects of Reynolds number variations over the attainable test range are illustrated in Figure 122. In this case, comparisons are shown for the basic lateral-directional moment measurements (not the incremental moment differences from the corresponding symmetrical configurations).

Comparisons of the effects on lateral-directional moments of various symmetrical leading edge flap deflections are presented in Figure 123. Comparable data with the Kl and K2 leading edge geometries are given in Figure 124. Characteristics obtained with both small and large deflections are shown in Figures 125 and 126 to illustrate the extent of linearity with deflection.

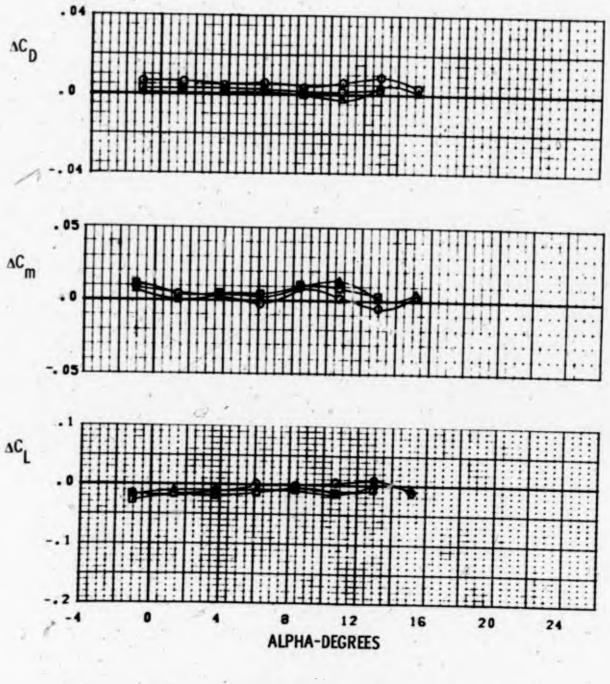
Numerical force and moment increments for key aileron effects are also given in Tables VI through X. This data is presented at the end of this subsection.





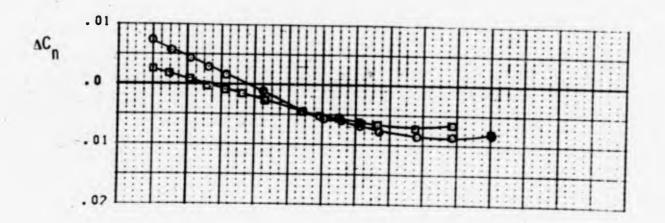
SYM	TEST	INCREMENT	L.E. (L/R) AILERON (L/R)
0	PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043	PN 112 -PN 47 PN 108 -PN 47	K1 10/10 INSO 10/-10 K1 10/10 HIO 10/-10 K1 10/10 OUTSO 10/-10

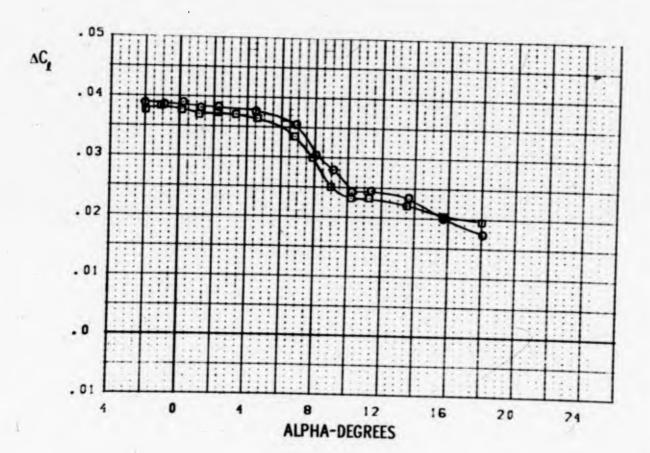
FIGURE 118 ALLERON SPANWISE POSITION EFFECTS HORIZONTAL TAIL OFF M = 0.9



SYM	TEST	INCREMENT	L.E (L/R)	AILERON (L/R)
⊙	PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043	PN 112 -PN 47 PN 108 -PN 47	K1 10/10	

FIGURE 118 AILERON SPANWISE POSITION EFFECTS HORIZONTAL TAIL OFF M = 0.9



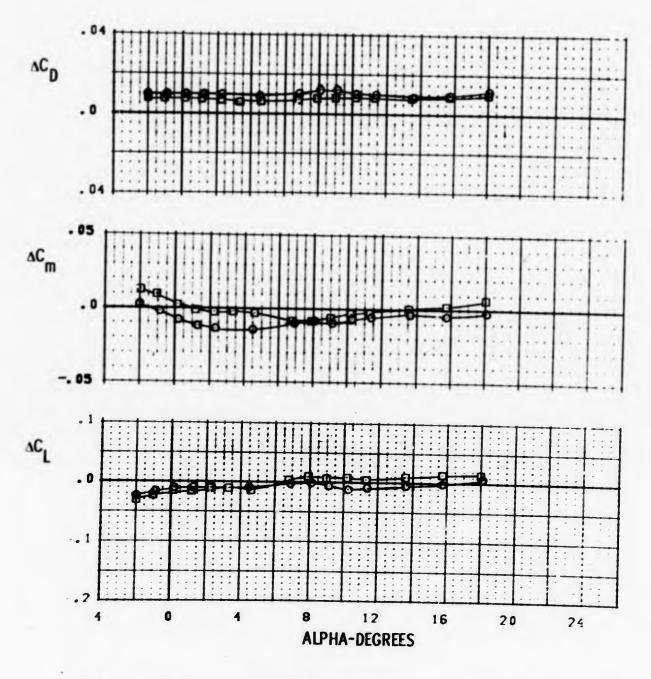


SYM TEST INCREMENT ..E. (/2) AT -RON (R)

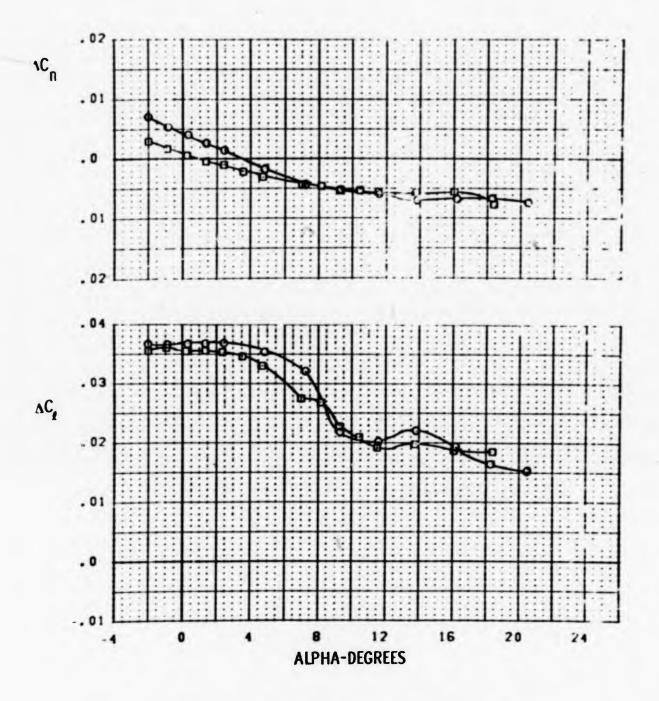
O PWT 16T TF-216 PN 13 -PN 49 KT 0/0 DUED 20 20

PWT 16T TF-216 PN 85 -PN 49 KT 0/0 DUED 20 20

FIGURE 119a AILERON SPANWISE POSITION EFFECTS
HORIZONTAL TAIL ON M = 0.7



O PWT 16T TF-216 PN 13 -PN 49 K1 G/G WID DO DO DO PWT 16T TF-216 PN 85 -PN 49 K1 G/G CUTBO DO DO DO FIGURE 1198 ALLERON SPANWISE POSITION EFFECTS HORIZONTAL TAIL ON M = 0.7



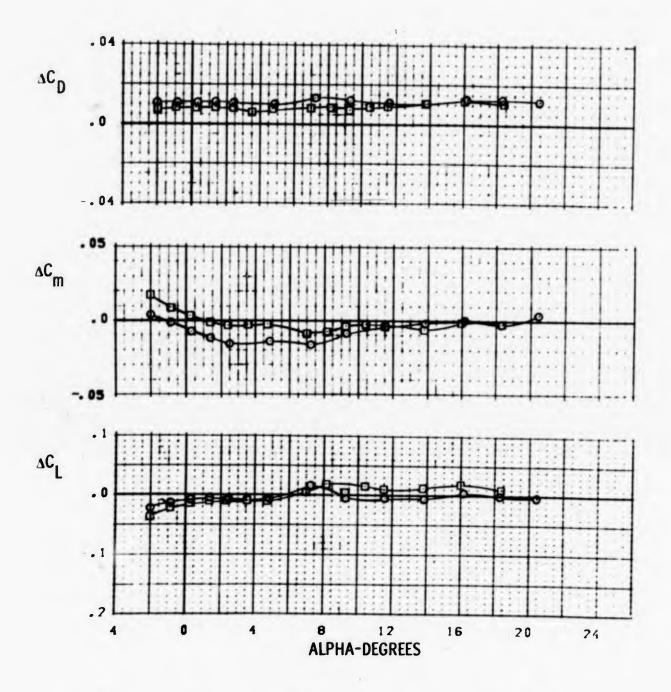
 SYM
 TEST
 INCREMENT
 L.E. (L/R)
 ATLERON (L/R)

 G
 PWT 16T TF-216
 PN 12 -PN 50
 K1
 0/0
 MID
 20/-20

 G
 PWT 16T TF-216
 PN 84 -PN 50
 K1
 0/0
 0UT8D
 20/-20

 FIGURE 119b
 AILERON SPANWISE POSITION EFFECTS

FIGURE 119b AILERON SPANWISE POSITION EFFECTS HORIZONTAL TAIL ON H = 0.8

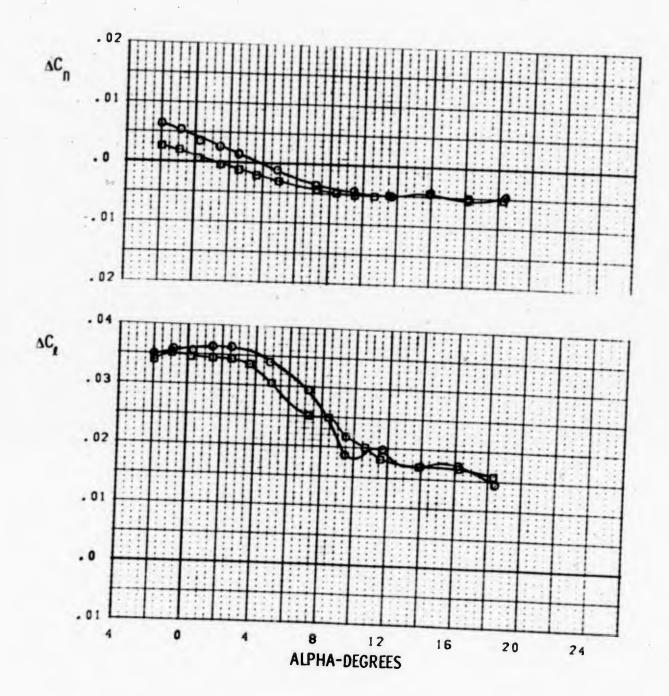


SYY TEST INCREMENT ..E. (_/R) ALERON (_R)

O PWT 16T TF-216 PN 12 -PN 50 K1 3/0 YID 20 20

D PWT 16T TF-216 PN 84 -PN 50 K1 0/0 0LTBD 70/-20

FIGURE- 119b AILERON SPANWISE POSITION EFFECTS
HORIZONTAL TAIL ON M = 0.8

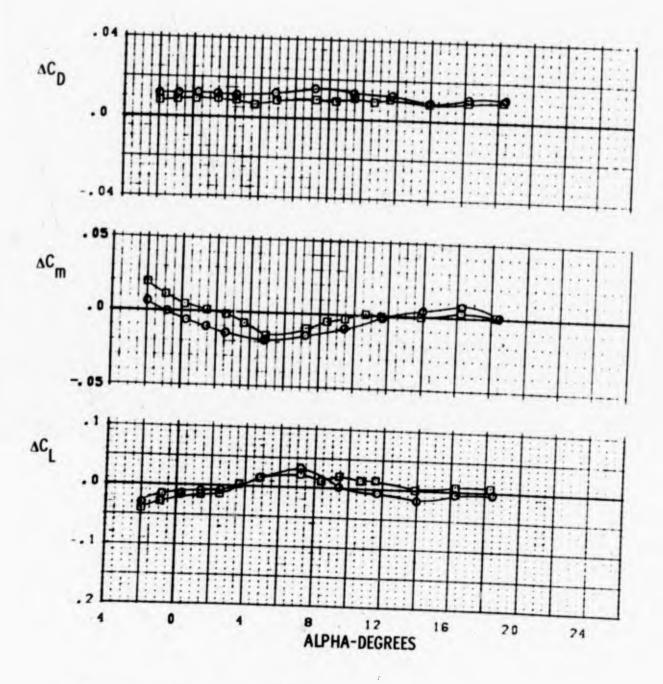


SYM TES' INCREMENT L.E. (_/R) ATLERCN (R)

© PWT 16T TF-216 PN 11 -PN 51 K1 0/0 MID 20/ 20

PWT 16T FF-216 PN 83 -PN 51 K1 0/0 0L'30 20/ 20

FIGURE 119c AILERON SPANWISE POSITION EFFECTS
HORIZONTAL TAIL ON M = 0.85

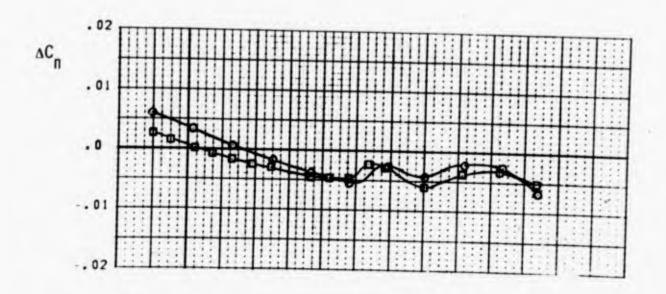


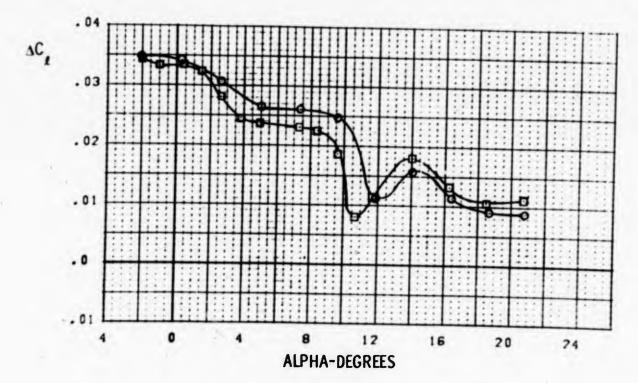
SYM, TEST INCREMENT L.E. (./R) ALLERON (. R)

© PWT 16T IF-216 PN 11 -PN 51 K: 0/0 MID 20/ 20

PWT 16T FF 216 PN 83 -PN 51 KI 0/0 0L/8D 20/ 20

FIGURE 119c AILERON SPANWISE POSITION EFFECTS
HORIZONTAL TAIL ON M = 0.85



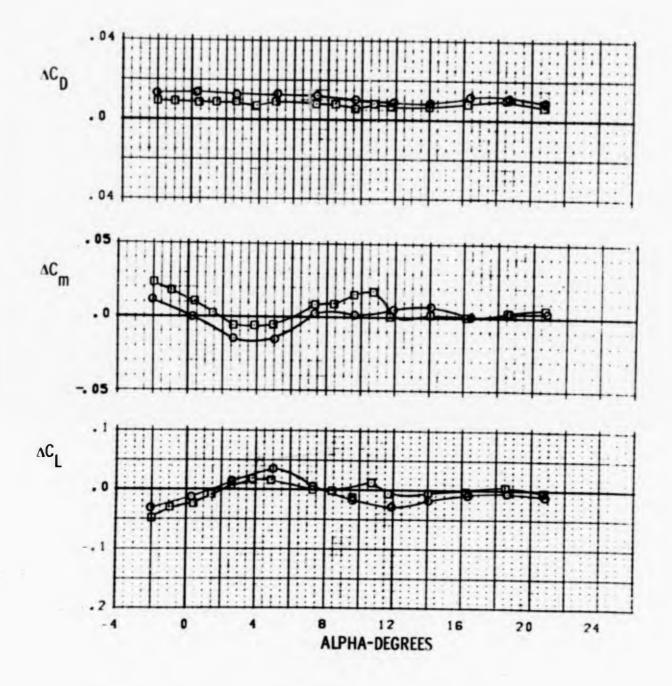


SYM TEST INCREMENT - L.E. (_/R) ALERON (_/R)

O PWT 16T TF-216 PN 8 -PN 52 K1 0/0 MID 20/20

PWT 16T TF-216 PN 81 -PN 52 K1 0/0 OUTBO 20/20

FIGURE 119d AILERON SPANWISE POSITION EFFECTS
HORIZONTAL TAIL ON M = 0.9

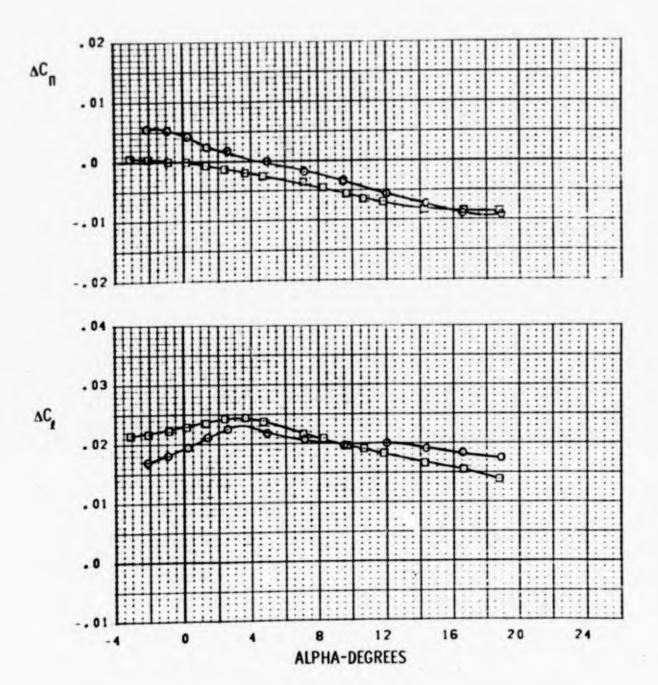


SYM TEST INCREMENT L.E. (L/R) ALERON (R)

O PWT 16T TF-216 PN 8 -PN 52 K1 0/0 MID 20/-20

D PWT 16T TF-216 PN 81 -PN 52 K1 0/0 0LTBD 20/-20

IGURE 119d AILERON SPANWISE POSITION EFFECTS
HORIZONTAL TAIL ON M = 0.9

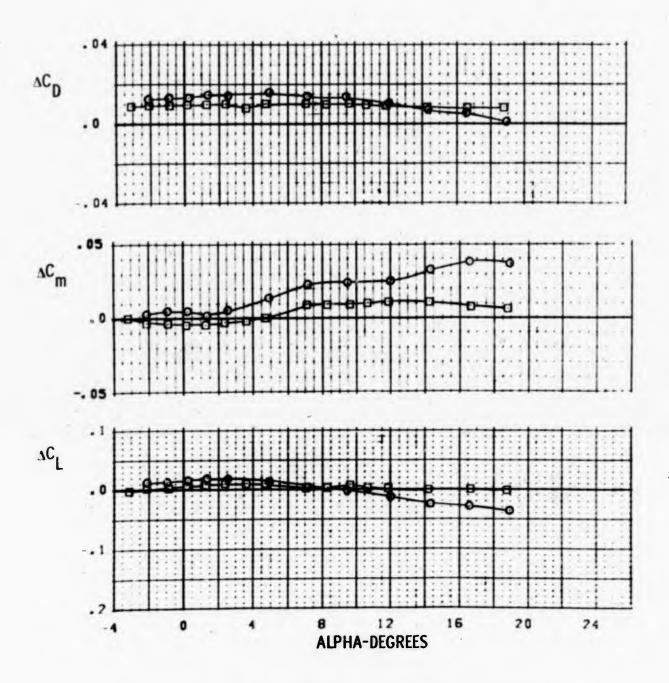


 SYM
 TEST
 INCREMENT
 L.E. (_/R)
 A:_ERCN (_/R)

 Ø
 PWT 16T TF-216
 PN 10 -PN 54
 K1
 0/0
 MID 20/-20

 Ø
 PWT 16T TF-216
 PN 82 -PN 54
 K1
 0/0
 0UT30
 20/-20

FIGURE 119e AILERON SPANWISE POSITION EFFECTS HORIZONTAL TAIL ON M = 1.2

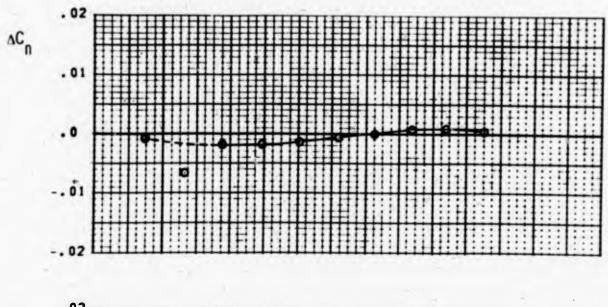


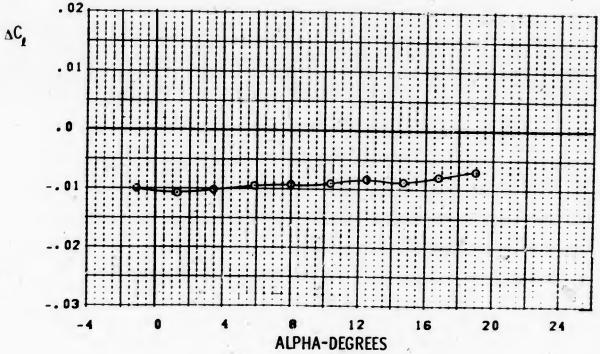
SYM TEST INCREMENT 1.E. (L/R) ALERCN (-R)

O PWT 16T TF-216 PN 10 -PN 54 K1 0/0 MIG 20/ 20

D PWT 16T TF-216 PN 82 -PN 54 K1 0/0 GUTB3 20/-20

FIGURE 119e AILERON SPANWISE POSITION EFFECTS HORIZONTAL TAIL ON M = 1.2

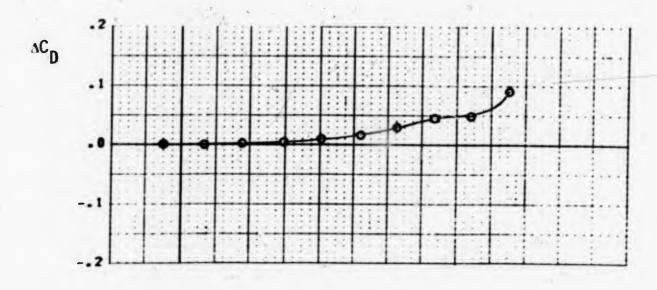


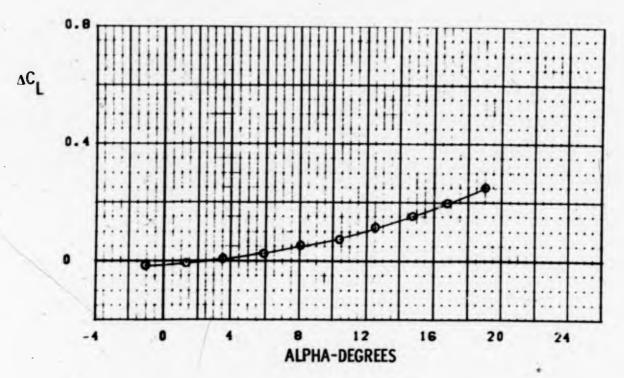


SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 121 -PN 114 K1 10/10 INBD 10/-10

FIGURE 120a HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION SMALL AILERON DEFLECTION M = 0.7

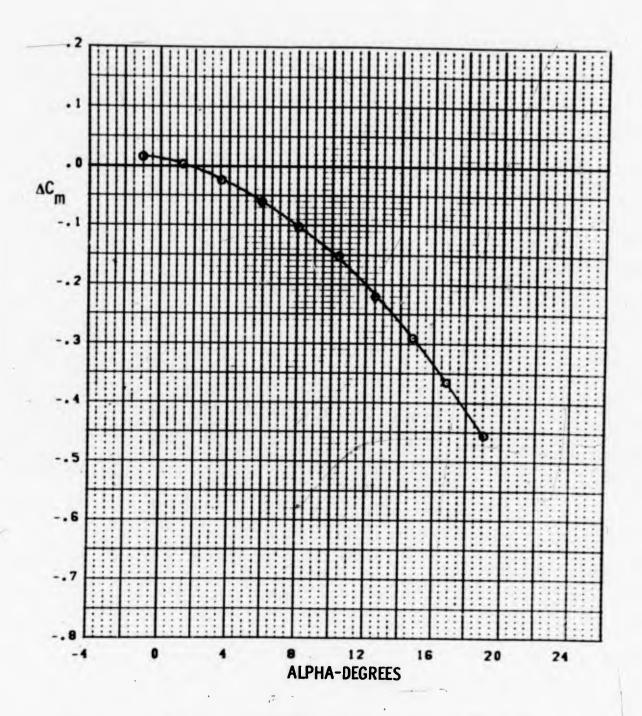




SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 121 -PN 114 K1 10/10 INBO 10/-10

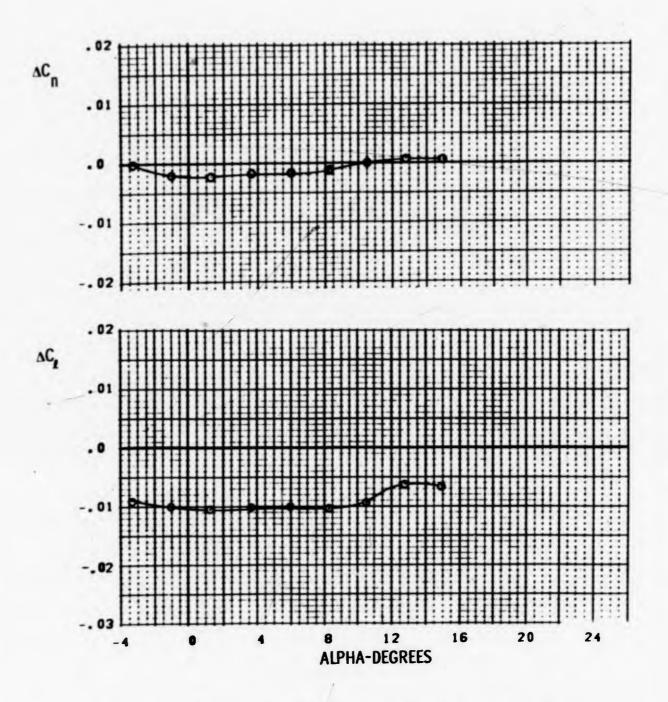
FIGURE 120a HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION SMALL AILERON DEFLECTION M = 0.7



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 121 -PN 114 K1 10/10 INBO 10/-10

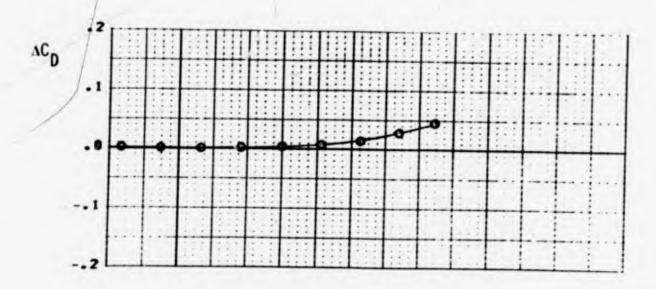
FIGURE 120a HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION SHALL AILERON DEFLECTION H = 0.7

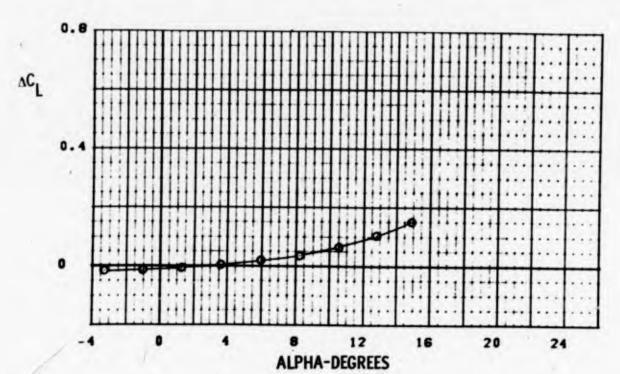


SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PYT 4T TC-043 PN 120 -PN 113 K1 10/10 INBO 10/-10

FIGURE 120b HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION
SMALL AILERON DEFLECTION M = 0.8

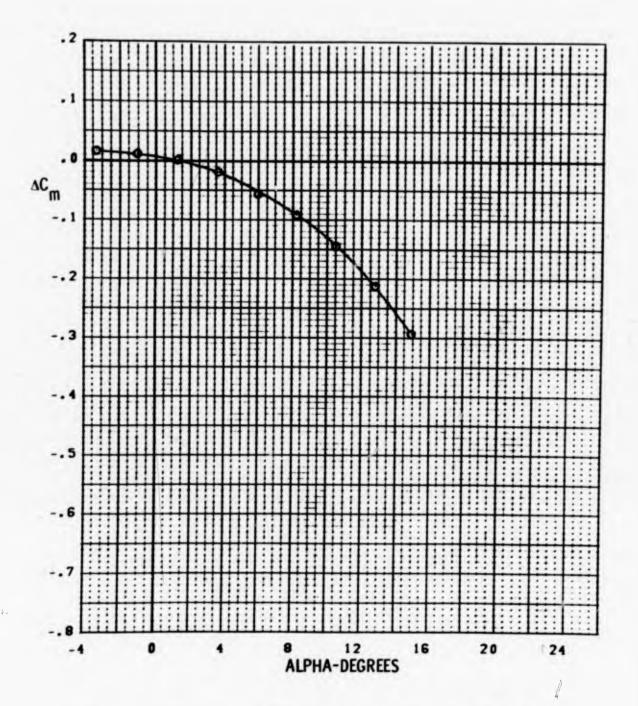




SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 120 -PN 113 K1 10/10 INBD 10/-10

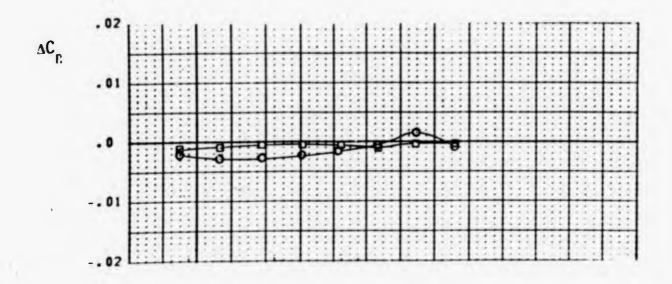
FIGURE 120b HORIZONTAL TAIL INTERFERENCE, RN = 5.2 MILLION SMALL AILERON DEFLECTION M = 0.8

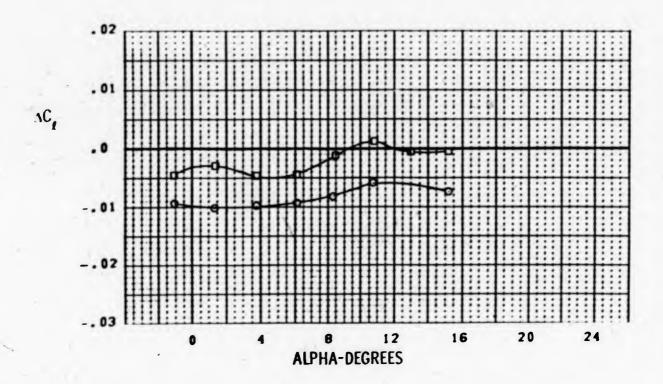


SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 120 -PN 113 K1 10/10 INBO 10/-10

FIGURE 120b HORIZONTAL TAIL INTERFERENCE. RN = 5.2 HILLION SHALL AILERON DEFLECTION H = 0.8



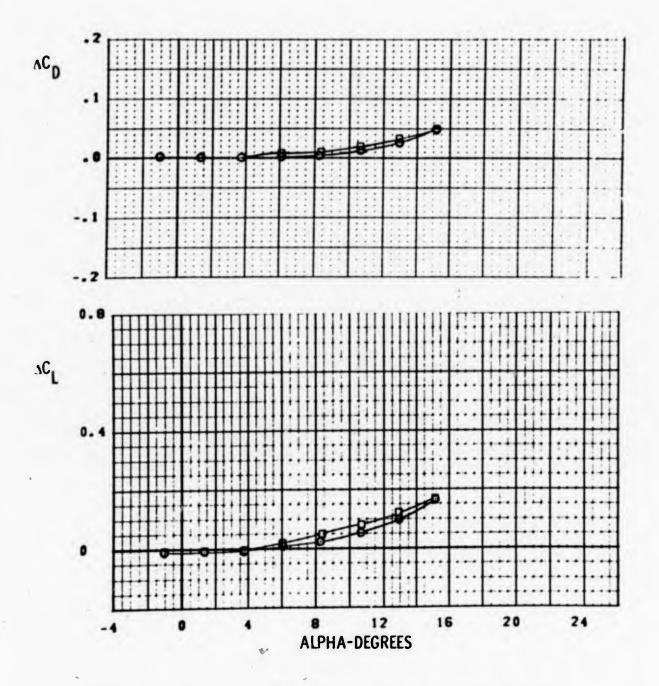


 SYM
 TEST
 INCREMENT
 L.E. (L/R)
 AILERON (L/R)

 Ø
 PWT 4T TC-043
 PN 119 -PN 112
 KI 10/10
 INBO 10/-10

 Ø
 PWT 4T TC-043
 PN 133 -PN 108
 KI 10/10
 MID 10/-10

 FIGURE 120c
 HORIZONTAL TAIL INTERFERENCE
 RN = 5.2 MILLION
 SMALL AILERON DEFLECTION
 M = 0.9

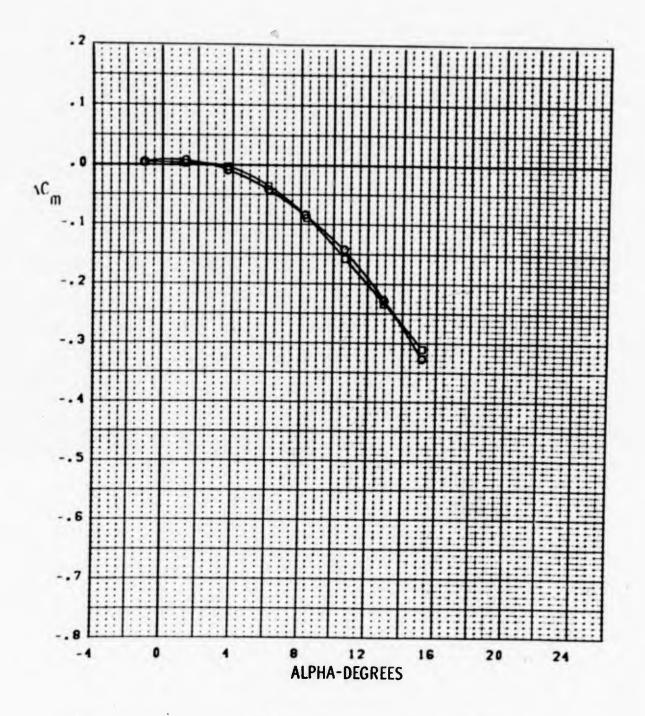


 SYM
 TEST
 INCREMENT
 L.E. (L/R)
 Alleron (L/R)

 Ø
 PWT 4T TC-043
 PN 119 -PN 112
 K1 10/10
 INBO 10/-10

 Ø
 PWT 4T TC-043
 PN 133 -PN 108
 K1 10/10
 MIO 10/-10

FIGURE 120c HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION SMALL AILERON DEFECTION: M = 0.9

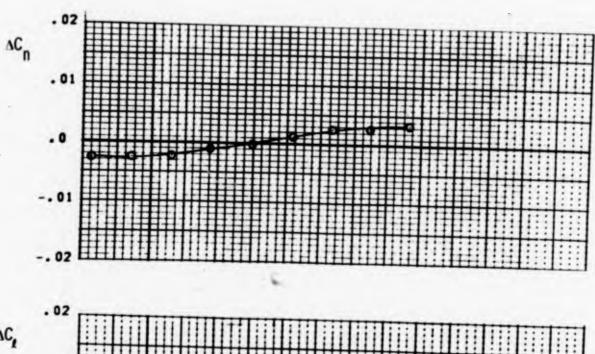


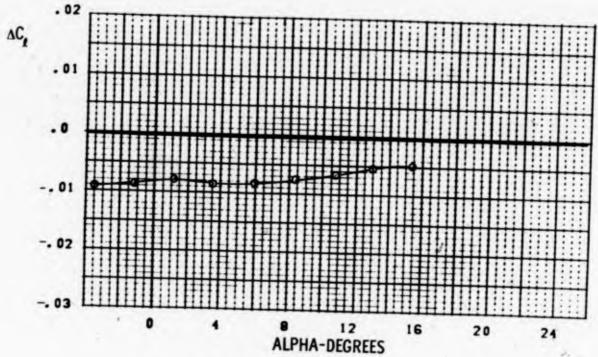
SYM TEST . INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 119 -PN 112 K1 10/10 INBO 10/-10

D PWT 4T TC-043 PN 133 -PN 108 K1 10/10 MID 10/-10

FIGURE 120c HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION SMALL AILERON DEFLECTION M = 0.9



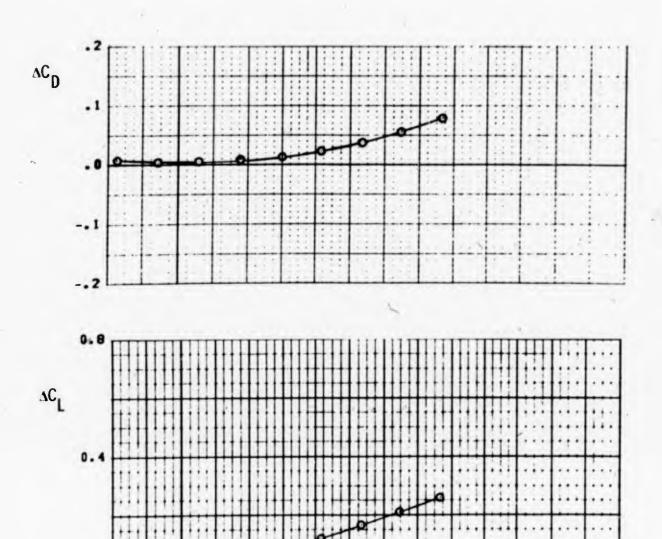


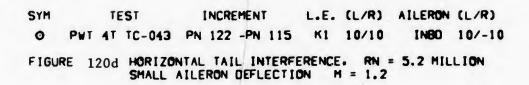
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 122 -PN 115 K1 10/10 INBO 10/-10

FIGURE 120d HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION

SMALL AILERON DEFLECTION M = 1.2



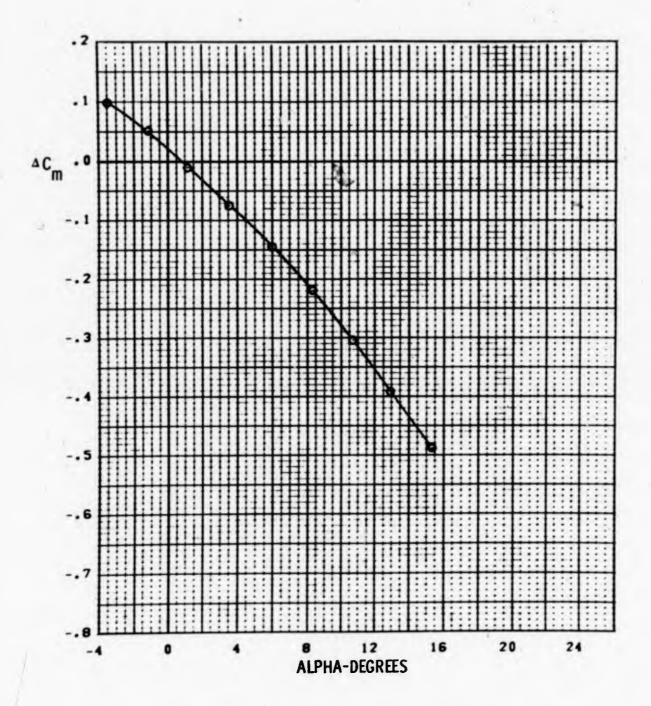


ALPHA-DEGREES

16

20

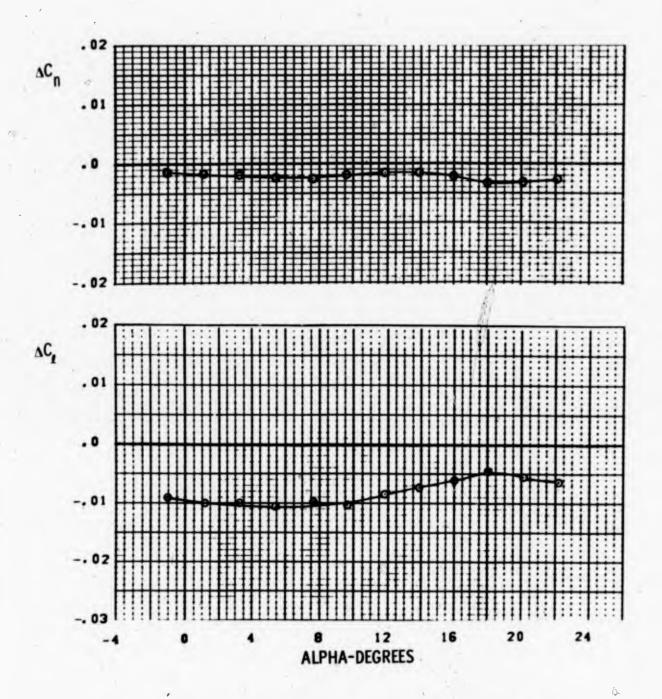
24



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 122 -PN 115 K1 10/10 INBO 10/-10

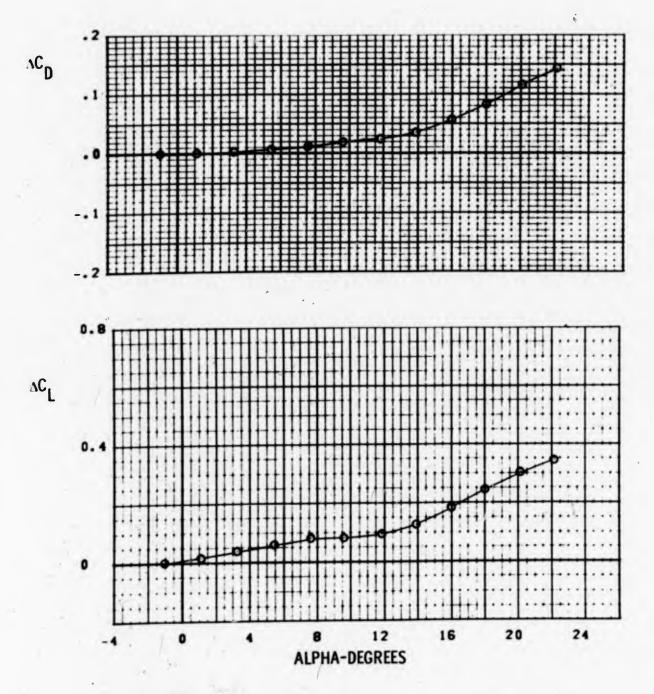
FIGURE 120d HORIZONTAL TAIL INTERFERENCE. RN = 5.2 MILLION SHALL AILERON DEFLECTION H = 1.2



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 285 -PN 499 K1 0/0 MID 20/-20

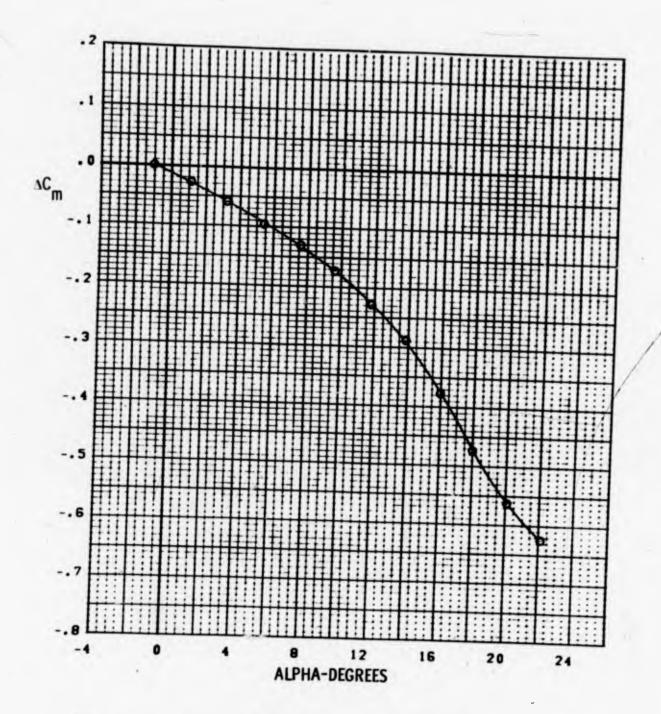
FIGURE 121a HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 0.7



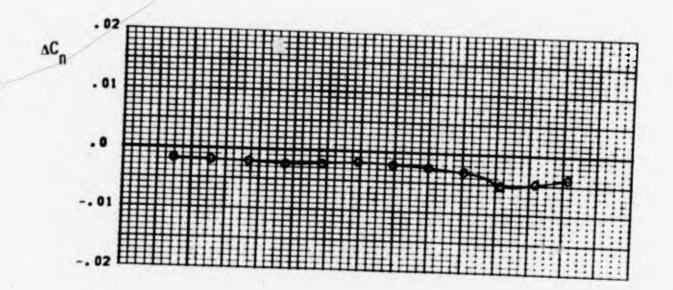
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

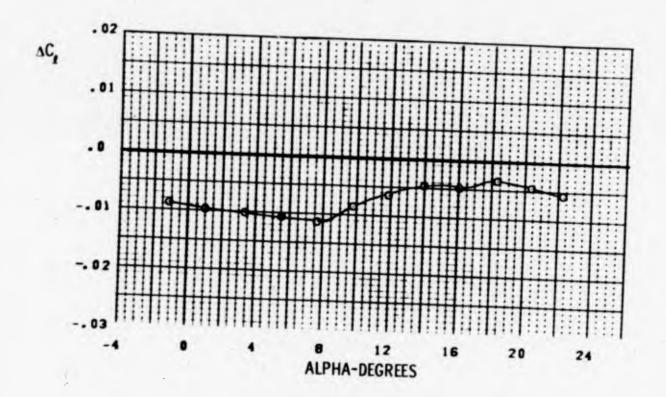
O PWT 4T TC-043 PN 285 -PN 499 K1 0/0 MID 20/-20

FIGURE 121a HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 0.7



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)
O PWT 4T TC-043 PN 285 -PN 499 K1 0/0 MID 20/-20
FIGURE 121a HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 0.7

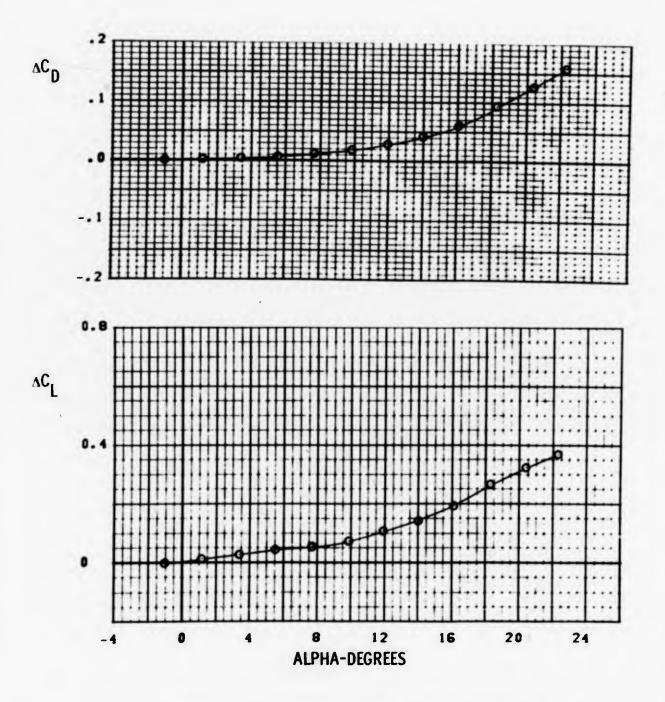




SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 284 -PN 500 K1 0/0 MID 20/-20

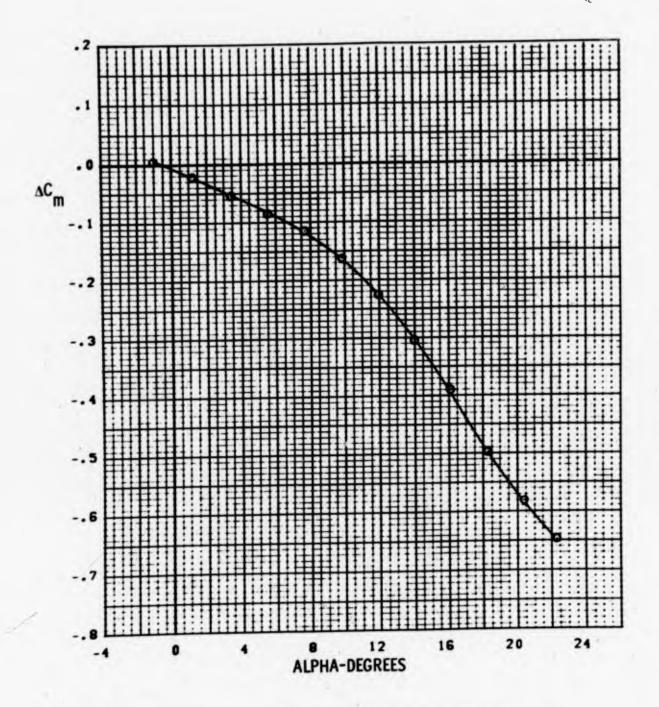
FIGURE 121b HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 0.8



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 284 -PN 500 K1 0/0 MID 20/-20

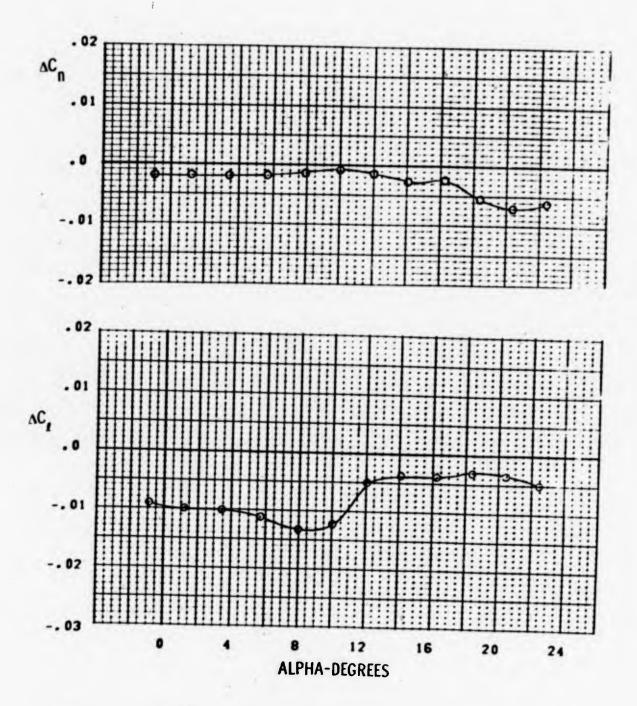
FIGURE 121b HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION LARGE AILERON DEFLECTION M = 0.8



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

Ø PWT 4T TC-043 PN 284 -PN 500 K1 0/0 MID 20/-20

FIGURE 121b HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 0.8

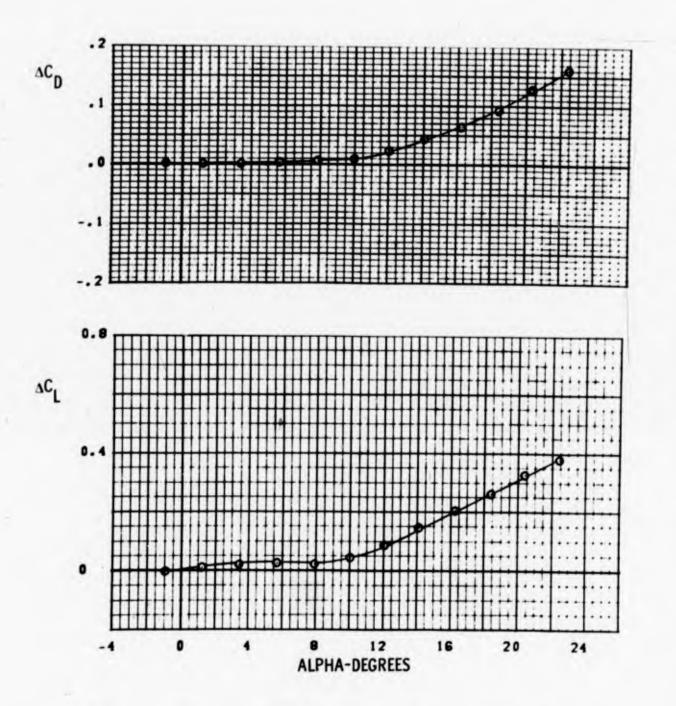


SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 283 -PN501 K1 0/0 MID 20/-20

FIGURE 121c HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION

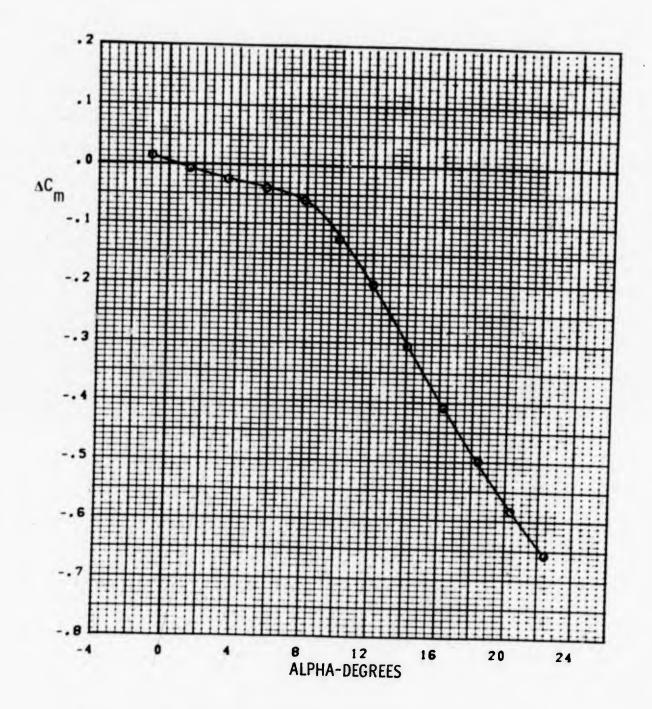
LARGE AILERON DEFLECTION M = 0.9



SYM TEST, INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 283 -PN501 K1 0/0 MID 20/-20

FIGURE 121c HORIZONTAL TAIL INTERFERENCE, RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 0.9

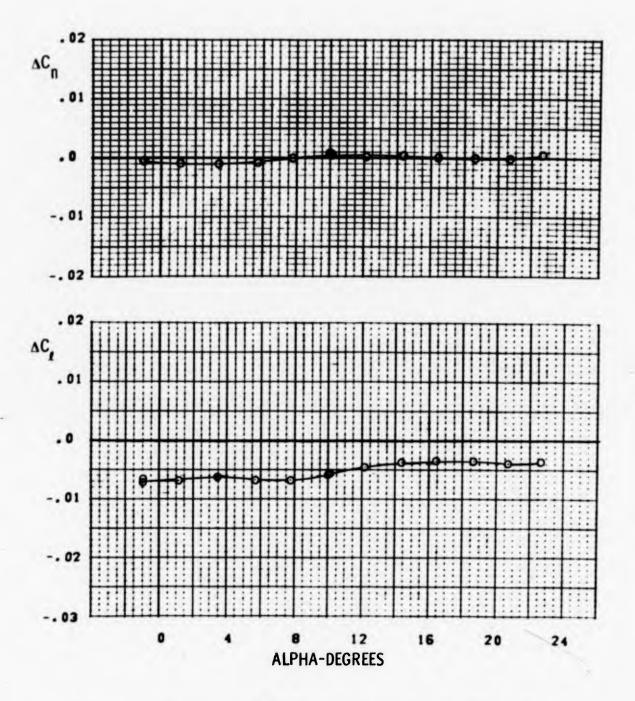


SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 283 -PN501 K1 0/0 MID 20/-20

FIGURE 121c HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION

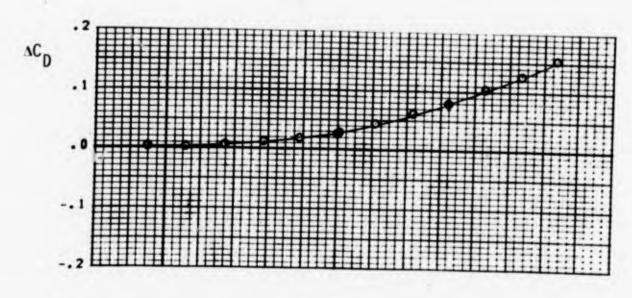
LARGE AILERON DEFLECTION M = 0.9

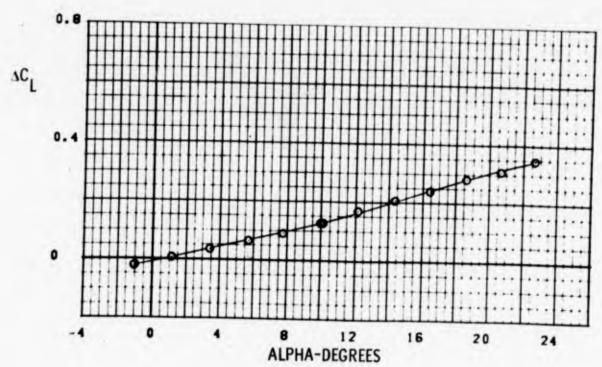


SYM TEST INCREMENT L.E (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 286 -PN 502 K1 0/0 MID 20/-20

FIGURE 121d HORIZONTAL TAIL INTERFERENCE. RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 1,2

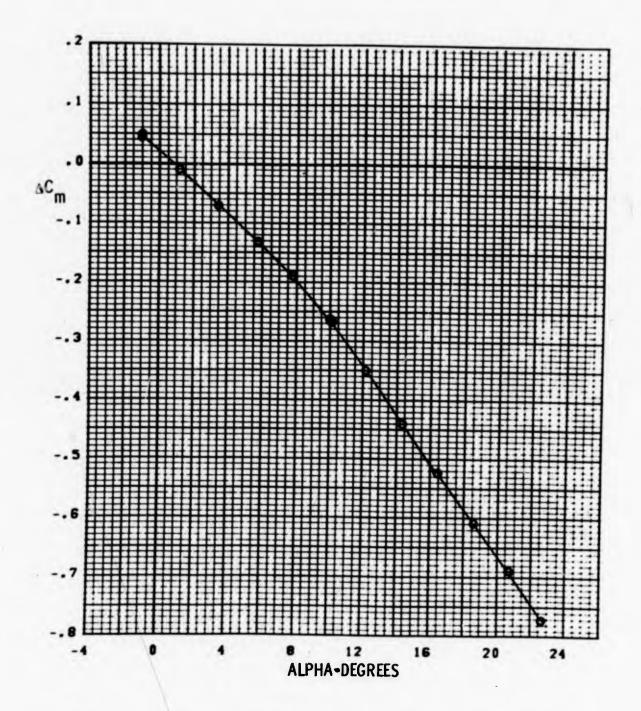




SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 286 -PN 502 K1 0/0 MID 20/-20

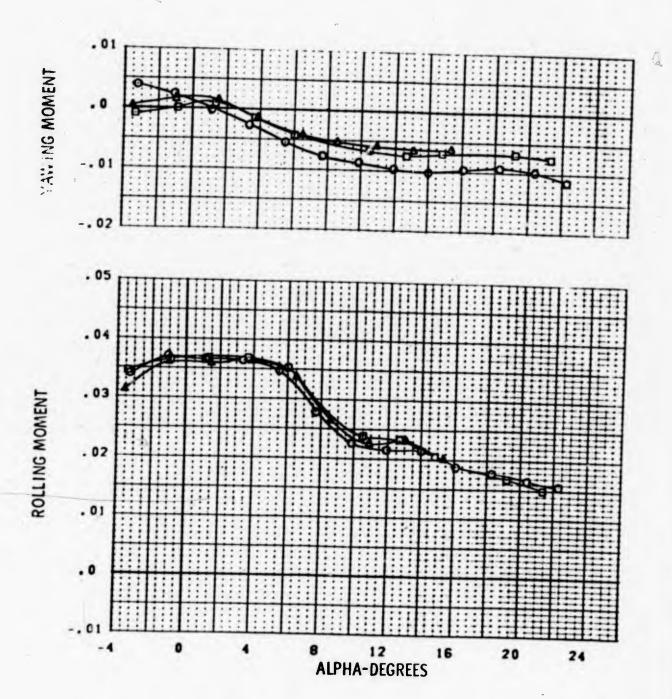
FIGURE 121d HORIZONTAL TAIL INTERFERENCE, RN = 3.0 MILLION LARGE AILERON DEFLECTION M = 1.2



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

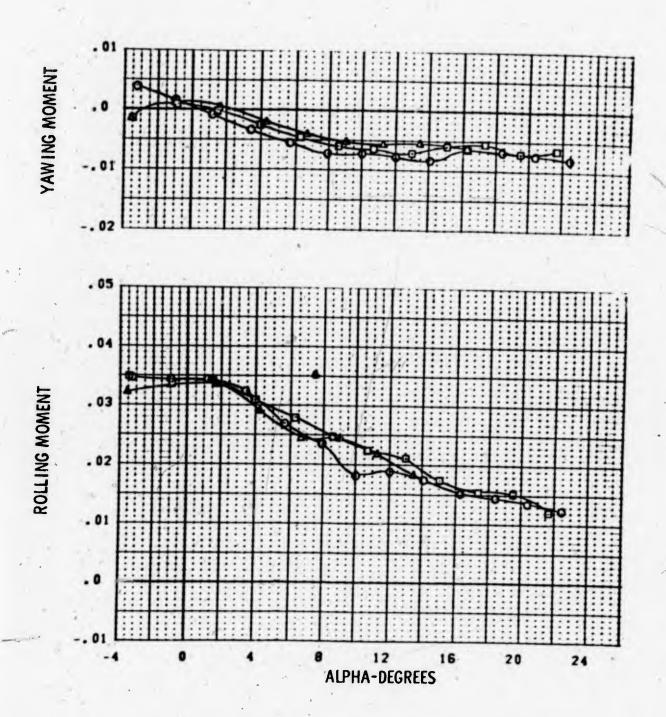
O PWT 4T TC-043 PN 286 -PN 502 K1 0/0 MID 20/-20

FIGURE 121d HORIZONTAL TAIL INTERFERENCE: RN = 3.0 MILLION
LARGE AILERON DEFLECTION M = 1.2



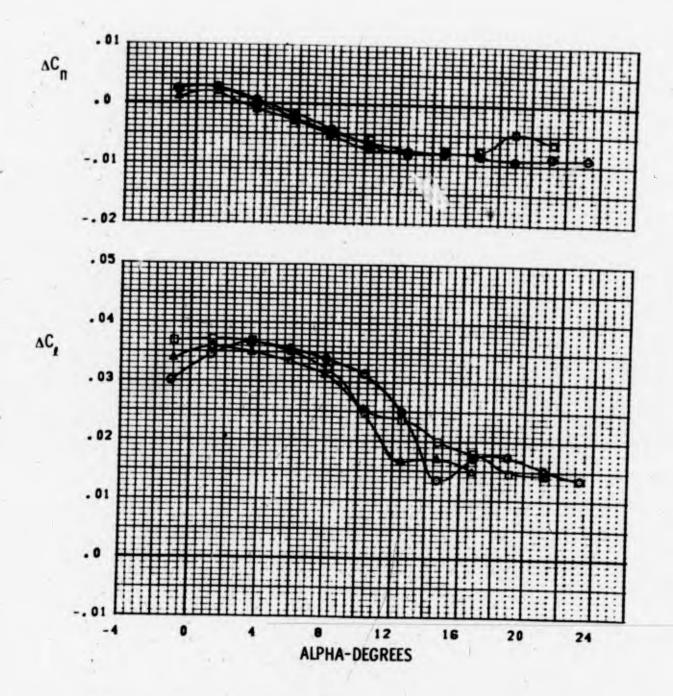
SYM		TEST	PART	L.E.	(L/R)	AILERON	(L/R)	RN/FT.
0	PYT	4T TC-043 4T TC-043 4T TC-043	284	K1 K1 K1	0/0 0/0 0/0	MID	20/-20 20/-20	3.0 MILLION 5.2 MILLION 6.2 MILLION

FIGURE 122a REYMOLDS NUMBER EFFECT ON MID AILERONS M = 0.8



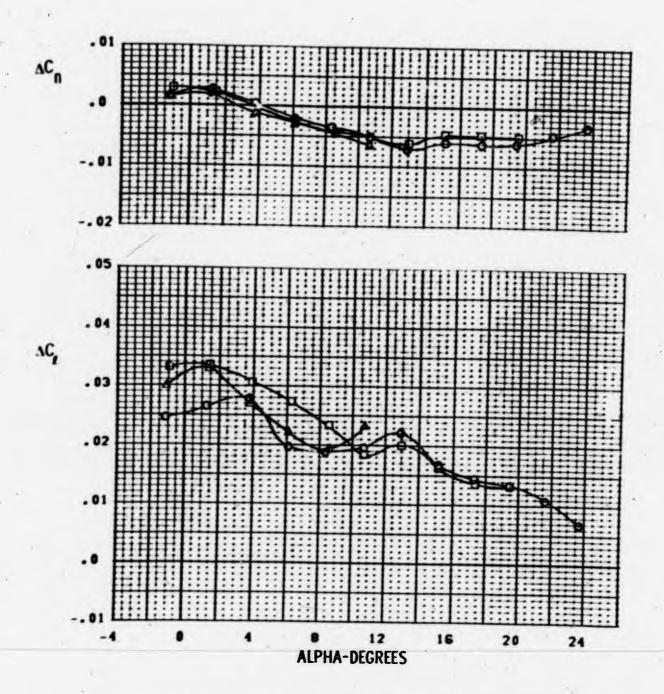
SYM		TE	ST	PART	L.Ł.	(L/R)	AILERON	(L/R)	RN/FT.
0	PWT	4T	TC-043 TC-043 TC-043	283 213 278	K1 K1 K1	0/0 0/0 0/0	HID	20/-20 20/-20	3.0 MILLION 5.2 MILLION 6.4 MILLION
FIG	IRE 123	2h -	DEVNOLOG	A MAG		FCT 64	MIS		

FIGURE 1225 REYNOLDS NUMBER EFFECT ON MID AILERONS M = 0.9

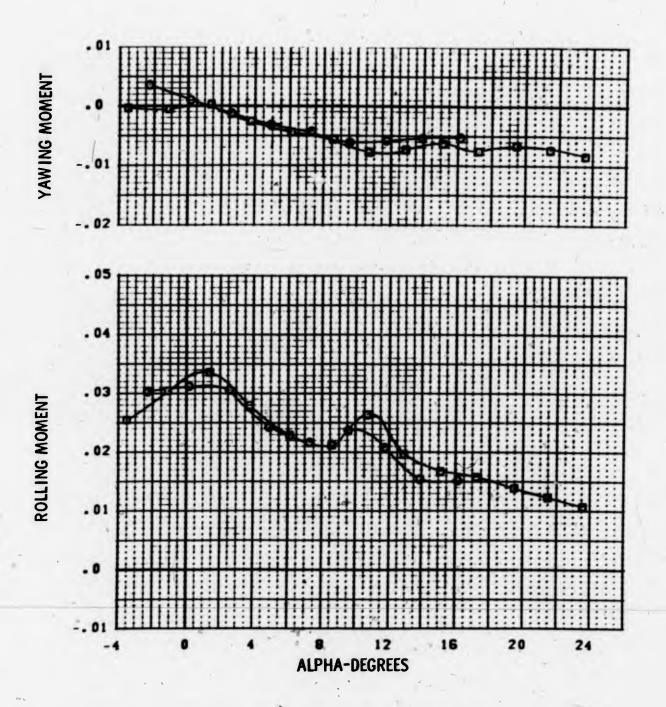


SYM	YM TEST		INCREMENT			L.E.	(L/R)	* AILERON	fi /P)	
	PWT 4T	TC-043	PN	215	- PN	268	K1	0/0		20/-20
Δ	PWT 4T	TC-043				448	K1	5/5		20/-20
0	PWT 4T	TC-043	PN	142	- PN	128	K1	10/10	-	20/-20
FIGU	RF 1232	CVMMETO						_		

FIGURE 123a SYMMETRICAL L.E. EFFECTS ON MID AILERONS
M = 0.7



SYM TEST		INCREMENT				L.E.	(L/R)	AILERON	(L/R)	
ΔΘ	PWT 4T	TC-043 TC-043 TC-043	PN	291	- PN - PN - PN	445	K1	0/0 5/5 10/10	MID .	20/-20 20/-20 20/-20
F16U	RE 123b	SYMMETR	CAL	L.E	. EFF	ECTS	ON HI	O AILER	ONS	

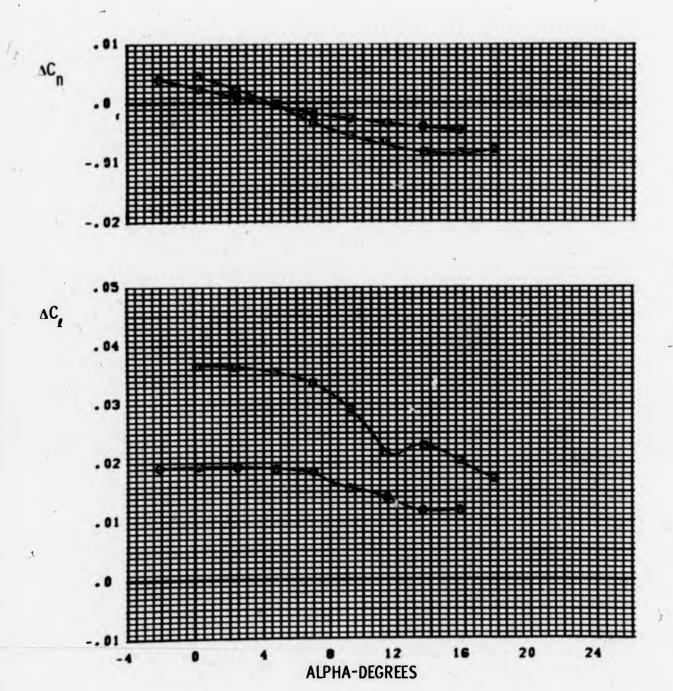


SYM TEST PART L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 506 K2 5/5 MID 20/-20

D PWT 4T TC-043 291 K1 5/5 MID 20/-20

FIGURE 124 EFFECTS OF LEADING EDGE SECTION GEOMETRY WITH MID AILERONS M = 0.9



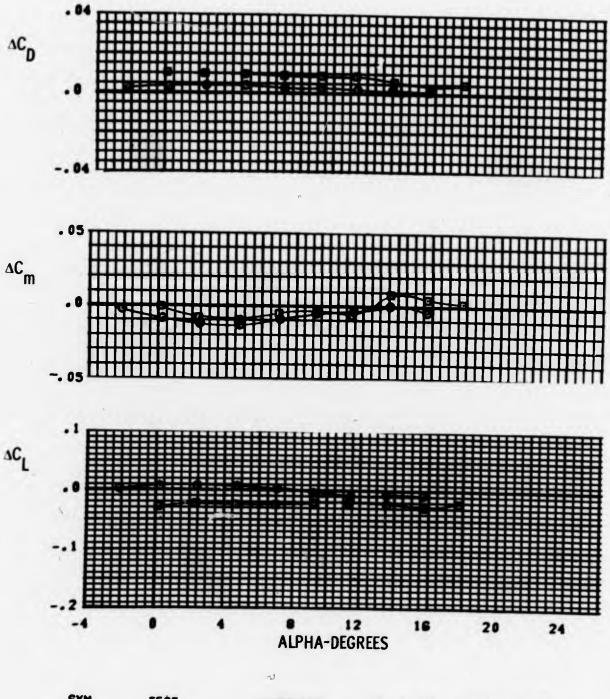
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 475 -PN 438 K1 0/0 MID 10/-10

PWT 4T TC-043 PN 410 -PN 438 K1 0/0 MID 20/-20

FIGURE 125a LINEARITY OF AILERON WITH DEFLECTION

H = 0.7



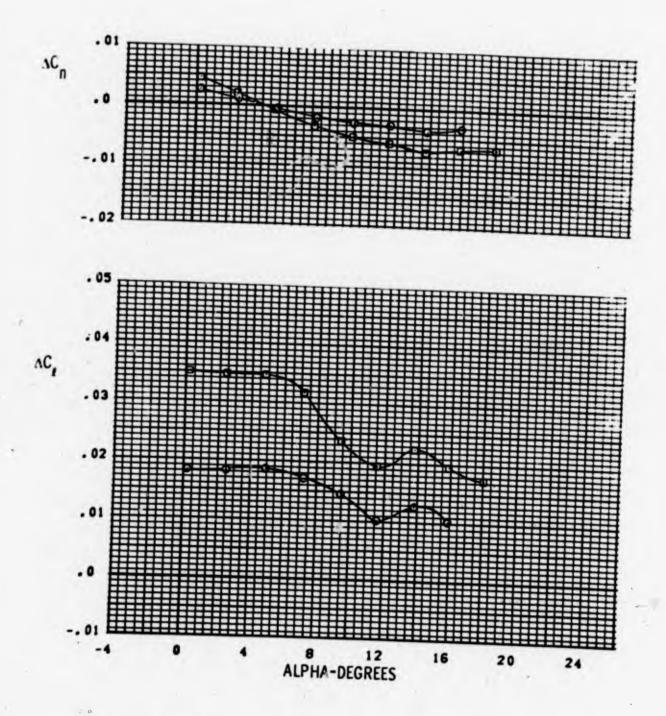
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

Ø PWT 4T TC-043 PN 475 -PN 438 K1 0/0 HID 10/-10

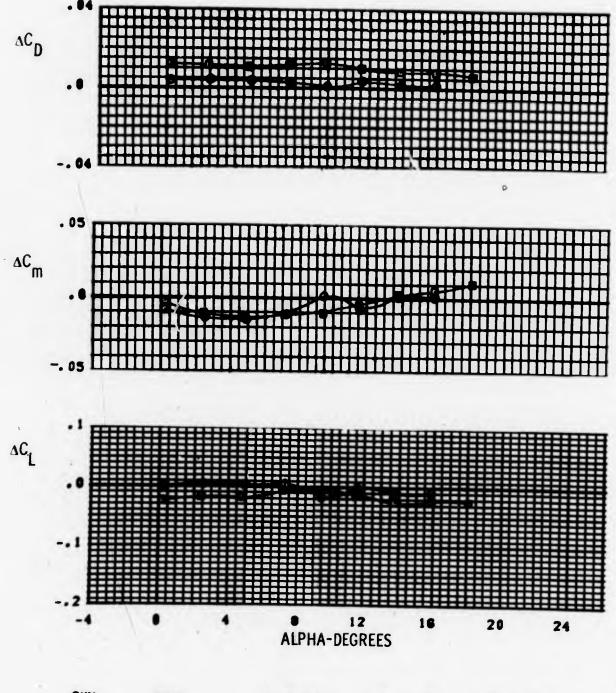
Ø PWT 4T TC-043 PN 410 -PN 438 K1 0/0 HID 20/-20

FIGURE 125a LINEARITY OF AILERON WITH DEFLECTION

H = 0.7



SYH TEST INCREMENT L.E. (L/R) AILERON (L/R) 0 PWT 4T TC-043 PWT 4T TC-043 PN 476 -PN 440 PN 411 -PN 440 K1 0/0 MID 10/-10 20/-20 KI 0/0 MID FIGURE 1255 LINEARITY OF AILERON WITH DEFLECTION H = 0.8



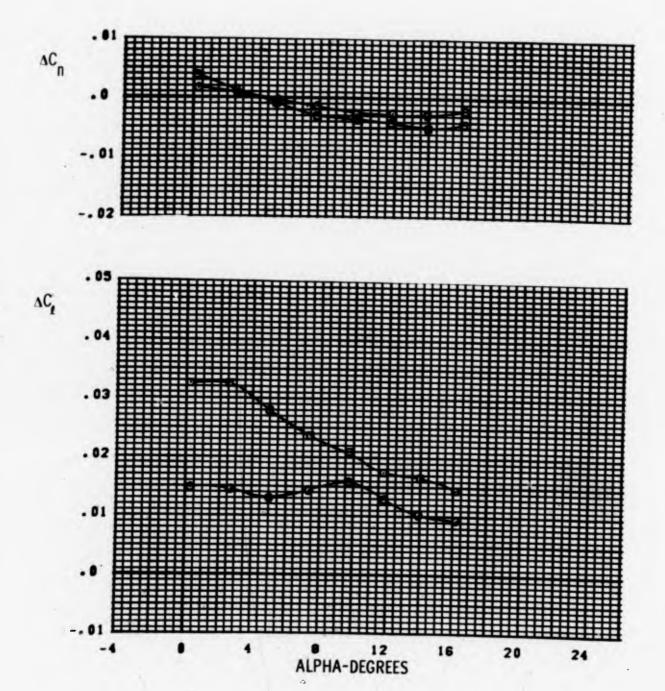
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PVT 4T TC-043 PN 476 -PN 440 K1 0/0 MID 10/-10

P PVT 4T TC-043 PN 411 -PN 440 K1 0/0 MID 20/-20

FIGURE 125h LINEARITY OF AILERON WITH DEFLECTION

H = 0.0



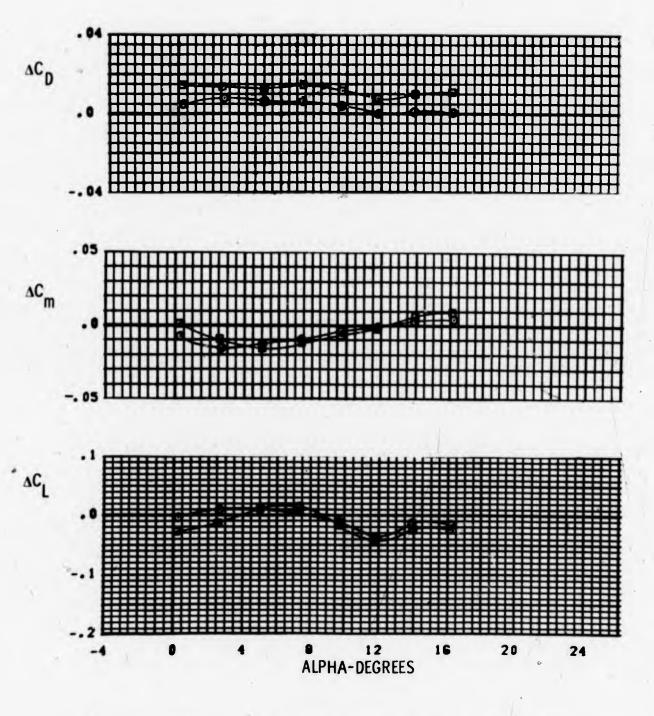
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 474 -PN 441 K1 0/0 MID 10/-10

PWT 4T TC-043 PN 412 -PN 441 K1 0/0 MID 20/-20

FIGURE 125c LINEARITY OF AILERON WITH DEFLECTION

M = 0.9



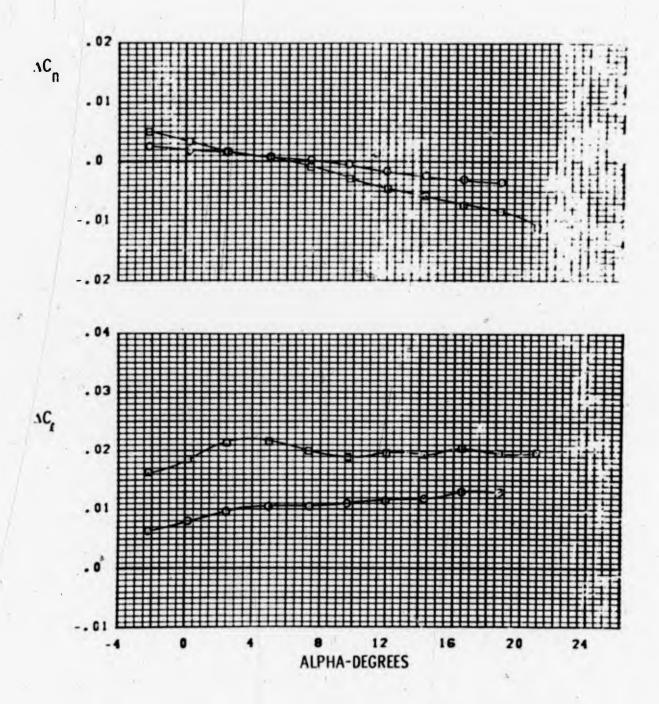
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 474 -PN 441 K1 0/0 HID 10/-10

D PWT 4J TC-043 PN 412 -PN 441 K1 0/0 HID 20/-20

FIGURE 125c LINEARITY OF AILERON WITH DEFLECTION

H = 0.9



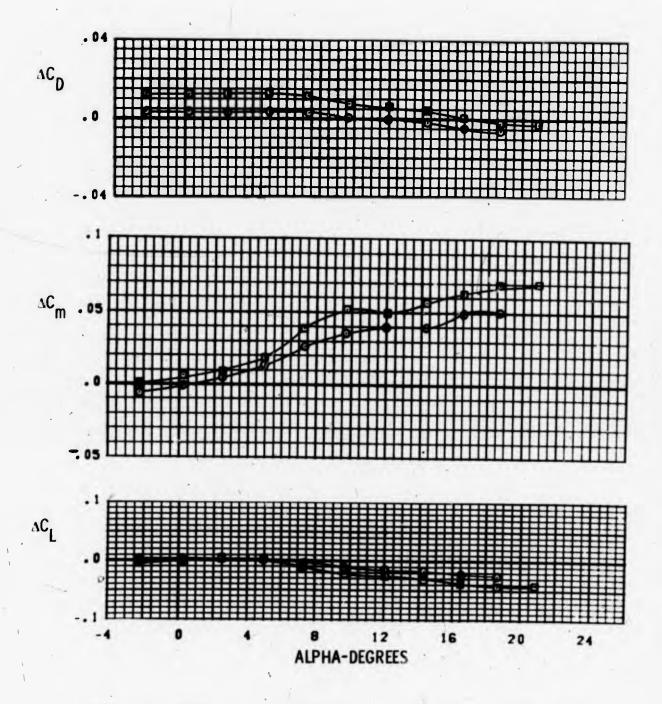
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

Ø PWT 4T TC-043 PN 477 -PN 269 K1 0/0 MID 10/-10

Ø PWT 4T TC-043 PN 414 -PN 269 K1 0/0 MID 20/-20

FIGURE 125d LINEARITY OF AILERON WITH DEFLECTION

M = 1.2



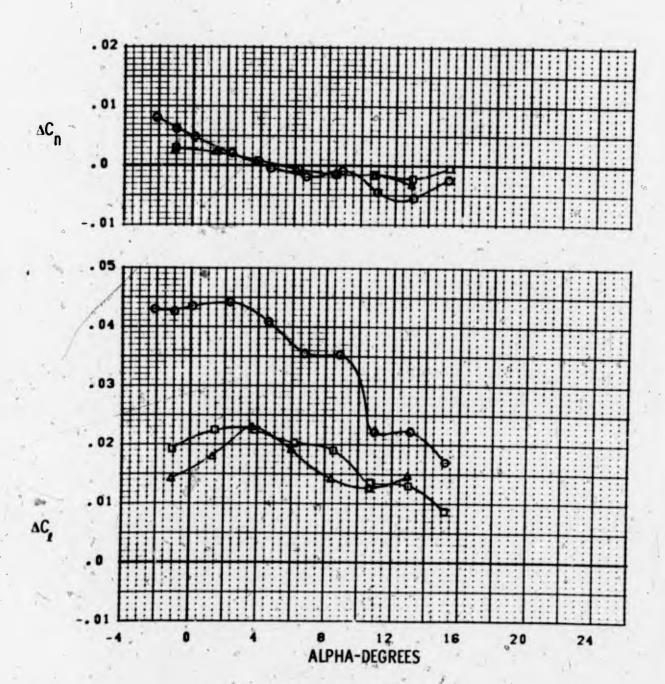
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 477 -PN 269 K1 0/0 MID 10/-10

PWT 4T TC-043 PN 414 -PN 269 K1 0/0 MID 20/-20

FIGURE 125d LINEARITY OF AILERON WITH DEFLECTION

M = 1.2



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

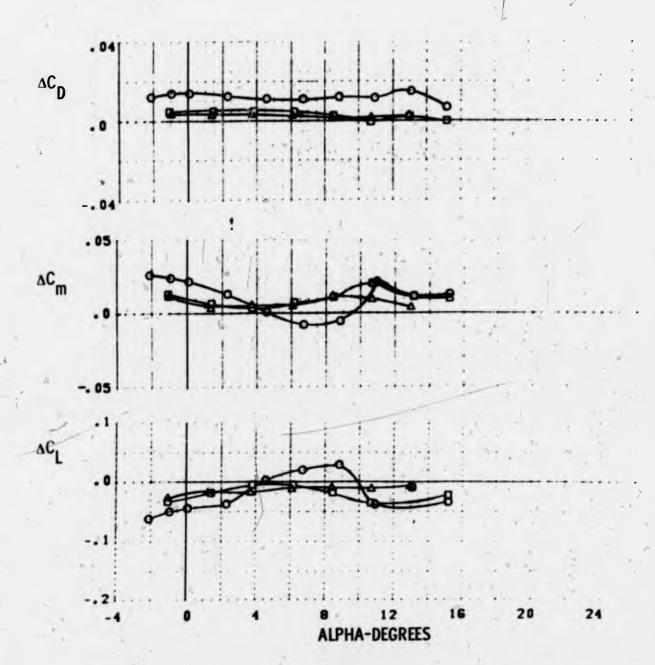
© PWT 4T TC-043 PN 501 - PN 30 K1 0/0 MID 20/-20

© PWT 4T TC-043 PN 96 - PN 37 K1 5/5 MID 10/-10

A PWT 4T TC-043 PN 108 - PN 47 K1 10/10 MID 10/-10

FIGURE 126 LINEARITY OF AILERON WITH DEFLECTION (H.T. OFF)

M = 0.9



TEST AILERON (L/R) SYM L.E. (L/R) MID _ 20/-20 PWT 4T TC-043 10/-10 0 PWT 4T TC-043 96 - PN 37 K1 MID PWT 4T TC-043 PN 108 - PN 47 K1 10/10 MID . 10/-10 126 LINEARITY OF AILERON WITH DEFLECTION (H.T. OFF)
M = 0.3

ΔC ΔC ΔC TEST REFERENCE 0.00709 7.07115 0.00380 0.00071 PWT 4T 1g4 47 0.00709 7.07115 0.00380 0.00071 PWT 4T 1g4 47 0.00398 0.01470 0.00270 0.001470 0.00270 0.01470 0.003974 0.01282 0.01470 0.00270 0.00270 0.00270 0.00391 0.01282 0.01470 0.00270 0.00270 0.00270 0.00391 0.01284 0.00270 0.00270 0.00270 0.00270 0.00391 0.01260 0.00270 0.00270 0.00270 0.00270 0.00391 0.01270 0.01470 0.00270 0.00270 0.00270 0.00391 0.01270 0.01270 0.00270 0.00270 0.00270 0.00374 0.01270 0.00270 0.00270 0.00270 0.00270 0.00374 0.00270 0.00270 0.00270 0.00270 0.00270 0.00374 0.00370 0.00	Table VI AILERON SPANWISE LOCATION INCREMENTAL DATA SUMMARY
ΔC ΔC ΔC TEST REFERENCE 0.00709 0.00380 0.00071 PWT 4T RUN 0.0054 0.00380 0.00071 PWT 4T IÇ4 0.0038 0.00380 0.00071 PWT 4T IÇ4 0.0039 0.01520 0.01560 0.00070 PWT 4T IÇ4 0.0139 0.01322 0.01560 0.00270 0.00170 0.00170 0.00270 0.0140 0.01560 0.00270 0.00270 0.00270 0.00270 0.00270 0.0150 0.01761 0.01761 0.00231 0.00231 0.00231 0.00231 0.0150 0.01761 0.01761 0.00231 0.00231 0.00231 0.0150 0.01761 0.01601 0.00030 0.00030 0.00030 0.0150 0.01761 0.01601 0.00040 0.00040 0.00040 0.0150 0.01601 0.00040 0.00040 0.00040 0.00040 0.01601 0.001601 0.00040 0.0004	Horizontal Tail Off
000504 0.00240 0.00380 0.00071 PWT 4T 1G4 RUN RUN AU 0.00398 0.00240 0.00271 PWT 4T 1G4 RUN RUN 6.00398 0.00150 0.00271 PWT 4T 1G4 0.01390 0.01311 0.00270 0.01270 0.01270 0.01270 0.01270 0.01270 0.01270 0.01270 0.01270 0.00271 PWT 4T 108 0.01270 0.01270 0.00270 0.00270 0.00270 0.01270 0.01270 0.00770 0.00770)
0.00509	(S)
0.00061 0.00210 0.00851 0.00071 PWT 4T 194 0.00199 0.07223 0.01470 -0.00170 0.01390 -0.07223 0.01470 -0.00230 0.01390 -0.07223 0.01470 -0.00230 0.01390 -0.07223 0.01470 -0.00520 0.01390 -0.07245 0.01400 0.00241 PWT 4T 108 0.0533 7.07245 0.01400 0.00241 PWT 4T 108 0.0539 7.07237 0.01280 -0.00330 0.0530 7.07245 0.01400 0.00241 PWT 4T 112 0.0530 7.07245 0.01400 0.00230 0.0115 7.07245 0.01580 0.00670 0.0140 0.02280 -0.00330 0.02451 7.07645 0.01282 -0.00180 0.00451 7.07645 0.01282 -0.00180 0.00451 7.07645 0.01281 0.00670 0.00451 7.07645 0.01281 0.00670 0.00451 7.07645 0.01601 0.00100 0.00451 7.07645 0.01601 0.00100	00T80 1071.03400 -3.01572
000978 0.77145 0.01560 -0.00080 0.01390 0.77145 0.01470 -0.00170 0.01390 0.01223 0.01470 -0.00270 0.00533 0.01232 0.01400 0.00241 PWT 4T 108 0.01500 0.00231 0.01761 0.00231 0.00530 0.07245 0.01761 0.00231 0.00530 0.07270 0.01761 0.00231 0.00530 0.07270 0.01761 0.00231 0.00530 0.07270 0.01761 0.00231 0.01115 0.01252 -0.00130 0.01115 0.01252 -0.00130 0.01252 0.01601 0.00670 0.01253 0.01251 0.00680 0.01254 0.01252 0.00680 0.00240 0.00290 0.00230 0.01261 0.00230 0.01261 0.00230 0.01261 0.00230 0.01261 0.00230 0.01261 0.00230 0.01261 0.00230 0.01261 0.00230 0.01261 0.00230	-
.00199 9.01223 0.01470 -0.00080 .01390 -0.01223 0.01311 -0.00230 .00533 0.01237 0.01560 -0.00241 PWT 4T 108 .00539 0.01237 0.01761 0.00231 .00539 0.01237 0.01761 0.00231 .00530 0.01237 0.01761 0.00231 .00530 0.01237 0.01761 0.00231 .00530 0.01237 0.01460 -0.00330 .00540 0.01252 -0.00130 .00451 0.01254 0.01252 -0.00130 .00451 0.01254 0.01250 0.00670 .00540 0.02090 0.00230 .00540 0.02090 0.00230 .00550 0.01601 0.00130 .00550 0.01601 0.001301	-0.03738
00533	
.00531	
.00533	-0.416.0-
.00533 7.03372 0.01500 -0.00520 .01140 7.0245 0.01400 0.00241 PWT 4T 108 .00530 7.07277 0.01761 0.00231 .00530 7.07277 0.01761 0.00231 .00530 7.0727 0.01761 0.00231 .00509 7.07237 0.01900 -0.00080 .001115 7.07247 0.01401 -0.00180 .00346 7.07141 0.01252 -0.00180 .00346 7.07633 0.01580 0.00670 .00346 7.07633 0.01580 0.00670 .00346 7.07633 0.01580 0.00670 .00346 7.07633 0.01580 0.00230 .00346 7.07633 0.01581 0.00230	
.00533 7.07644 0.01360 -0.06520 .01140 0.07245 0.01400 0.00241 PWT 4T 108 .00530 7.77375 0.01761 0.00231 .00509 9.7727 0.01761 0.00231 .00509 9.7723 0.01900 -0.00080 .001115 7.77795 0.01401 -0.00180 .00346 7.07141 0.01252 -0.00180 .00451 7.77543 0.01580 0.00610 PWT 4T 112 .00451 7.77543 0.02090 0.00610 0.00640 .00240 7.77543 0.02090 0.00230 .00240 7.77543 0.02090 0.00230 .00240 7.77543 0.02090 0.00230 .00240 7.77543 0.02090 0.00230	24200.0
.01140 0.07245 0.01400 0.00241 PWT 4T 108	00133
-00381	-1-05300 -0.02735
.00530	-0.71523
.00509 9.20232 0.01900 -0.00080 .01115 7.03759 0.01401 -0.00130 .00876 7.03141 0.01252 -0.00180 .00346 7.0359 0.01580 0.00611 PwT 4T 112 .00451 7.0349 0.01580 0.00610 PwT 4T 112 .00240 7.0349 0.02090 0.00480 .00240 7.0345 0.01601 0.00100 .00376 7.0345 0.01601 0.00100 .00171 7.00462 0.01811 -0.00361	
.00876	-3.71103
.00956 3.70247 0.01252 -0.00180	
.00951 1.20554 0.01560 0.00611 PWT 4T 112 .00451 0.01580 0.00610 PWT 4T 112 .00346 0.02690 0.00670 0.00680 .00346 0.02690 0.02690 0.00630 .00346 0.02690 0.02690 0.00630 .00346 0.02690 0.02690 0.00630	12.95500 -0.01219
.00951 7.20554 0.01580 0.00611 PwT 4T 112 .00451 7.07637 0.01791 0.00670 0.00670 .00346 7.07643 0.02090 0.00680 .00240 7.07345 0.02090 0.00230 .00376 7.07462 0.01601 0.00100	
00346 0.02090 0.00670 0.00640 0.00640 0.00640 0.02090 0.00680	_
00346 00240 00240 00376 00376 00171 00171 00506 00181	3.74100
00240 00876 00171 00171 00506 00181 00506	_
00171 1.07345 0.01601	2000
00506 2.00462 0.01361	73100
00506	98200
	15900

	CE.	RUN	64	/												64									٠,				٥	1.5
`*	TEST REFERENCE	PATA	13	1				1		/						85			,			e ^t				4			\	/
cted 0º	165	TUNNEL	PWT 16T				- 1		j			1				PWT 16T					1					٠				
SUMMARY Flap Deflected 0 ⁰	,	ΔCn	0.00741	0.00561	0.00430	0.200.0	-0.00110	-0.00450	-0.00569	-0.00592	-0.00681	-0.00781	-0.00856	800	-0.00R30	9.00270		0.00000	0000	.000 B		.0027			-0.00540	-0.00610	-0.00670	-0.00711	.006	-0.00807
TAL DATA S	٠.	ΔCA	16850.0	0.03442	0.03889	0.03811	0.03770	0.03539	0.03027	0.02786	0.02415	0.02437	0.02334	0.02508	0.01734	0.03780	0	0	0.03695	C	0	5			0	0	.02	0	.02	0.0194R
INCREMEN		ΦCD	0.01015	0.01006	0.01002	0.00989	4.600°0	0.01047	0.01242	0.01240	0.01051	0.010.0	0.00982	0.00952	0.01177	.0075	0.00773	0.00777	0.00756	0.00740	0.00415	0.00646	0.00726	0.00795	0.00829	0.00831	•	•	0.00927	•
/ISE LOCATION INCREMENTAL DATA SUMMARY		D _E →	0.00320	-0.00161	-0.00736	-0-01167	0.01919	-0.00926	-0.00A0B	-0.00937	-0.00667	-0.00546	-0.00354	\$00	-0.00196	9.01276	0.00918	0.00271	-0.0010P	-0.00232		-0.00327	-0.00806	-0.00814	-0.00587	-0.00310	-0.00258	•	0.00236	.005
SPANWISE		ΔCL	-0.02424	-0.01539	-0.01048	-0.01021	0.600	-0.00233	-0.00157	-0.00592	-0.01111	-0.00000	-0.00378	4	0.00765	-0.02976	-0.02238	-0.01578	-0.01478	-0.01051	-0.01042	012	0.00251	0.00A76	007	0.00411	0.00544	010	~	.013
Table VII AILERON SPANW Horizontal Tail On		ALPHA	-2.00500	•	0-20400	25.400	53800	6. 897CC	8.11-00	9.14600	10.26500	11.40900	•	•	18.12199	-1.55600	•		1.16600	•		•	•	•	9.02400	10.20300	11.29000	13.56400	15.76100	18.03555
ole VI	z	FF (2)	702	-20	,							-				707	-20			6					,					
Tat	AILERON	SPANWISE I	MID									,				OUTRD 2	0													
		MACH	0.7													0.7				,						·				

		BASE	SCN N	20		0										5			5										1
		DATA	SCN N	12			-								,	84	<u> </u>	_											
-)-		IESI INNIE	יפואויני	PWT 16T												PWT 1AT		FI		-									
	1	۵C		0000	•	000	9100	7100	9000	0052	9500	. 3069	.226	-	7200 .	. 972FG	03181	. 2206	200	.001	1500.	.0031	.0042	746	052	0.53530-		.0056	-0.00562
,		DC1		0.03581	0360	0350	6920	0353	0350	0219	0201	0	, 1193	0164	0125	.0395	. C.	.035	.035	.035	.034	033	750	920	0558	0208	1010	610	0.01852
Table VII CONT'D		ΔCD	3	0.01093	010	0115	010	010	0134	0116	5010	0107	7210	2172	17.	c.	Č.	o.	č	0.00973	ن ز		č	÷,	0	ć.	0	010	
Table		P P •	, , ,	-0.00414	.0071	2116	.015	0138	.2159	כ י	7.00	- "		0.00416		0.01730	F. COO.	.0034	.0004	6600.	0.000	7000			******	1700	0.0057	7000	001
		۵5ړ		-0.01317	_	4		n 4	0 4	r, s	7	00.00) M		-C.03716											1 4	m	
		ALPHA	-2.00100	•	•	•	•		9.32100	• •	13.85200		8				1000	_		•	•	6. 58500	•	•	10.42600	•	•	16.C49CC	18.40100
14	AILERON	SPANWISE DEFL LOCAT'N (L/R)	MID 201	-20								di.		1	OILTRO 301				\										
	Ц	MACH SPAI	8.0		,							c		*	0.0	F	1			1			,			h		_	

	-		ie.		Table	Table VII CONT'D	0	,			
MACH			V1014						TES	TEST REFERENCE	8
	हुं	75	ALTHA	الم	™ DC	ΦCD	ΦCΦ	ل کړ	TUNNEL	DATA	BASE
0.85	2 2	201	-1.5750	Ö.	•	0.	03	900	PWT 16T	=	15
		C2-	-0.8200	4, (0.00021	0	.035	002			,
			7477	שות	-0.00586	0	.035	003			n
			A P P	- r	27010-2-		7360	002			
			5540	V L			0363	2013			
				0.03127	-0.01471	0.01579	034	C C			
			0.471CC	4		0.01	0186	0043			
			ပ္ပ	3		5	0197	0051		,	
			20	~	0.00463	9900	0170	2400			
	ŧ		-2509	.0051		110	9710	9500			
1			18.4579C	-0.00461	0.00056		014	-0.03469			
0.95	CUTAD	201	-1.5600	3			0339	24200	PUT 1AT	60	3
		22-	-0.5210	6.	0.01000		0351	00100	2	n	10
			C-165CC	116	-		0346	2000			•
			•	77.4			0344	0004			
	•		•	2			.0343	001	•		
et-th;			•	0	္ (.0334	.0021			
			300000		-9.00706		.0335	.0020			
				2 5	•		0304	0.0030		-	
						A1000.0	0.02519	-0.00420			
				C	0.002		7777	1900			
			10.66800	=	.001		0201				
			. 554C	16	-0.0000-		010	00			
			20	ָּכִי	.000	900	0170	.004			4
1			50	9	.003	1010	169	540			
			5576 - 21	0.30766	0.00126	C.01075	.0159	50			

MACH	SPANWISELD	N C	AIPHA	\ \ \				v	TES	TEST REFERENCE	i i
6	LOCAT'N			٦٧	Δ¢	ΦCD	DC1	۰. م	TUNNEL	DATA	BASE
5		20/	-2.	-0.03061		6	0.03491	0.0000	PWT 1AT		
				-0.01266	o .	0	0.0	00330	•	U	75
			•	0.01385	ဝှင်	0.01276	<u> </u>	0.00060			
				0.00515		0.01.306	C (•		0	
,			9.62700	-0.01567		0.01243		-0.00330			
			11.50500	-0.02408	• (0.01034	0.02482	-0.00538			
د	-		14.C9ROC	-0.01732	•	0.00862	0.01.00	-0.00262			
			•				2,010.0	ċ			
	, 1		19.70599	-0.00596	0.00290		0.00904	-0.0021R			
1	Т		20.83699	-0.01086	0.00433	0.03543	0.000	-0.00673			
6.0	00100	20/	-2.00800	-0.04861	0.02341	0.00042	0.03421	0000	177 170		
			-0.57400	-0.03087	0.91761	7005	0.33	00150		i c	25
			_	-0.02384		0.09905	- (0.000			
1			1.44260	-0.00820	0.00280	0.00012	0	-0.00072		_	
			234120	0.03792	-0.0356c	0.00R87	0				
			•	0.01867	•	0.30724	. C.	-0.00240			
			22225	0.01675	-0.00509	0.00947	0.03371				
			•	-1.00055		0.00818	C	-0.00440		'	ď
			•	-0.00115	0.00024	0.09PSC		-0-00440			
			30 32 50	-0.01192	•	D.07599					
			3547 -01	0.01306	0.01760	0.00821	0,00797		-		
		1	11. 11.00	-0.00535		0.00693	0.31127				
			7 6	0.00		0.00733		-0.00597			
			200000	100	02060-3-		0.01319	08500-0-			
			7341	•	•	.0100	0.01069				
			0	-0.00393	0.00577	0.30662	35110				

	e2										
MACH		Z				5			16	TEST REFERENCE	<u> </u>
1	SPANWISE LOCAT'N		ALPHA	ΔCL	ΦCm	QCD	DC1	۳۵	TUNNEL	DATA	BASE
1.2	OIW OIW	201	-2.09100		.0025	0-01264	0.01681	0.00556	DUT 1AT	c.	2
		-20	-0.9200	•	0.00469	0.01305	0.01799	0.0052	•	3	r n
	7.		-			0.01350	0.01937	C	,		
			.,	.02			0.02111	· C			
			•	0.01863	0.00553	.014	0.02254	0-00172			
	,	,	4.5210C	0.01356	•		0.02180	c			
			7.16600	~			0.02061				
			9.4910C	20			0.01960	-			
	۵		12.03400	12	0.02533		0.02001	-			
	P		14.36500	4	•		0.01910		,		
	,		. 5980	.028	0.03821	0.10542	0.01827	0			'n
			18.55659	-0.03617	•	•	0.01740				
1.2	DUTAD.	702	-3.11600	-0.00116	0,00025	0.0000	0.02142	0.00064	PUT 1AT	82	2
	(c)	-20		0.00209	.0031	000	C	• (4		
1	1	7		-	9500		C	0.00012			
			0.19100	0.00109	-0.00436	9600.	C				
	, 1 6,		•	0.00010	•	0.00993	0.02359	.0006		\$	
	,	,	2. 34 POO		.0027	0.01039	0.			.1	
	*)	3.0400	0.01055	•		0	-0.00190			
	e		70000	0.01080	•		ö	-9.00241			
			20000	0.00343	0.00954		.03				
3			•	0.00277	•		0	-0.00450			
	Fa			0.00750			0	-0.00562			
,	, .			0.00309	010	•	0.	-0.00639	-		
	٥		14 20200	0.00181	C.01092	0.00943	6	-0.00690		-	
	J		2 6	00.	110	•	0	-0.00R29			
o			10.03500	000.	00	.007	.01	-0.10846			
				-0.0001R	0.00611	0.00R24	0.01375	-0.00844			

% ..

	ail On	TEST REFERENCE	DATA BASE	+									410 430			C						474			***		,	
/ 	Horzontal Tail On	٦	TUNNEL	PUT 4T									PUT 4T									DUT 4.T						
Table VIII AILERON CONTROL LINEARITY INCREMENTAL DATA SUMMARY	Horz	<1	ΔC _n	0.00400	00239	0.00100	-0.00030	-0.00191	-0.00270	-0.00351	-0.00400	-0.00460	00460	10211	-0.00030	-0.00340	-0.00560		-0.00831	-0.00840	-0.00781	₩.	-	-0.00040	-0.00181	-0.00261	-0.00281	
EMENTAL DA	-		ΔCg	0.01910	0.01929	0.01920	0.01890	0.01826	0.01558	10+10.0	0.01170	0.01169	0.03660	0.03631	0.03550	0.03370	0.02908	0.02160	0.02282	0.02019	0.01712	0.01820	0.01820	0.01858	0.01712	0.01451	0.01018	
RITY INCRE			ΔCD	0.00261	0.00330	0.00410	0.00+04	0.00275	0.00305	0.00193	0.00197	0.00138	0.01048	0.00991	0.00971	006000	0.00893	0.00870	0.00594	0.00320	0.00493	0.00388	0.00441	0.00392	0.00293	0:00038	0.00366	
TROL LINEA			ΔC	-0.00221	-0.00825	-0.01221	-0.01277	-0.0000-	-0.00485	-0.00295		-0.00397	-0.00052	-0.00816	-0.00940	-0.00475	-0.00224	-0.00609	0.00849	0.00496	0.00217	-0.00806	-0.01279	-0.01435			-0.00710	
ERON CON	ę.		ΔCL	0.00319	0.00678	0.00715	0.00626	0.00330	-0.00402	-0.00871	900	-0.00856	1 -0.02873	-0.02222	-0.02511	-0.02488	-0.02073	-0.02026	-0.02419	-0.02897	-0.02150	0.00057	0.00401	0.00349	0.00516	-0.01683	-0.00102	
e VIII AII	L.E. Deflected 0 ⁰	•	АГРНА		0.24800	2.44900	4.73500	•	00017	•	13.56200	15.71600	1560	2.39600	4.67100	•	9.25300	11.38400	•	•	17.78600		2.54200	4.92800	7.25300	9.45100	11.60800	
Tabl	L.E.	, Z	DEFL (VR)	-/01	01								20/-	20							1	10/-	01					
⁷ 6)		AILERON	SPANWISE DEFI	MIO							>		011				4,		3			CIN					₹	
0			MACH	0.7		2				3	1	7	0.7					0				9.0						

			٠							
			-					S31 .	TEST REFERENCE	Œ
DEFL ALPHA DCL		۵۵,		∆ C _m	ΦCD	ΔCβ	ΔCn	TUNNEL	DATA	RUN
-	10	-0.02405		-0.00230		0	0.00450	PNT 4T	411	440
0	0	-0.01745		-0.01022	0.01180	0.03481	0.00201			
0	0	-0.01771		-0.01323	0.01086	0.03470	-0.00010			
_	_	-0.00615		-0.01096	0.01175	0.03174	-0.00329			
	0	-0.00620		-0.01036	0.01294	0.02350	-0.00590		-1	
		-0.01243			2010.0	0.01340				
		-0.02487		16600.0	0.00	0.01950	-0.00670			
18-09698 -0-02490		0570-0-		0.01076	0.00645	0.01731		-		
1	1	-0.00329		-0.00701	0.00502	0.01470	0.00170	14 TW9	414	144
0.00	0.00	0.00928		-0.01504	0.00787	0.01440	0			
0.011	0.011	0.01199		-0.01254	0.00673	0.01299	0.000.0-			
.37100 0.004	0.00	0.00400		-0.00937	0.00644	0.01429	-0.001		′ ,	
9. 10700 -0.01137	-0.011	-0.01137		-0.00377	0.00346	0.01571	-0.00259			
-0.03	-0.03	-0.03173		126000	0.00108	0.01021				
	910.0-	•	_	0.00440	0.00082	0.00935	-0.00207			
22500 -0.027	-0.027	~	_	0.00131		0.03260	0	PWT.4T	412	441
-0.013	-0.013	~	_	-0.00879		0.03250	ċ			
00720	0.010	0		-0.01532	0.01263	•	-0-			
9.014	9.014	4		-0.01149		0.02369	-0-	i		
1-2	-0.017	11		-0.00656	0.01175		-0			
-0.044	-9.044	1		005		•	-0-			1
.99100 -0:025	-0:025	25		0.00638	10		-0.005			
-0.023	4000	100		10000			CC 7 CC			

	ALLERON	Z	-								1
MACH	SPANWISE	E DEFL	ALPHA	₽C,	δC	2			TES	TEST REFERENCE	30
?:	MID	3	- 3 30000		E	2	100	50	TUNNEL	DATA	BASE
		10	0.20400	0.00260	-0.00571		0.00635	0	PWT 4T	477	200
			2.51000	0.00284	0.00		0.00797				103
		T	4.96900	0.00109	0.01313	_	0.00965				
			0.45200	-0.00563	0.02642		0.01045		7	5	An .
		. "	11.99100	10210-0-	0.03560	_	0.01095	0			
			14.29600	-0-01686	0.03941	7	0.01139	°			
			16.51399	-0.02299	500000	1	0.01175	ė			
1			18.70799	-0.02611	0.05034	1	0.01299	00			
~	OIN	-/02		-0.00280	0.00139	ľ	88310	1			
		07	22600	-0.00326	-0.00173	0.01250			TA THE	+14	569
_				0.00060	10900 0		01857	0.00200	T.		
			0000	0.00483	0.00919		25134	0.00176		Ī	
		•	_	0.00390	0.01877		12165	0.00040	1	-	
.1		- 1	_	-0.01127	0.03981		5861	-0.00100			
				-0.02593	501000		1895	-0.00295			
-	.,		14.30700	-0.03129	0.00	_	09610	-0.00465			
-	- 4		16.51500	-0.03836	0.06320		1935	-0.00565			
			18.67599	.0433	0.04915		5040	-0.00750			
			20.0000				676	07000			

C.L.	Table IX	오	Table IX HORIZONTAL TAIL IA		ON CONTRO	OL INTERFE	LERON CONTROL INTERFERENCE INCREMENTAL DATA SUMMARY	EMENTAL D	ATA SUN	IMARY	
		nterm	Intermediate Aileron Defl	on Deflection	, uc		L. F.	Flap Deflected 10 ⁰	ted 100		-43
		Z	دي ه					1	TE	TEST REFERENCE	S.
MACH	SPANWISE LOCAT'N	DEFL L/R	ALPHA	ΔCL	ΔC _m	ΔCD	δCA	δζ	TUNNEL	TAIL ON TAIL RUN RU	TAIL OFF
0.7	1N80	101	-1.01500	-0-01614	0.01670	066.6	-0.00980	-0.00079	TA TWG	121	114
		01-	-1.01100	-0.01413	0.01630	3.001	-0.00970			:	
1			1.31000	57	0.00340	'n	-0.01070	-0.00659	1		1
			3.55400	.0093	-0.02255	•	-0.00992	-0.00179			
	0		5.90600	.0277	-0.05967	ċ	-0.00937	-0.00177			
			8.07600	43	•	ċ	0	-0.00135			
, 2		1	10.40900	.077	-0.15098		0088	-0.00061	1		
		r	12.53100	1221.			-0.00813	-0.00003		,	
	,		14.76600	.158n	-0.29009		-0.00869	0.00080		s,	
-			16.82100	.272	-0.36608	• 04	-0.00779	.0008			
ę	0		19.04999	0.25605	-0.45540	•	-0.00100	0.000.0			
0.8	INBD	101	-3~30500	-3.01640	0.01661	3.00145	-0.00911	-0.00011	PUT 4T	120	113
0	٨	01-	-1.01900	10	0.01299	00	-0.00989	001			
			1.28000	-0.03603	-	0.00051	-0.01045	-0.00220		Ċ	
7	. 22	1	3.63900	0.00455		3.00.192	-0.01023	-0.00185			
,			•		-0.05549	C.	-0.01002	-0.00173			
1				7.03692	0		-0.01042	-0.00124			
	,		10.53700	163	•		-0.00931	•			
p	, 1	Ē	14.94000	0.10975	-0.21223	0.02917	-0.00628	0.00067			
0.9	INAD	101		10	7	•	00000	160000			
		-10	1.33400	-0-07741	•		0.00930	-0.00209	-	611	112
			3.75300	-	•		0.01010	-0.00219	1		
	,		6.10500	-			0.000-0-	-0.00230	1		
			8.26600				-0.00822	-0.00159			
		7)	•	er: 1	11		.006				
1			.93	1003	227	5.02619	•	.0015	1		
			15.18300	0.16813	-0.32691	.0. 04 P9 7	-0.00744	-0.00088	1		

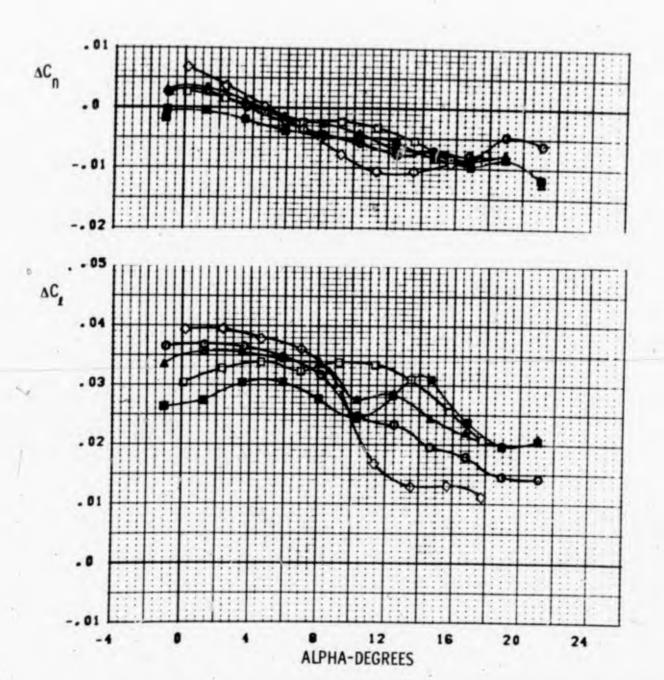
C4 DC						Table	Table IX CONT'D	٦٠٥				
SPANWISE DEFL ALPHA \(\text{AC} \) \(A			Z							TE	TEST REFERENCE	ICE.
NED 10/ -1.06600 -7.00920 0.00567 5.00267 -0.00099 PWT 4T	MACH	SPANWISE LOCAT'N	DEFL L/R	ALPHA	ρςΓ	₽5₽	QCD	δCg	۵ م	TOWNEL .	TAIL ON	TAIL ON TAIL OFF
-10 1.33000 -9.00411 0.00267 9.00240 -0.00480 -0.00080 3.73200 -9.00390 -0.00220 9.00157 -0.00480 -0.00080 6.09300 9.0476 -0.08710 9.01714 -0.00461 -0.00070 10.68500 9.0476 -0.08710 9.01714 -0.00151 -0.00070 12.90500 9.0476 -0.23231 9.03188 -0.00071 -0.00070 13.18400 9.07514 0.09920 0.00640 -0.00164 -0.00250 1.18400 9.00515 -0.09920 0.00841 -0.00841 -0.00250 3.54800 9.00515 -0.00956 9.00854 -0.00839 -0.00126 5.98100 9.07515 -0.07539 9.00854 -0.00839 -0.00126 10.71300 9.12151 -0.21891 9.02344 -0.00553 9.002557 15.95100 9.26235 -0.09554 9.05515 -0.00553 9.002557	6.0		101	-1.06600	-2.00920	0.00522	3.00.262	Ľ	-0.00099		133	108
3.73200 -7.00390 -0.00520 7.00157 -0.00480 -0.00050 1.02180 -0.03500 7.00576 -0.00461 -0.00030 10.68500 7.07187 -0.00871 -0.00071 -0.00070 12.90500 7.12537 -0.23231 7.03198 -0.00071 -0.00070 12.90500 7.12537 -0.23231 7.03198 -0.00071 -0.00020 7.12537 -0.23231 7.04942 -0.00071 -0.00020 7.12537 -0.31033 7.04942 -0.000104 -0.000250 7.12500 -7.02937 7.02520 7.000540 -0.00074 -0.000250 7.12500 7.00755 7.000753 7.000839 -0.00126 7.000753 7.000839			01-	1.33000	-0.00611	0.00267	0.00260	-0-	0			
18-1960				3.73200	-0.00390	0	3.00157	0	0			
10.68500 0.04976 -0.08710 0.00080 -0.00070 12.90500 0.08559 -0.15555 0.01970 0.00080 -0.00071 -0.				00660-9	08120.0	-0.03200	2.93676	0	0			
10.68500 1.08559 -0.15555 9.01930 0.00080 -0.00090 1.12537 -0.23231 9.03198 -0.00071 -0.00021 15.17400 0.17366 -0.31033 3.74942 -0.00104 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00021 -0.00022 -0.00				•	3.04976	-0.08710	2.01014	C	0			
15.17400 0.17366 -0.31033 0.03198 -0.00071 -0.00021 15.17400 0.17366 -0.31033 0.04942 -0.00104 -0.00021 10.17400 -0.05914 0.09920 0.00640 -0.00250 10.18400 0.05937 0.05260 0.00641 -0.00220 1.18400 0.07515 -0.00956 0.00540 -0.00220 2.54800 0.07515 -0.07549 0.00839 -0.00101 5.98100 0.04479 -0.07549 0.00839 -0.00101 8.36700 0.12151 -0.21891 0.02344 -0.00654 0.00255 10.71300 0.16941 -0.30487 0.03545 0.00255 12.94800 0.21431 -0.39254 0.05515 -0.00553 0.00267 15.35100 0.26235 -0.48780 0.67909 0.00253 15.35100 0.26235 -0.48780 0.67909 0.00331 15.35100 0.26235 -0.48780 0.67909 0.000331 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67909 0.000540 15.35100 0.26235 -0.48780 0.67900 15.35100 0.26235 -0.48780 0.67800 0.000540 15.35100 0.26235 -0.48780 0.67800 0.000540 15.35100 0.26235 -0.48780 0.67800 0.000540				•	3. 08559	-0.15555	0.01900	c	0			
INBD 10/ -3.46000 -3.05914 0.09920 0.00690 -0.00104 -0.00260 PWT -10 -1.14200 -3.05914 0.09920 0.00690 -0.00841 -0.00220 3.54800 3.04479 -0.00956 0.00540 -0.00769 -0.00220 3.54800 3.04479 -0.00956 0.00540 -0.00819 -0.00126 10.71300 3.12151 -0.21891 3.02344 -0.00654 0.00255 12.94800 3.21431 -0.30487 3.05515 -0.00553 0.00255 12.94800 3.21431 -0.39254 3.05515 -0.00553 0.00257 15.35100 3.24431 -0.48780 3.05515 -0.00553 0.00257					3.12537	0	9.03198	•	0			
INBD 10/ -3.46000 -3.05914 0.09920 0.00690 -0.00860 -0.00260 PWT -10 -1.14200 -7.02937 0.05260 0.00431 -0.00841 -0.00250 3.54800 0.00515 -0.00956 0.00540 -0.00769 -0.00220 3.54800 0.0479 -0.07459 0.00854 -0.00819 -0.00126 8.36700 0.12151 -0.21891 0.02344 -0.00654 0.00255 12.94800 0.21431 -0.30487 0.05515 -0.00553 0.00255 12.94800 0.26235 -0.48780 0.05515 -0.00553 0.00257				15.17400	0.17366		•	0				
-1.14200 -7.02937 0.05260 0.00431 -0.00841 -0. 1.18400 0.00515 -0.00956 0.00540 -0.00769 -0. 3.54800 0.04479 -0.07459 0.00854 -0.00839 -0. 5.98100 0.09157 -0.14392 0.01353 -0.00819 -0. 8.36700 0.12151 -0.21891 0.02344 -0.00753 0. 10.71300 0.16941 -0.30487 0.05515 -0.00654 0. 15.35100 0.26235 -0.48780 0.57909 -0.00490 0.	1.2	INBD	101	-3.46000	-10.05914	0.09920	0.00690		-0.00260		122	115
0.00515 -0.00956 0.00540 -0.00769 -0.00479 -0.00839 -0.00819 -0.00819 -0.008157 -0.14392 0.013344 -0.00819 -0.001691 -0.262151 -0.30487 0.05515 -0.00654 0.026235 -0.48780 0.57309 -0.00490 0.			01-	-1.14200	-		0.00431	-0-	-0.00250			
0.04479 -0.07459 0.00854 -0.00839 -0.09157 -0.14392 0.01354 -0.00819 -0.00819 0.15151 -0.21891 0.02344 -0.00753 0.0016941 -0.30487 0.03515 -0.00654 0.026235 -0.48780 0.57309 -0.00490 0.				1.18400			0.00540	-0-	0			
7.09157 -0.14392 3.01353 -0.00819 -0. 3.12151 -0.21891 3.02344 -0.00753 0. 3.16941 -0.30487 3.03745 -0.00654 0. 3.21431 -0.39254 3.05515 -0.00553 0.				3.54800		-0.07459	D. 00853	-0-	0			
0.12151 -0.21891 0.02344 -0.00753 0.0.16941 -0.30487 0.03745 -0.00654 0.0.26235 -0.48780 0.57909 -0.00490 0.				5.98100	7.09157	-0.14392	3.01353	-0-	0			Theory is
0.16941 -0.30487 0.03745 -0.00654 0.0.26235 -0.48780 0.07590 -0.00490 0.				8.36700	3.12151	-0.21891	3.72344	-0-	0.00126			
0.26235 -0.48780 0.57909 -0.00490 0.				10.71300	0.16941	-0.30487	3.03745	-0-	0.00255			
35100 0.26235 -0.48780 0.07909 -0.00490 0.				12.94800	4		0.05515	-0.00553	0.00267			
				15.35100	-	-0.48780	0.57909	-0.00400	0.00331			

High Aileron Deflection			—		_				-										-									
Table X HORIZONTAL TAIL / AILERON CONTROL INTERFERENCE INCREMENTAL DATA STANMISE Deflected 10	>		2	TAIL OFF	5	664						•					000	200										,
Table X HORIZONTAL TAIL / AILERON CONTROL INTERFERENCE INCREMENTAL DATA High Aileron Deflection	SUMMAR	0_	T DEEEDEN	TAIL ON	2	282											700	607										
AILERON AILERON AILERON SPANWISE DEFL LOCAT'N L/R ALPHA ALPHA ACL LOCAT'N L/R 3.26400 0.0363 7.61100 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.03241 9.62230199 0.3241	L DATA	lected 10	, A	7UNNEL	- 1																							
AILERON AILERON AILERON SPANWISE DEFL LOCAT'N L/R ALPHA ALPHA ACL LOCAT'N L/R 3.26400 0.0363 7.61100 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.03241 9.62230199 0.3241	ICREMENTA	E. Flap Def		۵۵,	9	-0.00149	100-0-	-0.00232	-0.00257	-0.00192	-0.00158	-0.00141	-0.00209	-0.00327	01200-0-	-0.00272	-0.00169	-0.00196	-0.00208	-0.00236	-0.00224	-0.00194	10000	00000	00000	0.00000	01600.0-	-0.00464
AILERON AILERON AILERON SPANWISE DEFL LOCAT'N L/R ALPHA ALPHA ACL LOCAT'N L/R 3.26400 0.0363 7.61100 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.03241 9.62230199 0.3241	FERENCE IN	<u>.</u>		DC.	30000	0.00	96600	-0.01071	-0.00965	-0.01048	-0.00828	-0.00726	-0.00616	-0.00455	0.00536	0.00625	0.00859	-0.00964	-0.01020	-0.01056	0.01139	0.00861	000037	-0.00487	0.00509	0.00357	0.00460	0.00591
AILERON AILERON AILERON SPANWISE DEFL LOCAT'N L/R ALPHA ALPHA ACL LOCAT'N L/R 3.26400 0.0363 7.61100 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.1251 11.94100 0.1933 11.94100 0.3241 12.299 0.3479	TROL INTER			ФС	4000	0.00107	0.00314	0.00688	0.01229	0.01812	0.02392	0.03497	0.05666	0.08206	0.11491		0000	0.00138	0.00404	0.00686	0.01196	0.01835	0.02874	0.04176	0.06049	0.0937H	0.12711	0.15838
AILERON AILERON AILERON SPANWISE DEFL LOCAT'N L/R ALPHA ALPHA ACL LOCAT'N L/R 3.26400 0.0363 7.61100 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.0363 9.62300 0.1251 11.94100 0.1933 11.94100 0.3241 12.299 0.3479	LERON CON			₽ ₩	0.00187	0.02630	-0.05871	-0.09566	-0.13015	-0.17256	-0.22802	-0.28815	-0.37687	-0.47333	-0.56225	-0.62467	0.00612	-0.02056	-0.05331	-0.08447	-0.11400	-0.16163	-0.22502	-0.30485	-0.39043	-0.49658	-0.58129	-0.64678
High AILERON SPANWISE DEFL LOCAT'N L/R MID 20/ -20	-	lection		δς	0.00066	0.01764	0.03829	0.05917	0.08038	0.08122	0.09388	0.12510	0.18435	0.24354	0.30439	.343	-0.00112	0.01312	0.02734	0.04372	0.05555	0.07320	0.10852	0.14205	0.19338	0.26643	0.324:3	0.36793
High AILERON SPANWISE DEFL LOCAT'N L/R MID 20/ -20	ORIZONTA	Aileron Def		ALPHA	-1.00600	1.11900		•	7.61100	9.62300	11.85400	13.90600	16.01299	18.04900	20.14600	.1629	-1.01000	1.15500	3.40700	5.54700	7.68600	9.87500	•	14.03300	16.12299	18.28600	20.40700	22.30199
AILERC SPANWISE LOCAT'N MID		High /	z	DEFL	20/	-20						_					20/	07-			-							
₩	Table			SPANWISE LOCAT'N																								
₹ ° °				MACH	C.7												0.8											

MACH SPAN LOCA										
	AILERON	,						TE	TEST REFERENCE	CE
	SPANWISE DEFL	FL ALPHA	ρcι	₽50	ΔCD	ΔCg	۵۵,	TUNNEL	TAIL ON TAIL OFF	TAIL OFF
	MID 201	-0.95600	-0.00359	0.01494		00600 0-	-0.00192	14 INd	283	105
	-20	20 1.22000		0	0.00022	-0.00975	-0.00183			
		3.43200	0.019	0		-0.01006	-0.00191			
		5.67100	0.025	•		-0.01124				
		7.91800				-0.01323	-0.00140			
		10.00800	0.042	-0.12473	0	-0.01231				
		12.03300	0.086	-0.20143	0					
		14.10200		-0.30430	0.04283	-0.00374	-0.00267			
	-	16.26900	0.20	-0.40784	0	-0.00381	-0.00239			
		18.42899	0.260		0	-0.00293	-0.00546			
		20.40399	0.327	-0.58328	.1271	0033				
		22.44699		-0.65804	0.16124	-0.00485	-0.00612			
1.2 HI	MID 201	1 -1.01200	-0.02330			-0.00672	-0.00044	15 IMd	286	502
	1	<u>'</u>	'		•	-0.00593	-0.00044			
		1.15600			0	-0.00667	-0.00092	4		
		3.43600			•	-0.00615	-0.00104			
		5.72400		1	0		-0.00082			
		7.79500		0	0	-0.00677	0.00003			
				0		-0.00576	0.00088			
				9	•	-0.00565	0.00052			
				0	•	-0.00451	.000			
		.37			0.06195	-0.00369	0.00042			
		•		o o	•		. noo	•		
				-0.609	7.	-0.00360	0.0			
		0.10	0.3	.689	0.12671	-0.00378	.000			
		22.70399	0.34	-0.77282	0.15456	-0.00377	0.00056			

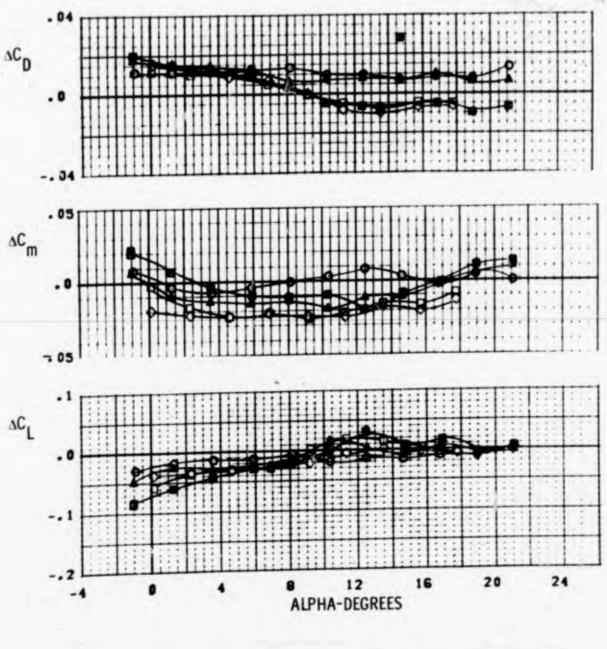
COMBINED LEADING AND TRAILING EDGE DEVICES

Incremental force and moment characteristics for alleron controls in combination with various differential leading edge deflections are given in this subsection. Data for allerons with the undeflected leading edge is also included as a baseline for leading edge effects. Characteristics with the mid-span allerons are illustrated in Figure 127 while Figure 128 is for the extended span allerons (mid-span and tip trailing edge segments). Numerical values of the various force and moment increments are given in Tables XI and XII.



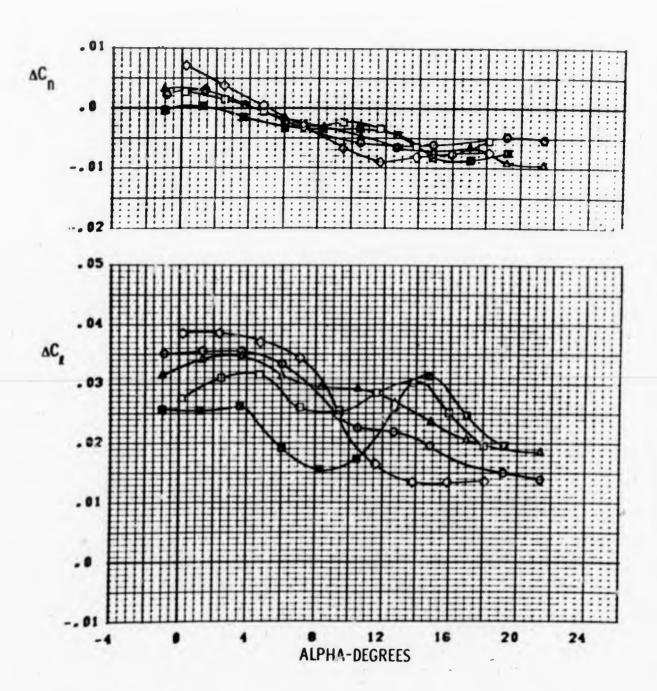
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
	PWT 4T TC-043	PN 215 - PN 268	Al 0/0	HIO 20/-20
	PWT 4T TC-043	PN 180 - PN 268	K1 15/0	HIO 20/-20
	PWT 4T TC-043	PN 312 - PN 268	K1 5/0	HIO 20/-20
	PWT 4T TC-043	PN 419 - PN 438	K1 9/10	HIO 20/-20
	PWT 4T TC-043	PN 426 - PN 438	K1 10/0	HIO 20/-20

FIGURE 127a DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS M = 0.7



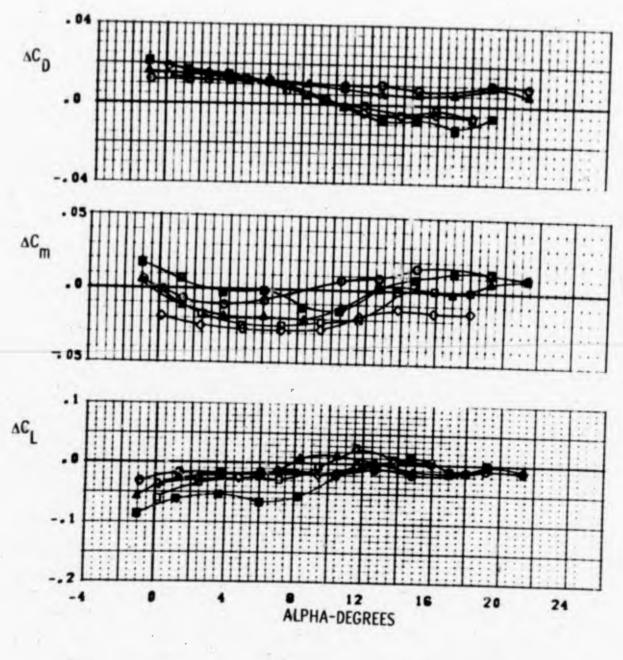
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 4T TC-043	PN 215 - PN 268	KI 0/0 KI 15/0	MID 20/-20 MID 20/-20
A	PVT 4T TC-043	PN 180 - PN 268 PN 312 - PN 266	K1 5/0	MID 20/-20
♦	PWT 4T TC-043	PN 419 - PN 438 PN 426 - PN 436	K1 0/10 K1 10/0	MID 20/-20 MID 20/-20

FIGURE 127a DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS M = 0.7



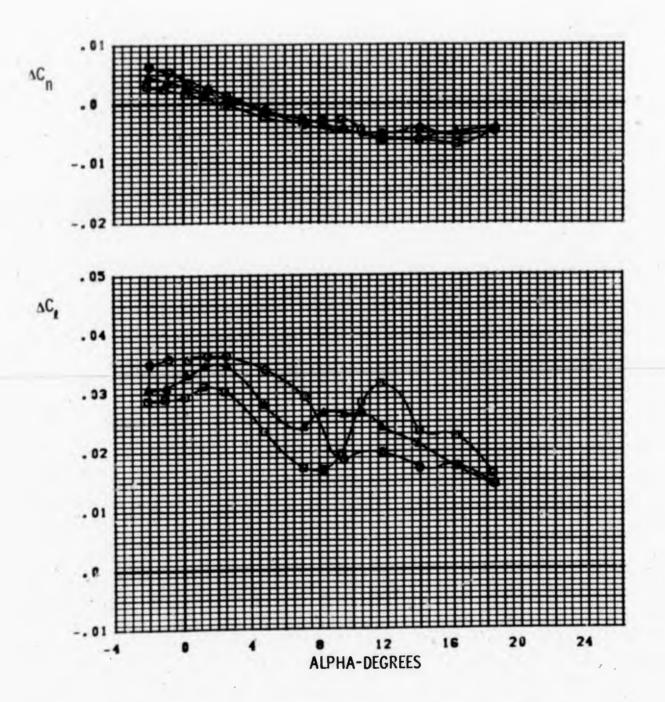
SYH		T	EST		INC	RE	HEN'	r	L.E.	(L/R)	AILERON	(L/R)
0	PYT	41	TC-043	PN	214	_	PN	267	K1	0/0	MID	20/-20
	PYT	41	TC-043		179				K1	15/0	OIM	20/-20
•	SAL	4T	TC-043	PN	311	-	PN	267	K1	5/0	MID	20/-20
-			TC-043	PN	420	-	PN	440	KI	0/10	CIN	20/-20
0	PYT	4T	TC-043	PN	427	_	PN	440	K1	10/0	MID	20/-20

FIGURE 1276 DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERENS M = 0.8



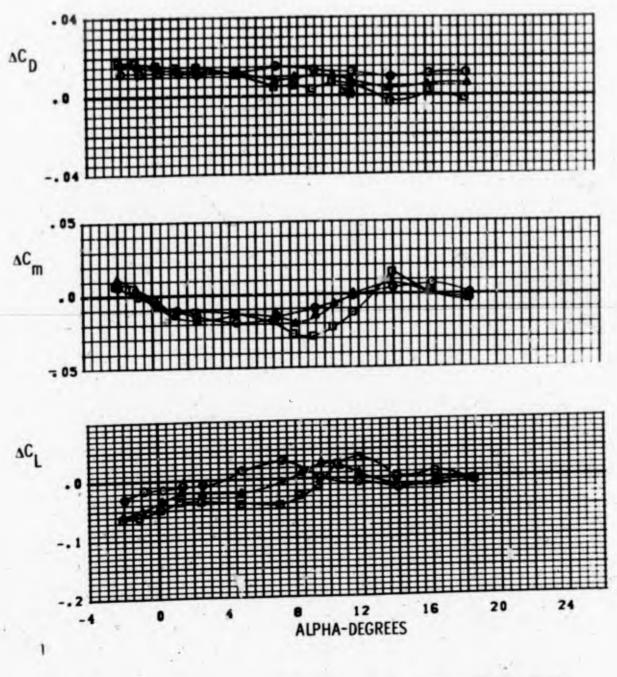
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
	PWT 47 TC-043 PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043 PWT 4T TC-043	PN 214 - PN 267 PN 179 - PN 267 PN 311 - PN 267 PN 420 - PN 440 PN 427 - PN 440	K1 0/0 K1 15/0 K1 5/0	MID 20/-20 MID 20/-20 MID 20/-20 MID 20/-20

FIGURE 1276 DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS M = 0.8



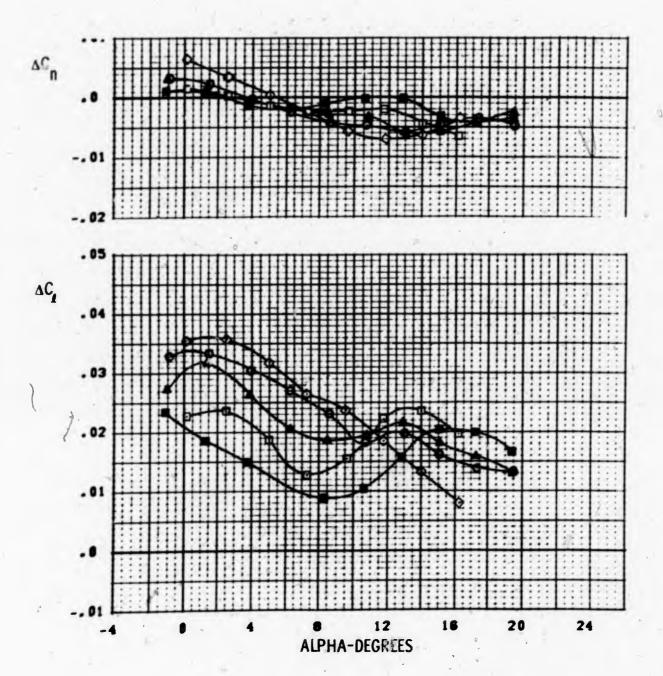
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 16T TF-216 PWT 16T TF-216 PWT 16T TF-218	PN 32 - PN 51	K1 0/0 K1 10/0 K1 5/0	MID 20/-20 MID 20/-20 MID 20/-20

FIGURE 127c DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS M = 0.85



SYM	,	TES	ST		INC	REMENT	L.E.	(L/R)	AILERON	
0	PUT	161	TF-216 TF-216	PN	32	- PN 51 - PN 51 - PN 51	K1	0/0 10/0 5/0	MID	20/-20 20/-20 20/-20

FIGURE 127c DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS H = 0.85

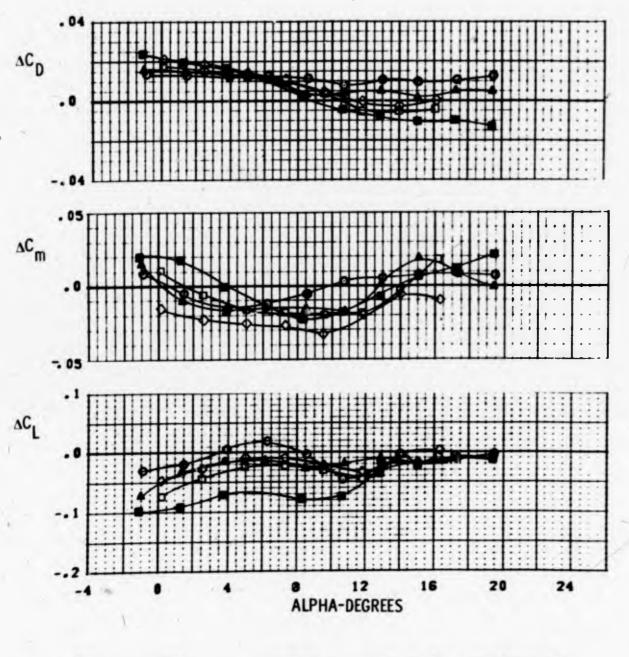


SYM	1-	T	EST		INC	Œ	HEN	Γ _	L.E.	(L/R)	ALLERON	(L/R)
0	PWT	41	TC-043	PN	213	_	PN	264	K1	0/0	MID	20/-20
	PYT	41	TC-043	PN	178	_	PN	264	K1	15/0	MID	20/-20
A	PYT	41	TC-043	PN	310	_	PN	264	K1	5/0	MID	20/-20
•	PYT	41	TC-043	PN	418	-	PN	441	K1	0/10	MID	20/-20
0	PVT.	41	TC-043	PN	425	_	PN	441	K1	10/0	MID	20/-20

FIGURE 127d DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS

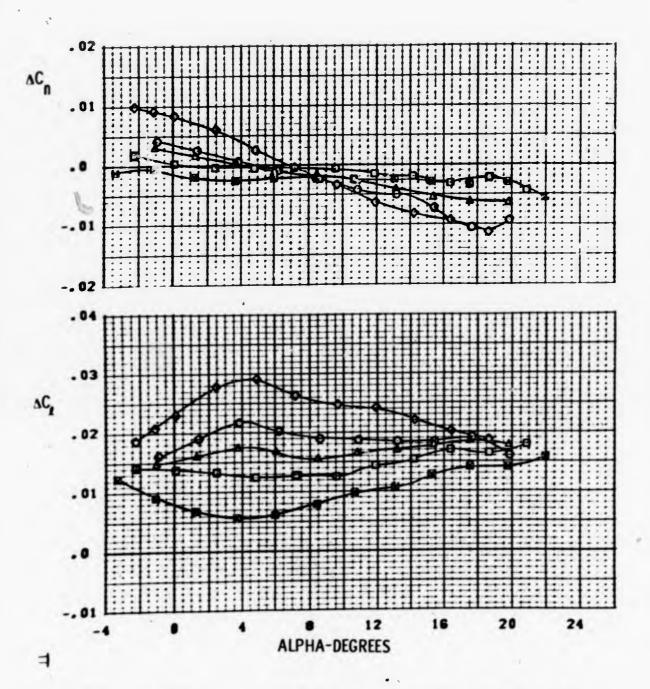
M = 0.9

483



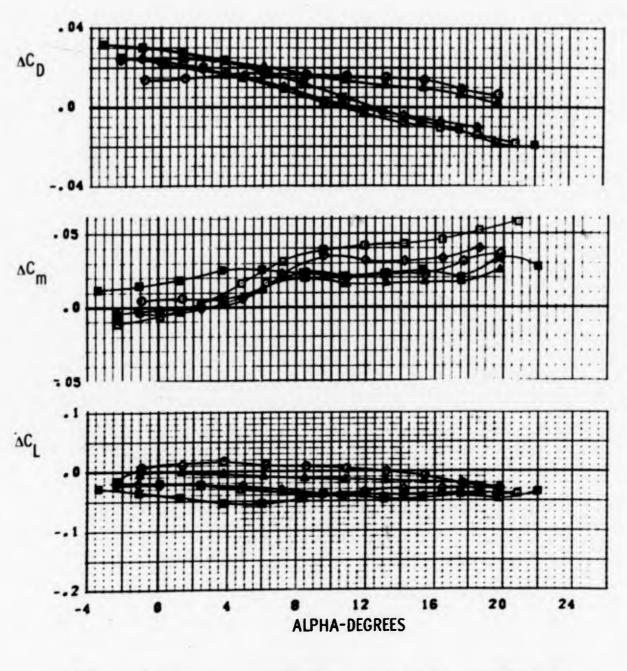
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 4T TC-04:	PN 213 - PN 264	K1 0/0	HID 20/-20
	PWT 4T TC-04	PN 178 - PN 264	K1 15/0	MID 20/-20
A	PWT 4T TC-04:	PN 310 - PN 264	K1 5/0	MID 20/-20
O	PWT 4T TC-04:	PN 418 - PN 441	K1 0/10	MID 20/-20
0	PWT 4T TC-04	B PN 425 - PN 441	K1 10/0	MID 20/-20

FIGURE 127d DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS M = 0.9



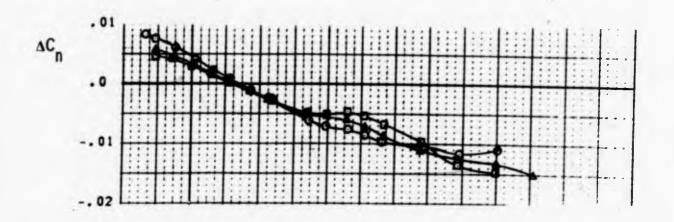
SYH		T	EST		INC	Œ	HEN'	T	L.E.	(L/R)	AILERON	(L/R)
0	PUT	4T	TC-043	PN	216	_	PN	269	K1	0/0	MID	20/-28
0			TC-043					269	K1	10/0		20/-20
A	PYT	4T	TC-043	PN	313	-	PN	269	K1	5/0	HID	20/-20
	PYT	41	TC-043	PN	181	-	PN	269	K1	15/0	HID -	20/-20
	PYT	41	TC-043	PN	421	_	PN	269	K1	0/10	HID	20/-20

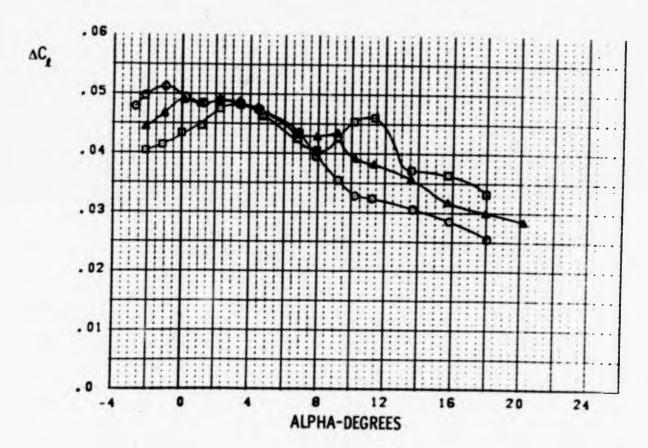
FIGURE 127e DIFFERENTIAL L.E. FLAP WITH HID SPAN AILERONS H = 1.2



SYM		TE	ST		INC	Œ	EN!	7	L.E.	(L/R)	AILERON	(L/R)
0	PWT	41	TC-043	PN	216	_	PN	269	K1	0/0	MID	20/-20
0	PYT	4T	TC-043	PN	428	_	PN	200	K1	10/0	HID	20/-20
A	PYT	41	TC-043	PN	313	_	PN	268	K1	5/0	MID	20/-20
	PYT	4T	TC-043	PN	181	_	PN	299	K1	15/0	MID	20/-20
•	PYT	4T	TC-043	PN	421	-	PN	208	K1	0/10	MID	20/-20

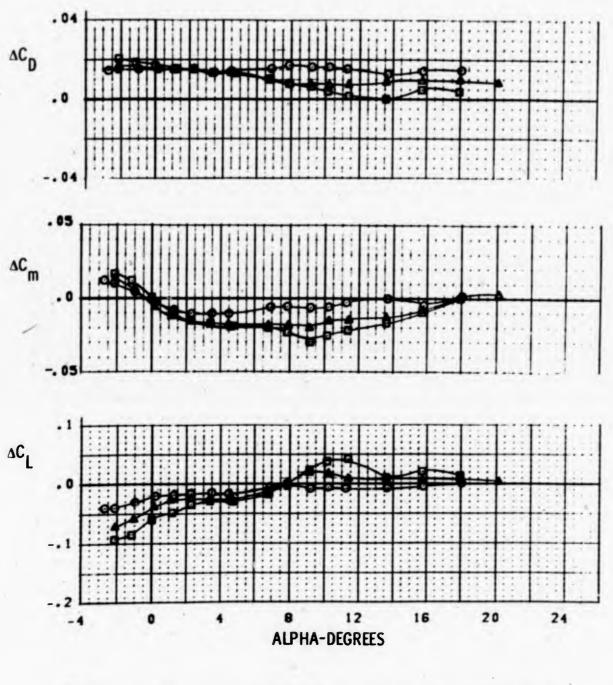
FIGURE 127e DIFFERENTIAL L.E. FLAP WITH MID SPAN AILERONS M = 1.2





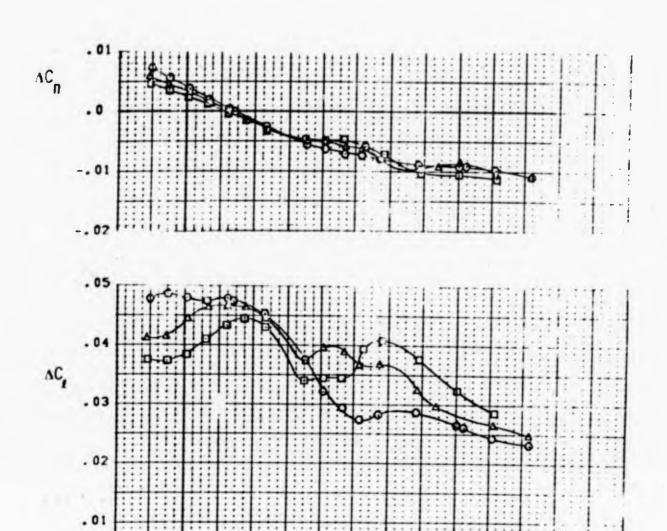
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
	PWT 16T TF	PN 63 - PN 49 PN 72 - PN 49		3 SEGM. 20/-20
	PWT 16T TF	 N 78 - PN 49	K1 10/0 K1 5/0	3 SEGM. 20/-20 3 SEGM. 20/-20

FIGURE 1288 DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.7



SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 16T TF-216	PN 63 - PN 49	K1 0/0	3 SEGM. 20/-20
0	PWT 16T TF-216	PN 72 - PN 49	K1 10/0	3 SEGM. 20/-20
	PWT 16T TF-216	PN 78 - PN 49	K1 5/0	3 SEGM. 20/-20

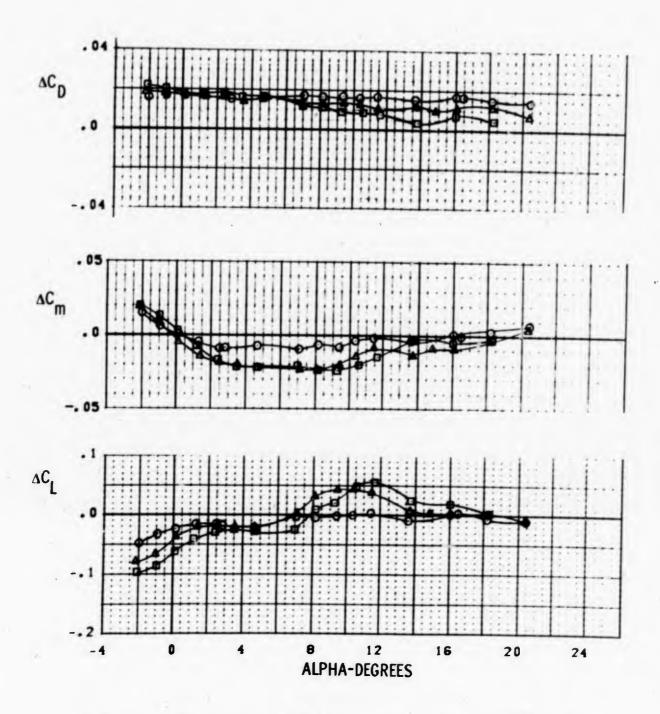
FIGURE 128 W DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.7



SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 16T TF-216	PN 62 - PN 50	K1 0/0	3 SEGM. 20/-20
A	PWT 16T TF-216 PWT 16T TF-216		K1 10/0 K1 5/0	3 SEGM. 20/-20

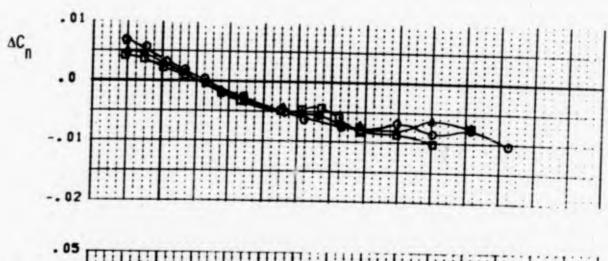
ALPHA-DEGREES

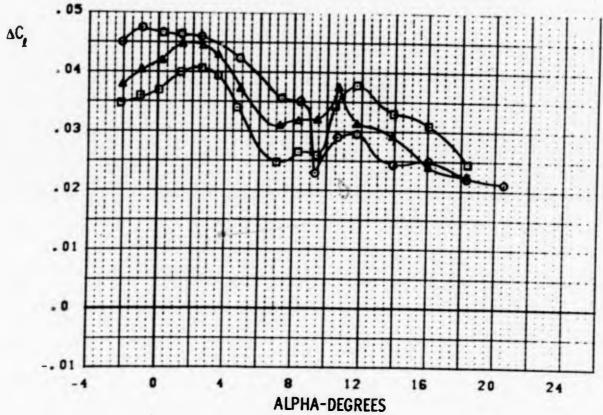
FIGURE 1286 DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.8



SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
	PWT 16T TF-216	PN 62 - PN 50	K1 0/0	3 SEGM. 20/-20
	PWT 16T TF-216	PN 71 - PN 50	K1 10/0	3 SEGM. 20/-20
	PWT 16T TF-216	PN 77 - PN 50	K1 5/0	3 SEGM. 20/-20

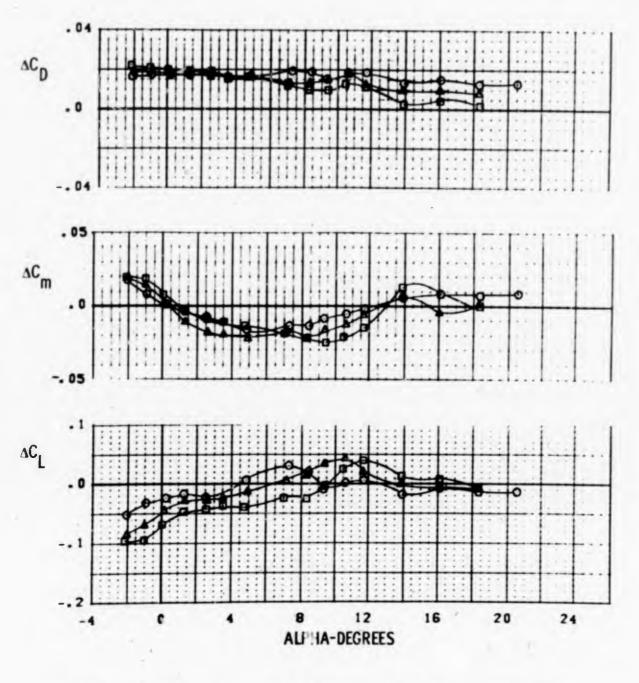
FIGURE 1285 DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.8





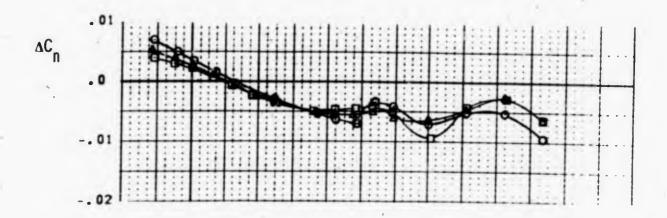
SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 16T TF-216 PWT 16T TF-216 PWT 16T TF-216	PN 67 - PN 51	K1 0/0 K1 10/0 K1 5/0	3 SEGM. 20/-20 3 SEGM. 20/-20 3 SEGM. 20/-20

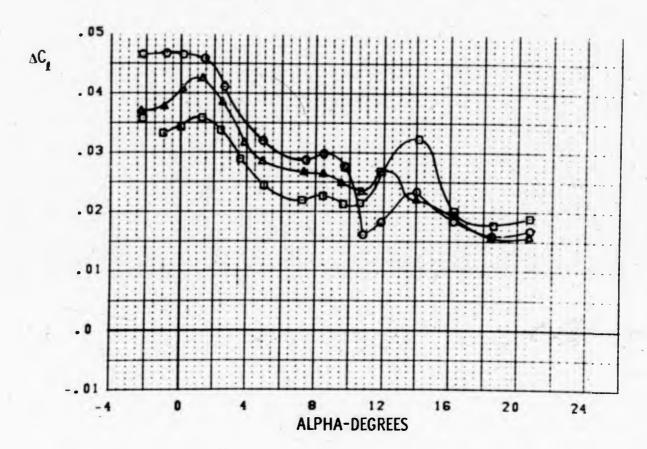
FIGURE 128c DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.85



SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 16T TF-216	PN 58 - PN 51	K1 0/0	3 SEGM. 20/-20
0	PWT 16T TF-216	PN 67 - PN 51	K1 10/0	3 SEGM. 20/-20
A	PWT 16T TF-216	PN 76 - PN 51	K! 5/0	3 SEGM. 20/-20

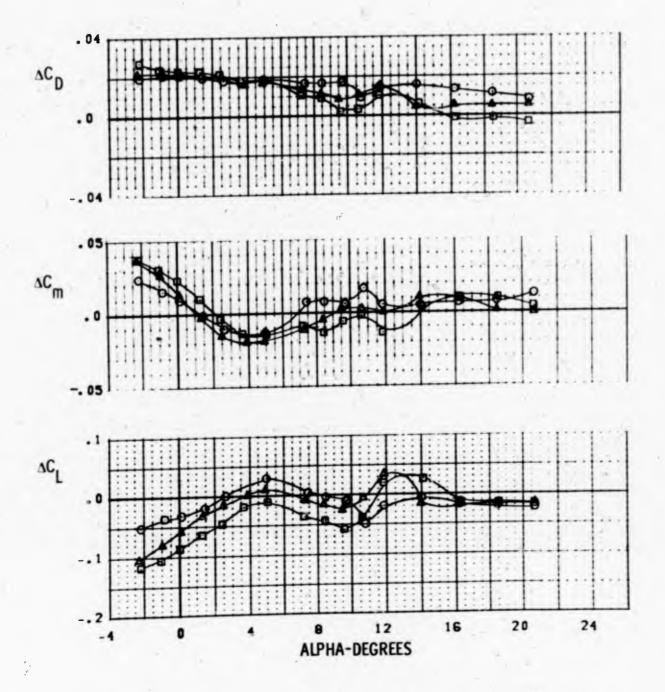
FIGURE 128c DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.85





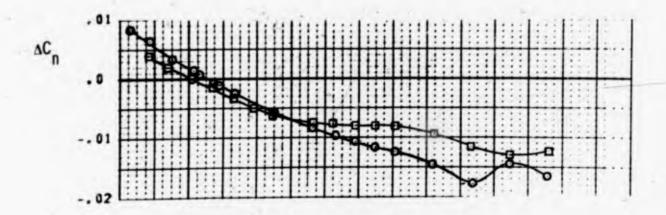
SYM	TEST	INCREMENT	L.E. (L/R)	ALLERON (_/R)
0	PWT 16T TF-216 PWT 16T TF-216	PN 59 - PN 52 PN 68 - PN 52	K1 0/0 K1 10/0	3 SEGM. 20/-20 3 SEGM. 20/-20
Δ	PWT 16T TF-216	PN 75 - PN 52	K1 5/0	3 SEGM. 20/-20

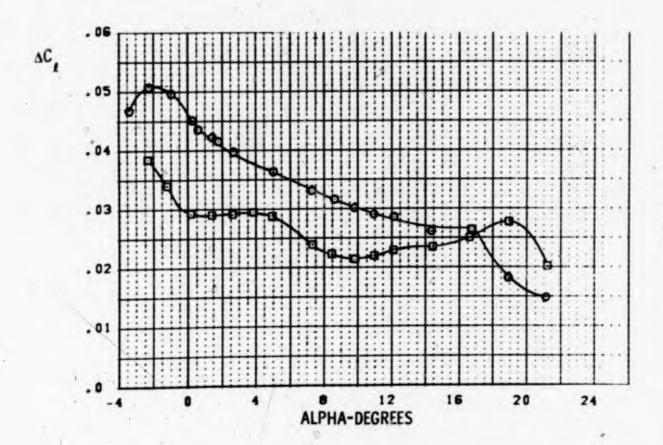
FIGURE 128d DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.9



SYM	TEST	INCREMENT	L.E. (L/R)	AILERON (L/R)
0	PWT 16T TF-216	PN 59 - PN 52	K1 0/0	3 SEGM. 20/-20
0	PWT 16T TF-216	PN 68 - PN 52	K1 10/0	3 SEGM. 20/-20
_ A	PHT 16T TE-216	PN 75 - PN 52	K1 5/0	3 SEGM. 20/-2

FIGURE 128d DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.9



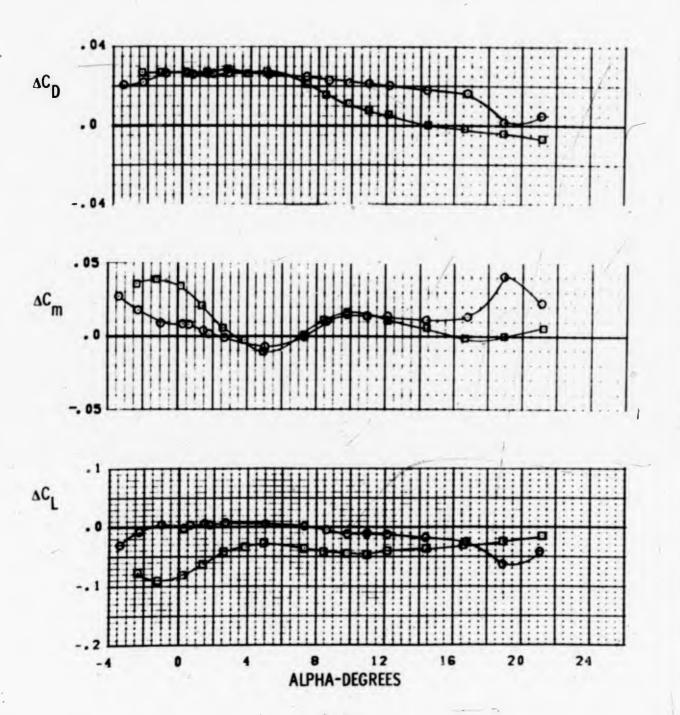


SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 16T TF-216 PN 60 - PN 53 K1 0/0 3 SEGM. 20/-20

PWT 16T TF-216 PN 69 - PN 53 K1 10/0 3 SEGM. 20/-20

FIGURE 128e DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.95

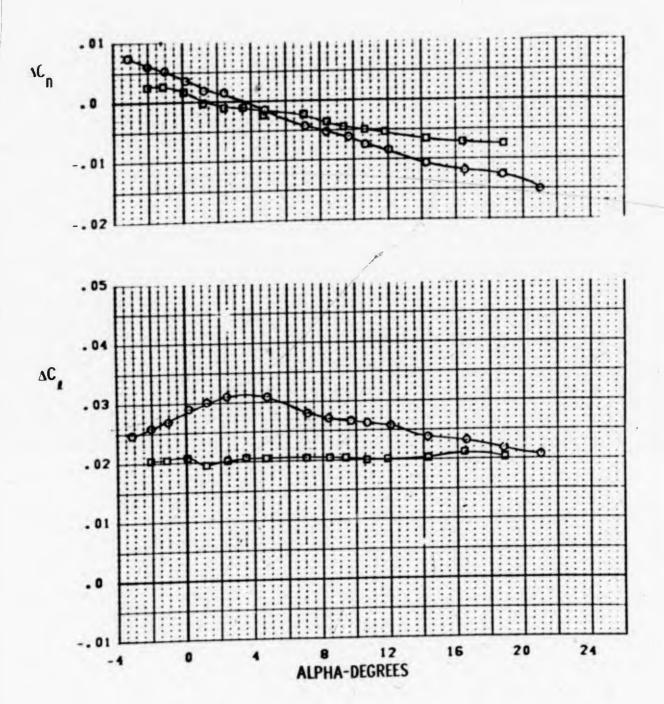


 SYM
 TEST
 INCREMENT
 L.E. (L/R)
 AILERON (L/R)

 O
 PWT 16T TF-216
 PN 60 - PN 53
 K1 0/0 3 SEGM. 20/-20

 D
 PWT 16T TF-216
 PN 69 - PN 53
 K1 10/0 3 SEGM. 20/-20

FIGURE 128e DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 0.95



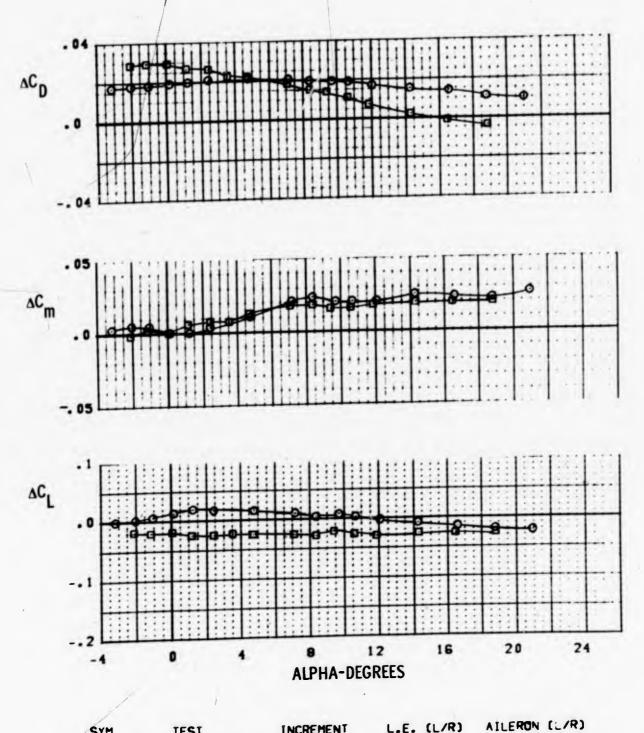
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 16T TF-216 PN 61 - PN 54 K1 0/0 3 SEGM. 20/-20

D PWT 16T TF-216 PN 70 - PN 54 K1 10/0 3 SEGM. 20/-20

FIGURE 128f DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS

M = 1.2



O PWT 16T TF-216 PN 61 - PN 54 K1 0/0 3 SEGM. 20/-20

D PWT 16T TF-216 PN 70 - PN 54 K1 10/0 3 SEGM. 20/-20

FIGURE 128F DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS

FIGURE 128f DIFFERENTIAL L.E. FLAP WITH EXTENDED SPAN AILERONS M = 1.2

					TIPO DIM	25555	23				
	L.E.	FF							TES	TEST REFERENCE	GE CE
MACH	TYPE	PEFF C/R	ALPHA	۵۲	ΔCm	Δ ^C _D	₽ C ₽	۵۵,	TUNNEL	DATA	BASE RUN
1.0	KI	0/0	20525-0-		0.00796	S	•		PWT 4T	215	268
			1.31100	~	-0.00352	0.01125	0	0050			
			3.60300	-0.01371	-n.00747	0.01186	•	1000			
			5.89500	-0.01233	-0.00410	0.01256	0.03480	-0.00220			
			8.177CC	-0.00564	-0.00042	,	0.03174	-0.00472			
			. 366	-0.01907	0.00324	,	0.02478	005R			
			12.52400	-0.01364	0.00781		0.02331	-0.00780			
				-0.01538	0.00292		0.01958	-0.00710			
			16.79555	-0.01040	-0.00220		0.01790	-0.00789			,
			18.95555	-0.00986	0.00424		0.01453	-0.00446			
			21.14095	0.00307	0.00021	0.01350	0.01419	-0.00619	/		
1.0	KI	0/5	•	-0.04832	9590000	0.01770	0.03339	o	TA TWG	312	268
			•	-0.02522	-0.00948	0.01552	0.03570	0			
			3.52300	-0.02817	-0.01292	0.01484	0.03560	o			
			•	3	-0.01485	0.01255	0.03440	0-			
			•	-0.01377	-0.01276	0.00672	0.03390				
			•	0.01617	-0.01829	0.0071A		CI			
			• 50	0.00236	-0.01111	0.00ROR		Ç			
			14.654Cn	-0.00678		0.00734		-0.007			
			16. ecec	0.00596	-0.00198	0.01049		Ç			
			5	-0.00623	0.00573	0.00622		0			
			21.12355		•	0.00666		-0-			
1.0	KI	0110	C.13CCC		0.0-	0.01645	0.03949	0.00691	PWT 4T	419	4.38
			2.39600		-0.0224	0.01263	0.03951				
			4.63000	-	-0-	0.00944	0.03790	0.00020			
			23 € 5 · 9	-0.02466	-0.0	0.00736	0.03620	-0.00150			
			9.18PCC	^	0	0.00029	0.02914	-0.00769			
			•	-0.00541	-0.02401	-0.007RO	0	-0.01060			
			, N	0.00057	C .	D2500 - D-	~				
			15.71800	-0.00177	•05	900.	.017				
			1 / · / X 5 5 5	-0.00542	-0.01338	-D.00664	0.01122	12600 01			

	CE	BASE RUN	438							268												267								
,	TEST REFERENCE	PATA	424							180												214								
	TES	TUNNEL	15 INd							DWT 4T												PWT 4T								
		۵4,	0.00301	-0.00030	.0022	0023	-0.00530	-0.00810	-0.007e1	-0.00168	-0.00029	-0.00050	0100	-0.00380	0044	-0.004P1	-	-0.00840	9600		-0.01178	0.00220	0.00310	0.00051	-0.00230	-0.00578	-0.00660	-0.00610	-0.07480	-0.00520
		7 0∇	0.03301		0.03239	0.03388	0.03099	0.02599	0.02091	0.02629	5	20	6	0	2	2	2	EC	\mathbf{c}	2106	0.02058	0.03510	9.03560	0.03550	0.03332	0.02258	0.02190	C. 01950	0.01500	0.01389
Table XI CONT'D	~	QCD	0.01281		0.00478	-0.00107	-0.00776	-0.00432	-0.00462	0.02004	0.01988	0.01507	0.01188	0.00915	0.00378	-0.00462	-0.00636	0.02830	-0.00533	000	-0.00714		•	•			•		104	0.00907
Table		ΔCm	-0.00230	-0.02267	-0.02192	-0.02598	-0.01425	-0.01502	-0.00749	0.02235	0.01970	0.00705	-0.00314	-0.00930	-0.01065	-0.00913	-0.01936	-0.00RS4	-0.00075		0.01328	0.00565	-0.00658	-0.01072	-0.00760	0.00651	0.00862	0.01576	0.01183	0.01001
-10		ΔC	-0.03664	-0.02770	-0.02809	0.00093	0.01222	0.00365	-0.00262	-0.08652	-0.08305	-0.06001	-0.04246	-0.02927	-0.02153	9000000	0.03032	0.00751	0.01583	-0.00468	0.00495	-0.03096	-0.0164R	-0.01766	-0.01542	-0.01666		5	•	-0.01111
		ALPHA	0. 06500	. 6470	•	9.21.600	13.52400	30	17.806CC	-1.03500	66.	1.26500	. 55	53	2	. 3240		C	•	18.58000	71.10799		•	3.71500	0	•	σ	. 86		21.38109
	FLAP	DEFL (L/R)	10/0							15/0				-						7		0/0								
	L.E.	TYPE	l X							KI												ž								
		MACH	2.0.							0.7												œ. C								

	NCE	BASE RUN	267							••••	440				,				440								
	TEST REFERENCE	PATA	311								420				*		1		427								
	125	TUNNEL	TA TWG					`			TA TWY				•		,		TA TUO								
L.		۵4	0.00322	0.00041	-0.00169	-0.00459	-0.00640	-0.00720	-0.00660		o	0	o	-0	-0-		-0-	0		0.00141	1000	-0.00269	-0.00250	-0.00340		.007	-0.00570
,		ΔCβ	00	0	0.03133	0.02918	0	0.02360	0.02058	0.01860	0.03870	0.03971	0.03730	0.03447	0.02488	0.01668	0.01330	0.01330	0.02759	0.03111		0.02596	0	\mathbf{c}	0	0.02519	٠
Table XI CONT'D		QCD	0.01640		0.01066	0.00809	0.00514	0.00521	0.00522	0.00529	0.01825	0.01538	0.01222	0.00973	0.00222	-0.00352	-0.00535	-0.00442	0.01459	9.01246	0.01127				0	-0.0021	-0.00567
Table X		DCm	0.00599	-0.01822	-0.01888	-0.01148	0.00221	0.00177	-0.00192	0.00858	-0.01821	-0.02456	-0.02660	-0.02742	-0.02702	-0.01718	-0.01148	-0.01427	2000	-0.01627	-0.02368	-0.02341	-0.02098	-0.02004	-0.00108	0.00078	-0.00021
		ρς	0.057	-0.02121	-0.02065	0.01353	0.00283	79710-0-	-0.01491	-0.01029	-0.04125	-0.02R22	-0.02438	-0.01446	-0.02039	-0.003RR	0.00376	0.00023	-0.06062	-0.0328R	-0.02734	-0.03052	-0.00785	0.02636	0.00712	0.00084	-0.01491
		ALPHA	25.	3.68500	5	10.51500	17.	05.	3:	17				•	6.39000	11.61600	. 61	15.87500	: =	2.46200	. 75	01.	9.42BCC	11.58400	. 80C	. 541	18.0560
-	FLAP	DEFL (7.R)	0/5								01/0								0,01								
	L.E.	TYPÉ	K1								× 1			0					3								
		MACH	G. 8				•				0.8								0	•							

	TEST REFERENCE	DATA BASE RUN RUN	110 011				101	RF	68	00	JUC	181	E -										
*	TEST R	TUNNEL	TA TEG				_					PWT 16T		•									
		م		2000	-0.00129	-0.00.20	7 4 5 0 0 0 -	-0.0450	0 E B C U - U -	0 m d 0 (" U	-0.00750	25900.6	0.00529	.00351	0.00251	7.001 16	-0.0011	-0.00469	-0.00434	-0.00518	-U.C)423	· nn54	-7.6.460
		DCA	•	0.75.70	12,000	0.01912	0.01550	0.02410	0.03179	0-05440	0.01041	0.03501	0.03541	0.63571	-	-		ċ	2.	C			0.01435
ONT'D		DC _D	3000°0	0.02156	0.71508	E-110-0	0.00467	-0.00613	-0.00757	-0.11245	9 8 8 C C - C -	0.01187	0.01203	0.0122R	0.01204	0.01149	0.01274	0.01529	7.01344	0.01229	.0094	0.01124	7.01168
Table XI CONT'D		ΦCm	0.01607	0.01767	-0.00.6ª		-0.01224	-1100-	0.09400	•	7,01356		,	-0-	0	'	-)	- C -	1	() -	ċ	2.10750	1,00056
_		ρςΓ	-7.74003	-0.04410	-0.05357	£2990-0-	-0.05674	-0.005216		-0.01100	-0.10671	-3.02990	-0.01569	-0.01438	00600.0-				0.00143	-0.00534	-0.11729	-0.00519	-).)?4F1
		ALPHA	ال و دادان	000x00.0-	3 . 4 2 S C C		B 23550	12.67500	14.53600	17.04159	17.2779	-1.375.1-	-0.32900	0.27400	1.43900	2.58702	4.35400	7.19693	00124.6	11.71000	14.71200	16.25.799	1. 45963
	FLAP	DEFL (1/R)	15/0									0/0											
	L. E.	F	ž									¥				,							
		MACH	ر. د. د							50		0.95											

					Table	Table XI CONT'D	•				
	L.E.		V 110 1 V			!			TEST	T REFERENCE	JO
-	TYPE	DEFL (Y.R.)	ALFRA	סכר	ΔCm	$\Delta c_{\mathbf{D}}$	ΔC	۵ گ	TUNNEL	PATA	BASE RUN
	<u>.</u>	0/5	-2.9300	-0.05902	0.01141	0.01654	0.3	7.00450	PWT 16T	26	5.1
			-0.93-200	-0.05034	0.00468	0.0154	•	97600			
			0.23200	-0.03404	•	0.0142	-	.00			
			1.31700	-0.01937	-	0.013	-	.001			
			7.54350	-0.02127		c	~				,
			4 1 7 4 9 0	-0.02293	-0.01326	o .	· ·				
			•	-0.00529	-0.01192	Ċ	9				
	-		8. 31 400	0.01056	c		٠,٠	-0.00350			
			•	72720.0	• c	o e	٠,				
			•	9502020	•	Ċ	_ (
			• •	0.00000	00100	c (- 4	o o			
		•		-0.01057	•	2 (, (•			
			18.52139	-0.00759	-0.00199	0	0.01438	10.00.00			
1	¥ I	10/0	-2.11500	-0.06401	5			2000	1		
				-0.06087		0.01726	. C	10500	TCI TWG	3.2	<u>ء</u> ا
			0.08900	-0.24955	1		0243	0.00173			
		-	~	-0.03432	T		0311	•			
				-0.03670	1		0	, .			
			4.77700	-0.04127	1		.0233	-0.00220			
			7.05400	-0.04412	0		1210				
			3.18 500	-0.02859	1		5	C			
			00200	-0.01231	C		0		1		
				061700	-3.0223	0,00740	0	-0.02450	,		,
			11.0450	0.04661	(° °)	1.00614	5	_			
				X000000	\$ r	30000	023	27500-0-			ć
				14.00	47.77	- 4	224				
	1			,	1.000	-	21910-6	- 1.00444			

·											
	1.6	FLAP				ne			TES	TEST REFERENCE	CE
MACH	TYPE	DEFL (/R)	ALPHA	δς	ΔCm	ΔCD	ΔCA	ΔÇ	TUNNEL	PATA	BASE RUN
0.9	KI	0/0	98.	12	.008	013	.0329	.003	14 INd	213	564
			.51	0 4	-	013	6080				
,			6.29000	0.01849	-0.01223	0.01306	0.02697	-0.00251			
			. 59	3		.011	.0231	-0.00420			
			0.71	5	\mathbf{a}	.007	.0182	•			
		o	50	80	$\overline{}$	010	.0198				
			5.09	5		000	.0161				
			. 35		$\boldsymbol{\frown}$	010	138	-0.00350			
			9.48	2	$\boldsymbol{\mathcal{C}}$.012	.0131	-6.00479			
5.0	K1	6/6	-1.04300	-0.07	0	910°	0.02737	0.00304	15 ING	310	797
				-0.03	9	.014	8	0.00199		0	
			3.86300	-0.01	0	.013	53	000			
				-0.01	0	010	4	.001			
				-0.05	9	.003	2	.002			
				10.0-	C	.003	5	.003			
				00.0	0.00175	.005	_	.005			
				-0.01	-	100.	8	0.00			
			17.28799	-0.00722	0.00540	0.00509	0.01591	-0.00422		,	
0	Ş	0110		-0	1	7020		000	77 770	418	177
•	:		5630	-0.02851	0.0233	0177	.0359	.003		•	1
			. 982C	-0.00736	0260	0142	.0318	000			
			030	-0.00771	0266	.0102	.n264	.002			
			. 5390	-0.02119	-0.03328	.0042	.0238	.005			
			1.8380	-0.03286	.0198	.0006	.0184	.006			
			14.05200	-0.00438	-0.00630	-0.00251	0.01318	-0.00619			
		,	4.2479	0.00571	-0.01040	-0.00071	.0079	-0.00337			

	CE	BASE RUN	141			•		,		34.4									076	603								
	TEST REFERENCE	PATA SUN	425	4						178									216	G 4 J					Ŷ			
ſ	TES	TUNNEL	PWT 4T							170									TA THO									
		Δ	0.00171	0.00021	O,	\cup \cup	-0.00269	, C	-0.00640	0.00106		-0.00139						-0.00354	0.00411	0.00248	0.00010	-0:00100	-0.00239	-0.00429	-0.00500	-0.00720	.010	-0.00040
^		DC_A	.0228	0.02389	.0187	6210	0222	.0236	.0197	0.02339	0.01850	0.01488	0.00888	0.01043	0.01580	0.02040	0.01991	0	0.01613	0.01903	0.02170	0.02020	0.01891	0.01860	0.01840	0.01832	0.01909	0.01600
CONT'D		QCD	•	0.01527	•					0.02389	•	0.016A3	•	•	•		.00980	.0126P	0.	0	0	5	0.	0	5	0	260	0.00660
Table XI CONT'D	3	ΔCm.	0.01038	-0.00572	-0.01668	-0-02008	-0.01848	-0.00430	0-01744	0.02009	•		•		•	0.00610		•) •	0	0	0	9	0	0		0.03114	.0366
		٦٦٥	-0.07342	40.0	-0.02020	0.02	-0.04627	-0.00530	-0.00576	0987	9160	-0.07102	078	0.075	0.034	.02	6	.012	00	5	0.01780	0	2	0	60.	0	-0.02201	9
	A L BUA	ALLUA	0.13200	•		9.59600	11.76100	•	16.140CC	-1.09900	•	3.75200			•	•	•	19.43795	-0.52eco	•	•	•	•	•	m ı	.472	17.68500	
		DEFL (L/R)	10/0							15/0									0/0		-							1
	L.E.	TYPE	<u>.</u>							ž		16							<u> </u>									1
	MACH		0.9							5.0									1.2									

·	JCE .	BASE	240									249	·				C									
	TEST REFERENCE	PATA NO NO NO NO NO NO NO NO NO NO NO NO NO	212									428							•							
,	TES	TUNNEL	DWT 4T		,	ı				1		15 TWO														
1 2		Δ	3320	0.00159	2000		-0.00270	•	-0.07550	-0.00620	-0.00641	0.00190	0200	0.30200		. 7310		5cuCu*0-	-0.00061	-0.00060			-C.07105	-0.07310	-0.00713	00
	2,61	DCA	0.01480	0.01739	0.01680	0.01550	0.01650	0.01700	0.01780	0.01958	0.01771	3.61405	0	0.01405	0.01435	•	0.01178	-0132	4510.		.0125	9.0142P	.0152	.0140	0.01630	0.01701
CONT'D		Φcρ	0.02510	F 1 9 2 0 . 0	C. 92078	0.0173C	0.01398	0.01145	0.30987	0.00676	0.00267	0.024PE	. 324	. 724	01		C 2 2 C.	25		5000	• 1025	. 002	(·	-7.01045	SEC. 31347	-C. 4 795
Table XI		ΔCm	-0.0043	0.0030	17511-0-	0.01051	2.01539	0.01552	0.01748	0.01742	0.02517	C	-0.00630	٠.	-0.01122	C	C	100	710	0.03121	030	0.7420K	0.04307	0.04590	D.05204	0.05762
-		۵۵	-0.00271	-0.0006P	-C.00816	-0.01171	-0.01345	-0.0154P	-0.01542	-0.01794	-0.02452	017	0.01R	018	-0.01739	-	-0.010A	~	טיני	-0.03460	-0.03R16	-U.02878	-0.0385E	-0.03652	-0.035 a	-C. 1370P
		ALPHA	520	3.74200	6.10500	20	. 8160	• 16CO	240	• 6050	19. P465R	. 2710	. 2710	. 26AC	-2.26£CO	. 24CC	. 114C	. 443C	4. F1 9CC	. 22°C	5.56CCC	11.50200	1000	3777	8.4640	20.8729
	FLAP	DEFL (L/R)	210			¢		/				1970					,									
	L.E.	TYPE	\$. Y								6						
	7000		1.2	,								1.2														

03187	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	. 251CC -0.02990 0.03	. 4769 -0.02784 0.03
03157		47699 -0.02784 0.03	. 48599 -0.02808 0.04
04012		69599 -0.02808 0.04	. 35600 -0.02763 0.01
04012		3560C -0.02763 0.01	. 69500 -0.03615 0.01
	0.04480 0.04681 0.04683 0.04683 0.04480 0.04480	22550 -0.045 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054 -0.054	1.22500 3.62500 6.63600 6.66600 7.6600 7.5500 7.

Table XI	Ξ	DIFFER	DIFFERENTIAL L. E. FLAP		L CONTROL	WITH EXTE	ROLL CONTROL WITH EXTENDED SPAN AILERONS INCREMENTAL DATA	AILERONS	INCREM	ENTAL D	ATA
		SUMMARY	ARY		3 Segment	3 Segment Ailerons ± 20 ⁰	- 200		4		
	L.E.	FLAP							TES	TEST REFERENCE	E.
MACH	TYPE	DEFL (YR)	ALPHA	۵۹	ΔCm	ΔCD	ΔCA	۵۹,	TUNNEL	RUN	RON SE
٥.٢	K.	3/3	-2.70100	44.04059		0.01490	2478	C.00837	PMT 14F	6,3	U· *
F			-2.13700	-0.04010	52010°3	•	•	23700.0			
			-C.9640C	-C.C3082	•						
			C. 2010C	-C.02CE3	•	C.01543	0454	•			
			1.2970	-0.01853	-C.02763	0.01547	0.04843	C.CC22C			
			2.27FDC	-0.01601	-0.01003	0.01535	.0489	630000			
			3.47435	-0.01493	-0.01009	0.01368	C.04835	-0.00110			
			4.49733	-C.C1643	-0.01036	ပ	0475	-0.00240			
			6.89PJC	-0.0520	-0.00565	0	0.04359	-c.0ce10			
			7.9230	-0.00217	-0.00556	၁	3384	-0.00700			
	7		G.14300	-0.00818	-C.00613	0.01635	0.03544	-0.30762			
			10.21500	-0.00632	-0.00559	0.01626	0.03281	-0.009ac			
			11.27300	-C.CC#29	-0.00261	0.01540	C.03238	49630-3-			
			13.65530	-0.00752	0.00020	C.C1257	~ C3C22	-C.0104P			
			15.82730	-0.00424	-0.00466	2.01426	C.C285C	-0.0116C			
			18.06595	C.00C85	0.00166	C. (146C	C.C2557	-0.31095			

				Table XII CONT'D	CONT'D				/	
				,.4				TES	TEST REFERENCE	GE
	L.E. FLAP	ALPHA	ΔCL	ΔCm	ΔCD	DCA	₽ ₽	TUNNEL	PATA	RUN
77.	5					-	2000	PWT 16T	7.3	5
1	2/3	00200 6	-0.07184	C. C14C7	0175	0.04431	0.0000			
	2/5	2001011	-0.05735	Ç	0164	0466				
		20046	-0.03663	O	0156		200			
		00.00	20000	0	_	7484				
		(65/11	70000		C. C1454	0.04526	0.00039			
		2.24130	10.02530	1		C.04884	-0.00100			
		30858 - 6	140000-	,	C	1477	-0.00261			
		4.45000		5 0	Ċ	0.04311	0000			
_		5.8150		1		040	0.5			
		7.93200	-	C)	ء پار	7.04347	-0.00581			
_		9,13100		•		1660	.0071			
		10.21200)		41850.0	-C.0C87C			
		11.35490		ا ا		75.0	011	_		
_		13.60100		٠,	20000	7.00.0	•			
		15.76500		-01			; c			
		17.55595		ċ	، ر ا	2000	10.0			
		20 1 1 0 0			0.00840	C. C. 23.1	and I			

į	TEST REFERENCE	TUNNEL DATA BASE	71 PhT 16T 72 4c	28	95		7.00	01	25		· · ·	000	62	56		F 4	x x	2.5
		ტ <u>ტ</u>	0.00471	C.00428	0.0025	0.0018	0.00069	01120-2-		-0.0028	•		-0.00462					-5.6147
0		ØCø	15050.0	0.04143	0.04340	0.04465	C. C4755	C.04825	C.04719	0.04635	0.04251	C.04051	C.04275	2	C.04616	0.03712	0.03645	0.03321
Table XII CONT'D		ΔC _D	C.02041	C. C1 466	0.01701	C.01577	C.01528	0.01334		C.013C3	C.01044	•	C.CC647	•	0.00179	0.00030	0.00455	0.00401
Table		ΔCm	.0155	.0120	0.00027		-0.01509	-0.01675	-0.01923	-C.01886		-0.02325	-0.02918			-C.01657	-0.00924	6000000
		۵۵	-0.09245	-C.CE485	-0.05976	-0.04941	1351	-0.02902	-3.027EB	-C.0304C	-C.01777	-0.00159	C- C2 354	C. 02857	0.04165		C-02045	C. C1469
		ALPHA	-2.39500	-1.14700	-c-0020c	1.16500	2.27203	3.41800	4.60200	4.75600	6.9040C	7.92500	9.16400	10.15600	11.3780	13.59500	15.76400	17.57495
	L.E. FLAP	OEFL (YR)	10/0		· · · ·													
	L.E.	TYPE	<u>-</u>															
/	700		0.7															

	۳	BASE	KON	U.3	₹										•					
	TEST REFERENCE	DATA	2	42														/		
	TES	TUNNEL		PWT 16T	•						.4									
		40€		0.00719	57	96 20°	0000	•	-0.0000	2	-0.00560		700	6730		00		20000	10000	ڻ ڌ
٥		DC.		0.04721	C.04962	.0479		97 40	0474	0452	037	5321	0293	0273	029	0286	0265	0260	6760	.0232
Table XII CONT'D		ΦCD		0.01618	0.01713	.0170	0	5	10	5	01	C. 01682	0	01	01	0.01543	0.01700	.016	.0150	141
Table		DC m		•	9	.0000		-0.00369	OCR3	930	5600	S	CC78	0036		-0.00346	C.00088	-0.00038	40	70
		J _Q		9	-0.03232	36	63	Φ.	8	.0220	6	-C.00524	5	4	50	35	0.00051	2	-C.0C725	-0.01069
as.	110014	ALFHA	-1 60700	•	201850-	00841.5	30805 · I	20185-2	2058922	4.6530C		•	9.3650C	10.35430	11.43600	13.65700	•	16.48595	.1989	20.44398
	.E. FLAP	DEFL (L/R)	3/3	,														4	,	
-	L.E.	TYPE	K J																	
	MACH		G. B				٥													

	TEST REFERENCE	TUNNEL DATA BASE						1	1	1	Ů	1	f	15.00761	1	1	C 3 T ())	-1.31360	
JT'D		₽ ⊃Q								ċ	Ċ	C. C28P9		J.0348			1 C. L/5 //	J * C Z 5 5 C	0 0000
Table XII CCNT'D		ΦCD		C.018C3		C-C1766								C.C.1084			138	3.41140	
Tab		ΔCm	24610.0	0.01043	-0.00462	-C.01424	-0.01820	-C. C1955	-0.02155	1820	-0.02205	-0.01392	-0.01176	-0.00411	-9.51340	2 1 2 C C - C -	-C . L . 16 +	-0.00363	1000
		ρcΓ	72820°0-	-C.C6548	-0.03665	-C.C1975	-6.01354	-0.01959	-0.01963	· . 00354	C.02193	C. C42 n.3	C.C4423	3	=	0.00430	000000	430000	21000
		ALPHA	305:1-6-	-1.63500	C. 1580C	1.2775	2.4-4.0	3.54.30	4.47900	7.11550	3 14233	7.40430	10.37636	11.4.170	13.77200	14.82405	10.07505	14.21700	200.000
	L.E. FLAP	DEFL (L/R)	-3/5																
	L.E.	TYPE	K.																
		MACH	0.8																

PERODUCIELE

	CE	BASE	KON	25	,													
	TEST REFERENCE	DATA	202	7.1														
	TES	TUNNEL		PwT 16T														
		۵4		0.00469	C.0C36C	.0623		-C.00030	100	-0.00320		200	-0.00470		81777	010	•	0.0100
		₽ OÇ		0.03755	0.03731	038	041C	643	044	043	0.03400	034	034	039	040	376	0323	0286
Table XII CONT'D		ΔC _D	3.60	170.	C.02C27	.0183	0.01819	.0181	.01	0.01685	.01	0.01123	C. UC889	00.	C.0C758	00.	.0073	
Table)		ΔCm		C. C. L. V. S.	0.01355	C.00316		-0.01636	0215	-C. C21 89	-C.02031	.0235	-0.02391	-C. C1998	-C.01457	-0.00320	-C.0C483	-0.00318
		δCL	1	•	-0.08625		~	-0.02956	-0.02366	-0.02863	-0.02477	^	0.02101	_			_	
		ALPHA	-2 11500	00000	20286-1-	0.0880C	1.22600	2.40 50C	3.48900	4.69400	7.0040C	8.1650C	9.2620C	10.57500	11.64900	13.7990C	16.05695	18.28495
	L.E. FLAP	DEFL (L/R)	3/31							4								
	L.E.	TYPE	K	•														
	777		4.0															

MACH	L.E.	FLAP							16	TEST REFERENCE	l iii
	TYPE	DEFL (V.R.)	ALFHA	۵۲	ΔCm	QCD	₽ ⊃∇	_ዕ ር	TUNNEL	DATA	BASE
C.85	<u>.</u>	0/3	-2.08300	00	.01	.016	.045	9900	PhT 16T	58	51
			C . 263	0313	0.00787		4.	56			
			.336	0.0174	00	5 6	040	0031			
			21	.0226	ပိ	0	0460	000			
			.850	0062	. C14	0	.0423	.0026	2		
			205.	C312	C.013	0	0355	.0051			
				8370	0.013	5	0321	.0063			
			. 56.	800	900	5	025	.0056			
			724	7400		5 6	2672	- 00074			
			934	200		1810	26.50	0.0080			
		-7	.1050	0.0077		5 6	0220	20000			
		4	e a	~	007	0126	0220				
			. 5689	.0135	.008		C211	; ;			
C.85	×1	210	. 6270	.083	0.01983	0	0	0770	TAL THE	,	1
			-C. 59 20C	-0.06955	0148	0	4	640		c	21
			.1640	.0432	C. 0CC28	C18	041	000			
			• 36	. 6276	.0106	.016	044	0.00140			
			.59	.0267	.0171	.018	.044				
				.0226	.018	.015	042	00			
			(0125	-0.02163	016	037	00.			
				9000	016	013	030	·			
			9	0162	21	C13	031	00			
			. 3 (0339	.015	015	031	00.			
			5	0441	.012	017	537	00.			
			. מ	0212	.005	015	C31	.007			
			00440	0000	0.00	600	C29	00		_	
			10.02633	2000	• CC45	606	024	.006			
			1	5677	100.	CC84	025	-0.0072C			

MACH	L.E.	FLAP	41014	-					TES	TEST REFERENCE	U
		OEFL (I/R)	ALTHA	Ŋ	ΔCm	QCD	ΔC	ΔÇ	TUNNEL	DATA	BASE
- 85	<u> </u>	10/0	.13	0.053	-	.0224	Ö	0.00421	PhT 16T	6.7	2 1.5
			0610.	6.0935	.0186	.0209	0	.0036			•
			33330	90	.0077	198		C22			
			. 3660	0.0470	C. CC28	570	0	5000			
			0944	C. 0426	C. CC91	C15	0	00.			
-			005 5	0.037	0.0	070	0	\$0019			
			. 1260	C. 0398	0.0134	016	5	0.003			
1			. 6360	C.0235	0	015	0	C. 0C4			
			0115.	0.0244	-0.02191	000	05	00			
			0576	0022	c	500	0	-0.00431			
			0166.	0257	c	012	0.3	.005			
			. 1120	0405	.014	011	03	.007			
		-	3.9210	0131	0.01273	Ö	032	0087			
-			6£01.	0086	.007	004	030	0100			
1			8-3660	900	.0001	001	024	100.			
6.	×	2/2	.1850	.0514	C 2		9470				
			.828	.0356	.0154	0210	•	4000	191	24	25
			0.14700	-C.03181	600	020	466	0000		•	
			.4620	. C1 86	.001	. 6198	045	0000	_		
			.6519	5000	.0102	0181	0410				
			.9510	. 0293	.0125	0185	C				
			.4240	.0C42	.0076	0166	0	000			
			4840	0400	.0C75	.0167	0.02917	0000			
			.6980	1110	.0063	.0159	5	•			
			. 1460	6500.0	.0057	0172	5	2000			
			.7760	0.0453	.0163	C092	50				
			1.86CO	0110	.0054	910	010	0000			
			4.0290	0062	004	0155					
			260	C1 78	49UU	0134	0.18	0.0050			
			7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2020	C 1 3	0114	0159	0550			
			('/ ' '	6000	•						

	CE	BASE RUN	52															
	TEST REFERENCE	PATA RUN	7.5															
	TES	TUNNEL	PWT 16T															
		۵۲,	0.00534	C.00390	C.0C27E		-0.00071	•	-0.00330	-0.00500	-0.00530	-0.00561	-0.00511	-0.00411	-0.0C629	-0.00453	-C. CC25C	-0.0062C
		DC ₂	C.037CE	0	0.040AC	0	0	0	C	0	0	0	0	0	0	0	0.01560	C.01585
Table XII CONT'D		QCD	35120°0	0217	5.020.3	C211	0.02034	C.01634	0.01752	0.01331	011	0086	5010	0.01577	0.00467	2.00544	0.00533	5.00537
Table XI		ΔCm	0.03713	0	0.01321	0	•	0		•	-0.00403	٥.	C.00322	0	0	0	C.0C126	-c.0c043
		ρςΓ	2	-C.08063	-C.C5819	S	-C.01325	3	3	N	~	N	-C.00430	C. C3554	52	-0.01548	52	-0.01505
		ALPHA	-2.28630	-C.98COC	C-11600	1.32500	2.50100	3.85200	4.87HOC	7.2550C	8.3570C	5.5CPOC	10.67600	11.85600	13.98700	16.26499	18.47099	20.70295
	. FLAP	DEFL (L/R)	3/5															
	L.E.	TYPE	K1							,								
		MACH	6.0															

					Table XI	Table XII CONT'D					
7		E. FLAP			~				TEC	T OCCUPA	1
	_	DEFI	ALPHA	ΔC	700	7	, V	~	3-	I CO I METEREINCE	כנ
	7			,	E	0	Tar	۲۵	TUNNEL	DATA	BASE
0		15/5	-2.17100	-0.11836	82750.3	0.02727	C.03574	2-00404	PWT 16T	45	
			20272	-C-10586	C.03091	0.02405	0.03319	05239			٩
			0.04400	802 HJ 50-	C.02328	ပ	0.63420	C.C0213	.V		
			700000	12430-0-	5.01013	ပံ	0.03584	5-4			
			2 63600	245	-0.00349	•	0.03376	12000-0-			
			2000	-c.c1821	-0.01340	C. 01765	C.02982				
			7.20400	٦ ، ر د د د	-0.01411	•	0244	-0.00361			
			20224		-0.00825	•	0.021 87	-C.00489			
*			•	V S	-3.01315	•	0.02270	-0.00470			
			10.42170	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	-3.00564	•	0.02122	-0.00450			
			11.835.00	0.03.03.0	0.0		C.02146	004			
			14.13300	0.01533	•	2.01036	C268				
			16 221 30	יט			12:0	64630-3-			
			10 55630	71	0.01010	-C. 00108	C201	-0.00420			
			20.200.00	-0152		+0.00143	0178	2226			
			56771077	-C. C1763	0.00359	-0.00352	0.01885				

			·		Table XII CONT'D	CONT'D	c			1.6.	L
	-	GIAB							TEST	T REFERENCE	CE
MACH	TYPE	DEFL	ALPHA	ρcΓ	ΔCm	ΔCD	DC	۵5,	TUNNEL	PATA RUN	BASE
90	;	2 /2	7 34800	IC	652	ပိ	2466	6622	191 TW9	09	53
0.43	į	5	-2.25900	-	017	0220	050F	0.00640			
21			0.96500		9300.	0267	1640	. 11033			
			0.27700	0	0C85	026	.045C	.0013	٠		
3			0.63900	- 0	0800	025	0436	.0007			
			1.45800	0	0041	026	.0422	.0007		,	
			1.80400		9100.	026	.0415	.0011			
			2.67700	N	000.	,026	6650	.0024			4
			5.02700	00	. OC 2	029	.0363	.0058			
			7.30100	0.00175	-0.00038	C. C2458	0.63310	084			
			8.62900	N	010	022	0315	600.	**		
			9.81300	0	.C14	.021	.0301	0	21		
			10.96100	•	.013	.021	0520	.011			
			12.14900	-	10.	.020	.0285	.012			ď
				-0.01847	.010	0110.	.0251	.014)		
			16.77899	-	.013	010.	. 6262				
			18.93799	_	.041	.0015	0181	-0.01446			
			•	-0.04096	.022	0.00495	0.01471	-C.01654			

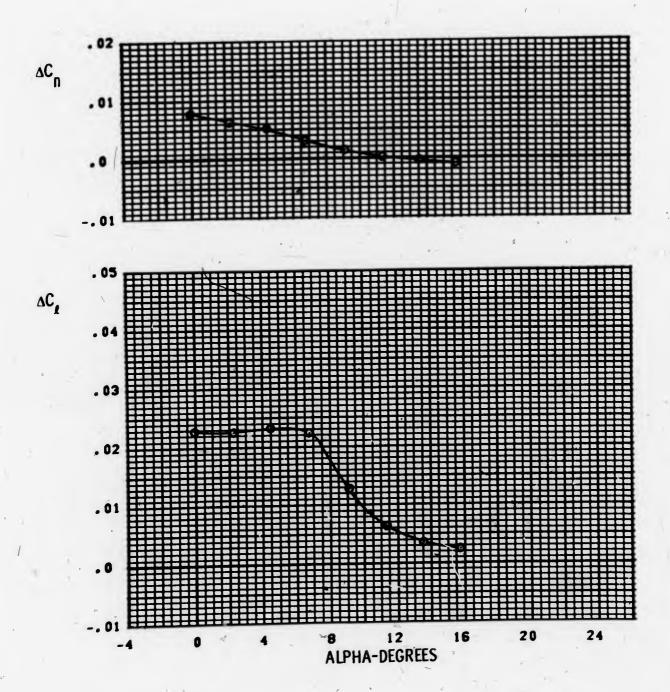
Û

	CE .	8ASE RUN	53	`						ł		c.\'	31	E	-		9	
	TEST REFERENCE	PATA RUN	69		•	40	1	Ŗξ	99	o	20	c'\						1
	TES	TUNNEL.	PWT 16T											,		-	-	
		ტ ტ	05630*0	0.00202	6.00.06	-0.00151	CC 30 5-	-0.00491	509000-	-C.CC740	-0.00769		-0.00759		3500	-0.01154	2.2.10	3.6
- - -		ΔCΔ	C. C3840	C.03402		0.02903	0	0.02946	0.62879	0.02380	0.05219	0.02130	5.02201	0. 62250	0.02343		0.0277	
Table XII CONT'D		. Q _C D	0.02717	C. U2559P	3.02734	0.02745	C. C2830	0.02627	0.02744	0.02110	0.01579	0.01121	6.00773	C.00569	0.00033	-0.00153	いかいし	
Table XII		ΔCm	3.02533	5.03763		0.02064	3.90.563	-0.0026ª	-0.01081	C. 9C103	C.C1117	F.01633	0.01401	0.01966	0,00565	-0.00115	-C.00002	C 0056.2
v		ΔC	-0.07709	-0.09047	-0.08197	-0.06214	-0.04113	-0.03347	-0.02777	-0.03582	-0.04167	-0.04380	-0.04733	-0.04001	-0.03686	-0.02991	-0.02388	-0.01470
v.	0	ALPHA	-2.35000	-1.21900	0.16900	1.41000	2.59200	3.84100	4.93200	7.32000	8.44700	9.80400	10.97100	12.12700	14.43800	16.62599	18.95699	21.22198
	.E. FLAP	DEFL (VR)	10/0)		1	1	
	L.E.	TYPE	K1															
	7000	0	0.95							-								

	TEST REFERENCE	BASE RUN	r in	
		PATA RUN	NOT REPRODUCIBLE	
		TUNNEL	1 Let	
	۵۲,		20000000000000000000000000000000000000	114 / O · C · C · C · C · C · C · C · C · C ·
		DCA	00000000000000000000000000000000000000	0.00000
Table XII CONT'D		ΦCD	0.01734 0.01837 0.01928 0.01928 0.02013 0.02013 0.01935 0.01935 0.01935 0.01935 0.02255 0.02255 0.02255 0.02255	0.00247
Table X		ΔCm	0.00314 0.000517 0.000517 0.000517 0.02067 0.02365 0.02365 0.02365 0.02365 0.02367 0.02228 0.02323 0.02228 0.02228 0.02228 0.02228 0.02228 0.02228 0.02228 0.02228	C. 01303
ě,		ρςΓ	-C.00017 0.000174 0.0001289 0.01289 0.01749 0.01749 0.001749 -C.016447 -C.016447 -C.016447 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449 -C.016449	-0.02000-
		ALPHA	-2.17690 -1.02500 0.15900 1.24300 2.42000 3.39100 3.39100 3.49100 12.06400 12.06400 14.26400 16.54303 16.54300 1.16400 2.42400 3.42600 4.72600 4.72600 4.72600 6.007800	14.30000
	9 4 10	OEFL S	0/31	· ,
		TYPE	<u>x</u>	
		MACH	1.2	

4. VENTED SPOILER

Plotted incremental characteristics for the vented spoiler are shown in Figure 129. Corresponding numeral values are given in Table XIII.

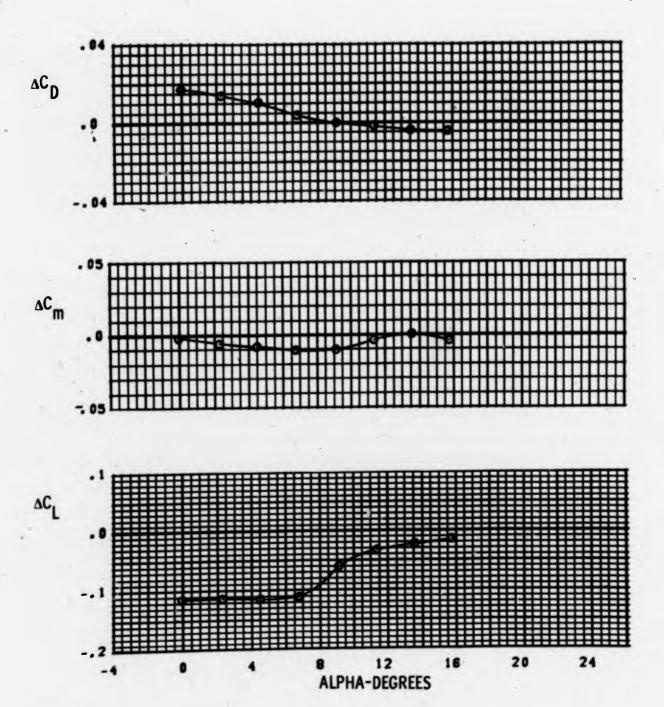


SYM TEST INCREMENT L.E. (L/R) SPOILER

© PWT 4T TC-043 PN 461 -PN 438 K1 0/0 RH -90

FIGURE 129a VENTED SPOILER EFFECTS

M = 0.7

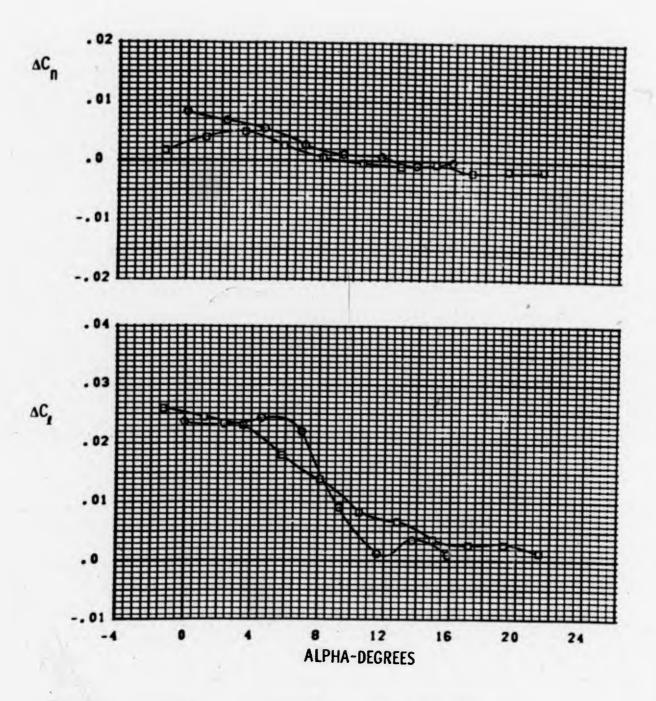


SYM TEST INCREMENT L.E. (L/R) SPOILER

© PWT 4T TC-043 PN 461 -PN 438 K1 0/0 RH -90

FIGURE 129a VENTED SPOILER EFFECTS

M = 0.7



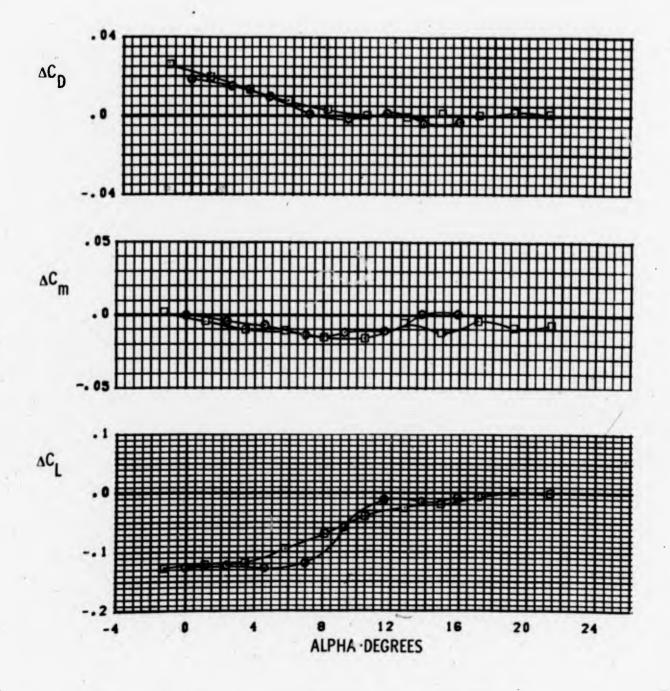
SYM TEST INCREMENT L.E. (L/R) SPOILER

© PWT 4T TC-043 PN 462 -PN 440 K1 0/0 RH -90

PWT 4T TC-043 PN 173 -PN 127 K1 10/10 RH -90

FIGURE 129b VENTED SPOILER EFFECTS

H = 0.8



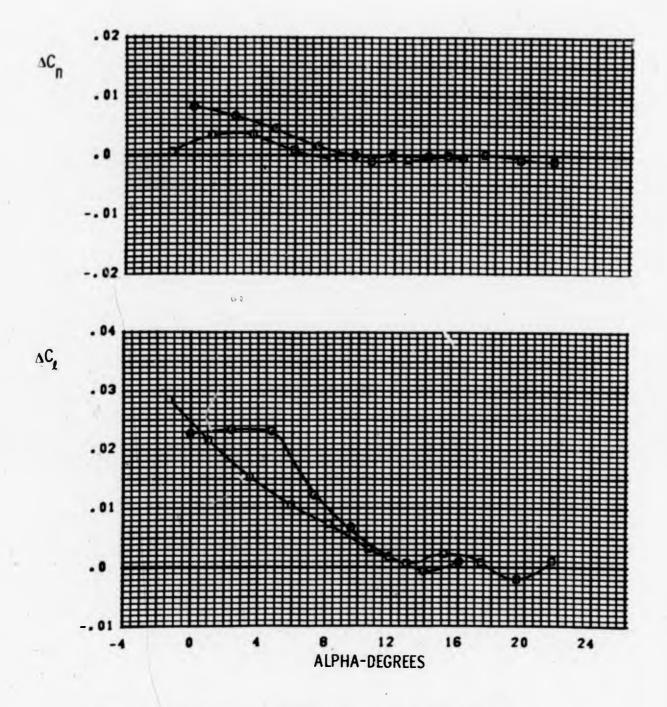
SYM TEST INCREMENT L... (L/R) SPOILER

○ PWT 4T TC-043 PN 462 -PN 440 K1 0/0 RH -90

□ PWT 4T TC-043 PN 173 -PN 127 K1 10/10 RH -90

FIGURE 129b VENTED SPOILER EFFECTS

H = 0.8



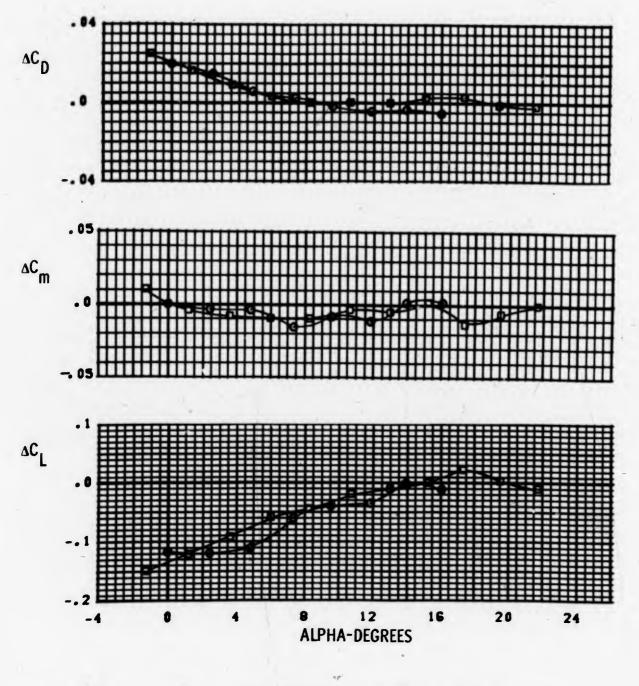
SYM TEST INCREMENT L.E. (L/R) SPOILER

Ø PWT 4T TC-043 PN 460 -PN 441 K1 0/0 RH -90

□ PWT 4T TC-043 PN 172 -PN 126 K1 10/10 RH -90

FIGURE 129c VENTED SPOILER EFFECTS

H = 0.9



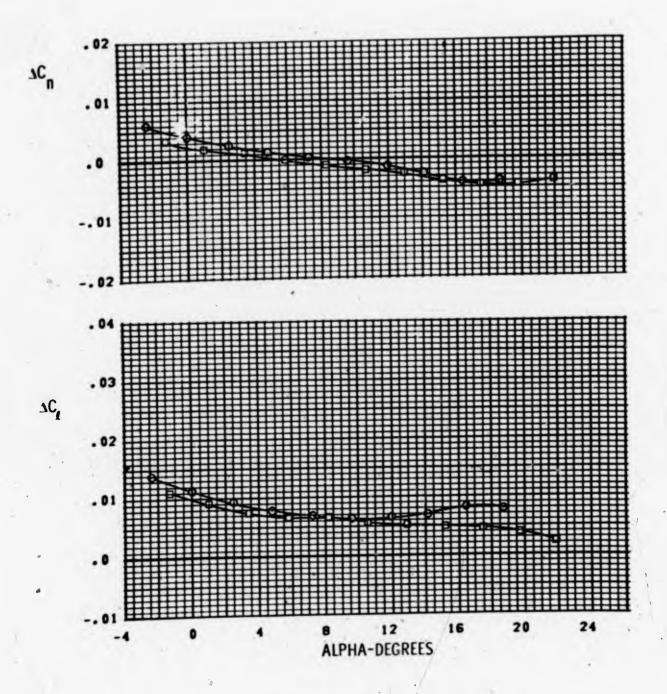
SYM TEST INCREMENT L.E. (L/R) SPOILER

O PWT 4T TC-043 PN 460 -PN 441 K1 0/0 RH -90

PWT 4T TC-043 PN 172 -PN 126 K1 10/10 RH -90

FIGURE 129c VENTED SPOILER EFFECTS

M = 0.9



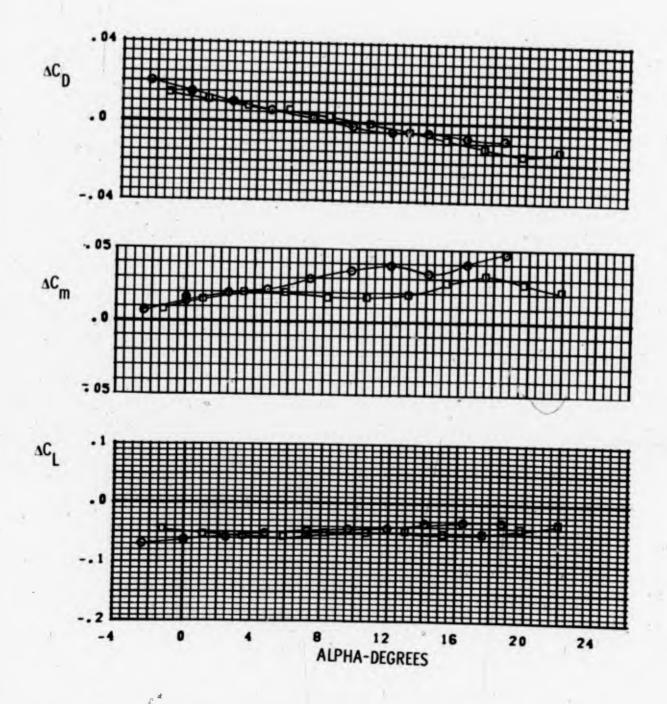
SYH TEST INCREMENT L.E. (L/R) SPOILER

O PYT 4T TC-043 PN 463 -PN 269 K1 0/0 RH -90

D PYT 4T TC-043 PN 174 -PN 129 K1 10/10 RH -90

FIGURE 129d VENTED SPOILER EFFECTS

H = 1.2



SYM TEST INCREMENT L.E. (L/R) SPOILER

○ PWT 4T TC-043 PN 463 -PN 269 K1 0/0 RH -90

□ PWT 4T TC-043 PN 174 -PN 129 K1 10/10 RH -90

FIGURE 129d VENTED SPOILER EFFECTS

M = 1.2

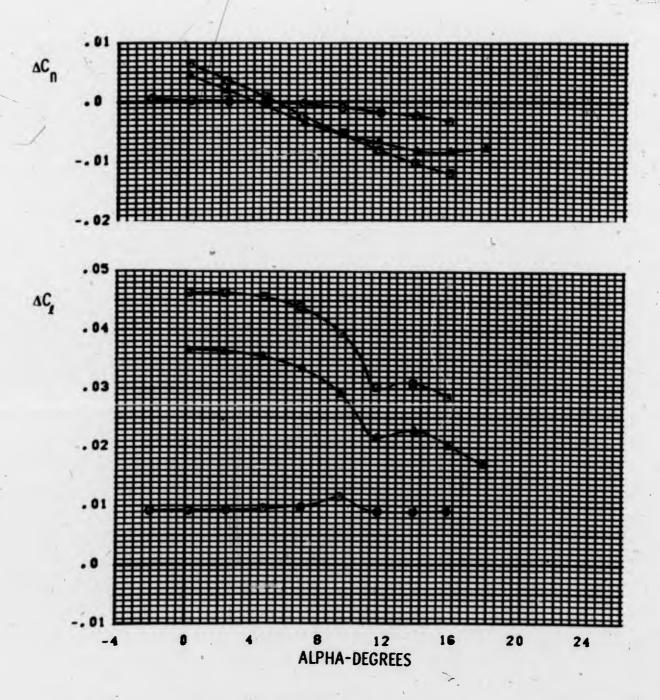
		TEST REFERENCE	DATA BASE RUN RUN			1					462 440								173 127										
	Ailerons Neutral	TEST	TUNNEL	PWT 4T							PMT 4T			-					PHT 4T			-	7						
A SUMMAR	Ailerons		ტ	0.00783		0.00520				-0.00089		0.00672	0.00541		0.00112	.0007		-0.00020	0.00185	9.00414	000	0026	2.00012	3002	8000	-0.00050	1100	-0.00152	12100.0-
ENTAL DAT			ΔC			0.02321				0.00238	9	• 05		•		•	0.00351	•		0.02438							8	, 0025	0012
SPOILER CONTROL INCREMENTAL DATA SUMMARY			Φ _C D	2.01734	0.01390	0.01082	3.00011	- 0.00171	o i	-0.00433	0.01855	1510	0.00963	00 00	-0.00144	0.00119	•	-0.0316	0.02581	•	0.01367		•		-0.00099	0.00089	-0.0000-	0.00151	0.00045
ILER CONTR	ted 90° Up		ΔCm	-0.03173	-0.00583	-0.01008	-2.00984	-0.00335	.0002	-0.00379	000	-0.00391	-0.00667	-0.01343	-0.01175	-0.01086	9.00075	6 0.00085	0.00255	0 520000- 1	-0.00890	-0.01038	-0.01412	-0.01549	-0.00479	-0.01130	-0.00291	-0.00735	-0.00597
	Deflected 9	٠	ρcΓ	1150	11389	113	52	93	0.02270	-0.01501	-0.12586	Ci	1568	177	280	0	2510	-0.00796		-0.12077			G. 1	0378		-0.01684	-0.00642	005	-0.00041
Table XIII VENTED	Right Hand Spoiler Deflect	ď	ALPHA	-0.05400	•	6.77800	•			15.74000	-0.01300	2.34200	4.60800	6.97600	•	11.58700	•	15.89300	-1.27100	•		•	•	•	•	14.91700	•	19.19899	21.38599
Tal	Right H	FLAP	DEFL (L/R)	0/0							0/0								101/01	•									
	1	L.E.	TYPE	KI			-			1	ž								¥										
	ř		MACH	0.7)				1		0.8								6 .0										

		CE	BASE	175	(- 126			9	,	1				24.0	2				,			- 11	li Ve
		TEST REFERENCE	PATA	460	1			t		172									44.3							4	,	
	- 0.	TES	TUNNEL	15 150		`		T _s		PWT 4TS		ĭ	-	7	8	,			TA TUG		+	1-			^,			
	ecq.		. ۵۶ ر	0.00831	0.00451	0.00150	-0.0000	1000	9005	0002	0.00363		-0-00033	-0.00117	- 0.00079	11000 -0-	0.00010	0.00000		0.00399	•	.0025	. 2012	. 0003	-0.00035	- 3.00127		.0038
	e de la companya della companya della companya de la companya della companya dell		ΔC ₂	0.02278	0232	0.01229	0.00180	- 3.00059	5000	.0289	0.02180	010	.0074	.0032	•	•		00100	0.01386	0.01123	0.01134	8		.0068	0.00650	0.00685	. 2081	. 0077
z v	CONT'D		ΦCD	0.02003		0.00274	0.00 to	0.0032	.0051	.0251	3.01663	. '	.0003	•	- 3.00004	3.00211	0.00348	-3.00044		9.01467			. 3059		00206	•	-3.90744	7.00844
s iv	Table XIII CONT'D		ΔCm	0.00000	-0.07334	-0.01517	60.0		9100	2.01165	7.0033	200	0.0089	-0. 00337	-1.00417	0.00287	•	-0.00552	00 76	9.01646	3.01365	21 95	021.8	1620		7.03327	6	0.04687
7			ρcΓ	-). 11 732	-7. F1142	- 3. 06020	60	- 3. 00074	5.00	-3.14726	- 3-12/78	95	8	6	5	00	2.02393	0.00513	-0.06908	8	9	-0.05855	-0.05145	121 40 6	-2.04248	03	~	-3.03153
0	•	,	ALPHA	0.00700	4.81200	9.57100	11.85400	13.94200	•	1.31500	1.09300 04.55200	5.94200	~	10.61200	12.87000	15.14400		21.609999	-2-38200	0.01600	•	00616.2	7 2 3 9 0 0	9.62160	11.95700	14.16400	16.46300	18.70000
	• (FLAP	DEFL (L/R)	. 0/0				o		01/01							r)	£*(,	0/0		C.	,	0	o		÷ o,		
		3 °E	TYPE	₹",			*/	19		<u>-</u>	_{gr} ,)	-			6	K			7		**	-			
,es	. 7		MAC.	6.0			6	: 1		2.0	,	•			·	/	63	1	1.2		ņ			3.	i.			

MACH TYPE (L/R)	b		. 0		9	Table XII	Table XIII CONT'D		• (7		•
MACH TYPE DEFL ALPHA ACL ACm ACD ACL ACM TYPE (L/R) 1.2 K1 10/10 -1.28300 -0.06333 0.01517 0.01175 0.00939 0.00340 PWT 4T 1.05600 -0.05333 0.01517 0.01175 0.00939 0.00230 0.00020 0.00020 0.00533 0.01517 0.00985 0.00780 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00020 0.00049 0.000450 0.000420 0.00222 0.00336 0.00225 -0.003376 0.00225 -0.00336 0.00225 -0.003376			. FLAP			0	1			TES	T REFEREN	CE
1.2 K1 10/10 -1.28300 -0.04360 9.00746 0.01498 9.01129 0.00340 PWT 4T 1.05600 -0.05333 9.01517 0.01175 0.00939 0.09200 3.4C900 -0.05732 0.01512 0.00865 0.00780 0.0020 8.23200 -0.05732 0.01652 0.00680 0.00679 10.60800 -0.05735 0.01652 0.00680 0.00679 10.60800 -0.05735 0.01652 0.00689 0.00679 10.60800 -0.05735 0.01653 -0.00689 0.00679 10.60800 -0.04723 0.01653 -0.00679 -0.00689 15.24300 -0.05243 0.02683 -0.00689 0.00689 17.52800 -0.05624 0.03222 -0.00389 -0.00649 19.75000 -0.04233 0.02222 -0.00389 -0.00649 21.95200 -0.03358 -0.001346 0.00689 -0.00649	MACH			ALPHA	۵5ر	ΔCm	Φ _C D	ΔC	۵۲,	TUNNEL	DATA RUN	BASE RUN
1.05600 -0.05333 0.01517 0.01175 0.00939 -0.00220 3.4C900 -0.05732 0.01912 0.00865 0.00780 0.00020 5.843C0 -0.05732 0.01652 0.00624 0.00680 0.00020 10.608C0 -0.05735 0.01653 -0.00685 0.00675 -0.00080 12.93500 -0.04723 0.01653 -0.00419 0.00597 -0.00891 12.93500 -0.04723 0.02683 -0.00419 0.00597 -0.00251 15.243C0 -0.05724 0.02683 -0.00419 0.00597 -0.00591 17.528C0 -0.05243 0.02700 -0.01249 0.00539 -0.00450 19.75000 -0.04233 0.02700 -0.01306 0.00225 -0.00376	1.2	KI	10/10	-1.28300	-0.04360	9.00 746	0.01498	0.01129	0.00340		174	129
3.4C900 -0.05732 0.00865 0.00780 0.00031 0.00524 0.00680 0.00020 0.00020 0.00532 0.01652 0.00624 0.00680 0.00020 0.00020 0.00682 0.01653 0.01653 0.01653 0.00657 -0.00689 0.00597 -0.00689 0.00680 0.00672 0.006835 0.00675 -0.00189 0.00689 0.00682 0.00697 -0.00689 0.00689				1.05600	-0.05333	9.01517	0.01175	0.00939	00200 -0			
5.84300 -0.05732 0.02019 0.00624 0.00680 0.00020 8.23200 -0.05735 0.01652 0.00335 0.00675 -0.00089 10.60800 -0.04845 0.01653 -0.00675 -0.00675 -0.00089 12.93500 -0.04723 0.01909 -0.00639 -0.00597 -0.00188 15.24300 -0.05024 0.02683 -0.00822 0.00539 -0.00360 17.52800 -0.05024 0.02700 -0.00597 -0.00360 19.75000 -0.06233 0.02700 -0.01364 0.00450 21.95200 -0.03358 0.02222 -0.01306 0.00225		,		3.40900	-0.05498	0.01912	9.00865	0.00780	0.00131			
8.23200 -0.05(35 0.01652 0.00335 0.00675 -0.00089 10.60800 -0.04845 0.01653 -0.00018 0.00597 -0.00188 12.93500 -0.04723 0.01698 -0.00822 0.00539 -0.00251 15.24300 -0.05024 0.03210 -0.01249 0.00571 -0.00360 19.75000 -0.04233 0.02700 -0.01306 0.00225 -0.00376	20			5.84300	-0.05732	0.02019	2.00624	0.00680	0.00020			
10.608C0 -0.04845 0.01653 -0.00018 0.00597 -0.00188				8.23200	-0.05035	0.01652	0.00335	0.00675	-0.00089	> (60 5	
12.93500 -0.04723	0	•		10.60800	-0.04845	0.01653	-0.00018	7.00597	-0.00188			
15.243C0 -0.05243 0.02683 -0.00822 0.0050G -0.00360				12.93500	-0.04723	0.01 909	-0.00419	0.00539	-3.00251	-3		
-0.05024 0.03210 -0.01249 0.00471 -0.00450 -0.04233 0.02700 -0.01524 0.00389 -0.00450 -0.03589 -0.00225 -0.00376	ţ	*		15.24300	-0.05243	0.02683	-0.00822	0.00500	-0.00360		pl.	
-0.04233 0.02700 -0.01524 0.00389 -	p			17.52800	-0.05024	0.03210	-0.01249	0.00471	-3.00549	C		
-0.03358 0.02222 -0.01306 0.00225 -0.	-			19.75000	-0.04233	0.02700	-2.01524	D. 00389	-0.00450		T	
				21.95200		0.02222	-0.01306	0.00225	-0.00376			

5. DIFFERENTIAL HORIZONTAL TAIL

Plotted comparison of lateral-directional moments for differential horizontal tail deflection used to provide roll control are given in Figure 130. Data is shown for the combined deflection of the mid-ailerons and horizontal tail and for the two devices used individually.



SYM TEST INCREMENT HORIZ. TAIL (L/R) AILERON (L/R)

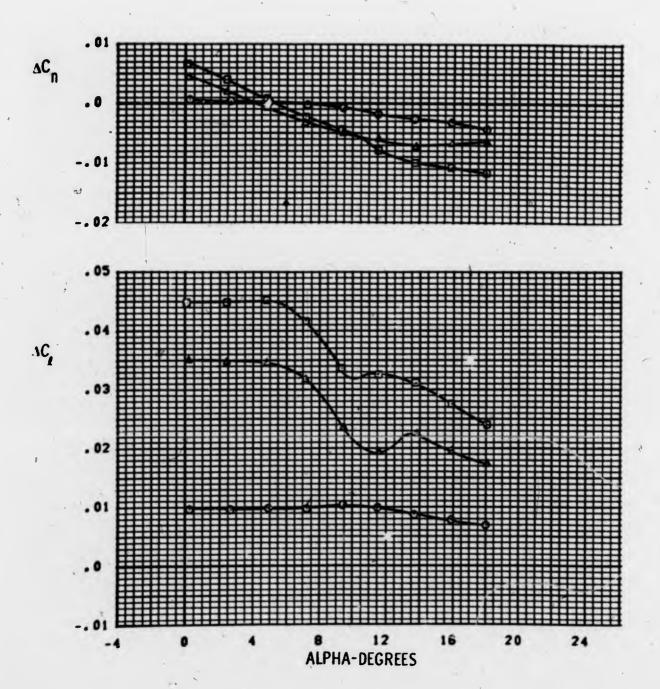
O PWT 4T TC-043 PN 486, -PN 438 4/-4 NONE

O PWT 4T TC-043 PN 492 -PN 438 4/-4 HID 20/-20

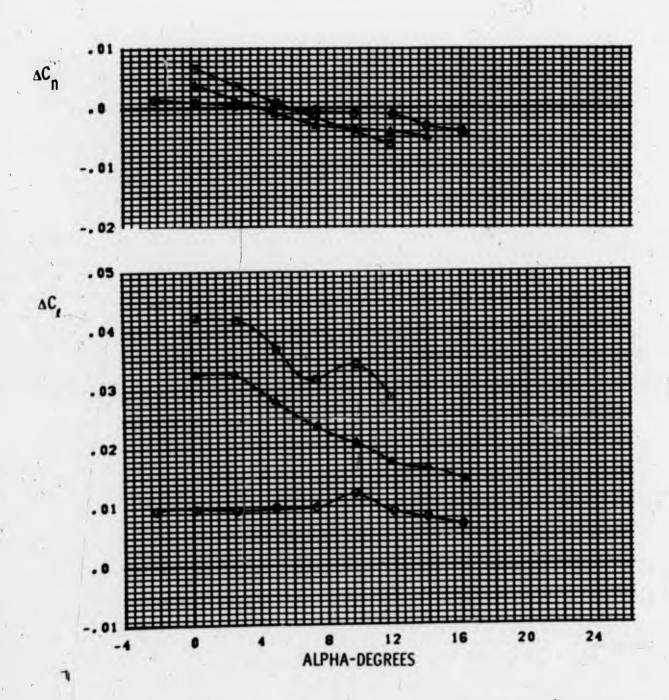
A PWT 4T TC-043 PN 410 -PN 438 0/0 HID 20/-20

FIGURE 130a DIFFERENTIAL HORIZONTAL TAIL EFFECTS (CLEAN L.E.)

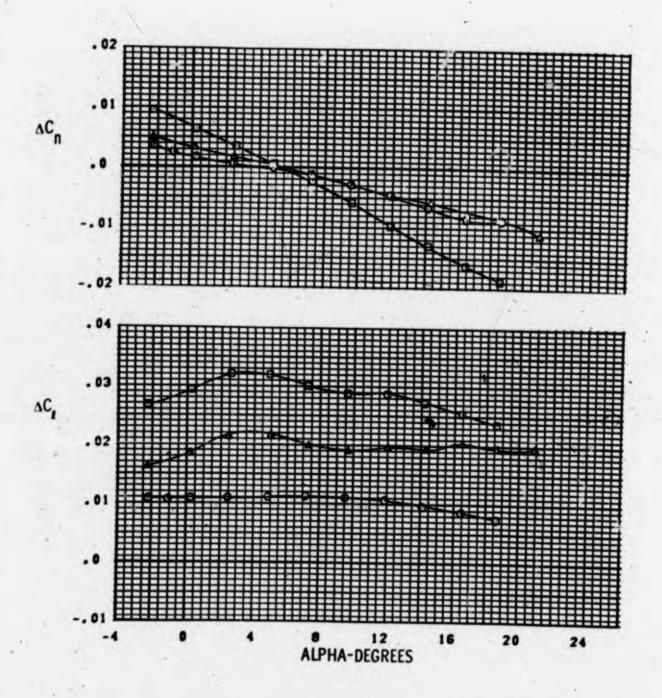
M = 0.7



SYM		TES	ST		INC	REMEI	T	HORIZ.	TAIL	(L/R)	AILERON	(L/R)
0	PYT	41	TC-043	PN	487	-PN	440		4/-4		NOM	Œ
0	PYT	41	TC-043	PN	493	-PN	440		4/-4		MID	20/-20
A	PWT	41	TC-043	PN	411	-PN	440		0/0		. MID	20/-20
FIGU	RE 130	Ъ	DIFFERE	NTIA	L HO	RIZO			FFECT	S (CL	EAN L.E	.)



SYH		TES	ST		INC	REHEI	NT	HORIZ.	TAIL	(L/R)	AILERON	(L/R)
0	PYT	4T	TC-043 TC-043 TC-043	PN	494	-PN	441		4/-4 4/-4 0/0			20/-20 20/-20
FIGU	RE 130	0c	DIFFERE	NTIA	L HO	RIZO	MTAL	TAIL	EFFECT	S C CL	EAN L.E.	. 1

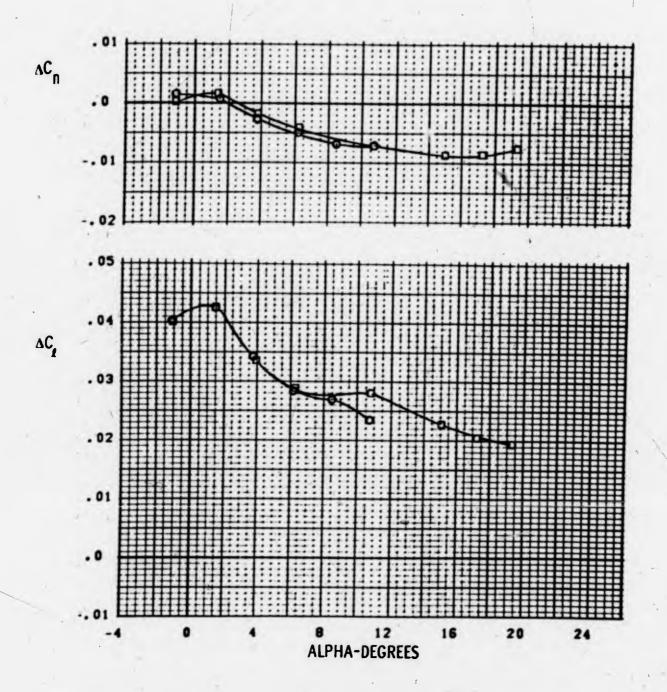


SYM		TE	ST		INC	REHEI	NT	HORIZ.	TAIL	(L/R)	AILERON	(L/R)
⊙ □	PWT	4T	TC-043 TC-043 TC-043	PN	495	-PN	269		4/-4 4/-4 0/0		NON	
FIGU	RE 13	0d	DIFFERE	ATTA	L HO	RIZO	NTAL	TAIL E	FFECT	s (CL	EAN L.F.	1

6. AUXILIARY DEVICES

Plotted data for the various devices investigated as aids to improve roll control are given in this subsection. Figure 131 illustrates typical vortex generator effects. Changes in longitudinal as well as lateral-directional characteristics resulting from trailing edge droop are shown in Figure 132. Representative effects produced with split trailing edge flaps are given in Figure 133. Figures 134 thru 136 illustrate that both the Kruger flap on the glove leading edge and the canopy fairing have neglibible effects on aileron characteristics.

No



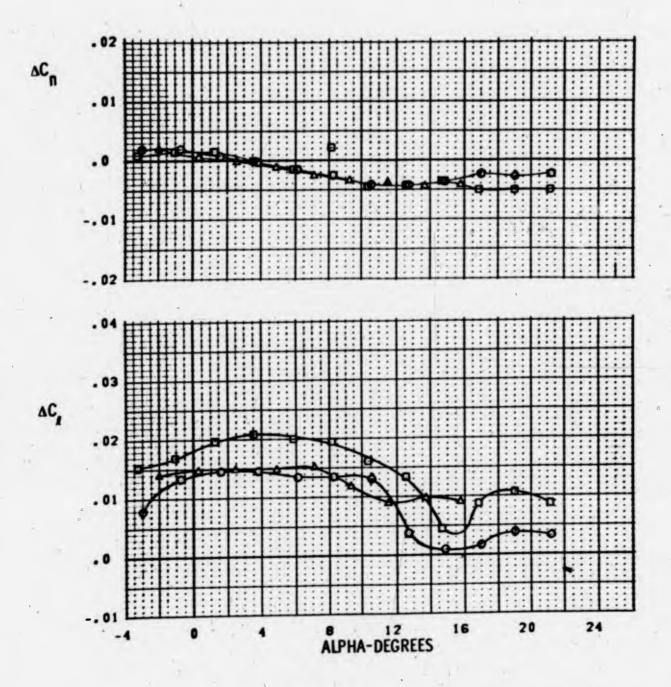
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

© PWT 4T TC-043 PN 303 -PN 445 K1 5/5 3 SEGM. 20/-20

PWT 4T TC-043 PN 227 -PN 241 K1+VG 5/5 3 SEGM. 20/-20

FIGURE 131 VORTEX GENERATOR EFFECTS ON EXTENDED SPAN AILERONS

H = 0.9



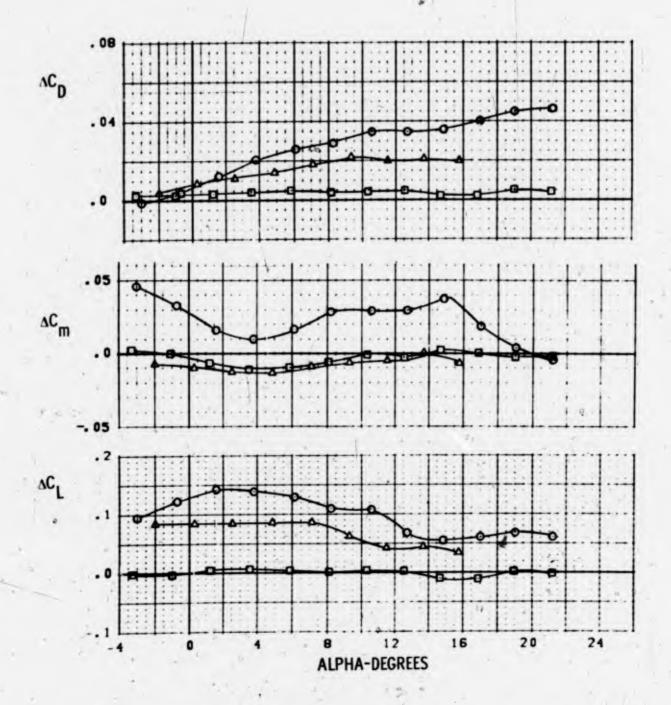
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 202 -PN 128 K1 10/10 MID 20/0 +10 DROOP

D PWT 4T TC-043 PN 135 -PN 128 K1 10/10 MID 10/-10

A PWT 4T TC-043 PN 468 -PN 438 K1 0/0 MID 20/0

FIGURE 132a TRAILING EDGE DROOP EFFECTS ON MID AILERONS M = 0.7



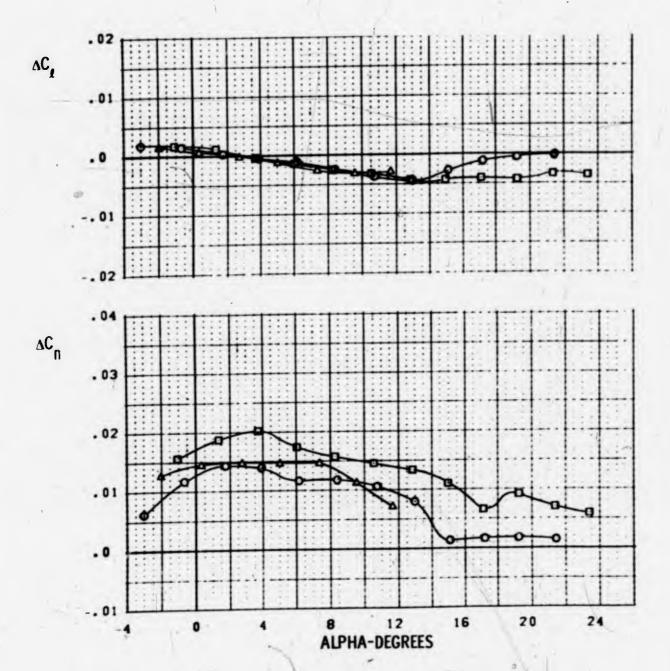
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 202 -PN 128 K1 10/10 MID 20/0 +10 DRODP

D PWT 4T TC-043 PN 135 -PN 128 K1 10/10 MID 10/-10

A PWT 4T TC-043 PN 468 -PN 438 K1 0/0 MID 20/0

FIGURE 132a TRAILING EDGE DROOP EFFECTS ON MID AILERONS M = 0.7



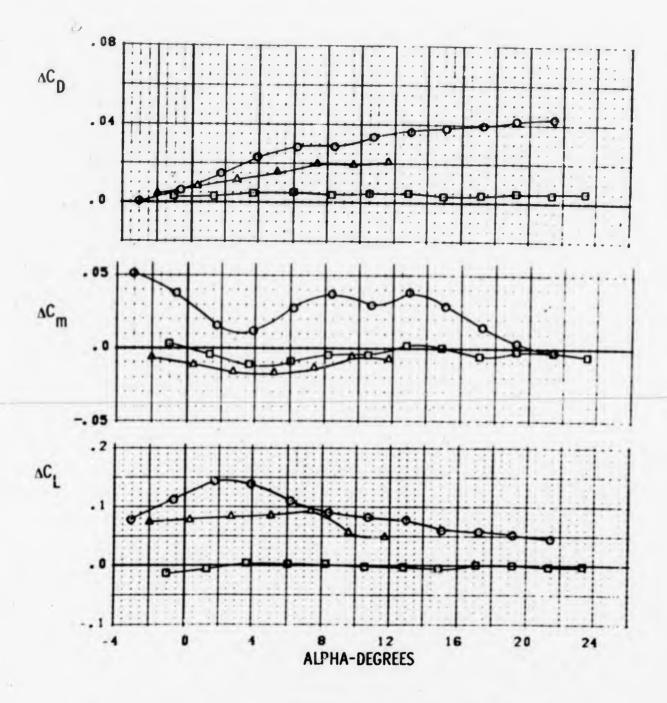
SYM TEST INCREMENT L.E. (L/R) ALLERON (L/R)

O PHT 4T TC-043 PN 200 -PN 127 K1 10/10 MID 20/0 +10 DROOP

D PHT 4T TC-043 PN 134 -PN 127 K1 10/10 MID 10/-10

A PHT 4T TC-043 PN 469 -PN 440 K1 0/0 MID 20/0

FIGURE 132b TRAILING EDGE DROOP EFFECTS ON MID AILERONS M = 0.8



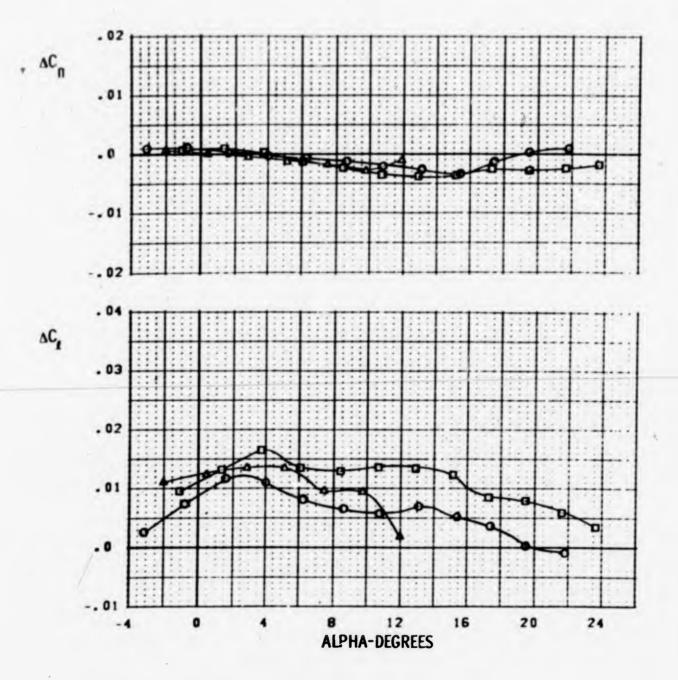
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 200 -PN 127 K1 10/10 MID 20/0 +10 DROOP

D PWT 4T TC-043 PN 134 -PN 127 K1 10/10 MID 10/-10

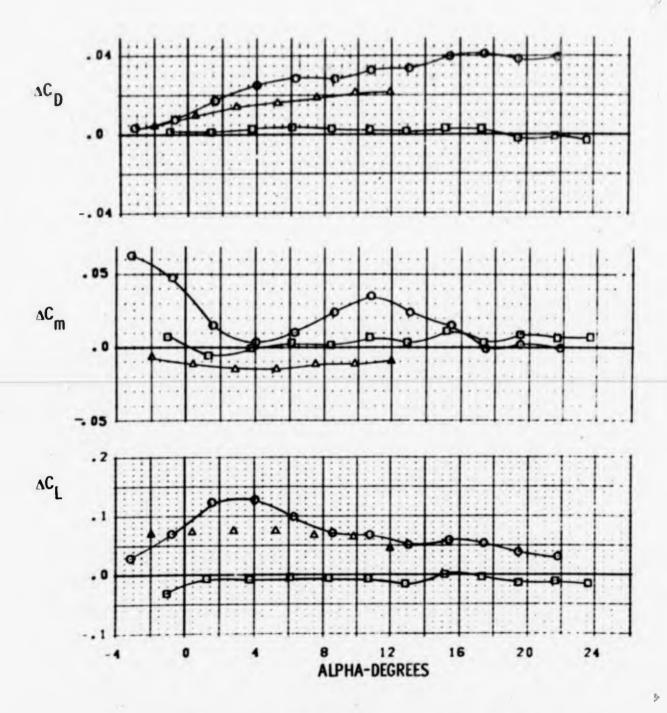
A PWT 4T TC-043 PN 469 -PN 440 K1 0/0 MID 20/0

FIGURE 132b TRAILING EDGE DROOP EFFECTS ON MID AILERONS M = 0.8



SYM	TE	ST	INCF	REMEN	NT.	L.E.	(L/R)	AILERON	(L/R)	
0									20/0 -:0	2009C
4		TC-043						HID	10/-10	

FIGURE 132c TRAILING EDGE DROOP EFFECTS ON MID AILERONS M=0.9



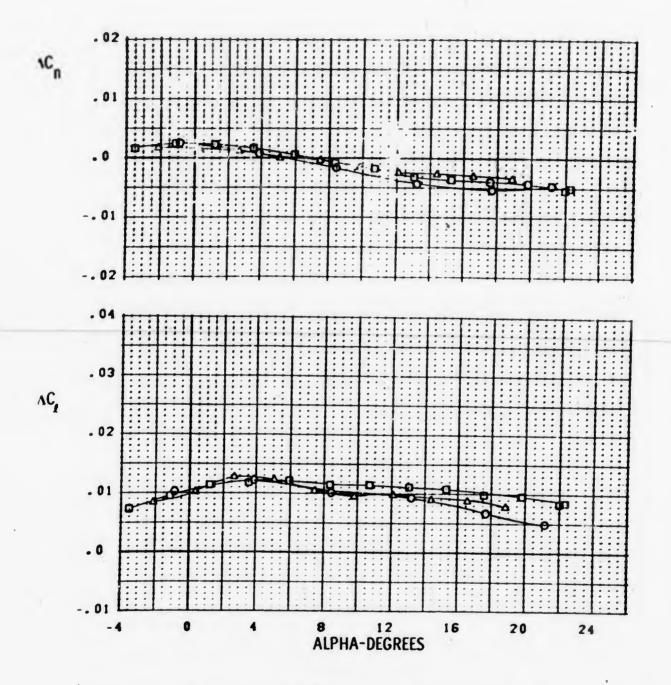
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

O PWT 4T TC-043 PN 199 -PN 126 K1 10/10 MID 20/0 +10 DROOP

D PWT 4T TC-043 PN 133 -PN 126 K1 10/10 MID 10/ 10

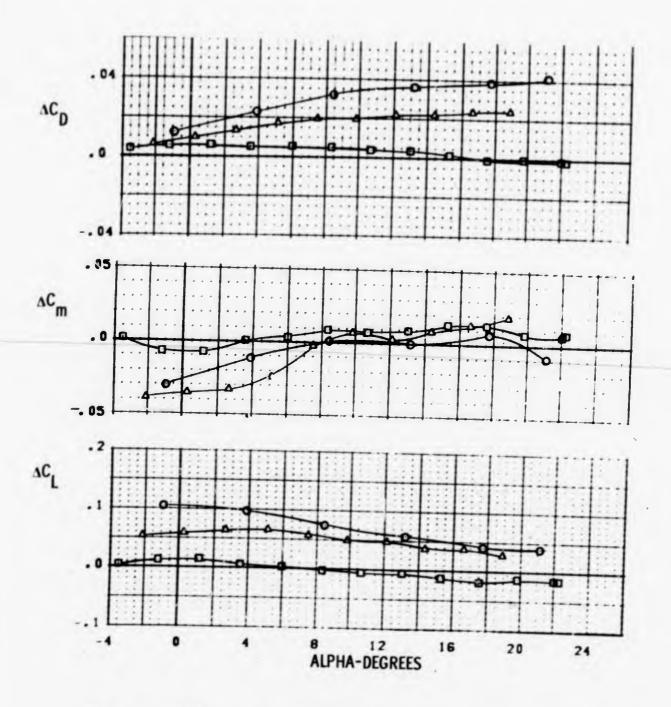
A PWT 4T TC-043 PN 467 -PN 441 K1 0/0 MID 20/0

FIGURE 132c TRAILING EDGE DROOP EFFECTS ON MID AILERONS M = 0.9



SYH TEST L.E. (L/R) AILERON (L/R) INCREMENT PWT 4T TC-043 PN 201 -PN 129 K1 10/10 MID 20/0 +10 DROOP PWT 4T TC-043 PN 136 -PN 129 0 K1 10/10 HID 10/-10 PWT 4T TC-043 PN 470 -PN 269 K1 0/0 MID . 20/0

FIGURE 132d TRAILING EDGE DROOP EFFECTS ON MID AILERONS M = 1.2



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

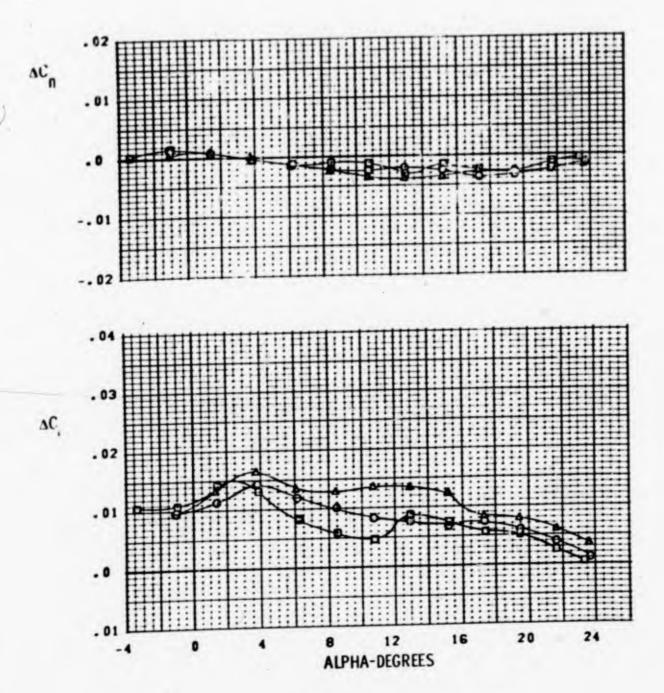
© PWT 4T TC=043 PN 201 -PN 129 K1 10/10 MID 20/0 +10 DROOP

E PWT 4T TC=043 PN 136 -PN 129 K1 10/10 MID 10/-10

A PWT 4T TC=043 PN 470 -PN 269 K1 0/0 MID 20/0

FIGURE 132d TRAILING EDGE DROOP EFFECTS ON MID AILERONS

M = 1.2



SYM TEST INCREMENT L.E. (L/R) AILERON (L/R)

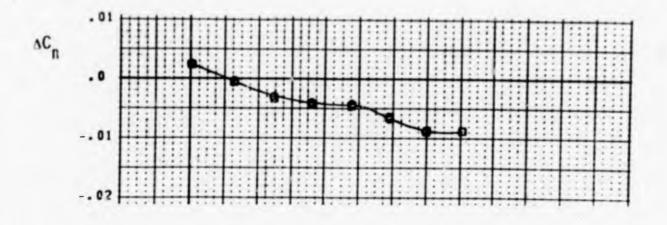
O PYT 4T TC-043 PN 154 -PN 126 K1 10/10 MID +F2 10/-10

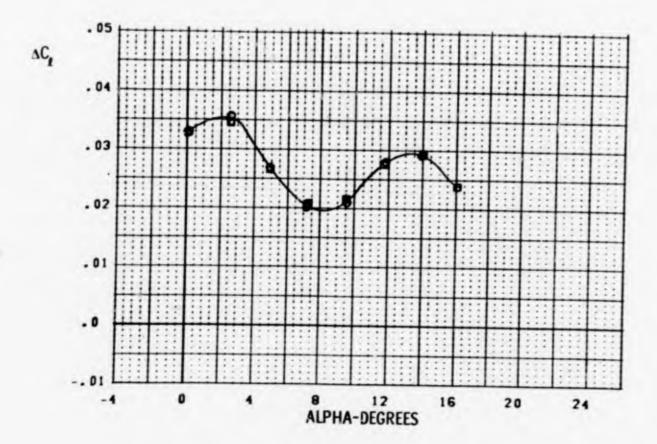
D PYT 4T TC-043 PN 161 -PN 126 K1 10/10 MID +F3 10/-10

A PYT 4T TC-043 PN 133 -PN 126 K1 10/10 MID 10/-10

FIGURE 133 SPLIT TRAILING EDGE FLAP EFFECTS ON MID AILERON

M = 0.9





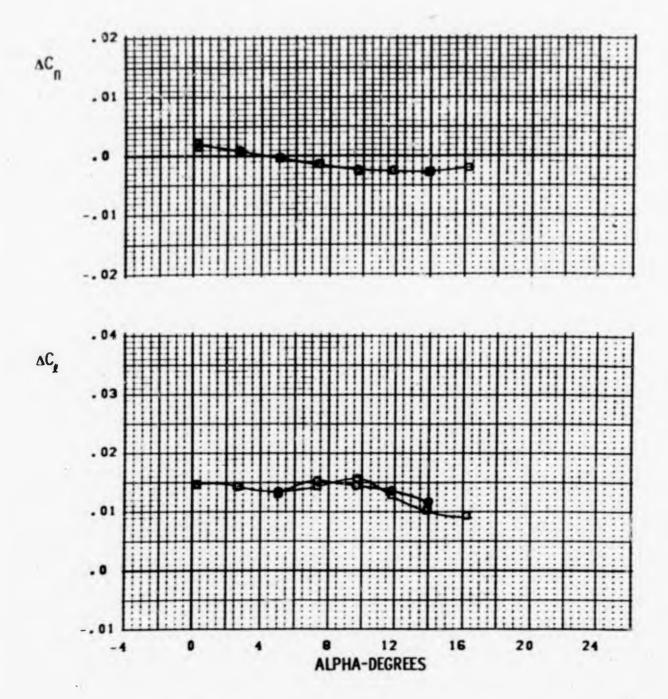
SYM TEST INCREMENT L.E. (L/R) AILERON (L/R) KRUGER

O PWT 4T TC-043 PN 518 -PN 441 K1 10/0 3 SEGM. 20/-20 ON

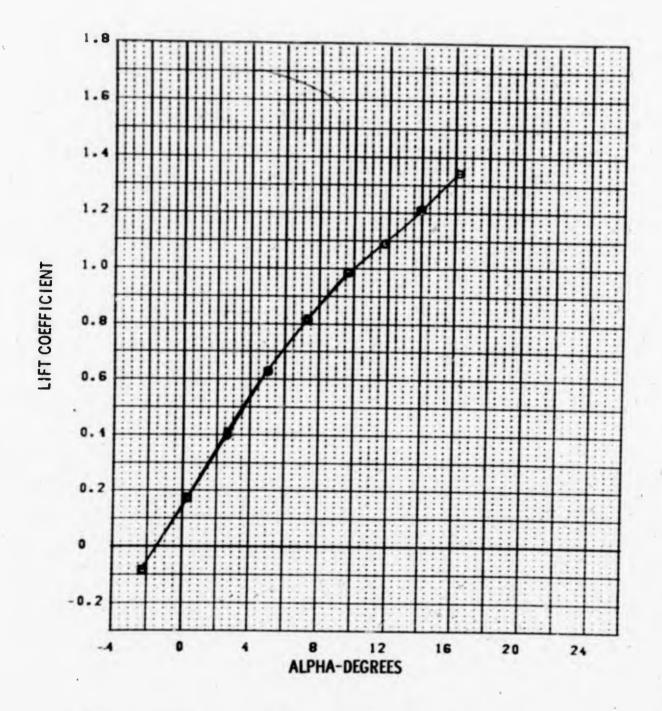
PWT 4T TC-043 PN 513 -PN 441 K1 10/0 3 SEGM. 20/-20 OFF

FIGURE 134 KRUGER LEADING EDGE GLOVE FLAP EFFECTS

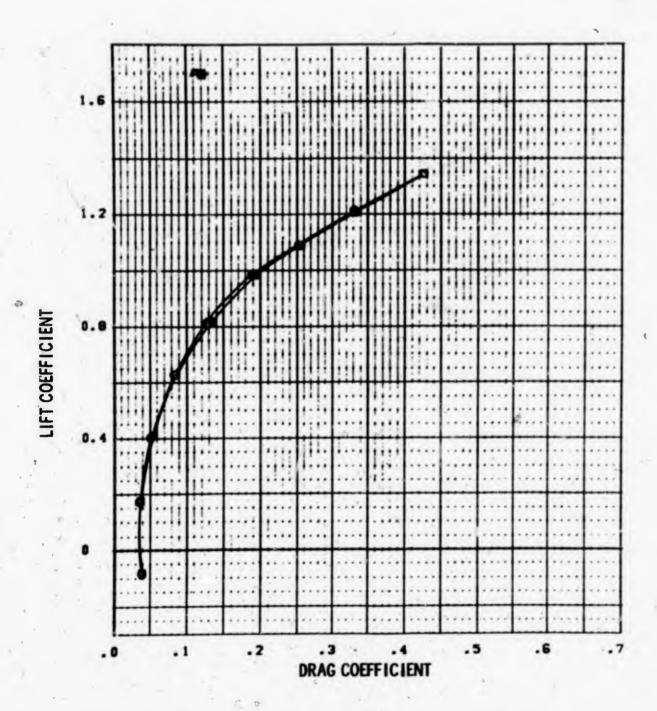
M = 0.9



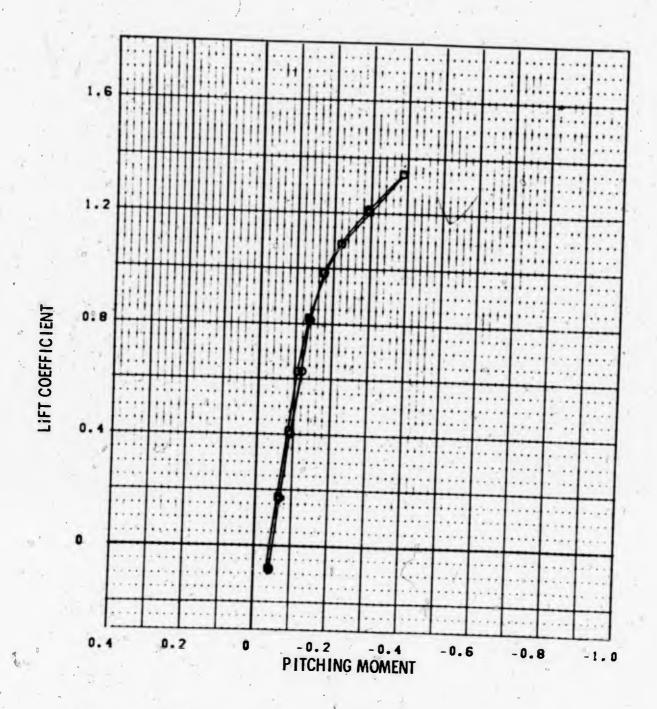
SYM TEST L.E. (L/R) AILERON (L/R) FAIRING PWT 4T TC-043 PN 482 -PN 441 K1 PWT 4T TC-043 PN 474 -PN 441 K1 0/0 10/-10 10/-10 FIGURE 135 CANOPY FAIRING EFFECTS ON HID AILERONS H = 0.9



SYM	Tį	ST	PART	AILERON	(L/R)	CANOPY	FNG.
0	PWT 4T PWT 4T	TC-043 TC-043	482 474		10/-10 10/-10	OFF ON	
FIGUE	RE 136	EFFECT OF	CANOPY = 0.9	FAIRING			



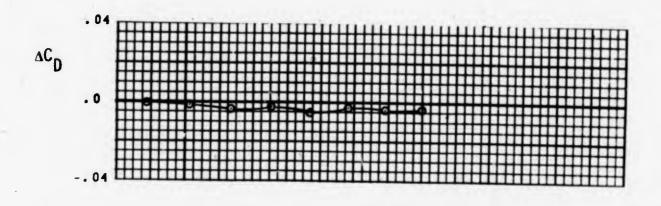
SYM		T	EST	PART	AILERO	(L/R)	CANOPY FNG.
0	PYT	4 T	TC-043	482	- HID	10/-10	OFF
. 0	PYT	41	TC-043	474	MIO	10/-10	ON
FIGU	RE 13	6	EFFECT OF	CANOPY = 0.9	FAIRING		: /

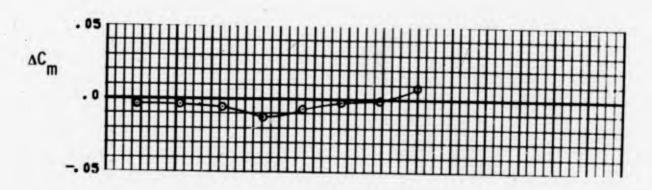


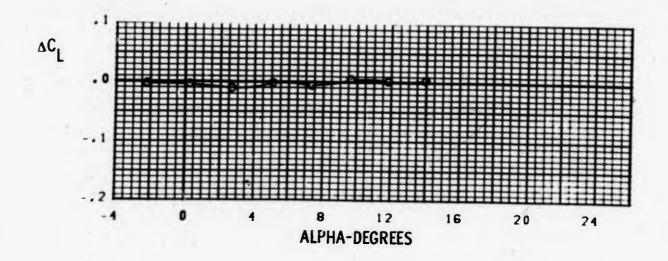
SYM TEST PART AILERON (L/R) CANOPY FNG.

O PWT 4T TC-043 482 MID 10/-10 OFF
ON PWT 4T TC-043 474 MID 10/-10 ON

FIGURE 136 EFFECT OF CANOPY FAIRING
M = 0.9







SYM TEST INCREMENT (OFF ON) ATTERON (1/R)

O PWT 4T TC-043 PN 482 PN 474 MID 10/10

FIGURE 136 EFFECT OF CANOPY FAIRING

M = 0.9

APPENDIX VI TABULATED FORCE AND MOMENT DATA

Run by run tabulations of the stability axis force and moment coefficients are provided on the following pages. The geometric configuration for each run (part number) is provided in Tables II and III of Volume I, pages 45 thru 48.

TEST	RUN	PT	MACH	SHFEP (DEG)	ALPHA (DEG)	$c_{\mathbf{L}}$	c_D	C _m	C 4	$c_{\mathbf{n}}$
167-216	7	1	(.899	(.0	1.139	0.3144	0.0481	-0.0708	0.0353	-0.0002
16T-216	7		C.9C0	(.0	4.448	0.6579		-0.1146		
161-216	7		(.898	(. C	€.436	C.8288		-0.1306		
167-216	7		C.899	C.0	E. 755			-0.1725		
161-216	7		(.900	C.0	5.664	1.0667		-0.1944		
161-216	7		(.899		19.566			-0.5930		
107-216	7		(.699		2C. E47	1.7297		-0.6277	0.0074	
16T-216	7		(.858		23.C61	1.8444		-0.7025	0.006 B	
161-216	7		(.897		25.286	2.0569		-0.8668		-C.0138
10T-216	3		C.9C0		-2.017		0.0444	-0.0388	0.0363	0.0041
16₹-21€	6		(.90)	(.0	C.281	C-2198	0.0443	-0.0591	0.0355	0.0012
16T-216	8		C. 5C1	C.0	2.662	C.4789	9.0617	-0.0889	0.0309	-C.GC19
16T-216	B		C. 90C	, C • C	5.C28	C.7153	0.0972	-0.1189	0.0270	-C.OC43
16T-216	8		(.902	C.C	7.372	0.9966	0.1507	-0.1449	0.0259	-0.0060
157-216	8		C.900	C.C	5.627	1.0672	0.2150	-C.1940	9.0267	-0.0077/
101-216	9		(.900		11.909	1.1471	0.2820	-0.2487	0.0150	-C.0057
16Y-216	8		(.899		14. C88	1.2964	0.3701	-0.3446	0.0159	-0.0063
16T-216	F		C.9C1	C.0	16.433	1.4604	0.4803	-0.4454	0.0135	-0.0062
167-216	8		(.899	(.0	18.719	1.6127	0.5975	-0.5406	0.0112	-0.0063
16T-216	ë		C.9CO		20.831	1.7355	0.7138	-0.6272	0.0076	-0.0067
15T-214	8		(.847	C.0	23.168	1.8520	0.8480	-0.7076	0.0070	-0.0096
16T-216	9		6.900	C.0	25.179	1.9361	0.9667	-0.7687	0.0040	-0.0124
10T-216	8		(.900		27.283	2.0090		-0.8260	-0.0008	-0.0151
167-216	£	15	(.50)	C.C	75.356	2.0629	1.2152	-0.8753	-0.0057	-C.C136
16T-216	5		(. 549	(.0	-2.082	-7.0710	0.0550	-0.0361	0.0383	0.0037
167-216	Ç		C.951	C. 0	C.373	C. 25 P1	0.0577	-0.0691	0.0305	
151-21€	5	3	(.949	C.C	2.635	0.4832	9.0783	-C.1CC5		-C.0026
16T-216	ç	4	(.550	C.C	5.104	C. 1209	0.1192	-0.1521		-0.0053
167-21€	5	5	(.951	C.C	7.417	0.9357	0.1747	-0.2072	0.0243	-0.0075
10T-216	ç		C. 951	C.C	9.672	1.127A	0.2447	-C.2671	9.0225	-0.0098
161-216	9		C.549		12.161	1.3416	0.3427	-0.3633	0.0220	-C.0104
16T-216	9		C.549	C.C.	14.434	1.5267	7.4485	-0.4544	0.0209	-0.J12C
15T-216	9		(.950		16.677	1.6921	0.5649	-0.5562	0.9203	-0.014C
167-216	Ċ	10	C.549	C.C	18.589	1.4112	0.6875	-0.6469	0.0145	-0.0145
16T-216	10	1	1.201	-C.C	-2.(91	-0. 1922	0.0686	0.9482	0.0186	0.0048
16 T-216	10	2	1.202	-C.C	-C. 920	0.0226	9.0658	0.0044	0.0195	0.0036
101-216	10	2	1.203	C. 0	C. 266	0.1436	0.0673	-0.0435	9.9204	0.0021
167-216	10	4	1-200	0.0	1.372	C. 2583		-0.0928	0.0217	0.0006
16T-216	10	5	1.202	C.C	2.588	C.3913		-0.1422		-0.0002
167-216	10	6	1.201	(.0	4.921	C.6171		-0.2374		-0.0C21
16T-216	IC	7	1.200	C.C	7.166	3.8256		-0.3174		-0.0039
167-216	10	8	1.201	C.C	5.491	1.0268		-0.4040		-C.0052
157-216	1 C	9	1.201		12.C34	1.2384	0.3756	-0.5110		-0.0076
191-514	10	10	1.201		14.365	1.4159	0.4246	-0.6125	0.0193	
167-216	10		1.198		16.588	1.5585	0.5309	-0.7066	0.0177	
16T-216	10		1.200	(. C	18.557	1.7778		-0.8115	0.0179	
16T-216	10	13	1.153	C.C	21.155	1.9143	0.7691	-0.8916	0.0174	-0.0158

TEST	RUN	PT	PACH	SHFEP (DEG)	ALPHA (DEG)	$c_{\mathbf{L}}$	c_D	$C_{\mathbf{m}}$	CA	c_n
16T-216	10	14	1.202	(.(23.281	1.9110	0.8893	-0.9734	0.0157	-0.0176
16T-216	11	1	(.850	C C	-1.975	-0.0300	0.010			
16 T- 216	11		C. 850		-C. 829			-0.0333	0.0364	
16T-216	11		(.650	0.0	C.274	0.1002		-0.0475		
16T-216	ii		(.85C	C.0	1.438	C.2078		-0.0595		
16T-216	11	5		C.0	2.587	0.3217		-0.0733		
16T-216	ii		(.650	(.C	4.854			-0.0872		
16T-216	11		(.850	(.0	7.196	0.6671		-0.1126		
15T-216	11		(.65)	C.C	5.471	C.8763	-	-0.1350	0.0292	
16T-216	11		(.E50		11.710	C.9737 1.0943		-0.1684	0.0213	
16T-216	11		(.850		14.C12	1.2391		-0.2316	0.0204	
16T-216	11		·C. E49		16.251	1.3954		-0.3130	0.0177	-0.0066
16T-216	11		C. E51		18.460	1.5371		-C.3877	0.0171	-0.0075
16T-216	11		C.E48		20.682	1.6599		-0.4894	0.0144	
					7. C . OO .	1.00944	0.0119	-0.5709	0.0136	-0.0093
167-216	12	1	(.860	0.0	-2.CC1	-C.0267	0 0305	0 0310	2 2222	
16T-216	12		0.800		-C.842	0.0938		-0.0319 -0.0447	0.0383	0.2052
16T-216	12		0.800	C.0	0.312	3.2029		-0.0577	0.0380	0.0034
167-216	12		C. 799	C. 0	1.386	0.3021		-0.0710	0.0378	C.CC2C
167-216	12		C.799	C.C	2.479	0.3993		-0.0842	0.0378	0.0006
16T-216	12		(.800	C. 0	4.855	3.6228		-0.1098	0.0380	-C.0C07
15T-216	12		(.798	C.0	7.240	C.8418		-0.1386	0.0361	-0.CC4C
16T-216	12		C.8CO	C. 0	9.321	C.9344		-0.1627	0.0324	-0.0065
16T-216	12		C.8C1	(.0	11.591	1.0598		-0.2172	0.0230	-0.CC74
16T-716	12		(.799		13.653	1.2053		-0.2798	0.0214	-0.0C82
167-216	12		0.800		16.195	1.3623		-0.3585	9.9205 9.0181	-0.0083
16T-216	12	12	C.800		18.307	1.4793		-0.4532		-0.0081
15T-216	12	13	(.800		20.464	1.5258		-0.5358		-0.CC77 -0.CC99
								30,33,	0.0147	-0.0049
15T-216	13	1	(.699	c.c	-2.C09	-0.0272	0.0360	-0.0291	0.0407	0.0054
16T-216	13		C.699	(.0	-C.857	0.11933		-0.0420	0.0399	0.0034
15T-216	13	3	C.699	C.9	C.204	0.1787		-7.0542	2.0399	0.0020
16T-216	13		C.698	C. C	1.274	C.2732		-0.0673	0.0397	0.0007
16T-216	13		C.658	C.0	2.296	C. 3588		-0.0792		-0.0007
167-216	13		C.699	C. 0	4.538	0.5518		-9.1065		-0.0C36
16T-214	13		C.699	(.)	6.E97	0.7557		-0.1333	0.0355	
16T-216	13		C.658		P.119	0.8370		-9.1467	0.0316	
167-216	13		C.649		5.146	C. 4899		-0.1599	0.0288	
15T-216	13		C.700		1C.269	C.9533	0.1882	-0.1773	0.0255	
16T-216	13		C.699		11.409	1.0273	0.2239	-0.1984	3.0243	
157-216	12		(.699		13.65C	1.1596	0.3015	-C.2504	0.0219	
167-216	12		C. 699		15.739	1.2948	0.3934	-0.3181	0.0179	
107-214	13		C. 699		18.122	1.4550		-0.4125	0.0157	
16T-216	13	15	(.559	C.C a	2C.380	1.5913	0.6161	-0.4971	0.0153	
157-216	14	1	(.699	C.0 -	-1.541	-C. 0241	0.0357	-0.0313	2 0615	0 0055
10T-216	14		C.658	C. 0 -	-0.931	0. C7 39	0.0337		0.0415	0.0052
16T-216	14		C. 698		0.147	0.1689	0.0345		0.0412	0.0034 0.0017
InT-216	14	Ē	C.731	C.O	2.175	0.3485	0.0422		0.0399	
										0.000

TEST	RUN	PI	FACH	SHEEP (DEG)			$c_{\mathbf{D}}$	c _m	C.	c_n
16T-216	14		(.700	(0	4 244	2 5214	0.05==	т.		
161-216	14		7 6.699	(.0				-0.1058		-C.CC34
161-216	14		C.700	C. 0				-0.1295		
157-216	14		C.700	(. 0				-0.1418	0.0327	
16T-216	14		C.700	(.0				-0.1543	0.0305	
167-216	14		(.700	C.0		C. 91 76		-C.1714	0.0282	
16T-214	14		(.70)		10.795			-0.1916		-C.C100
16T-216	14		C.703		12.815			-0.2321		-0.0108
157-216	14		(.700		15.CO6			-0.2908		-0.0100
16 T-216	14		(.699		17.307			-0.3819	0.0166	-0.0041
100 1 1 /2 1 /2		1.5	(.077	L. C	19.330	1.5246	7.5598	-0.4669	0.0161	-0.0100
167-216	15		C. EC3		-1.969	-0.9269	0.0384	-0.0328	0.0395	0.0050
167-216	15		C. 803		-C. 962	0.0771		-0.0457	0.0396	0.0034
16T-216	15		C.799	C.0	C.126	0.1344	0.0368	-0.0579	0.0390	C.CC2C
16T-216	15		C. 749	C.0	1.160	€. 2795	0.0402	-0.0706	0.0390	0.0005
167-216	15		C-8C2	C.0	7.254	C.3922		-0.0833	0.9388	
161-214	15	6		C. 0	4.409	C.53C5	9.9669	-9.1072	0.0377	-C.0C37
16T-216	15		0.500	C. 0	6.534	C. 7969		-0.1334	0.0345	
15T-216	15		C.800	C.0	7.689	C.8458		-0.1405	0.0278	-0.CC71
167-216	15		108.3	C.C	8.766	(.8969		-0.1539		-C.CC76
167-216	15		C-600	c.0	9.739	C.7558	9.1865	-0.1727		-0.0083
157-216	15		C.8CC		10.878	1.01 CO	0.2205	-0.2025		-0.0082
16T-216	15		C. 801		13.C62	1.1559	0.2967	-0.2595		-C.CC87
161-216	15		(.800		15.221	1.2898	0.3807	-0.3241		-C.COR4
161-216	15		0.860		17.322	1.4334		-0.4129		-0.0077
161-216	15	15	C-800	C.O	19.551	1.5764	0.5957	-0.5097		-C.CC87
15T-216	16	1	(. 852	(.c	-1.983	-0.0302	0-0401	-0.0336	0.0387	C.0C47
161-216	16	2	(. 850	C. 0	-(.869	2.0951		-0.0492	0.0386	C.OC31
15T-216	16	3	C. E5C		0.CTC	(.1202		-0.0600	0.0383	0.0018
161-216	16	4	(.850	C.C	1.720	0.3020		-0.0725	1.0383	C.0003
107-214	16	5	C.850	C.n	2.256	C.4010		-0.0850		-0.0009
167-216	16	5	(.651	C.0	4.412	C.6251		-0.1128		-0.0034
16T-216	16	7	C. E51	(.0	6.628	C. 3297		-0.1341		-0.0057
16T-214	16	3	C.851	C.C	7.790	C. 91 CO		-0.1463		-0.0067
16T-216	16	9	C. E51	C.0	8.819	C. 92 C1		-0.1604		-0.0069
16T-216	16		C.857	C.0	9. 921	C. 9331	0.2011		0.0203	
16T-216	16		C.E52	C.0	10.920	1.0472		-0.2132	0.0225	
16T-214	16		(.E49	C.0	13.667	1.1760	0.3095		0.0196	
16T-216	16		C- E52		15.185	1.3248	0.3982		0.0183	
161-216	16		(.850		17.47€	1.4769		-0.4520	0.0162	
167-216	16	15	C. 551	(. C	19.498	1.6959	0.6137		0.0145	
16T-216	17	1	(.902	C. 0	-1.588	-0.0297	0.0437	-0.0413	0.0372	C 0043
10T-216	17		6.833		-C. 866	0.0965	0.0412		0.0373	0.0042
16T-216	17		C.5C2	C.0	C.255	C.2147	0.0437		0.0372	C.CC13
16T-216	17		(.899	C. 0	1.186	0.3142	0.0479		0.0367	
167-216	17	ě	(.899	(.0	2.285	C. 4345	0.0565		0.0344	
16T-216	17	6	C.899	C.0	4.539	C.6671	2.087A		0.0297	
167-216	17	7	C.899	C.0	6.660	C.8525	0.1319		0.0271	
									_	-

TEST	RUN	PŢ	PACH	Shfep (DEG)	AL PHA		$c_{\mathbf{D}}$	$C_{\mathbf{m}}$	c _	c _n
167-216	17	c	(.858							
167-216	17		(.900	(.0				-0.1487		-0.0067
15T-216	17			C.0				-0.1728		-0.0077
167-216	17		(.90)	C.0				-0.1915		-0.0066
167-216	17				11.045			-0.2263		-0.0061
167-216			C. 299		13.186			-0.3124		-0.0055
167-216	17		(.899		15.368			-0.4064		-C.C055
167-216	17		C.900		17.535			-0.4989	0.0135	-C.0C54
101-216	17	13	(.900	C.0	19.642	1.6715	0.6497	-0.5882	0.0101	-0.0055
16T-216	18	1	(.551	(. n	-2.C15	-0.0599	0.0536	-0.0401	0.0396	0.0036
16T-216	18	2	C. 550	C. 0	-C.881			-0.0586	7.0370	
16T-216	18	3	C.949	(.)	C.158			-9.9678	0.0329	
167-216	18	4	(.550	C.C	1.216			-0.0795	0.0303	_
16T-216	18	5	(.951	C.0	2.319			-0.3976	0.0295	
16T-216	18	E	C.551	C. C	4.567			-0.1404	2.0276	-0.0051
161-216	18	7	C. 951	C.C	6.707			-0.1899	0.0260	-0.0073
16T-216	18	8	(.550	C. 0	7.786			-0.2182		-0.0083
16T-216	18		C.951	C. 0	P. 92 A			-0.2468		-0.0091
15T-216	18		C.950	(. (10.084	1.1666		-0.2800		-0.CC96
16T-216	18		(.951	C.0	11.173	1.2589		-0.3213		-0.0101
16T-216	18		(.550	C.0	13.351	1.4451		-0.4118		-0.0114
167-216	18		C.549	C.0	15.545	1.6121		-0.5029		-0.0123
101-216	18		(.551		17.E84	1.7163	0.6103	-0.5781		-0.0116
167-216	18	15	C. 54 9	C. 0	19.864	1.8629	0.7412	-0.6954		-C.0133
16T-216	19	1	1.199	-c.c	-1.590	-0.0858	0.0680	0.9415	0.0201	0.0042
15T-216	19		1.202		-C. 93 3	C.0189	2.9656	0.0035	0.0210	0.0042
161-216	19	3	1.159	'C.C	0.049	C.1245		-0.0404	9.9222	0.0020
167-216	19	4	1.200	(.0	1.155	C.2329		-0.2826	0.0227	C.0C09
16T-216	19	5	1.202	C.0	2.207	0.3447		-0.1289	0.0236	0.0001
16T-216	19		1.198	C.C	4. 336	C.5573		-0.2301		
167-216	15		1.199	-0.0	6.682	C. 7859		-0.3062		-0.0030
16T-216	19	8	1.205	-C.G	7.771	C.8837		-0.3463		-C.0041
101-216	19		1.200	C.C	8.888	C.9878		-0.3896		-0.0054
16T-216	19		1.202	C. C	9.908	1.0731		-0.4329		-0.0053
16T-216	19		1.201	C. C	11.1C4	1.1784	0.2947	-0.4851		-0.0065
16T-216	19		1.156		13.333	1.3596	9.3969	-0.5805	0.0210	
167-214	10		1.198		15.435	1.5084	0.4825	-C.6782		-0.0094
167-216	19		1.201		17.689	1.6600		-0.7866	0.0192	-0.0115
16T-216	19	15	1.158	c.c	15.734	1.7756	0.7070	-0.8742	0.0203	
161-216	22		C. 899	(.0	1.019	0.2850	0.0490	-0.0681	0.0332	-0 0005
16T-216	22		C. E99	C. 0	4.361	0.6223	0.0835		0.0223	
107-216	22		(.898	C. 0	6.396	0.7957	0.1196		0.0199	
16T-216	22		(.893	C. 0	8.666	C+ 9741	0.1765		0.0225	
16T-216	27		(.898	C.0	5.616	1.0267	0.2043		0.0287	
16T-216	22		(.849		11.930	1.1811	0.2805		0.0238	
167-216	27	7	(.898	(.c	18.EC3	1.5978	0.5833		0.0102	-0.0029
1oT-21#	23	1	(.898	C.0	-2.090	-C.0795	0.0489	-0.0277	0.0302	0.0018

TEST RUN PT MACH SHEEP ALPHA CL CD Cm	CI	c_n
16T-216 23 2 (.859 C.O -C.853 0.0674 0.0449 -0.0441 0	.0302	0.0008
	.0321	0.0001
		-0.CC11
		-C.0C23
		-0.0043
		-0.0053
		-0.0058
	.0267	-0.007C
	.028)	-C.0081
	.0241	
	.0167	-0.0069
16T-216 23 13 C.899 (.0 16.315 1.4407 0.4642 -0.4337 0	.0137	-0.0055
16T-216 23 14 C.898 C.O 1 E. 606 1.5937 0.5830 -0.5384 O.	.0101	-C.GC29
167-216 23 15 (.898 (.0 20.794 1.7268 0.7033 -0.6276 0	•0000	-0.9047
16T-216 24 1 C.549 C.C -2.184 -C.1290 0.0618 -0.0230 0	.C328	0.0015
		-0.0001
	.0272	-C.CO15
16T-216 24 4 C.549 C.O 1.550 C.3545 O.0684 -0.0876 O.	. 0260	-0.9026
16T-215 24 5 C.548 C.O 2.569 0.4613 0.0796 -0.1049 0	.0253	-0.0035
10T-216 24 6 (.551 0.0 5.CO8 0.6894 0.1169 -0.1497 0	.0216	-0.0056
157-216 24 7 (.548 (.0 7.276 (.8978 0.1654 -0.1979 0	.0194	-0.0068
167-216 24 E (.55C C.O 8.562 1.0109 0.2013 -0.2300 0	.C187	-0.0072
	.0183	-0.0076
16T-216 24 10 C.951 0.C 11.C30 1.2311 0.2883 -0.3136 0	.0184	-C.3C77
		-0.0083
		-0.0096
		-0.0114
		-0.0062
15T-216 24 15 C.550 C.0 21.167 1.9208 0.8016 -0.7594 0.	0050	-0.0054
16T-216 25 1 1.202 (.C -2.048 -0.1015 0.0765 0.0410 0.	.0174	0.0026
16T-216 25 2 1.198 C.O -C.997 0.0068 0.0734 -0.0058 0.	.0181	0.0006
15T-216 25 3 1.199 (.0 C.106 0.1119 0.0738 -0.0469 0.	.0185	C.0001
16T-216 25 4 1.202 C.C 1.237 (.2260 0.0778 -0.0920 0.	.0182	-0.0002
16T-216 25 5 1.200 (.0 2.530 C.3570 9.0875 -0.1463 9.	.0199	-0.0018
16T-216 25 6 1.202 C.C 4.776 0.5800 0.1174 -0.2346 0.	.0175	-0.0022
		-0.0039
		-0.0039
	.0169	-0.0051
		-C.0055
	.0174	-0.0061
		-0.0072
		-0.0081
		-0.0092
16T-216 25 15 1.199 C.O 21.045 1.8259 0.7615 -0.9081 0.	.0187	-C.0118
161-216 26 1 (.649 (.6 -2.030 -1.0647 0.0451 -0.0277 0.	.0322	0.0027
	0322	
	VILL	0.0017

TEST	BÜN	PT	PACH	SWEEP (DEG)	AL PHA		c_{D}	C _m	C.	c _n
16T-214	26	4	C. 248	(.C	1.317	1).2995	0.0450	-C.0759	0 0357	-0.0002
16T-216	26		C. E51	C. 0				-0.0898		-r.0017
167-216	26		(.850	C. 0	4.794			-0.1067	0.0285	
16T-216	26		C. 850	C.0				-0.1314	0.0239	
16T-216	26		(.850	C.0	8.313			-0.1544	0.0267	
16T-214	26		C. 850	C. C	5.494			-0.1731	0.0295	
161-216	26		(.850		10.603			-0.1979		-0.0070
16T-216	26		C. E49		11.709			-0.2298	0.0241	
16T-216	26		(.850		13.921	1.2419		-0.3053	0.0217	
161-216	26	13	C. E49		16.179			-0.3915		-0.0066
16T-216	26	14	C. 249		18.522			-0.4945		-C.CC65
167-216	26	15	C.E50		2C.667			-0.5755		-0.0087
157-214	27	1	C. 794	C.C	-2.C41	-0.0585	0.0423	-0.0274	0.0337	0.0032
15T-216	27	2	C.758	C.C	-C. 597	0.0509		-0.9413	0.0337	0.0022
16T-216	27		(.798	(.0	0.222	0.1788		-0.0582	0.0353	0.0010
167-216	27	4	C. 799	C. 0	1.253	C. 2818		-0.3724		-0.0001
157-216	27	5	C.749	0.0	2.398	0.3884		-9.0870	0.0365	-0.0C13
16T-216	27	6	C.799	C.9	4.772	C.6766		-0.1148	0.0347	
1oT-216	27	1	C.798	C.0	7. (74	C. 3196		-0.1435	0.0319	
151-216	27		C.757	C. C	8.229	2.9076	0.1416	-0.1555	0.0340	-0.0058
16T-216	2.7	5	(.799	C. 0	5.340	0.9835		-0.1714	0.0340	
167-216	27	10	(.758		10.404	1.0079	0.2005	-0.1883	0.0265	
157-216	27		(.798	C.C	11.520	1.0710	0.2352	-0.2139	7.0261	
16T-216	27		C. 793		13.765	1.2015	9.3177	-0.2807	0.0228	-0.0088
161-216	27		C.799		16.C15	1.3529	0.4141	-C.3581	0.0193	
164-216	27		C-801		18.420	1.5072		-0.4572	0.0172	-0.C091
16T-216	27		C. 737	(.c	20.518	1.6284	0.6414	-0.5345	0.0177	-C.0117
16T-216	28	1	C.700	C.C	-1.588	-0.0502	0.0406	-0.0269	0.0358	C.CC27
16T-216	28	2	C. 700		-C. 860	C. 0528		-0.0414	0.0361	0.0017
15T-216	28		C.7C0	C.C	C.160	7.1634		-0.0549	0.0372	0.0006
16 T-216	28		C.700	C.0	1.167	1.2526		-0.0668	0.0374	-C.CC04
15T=216	28		(.700	C.0	2.292	2.3505		-0.0806	0.0372	-0.0C15
161-214	28		C.700	C.0	4.583	C.5426	0.0623	-0.1036		-C.0C42
16T-216	28		(.70°)	C.0	6.834	0.7433		-0.1367	0.0332	-0.CC61
16T-216	28		C.70C	C.0	7.940		0.1189	-0.1495		-C.0063
16T-215	28		C.700	C. 0		9.9049	0.1499	-0.1657		-0.0070
16T-216	28		C.700		10.163	C. 97 C3	0.1796	-0.1813	0.0312	-0.CC75
16T-216	28		(.700		11.316	1.0378		-0.2028	0.0271	-0.0088
16T-216	28		C.699		13.607	1.1817	0.2978	-0.2563	0.0246	-0.C1C6
16T-216	28		C.699		15.805	1.3092		-0.3252	0.0196	
161-216	28		(.100		18.063	1.4631	0.4932			-C.C11C
15T-216	28	15	C.700	C.C	20.316	1.5929	0.6090	-0.4917	0.0187	-0.0145
16T-216	31		C.900	C.0	-2.166	-C. C985	0.0530	-0.0303	0.0296	0.0009
1nT-216	31	2	C. 898		-C.886	C. 0575	0.0473		0.0271	
16T-21F	3.1	3	C. SCC	C.C	C.219	C.17C5	0.0486		0.0268	
161-216	2.1		C. 9C1	C.0	1.310	C. 2920	0.0535		0.0262	
10T-216	31	5	C-858	C.0	2.485	C. 4212	0.0625		0.0241	

TEST	RUN	PT	PACH	SHFEP	ALPHA	$c_{\mathbf{L}}$	c_{D}	$C_{\mathbf{m}}$	CA	c_n
				(DEG)	(CEG)					
					. 04.6	0 6671	1 0026	-0.1142	0-0170	-0.0046
16T-215	2.1		(. 502	C. 0	4.864	0.6471		-0.1445	0.0135	
16T-216	31		C. 900	C. 0	7.101	0.8213		-0.1789		-0.0045
161-216	31		C.901	C. 0	9.633	0.9427		-C.1714	0.0159	-2.0047
16T-21 E	31		(.900	c.c	8.407	C. 92.20	0.1662	-0.1986	0.0160	-0.0041
167-216	31		(.900	(.0	5.438	1.0031	0.1947	-0.2277	0.0254	-C.0059
16T-216	21		(.960		1C.608	1.0848	0.2309			-0.0072
167-216	21		C.500		11.838	1.1A30	0.2744	-0.2640		-C.0105
161-216	31		C.898		14.105	1.3400		-0.3532 -0.4275	0.0165	-0.0066
161-216	3.1		C.899		16.288	1.4491	0.4548		0.0129	-0.0037
16T-216	31		C.855		18.497	1.5400	0.5641		0.0067	-0.0016
15T-216	21	16	(.906	(.(20.763	1.7699	0.7133	-0.6547	0.0007	-0.0010
16T-216	32		C. E49	(.0	-2.115	-0.0782	0.0479	-0.0318	0.0302	0.0012
167-216			C. E49		-1.111	0.0267		-0.0400	0.0304	0.0005
157-216			C.849	C. 0	C. (89	C.1549		-0.0558	0.0306	-0.0002
16T-216			C. 851	c.c	1.200	0.2737		-0.0718	0.0322	-0.0010
			(. 852	C.0	2.476	0.3978		-C.0834	0.0314	-C.0C25
16T-216			(. 848	(.0	4.777	C.6036		-0.1056	0.0237	-0.CC46
167-216			(.848	c.c	7. C54	C.7891		-r.1365	0.0170	-C.CC54
16T-216			(.852		8.183	0.8940		-0.1601	9.9163	-0.0052
			C.850		9.352	C. 9543		-0.1849	0.0228	-C.0C52
16T-216			C. E52		10.495	1.0477		-0.2104		-0.0064
			C.85C		11.645	1.1215		-0.2409	0.0322	-0.CC83
16T-216			C. E52		13.955	1.2534		-0.3012	0.0740	-0.0086
16T-216			0.648		16.155	1.4043		-0.3885	0.0221	-0.0089
167-216			(.850		18.391	1.5340		-0.4902	0.0162	-0.CC71
101-210	37	14	(.6)3		10.571	,	•••			
15T-216	23	1	C.8CO	C.0	-2.079	-0.0745	0.0459	-C.0237	0.0316	C.0C18
167-216			C. 798		C. 100	0.1494	0.0493	-0.0545	0.0316	-0.0
167-216			C.758		2.451	C.3990	0.0497	-0.0914	0.0359	
16T-216			C. 799			2.5894	0.0714	-0.1139	0.0319	-0.0046
167-216		5				0.7759	0.1096	-0.1367	0.0229	-0.0054
157-216			1.798			0.9389	0.1620	-0.1770	0.0274	-0.0050
157-216			C.758		1C.395	1-0369	0.1983	-0.2094	0.0341	-c.rcel
151-216			C. 799		11.543	2.1117	0.2343	-0.2269	0.0356	-0.0C75
16T-214			C. 798		13.746	1.2120		-0.2757	0.0258	
16T-216		10	C.758	C.C	15.567	1.3563		-0.3558		-0.0092
16T-216			C.798		18.233			-0.4551		-C.CC86
16T-21 6			(.797		2C.441	1.6312	0.6341	-0.5455	0.0177	8600.0-
								0.0504	0.0011	-0.0019
161-216			(.652			7.2934		-0.0596		-0.0022
16T-216			C. E50			G.5815		-0.0863		-0.0022
101-214			C.650					-0.1053		-0.0C23
161-216			C.951							-0.0026
161-21			C.E52					-0.1484		-0.0028
167-216			(.152					-0.1775		-0.0032
167-216	5 37		i C. E51	C• 0	17.38C	1.4953	0.4959	-0.4635	0.0005	-0.00032
1/7 31	. 20		C 663		-1.955	0.0315	1.0272	-0.0431	C.0020	-0.0019
167-21			C. E52 C. E51		-0.926			-0.0500		-0.0021
167-216	5 38	4	וניסוו	(.(-7.720	7 - 1 .7 71	0 4272	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

TEST	RU	N I	PT MAC	H SHEE	P ALPH		c_{D}	C _m	C _d	$c_{\mathbf{n}}$
161-21	16 3	8	3 6.8	51 C.	0 0 10					••
16T-21	16 2		4 (.8					-0.056	7 0-0012	-0.0021
167-21	6 3		5 C.E				9 0.0310	-0.064	7 0.0012	
16T- 21	16 3		6 (.8	_ <			0.0379	-0.073	9 0.0010	00.702
16T-21	6 3		7 (.8				4 9.0650	-0.096		
16T-21	6 3		E C.E				1 0.1057	-0.117		-C.0024
161-21	6 38		9 (.8				4 0.1310	-0.130		-C.0025
16T-21	6 38		C (.8				4 0.1565	-0.1520		
15T-21	6 38	_	1 0.8			1.002	5 0.1889	-0.180		-0.0029
161-21		1	2 C. E		1C. F2 9	1.057	0.2225	-0.2169		-C.C027
16T-21	6 38	i			13.013	1.204	0.3019	-0.2967		-0.0026
16T-21		_			15.227	1.3539		-0.3710		-0.0023
167-21	6 38	1	4 (.8		17.369	1.4960	0.4962	-0.4638		-0.0025
167-21	£ 38		5 (. 85	_	19.501	1.6275		-0.4038	1	-0.0030
101-21						0.7345	,	-0.1069		-0.0C15
	36		7 C.85	C-0	3.327	C.5370		-0.1069	_	-0.0022
161-21	39	,					,	17.0042	6000.0	-0.0024
16T-216		1	(.70		-1.970	0.0215	0.0244	-0.0363		F
16T-216	30		C. 70		-0.954	C-1121		-0.0431		-0.001a
167-216		3	C.70			0.2000		-0.0431	0.0017	-C.0C17
107-216		1	C.70	3 C.O	1.061	0.2339		-0.0537	0.0013	R100.3-
161-216			(.70		2.179	2.3919	J.C319	-0.0701		-0.0019
151-216	-	6	C.76	0 (.0	4.200	C. 5523	0.9479	-0.0701	0.0017	-C.GC19
161-216	_	-	C.70		6.452	C. 7426	0.0820	-0.1344	0.0007	-CC22
167-216	_	6	C.700		7.471	C. 3797	0.1949	-0.1246	0.0007 -	-0.0024
16T-216		, ,	(.730	C.0	8.702	C.8797	0.1369	-0.1354	0.0014 -	.C.CC25
167-216		10	C.7C		9.618	0.9372	0.1619	0.1522	0.0029 -	0.0024
16T-216		11	(.700		10.657	1.0734	0.1937	C-1685	7.0020 -	0.0025
161-216	36	12	(.700		12.869	1.1425	0.2681	_	0.0003 -	C.CC24
167-216	39		C.700	C.C	14.565	1.2623	0.3455		-0.0005 -	C.CC23
167-216	30	14	C.699	(.0	17.253	1.4098	0.4486	0.2948	-0.0023 -	0.0009
201 216	39	12	(.699	(.0	15.268	1.5395	0.5527 -	0.3904	-2.0013 -	C.CC14"
161-216							0.7721	0.473H	0-0006 -	0.0037
16T-216	40	1	C.EC3		-1.552	C.0236	0.0254 -			4
InT-216	40		0.800	(.C.	-C.9CO	0.1238	0.0232 -	0.0402	9.0C18 -	0.0016
167-216	4C 40	3	C-E02	C. C	C.114	0.2175	0.0244 -	0.0464	9-0013 -	0.0020
16T-216		4	C.801	C.0	1.134	C-3066	0.0244	0.0536	0.0013 -)-CC18
16T-216	40	2	C-801	C.0	2.268	0.4107	0.0281 - 0.0344 -	0.0615	0.0011 -0	.0020
161-216	40	C	C-EC3	(.9		0.6075	0.0549 -	0.0016	0.0012 -0	-0021
16T-216		. /	C.802	C• 0	6.450	C.7942	2.0911 -	0.0954	0.00090	·0C21
10T-216	40	E O	(.603	(.0		C. 8561	0-1164		0.0015 -0	.0024
167-216	40	10	C.8C3	C.C	_	C. 9127	0.1164 -		9.0013 -0	.0074
16T-216	40	16	608.3	C.0	5.756	C. 5734	0.1459 -(9.0019 -0	-0024
167-214	40	11	C.802	C.C 1	C. 783	1.0342	0.1781 -0	2 - 1 / 59	0.0015 -0	-0C24
16T-214	40	12	(• EC3	C.0 1	7.542		0-2102 -0	1. / 11/16	0.0000	
167-216	40	13 (C. EC2	C. C 1	5. 096		0.3682	1-/677 -	0 0000	
16T-216	40	14 (103.0	C. C 1	7.355	_	O = 2000 - (0.0012 - c	00.
167-216	40	15 (-8C2	(.C I	9.494	1.5987	TO TIOL -U	- 4/04 -	0 0015 C	
	40	10 (E-8C3	-c.o -	2.552 -		0 0 0 0 0 T -U		D DCCC ~	
16T-216	4.2	,						.0315 .0	0.0019 -0	.0014
216	41	1 (.964	-C.C -:	7.962 -	_	0.0351 -0			
							****** +0	·UDI4 (0.0013 -0.	0018

TEST	RUN	PT	MACH	SWEEP (DEG)	ALPHA (DEG)		c_{D}	C _m	C.	cn
1/7 4.4		- (
167-216	41		C.9C0		-1.892			-0.0552		-C.C(18
16T-216	41		C. 900	C. 0	-0.860	0.1449	0.9267	-0.0588	0.0011	
16T-216	41		(.500	0.0	0.183	C.2490		-0.0627		
161-216	41	- 5	C. 901	(.0	1.171			-0.0683		
161-216	. 41	€	C.900	C.0	2.212			-0.0750		
15T-216	41	7	(.900	, C.O	4.472	C.6561		-0.1036		-0.0024
16T-214	41	. 8	(.900	C.0	6.564			-0.1417		
16T-216	41		(.900	C.0	7.790			-0.1628		-0.0027
15T-215	41		(.900	C. 0	8.897			-0.1807		-
16T-216	41		C. 9CO	C. C	9.890	1.0709		-0.2030		-0.0C31
164-216	41		C.899		10.562			-C.2344		-0.0043
16T-216	41		(.991		13.151	1.2545		-0.3214		-C.0C34
16T-216	41		(.899		15.248	1.3978				-0.0024
16T-216	41		C. E 59		17.477			-0.4115		-0.0025
16T-216	41		(.500		19.614	1.6900		-0.5088		-r.cc47
				1		109')	0.0416	-0.6000	-0.0 <u>0</u> 03	-0.0014
16T-216	47		C.552	-0.0	-3.111	-7.1981	9.9466	-0.0303	9.0007	-0.0019
16T-216	42		C.552		-1.964	-3.0383		-0.9518		-0.2026
167-216	42		C.551		-C. 897	0.1163		-0.0712		-C.CO22
16T-216	42		C. 551	C.C	C.080	C.2353		-0.0765		-0.0024
167-216	47	. 5	C.551	C. 0	1.189	0.3532		-0.0869		-r.oc25
16T- 216	42	E	C. 551	C.C	2.238	7.46 00		-0.0995	0.0004	-0.0024
16T-216	42	7	C. 951	C. C	4.459	0.6700		-0.1344	0.0002	-C.C026
loT-216	42	8	(.950	C.C	6. 61 0	0.9775		-0.1889		-0.0025
16T-216	42	ς	(.550	C.0	7.764	C. 9847		-0.2216	0.0003	-0.0023
16T-216	42	10	C. 950	C. 0	8.548	1.0956		-0.2593	9.0003	-0.0021
16T-216	42	11	C. 951	C. 0	9.995	1.1908		-0.2946	0.0004	
16T- 214	42	12	C. 951		11.C73	1.2837		-0.3346	0.0006	-0.0021
167-216	42	13	C.950		13.309	1.4732	0.3856	-0.4216	0.0002	-0.0C15
157-216	42		(.550		15.515	1.6461		-0.5199	-0.0003	-0.0013
167-216	42		(.550		17.782	1.9211		-0.6375	0.0007	
16T-216	42		C. 951		19.780	1.9109		-0.7276	-9.0CC4	-0.0029
							30.31.	-0.1210	-9.0164	-0.0029
16T-216	43		C.999	-(.c	-3.111	-0.2036	7.0608	-0.0001	0.0020	-2.0009
1oT-216	43		1.COO		-2.C40	-C.0765	0.0528	-0.0313		-0.0611
16T-216	43		1.000		-C. 599	C.0599	7.0497	-0:0640	0.0021	
16T-216	43		1.000	C.0	C.137	0.2068	0.0512		0.0014	
16T-216	43		1.000	C. C	1.085	0.3214	0.0563		0.0010	
167-216	43		1.000	C.C	2.240	C. 4454	0.0686		0.0010	
16T-214	43	7	1.000	C. 0	4.477	C.6670	0.1732		0.2005	
16T-216	43	8	1.000	C.0	6.557	C. 8795		-0.2699	020005	
16T-216	43		1.001	C.0	7. 806	1.0027		-0.3266		
15T-216	43	10	1.000	(.0	8.816	1.1731	0.2226		0.0007	
167-216	4?		1.CC1	(. C	9.581	1.2144	0.2562		2.0009	
15T-216	43	lá	1.001		11.169	1.3267	0.3154		60000	
16T-215	43	12	1.000		13.209	1.5121	0.4108		0.0006	
16T-216	43		C.997	(.0	15.411	1.6911	0.5246		0.0004	
16T-216	43		1.000		17.634	1.8533	0.6512			-C.2024
16T-216	43		1.001		19.789	1.9718			-0.0016	-0.0024
1							J J	30 / 111)	310010	0.00725

			4							
TEST	RUN	P	T PACH	SWEFP (DFG)		$c_{\mathbf{L}}$	c_D	$c_{\rm m}$	C T	$c_{\mathbf{n}}$
16T-216	44		1 1.100	-0.0	-3 054	-C.1879				man 44
16T-216	44		2 1.104		-30-054	-6.197				-0.0014
16T-216					-1.583	-C. 0779			0.0016	-0.0018
16T-216	44		3 1.102		-1.C41			2 -0.0306	0.9014	
151-216			4 1.101	C. 0			0.0524	-0.0702	0.0016	
	44	_	1.101	C.0			0.0577	-0.1071	0.0014	
16T-216	44		1.103	(.0		3.3864	9.0673	-0.1451	0.0006	
167-216	44		7 1.103	C.0	4.353	9.6090		-0.2043		
151-216	44	8	1.101	C.C	6.580	C.8296		-0.2778	,	
167-216	44	•	1.100	C. 0		0.9410		-0.3225		-0.0020
161-216	44	- 10	1.134		. 8. 504	1.0455		-0.3225		
161-216	44	11		C.0		1.1331		-0.3705		-0.0019
167-216	44	12			11.035			-0.4135		-0.0020
16T-216	44	13			13.323	1.2472		-0.4720		-0.0015
16T-216	44	14				1.4762		-0.5849	0.0009	-0.0018
16T-216	44		1.101		15.413	1.5911		-0.7009	0.0004	-0.0020
16T-216	44			(.0	15.427	1.5998		-0.7081	9.0007	
15T-216	44		1.104	(.0	17.621	1.7445	0.6083	-0.8149		-0.0022
1.31.510	4-4	17	1.100	C • C	19.759	1.8428	0.7211	-0.8902	-0.0010	-0.0032
147 -14								_		0.0072
167-216	45	1		-c.c	-3.C19	-0.1849	0.0579	0.0748	0.0020	-0 0015
16T-216	45		1.201	-c.c	-2.005	-0.0380	0.0522	0.0389	0.0018	-0.0C12
467-216	45		1.202	-C.C	-1.C73	C. 2052	0.0495	0.0037		-0.0011
16T-216	45	4	1.203	C. C	C.1C8	0.1223		-0.0454	0.0018	
167-216	45	5	1.203	C. 0	1.108	7.2237	0.0502	0.0454	0.0013	
16T-216	45	E	1.203	C.0	2.186	7.3336	0.04.20	-0.0885	0.0008	
16T-216	45	7	1.203	(.0	4.266	0.5441	0.0629	-0.1354	0.0002	-C.0023
16T-216	45	8		(.0	6.540		0.0901	-0.2794	-0.0005	-0.0021
16T-216	45		1.200	(.0	7.605	C.7768	0.1375	-0.3242	-0.0003	-0.0023
16T-216	45	10	1.200	(.0		0.8720	0.1642	-0.3627	0.0001	-0.0022
16T-216	45		1.26.0		8. 753	C. 9747	0.1974	-0.4058	0.0003	-0.0022
16T-216	45		1.232	C. 0	5.894	1.0754	0.2344	-0.4503	0.0003	-0.0021
16T-216	45	13	1.202		10.922	1.1636	0.2715	-0.4950	2.0005	-0.0017
16T-216	45	14			13.203	1.3588	0.3663	-0.5996	0.0004	-0.0017
16T-216	45		1.201		15.406	1.5238	0.4686	-0.6998	0.0004	-0.0020
167-216		15	1.200		17.692	1.6774	9.5862	-0.8053	0.0004	-0.0026
101-516	45	16	1.200	(• C	15.722	1.7961	0.6964	-0.8913		-0.0025
167-216									007000	-0.0025
167-216	46		C. E53	C.0	-2.993	-0.0951	0.0309	-0-0344	9.9016	-0 0031
	46		C. 853	C.0	-1.936	2.0142	0.0247	-0-0431	0.0017	-0.0021
loT-216	46		C. E52	C.C	-C. 968	0.1113	0.0227	-0.0499	0.0011	-0.00.22
16T-214	46	4	C.852	(.0	0.C73	C. 2096	0.0237	-0.0557	0.0014	-0.0021
16T-216	46	5	C. 852	C. C	1.192	0.3168	0.0279	-0.9997	0.0009	-0.0022
16T-216	46	6	C.852	C. 0	2.273	C. 42 04	0.0351	-0.0334	0.0010	-0.0022
16T-216	46		C.853	C. 0	4.435	C.6264	0.0331	-0.0734	0.0017	-C.0C23
15T-216	46		(.853	C. 0	6.486	C.7943	0.0610	-0.0943	0.0007	-0.0024
15T-216	46		(. 653	C. 9	7.672		7.0999	-0.1143	0.0017	-0.0025
16T-216	46		C. E53	C. 0		C.8677	0.1267	-0.1276 -	-0.0014 -	-0.0024
	46		C. E 53	C. 0	8.702	C. 9269	7 . 1261 .	-0.1476	0.0052 -	-C.CO27
	46		C. 653		5.723	0.9845	0.1813 -	0.1728		-0.0029
	46		C. 852	0.0	808.0	1.0398	0.2158 -	0.2116		-0.0028
	46		(.651		2.586	1.1397	0.2952 -	0.2903	0-0004 -	0.0020
	46					1.3368	0.3848 -	0.3628 -	0.0003 -	0.0022
	10	1 3	C. 650	C. C 1	7.340	1.4745	0.4847 -	0.4498	3.0004 -	0.0031
						*				0 4.76.31

	TEST	RUN	PŢ	L MACH	Sheep (DFG)	ALPHA (DEG)		c_{D}	c_{m}	C.I	c_n
	16T-216	46	16	C.E49	c.0	19.482	1.6112	2 0.597	9 -0.5454	-0.00C	7 -0.2012
	16T-216	47	1	C.503	C 0	-2.574	-0.00/0		1		
	161-216	47		C.903		-1.951			4 -0.0506		-0.0020
	16T-216	47		(.502		-0.854			0-0.0563	0.0017	-0.0021
	16T-216	47		(.901	c.0				-0.0582		-0.0022
	16T-216	47	5		C.0	C. 147			-0.0618		-0.0021
	167-216	47	-	(.500	C.C	1.271	0.3390		7 -0.0682	0.0007	-0.0022
	16T-216	47	7		(.0	2.240	C-4321		-0.0743	0.0004	-0.0C24
	1oT-215	47		C.900		4.338	7.6316		-0.1000	-0.0004	-0.0C24
	16T-216	47		C.899	C. 0	6.581	C.8368		-0.1372	0.0003	
	16T-216	47		C.899	C. 0	7.663	C. 93 C5		-0.1576	0.0009	-0.0027
	161-216	47		C.899	C.0	8.872	1.0295		-0.1771	0.0022	-0.0030
	167-216	47		(.899	C.0	9.958	1,40852		-0.1980	0.0033	
	167-916	47		C.900		10.888	1.0836		-0.2272	0.0029	-0.7029
	167-216	47		(.899		13.063			-0.3107	-0.0011	-0.0013
	15T-216	47		(.898		15.234	i.3813		-0.4027	0.9015	-0.0029
	16T-214	47	14	(.897		17.484	1.5377		-0.5004	0.0032	-0.0047
		7.	10	(.091	C.0	19.646	1.6747	0.6344	-0.5907	-0.0	-C.0016
	16T-216	48	1	C. 901	-(.C	-2.794	-0.0949	0 0000			
	16T-216	49		C.900		-1.821		0.0331	-0.0472	-0.0011	
	10T-216	48		C. 902	-((-C.715	-0.0078	0.0280	-0.0540	-0.0011	
	16T-216	40		C.902	-0.0	C. 202	C.1234	0.0263	-0.0588	-0.0007	-C.C011
	16T-216	48		(.90)		1.309	0.2151	0.0278	-0.0619		-0.0011
	16T-216	48		(.858	-0.0	2.424	C.3250	0.0332	-0.0685	_	-0.0C12
	16T-216	48		(.898	-0.0	4.483	C.4309	0.0428	-0.0765		-0.0011
	10T-216	49		C. 901	(.)	6.736	7.6202	0.0709	-0.0993	-0.0C04	-0.0009
	16T-216	48		(.903	0.0	7, 256		0.1200	-0.1444	7.0003	-0.0C11
	16T-216	46		(.904	C.C	5. 092	C. 9369	0.1493	-0.1676		-0.0011
	16T-216	48		C.9C4		10.042	1.0453	0.1876	-0.1931	0.0026	-0.0015
	16T-216	48		C.9C4		10.994	1.1103	0.2167	-0.2135		-0.0015
	15T-216	48		(.902		13.162	1.0949	0.2374	-0.2340		-0.0C17
	15T-216	48		6.898		15.360	1.3737	0.3154	-0.3127		-0.0005
	16T-216	48		C.90)		17.573	1.52.98	9.4083	-0.4070		-0.0025
	15T-216	48		C.900	C- 0	15.748	1.6707		-0.5047	0.0046	-C.OC49
	16T-216	48		(.900		17.685	1.5378		-0.5974		-0.0022
	16T-216	48		C.901		5.453	1.3875		-0.5090		-0.0C4E
	16T-216	48		C.5C2		3.253	1.2511	0.4152	-0.4114		-0.0026
	16T-216	48		C.9C2		1.122	1.0898	0.3225	-0.3163	0.0037	-0.0022
	161-216	48		C.901	(.O I	0.158	1.1011	0 - 2391	-9.2336	0.0030	-C.0016
	16T-216	46		C.900	(.0	9. CC5	1.0284	0.2169	-0.2066	0.0028	-0.C014
	15T-216	48	23	C.900	0.0	7.928	0.9372	0.1823	-0.1829	0.0026	
	16T-216	48		C. 900	C.0	6.840		0.1501		0.0011	-0.0009
							3 0 3 7 7 7 T	_0.1208	-0.1414	0.0007	-0.7011
	16T-216	49		C. 700		3.014 -	7.0999	0.0310	-0-0226	0 0017	0.000
	6T-216	49		C.700	C.C -	1.940	0.0037	0.0255		0.0017	-0.0021
	6T-216	49		C.700	C.O -	C. 9C5	0.0946	0.0236	-0-0401	0.0018	-0.0020
	67-216	49		(.700			C.1914	0.0245		0.0015 -	0.0021
	5T-216	49		(.76)			C.2815	0.0278	-0-0554	0.0016 -	0.0073
1	6T-216	49	6 (C. 700			C.3730	0.0332	-0.0666	0.0009 -	0.0022
								/	777700	- 6000	0.0021

	TEST	RUN	P	T PACH	SWEE			c_{D}	CM	CA	c_n
	167-216	49		7 (.699	C.(1 / 5/5			7		
	16T-216	49		E (.659					4 -0.0924		-0.0025
	16T-216	49		C.699	C.(1 -0.1235	0.0011	-0.0024
	16T-216	49		C. 699	(.(0.112	7 -0.1370	0.0014	-C. 3024
	15T-216	49		(.699	C. (-0.1488	0.0009	-C.0025
	167-214	49			C. (10.231			-0.1699	9.0014	-0.CC23
	167-216	49		(.699		11.289			-0.1901	-0.0	-0.0019
	167-216	49		C.699		13.545		0.2884	-0.2435	-0.0014	-0.0019
	167-216	49		C.698		15.809		0.3766	-0.3160	-9.0022	-0-0006
	16T-216	49		C.698		18.003		0.4794	-0.4059	-0.0017	-0-0007
	131-712	47	10	C.698	(.(20.179	1.5762	0.5934	-0.4907	-0.0006	-0.0025
	167-216	5C	1	(.799	C.0	-2.111	-C.1124	0 0343	0.000		
	15T-216	50		(. 798		-2.061	-7.0101		-0.0280		-0.0018
	167-216	50		(.758		-1.CO5	C.0923	0.0275	-0.0357		-0.0021
	167-216	50		C.800	/c.c		0.2046		-0.0424	0.0014	-0.CC19
	16T-216	50		C.860	C. 0			0.0262	-0.0500	0.0010	-0.002C
	16T-216	50		(.800	C.C		0.3054	0.9309	-0.0592	0.0010	-0.0020
	16T-216	50		C.719	C.0		C. 3989	0.0357	-0.9677	0.0011	-0.3621
	16T-214	50		C.8C1	0.0		0.6173	0.0598			-0.0023
	16T-216	50		C.801	C.0		0.8138	0.1027	-0.1201	0.0006	-0.9023
	16T-216	50		C.800	(.0		C.8765	9.1317	-0.1349	-0.0009	-0.0022
	16T-216	50		C.800		9.374	C-9432	0.1628	-0.1551	0.0013	-0.0022
	16T-216	50		(.799			0. 9950		-0.1818	0.0017	-C.0023
	16T-216	50		(.799		11.460	1.0562	0.2287	-0.2098	0.0014	-0.0023
	107-214	50		C. 799		12.716	1.2042	0.3101	-0.2734	-0.0015	-0.CC13
-	16T-216	50		(.758		15.584	1.3440	0.4022	-0.3498	-0.0012	-C.0015
	167-214	50		C. 758		18.219	1.4950		-0.4474	-0.0015	-0.0009
		1.,	16	(. 170	(. (20.491	1.6309	0.6344		-0.0005	
	16T-214	51	1	(.852	(.0	-3. (92	-C.1118	0.0363	0 2220		
	157-216	51		(.652			-C.0072		-0.0320	0.0014	-0.0019
	151-216	51		C. 851	C. 0	-C.888	C.1102	0.0260	-0.0390	0.0014	-0.0018
	16T-216	51		C. 851	(.0	C.244	3.2194	0.0230	-0.0474	0.0013	-0.0021
	16T-216	51		C. E51	(.0	1.354	0.3223	0.0211	-0.0534	0.0012	
	161-216	51		(.850	0.0	2.484	C.4353	0.0303	-0.0624	0.0010	
	16T-216	51	7	C.850	C.0	4. 832	C.6499	0.0402	-0.3718	0.0011	
	161-216	51		(.849	C.0	7.215	C. 8465	0.0092	-0.0938	0.0005	-0.0024
	16T-216	51		(.850		8.312	C-9214	0.1100	-C.1205	-0.0002	-0.0023
	16T-216	51		C. 650		5.40C	5.9587	0.1439	-0.1350	0.0001	-0.0022
	16T-215	51		C. E50		1 C. 495	1.0238	0.2051	-0.1572	0.0033	-0.0025
	loT-216	51		C.850		11.559	1.0786	0.2055	-0.1881	0.0006	-C.0019
	16T-216	51		C. E50		13.832	1.2448	0.2406	-0.2251	0.0006	-0.0021
	15T-216	51		(.850		16.100	1.3909	9. 3295	-0.3115	0.0007	-0.0024
	16T-216	51		C. E49		18.332	1.5341	9.4264	-0.3888 -	-0.0004	-0.0020
	167-216	51		C. E49		20.530	1.5677	0.5367	-0.4847	0.0001 -	-C.0027
				,		,	1 • 20 []	0.6582	-0.5771 -	-0.0008 -	-C.GC11
	167-216	52		C.901		-3.120	-0.1245	C. 0388	-0-0442	0.0012 -	C 2C21
	16T-216	52		C.899		-1.956	C. 0051	0.0305	-0-050R	0.0012	
	16T-216	= 2		(.899		-0.955	C.1121	0.0282	-0.0553	0.0013 -	0.0020
	16T-216	5.2		C. 500	C. 0	0.341	0.2383	0.0307		0.0013 -	0.0021
	167-216	52	5	C. 849	C. C	1.515	0.3541	0.0374	-0.0659	0.0013 -	0.0021
									0.0000	0.0005 -	000124

/												
TE	ST	RUN	PT	PACH	SWFEP (DEG)	ALPHA (DEG)	c_{L}	c_{D}	Cm	CI	c_n	
- /					10277	10101						
16T-	-216	52	E	(.899	C.0	2.557	C.4555	0.0474	-0.0727	0.0002	-0.0025	
/16T-	-216	52		C. 900	C. 0	4.961	6.6741	0.0826	-0.1026	0.0006	-0.0C25	
/ 161-	-216	52	8	C. 9CO	C.0	7.292	0.8950	0.1361	-0.1464	-0.0002	-0.0022	
161-	-216	52	9	C. 900	C 0	8.466	0.9895	0.1680	-0.1656	-0.0004	-0.CO22	
ló I-	-216	52	10	(.900	C.0	9.611	1.0832	0.2042	-0.1952	0.0018	-0.0C23	
161-	-216	52	11	C. 500	C. 0	10.652	1.1269	0.2344	-0.2208	0.0073	-0.0038	
16T-	-216	52	12	C.9CO		11.873	1.1729	0.2717	-0.2522	0.0040	-0.0C31	
16 T-	-216	52	1.3	(.900	C.0	14.006	1.3083	0.3579	-0.3487	0.0001	-0.0020	
16 T-	-215	52	14	(.899	C.C	16.237	1.4558	0.4581		0.0022	-C-004C	
loT-	-216	52	15	C.899	C.C	18.493	1.6056	0.5740	-0.5346	0.0025	-0.0042	
ló I-	-216	52	16	(.899	C.0	20.923	1.7519	7.7095	-0.6343	-0.0013	0.0002	
16 T-	-216	53	1	(.549	C.0	-3.385	-0.2400	0.0524	-0.0221	0.0007	-9.0020	
16T-	-216	53	2	(.950	C.0	-2.258	-C.1064	0.0422	-0.0407	0.0007	-C.OC20	
16 T	-216	53	3	C.949	(.0	-C. 676	0.1208	0.0360	-0.0670	0.0014	-0.CO22	
151.	-216	53	4	C.549	C.C	-0.970	C.0774	0.0359	-0.7628	0.0013	-0.CC19	
161-	-216	53	5	(.550	C.7	0.345	0.2451	0.0397	-0.0753	0.0011	-0.C023	
161	-216	53	E.	(.952	C.0	1.517	7.3694	0.0490	-0.0869	0.0003	-0.0024	
16 T-	-216	53	7	(.550	C.0	2.573	7.4725	0.0600	-0.0993	0.0006	-0.0025	
16T-	-216	53	ε	(.549	C.C	4.579	(.7045	0.0980	-C.1409	0.0003	-0.0021	
161	-216	53	9	C.949	C. 0	7.294	0.9274	0.1526	-0.2023		-C.CC21	
16 T-	-216	53	10	(.950	C. 0	8.589	1.0430	0.1926	-0.2436		-0.0020	
láT	-216	53	11	(.950	C.C	5.662	1.1422		-0.2793		-0.3019	
161	-216	53	12	C. 949	C.0	10.888	1.2484	0.2749	-9.3201	0.0002	-0.0018	
lóT-	-216	53		C.549		12.177	1.3591		-C.3700	0.0001	-0.0019	
16 T	-216	53	14	C.549		14.361	1.5446	0.4325	-0.4621	0.0005	-0.CC18	
	-216	53		C.948		16.752	1.7266		-0.5693		-0.0014	
161	-216	53		C.948		15.CG2	1.8727	0.6899			-0.0035	
16T	-216	53	17	(.950	C.9	21.264	1.5310	0.8261	-0.7884	0.0003	-0.0025	
lot	-216	54	1	1.201	-C.C	-3.213	-0.2131	0.0630	0.0866			
loT.	-216	54	2	1.201	C.C	-2.163	-0.1119	0.0562	0.0485	0.0018	-0.0007	
Lot	-216	54	3	1.200	C.C	-1.131	-0.0113	0.0527	0.0082	0.0016	-C.0015	
16 T	-216	54	4	1.200	C.0	C. C89	0.1098	0.7530	-0.0409	0.0011	-0.CC21	
161	-216	54	5	1.201	C.0	1.327	0.2337	7.0586	-0.0924	0.0006		
161	-216	54	6	1.200	C.0	2.387	0.3419	0.0671	-0.1388		-C.0019	
	-216	54		1.200	C.C	4.892	0.6907	0.1032	-0.2501		-0.0021	
	-216	54		1.200	C.C	7.C77	0.3145			-0.0CO1		
	-214			1.200	C. 0		C.93C9			-0.0002		
	-216	154		1.200	C.C		1.0256		-0.4264		-0.C02C	
	- 216	54		1.200		10.798	1.1444		-0.4815		-0.0019	
	-216	54		1.199		11.905	1.2402		-0.5303		-0.9C19	
	-214	54		1.201		14.376	1.4415		-0.6458		-0.0016	
	-216	54		1.200		16.499	1.5914		-0.7479		-0.0C23	
	-216	54		1.199		18.921	1.7422		-0.8472		-0.0031	
161	-,216	54	16	1.158	(.C	21.025	1.8455	0.7623	-0.9297	0.0004	-0.0031	
	-216	57		(. 648	C.0		C.2716		-0.0617	0.0476	0.0002	
	-216			(.650	C.0		C.5987		-0.1054		-C-0044	
157	-216	57	3	(.650	(.0	· 6.299	0.7974	0.1157	-0.1241	1.0370	-0.0065	

TEST	RUN	P	T MACH	SHFEP (DEG)			$c_{\mathbf{D}}$	C _m	C A	$c_{\mathbf{n}}$
16T-216	57		4 (.850							
16T-216	57		E C.E49	C.0				5 -0.1552		8 -0.0088
167-216	57		E C.E49	C. 0				-0.1658	0.0259	-0.0080
16T-216	57				11.662			3 -0.2310	0.029	7 -0.0101
101-216	21	1	7 6.849	C.0	18.436	1.5273	0.5549	-0.4824	0.0220	-0.0106
16T-216	58	1	1 (.850	C - C	-3.155	-0.1044				
16T-216	58		C. E50		-2. C83			-0.0055		0.0065
16T-216	58		C. E50		-C. 920					0.0050
16T-216	59		C.850			0.0756		-0.0393	0.0488	0.0036
10 T-216	58		G.E49	C- C		7.1970		-0.0524		0.0012
16T-216	58		(.65)	C.0	1.336	C.3032		-0.9658		-C.CC03
15T-216	58		C.849	C.0	2.521	7.4160		-0.0791	0.0471	-0.0021
16T-216	58			0.0	4. 250	C.6576	_	-0.1100	0.0428	-0.0050
16T-216	58		(. 649	C. 0	7.300	C. 9835		-0.1348	7.0354	-0.0C74
16T-216	58		C. E50	C. 0	8.428	9.9473	0.1679	-0.1506	7.0356	-0.0086
16T-216			C.E49	C. 0	5.323	C.9566	0.1864	-0.1639		-0.0C81
16T-216	58		C.850		1C.62C	1.0324	0.2282	-0.1978		-0.CC94
	58		C. E49		11.734	1.0981		-0.2337		-0.0102
16T-216	58		(. 849		13.934	1.2330		-0.3093		-0.0092
16T-216	58		C. E49		16.105	1.3835		-0.3804	0-0246	-0.0105
16T-216	5 A		C. E48		18.359	1.5223		-0.4786	0.0221	-0.0105
161-216	58	16	C. 851	C.C	2C.569	1.6535	0.6706	-0.568)	0.0203	-0.0115
16T-216	59	,	(.858	((-2 207					
16T-21 6	59		C.899	(0	2 105	-0.2315	0.0586	0.0003	0.0449	0.0071
16T-216	59		C.899	(0	2.185	-0.C718		-0.0253	0.9479	0.0050
16T-216	59		C. 899	C. 0	-C.828	0.0886	0.0495	-0.9402	0.9481	C.003C
16T-216	59		C.899		C. 147	C.1875	0.0512	-0.0493	0.0479	C.0013
16T-216	59		(.899	C.0	1.462	C. 33 00	0.0569	-0.0666	0.0464	
15T-216	55		(.900	(. c	7.651	7.4650	0.0669		0.0413	-0.0029
16T-216	59		(.900	C.0	4. 951	C.7025	0.1010		0.0326	-0.0054
15T-216	5 9		(.900	C.O	7.424	C.9099	0.1563	-0.1409	0.0284	-0.0076
16T-216	55		(.89%	C. 0	8.484	0.587C	0.1853	-0.1585	0.0294	-0.0C84
16T-216	59		C. 900	C.0	9.746	1.0795	0.2254	-0.1928	0.0299	-0.0095
16T-216	59		(.899	C. C	9.698	1.0751	0.2237	-0.1910	0.0299	-0.CC94
16T-21 6	59		(.899		10.776	1.0822	0.2474	-0.2076		-0.CC71
15T-216	59		(.899		11.860	1.1529	0.2861	-0.2464		-0.0072
15T-216	59				14.029	1.3036	0.3745	-0.3448	0.0234	-0.CC92
16T-216	59		C. 900	(.0	16.226	1.4372	0.4711	-0.4311		-0.0090
16T-216	5¢		(.ES7		18.484	1.5944	0.5850	-0.5265		-C.0094
1., 7.16	7-	.,	C.898	C. 0	2C.735	1.7173	0.7070	-0.6143	0.0157	-0.0096
16T-216	60	1	C.549	C.C .	-3.368	-C-2680	0.0730	0.0044		
161-216	60		C. 944	C.O .	-2.259	-C-1143		0.0046	0.0475	0.0063
15T-216	60		C. 550	C. O .	-C. 565	0.0825	0.0643	-9.0230	0.0515	0.0044
167-216	60		6.549	C.0	0.639	C.2797	0.0626		0.0510	0.0014
10T-216	60		C.950	(.)	C-277	2.2359	0.9679		0.0445	
16T-216	60		C.951	C. C	1.804	0.4008	0.0660	-0.0662	0.0462	
16T-216	60		(.950	C. 0	1.458	C-3681	0.0785	-0.0883	0.0419	
16T-21 6	60		(.950	C.0	2.677	C. 48 98	0.0749	-0.0822	0.0426	-0.0031
167-216	60		C.951	C. 0	5.027	C.7139	0.0882	-0.1019	0.0404	-0.0049
16T-216	éC		C. 951	C. 0	7.301	3.9248	0.1252	-0-1492	0.0366	-0.0C73
						10 76 40	0.1778	-0.2029	0.0333	-0.C1C5

TEST	RUN	PT	PACH	SHEEP (DEG)	AL PHA (DEG)	$c_{\mathbf{L}}$	$c_{\mathbf{D}}$	$C_{\mathbf{m}}$	CA	c_n
161-216	60	11	C. 550	C.C	8.629	1.0415	0.2169	-0.2347	0.0316	-0.0117
16T-216	60		C. 950	C. 0	9.813	1.1442		-0.2696	0.0303	-C.0126
16T-216	60		C- 550		10.961	1.2430		-0.3092		-C.0135
16T-21 €	é C		C.550		12.149			-0.3553		-0.0144
16T-216	60		C.950		14.375	1.5272		-0.4518		-0.0164
16T-216	60		C.950		16.779			-0.5575	0.0260	-0.0192
167-216	60		C.949		10.938	1.8054		-0.6359	0.0188	-0.0179
16T-216	60		C.949		21.137			-0.7598	0.0155	
16T-216	61	1	1.202	-C. C	-3.176	-1.2097	0.0801	0.0884	0.0268	0.0071
167-216	61.	2	1.202	C.0	-2.028	-0.0970	0.0736	0.9484	0.0276	0.0052
15T-216	61	3	1.202	(.0	-1.025	0.0061	0.0711	0.0088	0.0284	0.0036
16T-216	<i>€</i> 1	4	1.200	C. 0	0.159	0.1297	0.C726	-0.0433	0.0301	0.CC14
16T-21 6	<i>E</i> 1		1.199	C.C	1.233	C-2444	0.0783	-0.0882	0.0307	0.0001
16T-216	61		1.202	(.0	2.420	0.3628	0.0886	-0.1362	0.0313	-0.0004
16T-216	£1		1.202	C.0	4.781	0.6057	0.1230	-0.2347	0.0307	-0.0C36
16T-216	61	8	1.200	C.0	7.161	C.8335	0-1742	-0.3189	0.0279	-0.0063
16T-216	£1	5	1.199	C.0	8.391	0.9395	0.2071	-C.3614	0.0269	-0.0072
16T-216	61		1.202	C.C	5.699	1.0547	0.2473	-0.4163	0.0269	-0.0081
16T-216	61		1.199		10.669	1.1362	0.2805	-0.4556	0.0265	-0.0094
16T-216	61		1.202		12.064	1.2503		-0.5174	0.0261	-C.0104
16T-216	61		1.200		14.264	1.4244		-0.6158	0.0240	-0.0123
16T-216	61		1.199		16.593	1.5829		-0.7218	0.0227	-0.0143
167-216	61		1.201		18.786	1.7144		-0.8190	0.0222	-0.0158
167-216	61	16	1.199	C. 0	20.993	1.8216	0.7706	-0.9013	0.0210	-0.0183
16T - 216	£2	1	(. 8C3	C.0	-3.212	-0.1912	0.0505	-0.0033	0.0445	0.0065
167-216	€2		C. E03	C.0	-1.997	-C. C525	0.0438	-0.9208	0.0493	0.0051
16T-21F	€2		C.804		-C.937	C.0661	0.0421	-0.0367	0.0500	0.003E
10T-216	€2		C.8C4	C.0	0.148	0.1724	0.0431	-0.0487	9.0490	0.0019
167-216			C. 803	C.0	1.308	9.2835	0.0468	-0.0632	0.0484	0.0
16T-216	€2		C.798	. C.C	2.835	C-4224		-0.0812	0.0485	-C.0022
16T-216	£ 2	7		C.0	2.481	0:3931		-0.0775	0.0490	-0.CC17
16T-216	62		C.802	C.0	4.653	C.5883	0.0750	-0.1006	0.0461	-0.0049
167-216	62		C.801	C.0	7.054	0.8124		-0.1300	0.0381	-0.0079
16T-216	67		(.800	c.c	8.165	0.8672		-0.1402	0.0313	-C.0085
16T-216	62	11	C.800	C. C	9.365	0.9417		-0.1628		-C.CC93
167-216	£2		C. 800		1C.354	C. 9893		-0.1828	9.0290	6
167-216	62		C. 800		11.436	1.0577		-0.2110		-C.0103
167-216	62		C.799		13.657	1.1911		-0.2752		-0.0102
16T-216	62		C. 799		16.043	1.3485		-0.3515		-C-0107
16T-216	62		(.798		18.199	1.4864		-0.4439		-0.0107
16T-216	62		C. 799		20.444	1.6174		-0.5321		-0.0134
16T-216	€2		€.800	C. U	16.486	-1.3812	0.4437	-0.3721	0.0248	-0.0105
16T-215	63		C.700			-C.1567	0.0468		0.0478	0.0071
16T-216	63		C.698			-C.1103	0.0442	-0.0140	0.0496	0.0063
16T-216	63		C.698			-0.0554	0.0418		0.0516	0.0056
167-216	63		C.699		-C.964	0.0586	0.0392		0.0527	0.CO4C
16T-216	63	5	C.7 00	C.0	0.201	0.1581	0.9409	-0.0496	0.0505	0.0018

TEST	RUN	PT	MACH	SHEEP (DEG)	AL PH A	CL	$c_{\mathbf{D}}$	Cm	C <u>a</u>	cn
16T-216	63	6	C. 699	c.c	1.297	0.2668	0.0435	-0.0635	0.0500	-0.0
167-216	63		C.699	C. 0	2.278			-0.0759	0.0499	
16T-216	63		C.699	c. 0	3.474			-0.0899	0.0491	
16T-216	63		C.699	C. 0	4.457			-0.1022		-0.CO49
16T-216	63		C.699	C. 0	6.898			-0.1022		
16T-214	63		C. 700	C. 0	7.883			-0.1415	0.0408	-C.0094
16T-216	63		C.699	C. 0	9.193			-0.1575		-0.01C1
16T-216	63		C.699		10.215	0.9547		-0.1752		-C.0109
161-216	63		C.699		11.273	1.0197		-0.1924		-C.0116
16T-216	63		C.699		13.695	1.1685		-0.2481	0.0324	-0.0122
167-216	63		(.699		15.827			-0.3214	0.0291	-0.0122
16T-216	63		C.658		18.066	1.4447		-0.4067		-0.0117
167-216	63		C. 699		20.242	1.5758		-0.4908		-0.0149
161-216	66		C. E 50	C.C	C.987	0.2309		-0.0579	0.0394	-0.0005
167-216	66		C. E49	C.0	4.174	0.5487		-0.0985	0.0369	-0.0C51
167-216	66		(.651	C.0	6.217	C.7335		-0.1251	0.0265	-0.0068
167-216	66		C.851	C. 0	8.501	C.9139		-0.1613	0.0246	-0.0065
16T-216	60		(. 650	C.0	9.400	9.9654		-0.1810		-0.0069
167-216	66		C. E51		11.660	1.1218		-0.2426		-0.0097
167-216	66	•	C.849	c.c	18.367	1.5307	0.5407	-0.4863	0.0255	-0.0109
16T-21 6	67		(.850	C.0	-2.242	-C.2325	0.0610	-0.0098	0.0391	C.0C38
16T-216	67		(. 850		-2.130	-0.1110	0.0516	-0.0188	0.0362	0.0024
16T-216	67		(. 850	C.C	-1.C15	0.0038	0.0471	-0.0278	0.9373	0.0016
167-216	67		C. E50	C.C	0.076	C.1345	9.0468	-0.0448	0.0381	0.0003
167-216	67		C. E 50	C. C	1.322	C.2723	0.0511	-0.0650	0.0410	-0.0012
167-216	67		(.850	C.0	2.559	0.3995		-0.0816	0.0417	-0.CC28
157-216	£7		(.650	0.0	3.530	0.4934	0.0690	-0.0922	0.0402	-9.0043
157-216	67		C. E50	(.0	4.726	C.5004	0.0843	-0.1063	0.0345	-C.OC56
167-214	67		C. E52	C. C	7.C36	7.8082		-0.1371	0.0246	-0.0071
167-216	67		(.650	C. 0	8.311	0.8969		-0.1569		-0.0069
16T-216	67		(.850	(.0	5.423	0.9676		-0.1828	0.0291	-0.0068
167-216	67		C. F51		10.491	1.0493	0.2179		0.0348	
167-216	67		(.650		11.712	1.1300		-0.2454		-0.0100
16T-216	67		(. 50		13.921	1.2537		-0.3018		-0.0111
16T-216 16T-216	67		(. 849		16.104	1.3998	0.4309			-0.012C
10 T-216	67 67		C.849		18.366	1.5294	0.5404			-0.0102
101-216	C f	. ,	1.049		2C. 772	1.6637	9.6690	-0.5857	0.0215	-C.0085
16T-216	6.8		C.502			-C.2845	0.0687	-0.9053	0.0397	0.0038
16T-216	68		8.966			-C.1372	0.0593	-0.0123	0.0371	0.0021
167-216	68		(. 699			-0.0006	0.0524		0.0345	C.CCIC
16T-214	68		C.857	C. 0	9.044	0.1223	0.0528		0.0355	C.CC01
16T-216	6.8		C.900	C.O	1.285	C.2672	0.0588		0.0365	-0.0C17
167-216	68		C.901	c.c	2.407	3.3944	0.0675		0.0340	
167-216	68		(.899	C.0	3.626	3.5345	0.0897		0.0292	
167-216	68		(.900	C.0	5.019	C.6698	0.1024		0.0250	
16T-216	68		C.899	(.0	7.204	C-8504	0.1449		0.0217	
157-216	68	10	C.901	C-0	8.468	0.9475	0.1770	-0.1788	0.0223	-0.0065

TEST	RUN	PI	MACH	SHEEP (DEG)	ALPHA (DEG)		c_{D}	c_{m}	CI	$c_{\mathbf{n}}$
161-216	6.8	11	(. 899	C.0	9.598	1.0237	0 2060	-0.2005	A 0220	0.00/0
16T-216	68		C.899		10.621			-0.2219		-0.0068
161-216	68		C.901		11.835			-0.2650		-0.0078
16T-216	68		C.900		14.133			-0.3501		-0.0C83
167-216	68		(.900		16.232			-0.4277		-0.0116
167-216	68		(.899		18.559			-0.5273		-0.0082
16T-21 6	68		C.898		2C. 701			-0.6216		-0.0065
				00 3	200101	1016117	0.0730	-0.0210	0.0179	-0.0065
16T-216	69	1	C.548	C.C	-3.480	-C.3274	0.0822	0.6120	0.0406	0.0034
167-216	69	2	C.948	C.0	-2.350	-0.1944		-0.0038	0.0391	C.0C19
167-216	69	3	.C.949	c.b	-1.219	-0.0486		-0.0199	0.0352	C.3091
16T- ?1 E	69	4	(.549	C. 0	0.169	0.1417		-0.0396		-C.0C22
16T-21 E	65	5	(.951	C. 0	1.410			-0.0650	0.0294	
167-216	69	6	C. 952	C. 0	2.592			-0.0940		-0.0057
167-216	69	7	(.951	C.C	3.841			-0.1239		-0.0072
16T-216	€9	8	C.951	C.0	4.932			-0.1509		-0.0082
16T-216	65	ç	C.951	0.0	7.32C			-0.2021		-0.0095
16T-216	Ψć.	10	C. 950	C.0	8.447			-0.2279	0.0223	
161-216	65	11	C.549	C. 0	9.804			-0.2677		-0.0099
16T-216	65	12	C-951	C. C	10.571	1.2082		-0.3093		-0.CC98
161-21+	65	13	C.951	C.0	12.127	1.3148		-0.3574	0.0230	
16T-21 6	69	14	C.950	(.0	14.438	1.5136		-0.4599	0.0239	
16₹-21€	65	15	(.950	C.0	16.626	1.6971		-0.5648	0.0247	
16T-216	65	16	(.550	C. 0	18.957	1.8459		-0.6780		-0.0165
167-216	65	17	C.549		21.222	1-9741		-0.7807		-0.0149
16T-216	70	1	1.201	C.C	-3.225	-0.2332	0.0926	0 0000	0 0007	0.0010
16T-216	70		1.199			-0.1229	0.0845	0.0888	0.0227	0.0040
15T-216	70	2	1.200		-1.143		9.0821	0.0441	0.0221	C.OC18
10T-216	70		1.203	C.C	C. C78	0.0898		-0.0402	0.0220	0.0012
10T-216	7.0		1.201	C. C	1.164	0.1926		-0.0794	0.0219	
161-216	70		1.199	C. C	2.424	0.3213		-0.1324		-0.0021
16T-216	70		1.202	C.0	3.542	C.4390		-0.1324	0.0205	
161-216	76		1.200	C.0	4.725	0.5582		-0.2298	0.0207	
16T-216	70	9	1.201	C. 0	7. C85	0.7392		-0.3190		-C.CC44
15T-216	70	10	1.205	C.C	8.401	0.9081		-0.3670		-0.0044
16T-216	7 C	11	1.201	c.c	9.401	C. 9997		-0.4089	0.0203	
16 T-216	70	12	1.200		10.6C7	1.1010		-0.4576	0.0203	
16T-215	70		1.232		11.869	1.2074		-0.5109	0.0205	
16T-216	70		1.109		14.306	1.4098		-0.6235		
16T-216	70		1.201		16.477	1.5627	0.5188		0.0204	
16T-215	70		1.20C		18.857	1.7126	0.6409		0.0207	
16T-216	70		1.201		21.032	1.8252	0.7574		0.0207	
							3.1314	V 9 7 (0 D	0.0222	-0.7140
16T-216	71		C.869	C.C	-3.242	-0.2243	0.0593	-0.0089	0.0390	0.0038
16T-216	71		C. EC5	C.0 .	-2.112	-C.1124	0.0500		0.0391	0.0026
16T-216	71		C-8C4	C.C	-C.980	2.0083	0.0452		0.0387	0.0017
10T-216	71		C.8C7	C. 0	0.038	0.1293	0.0444		0.0394	C.0004
16T-216	71		C.809	C.C	1.226	7.2518	0.0477		0.0420 -	
16T-216	71	ŧ	(. 805	C.0	2.405	0.7/13	0.0541		0.0444 -	

TEST	איַן מ	i P	T MACH	SWEEP (DEG)			$c_{\mathbf{D}}$	c_{m}	C A	$c_{\mathbf{n}}$
16T-216	- 71		7 (.603	C. 0	3 (00					
161-216			E C.798					-0.1019	0.0455	-0.0038
15T-216			9 (.796	(.0	•			-0.1160	0.0438	-0.0055
161-216			0 (.794	0.0				-0:1402	0.0346	-0.CC7C
16T-216				C. 0				0.1575	0-0335	-G.CC71
16T-216			C.795	C.0				-0.1770	0.0354	-0.0069
167-216			2 (.795	C.0	10.575		0.2080	-0.2049		-0.0
16T-216			C.796	C. 0	11.649	1.1241	0.2431	-0.2797		-0.00
16T-216			1 (.799	C.0	13.799	1.2331	0.3171	-0.2794		-C.0115
			C.799		16.059	1.3677	7.4132	-0.357		-0.0113
167-216	-		C.799		18.285	1.5003	0.5203	-0.4533		-C.0121
16T-216	71	. 17	0.800	C. C	2C.493	1.6191		-0.5429		-0.0113
14 7 214								303127	0.0243	-0.0113
167-216	12		(.699	(.)	-3.194	-0.2047	0.0544	-0.9073	0.0406	0 00-
16T-216	72		C.700	C.0	-2.095	-C. 1037	0.0467	-0.0150	9.0422	, ,,
16T-216	72	3	C.703	C.C	-1.147	-C. 0115	0.0427	-0.0264	0.0422	
16T-216	72		C.700	C.0	-C. CO5	C.1116	0-0414	-0.0453	0.0430	
167-216	72		(.699	C. 0	1.165	0.2745	0-0433	-0.9637	0.0445	C.CC07
16T-216	72		(.694	C.0	2.272	0.3314	0.0481	-0.0809	0.0467	-C.0004
15T-216	72		(.699	C. C	3.418	0.4357	0.0554	-0.0959	0.0485	-0.0014
16T-216	72	8	C.699	C.C	4.756	C.5488	0.0677	-0.1141		-C.0G35
101-216	72		C.699	C.0	4.6C2	0.5384	0.0677	-0.1141		-0.0053
161-216	72	10	C.700	C.0	6.804	C. 7332	0.0061	-0.1124	0.0478	-0.005C
16T-216	72	11	(.699	C. 0	7.925	0.8258	0 1100	-0.1426	0.0436	-C.0072
167-216	72		(.699	C.0	9.168	C. 92 07	0.1198	-0.1597	0.0419	-0.0074
167-216	72		C.699		1C.156	3.9960	9.1523	-C.1801	0.0437	-0.0071
16T-216	72		(.699		11.378	1.0761	9.1782	-0.1941	0.0469	-0.0076
16T-216	72		(.699	CaC	13.599	1.1812	7.2146	-0.2135	7.0461	
167-216	72		C.699		15.764		0.2910	-9.2618	0.0357	-C.0114
16T-216	72	17	C.699		17.975	1.3186	0.3794	-0.3238	0.0343	-C.014:
161-216	72		C.699		2C.230	1.4528	0.4821	-9.4047	0.0315	-0.0154
			4 7		21.02.317	1.5817	0.5987	-0.4929	0.0294	-0.0175
167-214	75	1	(.900	(.0.	-3.281 -	-0 3504				
16T-216	75	2	C. 901	C- O -	-2.286	-C.2594	0.0619	-0.0007	0.0396	0.0048
16T-216	75	3	C.898	C. O .	-C.580		0.0548	-0.0118	0.0384	C-0C34
16T-216	75		C.898	C. 0	C.116	C-0288	9.0500	-0.0286	0.0391	C.9019
16T-216	75		(.900	C.0	1.325	C.1582	0.0511	-0.0454	0.0421	0.0007
167-216	15		C. 901			0.3724	0.0575	-0.0671	0.0432 -	-0.0012
16T-216	75		C. 901	(.0	2.501	C.4368	9.0672	-0-2869	0.0388 -	-0.0032
16T-216	75		C.899	C. 0	3. 852	C.5756	0.0827	-0.1081	0.0322	-0.2049
161-216	75		C.900		4. 878	0.6769	0.0989 -	-0.1202	0.0291 -	-0-0056
157-216	15		C.90)	C. 0		C. 8873	0.1495 -	-0.1575	0.0265 -	-C-0072
16T-214	75		C. 900	C-0		9688	0.1774 -	-0.1685	0.0259 -	C-0075
16T-216	75		C. 900	C. O		1.0495	0.2096 -	0.1896	0.0265 -	0.0079
16T-216	75		C.900			1.1235	7.2461 -	0.2182	0.0307 -	C.CORC
15T-216	75		C.900	C. C 1	_	1.2103	0.2984 -	·0.2530	0.0307 -	0.0092
16T-216	75		C-899	C.O 1		1.2918	A . 30 F4 -	·U•3370	0.0222 -	C-0083
16T-216	75		(.894	C. 0 1		1.4382	0.4621 -	0.4276	0.0214 -	0.0085
157-216	15		(.899	C.O 1		1.5862	0.5782 -	0.5324	0.0181 -	0.0067
	• ,	. ,	077	C.O 2	C. 703	1.7236	0.7026 -		0.0149 -	C-0064
16T-216	76	,	C. 854		2 205			Đ	-	
	,	• '			3.295 -	J.2327	7.0574 -	0.0067	0.0397	0.0047

	TEST	RUN	PT	PACH	SHFE			c_D	c_{m}	C.	c _n
	167-216	76	2	(.850	0.0	2 . 02:					
	. 16T-216			C. E > 1		C -C. 993	7 -0.0890		-0.0193	0.0392	0.0031
	15T-216	76		(.850	C.				-0.0318	0.0416	0.CC23
	16T-216			(.849	C.				-0.0527	0.0431	0.0008
	151-216	76		(. 8>2					-0.0731		-0.0008
	16T-216	76		C.850	(.(·	-0.0900		-0.0028
	167-216	76		(.850	(.)				·-0.1006	0.0437	-0.0040
	167-216	76		C.850	C. (-0.1163	0.0376	
	167-216	76		C.850	C. (-0.1367	0.0307	-0.0065
	15T-216	76		(.850					-0.1560	0.0319	-0.0C72
	16T-216	76		(.E50	(.(-0.1725	0.0351	-0.0079
	16T-216	76		C. E50					-0.2054	0.0381	-0.0092
	16T-216	76		C.851		11.699			-0.2367	0.0318	-0.0093
	161-216	76		C.851		13.836			-0.3053	0.0298	-0.0105
	167-216	76		(.649		16. 057			-0.3919	0.0237	-0.CC84
	16T-216	76		C.850		18.332			-C.4834	9.0226	-0.0099
				(.0)	(.)	20.651	1.6578	0.6682	-0.5770	0.0207	-0.0097
	167-216	77	1	C.801	C.C	-3.164	-7.2035	0 0530	-0.0071	0.0100	
	15T-216	77	2	C.902	(.0	-2-194	-C.1013		-0.0171	0.0409	0.0049
	16T-216	77		C.802	C. 0	-1. (32	0.0238	0.0475	-0.0318	0.0427	0.0038
	16T-216	77	4	008.)	0.0	0.158	C. 1603	0.0430	-0.0518	0.0429	0.0025
	15T-216	77	5	(.799	C.0	1.377	C-2873		-0.0735	0.9455	0.0012
	16T-216	77	6	(.799	C.0	2.489	C.3901	0.0471	-0.0735	0.0475	-0.0003
	16T-216	77	7	C. 799	(.0	3.543	0.4973	0.0535	-0.0871	0.0478	-0.0020
	16T-216	77	R	(.799	C. 0	4.679	C. 5931	0.0744	-0.1005 -0.1155	0.0474	-0.0C37
	19T-216	77		C.799	C.0	7.11C	C. 8218	0 1176	-0.1155	0.0456	-0.0053
	161-514	77	1 C	C.749	(.0	8.143	3.9932	0.1174	-0.1443	0.0373	-0.0071
	157-216	77	11	(.799	C. 0	9.406	C. 9374	0 1771	-9.1566	0.0389	-C.OC73
	16T-216	77	12	(.739		10.376	1.0351	0.1773	-0.1758	0.0402	-0.0080
	16T-216	77	13	C. 799	C.C	11.481	1.0964	0.2057	-0.1934	0.0384	-0.9086
	16T-216	77	14	C.799	C. 0	13.722	1.2127	0.2403	-0.2185	0.0382	-0.0102
	16T-216	77	15	C.800	C. 0	14. 824	1.2768	0.3223	-0.2879	0.0309	-0.011C
	161-216	77	16	(.749	C.C	16.076	1.3525	9.4181		9.0283	-0.0106
	16T-216	77		C.799	C. 0	18.217	1.4955	0.5236	-0.0625	0.0255	-0.0099
	16T-216	77	18	1.749	C.C	20.393	1.6169	0.6365		7.0250	-0.0115
								0.0000	-0.7320	0.0242	-0.C133
	167-216	76	1 (.701	C. 0	-3.121	-0.1854	0.0502	-0 0076	0.0433	2
	16T-216	78		.699		-2.094	-0-0830	0.0434	-0.0075	0.0432	0.0048
	16T-216	78		. 649	C. 0	-1.C19	C.9272	0.0403	-0.0115	0.0461	C.0638
	16T-216	78		.699	C.C	9-126	0.1456	0.0402	-0.0526	0.0482	0.0027
	16T-216	78	5 (.699	C. 0	1.124		0.0424 -	0.0522	0.0499	0.0011
	16T-214	78		. 699	C.C	2.281	1.3439	0.0478 -	0.0003	0.0500 -	0.0002
	16T-216	78		.699	C. 7	3.393	C.4371	0.0547 -	0.0010	0.0502 -	·C.0019
	16T-216	78		.700	C. 0	4.450	C.5265	0.0639 -	0 1003	0.0496 -	0.0034
	6T-216	76		.699	C.0	6.815	G. 7391	0.0962 -	0.105	0.0484 -	0.0051
	5T-216	78		-699	C.0	7.932	C.8318	0.1196 -	0.1404	7.0442 -	0.0073
	6T-216	76		.699	C.0	9.131	C. 9158	0.1528 -	0.1704	0.0443 -	0.0077
		78		. 699	C.C	19.212	0.9778	0.1837 -	0 1040	0.0444 -	0.0083
		78		.700	C.C	11.354	1.0431	0.2194 -	0.2045	0.0405 -	C-CC94
l	6T-216	78	14 C	.693	C.C	3.601	1.1782	0.2995 -	0.2501	0.0381 -	0.0106
								U12777 -	0.2751	0.0342 -	U.C128

TEST	PUN	P	T MACH	Sheep (DEG)			c _D	C _m	C.	c _n
16T-216	78	10	5 (. 700		15 745					
16T-216		_	6.699		15.765			2 -0.3723		-0.0131
167-216			7 (.699		20.160			1 -0.4020		2 -C.0140
		•	,	0.0	20.100	1.5782	0.600	-0.4869	0.0277	7 -0.0175
16T-216	81	1	(.900		-3.310	-0.2216	0.040			
16T-716		7	(.899	. C. O	-2 - COR	-0.0493				
167-216			6.901		-0.974	C. C192		-0.0271		
161-216	81	4	C.844	C.0				-0.0376		
16T-216	81	5	(.897	C.0				-0.0497 -0.0626		-0.0019
16T-216	E1	6	(.899	0.0				-0.0791		-0.0031
16T-216	81	7	(.500	C.0		0.5882		-0.0939		-0.0042
16T-216	€1		(.900	C.0	4.922	0.6973		-0.1072		-C.0C49
167-216	91	9	C. 899	C. C	7.315	C.8962		-0.1383		-0.CC55
16T-216	£ 1	10	(.899	C.0	8.407	C. 9837	0.1749	-0.1554	0.0729	
16T-21 6	£ 1	11	C. 9C 0	C.0	9.599	1.0703		-C.1791	0.0222	-0.0068
16T-216	9 1	12	(. 899		10.714	1.1423	0.2445	-G.2047	0.0204	-C.007C
16T-216	81		(.89)		11.715	1.1616	012738	-C.2468	0.0151	
16T 21 6	81		C.900		14.041	1.3060	0.3668	-0.3481	0.0158	
167-216	81		C.899		16.279	1.4567	0 - 4691	-0.4409	0.0191	
16T-216	£1		(.899		18.541	1.6132	0.5867	-0.5331	9-9154	-C.CC78
167-216	13	17	(.859		20.754	1.7378	9.7067	-0.6216	2-0102	-0.0073 -0.0051
167-216	82	1	1.20C	c 0	-3.118	2 2051				-0.00 51
16T-216	£ 2		1.201			-0.2051 -0.1023	0.0714		0.0234	0.0003
167-216	82		1.201	C. C	-C. 883		0.0652		0.0234	-0.0003
16T-214	82		1.201	C.0	C. 191	0.0165		-0.0054	0.0237	
157-216	E2		1.201	0.0	1.299	0.1271 0.2400		-0.0495	0.0739	
16T-216	92		1.20C	C.0	2.388	C. 3521		-0.0957	0.0242	-0.0025
16T-216	23		1.200	(.0	3.640	C.4819		-0.1416	0.0245	-0.CC32
10T-714	23		1.200	C.C	4.710	0.5927	0.043%	-0.1967	0.0245	-0.C039
16T-216	82		1.201	C.C	7.1C8	0.8208	0.1104	-0.2415	0.0236	-0.0045
16T-216	82		1.201	(.0	8.305	C. 93 C8	0-1023	-0.3282	0.0215	-C.0057
16T-216	82	11	1.200	C.C.	9.654	1.0513	0.1947	-0.3725	0.0207	-0.0064
16T-216	82	12	1.200		1C-673	1.1365	0 271/	-9.4257		-0.0076
16T-216	8.2	13	1.200		11.876	1.2395	0.2714	-0.4661 -0.5181	0.0194	
167-216	82	14	1.200		14.293	1.4345	0.3173	-0.6306	0.0186	
16T-216	82	15	1.199		16.633	1.5998	_		0.0168	
16T-216	87	16	1.158		18.789	1.7338	0.5357		0.0151	
161-216	F2	17	1.159	C.0	21.031	1.8418	9.7691	-0.9174	0.0142	-0.0115
167-216	F 3	1	C.848		3					-(•011;
16T-216	83	2	C. 851	(.0	-3.210	-0.1913	9.0434		0.0307	C.0C18
157-216	83	3	C.E49	C 0	-1.960		0.0364	-0.0202	0.0353	C.0C08
16T-216	£3		(.850	C.0	-C. 921	C. 0791	0.0347	-0.0362	0.0364	-0.0001
16T-216	63		C. E51	C.0	C.169	3.1955	0.0360	-0.0483	0.0359	-0.0013
167-216	83		(.849	C. C	1.476	C. 3199	0.0414	-0.0623	0.0355 -	-0.0027
16T-216	83		C.850	(.0	2.558 3.622	0.4289	0.0489	-0.0740	0.0354 -	-0.0036
16T-216	83		(.850	(.0	3.662	C.5407	9.0604	-0.0899	0.0343 -	-0.0045
16T-216	83		(.850		4.939	0.5466	0.0609	-0.0899	9.0343 -	-C.0044
16T-216	6.3		(.850	C.0	7.247	C.6747	0.0805	-0.1100	0.0309 -	0.0054
. •						C.8718	0.1290	-0.1306	0.0250 -	0.0065

											4.
TEST	RUN	PT	PACH	SHEFP (DEG)	ALPHA (CEG)	$c_{\mathbf{L}}$	c_{D}	C _m	CI	Cn	
					9 420	(.9375	0.1578	-0.1421	0.0253	-0.0070	
16T-216	E3		(.851	C.0	8.476	C.9942	0.1871	-0.1627	0.0248	-0.0076	
167-216	83		C. E50	C. 0	9.504	1.9461	9.2204	-0.1930		-0.0071	
161-216	6.3		C. E51		10.66B	1.0974	0.2529	-0.2265		-0.007C	
161-216	83		C. 850		11.594	1.2515	0.3418	-0.3145	0.0177	9900.0-	
16T-216			C.850		13.917	1.4093	0.4445	-0.3921	0.0166	-0.0070	
161-216			(.850		16.261	1.5417		-0.4834	0.01()	-0.0079	
167-216			(.849		18.331	1.6724		-0.5734	0.0135	-C.CC71	
167-216	6.3	16	(.E49	(.0	20.300						
				c 0	-3.163	-9.1730	0.0409	-0.0047	0.0310	0.0016	
167-216)			-1.582	-C.0396		-0.0189	0.0370	0.0008	
16T-216			0.800		-C.892	C.0806	0.0334	-0.0343		-0.0001	
167-216			0.860		r.199	0.1854	0.0345	-0.0463	0.0364	-0.0014	
161-216					1.356	C.2739	0.0387	-C.0595		-0.0024	
167-216		5	(.800			C.3912	9.9446	-0.0712	0.0364		
167-216			0.800			C. 4980	9.0539	-0.0838	0.0356	-(.0(43	
167-216			C.809	_				-9.0966	0.0338		
167-216			C.800			0.8146	0.1194	-0.1281	0.0287		
167-21			(.800				7.1387	-0.1498	0.0260		
16T-216			C. 749					-0.1566	0.0233		
16T-216	-		C. 799		10.426			-0.1830	0.0225		
167-216			C.799		11.533		0.2402	-0.2157		-0.0079	
157-21	-		(.860		13.783		0.3234	-0.2814	0.0183		
16T-21	-	-	(.800		16.049			-C.3534	0.0176		
15T-21			C. 799		18.402	1.5163	0.5331	-0.4567	0.0171		
167-21			C. 799		20.496	1.6360	0.6446	-0.5360	0.0158	-1101143	
								0.0015	0.0350	0.0615	
16T- 21	4 85	1	L. 69		-3.137		0.0386	-0.0045	0.0396		
16T-21			C.699	4	-1.556		0.0331	-0.0200	0.0399		
16T-21		2	3 '(.70		-1.C51			-0.0299 -0.0438	0.0389		
16T-21	4 P5	4	4 6.651					-0.0558	0.0385		
16T-21	6 65		C. 69						0.0382		
16T-21	6 65	(E (.69				0.0401		0.0379		
167-21	6° 85		7 C.69						0.0370		
16T-21			E (.64						0.0349		
167-21			9 6.69			_		-0.1442	0.0314		
167-21			C C.69					-0.1544		-0.0079	•
167-21		Married Married	1 (.69		9.024			-0.1725	0.0246	-C.OCA4	4
167-21			2 C.70		11.203			-0.1927	0.0232	-0.008	6
151-21		1	3 C.7C		0 13.564			-0.2431	0.020	-0.0099	3
167-21	F F.		4 (.69		15.76			-0.3121	0.018	-0.007	3
16T-21		· ·	5 (.69		0 18.C4			-0.4017	0.017	3 -0.0088	B
161-21			6 (.69		0 20.29	8 1.5738		1 -0.4925		2 -C.011	2
161-21	6 88		7 6.65	7	0 20.427		-				

TEST	RUN	PT	MACH	SKEEP (DEG)		U	c_{D}	C _m	Cg	c_n
C4T- 4	2 13	1	0.890	±C-0	-C.1C1	-7.1260	0.025	0.024		
04T- 4			C.896		-0.104					
C4T- 4			(.895	(.0					-	
04T- 4			C.895	C.0						
047- 4			(.895	C. 0						
04T- 4			C. 9C1	C.0			- 0 0044	-0.1489	-0.0C10	-0.0007
04T- 4		,	(.889		10.649		0.0964	-0.2081	-0.0001	
04T- 4			C.852		12.749			-0.2189		
04T- 4			(. SCO		14.847			-0.2431		
C4T- 4			C. 899		16.936		0.2710	-0.3301	0.0	9-9094
04T- 4			C.895		19. C44	1.3504	0.3528	-0.4385	-2.0012	
C4T- 4	_		C. 896		21.145		0.4541	-0.5417	-0.00C7	
04T- 4			C.897		11.698			-0.6532	-0.0015	
04T- 4			C. 899		23.255	1.6254		-0.2259		
C4T- 4			(. 899		25.370	1.7468	0.0701	-0.7640	-0.0017	0.0010
04T- 4			C.856		2C.104	1.4229		-C.3355	-0.0013	0.0003
					20.104	1.4229	ひょうりうひ	-0.5919	-n.0005	0.0018
04T- 4			1.198		-0.047	-C.1485	0.0563	9.1864	-9.0006	-C-0008
047- 4			1.203	C• C	2.099	0.0719	0.0564	C.0248	-0.0003	-C-001C
04T- 43			1.201	(.C	4.237	C.2748	0.0673	-C.1202	-0.0001	-0.0013
04T- 43			1.201	C.0	6.375	C.4917	9.0909	-0.2734	-0.0007	-C.0012
04T- 47	_		1.202	C.C	8.510	C.6885	0.1305	-0.4263	-0.0013	-0.0001
041- 43			1.193		10.645	7.8888	0.1843	-0.5687	-0.0006	-0.0016
04T- 43			1.206		12.784	1.0498	0.2480	-0.5652	-9.0C11	-C.0016
04T- 43		de	1.195		14.915	1.2293	0.3294	-0.7926	-2.0008	-0.0016
C4T- 43		5	1.205	C.C.	17.045	1.3772	0.4165	-0.9023	-7.0012	-C-C016
04T- 43	_		1.203		19.142	1.4898	7.5049	-C.9766	-0.0012	-0-0017
04T- 43			1.2C3	C.C	21.260	1.5067	0.6051	-1.0577	-0.0G22	-0-0008
04T- 42			1.202	C.C	23.366	1.7128	7.7102	-1.1312	-0.0025	-9-2010
04T- 43	14	13	1.194	C. C	25.467	1.8196	0.9246	-1.2158		-0.0016
04T- 43	17	1	C. 896	C. 0	4.986	2.3736	0.0415	-0.1229	0.0	
04T- 43	17		C.837	(.0	8.CC7	C. 6648		-0.2200		HCO 0.0-0-
041- 43			6.896	C. 0	5. 809	C. 7736	0.1373	-0.2215	-0.0004	-0.0010
04T- 43			C.894		12.749	0.9194	0.1270	-0.2511		-0.0007
					1	4	0.2051	-0.2511	0.9014	-0.0008
04T- 43	• '		C.031			-7.4150	0.4156	0.2337	-0.01C7	C-0387
047- 43			688.3	C.O	1.145	C.2964	0.0327	-0.0789	-0.0002	-C.9C27
C47- 43			6.898	. C.C	4.481	0.5588	0.0670	-0.0796	-0.0002	-0.0019
047- 43	_		C.899	C.0	6.479	C.7253	0.1028	-0.0856	0.0007	
04T- 42			C.857	C.0	8.803	0.8945	0.1572	-0.0895	0.0023	
047- 43			C. 5CO	(.)	9.717	C.9503		-0.0904	0.0030	
04T- 43	30	7	C-895	(•¢	11.876	1.0105	0.2314	-0.0571	-9.0046	0.0012
C4T- 43	23	1	C. 852	(-0.883	0.1207	0.0269	-0.0879	0.0000	
04T- 43	23		C. 897			-5.1247		-0.0839	0.0008	
C4T- 43	23		C.895		1.497	0.3181		-0.0816	0.0003	
04T- 43	23		C. 902	c.0	3.846	0.5117			0.0002 ·	-0.0024
-04T- 43	23		C.902	C. 0	6.195	C.7207	0.0271	-0.0926		
04T- 43	23		C. 837	C. C	£.527	2.3875		-0.1005	0.0006	
			,			30 30 13	1414	-0.1003	0.0007	-0.0020

TEST		RUN	PT	FACH	Sheer (DEG)			c_{D}	$c_{\rm m}$	CA	c_n
04T-	43	23	7	(. 855	(- (10.818	1.0114	0 100			
04T-		23		C. 895		13.CO4			-0. 1904		-0.0027
C4T-		23		(.90)		15.169			-0.0585		-0.2024
• • •	• •		•	C 8 7 U.J		13.103	1.1308	0.3295	-0.0413	0.0015	-0.0015
041-	43	2€	1	C.857	· C. 0	-C.895	0.1131	0.0276	-0.0864	0.0000	0.000
041-	4 ?	26		(.895		-3.343			-0.0816		
04T-	4 3	26		C.897	(.0				-0.0814		
04T-	4 3	26		(.896	C.0				-0.0789		-0.0019
CAT-	4 ?	26		(.898	0.0				-0.0872		
04T-	4 3	26		C. 900	C. 0		0.9988		-0.0988		
04T-	43	26		C. 898		10.850			-0.0907		
	4 ?	26		C.898		13.000	1.0632				-0.0012
04T- 4		26		C.876		15.156	1.1245		-0.7556		
				000,0		1 72170	1.1245	0.3287	-0.0403	0.0034	-0.0026
04T- 4		29		C.898	C.0	-2.837	-1-4978	4-1077	-9-0498	0.000	-0-6544
04T- 4		29	2	C.897	C.0		7.5243		-0.0812		-0.0016
C4T- 4		29	3	(.F87	C.C		C. 7089		-0.0796		-0.0018
047- 4		25		C.899	C. 0		C. 8855	0.1521		0.0010	-0.0018
04T- 4		29	5	C.897	C. 0	13.C47	1.0948		-0.0611	0.0023	
041- 4	3	29	6	C.898		15.174	1.1358	0.3330	-0.0472	-0 0005	-0.0005
									,	-0.0009	-0.009
04T- 4		30	ì	(.898	C.C	-C. 898	C.1123	0.0279	-0.0881	0.0006	-0.0024
041- 4		30	2	C.854	C. 0	-3.343	-3.1267		-0.0836	2.2001	-0.2032
047- 4		30	3	C.898	C.C	1.510	2.3239	0.0360	-0.0818	0.0	-0.0022
C4T- 4		30	4	6.898	C. 0	1.510	0.3239	0.0361	-0.0820	0.0001	
04T- 4		30	5	(.897	(.0		C.5224		-0.0786	-0,0004	
04T- 4		30	6	C.898	C.0	6.257	7.7186		-0.2873	-0.0002	-0.0026
047- 4	-	30	8	(.90)	C. 0	10.839	1.0750		-0.9811	0.0029	
047- 4	_	30		C.899	C. n	12.587	1.0486		-0.0570	-2.0002	
04T- 4		30	1 C	C. 896	C. 0	15.163	1.1302		-0.0426		-0.0022
04T- 4	3	30	11	C.899	C. 0	15.918	1.1485		-0.0401		-C.CC17
	/							(- C - C - C - C - C - C - C - C - C -		3.0020	-0.0017
C4T- 4		3.1		C.755		-0.919	C-0911	0.0251	-0.9667	0.0006	-0.0016
04T- 4		31		C.797		-3.283	-0.1166		-0.0678		
041- 4		31		C.758	(.)	1.421	0.2790	0.0300	-0.0572		-0.9013
04T- 4		3.1		108.0	C.0	3.762	0.4690	0.0450	-0.7598		-0.0C1C
04T- 4		31		C. 802		6.111	0.6569	0.0750	-0.0401		-0.0009
047- 4		31		C. 798	C.0	e. 382	C. 4004 2	0.1200	-0.0242		-C.0C05
04T- 4		31		C.797	C. 7		0.7982	0.1199	-0.0241		-0.0006
04T- 4		31		C.EC3		LC.590	0.8962	0.1727	-0.0101		-0.0002
04T- 4		31		(.600)		12.769	C - 9874	0.2352	-0.0018	0.0005	
047- 4				C. 798		12.757	0.9796	0.2325	0.0002		-0.0002
041- 4		3.1		C. 860		14.926	1.0462	0.2927	0.0189	0.0004	C.0003
041- 4	:	31	12	C. EC2	c.c	17.107	1.1177	0.3589	0.0341	0.0002	0.0005
04T- 4	,	32	1	(.700	c 0	-0.531	0.0704				
04T- 4		3.2		6.658		-3.237	0.0794	0.0228		9.0004	
04T- 4		32		(.70)	C. 0			0.0313		0.0010	
04T- 4		32		C. 699	C. 0	1.351 3.630	7.2514	0.0278		0.0001	-C • 0008
04T- 4				C.699	C. 0	5.513	0.4218	0.0399	-0.0380	0.0003	
	_					-4713	C.5932	0.0627	-0.0275	0.0003	-0.0002

TEST	RUN	PT	MACH	SHEEP (DEG)	(DEG)		$c_{\mathtt{D}}$	C _m	C ₂	c_n
047- 4	33	,	. 700							
04T- 43			(.700	0.0					1 -0.0001	0.0003
04T- 43			C. 696		10.372				2 -7.0011	
047- 42			C.697		12.571				2 -0.004	
C4T- 43			(.659	(.0	14.711			9.0419	9 -0.0003	C.0C17
C4T- 43			(.700		16.851			0.0573	3 -0.0005	
04T- 43			(.699		18.966	_		0.0578	9.0076	
041- 4;	32	12	(.700	(.0	21.124	1.2032	0.479	0.0536	0.0025	
C4T- 43		1	1.205	-c.c	-1.053	0.0065	0.0404	-0.0483	0 0000	5 0000
047- 43		2	1.202		-3.425			-0.0224		-0.CC15
04T- 42	33		1.204	C. C				-0.0224		-0.0027
04T- 43	33		1.205	(. (-0.1794	0.0	-0.0C13
C4T- 43	33		1.202	1.0			0 1122	-0.1392	7 300.7	-0.0014
04T- 43	33		1.203	0.0		(.7996				-0.0010
041- 43	33	7	1.206	C. 0		C. 7963	0.1635	-0.1592	-0.0005	-0.0008
04T- 43	3.3		1.203		10.927	C.9598	0.1033	-0.1720	-0.9005	-0.0007
04T- 43	33		1.2C3		13.251	1.1073	0.2024	-0.1728	-0.0003	-0.0008
C4T- 43	33		1.206		14.134	1.1572	0.3327	-0.1960	-0.0002 -0.0001	-0.0005
0/7 /-	2.1						2 . 2251	-0.1740	-0.0001	-6.0005
041- 43	36		C. 899		-0.968	0.0726	0.0361	-0.0850	0.0003	-0.0030
04T- 43	36		C.893	C.0	3.818	7.4992		-0.0894		-0.0025
04T- 43	36		(.899		-0.968	7.6951		-0.0931		-0.0024
047- 43	36		(. 853		3.818	C.8548		-0.0876	0.000	-0.0019
047- 43			C.900	C. 0	€.197	0.6851		-0.0931		-0.0024
04T- 43	26		C.893	C. 0		(.8548		-0.0876	0.0005	-0.0019
047- 43	36		C.896		13.044	1.0753		-0.0515		-0.0006
04T- 43	36	6	C.900	C.7	15.229	1.1599		-0.0427	0.0034	-0.0031
C4T- 43	37	1	(.899	C.C	-0.963	2.0746	0.0242	0.3040		
C4T- 43	37		C. 894		-3.350	-C.1349	0.0363	-0.0840	9.9	-0.CC27
C4T- 43	37		C.898		1.459	0.2991		-0.0765	0.0002	-0.0035
C4T- 43	37		C.896	(.0	3.834	7.4980		-0.0869	0.0004	-0.0023
04T- 43	37		C. 9C1	(.0	6.190	7.6871		-0.0877	0.00C1	-C.0C22
04T- 43	37		C.898	C. 0	6.535	C.8556		-0.0903	0.0001	-0.0022
04T- 43	37		C. 5C2		1 C. 800	0.9887	0.1367	-0.0881		-0.0617
04T- 43	37		C.899		13.041	1.0787	0.1959	-0.0798		-0.002C
C4T- 43	37		6.498		15.206	1.1523	0 2222	-0.0581		-0.0019
					1 20200	1.1925	0.3222	-0.0383	0.0037	-C.OC27
041- 43	3.6		C. 797	C.C	-C. 965	0.0632	0.0305	-0.0660	0.0006	-0.0034
04T- 43	38		C. 794	C. 0	-3.306	-0.1330	0.0432	-0-0641	-0.00C1	-0.0024
04T- 43	38		.758		1.380	0.2656	9-0306	-0.0643	0.0003	~C 0C10
C4T- 43	38		. ED3	C.0	3.777	0.4574		-0.0600	0.0003	
04T- 43	38		. 401	C. 0	€. C53	7.6410			-0.0006	-0.0016
04T- 43	38		. 796	C. 0	8.392	7.8783	0.1095	-0.0383	-0.0003	-0.0016
04T- 43	38		. 799		10.600	C. 9187				-0.0005
04T- 43	38		.8CO		12.782	1.0005	7.2204		0.0	0.0
047- 43	38		. 757		14.974	1.0920	0.2891		0.0017	
04T- 43	38	10 0	. 798	(.C)	7.127	1.1478	0.3548		0.0008	C.0CC3
04T- 43	41	1 0	. 703	(.0 -	0.972	0.0593	0.0280	-0.0630	0.0007	

TEST	PUN	PŤ	MACH	Sweep (DEG)	ALPHA (DEG)	c_{L}	c_D	C _m	- C1	cn
04T- 43	41	2	(.658	C. 0	3.608	0.4170	0.0384	-0.0488	0.0003	-0.0013
04T- 43	_	3	C.698	(. C	8. 163	C. 75 09	0.9901	-0.0270	0.0001	
04T- 43	41	4	C.698		12.574	C. 5727	0.2017	0.0064	-0.0011	
04T- 43	_		C-658		12.584	C.9762	0.2022	0.0087	-0.0019	
04T- 43		6	(.657		22.013	1.2738	0.5131	0.0526	0.0034	
							,,,,,,,		••••	
04T- 43	42		C. 700		-0.969	0.0551		-0.0549	0.0003	-0-0022
04T- 43	47	2	C.700		-3.262	-C.1295		-0.0543		-0.0029
04T- 43	42	3			-2.563			-0.0253		-0-6652
04T- 43	47		C.697	C.0	3.610	0.4149		-0.0428	-0.0001	-0.0012
04T- 43			(.697	C-0	5.905	C.5889	0.0584	-0.9348	-0.0	-0.0009
04T- 43		6	C.657	C. 0	8.145	C.7490	0.0901	-0.9211		-0.0006
047- 43	42	7	C.697		10.409	C. 8794		-0.0026	0.0004	
04T- 43	42		(.698		12.570	C. 96 70	0.2006	0.0146	0.0008	C.9C02
04T- 43	42	9	C.7CO		14.794	1.0519	0.2673	0.0313	0.0004	0.0007
047- 43	47	11	C.697		16.890	1.1302	0.3351	0.0440	0.0009	0.0012
04T- 43	42		(.700		19.050	1.1923	0.4075	0.0495	0.0021	-0.0005
04T- 43	42	13	C.701	C. G	21.194	1.2444	0.4801	0.0550	0.0035	-0.0024
C4T- 43	43	1	1.200	C.0	-1.116	-0.0223	0.0593	-0.0486	-0.0004	-0-0026
047- 43	43		1.204		-3.507	-C. 2009			-0.0003	
04T- 43	43	3	1.205	C. 0	1.276).1678			-0.0009	
C4T- 43	43	4	1.204	C.C	3.680	C.3697			-0.0C11	
04T- 43	43		1.201	(. (6. C29	0.5243		-0.1314		-0.0025
C4T- 43	43	ŧ	1.203	C.C	8.523	7.7682		-0.1545		-0.0020
04T- 43	43	7			1C. 900	C. 9314		-0.1672	-	-C.0C17
04T- 43	43	8	1.204		13.278	1.0853			-0.0012	
04T- 43	43	5	1.203	C.C	15.484			-0.1850		-0.0015
047- 43	43	10	1.201	(.C	6.112	0.5827			-0.0014	-0.0C23
C4T- 43	45	1	C.904	(. c	-1.013	0.0477	0.0473	-0.0834	0.0012	-0.0029
04T- 43	46		C.903	C. 0	3.770	C.4611		-0.0978		-C.0C25
04T- 43	46		C.5C2	C.0	6.119	C. 6466		-0.1024		-C.2026
04T- 43	46		C. 504	(.0	8.432	C.9064		-0.0983		-0.0025
C4T- 43	46	5	C.899	. C.O	12.598	1.9775		-0.3693		-0.CC32
04T- 43	46	ŧ	C. 901	C. 0	15.950	1.2078		-0.0512		-0.0006
04T- 43	47	1	6.898	C-0	-1.010	C. 04 83	0.0481	-0.0823	0.0010	-0.0025
04T- 43	47		C.901			-0.1461		-0.1709		-0.0031
04T- 43	47		C.5C3	(.0	1.370	0.2458		-0.0810		-0.0020
04T- 43	47		C. 9C2	C.0	3.764	0.4625		-0.0944		-C.0C20
04T- 43	47		(.899	C. 0	6.108	0.6422		-0.0943		-0.0019
C4T- 43	47		(.915	C. 0	8.432	0.8926		-0.0972		-0.0019
C4T- 43	47		C.906		10.720	C . 94 C7		-0.0800		-0.0020
04T- 43	47	-	C.898		12.954	1.0530		-0.0586		-0.0011
04T- 43	47		C.5C3		15.218	1.1628		-0.0505		-C.0C04
04T- 43	48	1	C. 798	C.0	-1.012	0.0330	0.0399	-9.0616	0.0001	-0.0021
04T- 43	48		C.796			-0.1407		-9.0609		-0.0030
C4T- 43	48		C.798	C.0	1.347	2.2395		-0.0636		-C.CC16

Ţ	EST	RU	N	PΤ	MAG	СН	Shel		ALP				$c_{\mathbf{D}}$	C _r	n	CA	c_n
	T-		Я	4	c. :	156	c.	0	3.6	37	0 434		•				
	T-		8		C. 7		c.		5.8				048	1 -0.06	24	0.0013	-C.CC14
	r -		B		C. 7		Č.		8.2				068	0.05	79	0.0011	-0.0015
04	r	42 4			(.7				10.50				106	5 -0.04	34	0-0005	-0.0011
041	I -				C. 7			0	12.83	71	0.908	-	152	8 -0.02	97	9-0004	-0.0006
	r- ((.8			0	12. 6:	3 /			213	3 -0.01	20	0.0009	-r.gcn3
			•	,		O.L	٠.	C	15. C3	3 C	1.1061	l o.	2759	0.01	10	0.0005	0.0001
041	- 4	3 4	9	1	(.7	00	•	_									0.000.01
	- 4			2	C. 7	0.3		2	-1 . C1	2	7.0278		7 369	-0.05	45	0.0004	-0.0019
	- 4			2	(.6	00			-3.28		-(.1401	0.1	0508	-0.05	55		-0.0027
041					C.7		C.		1.28		0.2198		0332	-0.05	44		-C.0C14
04T				7		CI	C.		3.58		C.3989	0.0	1400	-0.04	9A	0.0006	
041				-	C.6	51	C.		5. 73		9.5982	0.0	1566	-0.05	40		-0.0012 -0.0011
CAT					(.6	98	C.		8.14	2	0.7256	0.0	1890	-0.034		2.0004	
041					C.6		C.	0 :	1C.43	7	C.8822			-0.017	77	0.0010	
04T					C.7		C.	0	12.59	0	C. 9924	0.1	335	0.90			-C.CC05
041					C. 7		C.(0 1	14.71	8	1.0649		494			0.0007	-r.0co1
041		-	-		C.6		C. (0 1	16.94	1	1.1341		234			0.0010	0.0005
041	- 4	3 49	, 1	1	(.70	00	C. () 1	5.11	9	1-2028		989	0.042		-0.0	0.0021
04.7		•										0.5	,,,,	0.042	4	9.0008	0.0009
C4 T					1.20		C. () -	1.17	6	-0.0499	0.0	72)	-0.049	_		
241.					1.20		C. () -	3.554		-2.2244	0.0	940	-0.017	8	0.0003	-C.9C24
CAT-		-			1.20		(.(1.21		C.1382	0.0	721	-0.017	3	0.0002	-0.0039
C4T-		-		4	1.20	4	C. 0)	3.546		C.3204	0.0	920	-0.079	6	0.0002	-0.0C17
C4T-				ċ	1.20	4	(. (•	6. CZ		C.5294	0.0	0 38	-0.108	1		-0.0018
C4T-			(6	1.20	3	C. C		8.396		C.7248	0.1	110	-0.136	4		-C.0016
04 T-					1.20				C. 850	í	7.8765	0.1	34	-0.156	8	-9.9	-0.0013
04T-			1	E 1	1.20	4	C.C	1	3.172	,	1.0437	7.21	795	-0.165	3	2.0	-C.C013
04T-					1.23				4.957		1.1491	0.7	/41	-0.1710	5	-9-0004	-0 0010
047-			10	0 1	.20	5	C. 0	ī	C. 811		C. 9907	9.3	324	-0.179	9 .	-0.0002	-0.0C11
C4T-			11	1 1	.23	7	C. C		4.961		0.5097	0.21	,,,	-0.165		-0.0	-0.0012
£4T-	43	50			. 2C		C. C		4. 787		0.4240	3.09	195	-0-1332	2 -	-0-0	-0.0015
											0.4240	0.00	140	-0.1217	-		-C.CC17
04T-			1	C	. 90	4	Cac	-	1. C52		C 02.25					\$	
04T-					. 25		C.0		3.596		0.0225	9.06	C9	-0.0775	•	0.0007 -	-0.0025
04T-					. SC		C. 0		5. 980		0.3702 C.5777	9.06	98	-9.0787	,	0.0015 -	0.0020
04T-					. 85		C. 0		3.308			9.09	75	-0.0973		0.0024 -	0.0022
04T-					.90			13	913		C. 7528	9.13	44	-0.0989		0.0009 -	0.6022
041-	42	53			. 900		C-C	16	. (55		1.0331	0.23	53	-0.0736		0.0021 -	0.0022
											1.1841	0.32	59	-0.0592		3.0024 -	C.0C34
041-		54	1	(. 657	,	(0	- 4			2 22						
04T-		54			5C3		C. 0	-3	251		2.6850	0-21	29_	-0.0146	-	0.0010 -	0.0054
04T-	4 3	54			895		(.0	- ,	• 271		3.1431	0.07	34 -	-0.0701		0.0004 -	0-0028
04T-	43	54			8) 8		(.)		-298		0.1853	0.C5	82 -	-0.0695		0.0001 -	0.0016
04T-	43	54			900		C.0		. 667		3821	0.07	19 -	0.0818		7.0014 -	0.0018
74T-	43	54			901				- 021		0.5867	0.09	86 -	-0.0968		0.0020 -	0.0036
04T-		54			858		0.0	10	. 382		7635	0.13	72 -	0.1025	-	0.0020 -	0.0020
04T-		54	- 5	C	503		()	10	.659		.9149	0.18	42 -	P.0937	- (0.0011 -	0.0017
04T-		54			901		C 0	12	925		. 3327	0.23	56 -	0.0725	(0.0020 -	0.0030
04T-		54			901		C.O	1 5	159		-1367	0.296	54 -	0.0585	-	0.0022 -	0.0026
	-	•			701	,	c.c	1 /	•423	1	. 2374	0.369	8 -	0.0543	-	0.0016 -	0.0026
																, o I O	• 00.27

TEST	PUN	PT	MACH	SWFFP (CEG)	(DEG)	$c_{\mathbf{L}}$. C _D	$c_{\mathbf{m}}$	C.	cn
04T- 43	55	1	C. 799	C- 0	-1.038	0.0194	0.0512	-0.0641	0-0002	-C:0017
04T- 43	55		C.800		-3.345			-0.7584		-0.0025
04T- 43	55		0.800	C. 0	1.284	0.2028		-0.0640		-0.0C12
04T- 43	55		C. 801	C. 0		0.3870		-0.0632		-0.0013
04T- 43	55		C.8C3	C. 0	5. 92 9	C.5590.		-0.0610		-0.0013
04T- 43	55		C. 802	C. C	8.208	0.7047		-0.0537		-0.0012
04T- 43	55		C.749		1C.445	C.8442		-0.0392		-0.0010
04T- 43	55		C.860		12.737	C. 9854		-0.0206		-0.0C07
04T- 43			C.800		15.C17	1.1183		-0.0058		-0.0004
04T- 43	5.5		C.801		17.147	1.1915		-0.9178		-C.0C03
04T- 43			C. 757		18.818	1.2269	0.3881			-0.0008
047- 43	56	1	C.7CC	C. 0	-1. C44	G.0079	0.0469	-0.0558	0.0004	-0.0017
04T- 43	56	2	C.700	C.0	-3.285	-C.1498	0.0622	-0.0542	0.0003	-0.0C27
04T- 43	56	3	C.699	C.0	1.226	0.1839	0.0403	-0.3555	0.0005	-0.CC14
C4T- 43	56	4	(.7CO	c.c		0.3708	0.0444	-0.0554	0.0017	-0.0011
04T- 43	56	5	(.658	(.0	5.814	C.5482	0.0612	-0.0516	9.0017	-0.9097
04T- 4?	56	6	C. 699	C. C	8.103	0.7018	0.0911	-0.0425	0.0026	-0.0010
C4T- 43	56	7	C.700	C.C	1C.304	0.8348	0.1290	-0.0306	0.0011	-0.0007
04T- 43	56	8	C.699	0.0	12.585	C. 9729	0.1767	-0.0144	0.0020	-9.9C07
04T- 43	56	9	C.696	(.0	14.752	1.0990	0.2345	0.0003	0.0003	-0.0006
04T- 43	56		C.697	(.0	16.939	1.1729	0.3082	0.0096	-0.0008	0.0002
04T- 43	56	11	C. 698	C.C	19.092	1.2233	0.3853	0.0335	0.0014	-0.0001
047- 43	67		1 205		-1 225	-0 0744	0.0463	-0.0447	0.000/	0.0024
04T- 43	57		1.205		-1.225			-0.0447	0.0004	-0.0026
04T- 43	57		1.204			-0.2396		-0.0161	0.0	-0.0022
04T- 43	57		1.266	C.0	1.180	0.1037		-0.0763		-0.CC27
04T- 43	57 57		1.207	C.C	3.457 5.887	C.2746 C.4694		-0.1029	0.0007	
04T- 43	57		1.203		8.309			-0.1284	8700.6	-0.0019
04T- 43	57		1.205	C. C	10.726	0.6676 C.8493		-0.1529		-0.0016
047- 43	57		1.204		13. C35	C. 9984		-0.1694		-0.0015 -0.0018
04T- 43	57		1.204		15.404	1.1388		-0.1712 -0.1785		-0.0019
0.41- 45	71	7	1.204		19.404	1.1303	0.3313	-0.1155	3.0094	-0.0019
04T- 43	60	1	(.900	C. C	-C.9C8	C.1090	0.0282	-0.0914	0.0002	-0.0029
04T- 43	60	2	0.904	C. C	3.919	0.0109	0.0731	-0.0827	-0.0010	-0.0023
04T- 43	60	3	C.903	(.0	6.300	C.7398	0.1034	-0.0917	-0.0C05	-0.CC2C
04T- 43	60	4	C.903	C. 0	8.639	C. 9911		-0.0920		-0.0017
C+T- 43	60	5	C.899	C.0	13.037	1.0712		-0.0602	0.0010	-0.0019
04T- 4?	40	¢	C.901	C. 0	15.463	1.1424	0.3450	-0.0391	0.0014	-0.0017
0.5 (3		•	c co.							
04T- 43	61		C. 5C1		-0.905	2:1111		-0.0916		-0.0024
C4T- 43	61		C.993			-C.1369		-9.3854	0.0008	
04T- 43	61		C.900	C.0	1.539	C. 3277		-0.0825	0.0001	
C4T- 43	<i>ϵ</i> 1		(.901	C.0	3.915	C.5350		-0.3818		-0.0021
C4T- 43	61		C.899	C. 0	6.295	0.7379		-0.0881		
04T- 43	61		C-502	C. 0	8.616	0.9024		-0.0923		-C.0015
047- 43	· 61		C.898		1 C. 785	G. 9566		-0.0661	0.0025	
04T- 43	61 61		(893		12.569	1.0489		-0.0497		-0.C025
U-41- 41	CI	7	(.900	C.U	15.196	1.1267	9.3395	-0.0385	9.0014	-0.0C14

TE	ST	RUN	PI	MACH	SHEEP (DEG)			c_D	c_{m}	CA	$c_{\mathbf{n}}$
	- 43	€2	, 1	(.801	C. C	-C.911	0.0962	0.0241	-0.0689	0.000	0.000
	- 43	€2	2	C.860		-3.282					-0.0021
	- 43	€2	3	C. 799	(.)				-0.0600		
04T-		67		C. 795	C. 0				-0.0515		
	42	12	5	C.802	(.0				-0.7386		
	4 3	62		(.799	0.0				-0.9245		-0.0011
04T-		62	7	C.802		10.615			-0.0149		-C.CC07
04T-		€2	P	C. 8C1	C.0	12.789			2.0009		-0.0006
041-		£2	9	C.800		14.928	1.0368				-0.0004
C4T-	43	€2	10	C. ECO		17.098	1.1172	0.3615			-0.0001
04T-		63	1	C. 698	C. C	-0.928	0.0855	0.0255	-0.2600	0.0000	
04T-		£3	2	C. 700			-C.1025	0.0299	-0.0667		
041-		63		C.7C2	C.0	1.335	0.2555	0.0275			-0.0031
04T-		63		C.699	C.C	3.609	0.4240	0.0537	-0.9413		-0.0014
C4T-		63	ë	(.697	C. 0	5.936	0.5978	0.0669	-0.0293		-C.0C12
041-		63	6	C. 698	C. O	8.184	C. 7461	9.1080	-0.0151	0.0006	-C.0010 -C.0006
C4T-		63		C.698	C.0	10.362	C. 84 03	0.1584	0.2031	-0.0011	-0.0001
04T-		£3		(.699	C.0	12.545	C. 9253	0.2129	0.0233	-0.0039	0.0013
C4T-		63		(.698	C.0	14.701	1.0038	0.2721	0.0360	-0.0010	0.0016
04T-		63		(.700	C.C	16. 867	1.0714	0.3352	0.0486	0.0012	6000.1
04T-		63		(649)		18.971,	1.1369	9.4044	0.0519		-6.0026
04T-	,	£ 3	12	.0.699	C•0	21.119	1.2110	0.4838	0.0473		-0.0026
C4T-		64		1.204	1.0	-1.055	C.0071	0.0499	-0.0507	0.0001	-0.0025
041-		64	2	1.205			-C.1744	2-0603	-0.0262	9.0004	-0.0025
047-		£4		1.206	C.C	1.387	0.2161	0.0542	-0-0815	-7.0011	-0.0024
C4T-		£4		1.205	C.C	3.748	C.4144	2.0743	-0.1103	-0.0011	-6 0024
041-		£4		1.204	(.0	6.182	C.62 02	0.1131	-0-1412	-0.0011	-0.0020
04T-		the		1.207	C. C	8.610	C.8050	0.1667	-0-1625	-0.0006	-0.0014
C4T-		64		1.203		1C.956	C. 9680	0.2315	-C-1759		-0.CC17
041-		+4	9	1.204	C-0	13.284	1.1125	0.3065	-0.1903	-0.0004	-0.0017
04T-		67	1	(.500	C. 0	-C.955	0.0830	0.0324	-0.0895	0 0025	-0.0021
C+T-		67		C.502	C. 0	3.860	0.5118	0.0617		0.0025	-0.0015
041-		67		C.901	C.0	6.231	(.6993	0.0973	-0-0915	0.0041	
041-		67		C.9C4	C. 0	8.563	0.8945			0.0018	-0.0026
74 T ~		£7	5	C.9C1	C.C	12.062	1.0925	0.2721	-0.0679	-0.0011	-0.0019
04T-		68	1	C. 5C2	C.C	-C.961	0.0795	0.0325	-0.0893	0 0005	
041-		68		C.931	C.C.		-C.1482	0.0459	-0.0814	0.0025	-c.oc12
04T-		68		C.901		1.467	0.3037	0.0382	-0.0874		
041-		68	4	C.900		3. 649	C.5061	0.0602	-0.0880	0.0018	
741-		68		C.839		6.235	C. 7033	9.0973	-0.0916	0.0040	
C4T-	-	66		C.902	C. 0	8.567	0.8750	0.1495	-C.0947	0.0018	-0.0024
C4T-		f R		C.902	C. C 1	10.825	C. 5725	0.2032	-0.0754	0.0002	-0.0025
741-		68		C.905	C. 0	13.C50	1.0862	0.2704 .	-0.2660	-0.0040	-C-0C025
04T-		68	9	6.899		5.169	1.1258	0.3279 -	-0.0415	-0.0022	-0.0008
041-	43	71	1	(.857	C.C -	-1.CC8	0.0513	0.0467	-0.0851	0.0005	-C.003C

TEST		RUN	PT	PACH	SHEEP (DEG)	ALPHA (DEG)	$c_{\mathbf{L}}$	$c_{\mathbf{D}}$	C _m	C.	c _n
C4T- 4	43	71	2	(.903	c.c	3.762	C.4651	0.0699	-0.1004	0.0003	-C.0026
04T- 4	4 3	71	3	(.897	C.0	6.129	0.6497	0.0962	-0.1015	0.0004	-0.0024
04T- 4	63	71	4	(.898	C. 0	8.434	C.8080	0.1359	-0.0966	-0.0002	-C.002C
04T- 4	4 2	71	5	. C. 902	C.0	12.985	1.0714		-0.0698		-C.0C04
04T- 4	43	71	ŧ	C. 904	C. 0	15.136	1.1709	0.3161	-0.9805	-9.0007	-C.G002
C4T- 4		72		C.901		-1.009	C.0512		-0.0857		-0.0027
04T- 4		72		C.898			-0.1357		-0.0792		-0.0031
04T- 4		72		C. 502	C.0		1.2526		-0.0888		-0.0024
047- 4		72		C.899	C.0		0.4643		-0.0979		-0.0023
04T- 4		72		C. 900	C.C	6.102	C.6504		-0.1034		-0.0023
047- 4		72		C.901	C.0		C.8123		-0.0997		-0.0022
041- 4		72		C. 901		10.762	G. 9617		-0.0875		-0.0020
047-		72		(.502		12.578	1.0548		-0.0661		-0.0005
047- 4	4 5	72	5	C.5C2	" (.C	15.252	1.1699	0.3184	-0.0584	0.0009	-0.CC15
04T- 4	634	73	1	C. 8CO	C.0	-1.011	0.0397	0.0398	-0.0703	0.0003	-C.0023
04T- 4	. 3	73	2	C.801	0.0	-3.3C8	-0.1355	0.0529	-0.0690	0.0004	-0.0028
04T- 4	43	73	3	C.8C1	C.0	1.397	C.2507	0.0376	-0.0723	0.0001	
04T- 4	43	73	4	C.BCO	C.0	3.734	C.4401	0.0489	-0.0695	0.0006	-0.0018
04T- 4	43	73	5	C. E02	C. 0	6.CO1	C.6079	0.0735	-0.0619	-0.0001	-0.0016
04T- 4	. 3	73	É	C. 799	C. 0	8.324	9.7622	0.1084	-0.2481	-0.0003	-0.0013
C4T- 4	13	73	7	C.8C2	(.0	10.606	C.9108	7.1564	0.0344	-0.0001	-0.0010
04T- 4	63	73	8	C.802	C.0	12.832	1.0278	9.2165	-0.0152	-0.0008	-C.CC02
04T- 4	13	73	9	C.798	C., O	14.997	1.0965	0.2803	0.0045	0.0003	-0.0003
04T- 4	4 ?	73	10	(.799	C.0	17.153	1.1647	0.3513	0.0061	0.0002	0.0
04T- 4		74		C.701		-1.CC7	C.0368		-0.0638		-0.0022
041- 4		74		C. 699		-3.286		_	-0.0651		-0.0030
04T- 4		74		C.700	C.0	1.296	C.2271		-0.0631	-0.0003	
047- 4		74		(.700	C.0	3.579	0.4018		-0.0578		-0.0C15
047- 4		74		(.70)	C.0		0.5696		-0.0495		-0.0013
04T- 4	_	74		C.658	C.0	8.159	0.7304		-0.0365		-C.CO10
04T- 4		74		C.698		1C.367	0.8720		-0.7212	-0.0008	
04T- 4		74		C. 699		12.584	0.9846		-0.0036	-0.0004	
04T- 4		74		C.699		14.775	1.0661	0.2589		-0.0004	
041- 4		74		C.657			1.1421				
04T- 4	1 2	14	11	(.699	C.O.	19.083	1.2036	0.4017	0.0350	0.0013	-0.9092
04T- 4	3	7.7	1	C.899	C. 0	-C. 585	7.0610	0.0429	-0.0807	-0.0003	-0.005C
04T- 4	. 3	77	2	C. 899	C. G	3.793				-0.0036	
04T- 4	3	77	3	(.897		6.144				-0.0637	
C4T- 4		77		C.900		8.481	C.8343			-0.0039	
04T- 4	13	77	5	(.899	C.0	12.986	1.0613			-0.2011	
C4T- 4	3	77		C. 899		15.658	1.1795			0.0091	
04T- 4	-	78	_	(. 894			0.0634			-0.0003	
C4T- 4	-	78		C.897			-0.1349			0.0019	
C4T- 4		78		C. 855			0.2729			-0.0045	
04T- 4	3	78	4	C.887	(.0	3.792	C.4756	0.0607	-0.0820	-0.003i	-G.0026

TEST	RUN	PT FACH	SHEEP (DEG)	ALPHA (CFG)		c_{D}	c_{m}	C _Q	Cn
041- 43	78	5 C.899	C 0	4 153					
04T- 43	78	6 (.896	C.0	6.157			-0.0920	-0.0032	-0.0023
04T- 42	78	7 (.898		8.465		2 0.1363	-0.0830	-0-0028	-0.0011
04T- 43	78	8 (.856	(.0	10.755		0.1888	-0.0715	9-0001	-0.0007
04T- 43	78	9 0.856	C.0	12.990		2 0.2478	-0.0520	-0.0014	0.0009
	10	7 6.876	C.C	15.215	1.1586	0.3186	-0.0404	0.0049	
04T- 43	79	1 (.800	0.0	-(.580	C. 05 01	0.0243	0.000		
04T- 43	79	2 (.801	C. 9 .	-3.299	-9.1313	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-0.0592 -0.0580	-0.0014	-0.0042
04T- 43	79	3 C. E01	C. 0	1.380	0.2548		-0.0580	0.0010	-0.0043
C4T- 43	79	4 C. 798	C. C	3.723	C-4508		-0.0596	-0.0021	-0.0031
04T- 43	79	5 C.EO2	C. 0	6.055	C.6239		-0.0561	-0.0010	-0.0024
04T- 43	79	6 C.755	C. C	8.316	C. 7734	7.0132	-0.0474	-0.0032	-0.CC24
047- 43	79	7 C. 799		C.601		0.1014	-0.0337	-0.0043	-C.CC14
04T- 43	79	£ (.801		2.824	C. 91 74	0.1587	-C.0192	0.0002	-0.0002
04T- 43	79	9 (.80)	(0 1	4.587	1.0189		-0.0010	0.0065	-0.0004
04T- 43	79	10 C. E00			1.0930			0.0059	-0.0015
	• •	10 (C. C 1	17.128	1.1547	0.3514	0.0142	2.0031	-7.0016
C4T- 43	80	1 6.657	(-0 -	0.980	0.0450	0 0044			
04T- 43	60	2 (.700	C-0 -		-0.1281	0.0341	-0.0499	-0.0016	-0.0039
047- 43	80	3 (.699		1.323		U . U40 /	-0.0511	0.0005	-C.C044
04T- 43	0.9	4 C.699		3.608	7.2347	0.0317		-0.0019	-0.0033
04T- 43	80	5 C.701		5.892	0.4110	0.0403	-0.9417	-0.0010	-0.0022
04T- 43	RC	6 6.700			0.5820	0.0601	-0.0340	-0.0008	-0-0018
04T- 43	80	7 6.701		8.163	7.7439		-0.0207	-0.0009	-0.0013
04T- 47	PC	8 C.701	C.0 1	0.399	7.9746	0.1358	-0.0030	0.0027	-0.0006
04T- 43	96	9 C.700	C.0 1	2.597	C. 9738	0.1936	0.0154	0.0069	-0.0001
04T- 42		10 6.699	C. C 1		1.0589	0.2622	0.0318	7.0026	-0-0006
04T- 43		11 C.700	C. C 1		1.1259	0.3290	0.0444	0.0022 -	-0-0008
04T- 43		12 (.700	C. C 1		1.1891	0.4015	0.0527	0.0028 -	-0.0022
		12 (.700	(.0 2	1.194	1.2537	0.4781	0.0580	0.0046 -	-C.0046
04T- 43	81	1 1.199	C.O -	1.150	-C.04C7	0.0401			
C4T- 43	61	2 1.233	C. C -	3.504 -	9.2177	0.0031	-0.0448 -	0.0023 -	0.0050
	61	2 1.202		1.219	7.1518	0.0627	-0.0135 -	0.0013 -	6.0050
04T- 43	81	4 1.204		3.632	3.3522	0.0691	-0.0791 -	0.0035 -	0.0048
04T- 43	81	5 1.214		6. Cf. 2	C.5626	0.0829	-0.1116 -	0.0054 -	0.0042
	81	£ 1.2C2		3.483	C. 7594	9.1125	-0.1392 -	0.0059 -	C.CC34
	61	7 1.233	C.C 10		C. 1344	0.1585	-0.1581 -	0.0043 -	0.0027
	81	8 1.204	C.C 13		1 07//	7.2100 .	-0-1667 -	0.0062 -	0 0014
04T- 43		9 1.204	C. C 14		1 1 1 00	7.2020	-U.1/37 -	0.0039 -	2.0010
				1024	1.1606	0.3333 -	-0.1794 -	0.0034 -	0.0010
		1 (.856	C. 0 - C	.977	0.0673	0.0452	0.004.5		
		2 0.900	C.0 3		C.4619		0.0842 -	0.0042 -	0.0061
		3 (.849	C.0 6		0.6631	0 1011	0.0838 -	0.0158 -	0.CC36
		4 (.496			C.8153	0 1420	0.0943 -	0.0137 -	0.0021
		5 (.857	C.0 12		1.0312	0 2404	0.0880 -	0.0125	C.0C04
04T- 43 E		6 C.898	C. C 15		1.1564	0 3373	0.0579	0.0017	0.0016
04T- 42 F							0.0490		
		1 (.85)	C. U -0.	.979	C. 0657	0.0455 -	0.0833 -0	0.064	2006
		2 C.897				0.0578 -	0.0777	0.0044 -(0.0065
1741- 41 8	5	3 C.900	C.O 1.	.396	2595	0.0489 -	0.0774 -0	0120	0.0056
							V. O 1 14 -1)	7.0130 -0	7.0053

TES	т	RUN	o T	MACH	SHEEP	41 011				· ·	
	•	~ (//4	rı	PACH	(DEG)	(DEG)		$c_{\mathbf{D}}$	c_{m}	CI	Cn
		1			101.07	(DEG)			•••		n
041-	43	23	4	(.895		2 222					1.00
04T-		85		(.897	C- 0				-0.0819	-0.0156	
04T-		23			(.0					-0.0134	_
04T-				(.893	C. 0				-0.3931	-0.0119	0.0003
		85		C.997		1C.724		0.1979	-0.0811	-9.0055	0.0013
04T-		P5		C.898		17.922			-0.0565		C.0012
0÷T-	4 5	85	4	C.898	C. 0	15.164	1.1351	0.3171	-0.0507	0.0061	-0.0013
04T-		66		C.601		-C.980		0.0386	-C.0675	-0.0025	-0.0045
04T-		3 6		C. 799		-3.309	-0.1278	0.0511	-0.0656	0.0023	
041-		6.6		C.801	(° Ú	1.367	3.2502	0.0391	-0.0636	-0.0058	-C.CC34
041-		86	4	C.8C2	(.0	3.697	0.4362	0.0519	-0.0598	-0.0074	-0.0026
04T-	_	66	5	C.801	0.0	6. C2 8	C.6125	0.0775	-0.0518	-0.0107	-0.6011
04T-	_	66	6	108.3	C.0	8.291		0.1166	-0-0413	-0.0089	5.0009
04T-	43	98	7	C.830	C.C	1C.5CO	0.8718	0-1628	-0.0277	-0.0023	0.0078
,04T-	43	£6	9	(.799		12.747		0.2187	-C.0148	0.0061	
04T-	43	66		C.801		14.991	1.0765	0.2795		_	
047-		66		C.FC2		17.117	1.1514	0.3476			-0.0009
C4T-		86		0.801		15.223	1.1934	0.4174			-C.OC26
2			•			170223	1.1734	0.4174	0.0008	0.9125	-0.0093
nat-	43	27	1	(.700		-C.987	0 0/70	0 005			
04T-		87		(.699			C.0479	0.0354	-0.060R	-0.0033	
04T-		87		C. 760		-3.289			-0.0612		-0.0052
047-		87			(.0	1.328	0.2302	0.0349	-9.9553	-0.0052	-0.CC29
047-		87		C. 701	C. 0	2.593	0.4053	0.0431	-0.0509	-0.0041	-n.0C15
				C.694	C.0	5.894	C.5824	0.0640	-0.9424	-0.0039	-0.0CG3
0.4T-	_	E 7		C.700	0.0	8.134	0.7293	0.0994	-0.0305	-0.0011	0.0014
04T-		87		(.700		10.339	(.8467	9.1450	-0.0180	0.0023	0.0031
041-		67		(.699		12.549	0.9636	0.1974	-0.0006	0.0102	
04T-		97		C. 7C1		14.726	1.0532	9.2562	0.0178	0.0160	0.0016
041-		87		(.694		16.855	1.1111	0.3213	0.0333	0.0145	
C4T-	_	87		C.7LO	C.0	18.977	1.1571	0.3998	0.9305		-0.CC76
041-	4 ?	E7	12	C.7C2	C.0	21.119	1.2311	0.4691	0.0303		-0.0103
C4T-		89	1	1.204	C.C	-1.154	-C.0398	0.0714	-0-0488	-0.0049	-0.0061
04T-		88	i	1.203	-C.C	-3.530	-0.2177	0-0946	-0-0188	-0.0021	-0.0058
04T-	4 ?	8.8	3	1.200	C. 0	1.257	C.1639	0-0727	-0-2860	-0.0084	-0.0066
041-		89	4	1.203	C. 0	3.653	C.3638			-0.0133	
04T-	4?	29	5	1.202	(.0	6.066	0.5655			-0.0153	
OST-	43	88		1.204		8.480	C. 7574	0 1662	-0 1449	-0.0131	-0.0014
94T-	43	88		1.204		16.859	0.9307	0 2220	-0.1703	-0.9191	
CAT-	43	89		1.202		13.184	1.0787	0 2014	-0.1793	-0.0095	
C4T-	43	9.8		1.294		14.815	1.1759	0 3440	-0.1077	-0.0095	
							1017 37	0.3404	-0.1977	-0.00085	0.0045
041-	42	51	1	C.898	c 0	-(.590	0 05 20	0 0400			
04T-		51		(.897		3.855	0.0539		-0.0750	0.0186	
C4T-		51		(.899	C. 0		C. 4971		-0.0873		· -
04T-		51		C.898		6.208	C.6339		-0.0907	0.0207	
04T-		91		C.899		8.539	C. 8534		-0.0873		
CST-		51				13. C57	1.0847		-0.0552		
3 4 1 -	-	71	C	(.899	0.0	16.134	1.1558	0.3531	-0.0349	0.0149	-0.0031
04T-	67	52	,	(000	C 0	. 0 00 5					
, , , ,		, 2	1	(.855	C. 0	-0.993	C.C514	0.0437	-0.0736	0.0192	0.0033

									3		
	TEST	RUN	PT	PACH	SHEE	P ALPH	A CL	c_{D}	c_{m}	CA	c _n .
	04T- 43	6.3									'n
	04T- 43	52		C.895	C.	0 -3.40	6 -C.161	70 0 05-			
	04T- 43	52		C.9C2	C.				1 -0.0616		0.0020
	04T- 43	92		(.858	C.	0 3.81			9 -0.0630	0.0211	0.0044
	04T- 43	92		C. 502	C.		1 C.681		1 -0.0879	0.0000	
	041- 43	92		C.898	C.				8 -0.0901	0.0207	0.0007
	047- 43	52		C.898		10.80	5 3.987		9 -0.0847	0-0201	
	047- 43	52	8	C. 901	C.	13.C2			6 -0.0724	0.0180	-C.0019
	04T- 43	97	9	C. 899	C.C	15.22			-0.0549	0.0174	-C.0C31
						23022	6 1.137	1 0.325	1 -0.0293	0.0155	-0.0031
	04T- 43	95	1	C. 900	C - (-1.025		_			20.134
	04T- 43	95	2 (0. 902	C. 0				-0.0705	0.0191	-0.0005
	04T- 43	55		C.899	C. (0.0657	-0.0988		-0.0000
	04T- 42	55		C. 896	C. 0			2 0.0979	-0.0873	0-0202	-0.9020
	047- 43	55	5 (1.902		8.513		8 0.1414	-0-2789	0-0102	-0.0036
	04T- 43	55	6 0	898	C 0	13.035		0.2631	-0.0551	0.0142	-0.0048
				,	()	16.476	1.1614	0.3636	-0.0396	0.0148	-0.0054
	04T- 43	56	1 0	. 856		1 000		1885 W	Sept.	040172	-0.0054
	04T- 43	56		898	6.0	-1.019		0.0413	-0.0705	9.0190	0.00-
	04T- 43	56		. 856		-3.413		0.0559	-0.0577		0.0003
	04T- 43	96		· £55	(.0		,	0.9435	-0.0200	0.0155	-0.0006
	04T- 43	56		. 856	C.0		C. 2780	0.0438	-0.0801	0.0228	-0.0
	C4T- 42	96		.898	C.C	20031		0.0641	-9.0840	0.0228	-0.0
		96	7 6	• 848	C.0	6.189	0.6737		-0.0834	0.0223	-0.0017
	A	56			C. C	8.514	C.8362	0.1411	-0.0771	0.0202	-0.0027
		ç.e	0.0	.897	C.0	10.738	3. 94 A7		-0.0660	0.0196	-0.0035
	A	-	9 (899	C. 1	13.014	1.0615		-0.0473	0.0163	-0.0037
		3C 1	U C	854	C.C	15.178	1.1284		-9.04/3	0.0150 -	0.0042
	04T- 42	59					f"	0.3210	-0.0283	0.0122 -	C.0C35
	A		1 (.	858	(.0	-0.999	9.0513	0.0303			•
	A		2 C.	E97	C. 0	3.849	0.5062	0.0397	-0.0776	9.9111 -	0.0021
			3 C.		C. 0	€.205	0.6894	.0 .0648	-0.0908	0.0156 -	0.0036
			4 (.		C.O	8.525	C. 9621	0.0981	-0.0914	0.0158 -	G.0041
				897	C. 0	13.035	1.0783	0.1499	-0.0910	0.9145 -	0.0043
	45 6	9	6 (.	857	C.0	15.871	1.1665	0.2601		0.0140 -	0.0052
	04T- 42 10					_		C.3460	-0.0646	0.0117 -	C-0054
		•	l (.		C.O .	-1.008	9.0455	0 0000			
		_	?	894	C.0 -	-3.349	-C. 1707	0.0397 -	-0.0749	0.0102 -	0.0016
	04T- 42 1C		· (898	C. n	1.443	0.2908	0.0530 -	8090.0	0.0081 -	0-0036
	04T- 42 1C		C.		C.0	3.846	0.5031	- 16A0A	U. JH / 1	0.0169 -	2-0021
	047- 43 10	-	C.	960	C.C	6.201	7.6910	0.0646 -	ひゃりかりつ リ	0.0164 -	0.0032
	04T- 43 10			899	C. 0	8.499	6 9530	0.0986 -	0.0924	0.0154 -	0.0038
1	74T- 43 1C		C. 8	999		_	C.8528	0.1430 -	1 1080·U	0-0140 -0	-0038
•	14T- 43 1C	C s	C.8		C-0 1	3.020	7.9694	0.1963 -	U-U68/ (0-0123 -0	-0036
(04T- 42 100	0 9	(.6		C.O 1		1.0719	0.2586 -	U_U_J_Y	0.0133 -0	0063
						2.501	1.1356	0.3223 -		1-0125 -0	-0051
(4T- 42 103	3 1	C. 8	158	C- C -	1.C40					. 10.0
ŋ	47- 42 102	3 2	(.9		(.0		C.0250	0.0482 -	0.0715	-0065 -0	0021
(47- 43 103	3	C. 8			3.752	C-446/	0.0674 -	0.0894 0	•0179 -C	0021
0	4T- 43 1C3	4	(.8			6.100	1.0393	0.0977 -	0-0953 a	-0162 -0	6035
0	4T- 42 1C3	5	(.9		C.O 1	8-405	1935	0.1357 -)-3882 O	·0154 -C	0044
0	4T- 43 103		C. 5		.0 1		1.0767	J. 2478 -(0.0630 n	.0132 -0	0061
			,	,	1;	7.755	1.1964	0.3364 -		·0132 -0	0051
									0	-0104 -U	•0052

TEST	RUN	PT	MACH	SWEEP (DEG)	ALPHA (DEG)		.o CD	Cm	CA	c_n
04T- 43	104	1	C. 857	C.0	-1.C34	9.0306	0.0494	-0.0750	0-0049	-0.0C18
04T- 43	1C4	2	C. E97		-3.396			-0.0620	0.0057	
04T- 43	164		C.899	C. 0				-9.0805		-0.0019
04T- 43	104	4	C.856	(.0				-0.0902	0.0171	
047- 43	104		(.897	C.0				-0.0922	0.0156	
04T- 43	104		C. 502	0.0				-0.0874	0.9150	
04T- 43	104	7	(.892		10.690			-0.0663		-0.0046
04T- 43	104	E	C.899		17.966			-0.0577	2.0158	
04T- 43	104	9	C.897	C. C	15.204	1.1549		-0.0451		-0.0056
04T- 43	167		C.900		-t ce o	0.0103	0.0510	0.0710		
041- 43			(.897		-1.050			-0.0712		-0.0005
047- 43				(.0				-0.0882		-0.0013
04T- 43			(.858	C.0				-0.0910		-0.0029
041- 43			(.899	C. 0				-0.0868		=0.0036
			C. 896		12.976	1.0507		-0.0570		-0.0051
04T- 43	107	C	(.899	(.0	15.511	1.1854	0.3284	-0.0492	0.0146	-0.00062
04T- 43			(.858	(.0	-1.053	C.0174	0.0512	-0.0706	0.0150	-0.0001
041-,43		2	(.899	C.C	-3.421	-7.1838		-0.0565		-0.0014
04T- 43		3	(.857	C.C	1.339	0.2280		-0.0773		0.0003
04T- 43	108	4	C.899	C.0	3.732	C.4420		-0.0988		-0.0011
04T- 43		5	C.899	C.C	6.098	9.6295		-0.0892		-0.0020
04T- 43	108	6	C.901	C. 0	8.466	0.7912		-0.0860		-0.0033
04T- 43	108	7	C.899	C. C	10.695			-0.0714		-0.0034
C4T- 43	108	3	C.500		12.954	1:0454		-9.0552		-C.0044
04T43	106	G	(.856	C.0	15.221	1.1647		-0.0438		-0.0047
047- 43	111	1	C. 699	C- 0	-1.028	0.0325	0 -0547	-0.0733	0.0167	0.0027
04T- 43			C. 897	C. C	3. 752	0.4511		-0.0913	0.0223	0.0027
747-43			6.858	· C.n		2.6439		-0.0968	0.0712	C.0C04
04T- 43			(.898	C. 0	E.418	C.7962		-0.0300	0.0180	
04T- 43			C. ES7		12.957	1.0476		-0.7573	0.0160	-0.0036
04T- 43			C.901		15.577	1.1754		-0.0478	0.0133	-0.0032
		7				101174	0.3271	-0.0478	0.0133	-0.0037
04T- 43			(.899		-1.03C	0.0309	0.0549	-0.9726	9.0168	0.0036
047- 43			C. 5C2	C.0	-3.399	-0.1710	2.0697	-0.0584	0.0164	0.0010
04T- 43	112	3	(. 699	(.0	1.352	C.2286	0.0546	-0.0766	0.0198	C.0C47
C4T- 43		4	(.858	C.C	3.741	0.4495	0.0714	-0.0908	0.0224	0.0029
C4T- 43		5	C.900	C. 0	£.105	0.6428	0.1019		2.0214	C.9004
04T- 43		6	(.897	C.0	8.412	C. 7998	0.1390	-0.0884	0.0179	-C.CCIC
04T- 43	112	7	C.891-	C.0	1C.731	3.9449	0.1888	-0.0782		-0.0025
C4T- 43			C.899	C.0	12.982	1.0633	0.2496	-0.9636		-C.0047
C4T- 43	112	ς	C.901	C.0	15.199	1.1504		-C.0475		-0.0021
04T- 42	11?	1	C. AOL		-1.009	0.0374	0.0461	-0.0655	0.0207	0.0050
04T- 43	113		C. 800			-0.1363	0.0607		0.0191	0.0021
C4T- 4?			-	()	1.349		0.0431		0.0225	0.0050
04T- 43	113		C.800	c.0	3.689	0.4370	0.0535		0.0211	0.0028
04T- 43			(.799	C. C	6.027	0.6125	0.0782		0.0202	0.0009
04T- 43			0.80	C. C	8.295	0.7545	0.1124			-0.0006
									,	5.50

TEST	RUN	PŢ	PACH	SWEEP (DEG)	ALPHA (DEG)	CL	$c_{\mathbf{D}}$	C _m	C.	c_n
04T- 4	3 113	7	C.801	C. 0	10.603	C. 8123	0.1599	-0.0355	0.0188	-C.OC19
04T- 4	_		C. 799		12.843		0.2178	-0.0169		-0.0031
04T- 4			. C. EC3		15.068		0.2850	0.0026		-C.0045
C4T- 4			C.799		17.144		0.3514	0.0086		-C.0C56
			,			101041	0.3784	0.0000	0.0147	0.00000
04T- 4			C.7C1		-1.006			-0.0604	0.0206	
04T- 4			C. 699		-3.294			-0.0598	0.0197	
04T- 4			C. 7CO	-(.0	1.314	0.2253		-0.0623	0.0227	
04T- 4			C.701	C. 0		0.4953	0.0449	-0.0576	0.0211	C.0028
04T- 4			(.649	0. C			0.0642	-0.0502	0.0206	C.0011
04T- 4	114	6	(.699	C.0	8.151	0.7367	0.0936	-0.0384	0.0191	-C.0003
04T- 4	2 114	7	C.698	C.0	1C.433	C.8921	0.1364	-0.0244	0.0182	-0.0617
04T- 4	2 114	9	(.700	C.0	12.588	C. 9938	0.1900	-0.0037	0.0172	-C.0029
04T- 41	114	9	C.699	· C.O	14.751	1.0589	0.2583	0.0116	0.0159	-0.0045
04T- 4	114	10	C.700	C. 0	16.936	1.1433	0.3458	0.0293	0.0142	-0.0049
041- 43	114	11	C.699		19. C52	1.2027	0.4017			-C.CC52
04T- 4	114		(.698	C.0	21.216	1.2669	0.4796			-0.0058
047		• 4	. 1: 101		1 156	0 0300	0 0007	0.0550	0.0100	0 0000
C4T- '4			1.201			-0.0380		-0.0550		0.0020
04T- 43			1.201	A	,	-C.2011		-0.9301	0.0107	
047- 4			1.203		1.198	G.1387		-0.0823	0.0120	C.0C13
04T- 43			1.203			/17.3188		-0.1086		-C.CC04
047- 43			1.202	c.0		0.5207		-0.1325		-0.6024
04T- 4			1.200	4	8.422			-0.1489		-0.0043
04T- 43			1.203		1C.781	C:8703		-0.1493	0.0113	
041- 43			1.201		13.134			-0.1561		-0.0077
04T- 4	115	9	1-202	C. C	15.45C	1.1590	0.3512	-0.1695	0.0108	-0.0096
041- 4	118	1	C.5C0	(.0	-1.C41	C.0234	0.0555	-0.0699	0.0077	C.CC07
04T- 43	2 118	2	C.900	. C.O	3.716	C.4427	0.0719	-0.1043	0.0131	-C.0CO7
04T- 4	118	3	C.900	C.0	6.066	0.6497	0.1025	-0.1433	0.0124	-C.0C27
04T- 4	118	- 4	(.857	C. 0	8.366	C.8267	9.1440	-0.1832	0.0101	
04T- 4	118	' 5	C.894	· C. C	12.875	1.1662		-C.3037		-0.0043
04T- 4	3 118	6	C.901	C. C	23.710	1.7695		-0.7249	0.0039	-C.0067
04T- 4	110	1	(.501	0.0	-1.041	3.02 C9	0.0540	-0.0668	0.0075	0.0011
04T- 4			C.900			-0.1700				
04T- 4								-0.0648		-0.0005
			(. ES6 C. 897	C. 0	1.334	0.2195		-0.0681	0.0096	
047- 43					3. 753	C.4453		-0.1009		-0.0C02
041- 41			C.901	0.0	6.105	0.6519		-0.1410		-0.0022
04T- 4			(.897	C.0	e. 266	C-8160		-0.1760		-0.0C28
04T- 4			C.896		10.677	0.9979		-0.2267		-0.0033
04T- 4			C. 858		12.938	1.1613		-0.3004		-0.0034
047- 4			(.898		15.183	1.3179		-0.3870		-0.0033
04T- 43			. C - 898		17.331	1.4487		-0.4568		-0.0055
C4T- 4			C.898		19.455	1.5506		-0.5577		-0.0039
04T- 43			(.899		21.598	1.6616		-0.6434		-0.0043
04T- 43	: 119	13	(.898	C. 0	22.668	1.7173	0,7305	-C.6811	0.0044	-r.0051
04T- 41	120	1	(.791	C. 0	-1.Cl9	0.0225	0.0470	-0.0525	0.0108	0.0026

TES	T	RUN	PT	PACH	SWFFP (DEG)	ALPHA (DEG)	$c_{\mathbf{L}}$	c_{D}	c_{m}	CA	c _n
04T-	43	120	2	C. 791	· C.O	-3.305	-0.1521	0 0621	-0.0464	3 0100	
		120		C. 799	0.0		0.2260		-0.0663	0.0100	
		120		(.803	C.0		0.4373			0.0120	
04T-				C. 799	C.0				-0.0882	0.0109	
04T-				(.801	0.0		0.6315		-C.1186	0.0102	
04T-				(.798			0.7974		-0.1440	0.0089	
04T-				C. EC3		10.537	0.9748		-0.1869	0.0095	-0.0C23
C4T-				(.800		12.790	1.1302		-0.2394	0.0091	
04T-				C. 802		14.540	1.2636		-0.3054	0.0090	
04T-						17.153	1.3774		-0.3985	0.0071	
041-				C.799		15.278	1.4939		-0.4911	0.0063	-0.0049
041-				C. 801		21.414	1.6009		-0.5657		-0.0062
041-	4:	120	13	C.8C1	1.0	23.452	1.6999	0.7454	-C.6400	0.0065	-0.0063
04T-	4 ?	121	1	C.702	C.C	-1. C15	C.0183	0.0435	-0.9437	0.0108	0.0026
04T-	43	121	2	C. 699		-1. C11	0.0206		-0.0441	0.0109	0.0028
04T-	43	121	3	(.699		-3.367			-0.0362	0.0102	0.0019
04T-	43	121	4	C. 702	0.0	1.310	C.2192		-0.0592	0.0120	0.0019
C4T-	43	121		C. 701	C. 0		C.4121		-0.0814	0.0112	
04T-	43	121		C. 760	(.0	5.906	0.6094		-0.1124		-0.0011
04T-				C. 700	C. 0	A. C76	C. 7959	0.1023		0.0101	
04T-		121		C. 658	C.0		C. 9677		-0.1829	0.0094	
04T-		121		(.657		12.531	1.1113		-0.2342	0.0091	
C4T-		121		(.699		14.766	1.2275		-0.2925		-C.0C41
04T-				C. 7CC		16.821	1.3414		-0.3557		-0.0044
C4T-		121		C. 7CC		19.050	1.4587		-0.4403		-0.0052
04T-		121		C.699		21.239	1.5823		-0.5146		-0.0061
04T-				C.699		23.238	146309		-0.5792		-C.0067
				r.			100507	10	0.7172	9.9015	-0.0067
C4T-				1.231		-1.142	-0.0661	0.0850	-0.3026	0.0024	-0.0009
04T-		127		1.200	C.C		-C.2589	0.0998	0.0687		-0.0004
04T-		122	3	1.201	- C. C	1.184	9.1428	0.0853	-0.0919		-C.0C12
C4T-			4		C. 0	3.548	C.3623	0.1001	-0.1839		-0.0C17
04T-			5	1.202	.C. C	5. 981	C.5989	0.1305	-0.2780		-0.0028
04T-			6	1.201	C.C	8.367	C. 8343	0.1808	-0.3710		-G.0C33
04T-			7	1.201		1C.713	1.0353	0.2451	-0.4597		-0.C037
04T-			8	1.201		12.948	1.2245	0.3242	-0.5560		-0.0051
04T-				1.2CG		15.351	1.4155	0.4269	+0.6676		-C.0065
04T-				1.200		17.578	1.5696		-0.7677	0.0067	-0.0078
04T-				1.201		19.800	1.7116	0.6475	-0.8654		-0.0097
04T-				1.204		22.C78	1.8213	0.7672	-0.9483		-0.0108
C4T-	43	122	13	1.202	C.0	23.491	1.8903	0.8480	-1.0C39		-C.G127
C4T-	43	125	1	C. 899	0-0	-1.CO5	0.2438	0 0517	-0.0717	0.0010	0 2024
C4T-				C. 896		3.706	0.4459		-0.0903		-0.0026
C4T-				(.857		6.158	C.6615	0.0997			-0.0024 -0.0025
04T-				C.834		8.400	C. 84 78	0.1427			
C4T-				(.899		12.910	1.1905	0.2737			-0.0023 -0.0021
04T-				C. 901		23.730	1.7777	0.7910			-0.0021
N4T-	42	126	1	C. 856	c. c	-1.007	0.0431	1.0519	-0.0724	0.0010	-0.0021
										4	

TEST										
(6)	RUN	Р	T MACH	SHEE	P ALPH		c_{D}	Cm	C.	$c_{\mathbf{n}}$
04T- 42	126	,	2 (.89						•	-11
04T- 43	126	3	C.89		0 -3.39		4 9.066	0.079	8 0.0000	-0 0000
04T- 43	126		(.89				5 0.052	1 -0.069		-0.0028
04T- 42	124		(. 39				7 0.067	-0.091		-0.0019
04T- 42	126	2	(-89			0.659		-0.130		-r.nc21
04T- 43	126	c	(.89			C-842		-0.177		-0.0020
04T- 43	124		(.89		0 1C.734	1.022		-0.241		-0.0019
04T- 43	120	3	(.853		C 12.924	1.195		-0.301		-0.0C14
04T- 47	126		C. 858		0 15.180	1.335		-0.378		-0.0011
0	126	10	(.897	C.(17.292	1.442		-0.439		-(.0015
	126		C. 899	C.(19.473	1.557		-0.5489		-0.0C12
A	126	12	(.899		21.666	1.679		-0.5489		-0.0C13
041- 43	126	13	(.89)	(.0	23.733	1.7910		-11.6490		-C.0C12
047 42							. 0.1924	-0.7240	0.0015	-0.0021
04T- 43	127	1	C. 758	C. 0	-1.024	0.0235	0 0445			
04T- 43	127	2	C. 801	C. C	-3.274	-0.1453		-0.0592		-0.0021
047- 43	127	3	C.EC4	(. (0.2320		-0.0523	0.0004	-0.0026
C 4T- 43	127	4	C.801	C.0	,	2.4422		-0.0720	0.0012	-C.CC17
047- 47	127	5	(.798	C.0		3.4432		-0.7916	0.0016	-0-0017
04T- 43	127	E	C. eci	C.0		0.6479		-9.1208	0.0016	-0-0020
041- 42	127	7	C. 802		10.602	0.3066		-0.1513	-0.0	-0.0016
04T- 43 1	27	3	C. 798		12.856	C. 9970	0.1721	-0.1953		-0.0006
04T- 43 1	27	9	C.8C1		14.880	1.1596	0.7455	-9.2544	0.0010	0.0
04T- 43 1	27	10	C.801		17.000	1.2677	0.3190	-0.3069	0.0020	-0 0003
C4T 42 1	27	11	(.799	C . C	17.082	1.3774	0.4147	-0.3961	0.0006	· C . OO 3 3
047- 43 1	27	12	(. 804	((19.300	1.4923	0.5182	-0.4829	C.OCC5 -	C 0000
047- 43 1	27	13	C. 8C2	(.0	21.431	1.6052	0.6295	-0.5619	0.0007 -	0.0008
			0002	C. ()	23.486	1.7130	0.7451	-0.6363	0.0011 -	C 0011
.04T- 43 1	28	1 (C. 658	c 0'						C.0014
047- 43 1	28	2	C. 700	0.0	-1.03C	0.0121	0.0414	-0.0491	0.0CC3 -	0 0000
C4T- 42 1	28	3	C. 7C1	0.0	-3.336	-C.1594	0.0565	-0-0406	0.0009 -	0.0022
04T- 42 1	28	4	700	6.0	1.244	0.2078	0.0366	-0-0653	0.0013 -	0.00.56
04T- 43 1	28	5 6	701	C.0	3.601	9.4150	0.0439	-0-0865	0.0004	ก•วิกไห
04T- 43 1	28	6 0	.699	C.0	5.937	0.6145	3.0661	-0.1193	9.0006 -	0.0018
04T- 43 1	28	7 6	.699	C. C	8.196	0.8022	0.1012 -		0.0006 - -0.0 -	0.0018
04T- 42 12	96	9 . 0	.701	C. 0	10.448	0.9912	0.1491 -		C.	0.0015
74T- 42 12	PA	0 (•7C2	C•0	12.517.	1.1154	0.2127 -	0.2382	-0.0001 -	8000.0
C4T- 43 12		7 (.700	C.0	14.726	1.2370 -	0.2987 -	0.3021	0.0011 -	\$0003
04T- 43 12	_	10 (700		16.918	1.3520	0.3901 -	0.3614	2.0037 -	1.0004
C4T- 43 12			.700	C. C	19.047	1.4605	0.4874 -		0.0006	-0001
04T- 43 12		2 (.699	C.O 2	21.232	1.5837	0.6002 -	0 5005	0.0002	-0002-
	r 1	3 C	.698	C. 0 2	23.245	1.693R	0.7119 -	0.5095	0.0009 -0	.0007, °
04T- 42 12	0							V-3800	0.0013 -0	-0015
04T- 43 12		1 1	202	C.O -	1.184 -	2-0854	0.0811 -	0 0000		
047- 43 12	9		205	-C.C -	3.539 -		0.0811 -		0.9007 -0	·0024 °
04T- 43 12			- ZUC	C.C	1.165		0.0904	0.0775	0.0010 -C	-0025
04T- 43 12		4 1.	204				0.0801 -	0.7974	7-00C4 -C	.0C25
04T- 43 17	_		232				0.0951 -	0-1415	7.0003 -C	.0023
04T- 47 12			202				0.1253 -	J_ /4 7R	7 7772	
04T- 43 124		7 1.	200		_		0 3440	1-3NG4 -	0 0005 0	
C4T- 43 120			199	(.9 1		-	~ ~ . , ~ . ~ [7 7717 4	
04T- 43 120	, (9 1.	203	C. C 1				/ A - 7 / DUI 0		
							U- 32/5 -0	-5741 -	0.0011 -6	.0021

TEST	RUN	PŢ	PACH	SHEEP (DEG)	ALPHA (DEG)	CL.	°C _D -	C _m	C4	c _n
04T- 43	129	10	1.202	C.C	15.259	1.4285	0-4218	-0-6805	-9.0011	-0.0025
04T- 43			1.202		17.639	1.6014		-0.7919	-0.0008	-0.0022
04T- 43			1.202		15.890			-0.8820	-0.0009	-0.0C22
047- 43			1.202		22.C50	1.8439		-0.9586	0.0003	-0.0036
C4T- 43		-	1.204		27.645			-0.9814		-0.0039
(41- 4)	127	17	10294			. 0			0	
04T- 43			(.899		-1.059	C.011P		-0.0666		-0.0021
04T- 43	132	_	C. E97			-2.1851		-0.0629		-0.001B
047- 43			C.505	C.0	,1.328	2.2181		-0.07.32		-0.0611
C4T- 43			C.899	C.O	3. 726	C-4358	.0.0701			-0.CC23
04T- 43			C.532	C.0	6. C83	C.6503		-0.1306		-0.0039
04T+ 43			C. 504	C.0		0.8342	•	-9.1791		-0.0044
04T- 43			C.903	(.0	9. C82		-9.1603			-0.0071
C4T- 43	132	8	C.5C3	č• u	23.720	1.7719	0.7926	-0.7237	7.0046	-0.0041
047- 43	133	1	C.900	C-0	-1.C66	C.CO71	0.0539	-0.0653	0.0105	+C.CC15
04T- 43			C.9C5		-3.432	-0.1898	. 9.0695		0.4	-0.0021
041- 43			C.899	. C. O	1.330	C.2211		-0.0748		-0.0009
04T- 43			C.899	(.0	3.732	C.4381		-0.0921		-C.0C19
P4T- 43			C. 9C3		6.093	0.6509	0.1030			-0.0033
04T- 42			C.932	C. 0	8.398	C. 94 04		-9.1773		-0.0043
04T- 43			C.839		10.685	1.0120		-0.2335		-0.0050
04T- 43			C.901		12.905	1.1682		-0.2971		-0.CC49
04T- 43			(.901		15.174	1.3354		-0.3668	9	-0.0052
C4T- 4?			C.5C7		17.339			-0.4382		-C.0C38
041- 43			C. 9C3		19.451	1.5426		-0.5389	0.0086	
04T- 43			C.930		21.633	1.6663		-9.6318	0.0063	
C4T- 43			C. 704		23.618	1.76 C8		-C.7122		-C.CC39
U41- 4;	133				23.010	d	* *		2	w 0
04T- 43	134	1	(.80)	.c.c	-1.C45	2.0094	_	-0.0552	0.0161	-0.0003
04T- 43	134	2	C. 799	.0	-3.342	-C.1649		-0.0463	30.0140	-0.0013
04T- 42	124	3	C. eci	. C.O	1.321	0.2259		-0.0758	0.0200	-0.0005
04T- 43	134	4	C. 759	C. 9	3.715	7.4518		-0.1029	0.9218	-0.002C
C4T- 43	134	.5	C.801	C.0	6.C45	C.6430		-0.1292	0.0189	-C.CC35
C4T- 43	124	6	C. 798	C.0	8.257	C.8120	6,	-0.1563	0.0157	-0.0642
. C4T- 43	134	7	C.8C1		12.832	1.1557	1	-0.2514	0.0143	-0.0042
04T- 43	134	3	(.800	C.0	14.954	1.2663		-0.3093	0.0130	-C.0C45
04T- 43	124	9	C. 2C4		17.128	1.3907		-0.4031	0.0071	-0.0045
04T- 43	134	10	C.801	C.0	19.251	1.4897		-0.4827		-0.0C50
C4T- 43	134	11	108.3	C. 0	21.379	1.60C2		-0.5626		-C.CC43
04T- 43	134	12	C. E03	C.C	23.388	1.7061		-0.5387	0.0069	-0.0050
041- 43	134	13	C-801	C.0	10.550	0.9911	0.1756	-0.1987	0.0143	-0.0038
04T- 43	135		C. 7C1		-1.033	D.0097		-0.0485		B000.0-
041- 43	135		C. 700	- C- C	(-3.289			-0.0386		-C.0016
04T- 43		3	C.700	C.0	1.255	C.2137		-0.0717		-C.CC03
04T- 43			C.700	C.0		0.4166		-C.0965		-0.CO18
04T- 43	135	5	C. 702	C. 2		C.6138		-0.1277		-0.0033
04T- 43	135	ŧ	(.700	-(.C		2.7992		-0.1607	0.0194	0.0007
04T- 43	135	7	c. TO	€.0	10.345	0.9761	0.1517	-0.1939	0.0160	-0.0054

TEST P	UN PT	PACH	SHEEP (DEG)			$c_{\mathbf{D}}$	Cm	C A	$c_{\mathbf{n}}$
04T- 43 1		(.657	C.C	12.559	1.1194	0 2102	-0.2420	0.01//	
C4T- 4? 1		C.701		14.725			-0.2994		-0.0046
04T- 43 1	•	C.7C1		16.877			-0.3598		
C4T- 43 1		C.700		19.C28					
04T- 43 1		C.701		21,186			-0.4361	0.0103	-0.0049
C4T- 43 1		C.7C1		23.249			-0.5100	0.0095	-0.005E
			(.0	230249	1.6870	9.7136	-0.5785	0.0090	-0.0062
04T- 43 1	36 1	1.204	(-1.151	-C.0701	0 0044	0 0000		
04T- 43 1	_	1.204		-3.495	-0.2771	0.0000	-0.0099	0.0102	
C4T- 42 1		1.206		1.178	0.1491		0.0787		-0.0009
04T- 43 1	who a	1.204					-0.1052	9.0117	-0.0002
04T- 43 1	4 .	1.205	C.C		2.6124		-0.1990		-0.0007
04T- 47 1		1.205	(. C		C.8443	0 1036	-0.2934	0.0123	-0.0018
04T- 47 1		1.205		1C.694	1.0424		-0.3801		-C.C032
04T- 43 1		1.234		13. (44	1.2414		-0.4643		957C.0-
04T- 43 1		1.206		15.312	1.4194		-0.5641		-0.0052
04T- 42 1		1.208		17.585			-9.6696		-0.0062
047- 43 1		1.206		19.817	1.5794	0.5345	-0. 7761	0.0090	-0.0061
04T- 4? 1		1.235		22.C28	1.8279		-0.8714	0.0086	-0.0065
04T- 43 1		1.205		22.317	1.8411	0.7581	-0.9515	0.0085	-0.0090
				22.011	1.0411	9.7036	-0.9610	0.0088	-0.CC88
04T- 47 1	29 1	C.500	C- 0	-1.143	-3.0416	0.0636	0.0545		
04T- 43 1	_	(.899	C.0		0.4508		-0.0545		-0.0001
04T- 43 1		(.898		6.119	3.5672		-0.1040		-0.0023
C4T- 42 1	_	C. 904	C. 0	8.420	C.8464		-0.1353		-0.CO43
04T- 43 1:	•	C.9C1		12.951	1.1899		-0.1828	0.0201	-0.0057
04T- 49 1	_	C.9C4		22.701	1.7539		-0.2956	0.0231	-0.CC84
		,		2.0101	1.759	0.1951	-0.7174	0.0079	-0.0056
C4T- 42 14	_	C.5C3	0.0	-1.148	-0.0446	0.0633	-0.0528	0.0255	-0.0005
04T- 43 14	-	C. 902	C. 0	-3.552	-0.2602		-0.0456	0.0233	-0.0003
04T- 4? 14		C.899	C.0	1.310	C.2064		-0.0769	3.0298	
04T- 43 14		C.9C3	C.C	3.753	C.4566	0-0828	-0.1063	0.0308	0.0008
04T- 49 14		C.9C5	C.0	6.135	C.6690		-0.1386	0.0214	-0.00/1
04T- 43°14	_	C. 901 .	0.0	8.395	0.8427		-0.1819	0.0203	-0.0041
04T- 49 14	_	C. 9C5	C.C	10.709	-1.0283		-0.2371	0.0226	-0.0054
04T- 43 14	_	C.SCI		12.945	1-1940		-C-2940	0.0235	
04T- 43 14		C.902	C.C	15.174	1.3223	0.3726	-0.3579	0.0233	-0.0084
C4T- 43 14		C.9C3	C.n	17.336	1.4346		-0.4334	0.0151	
CST- 43 14		C.9C5	C. 0 -	19.449	1.5409		-0.5404	0.0141	
04T- 43 14		C.502	C.C	21.620	1.6544	0.6791	-0-6291	9.0113	-0.0056
04T- 43 14	n 13	C. 9C1		23.694	1.7406	0.7895		0.0082	
04T- 43 14	1 1	C. E02	(-1.109	-0 0212	0 0554	0.04.00		
04T- 43 14	_	C. ECO	C.O -	-3.417	-0.2127	0.0556	-0.0492	0.0204	2.0002
04T- 43 14		C.801		1.264	3.1994	0.0720	-0.0375	0.0239 -	
C4T- 42 14		(.801	C.0	3.646	0.4325	0.0527	-0.1600	0.0358	0.0013
04T- 42 14	1 '5	C. eci	C. 0	5.986	9.5428	0.0642	-0.1049	0.0375 -	
04T- 43 14	1 6	0.860	C.0	8.252	0.8157	0.0924		0.0308 -	
04T- 43 14	1 7	C-800		10.544	1.0085	0.1288	-0.1659	0.0254 -	C.0055
04T- 43 14		C. 799		2.755	1.1473	0.1863		0.0280 -	0.0069
						0.2333	11.40.40	0.0248 -	0.0075

TES	T	PUN	PT	MACH	SHEEP (DEG)			$c_{\mathbf{D}}$	C _m	C4	c_n
041-	43	141	9	C. 8C3	C-0	14.914	1.2514	A 2220	-0.3181		
		141		C.800		17. C62			-0.3963		-0.0090
		141		C.8C2		15.211	1.4815		-0.4830		'-G.C084
		141		C. EOU		21.350			-0.5663		-0.0083
		141		(.800		234463	1.6931		-0.6338		-0.0072
									-0.0338	0.0130	-0.0077
		142		C. 701			-1.9312		-0.0446	0.0304	0.0062
		142		C.6 39		-3.353	-0.2036	\$0.0686		0.0248	-0.0002
		142	3	C.701	C. 0		C.1797		-0.0720	0.0358	0.0010
		142		C.701	C.0		C. 3996		-C.1C21		-0.0C12
		142		C.698	C.0		0.6000		-0.1355		-0.0037
041-				C.658	C. 0		0.7975		-0.1713		-0.005E
041-				C. 698		1C.341	C. 9755		-0.2111		-9.C079
041-				C.639		12.554	1.1252		-1.2529		-C.CC88
041-				C.648		14.695	1.2190		-0.3069		-C.0084
04T-			1 C			16.829	1.3243		-0.3634		-0.0095
04T-				C.700		18.995	1.4513		-0.4406		-0.0092
		142		C. 700		21.173	1.5702	0.6069	-0.5136	0.0158	-0.0094
041	43	142	12	C. 699	(.c	23.243	1,6953	0.7206	-0.5811	0.0148	-0.0174
04T-			1	1.206	C. C	-1 - 160	-0.0729	0.0962	-0.0051	0.0201	0.0023
04T-				1.206		-3.501	-1.2367	0.1071			0.0039
		143.		1.204	C. 0	1.197	C.1497		-0.1009		0.0013
04T-				1.203	(. C	3.564	7.3723		-0.1909		-C.0C03
04T-			5	1.205	(.C	5. 952	0.6075		-0.2918		-C.CC27
C4T-				1.204	C.C	8.391	0.8421		-0.3670		-C.CC45
04T-				1.206	C.0	1C, 7C5	1.0409		-0.4582		-0.0061
04T-				1.204		13.009	1.2348		-0.5541		-0.0080
04T-				1.206	C. C	15.311	1.4127		-0.6567		-0.0091
04T-				1.203		17.574	1.5764		-C.7635		-0.0095
04T-				1.205		15.805	1.7105		-0.8579		-0.0107
04T-				1.205	C.C	22.C16	1.8168		-0.9397		-0.0133
041-	4?	143	13	1.206	C.C	23.104	1.8649		-0.9807	0.0142	
04T-	4?	146	1	(.857	C. 0	-C.876	7.1046	0.0541	-0 0606	-0.0007	0.000
04T-	43	146		C. E\$5	C. 0		0.5642	0.0838	-0.1059	0.0016	
04T-	4 ?	146	3	C.897	(.)	6.298	C.7475			0.0019	-0.0032
. C4 T-	43	146		C.895	-	8.528	5.9962	0.1613	-0.1904		
041-	43	146		C.900		13.051	1.2253			0.0022	-0.0025
04T-	4?	146	6	C.853		23.709	1.7815	2.8054	-0.7217	0.0008	
									341211	0.0000	-0.0026
041-				C. 5C5		-C.890	0.0955	0.0564	-0.0591	-0.0005	-0-0023
041-				C.903		-3.314	-C.1182	0.0675	-0.0631	0.0013	
04 T-				C.897		1.548	9.3186	0.0614		0.0017	
04T-				(.899	C.C	3.933	0.5526	0.0838		0.0015	
047-				(.899	C.0	6.268	0.7354		-0.1350	0.0018	
041-				(.899	C.0	8.552	0.9078	0.1629		7.0026	
04T-				C. 358		1 C. 770	1.0659	0.2185		0.0021	
041-				C.902		12.588	1.2173			-0.00C2 ·	-0.0011
04 T-	4 ?	147	5	C.931	C.0	15.286	1.3935	0.3862	-0.3864	0.0014	

	Te.													
	TF	, 1	RUA	P	T PA	CH Shi	FEP	ALPH						
			- {				EG)	IDEG			D	C _m	CA	
							. •		•		_	-111	C.L	$c_{\mathbf{n}}$
0,	4 T-	4 3	147	1	0 c.	901	- 0	17.39						
04	4T-	43	147	1	1 6.9			10.53			760	-9.45	20 0-000	-0.0016
04	6T-	43	147	1	2 (.			19.52		0.5	797	-0.55	25 0.0003	-0.0016
04	T-	43	147		3 6.8		0	21.67		9 0.6	946	-0.64		
				•	,	774 (• 0	23.720	1.766	66 2.7	992	-0.707		-0.0012
04	T-	42	148									0.707	0.0003	-0.0013
0	T-	42	148		L C. 7		.0	-C. 918	G. 084	1 0.0	444	-0.048		
0.4		73	148		2 (.7	798 C	. 0	-3.244	-C.113		00	-0.048	,	-0.0022
04	+	9 3	148		C.8	100 C	.0	1.523			771	-0.039	9 0.0014	-0.0027
94		4 :	148		C.A		. 4	-1-588	-2.283		182	-0.075	4 0.0014	-0.0022
04	1-	4 ?	148	5	C.8	02 C	. C	t. 209			55	-0-487	$\mathbf{u} = \mathbf{u} \cdot \mathbf{u} \cdot \mathbf{u}$	-0.0892
04	T-	43	148	6	C. 7		. 0	8.396		_ •	75	-0.130	6 0.0022	-0.0020
04	T-	4 ?	148		C.8		-	C. 390		5 0.13	167	-0-156	1 0 0016	0 :0020
04	T-	43	148		C.8			10.679		0 0.19	37	-0.199	9 0.0009	
04	T-	43	148	ā	C.7			12.854		0.26	43	-0.259		
04	T-	42	148		(.7		. 0	15. 055	1.327	9 0.35	05	-0.317		-0.0008
04	T-	42	146	10			C	17.195	1.429	4 0-44	15	-0.4050		-0.0003
041	r_	41	148		C.79		C	19.318	1.539		52	-0.4930		C.0004
041	r_	43	149	12		ci c.	0	21.511	1.6416		70	-0.4930		1000.0-
0.41	. –	73	144	13	C.79	99 C.	0 2	23.521	1.7379		17	-0.5752	0.0004	-0.0GGA
0/1									,,,,	9.10	85	-0.6441	0.0005	-0.0010
041	-	43	149	1	C. 70	00 Ca	C -	-0.930	0.07.00					
041	-	43	149	2	C.70	0 C-	n -	3.219	9.0708		33	-0.0420	0.0007	-0.0024
0.41	-	43	149	3	(.70		C	1.368	-0.1190		52 .	-0.0296	0.0013	-0.0030
041	-	4 ?	149	4	C.69		^	1.308	C.2893	0.042	24 .	-0.0696	0.0021	-0.0030
CAT	-	43	149		(.70		0	3.736	7.5717	9.05	39 .	-0.0961		-0.0021
041	- 4	63	149	4	C.69			5. 981	0.6912	0.079	19 -	-0.1250		-0.0051
041	- 4	63	140				C	8.172	C-87 08	0.115	4 -	0.1571	0.0017	-0.0020
041	- 1	43	140		C.69		0 1	C. 468	1.0576	0.168	7 -	C.1965	0.0013	-0.0016
041	_	49	149	8	(.70	-) 1	2.692	1.1341		4	0.1965		-0.0011
041			144	5	C.70	1 (1	2.699	1.1951		7 -	0.2409	0.0003 -	-C-0C07
CAT.			149	IC	C. 70	0 (.)	1	4.776	1.2669	0.237	0 -	0.2407	0.0002 -	0.0007
C4T-		3 1	49	11	C.69	7 (-(1	6. 996	1.4015	9.319	0 -	C-2981	-0.0036	0.0
741-	- 4	3 1	49	12	C.698	B Cal		9. 055		7.415	4 -	0.3649		0.0002
041-	- 4	3 1	45	13	C. 700) (-1	3	1.281	1.5110	0.513	2 -	0.4412	_	0.0003
041-	- 4	3 1	49	16	C.760		-	0.922	1.6252	0.627	4 -	0.5186		0.0019
								0.922	C. 0749	0.042	6 -	0.0406	_	
04T-	- 4	3 1	50	1	1.206							7	00,001	0.0024
C4T-	. 4	? 1	5C	;	1.205		- 1	- C94 -	C.0191	9.088	5 -1	0.0399	0 0012	
04 T-	4	3 1	50				- 3	-487 -	C.2380	0.0989		0.0537	0.0013 -	0.0027
04 T-	. 4	2 1	50		1.234	(. C	1	.279	0.2119	0.0925	2	1 241	0.0016 -	C-0044
04T-	. 4	· ·	50		-203			. 654	0.4382	0.1113		1 361	.0.0012 -	C.0C22
C4T-		3 1	50		-205		6		0.6767	0 1450			0.0012 -	0.0022
04T-		- 1		E]	-2-)3	C.C		_	9.9127	0.145A	-		9.9C13 -(0.0024
		3 1	50	7]	. 202	. C.C	10		1.1105	0.2007	-0	- TU/6	0.0007 -(0.0025
041-	4	: 1	50	E]	.205	(.(13		1.2997	0.2688	-0		C CCC .	-0624
04T-	4	1 1		9 1	.235		15		1 4033	7.3521	-0	-5878 -	-/3 /	
041-	4	1 !	5C 1	le i	-204		17	_	1.4822	0.4523	-0	-7020 -	0 000	
04T-		19	50 1	1 1	.204	(.(16		1.6428		-0	* DU 74 *	.// //// /	
04T-	4 3	15	ic i	2 1	.203	(0	2.		1.7697		1,	-071/ -	0.0007 -0	.0031
						C. U	21.	678	1.8585	9.7761	-0	-9566	0.0007 -0	-0028
04T-	4 2	16	3	1 .	003						•		0.0005 -0	-0045
04T-	41	16			668	C. C			0.0413	0.0540	-0	0500		
04T-	42	16			900	C. 0	3.	871 (0.0785	-0		0.0107 -0	·C015
- • •	¥ 5	1.7	3	3 C,	902	c.o				0.1111	-0,	1660	0.0165 -0	-0034
									,	0.1111	-0,	1358	0.0131 -0	.0035

1 5	ST	RUN	P	T MACH	SHEEP		CL	$C_{\mathbf{D}}$		~	
					(DEG)	(DEG)	OL.	CD	$C_{\mathbf{m}}$	C/	$c_{\mathbf{n}}$
OAT	_ 4	153									
		3 153		C. 904					70.1872	0.0104	-0.0040
		2 153 2 153		C.902		12.589			-0.3077		-0.CC33
				E C. 901		21.713		0.6901	-0.6468	0.0040	-0.0039
0-1	- 4	? 153		7 0.903	C.C	21.714	1.6871		-0.6485		-0.9040
OAT.	_ 4	3 154									
		3 154		C.897		-1.C17		0.0556	-0.0600	0.0105	-0.0009
				C.901			-C.1773	0.0693	-0.0561		-C.0013
		154	_	C.900					-0.0722		-0.GU11
		154		C.500	. C.O				-0.0989		-0.0024
		154	_	C. 901	C.0	6.150	0.6935	0.1113	-0.1339		-0.0035
		154		(.894	C. 0		0.8819	0.1572	-0.1875		-0.0039
		154		C. 894		1C.731	1.0528		-0.2399		-0.0039
041-	- 4	154		C.895		12.933			-0.2997		-0.0031
		154		C.902	C.0	15.177	1.3522		-0.3762		-0.004C
		154		C.900	C.0	17.350	1.4544		-0.4469	0.0000	-0.0045
		154		C.904	C.C	19.435	1.5679		-0.5490	0.0067	
		154	12	C. ES 7		21.664	1.6830		-0.6439	0.0067	
		154	13	C. 901		23.724	1.7748		-0.7255		
C41-	4 3	154	15	C.898		-1.C85	C. 0239		-0.0579	0.0026	-0.0034
								0.034,	-9.0514	0.0105	-0.0006
		155	1	C.802	C.0	-C.590	C.0389	0.0472	-0.0519	0.01/2	0.000
		155	2	(. 758		-3.321	-0.1513		-0.0407	0.0162	C.0C03
		155	3	(.800		1.427	0.2710		-0.0775	0.0138	-0.0013
		155	4	(.801	f. 0	3.8C5	0.4977		-0.1074	0.0203	-C.0C05
		155	5	(.799	(.0	6. 078	C-6878		-C.1326	0.0219	
		155	6	C.801	C. C	€.348	C.8550		-0.1607	0.018)	
		155		C.801		10.618	1.0304		-0.2046	0.0143	
		155		(.801		12.830	1.1794		-0.2553		-0.9044
		155		C.800		15.005	1.2805		-0.3129		-0.0046
041-	43	155		C. 799		17.094	1.3930		€0.3981		-0.0045
		155		C. 799		15.228	1.5011		-0.4846	0.0085	-0.0044
		155		C. POD		21.424	1.6099		-0.5656		-C.0C40
04T-	43	155		C.8C.7		23.482	1.7116	0.0403	-0.6339		-0.0043
							101119	0.1524	-0.6339	0.0055	-0.0044
C4T-			1	C. 700	C.C	-0.976	0.0457	0 0630	-0.0477		
04T-				C.699			-0.2082	2 0540	-9.0035	0.0179	C.0005
04T-	43	156			C- 0	1.329	C.2549	0 0410	-0.0035	0.0146	0.0018
04T-			4	C.700	C.0	3.617	C. 46 19		-0.0741	0.0216	
04T-	43	156		C.698	C.0	5.923	0.6572	0.0523	-0.1039	0.0278	
04T-	43	156		(.699	C.0	8.160	0.8459	0.0761	-0.1352	0.0221	
04T-				C.7C2		10.460	1.0232	2.1125	-0.1696	0.0199	
041-		156		C.702	C. 0	12.590		0.1633	-0.2031	0.0168	
04T-				(.7(0		14.738	1.1356	0.2270	-0.2443	0.0126	
04T-				C.7CL		6.884	1.3627	0.3101	-0.2988	0.0082	-C.004C
04T-		156		C.702		19.C71	1.4906	0.4007	-0.3660	0.0081	
04T-				C.696		21.133		9.5035	0.4439	0.0086	
04T-				C.700		23.276	1.7032	0.6110	0.5033	0.0087	-0.0052
					00.7		1.1032	0.7247	-0.5838	0.0072	-C.0054
04T-	43	157	1	1.202	C.O -	1.131	-2 0622	0 0005	0.000		
C4T-				1.202	C-0 -	-3.478	-0.2507	0.0885		0.0114	0.0001
			_			70 TIO .		0.0993	0.0580	0.0097	C.0010

T	EST	RU	N F	Ţ	PACH	Shel		AL PH		$c_{\mathbf{L}}$		c_{D}		C _m		CI			c _n
04	T- 4	42 15	7	3	1.203	C	. с	1 24	-	2									
04	T- 4	13 15	7		1.205		C			0.185	-	.09	04 -	-0.12	30 0	.01	29	-C.	0004
04	T- 4	3 15	7		1.204		0			0.401	_	.100	59 -	-0.21	18 0	.01	30	-0.	0008
04	T- 4	13 15	7		1.204					C.637	_	. 140	03 -	0.30	30 O	.01	33	-0.	0023
04	T- 4	13 15	7		1.204			8.39		0.865	_	.19	11 -	0.38	64 0	.01	20	-0-	0035
041	T- 4	3 15	7		1.263		C	10.74		1-062	_	-256	54 -	0.47	02 0	.01	13	-0-	0044
041	T- 4	1 15			1.204			13.05		1.253	-	. 337	19 -	0.564	42 0				0041
041	T- 4	3 151			1.234	٠.	0	15.33		1.431	8 0	.434	4 -	0.670	0.2	-00	95	-0	0070
041	T- 4	3 157			1.203	c.	17	17.60		1.590	6 0	.543	12 -	0.771	14 0	.008	95	-0.	0073
041	- 4	3 157		-	1.233		C	19.83		1.729	8 0	.659	4 -	0.867	70 0				CC77
				2	1.203	(.	L	22.064	4	1.847	5)	.782	1 -	0.954		.005	6	-0-1	0690
041	- 4	? 160)	1	(.901	C	0	-C. 951	•										
041	- 4	3 160			C. 9CO	C.				2.056		.758	0 -	0.054	0 0.	011	4	-0.0	0007
041	- 4	3 160			C.899	r.				.5354	-	.085	5 -	0.106	5 1.	015	5	-0.4	0029
04 T	- 4	3 160			C.901					. 7239		.118	5 -	0.138	3 2.	010	0	-0.0	1034
041	- 4	3 160			(.874	C.		F. 499		90 25		165	0 -	0.191	0 0-	907	6	-C.	2033
041	- 4	3 160			C-899		0	13.028	-	.2211		295	9 -	0.311	5 0-	009	2	-0.0	040
							U	22.300	, 1	.7255	0.	733	1 -	0.674	2 0.	002	5	-C.C	1025
041	- 4	161	1		(. 897		_						1						023
04 T	- 4	1 161	_		C. 857			-0.962		.0540		059	1 -1	0.053	9 9.	011	4.	0.0	004
C4T	- 4	2 161			(.899			-3.384	_	.1667		071	4 ' -(.047	2 0.	011	4 .	-0.0	024
941	- 4	2 161			(.899	C.(-	. 2 376	_	0636	- C	.073	9 0-	017	4.	-c.c	(12
04T	- 4	161			C. 858	C. (2.875		.5311		0849	-0	.103	5 0-	2160	· .	-0.0	025
041-	- 4	161			C. 5C2	C. (.7227	-	118	1 -0	-136	2 0 -0	010	, .	-0.0	031
04T-	- 4	161			C. 500	(.(6.258		.7292	-	1197	-0	.139	0.0	0099	•	-0.0	030
C4T-	- 4	161			(.903	C. C		8.531		9040		1651	-0	-1896	0.1	0074	_	C.0	C 2 B
04 T-	- 4	161	c		1.836	0.0	, ,	C. 764		.0686		2224	-0	-2472	0 - (0071		.0.0	026
04T-	- 47	161			.859			12.580		2197		2940	-0	.3093	0.0	101	-	0.0	644
041-	43	161			C. 500	()		15.253		. 3772		3865	-0	. 3840	0.0	0075		0.0	757
04T-	43	161			. ES 7	C 0		7.393		4760		4797	-0	.4532	0.0	063	-	0.00	336
04T-	4 2	161			900			9.516		.5A22	0.	5841	-0	.5539	0.0	057	_	0.00	241
041-	4 3	161			902	(0	-	1.689		6915	0.0	6980	-0	.6490	0.0	029	-	0.00	123
		• • •		•	,62	(• 9	-	2.352	L.	7540	0.	7844	-0	.7093	2.0	617	_	C.00	125
041-	4 3	162	1	(.800			C. 54C											
04T-	43	162			. 600	C.0				0654	0.1	1505	-0.	.0491	0.0	177		0.00	10.8
C+T-	43	162			. 793		_	1.456		2995	0.	7513	-0	.0785				0.00	603
04T-	43	162			.801			1.435	_	1379	0.0	0636	-0.	0359	0.0	149	-	c.cc	04
04T-	43	162			-800	(.)		3.812		2980	0.0)515	-0.	0779	9.0	223	-	0.00	03
04T-	43	162			.801	C. 0		6.144		5267	0.0	0880	-0,	1075	0.0	228	-(0.00	15
04T-	4?	162			.800	C.0		8.368		7168	0.0	1986	-0.	1318	0.0	193	-	C.CC	33
04T-	4 ?	162			.8C1			C.633		8777	9.1	376	-0.	1599	0.0	135	-(0.00	19
041-	4 ?	162			.799	(-0	1	2.849		0503	0.1	935	-0.	2040	0.0	130	-(0.00	44
04T-	43	162			. 600	C- 0	1	5. C18		1384	9.2	636	-c.	2599	0.0	096	-(00.0	40
74T-	43	162	11	C	.8CO	Con	-	7.148		3048	0.3	483	-0.	3141	0.0	099	-0	.00	47
C4T-	43	te2	12	C	. 801	(.0	1	9.286		4107	0.4	407	-c.	3981	0.00	070	-0	-OC	39
04T-	43	162			800	(.0	2	1.425		5258	0.5	434	-0.	4907	0.00	164	-0	.cc	37
C4T-	43	162	14	C.	800	CoC	2:	3.389		6239	0.6	>24	-0.	5717	0.00	152	-0	.00	29
					1		1	307	1.	7208	0.7	005	-0.	6404	0.00	154	-0	.00	45
04T-	43	165	1	c.	903	C. 0	-0	.944) (0713	0 0	<i></i>			6				
04 T-	43	165			899	C. 0		.872		5116	3.0	776	-17.	0651	-0.00	:07	-0	.002	26
								3012	J .	116	3.0	115	-0.	1002	9.00	119	-0	.002	26

TEST	RUN	PT	HACH	SHEEP (DEG)	ALPHA (DEG)		CD	Cm	CI	c_n	
04T- 42	165	3	C. 896	0.0	6.192	7.7108	0.1111	-0.1347	0.0016	-0.0025	
04T- 43	165		C. 900	C. 0				-0.1927		-0.0019	
04T- 43	165		(.898		12.981			-0.3109		-0.0002	
04T- 43			C. 902		22.476			-0.6806		-0.0016	
•						101344	0.1331		0.0002	-0.0016	
04T- 43	166	1	C. 900	-c. o	-0.945	0.0716	0.0544	-0.0661	-0-0006	-0.0022	
04T- 42		2	C. 899	-C.C	-3.328			-0.0720		-0.0027	
04T- 4?		3	C.900	C.C	1.443			-0.9724		-0.CC22	
04T- 43		4	C.900	C.0	3. 872			-0.1021		-0.0023	
04T- 43		5	(.899	C.0				-0.1371		-0.0021	
047- 43	166	£	C.9C2	CiO				-0.1963		-G.OC18	
04T- 43		7	C. 901		1C.733			-0.2478		-0.9017	
C4T- 43	166	3	C.899	C.0	13. (55			-0.3131		-C.2004	
C4T- 47	166	9	(.899		15.224			-0.3769		-C.CC2C	
04T- 43	166	10	C.SCI		17.369			-0.4620			
04T- 43	166	11	(.857		19.495			-C.5504		-0.0C2C	
04T- 43		12	(.899		21.665			-0.6427		-0.0009	
04T- 43	166	13	(.897	C. 0	23.543	1.7724		-0.7156		-0.0025	
			•								
04T- 43			(. 799	-(.)	-0.953	3.3626	0.0451	-0.0560	0.0003	-9.0C19	
04T- 43			C.797	-C.O	-3.274		0.0591	-0.0489	9.9009	-0.0024	
041- 43			(.801	C.0	1.429		0.0445	-0.0752		-0.2017	
04T- 43			(.80)	C.0		7.4963	0.0579	-0.1006		-0.0018	
04T- 43			C. 798	C.0	6.C82	3.6942	0.0880	-0.1276		-0.0017	
04T- 43			C.800	C.C	8.344	C. 9643	0.1286	-0.1574	-0.3001		
C4T- 43			C.802	C.C	10.627	1.0377	0.1839	-0.1986	-7.0002		
04T- 43			C.801	C.0	12.850	1.1980	0.2562	-0.2589		-0.0006	
04T- 43			(.86)		15.CO9	1.3001	0.3371	-0.3189		-0.0005	-
04T- 43			C.8C2	C.0	17.099	1.4007	0.4279	-0.4013	0.0001	-0.0004	
04T- 43			C.860		19.274	1.5150	0.5304	-0.4912	9.0	-0.0004	
04T- 43			C.799		21.441	1.6207	0.6418	-0.5701	0.0011	-0.9C17	
C4T- 43	167	13	C.800	(23.354	1.7153	0.7472	-0.6380	0.0012	-0.0021	
0/7 /3											
04T- 43			C.700		-0.968	0.0516		-0.0489		-0.0C22	
04T- 43 C4T- 43			C.698			-9.1316	-	-0.0383		-0.0026	
		3	(.699	(.0	1.324	5.2549		-0.0694		-0.0017	
047- 43			C. 703	C. 0	3.652	0.4636		-0.3945		-0.0017	
C4T- 43			C.700	(.c	-	0.6599		-0.1249		-0.0C15	
04T- 43			6.698	C.O	8.157	C. 84 79		-0.1629		-0.0012	
041- 4:			C.700		10.420	1.0230		-0.2007		-C.0007	
04T- 43			(.699		12.604	1.1435			-0.0013		
041- 43			C.760 C.701		14.743	1.2516		-0.3003	0.0023	-0.0001	
041- 43			C.699		16. 886	1.3674			-0.0015		
04T- 43			C. 701		19.027			-0.4451			0
C4T- 43			(.658		21.193	1.5994		-0.5184		-0.0009	
C41- 42	100	13	1.070		23.268	1.7081	0.7247	-0.5883	0.0011	-0.0011	
C4T- 43	169	1	1.203	-(.c	-1.141	-C.0515	0.0848	-0.0232	0.0009	-0.0024	
04T- 43	_		1.203			-9.2530	0.0970			-0.0028	
C4T- 43			1.205		1.218			-0.1161		-0.0025	
							50000	71.101	70007	20023	

ī	EST	A	UN	PT	PACH	SWE		AL PH (DEG			c_{D}	C _m	C a	$c_{\mathbf{n}}$
04	T	43 1	40		1 2 2									
04	T-	43 1	40		1.20		C	3.60		56 0	- 102	6 -0.710	5 0 00	04 0 000
04	r	43 1	40	2	1.20		. 0	5. 96		105 0	. 135	0 -0.300		06 -0.0023
04	T_	43 1	40		1.20			8.41	3 0.96		197	5 -0.391		04 -0.0024
041	-	43 1	69		1.20	,	0	1c.73	0 1.27		253	7 -0 475	5 0.000	1 -0.002
043		63 1	69		1.202	-	0	13.CE	1 1.26		. 336	4 -0 571	6 -0.000	4 -0.0023
041		9 1	69		1.204		C	15.36	6 1.44		435	4 -0 690	5 -0.000	25 -0.0023
041	- 4	3 1	69		1.202	? C.	C 1	17.62	9 1.60		546	1 -6 702	-0.000	08 -0.0030
041	- 4	2 1	69	11	1.203	C.	C 1	19.88	0 1.73		640	1 -0.783	5 -0.0CC	0.0030
U 4 i	- 4	2 1	69	12	1.203	C.	C	22. C5	1 1.94		770	1 -0.871	5 -0.000	9 -0.0027
										72 U.	115	0.959	9 -9.001	0 -0.0033
041	- 4	2 1	72	1	C. 502	. c.	0 -	1.31	5 -0.12					
041	- 4	3 1	72	12	C. SCI	C.	c -	3.67	-0.31		078	-0.061		9 -0.0016
741	- 4	3 1	72	.3	C. 5C4	C.	Č	1. (9)	0.09		191	-0.0536	0.030	5 -0.0053
C41	- 4	3 17	72	4	C.897	c.		3.552			068	-0.0732	0.024	8 0.CC17
041	- 4	3 1	72		C.900		n	5. 942			0760	-0.0973	0-018	5 7.0016
04T	- 4	3 17	72		(.844			8.240			1009	-0.1360	0-012	5 -0.0011
CAT	- 4	2 17	12		C.897	-		C. 612			1405	-0.1845	0-209	0 -0.0023
04T	- 4	3 17	12		C. 857			C. 012			1976	-0.2418	0.006	3,-0.0026
041	- 4	2 17	2		(.898		1	2.870		?5 0.	2703	-0.3040	2-002	2 -0.0019
04T	- 4	2 17			(.858	(-)		144		o o.	3611	-0.3742	0-002	6 -C.0016
041	- 4	3 17			(.837		1	7.373		9 0.4	4577	-0.4558		7 -0.0011
CAT	- 4	? 17			C.902	C. (, 1	9.487		6 0.	5588	-0.5550		-0.0022
			•	. 2	L. 90Z	C. () Z	1.610	1.668	0.6	56 99	-0.6373		-0.0025
C4T-	- 4	17	2	1	(. 758								0.0016	-0.0625
04T-	. 4	17	2	ı	C 001	(.(1.271	-0.121	1. 0.0	0719	-0.0550	0.0264	
C4 T-					C. PO1	C. C	-3	3.579	1-0.283	0 0.0	920	-0.0474	0.0264	-C.0003
041-	- 4:	1 1 7	<i>)</i>		C.8C2	C• 0	1	1.1CO	C. C91		608	-0.0744	0.0256	-0.0020
C4T-		. 17	"	4	0.800			3.41 A	10.395		1641	-C.0985		
941-	. 4:	1 17	, ,	3	c.ec3	C.C	5	. 760	.C.523		831	-0.1274	0.0245	
041-	4.1	17	,	6	108.		8	9. 689	(.729		165	-0.1637	0.0196	0-0007
041-	4 :	17		/	. 758	(.0	10	.439	0.946		684	-0.2078	0.0138	-0.0009
C4 T-	4 7			E (.737	(.0	12	. 742	1.126		408	-0.2562	0.0079	
041-	4 3	17.			-803	C. C	14	. 517	1.252		215	-0.3197	0.0075	
04T-	4:	17:	_		.803	C.C	17	. (92	1.3719		161	-0.3994	0.0055	
04T-	4:	17:		1 (. 799	C.0	15	.199	1.4897		150	-0.4863	0.0030	
17.41-	4:	172	1.	2 (- 801	6.6	21	.386	1.6024		270	-C.5662	0.0030	-0.0023
OAT	, ,		U							1	210	-0.7062	0.0019	-0.0024
04T-	4 :	174			-204	(. C	-1	.283	-C.1373	0.0	047	0.0000	ь	1
C4T-	*:	174			.202	C.0	-3	. 66A	-C.3461	0.1	101	0.0088	7.9120	C-C010
C4T-	4 :	174			·2C5	C.C	1.	. C56	3. C7 C4			0.9847	0.0156	0,0017
041-					-204	C.0		.409	0.2973		717	-0.0778	0.0098	
	4?	174			-206	C. 0		. 843	0.5372		210	-0.1751	1800.0	
C4T-	4 ?	174		1	.202	C.0		.232	C. 7810		310	-0.2709	0.0070	-C.0022
	43	174	7	1	.203		IC.	6C8	0.9925		84	-C.3661	0.0063	-0.0032
C4T-	43		8		.204	C. 0	12.	535			Uó	-0.4523	0.0050	-0.0039
04T-		174	9		.205	C. 0	15.	243	1.1911		186	-0.5493	0.0043	-C.0046
04T-	43	174	10		-203	C.C	17	528	1.3749		29	-0.6529	0.0039	-0.0061
041-	43	174			203	C. C	10	750	1.5431	C. 51	98	-0.7546	0.0039	-C.0067
04T-	43	174	12		203	C.0	21	CS2	1.6868		20	-C.8494	0:0030	-0.0067
						3.0	~ = •	772	1.8055	0.75	17 -	-0.9329	0.0025	-C.0073
04T-	43	177	1	C.	896	C- C	-1	CQR -	-0.0368	\$				1
1				1		1		. 70	-U.U.568	0.05	57, -	0.0256	0.0237	-0.0019

	TEST		RUN	PT	PACH	SHEEP (DEG)	(DEG)	$c_{\mathbf{L}}$	c_D	C _m	CA	$c_{\mathbf{n}}$
	04T- 4	4 3	177	2	C. 886	0.0	-3.536	-0.2696		-0.0099		-0.0038
	04T-	63	177	3	C.894	0.0	3. 823	0.4459	0.9776	-0.0800	0.0173	-0.0041
	04T-			4	(.898	(.0	6.1C7	C.6514	0.1107	-0.1221		-C.0045
	04T-				(.899	c.c	8.362	0.8150	0.1555	-0.1669		-0.0033
	04T-				(. 500	C.0	12.899	1.1233	0.2846	-C.2806	C.0176	-0.0025
	04T-				C.900		23.688	1.7320	0.7904	-0.6811	0.0129	-0.0031
		,										
	04T-	43	178	1	C.855	C. C	-1.099	-0.0369	0.0546	-0.0265	0.0242	-0.CC13
	04T-	4 ?	178	2	C.855	(.0	-3.449	-0.2710		-0.0110		-0.0046
	04T-	43	176	3	C.857	(.C	1.335	0.1992		-0.9408		-C.0015
	94T-	4 3	178	4	C. 900	C.C	3.752	C.4414	0.0779	-0.0779		-C.CC37
	04T-			5	C.901	C.0	2.419	-1-4175	-0.0488			-0-00ef
	04T-	43	178	6	C. 902	(.C		0.8170		-0.1630		-C.0C28
	04T-	43	178	7	C.897		1C.632	C. 57 C7		-0.2121		-0.0019
	04T-	43	178	9	(.856	, C.O	12.874	1.1259		-0.2745		-C:0013
	04T-	43	178	9	C.898		15.C84	1.2695		-0.3580		-0.0044
	04T-	4?	178	10	(.858		17.265	1.4108		-0.4368		-0.0060
	041-	43	178	11	C.856	C.C	19.438	1.5278		-0.5134		-0.0055
	C4T-	43	178	12	C. 901	(.0	21.619	1.6383		-0.6078		-C-0C28
4	041-	42	176	13	C.895	(.0	23.690	1.7253	0.7877	-0.6767	0.0137	-0.0035
	041-	42	17C	,	(.866	C-0	-0.990	-2.0216	0.0479	-0.0214	0.0271	-0.0025
	04T-				(.806		-C. 987	-0.0205		-0.0206		-0.0027
	04T-				C. E02		-3.425	-2.2404		-0.0013	0.0302	-0.0058
	041-		-		C. 804		1.224	C.1938		-0.0457		-0.0018
	04T-				C.800	C.0		C.4131		-0.0785		-0.0035
	041-				(.809	C.C		0.6145		-0.1059	0.0210	-0.0050
	041-				(.800	(.0		9.7845		-0.1453	0.0174	-0.0049
			179		C.8C5		1C.463	0.9474		-0.1901	0.0185	-0.0043
,		-	179		C. 799		12.679	1.0824		-0.2344	0.0274	-0.0053
			179		C.794		14. 836	1.2209	0.3322	-C.2915	0.0323	-C.C091
	04T-		. ,		C.800		17.C82	1.3400	0.4226	-0.3646	0.0251	-0.0095
			179		C.801		15.238	1.4686	0.5286	-0.4581		-0.0096
	04T-				C.8CO	C.0	21.422	1.5775	0.6419	-0.5494	0.0262	-0.0111
			179	. 13	C.EC3	· / C.O	23.462	1.6784	0.7534	-0.6195	0.0174	-0.0099
	94T-	43	179	14	C.8C5	/ (.1	6.656	-1.3015	-0.1703	-0.1146	1.0192	-0.0061
	C4T-	42	180	Y	°C.704		-C-999	-7.9282	0.0446	-0.9157	0.0278	-C.CC23
	04T-	-	-		C.7C4			-0.2344				-0.0039
	041-				C. 704					-0.0432		#0.CC23
	041-				C.698		43.550	7.3828		-0.0764	9.0316	-C.0037
	04T-				C.691			C.5975		-0.1151	0.0319	-0.0055
	04T-				C.658			0.7687		-0.1463		-0.0059
	041-				C.699		10.324	C.9169		-0.1777	0.0271	-0.005E
	041-				C.696		12.464	1.0757		-0.2273	0.0294	-0.0062
	04T-				C.657		14.725	1.1322		-C.2703	0.0313	-0.0C89
٠,					C. 7CO			1.3072	0.3968	-0.3407		-0.0C97
	041-				C.701		18.580			-0.4197		-0.0116
	04T-				C.695	(.0	21.108			-0.4961		-C.C139
	04T-				C.656		23.196		0.7119	-0.5609	0.0208	-0.0147
-												

	4								7		
	TEST °	RUN	PT	MACH	SHEEP (DEG)	ALPHA (DEG)	C _L	C _D	C _m	C.	cn
	04T- 43	180	15	C. 659	C. 0	-1.035	-).0348	0.0449	-0.0128	0.0277	-0.0037
	04T- 43	.191	1	1.204	C.C	-1. (69	-C. 9663	0.0836	0.0267	0.0107	-0.0030
	04T- 43	181	2	1.203	1 C. C	-3.356	-C.2671	0.0969	0.1034	0.0139	-0.0034
	041- 43	181	3	1.204	(.0	1.225	0.1507	0.0853	-0.0624	0.0080	-C.OC45
	C4T- 43	,181	.4	1.202	. C. O	3.658	0.3847	0.1053	-0.1581	0.0063	-0.CO49
	04T- 43	181	5	1.203	" C. C	6. C30	C.624C	0.1421	-0.2575	0.0068	-0.C045
	04T- 43	181	1.6	1.198	C.0	8.426	0.8544	0.1959	-0.3510	0.0085	-0.C046
	04T- 43		7	C.		10.664	1.0477		-0.4378		-0.0049
	04T- 43			1.204		13.060	1.2350		-0.5348		-C.0054
		184	1 1	1.204		15.290	1.4041		-0.6347	0.0128	
		181		1.202		17.551	1.5599		-0.7397	0.0138	
	04T- 4?			1.203		19.801	1.6888		-0.8305		-C.CO67
	C4T- 43	181	12	1.204	C.C	22.C18	1.7953	0.7729	-0.9169	0.0154	-C.C093
	041- 43	184	71	(.898	(.0	-0.934	0.0525	0.0443	-0.0602	-0.0021	-C.0056
	.04T- 43	184	. 2	C. 899	C. 0	3.773	0.4465	0.0670	-0.0816	-9.0144	-0.0039
	04T- '43	194	3	(.898	(.0	6.113	0.6559	0.1015	-0.1204	-0.0119	-r.0023
	04T- 43	184	4	C.899	C. C	8.435	0.8490	0.1502	-0,1736	-0.0111"	-0.0002
0	04T- 43	184	45	C.896	C.0	12.898	1.1483		-0.2917	0.0018	0.0014
	047- 43	194	. 6	(.898	C.0	23.727	1.7620	0.7887	-0.7045	0.0050	0.0024
	C4T- 43	185	1	(.854	c.0	-C.888	0.0555	0.0441	-0.9601	-2-0017	-0.0056
	04.T- 43			C. 897		-3.371	-7.1518		-0.0590	0.0078	-0.0054
	04 T- 47.			C.896	C.0	1.405	.C.2338		-0.0569	0 0	-C.C051
	04T- 43			C. 901			-1 -6553		-0.0157		-C-0679
	04T- 43			C.9C1	. C.O		0.6561		-0.1219		-0.0024
	04T- 43	185	- * E	C.858	C.0	8.429	C.8422		-0.1724		-0.0001
	04T- 43		ī	C.857	C.C	10:521	0.9741	0.2001	-0.2260	-0.0027	0.0005
	04T- 43	185	ě,	C. 905	·C.0	12.920	4.1525	0.2790	-0.2966	0.0021	0.0013
E.	04T- 43		. 4	6.939		14.990	1.2863	0.3555	-0.3731	0.0044	C.CC04
	04T- 43			(.895		17.289	.1.4266		-0.4551	0.0073	
	04T- 43			C.897		19.523	1.5532	0.5607		-0.0063	-0.0022
	047- 43					21.719	1.6673	0.6778	-046324		C.0016
	04T- 43	1950	1.3	(.897	31 C • O	23.735	1.7599	0.7881	-0:7039	0.0049	C.CO23
	04T- 43	186	1	C. 801	(.C	-0.896	0.0520	0.0378	-0.0509	-0.0006	-0.0044
	04T- 43	186		C. 795	C.C	-3.364	-C. 1501	0.0514	-0.0384	0.0055	-0.0049
	04T- 43	331	3	C.798	C.0	1.394	0.2435	0.0387	-0.0622	-0.0032	-0.0032
	04T- 43	186		(.797	(.0	3.704	0.4415	0.0521	-C.0817	-0.0052	-C.0G25
	04T- 43	186	5	C. 798	(:0	6.020	0.6352	9.0806	-0.1102	-0.0084	-C.0C16
rip	04T- 42	186	6	C.8C5	(.0	8.283	0.8050	0.1248	-0.1457	-0.0079	-C.CCO1
	04T- 43	186	7	C.801	. c: c	1 C. 544	0.9568	. 7.1805	-0.1901	-0.0013	C.0018
	04T-, 4,3	166.		C.800		12.712	1.0959		-0.2478	0.0063	0.0025
	04T- 43	186		C.8C4	4	14.938	1.2439		-0.3113	0.0121	0.0004
	04T- 43	166		C. 757		17,078	1-3770	7.1%	-0.3992	0.3105	0.0005
	C4T- 43		11			19.248	1.4784		-0.4506		-0.CO11
		186	24	C. 799		21.385	1.5901		-0.5641		-0.0029
	04T- 43			C.798		23.455	1.6970		-0.6346		-0.0031
	04T- 43	▶169	15	0.800	C.0	-0.968	0.0439	0.0377	-0.0488	-0.0006	-0.0C47

TEST	RUN	PT	MACH	SHEEP (DEG)	ALPHA (DEG)	$c_{\mathbf{L}}$	¢ _D	C _m	CI	c _n
04T- 4	187	1	C.701	-0-0	-0.581	C.0336	0.0354	-0-0435	-0.0012	-0.0043
04T- 43			C.700		-3.269			-0.0307		
04T- 4			C.7C2	C.0		C.2288		-0.0593		
04T- 4			C.702	(.0		C.4153		-0.0812		
047- 4			C. 700	C.C		0.6060		-0.1117		
04T- 4			C.698		8.178	C. 7874			-0.0012	
04T- 4		7			10.381	C. 9333		-0.1859		
04T- 4	_	-	C.700		12.536	1.0723		-0.2281	0.0108	
04T- 43			C. 700		12.537	1.0733		-0.2280		
04T- 4			C.699		12.534	1.0737		-0.2280		
04T- 4			C. 698		14.669	1.2070		-0.2814	0.0140	
,04T- 4			C.695		15.898	1.3264		-0.3627	9.3107	
04T- 43			C.699		19.010	1.4382		-0.4494	0.0090	
04T- 4			C.698		21.178	1.5527		-0.5203	0.0083	
04T- 43			C.697		23.182	1.5675		-0.5831	0.0086	
C4T- 43			C.697		1 C. 4C7	C. 92 86		-0.1833	0.7049	
04T- 43			C.657		1C.411	0.9305		-0.1842	0.0050	
		į.		,d	3	7		4	0.000	0.01,23
04T- 43	188	1	1.206	-C-0'	-1.112	-0.0527	0-0712	0-0047	-0.0031	-0.0064
04T- 47		_	1.204		-3.471	-C. 26 36	0.0846			-0.0058
04T- 43	188		1.205		1.259	C.1563			-0.0070	
04T- 43			1.203	C. C	3.613	7.3773			-0.0099	
04T- 43			1.204	(.C	5. 457	0.6015			-0.0111	
04T- 43			1.199	C. 0		3.8412			-0.2093	
C4T- 43			1.204		10.680	1.9345		-0.4569		C.0C01
04T43			1.203		13.C36	1.2272			-0.0072	
04T- 43	188		1.205		15.339	1.4022		-0.6540		0.0030
C4T- 43	100	10	1:204		17.567			-0.7598		0.0037
04T- 43	148	11	1.203-		15.818	1.6943		-0.8468		C.0034
04T- 43	188	12	1.205	C.0	22.C25	1.8005		-0.9262	0.2008	0.0026°
04T- 43	191	. 1	(.858	C- 0	-C. 774	· C.1234	0.0579	-0.0171	0 0016	-0.0C17
041- 43			C. 501	(.0	4. C84			-0.1020		-0.0022
04T- 43	-		C. 899	C. 0	6.284	(.7925		-0.1304		-0.0023
04T- 43		4	1	C. 0	8.613	9.9495		-0.1725		-C.0026
.04T- 43		- 5	/		13.C15	1.2703		-0.2899		-0.0028
04T- 43		_	0.900		21.721	1.7212				0.0001
		-				,2.22	V	-0.6445	-030009	0.9001
04T- 43	192	1	C. 903	0.0	-C.703	C-13C0		-0.0191	0.0019	-9.0017
04T- 43			C. E54			-3.0983		-0.0102		-0,0019
04T- 43			C. 899	_	1.604	9.3746		-0.0573		-0.CC23
04T- 43			C.504	C. 0	3.996	0.50 02		-0.1014		-0.0023
04T- 43			C. 998	C. 0	6.365	C. 7895		-0.1323		-0.CO22
04T- 43			C. 900	c.0	8.575	0.9493		-0.1734		→C.0C23
C4T- 43			C. 5CO			1.1191		-0.2336		-0.0025
047- 43			(.898			1.2583		-0.2910		-0.CC27
04T- 43			C.857		15.369	1.4065		-0.3711		-0.0027
04T- 43			C.898		17.393	1.5021		-0.4487		-0.0011
C4T- 43	-		C. 5C2		15.598	1.6135		-0.5451		-0.0025
047- 43			C.960		21.795	1.7975		-0.6289		0.0023
						a	.,	000207	0.0000	,

	TEST	RUN	PT	PACH	SHEEP (DEG)	(DEG)	$c_{\mathbf{L}}$	c_D	C _m	C.	c_n
	04T- 43	193	1	C.8C7	C.C	-0.602	0.1873	0.0485	-0.0223	0.0041	-0.0019
	04T- 42	153	2	C. ecz	C.0	-3.020	-0.0336	0.0562	-0.9013	0.0017	-0.0027
	04T- 43			C. 8-01.	C. 0	1.707	3.4190	0.0556	-0.0605	0.0034	-0.C021
	04T- 43		4	C. 799	C. 0	4.034	0.6227	0.0776	-0.0867	0.0028	-0.0021
	04T- 43		5	C.800	C. 0	6.311	C. 7848	0.1109		0.0043	-0.0021
	04T- 43		6	C.804	C. 0	8.545	C. 9360		-0.1155	0.0050	-C.CC22
	04T- 43		7	C.803		10.682	1.0934		-0.1654	9.0018	-0.0016
				(.800		12.943	. 1.2317		-0.2214		-0.0008
	04T- 43			C. 2C3		15.151	1.3543		-0.2868	-0.0007	-0.0009
	04T- 43		10	C. E02		17.153	1.4413		-0.3813	-0.0013	-0.0001
	04T- 43		11	C.800		15.400	1.5652		-0.4824	-0.9007	-0.0001
	C4T- 43			C.800		21.539	1.6648		-0.5673	600003	-C.0016
	04T- 43			C.801		23.520	1.7323		-0.6142	0.0009	-0.0013
	C4T- 43	154	1	C.7CO	(.0	-C. 632	C,1972	0.0441	-0.0246	0.0037	-0.C019
	04T- 43		2	C. 701	C. C	-3. C92	-0.0216	0.0512	0.0016	9.0012	-0.0024
	04T- 43		3	C.700	C. C	1.581	C.4014		-0.0579	0.0029	-0.0020
	C4T- 43		4	C.699		3.969			-0.0842	0.0021	-0.9021
	04T- 43	_		(.702	C.0	6. C11	0.7551		-0.1019	0.0015	-0.0020
	04T- 43			(.700	. C.O	8.348	C. 9317		-0.1271	0.0022	-0.0019
	04T- 43		7	C. 700		10.595	1.0932		-0.1595	0.2019	-0.0C18
	04T- 43			C.699		12.748	1.2105		-0.2125	0.0003	-0.0013
	04T- 43			C.698		14.768	1.2717		-0.2628		-0.0010
O	04T- 43			C.698		16.287	1.4041		-0.3372	-0.0029	0.0005
	04T- 43			(.658		19.121	. 1.5319		-0.4259	-0.0004	
	04T- 43	-		(.699		21.280	1.6360		-0.5015	0.0011	-0.CO15
,	04T- 43			C.699		23.339	1.7405		-0.5720		-0.0COR
			"	•			2 06 96			0.0022	-C CC22
	C4T- 43			1.204		-C. 850	0.0486		-0.0372	0.0022	
	041- 43			1.202		-3.263	-C.1597	0.0975	0.0394		-0.0C22
	04T- 43	_	3	1.202	C.C	1.426	C.2539	0.0974		0.0023	-0.0020
	047- 43			1.2CC	C+0	3.758	7.4726	0.1182			-0.0018
	047- 43		ë	1.202	C+0	6.246	C.7192		-0.2999	0.0031	-0.0022
	047- 47			1.203	C.0	8.502	C. 9244	0.2099	-0.3868	0.0021	-0.0025
	04T- 43	-	7	1.201		1 C. 923	1.1284	0.2815	-0.4798	0.0019	-0.CC29
		155	3	1.202		13.196	1.3176	0.3676	-0.5805	0.0018	-0.CC38
	041- 43			1.201		15.537	1.4962	0.4710	-0.6903		-9.CC45
	041- 43			1.232		17.718	1.6430		-0.7859		-0.0047
	041- 43			1.203		19.547	1.7755		-0.9816		-0.0643
	047- 43	155	12	1, 201	(.0	21.329	1.8493	9.7721	-0.9414	0.0008	-0.0046
	04T- 43	158	4	C.855	C. C	-C.724	0.1411		-0.0256		-0.0014
	04T- 43	158	_ 2	(.899	C.0	4.053	0.6023	0.0963	-0.0911	0.0139	-0.0027
	04T- 43	158	3	(.899	C.0	6.287			-0.1223		-0.0030
	04T- 43	158	4	(.853	(.0	8.596	2.9314	0.1760	-0.1606		-0.0C32
	04T- 43	158	5	C.858		13. C87			-9-2839		-0.0041
	04T- 43	159	6	(.900	. (.0	21.807	1.7073	0.7176	-0.6344	-0.0006	-0.0009
	04T- 43	166	1-1	(,800	0.0	-0.755	C.1333	0.0595	-0.0243	•	-0.0009
	041- 43			(.898			-C.0891		-0.0161		-0.0017
	1771- 43	177	4	4 5 5 7 1		,,,,,	20 70 71	00,001	0.0101	,,	

756-		- 16		/	q		6 9	tı	
TFST R	UN	PT PACH	SHEEP	ALPHA	$c_{\mathbf{L}}$	· CD	~~	CA	•
	**		(DEG)	(DEG)	-T	y O D .	Cm	CA	c_n
04T- 42 1		1/3	-10		100			4	
041- 43	159	3 (.899		1.607	0.3755	0.0707	-0.0562	0.0150	-0.0017
04T- 42 1	99	4/C.901	C.0	4.031	0.6903	0.0971	-0.0928		-9.0023
04T- 43 1	99	5 C. 902	C.0	6.273	C.7691		-0.1231		-7.0023
04T- 43 1		£ C.902	C. 0	8.603	C. 9324		-0.1605		-0.0027
04T- 43 1	99	7 C.897	C.C 1	0.791	1.0937		-0.2083		-0.0031
04T- 43 1	99	E C.897		3. C84	1.2473		-0.2828		-0.C035
04T- 42 1		S C. 501		5.415	1.4064		70.2026		-0.0038
04T- 42 1	99	10 (.899		7.451	1.5042		-0.3698		-0.0046
04T- 43 1	59	11 (.900		9.490	1.5968		-0.4484		-0.002€
04T- 41 1		12 G.904		1.836	1.7182		-0.5476		-0.0019
100			200 2	1.130	1.1102	0.7239	-0.6474	-9.0004	-C.0C04
04T- 47 2	co	1 6.824	C C -	C.647	6 34 00			\	
04T- 43 2	co	2 C. EC2	C.O -		C.1693		-0.0225		-0.0005
04T- 41 2	00	3 C.8C2			-C.0480		-0.0018	9.0070	-0.0007
04T- 43 2	CO	4 C.8C3	C.0		7.4146		-0.0600	0.0157	-0.0014
04T- 43 2				3.933	1.6950		-C.9831		-0.0022
04T- 41 2		5 C.800		6.191	C. 7618	9.1094	-9.0948	0.0131	-0.CC3C
04T- 43 2		6 C. 801		8.430	C. 9140	. 0.1497	-C-1184	0.0117	-0.C040
041- 43 2		7 C.798	C.0 1		1. C891	0.2105	-0-1696	0.0104	
04T- 43 20		€ C. €03	C.0 1		1.2441	9.2866	-0.2197		
047- 42 2		9 (.864.	C.0 1	5.107	1.3392	0.3669	-0 2873	0.0090	-0.0044
04T- 43 20	co I	0 (. 799	C.0 1		1.4433	9.4629	-0 2077	0.0031	-0.0631
MAT- 43 20	cc I	1 C.8C5	C. 0 1		1.5423	0.5581	-7.3077	0.0022	-0.0016
C4T- 43 20	00 1	2 C. EC5	C. C 21		1.6519	0.6760	-0.4/16	0.0022	-C.0014
04T- 43 20		3 C.797	C.0 2		1.7496	0.6740	-0.5649	0.0021	-0.0C13
				, , , , ,	1.1470	0.7845	-0.6270	0.0025	-0.0027
04T- 42 20	11	1 1.2CC	C.C -C	992	C 04.33	0 0000			
04T- 43 20		2 1.202		- 880	C.0473	0.0932		0.0108	
04T- 43 20		2 1.232			7.4954	0.1231	-0.2242	0.0125 -	0.0016
047- 43 20		4 1.201		. 452	C.9264	9.2120 -		0.0096	-0.0040
04T- 43 20		1.203	. (.0 13		1.3247	0.3719 -	-0.5833	2.0082 -	
04T- 42 20			C.0 17		1.6469	0.5810 -	-0.7881	0.0059 -	0.0076
. 4. 20		1.234	(.C 21	- 186	1.8403	9.7655 -	-0.4364	0.0047 -	0-0077
04T- 43 20	2 1							\ *	
041- 42 20		C. 658	(.0 -0	.700	C.1626	0.0446 -	0.0184	0.0137 -	0.0002
04T- 43 20		C.699			0.0397		0.0041	0.0087 -	
04T- 43 20		C.699		. 605	C.3815	0.0502 -	0.0524	0.0157 -	
		C.698	C.O, 3		0.5726	0.0666 -	0.0800	0.0151 -	0.0010
04T- 43 20	_	C.699	° (.0 . €	.129	C. 7594	0.0951 -	0.1059		
047- 43 20		C.658	C.O 8	.250	0.9168	0.1313 -	0.1284	0.0140 -	0.0033
047- 43 20	2 7	C. 701	C. 0 10	.577	1.0976	0.1877 -		0.0134 -	9.0041
04T- 43 20		C.699	C. 0 12		1.1948	9.2561 -	0.1000	0.0130 -	0.0049
04T- 43 20	2 9	C.699	C. C 14		1.3010	0 3419 -	0.2174	0.0051 -	
04T- 42 20	2 10	C.700	C.O 17		1.4195	0.3419 -	0.2097	0.0043 -	
C4T- 43 20	2 11	C.699	C. C 19		1.5292	0.4361 -	0.3471	0.0022 -	0.0023
04T- 42 20	2 12	C.699	C.O 21			0.5333 -	0.4314	0.0036 -	0.0026
C4T- 42 2C		C.700	C. 0 23		1.6450	0.6473 -		0.0041 -	0.0031
			230	200	1.7578	0.7663 -	0.5865	0.0034 -	0.0C3C
04T- 43 2C	5 1	(.857	C.O1	045		-			
04T- 43 2C5	_ ,	C.905	C.O -1.			0.0603 -		0.0273 -	0.0004
04T- 43 205		(-898			C.4544	0.0802 -	0.1C81	0.0322 -	2.0016
04T- 43 2C5		(.858			0.6402	0.1071 -	0.1348	9.0258 -	0.0037
1	•		C.O 8.	360	C-8200	0,-1495 -0		7.0231 -0	

			. 9									
	TF	ST	RUI	V P	T PACH	SWEEP (DEG)			C _D	C _m	CA	c_n
	04T-	- 4	2 20		5 (.896	0.0	12.909	1 14 26				
	04T-	- 4	3 265		6 (.899	(.0	21.619			-0.2855		-0.0068
					,		21.017	1.6479	0.6746	-0.6261	0.0117	-0.0072
	04T-	- 4	? 206		1 C.858	(.0	-1.062	-0.0481	0.0601	-0.0521	0 0270	2 3222
	04T-	- 4	3 206		2 C.897		-3.688			-0.0448		-0.0C12
	041-	- 4	? 206		6.898	C.0				-0.0816		-C.0019
	041-	- 4	€ 20€	4	6 (.900	C.0				-0.1066		
			? 206		5 C.856	C. 0		C-64 04		-0.1339		-0.0013
			3 206	•	E C. 901	C. 0		C. 9231		-0.1769		-0.C036
	94T-	- 4	206	7	7 C.897		10.632	0.9842		-0.1769		-0.CC48
			2 266		C.899		12.911	1.1648		-0.2311		-0.0059
	04T-	- 4	2 266		C.898		15.170	1.3131		-0.2894		-0.C065
	04T-	4	₹ 20€		(.853		17.289	1.41.76		-0.3502		-9.0078
			206		C. 900		19.44C	1.5283		-0.4252	1	-0.0067
							170776	1.0703	16.2241	-9.5326	0.0129	-0.0061
ca			2 2C7		C. 799	(.c	-1.052	-0.0397	0.0542	-0.0486	0.000	
ç			207		C. 8C2			-1.2352		-0.0375		-0.002C
			207		C.799	C.n		0.1867		-0.0767	7.0243	-0.0013
			207		C. 8C2	C. 0	3.619	0.4154		-0.1089	0.0365	
	04T-	4:	207	. 5	C.8-)19		6. C15	C. 6231	0.0621	-0.1383		-0.0019
	C4T-	4 3	207	. 6	C.800	C.0	8.291	C.7910		-0.1651	0.0331	
,	047-	43	207		C.803	C. 0	10.506	C. 9736		-0.2107		-0.CC52
			207		(.8C3		12.744	1.1261	0 2470	0.2550	0.0260	-0.0069
	04T-	43	207		C. 8CI		14.877	1.2307	0.2710	-0.2559	0.0233	-0.0081
	04T-	43	207		C.804		17.073	1.3480	0. 32,44	-0.3137	0.0208	-0.0087
	04T-	43	207		C.ACI		19.C18	1.4617	0.4190	-0.3913	0.0185	-0.0084
		1					-	114017	0.5135	-0.4727	7.0169	-0.0085
	04T-	43	208		C.700	(.0	-1.C78	-C.0417	0.0505	-0-0424	0.0313	
	04.T-	43	2C 8		C.698			-0.2266	0.0673	-0 0289	0.0313	
			208	3	C.701	C.0	1.220	C-1703	-0.0457	-0 0711	0.0252	-0.0011
	04T-	43	208	4	C.700	C.0	3.51.3	0.3738	0.0536		0.0373	
			208		C.700	C. 0	5. 839	0.5739	0.9744	-C 1337	0.0375	
			208	E	(.694	0	8.C61	0.7616	0.1081		0.0366	
1	04T-	43	2CA	7.	(.69)		10.367	0.9492	0.1575	-0.1002	0.0347	-0.CC5E
-	04T-	43	208	6	C. 698		12.511	1.0812	0.2185	-0.2014	0.0322	-0.0079
	D4T+			10	C. 701		16.856	1.3156	0.3899	-0 3584	0.0235 -	
	C4T-			11	C. 700		18.578	1.4334	0.4875		9.0180	
)4T-			12	C. 700		21.163		0.6000		0.0165 -	-C.CO95
()4T-	43	208	13	C.7C1	C.C	22.133	1.66 06	0.7035		0.0161	-0.01C0
								,	0.,035	-0.5006	0.0147 -	-0.0104
	14 T-				1.207	C.C.	-1.068	-0.0639	0.0926	-0-0097	0.0192	0.0014
)4T-	4 3	209	Ž	1.203	C.C	-3.545	-C.2844	0.1085		0.0172	0.0031
1)4T-	43	209		1.203	(.C	1.217	0.1536	0.0928 -	-0.0995	0.0207	0.0031
	4T-				1.201	C.C	3.603	0,3810	0.1086 -	0-1900	0.0213 -	
	4T-				1.234		6.007		0.1405 -	0.2789	0.0209 -	0.0004
	41-			6	1.202		2.398	C.8479 .	U.1904 -	0.3624	0.0188 -	
	4T-				1.201		0.730	1.0428	0.2553 -	0.4520	0.0190 -	0.0041
	41-				1.203		3.C80	1.2336	0.3366 -	0.5481	0.0190 -	0.0003
0	4T-	43	709		1.204	-C-0 1		1.4153	0.4347 -	0.6519	0.0175 -	0.000
C	41-	43	209	10	1.203	C.C 1	7.577	1.5696	0.5385 -		0.0170 -	0.0096
							0				200110 -	0.0102

TEST	PÜ	N P1	PACH	SHEEP	(DEG)		· CD	C _m	CA	c_n
04T- 4	3 20	9 11	1.2)2	C. C	15.868	1.7083	0 4557	-0.8476	0.01/0	
041- 4			1.203		22.033			-0.9312		-0.0120
	,					1.01,	0.1090	-0.7312	9.0100	-0.0158
C41- 4:	2 212	? 1	(.857	C.0	-C. 861	C. 0569	0.0436	-0.0409	0.0361	-0.CCO2
04T- 43			C.501	C.0				-0.0967		-0.0031
041- 4			(.898	C.0	6.322			-0.1244		-C.0C52
C4T- 4			C.898	0.0	e. 587	C. 91 20		-0.1521		-0.0065
041- 4			C.901	C.0	12.950	1.1487		-0.2676		-0.9075
04T- 4	212	? 6	(. SC1	C.0	21.663	1.6444		-0.6122		-0.0071
04T- 43		_	C. 899		-C.887			-0.0394	0.0338	0.0009
04T- 43			C. 899			-9.2370		-0.0101	0.0349	-C.CO15
C4T- 43		_	C.898		1.518			-0.0643		-C.CCOI
04T- 4			C-900		3.941			-0.0944		-0.0025
04T- 43	212	- 1	(.898 (.902	C.0				-0.1208		-C.0046
041- 43			C. 895	C. 0	8.593			-0.1494		-0.0059
04T- 43			(.846		1C.712 13.006	1.0050		-0.1932		-0.0064
C4T- 43			C.839		15.095	1.1489		-0.2676		-0.0C71
041- 43			(.896		17.351	1.2722		-0.3568		-C.CC58
04T- 43			(.899		19.485	1.4132		-0.4441		-C.0055
04T- 43					21.658	1.6493		-0.5294		-C.0071
	•••	~	100		211070	1.0475	9.1045	-C.6145	0.0120	-0.0065
04T- 43	214	1	C.800	C.C	-(.890	0.9436	0-0388	-0.0332	0.0365	C.0
047- 43			C. 799		-3.352	-C.1987		-0.7064		-2.0009
047- 43			`(. EO1		1.373	0.2510		-0.0598	0.0369	
04T- 43			(.801	C.0	3.715	0.4566		-0.0874		-0.0014
04T- 43		_	C.8C1	C.0	6.C63	0.6674		-0.1127		-C.0C41
04T- 43			(.800		1C.508	1.9534		-0.1701		-0.0067
04T- 43			C.798		12.692	1.C793	9.2720	-0.2273		-0.0074
C4T- 43			0.800		14.865	1.1946	0.3484	-0.2847		-0.0069
047- 43			(.80)		19.218	1.4590		-0.4590	0.0169	-0.0065
04T- 43	214	12	(. EC2	C-0	21.382	1.5737	0.6570	-0.5502	0.0150	-C.9076
047- 43	216		C. 712		- 6 000					
04T- 43		-	C. 714		-0.903	0.0337	9.0361		0.0379	
04T- 43		_	(.714			0.2251	0.0466		0.0349	
04T- 43		_	(.713	C. 0	3.6C3	C.4160	0.0402		0.0380	
04T- 42			C.712	C.0	5.895	0.6117	0.0546		0.0377	
C4T- 43			C.713	C.C	8.177	C.7905	0.1274		0.0362	
04T- 43			C.710		12.524	1.0353	0.2494		0.0330	
04T- 4?	215		(.70)		14.654	1.1553	0.3216		0.0245	
C4T- 43	215		C. 701		16.796	1.2736		-0.3369		-C.OC75
047- 41			C.701		18.960		0.5068		0.0165	
04T- 43		12	C.7CO		21.141	1.5370	0.6220		0.0153	
C4T- 43			C.7C1	C.O .	23.201	1.6379	0.7306		0.0144	
04T- 43	215	14	C.701	C.C	1C.366	C. 9003	0.1829		0.0275	
A4T 45				*						_
04T- 43			1.201			-0.0099			9.0179	0.9017
U-1- 45	210	2	1.202	C.0	-5.498	-0.2541	0.0805	0.1021	0.0168	0.0035

	TEST	RUN	PT	PACH	SHEEP	ALPHA	CL	· c _D	C _m	CL	$c_{\mathbf{n}}$	
					(DEG)	(CEG)	7	•	-	5	.,	
1	04T- 43	214	2	1.202	c.0	1.406	0.2244	0 0740	-0.0822	0.0203	-0.0C01	
	04T- 43			1.202	(.0				-0.1837		-C.0016	
	04T- 43			1.202	c.c		C.7114		-0.2761		-0.0035	
	04T- 43			1.201	C. 0	8.596	C. 9219		-0.3571		-0.0049	
	04T- 43			1.202		1 C. 892	1.1131		-0.4470		-0.0068	
	04T- 42			1.202		13.207			-0.5416		-0.0C81	
	04T- 42			1.202		15.472	1.4551		-0.5459		-C.0102	
	C4T- 43			1.264		17.689	1.5866		-0.7348		-0.0136	
	04T- 43			1.201		19.880	1.7110		-C.8309	-	-C.0131	
	04T- 42			1.204		22.C65			-0.9182	_	-0.0152	
							3					
- (04T- 43	219	1	C.898	C. 0	-1. CO5	-2.0157	0.0506	-0.0390	0.0316	-C.0007	
(04T- 43	219	2	C.899	C.0	3.845	C.4990	0.0750	-0.1033	0.0290	-C.0C33	
(041- 43	219	3	(.898	(.0	6.203	C.7172	0.1107	-C.1350	0.0235	-0.0(53	
(047- 43	219	4	C.858	C.0	8.640	C. 91 88	0.1641	-0.1716	0.0226	-0.9665	
(04T- 43	219	5	C.SCI	C.0	12.557	1.1661	0.2943	-0.2710	0.0172		
(047- 4?	219	6	(.843	C.0	71.612	1.6428	0.6882	-0.6284	0.0119	-0.0094	
	04T- 42	22C	1	(.857	C.0	-0.578	-0.0136	0.0501	-C.9367	0.0314	-0.0006	
	04T- 43			(.899			-C.2676		-0.0176		-0.0004	
	047- 43			(.897	C. 0		. C.2542		-0.0732		-0.0C02	
(04T- 42	220	4	C.895	C.0	3. 216	C.4946	0.0742	-0.0997	0.0294	-0.GC27	
1	04T- 43	220	5	C.901	C. 0	5.253	.C. 72 01	0.1112	-0.1323	9.0232	-0.0048	
1	041- 43	220	6	C.899	0.0	e. 532	C. 9080	0.1611	-0.1655	0.0231	-0.0065	
(04T- 43	220	7	C. 90C	C.0	10.767	1.C527	0.2222	-C.2154	0.0236	-0.0066	
-	04743	220	Ē	(.900	C.Û	12.597	1.1646	0.2945	-0.2680	0.0173	-0.0062	
-	04T- 43	22C	9	C.898	C. 0	15.095	1.2731	0.3742	-0.3460	0.0174	-0.0075	
-	04T- 43	220	10	C.502	C.0	17.289	1.4044	0.4725	-0.4505	0.0159	-6.0083	
-	04T- 43	220	11	C-894	C.0	19.403	1.5193	0.5706	-0.5351	0.0139	-0.0071	
	C4T- 43	220	12	C.898	C.u	21.617	1.6434	0.6889	-0.6754	0.0121	-0.0086	
	04T- 4?	221	1.	C.8C2	(.0	-0.965	-0.0056	0.0451	-0.0331	.0.0345	0.0012	
1	04T- 43	221	2	C. 600	(.6	-3.409	-9.2277	0.0609	-0.0102	0.0275	-0.0009	
	04T- 43	221	3	C.793	C.C	1.392	. C.23 C8	0.9454	-0.0642	0.0372	0.0015	
	C4T- 43	-221	4	C.800	C. 0	3.687	0.4382	0.0666	-0.0904	0.0372	-0.0G1C	
(04T- 43	221	č		0.0	6.C15	C. 64 94	0.0883	-0.1243	0.0365	-0.0031	
(047- 42	221	6	108.3	*(.0	8.359	0.8553	0.1340	-0.1553	0.0343	-0.CC53	
-	C4T- 43	221	7	C.758		10.564	0.9916	7.1921	-0.1861	0.0281	-0.0064	
-	047- 43	221	8	C. 799	C.C	12.714	1.0836	0.2596	-0.2318	0.0231	-0.0069	
	047 43			C.832		14.942	1.2087	0.3432	-0.3048		-0.0072	
	04T- 4?		10	C.831		17.C24	1.3298		-0.3790		-0.0C67	
	047- 43			C.801		19.228	1.4616		-0.4656		-0.0090	
(047- 43	221	12	C. E03	C.0	21.392	1.5801	0.6463	-0.5479	0.9165	-0.0093	
(041- 43	222		C.711			-1.0054	0.0428	-0.0307	0.0363	0.0004	
	04T- 43			C. 700	(.0		-C.2147	0.0572	-0.0067	0.0296	C.GC01	
	04T- 43	222		C.7C0	C. 0	1.280	0.1998		-0.0563	7.0377	0.0017	
	04T- 43			c.7co	1.0	3.568			-0.0825	Particular de la constitución de	-0.0002	
	047- 43			C.699	0.0		-3.5819		-0.1139		-0.0C25	
1	047- 43	227	É	(.702	C. 0	8.123	9.7735	0.1117	-0.1447	0.0348	-0.0048	

	TEST	RUN	PT	MACH	SWEEP (DEG)	ALPHA (DEG)	CL	$c_{\mathbf{D}}$	· C _m	CL	c _n
	04T- 43	222	7	(.700	C-0	10.414	(.9383	0-1706	-0.1834	0.0288	-0.0067
	04T- 43			C. 702		12.498	1.0489		-C.2190		-0.0074
	04T- 42			(.699		14.654	1.1762		-C.2713		-0.0C75
	04T- 43			C.697		16.866	1.2988		-0.3436	0.0179	
	04T- 43			C. 7C0		18.586	1.4299		-0.4261	0.0181	-0.0084
	04T- 43			C.699		21.157	1.55 07		-0.4983		
	04142	222	12	C.077		210171	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0120	-0.4901	9.9190	-0.0076
	C4T- 43			1.202	C.C	-1.026	-C.0534	0.0786	0.0093	2.0188	C.0025
	047- 43		2	1.201	C. 0	-3.476	-0.2763	0.0936	0.0969	0.0173	0.0040
	041- 43		3	1.232	C. C	1.295	0.1754	0.0806	-0.0854	9. 9211	/ 0.0011
	04T- 43	223	.4	1.202	C.C	3.679	C.4138	0.0998	-G.1800	0.0219	-C.CC07
	04T- 43	223	5	1.201	C.0	6.108	C.6558	0.1390	-0.2697		-0.0C27
	04T- 43	223	6	1.202	(.0	9.458	C. 9681	0.1925	-0.3478	0.0191	-9.0038
	04T- 43	223	7	1.204	(.0	10.795	1.0682	0.2619	-0.4422		-0.0056
	C4T- 43	223	8	1.203	(.C	13.133	1.2596	0.3487	-0.5412		-C.GC75
	04T- 43	223	5	1.204	(.0	15.415	1.4306	0.4470	-0.6452		-C.0089
	04T- 43			1.203		17.683	1.5857		-0.7485		-r.C095
	04T- 43			1.202		15.083	1.7119		-0.8398		-0.9106
	C4T- 43			1.203		22.031	1.8162	0.7861			-C.0131
	4.			1						14	
	04T- 43			(. 857		-1.1C7			-0.0305	0.0419	-0.0027
	047- 43			C. 299		3.788	C.4937		-0.1010		-0.0046
	04T- 43			C.901	(.c		C.7200		-C.1305		-0.068
	04T- 43			C.896	C.O	8.518	C.8987		-0.1600	0.0281	-0.0084
	04T- 43			C.898	C.0	12.939	1.1477		-0.2665		-C.0093
	04T- 43			(.835		21.562	1.6131	0.6795	-0.5094	0.0181	-0.0115
	04T- 43	276	7	(.897	r.c	23.666	1.7119	0.7927	-0.6799	0.0155	-0.0134
	04T- 43	227		C.502	(0	-1.111	-7.0457	0.0553	-0.3222	2 0405	-0.0030
	04T- 43			(.899		-3.538			-0.0223	0.0405	
į	04T- 43			C. 896		1.401			-0.0013	0.0327	
	04T- 43			C. 901		3.896	C. 2487		-0.0685		-C.0C06
	04T- 43			6.898	C.0	6.286	0.5044		-0.1002	0.0354	-0.004 L
	04T- 43	227		(.896					-0.1270	0.0304	-0.0064
		227		C.893		17.289	1.2608		-0.3453	0.0235	-0.0092
	04T- 43		11	(.896					-0.4432		-0.0098
	04T- 42			C.895		19.358	1.5208		-0.5320 -0.6906	0.0202	-0.0090
					3					7.0162	
	04T- 43	271	114	(.501		10.762	1.0592	0.2303	-0.2083	9.0300	-9.9087
	04T- 43	228	1	C. 757	C.C	-1.030	-7.0176	0.0496	-0.0279	0.0460	-0.0010
	04T- 43	228	2	C.805	C.0	-3.458	-C. 2493		-0.0003	0.0344	-0.0013
	04T- 42	228	3	C.797	C.0	1.331	0.2231		-9.9610	0.0485	
	047- 43			(.803	C.0	3.777	7.4489		-0.0912		-0.0024
	04T- 43	64 .		(.831		6.050	0.6489		-0.1225		-0.0045
	04T- 4?			C.801	C.0	8.302	0.8412		-0.1502		-0.0068
	04T- 43			C.8C2		10.574	0.9813		-0.1860		-0.0080
3	04T- 43			C.804		12.713	1.0984		-0.2328		-0.CC89
	94T- 43			C.E04		14. 271	1.1947		-0.3054		-0.0086
	C4T- 43			(.797		17.C38	1.3205		-0.3799		-C.0088
	04T- 43			C.800		15.190	1.4420	6	-0.4585		-0.0133

		/									
TEST	R	UN	PT	PACH	SWFE		CL	$c_{ extsf{D}}$	Cm	CI	$c_{\mathbf{n}}$
041-	43 2	28	12	C. 8C1	c.0	21.293	1.557	2 0.640	4 -0.5400	0 0.0250	0-0.0120
04T-	4: :	20	•	6 450						0 6 9 7 31	-0.0125
04T-				C.658	(.0	-1.C58			-0.9228	0.0472	-0.0011
04T-	43 2	29		(.700		-3.400		0.0610	0.0009	0.0376	-0.0001
04T-	43 2	20		C.698	C.0		(.394)	0.0579	-0.0784	0-0484	-C.CC22
04T-	43 2	29		(.700	C.0		0.5712	2 0,0792	2 -0.1073	0.0467	-0.0039
04T-	43 2	20	7	C.657	C.0		C. 7634	0.1151	-0.1392	0-0434	-0.0065
04T-	43 2	29	A	C. 658	(.0	10.309	C. 9241	0.1718	-0.1782	0.0385	-0.0086
047-	43 22	29	q	C.657	(0	12.510	1.0447	0.2426	-0.2170	0-0350	-0.0097
041-	4 ? 22	-		C.698	0.0	14.610	1.1528		-0.7684	0.0204	-0.0099
041-	43 22	9	11	(.699		16.806	1.2735	,	-0.3378	1-0273	-0.0099
04T-	4 ? 22		12	C. 7CO	(0	21.178	1.4022		-0.4184	0.0277	-0.0115
						21.118	1.5349	0.6135	-0.4957	0.0253	-0.0118
047-	1 2 2 3	0.	1 -	1.201	(-1.122	-0 0500	٥			
04T- 4	3 23	0		1.200	CoO	-3.372	-0.0588				0.0022
04T- 4	2 23	0	3	1.202	C.0	1.285			0.0938	0.0242	0.0033
04T- 4	2 23	0		1.202	/C.C	3.648	C.18C5 C.4187		-0.0857	0.0291	C.0006
74T- 4	? 23	0		1.201	C.0		C. 66 09		-0.1810	0.0305	-C-0018
04T- 4	? 23	Ç		1.201	C.C	8.509	0.8784		-0.2693	0.0284	-0.0043
04T- 4	2 23	0		1.199	C. 1		0.0104	0.1995	-0.3489	0.0264	-0.0061
04T- 4	? 23	C		1.197		15.391	1.4375	-9.9446	-0.4787	9.0245	-0.C114
C4T- 4	3 23	C 1	0	1.204	C. 0	17.695	1.5807	0.4530	-0.5443		-0.C13C
04T- 4	3 23	C I	1	1.199	(.0	19.848	1.7084	0.5602	-0.7409	0.0215	-C.C138
04T- 4	3 23	0 1	2	1.2C3	C.C	22.137	1.8157	0.6725	-0.8319	0.0209	-0.0153
041- 4	3 236		3	1.200	C.C	10.798	1.0759	0.7940	-0.9211	0.0201	-0.0179
041- 4	3 230) 1	4	1.203	(.5	-1.893	0.0137	0.0555	-0.4397	9.0263	-0.0073
0:-							007171	0.0000	0.9134	-0.0086	-0.0565
047- 4	3 237		1 (. 658	1.6	-1.018 -	2.07.08	1.0531	-0.0441	2 225-	
04T- 4				.893	0.0	1.228	C-2357	0.0579	-0.0699	-0.0C72 ·	-0.1319
04T- 4	3 232			.899	C.0		0.4675	0.0757	-0.0699		0.0004
04T- 4	232			-691	C.8		7.9760	0.4265	_	0.0380	-0.2031
04T- 4 04T- 4	2 6 2 2	_		.895	C. 7	9.915	5.6238	1.0765	-6.4769	-0.0119	-0.1617
04T- 4	: .232) (.816	C. C 1	16.308	1.3435	0.4322	-0.4294	-0.0126	-0.1652
04T- 4	232			.855		8.352	1.4631	0.5276	-0.5250	0.0237	-C.0087
04T- 4	222			-858	C.0	9.985	1.0163	0.2091	-0.2047	0.0225 -	-0.0089
241- 4	. 7.32	15	. (. 856	C-9 -	0.931	0.0458	0.1249		0.0297 -	0.9684
04T- 43	233		-	76.0						0.0104 -	0.1441
04T- 4	223	_		. 753			C • 2235	0.9627 -	-0.0131	0.0363	0 0022
04T- 43	233			-801	C. 0		. 27.44	9.0502 -			0.0033
04T- 4				.801 .8C1	C.0		.4187	0.0632 -			C-0C18
04T- 43					0.0		.6062	0.0872 -	0.1271	0.0440 -	0 0015
04T- 43	233			·613 ·803	1.0 -		-1276	0.1196 -	0.9609 -	0.0050 -	C 2200
04T- 43	233			.003	1.0 I		.0492	0.2409 -	0.2361	0.0303 -	0.2209
04T- 43	233			801	1.04		-1278	2-1105 -	4-9203 -	0-0693 -	0-2362
04T- 43	233	12	C	798	C.O 2		.4049	0.4949 -	0.4650	0.0273 -	0.0110
04T- 43				799	C.0 2		-5231	0.5992 -	0.5527	0.0269 -	0.0126
04T- 43	233			757			.6229	0.7032"-	0.6275	0.0243 -	0.0120
04T- 43	223			eco	C.O -		.9466	0.1780 -	0.1913	0.0330 -	0.0089
	0					1.021 -0	- 2069	0.0496 -	0.0387		C.7039.
4 '											

TEST RUN	PT MACH	SHEEP ALPH	A C-	0	•		
		(DEG) (DEG		$\mathbf{c}_{\mathbf{D}}$	C _m	CI ,	$c_{\mathbf{n}}$
047- 42 724	1 (700		·		9 - 1	ĸ	
047- 43 234	1 (.700 2 C.656	C.O -1.016			-0.0401		0.0047
047- 42 234		-C.O -3.215			-0.0173		C.CC67
04T- 43 234	3 (.698	C.O 1.175			-0.0678	0.0515	0.0022
D4T- 42 234	4 C.695	C.O 3.326			-0.0925	0.0495 -	-0-0009
04T- 43 234	6 . (. 697			0.1075	-C.1508	0.9438 -	-0-0076
	7 C.698	C.0 9.732		0.1587	-0.1891	0.0374 -	0.0070
047- 43 234	16 6.698	C.O 16.CC9			-0.3412		0.6111
04T- 43 234	12 C.694	C.C 20.162			-0.5019		0.0111
047- 43 234	13 C.696	C.0 22.176	1.5847	0.6655	-0.5720	0.0241 -	0.0122
04T- 42 235	1 1.198	C 0 1 515			f		
04T- 43 235	2 1.197	C.O -1.C15	-0.0287		-0.7035	0.0255 -	0.0082
04T- 43 235	4 1.200	-C.C -3.190		0.0988			0.0031
C4T- 41 235	5 1.202	C.O 3.376			-0.1789	0.0322 -	0.0622
04T- 43 235		(.0 5.625		0.1363	-0.2593	0.0304 -	0.0043
04T- 43 235	7 1.261	C.O 1C.02C		7.2451	-0.4187	0.0270 -	0-0075
04T- 43 235	9 1.204	C.O 14.343		0.4111	-9.6220	0.0246 -	G-013C
	1C 1.198	C.O 16.515			-0.7134	0.0231 -	0-0146
047- 42 235	11 1.201	(.C 18.629		7.6164	-0.8059	0.0220 -	0.0161
041- 43 235	12 1.202	C.C 2C.709	1.7627	057266	-0.8999	0.0215 -	0.0175
04T- 43 235	13 1.200	C.C 22.702	1.8520	0.8356	-0-9911	0.0228 -	0.0271
047- 43 235	14 1.201	.C.C 5.589	1.02.28	3.2442	-0.4225	0.0270 -	C 0074
047- 43 235	15,1.197	-C.O -1.C53	-C. 0339	0.0819			Crccs1.
04T- 43-236	1 (.894	C 0 1 1 22	1			•	
04T- 43 236	2 6.900	C.O -1.173	-0.0521	0.0534	-0.0282	7.0394 -	
041- 43 236	3 (.899	C.O -3.763		0.0749	-0.0053	0.0315 -0	1.0045
04T- 42 236	4 (.899	C.O 1.472	C.2522			0.0425 -0	-0004
04T- 43 236	5 (.564	C-0 4-151	0.5250	0.0833	-0.1059	0.0350 -	0.0034
04T- 42 236	.6 C.899	C.C 6.582	C.7426	0.1227	-0.1366	0.03010	0.0056
04T- 47 236	7 (.90)	C.C 9.C15		9.1779	-0.1683	0.9292 -0	0.0072
041- 43 236	9 0.892	C.C 11.356	1.0914	9.2482	-0.2222	0.0300 -0	0.0082
	7 (10 7 2	C.O 11.286	1.6808	0.2437	-0.2160	0.0322 -0	-0082
047- 42 227	2 (.802	C.0 -3.453	-C 24.21	0.0444			
041- 43 237	5 C. 801	C.O 6.335		0.0661		0.0341 -0	-0024
047- 43 237	€ (.801	(.C 8.703	0.6784 C.8723	0.0978 -		0.0431 -0	-0046
C4T- 43 237	7 (.802	C.O 1C. E95		0.1466 -		0.0380 -0	
047- 43 237	E C.801	C.O 13.187	C. 9976	0.2062 -	. 1	0.0316 -0	
047- 43 237	9 (.803			0.2824 -	0.2454	0.0304 -0	.0089
	12 C. 8C1	C.O 15.267	1.2256	0.3617 -	0.3205	0.0284 -0	-0088
	12 (1001	C.0 -1.145	-0.0317	0.0509 -	0.0299	0.0435 -0	.0014
04T- 43 240	1 (. 840	(.0 -1.034	0.0457	0.0393 -	0 0572	0.0000	
04T- 43 24C	2 C.891		0.5034	0.0637 -		0.0009 -0	.0C24
04T- 43 240	3 C.891	C.O 6.290	0.7240	0.1018 -		0.0020 -0	
04T- 43 240	4 (.889	C.O 8.617		0.1523 -		0.0012 -0	.0023
C4T- 43 240	5 C.889	C.0 12.842		0.2812	0 2704	0.0018 -0	.0017
047- 4 = 240	£ (.EF5	C.C 21.668	1.6747	0.6883 -	0.4274	0.0029 -0	.0016
	4)		1.01.41	v.000) -	0.0374	0.0003 -0	.0021
047- 43 241	1 (.855	(.C -0.940	0.0525	0.0391 -	0.0544	0 0005	,
04T- 43 241	2 6.890	C.0 -3.416	-7-1562	0.0527 =		0.0005 -n	.UC22
04T- 43 241	3 (.892	C.O 1.497	0.2773	0.0418 -		0.0010 -0.	.0031
•		, , , , ,	342713	0.0410 -		0.0012 -0.	.0021

						-			
TEST R	UN P	T MACH	SHEEF (DFG)			$c_{\mathbf{D}}$	Cm	CI	c _n
04T- 42 2		4 C.858	c. c	3.748	0.4975	0.0614			
04T- 43 2		5 C.903					-0.0867		-C.0C22
04T- 43 2		(. 854					-0.1281		-0.0023
04T- 42 2		(. 299		1C.780			7 -0.1614		-0.0016
041- 43 2		C. 900		12.920			-0.2085	-	-0.0013
04T- 42 2		(.899		15.150	1.3035		-0.2820		-0.0002
041- 43 2		C.960		17.207			-0.3592		-0.0009
04T- 43 2		(.901		15.548			-0.4506		-0.0013
- 04T- 42 2		C. E99		21.673			-0.5500		-0.0017
1			/	210073		- U • OH 3H	-0.6353	0.0005	-0.0021
04T- 43 2	42 1	C.800	C. C	-C.896	7.7499	0.0345	-0.0471	0 0010	0.000
04T- 43 2		C.799		-3.349			-0.0360		-0.0026
04T- 42 2	42 4	(.749		3.802		0.0509	-0.0386		-0.0031
04T- 43 24		(.80)		6.118			-C.1108		-0.0024
04T- 43 24	42 6	C.801				0.1216	-0.1426		-0.0022
04T- 43 24		C-801		10.514	C. 9948	0.1802	-0.1787		-0.0616
04T- 43 24		C.801		12.645	1.1028	0.2497	-0.2420		-0.0010
04T- 43 24		C.802		17. C34	1.3562	0.4235	-0 3072	-0.0001	-0.0009
04T- 43 24		(.799		15.176	1.4785	0.5249	-0.4768	1,000.0	-0.0002
047- 43 24	2 12	C.798		21.309	1.5918	0.6345	-0.5560		-0.0020
•		1 1			4		3.7750	3.0008	-0.0020
. 04T- 42 24		. (.740	₹C. 0	-C. 524	0.0420	0-0320	-0.0405	0.0014	0 0005
04T- 42 24	_	C.697	, C. O	-3.346	-0.1574	0.0458	-0.0280		-0.0025 -0.0034
047- 42 24		C.699	C.0		C.2334		-0.0547	0.0020	0.0034
04T- 43 24		C. 701	C.0	3. 645	3.4231	2.0450	-0.0767	0.0004	-0.0023
04T- 4: 24		C.699	° C.0	5.941	0.6120	0.0682	-0.1074	-0.0016	-0.0024
04T- 43 24		C.698	C. 0	8. (95	C.7919	0.1026	-0.1407	0.0016	-0.0072
04T- 43 24	-	C.702	C.C	1C.325	9. 9420	0.1582	-0.1779	0.0005	-C.0016
04T- 43 24		C.702		12.553	1.0680	0.2316	-0.2217	0.0019	-C.0007
04T- 43 24		C.699		14.660	1.1940	0.3085	-0.2773		-0.0004
04T- 43 24		C.659		1.6. F57-	1.3195			-0.0005	-0.0C01
04T- 42 24		(.699	C. 0	19. C72	1.4509	0.5024	-0.4369	-0.0005	
04T- 43 74		C.657	C. O	21.113	1.5593	0-6034	-0.5067	0.0004	-0.0001
047- 43 24	3 13	(.700	C.0	-1.CC5	0.0342	0-0322	-0.0388	0.0001	-0.0004
2.27				,	-	000022	3.0 365	0.0018	-0.0075
04T- 43 24		C. 900	C. C.	-1.024	0:0329	0.0415	-0.0536	-0.0005	0.0220
04T- 43 24	_	C. 900	C.O.	-3.423	-C. 16 04	0.0562	-0-0573	0.0008	-0.0028
047- 43 24		C.901	C. 0	1.546	C.2797	0.0439	-0.0663	0.0003	-0.0035
04T- 42 24	, ,	C. 901	C. 0	4. 093	0.5091	0.0670	-0.0864	70.7004	0.0024
047- 42 24	4 5	C. 849	(.0	5.586	0.7271	0-1065	-0-1264	-0.0016	0.0023
04T- 43 24	_	(.89)	(.0	8.891	C.9230	0.1603	-0-1671	0.0001	-0.0014
04T- 43 244	4 7	(.904	C.0	11.439	1.1126	0.2373	-0.2243	0.0001	-0.0016
N4T- 43 24	E 1			0		,0		6 .	
04T- 43 24	_	(.860		-C. 977	C. 0355	0.0363	-0.0456	0.0015	0.0028
04T- 4? 24		C. E03			-0.1561	0.0512	-0.0364	0.0020 -	0.0034
C4T- 43 245		C. 798		3.8C8	0.4510	0.0515	-0.0769	-0.0009 -	0.0024
04T- 43 245	_	C-801		1.541	0.2580	0.0380	-0.0580	0.0001 -	C-0025
04T- 43 245		C.800	C.0	6.213	0.6631	0.0639	-0.1097 -	-C.0029 -	0.0022
04T- 42 245	_	C.801		8.632	C-8587	0.1274	-0.1426	0.0001 -	0.0015
		C. 1301	C . 19	C. 830	C.9980	9.1873	-0.1814	0.0002 -	C.0C98

					the same of the sa		h				
TEST	RUN	PT	PACH	SHEEP (DEG)	ALPHA (DEG)	CT	c _D	C _m	CI	cn	
04T- 43		E	(.802	0.0	13.039	1.1129	0.2623	-0.2494	0.0001	-0.0005	4
047- 43	245	ς	(.799	¢.9	17.428	1.3986	0.4577	-0.4060	0.0001	-0.0005	•
04T- 43			1.202			ac. 0669	9.0663			-0.0030	
04T- 43			1.202	C.C				-0.1927		-C.9027	
04T- 43			1.202	C.0				-0.3748		-0.0028	
C4T- 43			1.201		12.992					-0.0033	
047- 43			1.201	1	17.598					-0.0032	
04T- 43			1.205		21.913					-C.0C43	an
C4T- 43			1.205		10.864	1.0854 -C.0661	0.0663			-0.0025 -0.0027	
041- 45	240)			-1.144	-6.0901	9.7003	0.0103	9.0019	-0.0027	
C4T- 43			(.896		-1.013	0.0353				-0.CC3C	
04T- 43			(.500			-C.1370		-0.0551		-0.0034	
04T- 43			(.900	C.Q						-0.0028	
041- 43		3	C-896	C- 0	3.397					-0.0025	
041- 43			C.858		5.737	C.6538		-0.1058		-C.0C26	
041- 43			(.898	(.0	7. 792	0.8344		-0.1458		-0,0025	
C4T- 4?			C.898	C.0	9.914	1.0716				-0.0023	
04T- 43			(.902		12.187	1.1351		-0.2575		-0.0029	
04T- 43			(.855		14.099	1.2233		-0.3292		-0.0013	
04T- 43			(.857 C.889		16.263	1.3546		-3.4299		-0.0012	
04T= 43			(.875		18.424 16.440	1.4663		-0.5185		-r.0014	
04T- 43			(.960		20.364	1.5987		-0.5292 -0.6183		-0.0013 -0.0015	
04T- 42			(.893		10.020	1.0051		-0.1846		-0.0019	
'04T- 4?	248	1	C.800	-C. C	-1.009	7.0381	0.9363	-0.0423	0.0011	-0.9026	
04T- 43	249		C. 799			-0.1429		-9.0339		-C.0028	,
04T- 43	248	3	C.798	C.0	1.126	C.2295	0.0362	-0.0561	0.0001		4
C4T- 43			C. 749	C.0	3.342	C.4114	0.0498	-0.0711	-0.0013	-0.0025	
04T- 43			(.758	r.c	5.589	C.6746			-0.0031		
04T- 43			(. 753	14	7.696	0.7865			-0.0008		
04T- 43			(.400	-\ C.O	5.802	C.9426			-0.7003		
04T- 43			C.799		11.983	1.0454		-0.2257		-C.OC15	i.
04T- 4?		. 9	C.797		13.993	1.1697			-0.0011		
C4T- 43						1.2987		1	-2.0002		
04T- 43			(.795		16.124	1.3008	,		-0.0001		
04T- 43					18.275	1.4311		-0.4653	0.0007		-
04T- 43			C. 795		2C. 223 5. 841	1.5441			0.0011		
04T- 43			(. 796	1	-0.965	0.9438		-0.1690	-2.0001		
, ,		15	(. 175	-6.6	-U. 405	9.9430	7.9303	-0.0434	0.0013	-0.0026	
04T- 43		1	C. 658			0.0403	0.0361	-0.0381	0.0016	-0.0C23	
C4T- 43			C.698			-0.1372			0.0017		
04T- 43					1.130	0.2199		-0.0531		-C.CO19	
04T- 43			C.699		3, 33 1	0.3968			-0.0001		
04743			C. 700		5.527	3.5709			-0.0016		1
04T- 43					-C.587	0.0383				-0.0023	V
04T- 43	244	6	(.698	C.C	3.267	0.3913	0.0449	-0.0711	-9.0	-0.0021	

T	EST	RUF	у р	1	PACH	SWEF	0	AL PH A		•						
						IDEG		(DEG)		CD		$c_{\rm m}$	CA		$c_{\mathbf{n}}$	
041	T= 4	. 240		6										٠		
		2 249		9	C.657	C.		7.579			46 -	0.133	0 -0.001	ó	-0.001	Q
041	- 4	3 240				(.		9.719		0.144	+3 -	9.171	7 -0.000	7	-0.0CI	5
		3 249	-		C-698			11.841	1.7231	0.211	14 -	0.215	6 -0.000	11	-0.001	
		? 240	-		.697			13.950		0.283	35 -	0.265	7 0.000		-C.0CI	
041		2 249	_		.696			16.C70		9.365	1 -	0.337	9 -0.000		-0.000	
041		2 249	_		.697			18.C62		0.453	33 -	0.419	1 -0 :000	14	-0.000	2
1) 3 1	- 4	3 249	' 1	5 (6.656	C.	0 2	20.145	1.5052	0.556	5 -	C.500	9 1.0		-0.001	
041	- 4	2 250		1 1	1.203	-6		1.057	2 2222							•
C4T	- 4	? 250		2 i	-201	-6		3.185	-			0.0012		7	-0.0028	3
941	- 4	2 250			.201	(.			-7.22.08			0.0658	0.002	0	-0.CG27	,
C+T	- 4	? 250			-201			1.C77	C. 1531		2 -	0.0753	0.001	2	-0.6033	,
04T	- 4	2 250			-201	(.(3.232	C. 3610		2 -	0.1618	0.000	7	-C.0033	
		2 250			.201	0.0		5.652	C.6031		3 -	0.2623	0-200	6	-C.0033	
		3 250			.201	C. C		7.715	0.7982	9.160	9 -(0.3389	0.200		-0.0C31	
		3 250			.200	(. (C. C33	1.0002	0.225	6 -	1.4256	-0.000		-0.0032	,
041	- 4	3 250			.201			2.196	1.1809	0.300	8 -0	0.5153	-0.000	8	-0.0035	
041		3 250				C. 0	, 1	3.345	1.2336	9.337	9 -0	.5497	-0.001	1 .	-0 .00 34	
041-		3 250			·2C)			4.364	1.3563	0.391	0 -0	0.6221	-0.001		-C .OC 35	
C4 T-		3 250			.203			6.413	1.5028	0.485) -	7165	-0.001	5 .	-C 00:33	
		250			.199			E.628	1.6439	0.596	3 -0	.9065	-0.001		-0 -0033	
		250			.199			C. 647	1.7528	0.7019	9 -0	.3918	-0.001		·C CC33	
		250	16)]	.202	0.0		5.868	C. 9814	0.2184	4 -C	4167	-0.0004		C CC 13	
.,,,,,	4	250	1 /	1	.202	c.c	-	0.966	-7.0287	0.0634	4 -0	.0031	2-0016		0.0031	
04T-	- 4	253	1	r	. 899			1 000								
		253			902	((1.003	0.0451	2.0431	1 -0	.9642	0.0017	-	0.0041	
94T-	. 4	2:3			693			3.475	-C.1582	0.0589	-0	.0657	0.0033	-	0.0045	
		253	- L	-	816	(.0		1.533	C.2683	0.0456			-0.0036	· -	0.0037	
041-		253			900	(.0		3.892	C-4796	0.7648		.0900	-0.0028	-	0.0033	
		253			900			6-063	C. 66 06	0.0957	-0	-1215	-0.0026	-	0.0031	
04T-		253			897	0.0		3. 380	C.8528	0.1423	-0	.1730	-9.0038		0.0022	
0+T-	-	253			902			- 844	1.0522	3.2094	-0	.2451	-9.0023		0.0010	
		253			894	C.C	12	. 976	1.2057	0.2822	-0	. 2975	0.0013		0.0005	
041-	42	253			900			. 123	1.3199	0.3589	-0	.3580	0.0036		0.0009	
		253			403			.275	1.4378	0.4545	-0	.4528	0.0045	_	0.0046	
04T-	43	251			897			. 425	1.5469	0.5563	-9	.5473	0.0028	-	0.3025	
•		,	12		691	(.0	2 !	.574	1.6654	0.6691	-0.	.6327	0.0011	-	0.0011	
041-	42	754	1	1.	003	6.0		. 890								
04 T-			2		EC5	6.0		• 890	7.0452	0.0369	-0.	.0525	0.0007	-(0.0033	
		254			108			.787	2.4654	0.0507	-0.	.0906	-0.0008	- (0.0025	
04T-	42	254	-	(800	(.)	7	- 263	C. 3322.	0.1182	-0.	1570	-0.0055	- (0.0020	
041-					901	0.0	12	. 834	1-1412	11 - 24 /2	-1).	2498	0.0052	Ċ	0.0002	
04T-	4 =	254			799	0.0	17	. C96	1.3710	0.4172	-0.	3972	0.0016			
04T-	43	254				C. C	18	. C83	1.3960	0.4473	-0.	4119	0.0013	-0	.0001	
		2 / 7			715	(.1	20.	. 514	1.5370	0.5735	-0.	5162	0.0023	-0	.0019	
C4T-	13	257	1	c.	701	C- 0	- 1	. 005	0.7269	0 0000						
04T-	43	257			700	(-0	-3	369 -	C-1586	0.0344	-0.	0472	0.0009	-(.0033	
041-	43	257	3	C .	701	C.0			0.2389	0.0490	-0.	0360	0.0030	-0	-0037	
04T-	43	257	5	C.	7C1	C. 0			0.6182	0.0329	-7.	9666	0.0002	-0	-2027	,
041-	43	257	4	C.	701	(.0			C.4107	0.0000	-0.	1216 -	-0.00C1	-0	·C023	
					-		•	,	C. 41 ().	0.0421	-0.	9857	0.0005	-C	.0023	

TEST	PUN	PŢ	MACH	SHEEP (DEG)	AL PHA	$c_{\mathbf{L}}$	c_{D}	C _m	C1	c_n
C4T- 43	257	6	(.658	c.e	8.132	C.8033	0.1006	-0.1585	-0.0016	-0.0020
C4T- 43			C.679		10.245	0.9615		-0.1938		
047- 43			C.658		12.580	1.1036		-0.2400		
04T- 43	_		C.701		14.741	1.2117		-0.2962		
C4T- 43			(.696		16.788	1.3322		-0.3605		G.CC16
04T- 43			C. 698		19.C33	1.4549		-0.4394		-0.0006
C4T- 43			C. 699		21.097	1.5741		-0.5095		-0.0015
			0.077					. 70 47	0.0024	-1.50015
04T- 45	258	1	1.205	C. 0	-1.193	-7.0759	9.0708	0.0056	0.0002	-C.0C41
04T- 43	25H		1.203		-3.510	-7.2746	0.0857	0.0858		-C.CC41
C4T- 43			1.235	C.C	1.185	C-1492		-0.7918		-0.0042
04T- 43	258		1.203		3.544	2.3905		-0.1923	-0.0021	-2.0036
04T- 43	258		1.203	C.C	6.028	0.6306		-0.2933		-0.0032
041- 43	258		1.203	C.C	8.4C2	C. 8549		-0.3817		
04T- 43	258		1.203		1C.782	1.0613		-0.4701	-9.0028	_
04T- 43	258		1.200		13.103	1.2602			-9.0028	-0.0C1P
C4T- 43	258		1.200		15.280	1.4342		-0.6787		-0.001H
04T- 43	258		1.202		17.632	1.6023		-0.7886		-0.0013
C4T- 42	25F		1.207		21.964	1.9353		-0.9542		-0.2017
								30.3.2	000011	, , , , , ,
04T- 43	201	1	(. 901	0.0	-0.905	0.1917	9.9309	-0.0509	0.0012	-0.0025
04T- 43	261	2	C. 901	C. 9	4.136	3.5474		-0.2834		-C.GC25
C4T- 43	261	3	C. 901	C. C	6.643	5.7612		-0.1179		-0.0021
04T- 43	261	4	(.901	C.C	9.CC7	9.9467		-r.1568		-0.0018
04T- 43	261	5	(.899	C.0	12.817	1.1567		-0.2581		-C.0021
								7		
04T- 43	267	1	(. SCI	C.C	-C.862	0.0859	0.0295	-0.0495	0.0009	-0.0023
041- 43		2	(. 894	C. 0	-3.559	-0.1844	.0.0438	-0.7323	-2.0	-6.7028
C4T- 43		3	C.903	C.0	1.643	C. 31 78	0.0389	-0.0613	9.0009	-C.CC23
04T- 43		4	(.902	C.C	4.164	0.5440		-0.0828		-0.0022
04T- 43		5	C.901	C.C	t.539	C.75C1	0.1081	-0.1142	0.0013	-0.0019
04T- 43		E	C-858	(.0	9. C14	C-9401	9.1694	-0.1519		-0.0016
04T- 43		7	C.902	C.C	11.331	1.0960	0.2407	-0.2118	-0.0020	-C.0C07
04T- 43	262	8	C.503	C.C	13.399	1.1843	0.3089	-0.2840	0.0003	-C.2014
04T- 43		1			-C. 914	3.0691		-0.0369	0.0013	-C.002C
04T- 43			C. 801			-7.1554		-0.0211	0.0012	-C.003C
04T- 43			(.86)	C-C	1.455	C.2718	0.0321	-0.0521	0.0012	-0.0019
C4T- 43			C.803	C.C	3.657	C.4834		-0.9758	0.0013	-0.0018
04T- 43			C.801	(.)	6.339	C.70C4		-0.1052		-0.0016
04T- 43			(.801	C.C	8.581	C-9627		-C.1356		-0.0013
04T- 43	763	7	(.758	C.0	1C.925	0.9851	0.2019	-0.1791	0.0017	-0.0008
047- 43			6.88		-C. 892	0.0827		-9.0477		-0.0023
04T- 43			C.907			-C.1699			-7.0002	
04T- 43			(.899	C. 0	1.593	0.3150		-0.0599		-0.CC24
041- 43			(.895	C.0	3.893	3.5244		-C.0787		-0.CC23
047- 43			(.896	C. 0	6.207	C.7250		-0.1073		-C.0C21
047- 43			(.899	C.C	8.591	0.9150		-0.1439		-0.0017
041- 43	764	7	C.899	C. 0	1C.753	1.9536	0.7214	-0.1973	7.0041	-0.0017

TF	ST	R1 J	N F	PT	PACH	SHEE			c_{D}	C _m	C.	c_{n}
CAT	- 4	€ 26	4	£	(.899	N	11100					
041	- 4	? 26	4		C.899	_	12.86			6 -C.266		-0.C012
041-	- 4	3 76			C.902		15.06			0.363	4 0.0014	-0.0C13
041	- 4	? 26			(.900		17.34			2 -0.452	2 0.0015	-6.9020
		? 26			(.89)		19.40		-	4 -0.533	4 0.0020	-0.0024
				2	(.644	C.(21.59	5 1.4601	0.693	1 -0.620	9 0.0001	
		2 26			C. FC4		-C. 3E		2.0265	-0.038	9 0-0014	-0.0022
		? 26			C. 903	(.(-3.24	9 -0.1433	0.0364	-0.023		-0.0026
		3 2e			C.8C5		1.37		0.0319	-0.053		-C.GO21
		26			C.802	C. 0			0.0489	-0.077		-0.0021
		? 76			C. E02	C.0	6.14	5 7.6901		-0.106		-0.0019
041-	- 4	26	7		(.EC6	C.C			2.1320	-0.135		-0.0014
		? ?6			C.8G2	(.0	16.57	C. 9740	2-1935	-0.1780		-0.0014
		76			C. E05	C.0	12.786			-0.233		-0.0009
		? 267			(.803	C. 0	14.900	1.2153		-0.301		-0.0008
		? 76		0	(.BC3		17. 09			-7.3780		-0.0008
		267		1	C.802		19.210			-0.4705		-C.CC07
041-	4	267	1	2	(. + C3		21.406			-0.4705		-0.0021
								_	0.0442	-0.5612	0.0011	-0.0024
041-					(.698	C. 0	-C.942	0.0599	0.0265	-0.0358	0 001/	0.0000
041-					C. 700	-(.0	-3.265	-7.1421		-0.0196		-0.0020
04T-	4 3	255		3	C.7C2	C. 0	1.303	1.2425	0.0289	-0.0505		-1.gr 24
C4T-				4	C.701		2.564		0.0423	-9.0734		-0.0018
C4T-				5	C. 701	C.C				-0.1052		-0.001d
C4T-				É	C. 700	(.0			0.0000	-0.1052		-0.0C17
C4T-					C.699		10.255		0.1120	-0.1359		-0.0C15
041-					C.557		12.511		3.1044	-0.1673		-0.2010
C4T-	43	268			C.649		14.712			-0.2038		-0.3006
C4T-	43	269			C. 701		16.813		0.3167	-0.2613		-0.0005
041-	43	265	. 11		C.698	(.0	19.000	1.4183	0.3971	-0.3353	0.0002	0.0003
C4T-	4 3	268			C.697		21.157		9.5009	-0.4313	0.0020	-0.0031
					1		21.177	1.5348	0.6093	-0.5112	0.0011	-0.0021
C4T-			_		1.206	(. (-1.C51	- 7.0285	0.0533	0.0113	0.0019	-0.0024
04T-					1.204			-C.2413	9.0652	0.0921	0.0017	-0.0024
041-					1.235		1.258		0.0579	-0.0821	0.0013	-0-6026
041-					1.205	C.G	3.794	C.4518	0.0931	-0.1892	0.0008	-0.0022
04T-	4.7	269			1.200	(· C		C.6961		-0.2907	7.0007	-0.0026
041-	4:	209			1.204	C C	8.429	C. 8995	0.1835	-0.3742	0.0006	-0.0025
041-	4 3	269			1.203		10.906	1.1101	0.2629	-0.4682	0.0005	-0.0025
941-					1.205		13.169	1.2905	0.3506	-0.5625	0.0001	0.0026
04T-					.206		15.365	1.4545	0.4485	-0.6633	0.0002	0.0031
741-					1.201		17.722	1.6108	9 - 5645	-0.7674	-0.0002	-0.0030
04T-	4 ?	269			.201	C.C	19.880	1.7406	2-6800	-0-8675	0.0005	0.0030
04T-	4:	269	12	1	.205		27.C41	1.8311	0.7935	-0.9448	-0.0004	-0.0037
04T-			1	0	.876	(,)	-C. 962	0.0870				
041-					.963			-C.1360	0.0433	-0.0523		0.0025
C4T-	43	272			· E56	C.0	1.232	0.2915	0.0409	-0.0412	0.0005 -	·C.0031
04T-	43	272			.857	C. 0	3.519	C.4944	0.0373	-0.7639	0.0008 -	0.0028
041-	4 ?	272			-901	C. 0	5.68C	C.6828	3.0577	-0.0799	0.0006 -	0.0025
							7. OOC	0.07ZR	7.0934	-0.1082	0.0010 -	0.0029

TEST	RLN	PT	PACH	SHEEP (DEG)	ALPHA (DEG)	$c_{\mathbf{L}}$	$c_{\mathbf{D}}$	Cm	C1	$c_{\mathbf{n}}$
04T- 42	272	4	C. 857	(, (7.920	C. 9697	0.1452	-0.1454	0.0005	-0.0028
04T- 43			C.897		9.996	1.0080		-0.1900		-0.0032
04T- 43			C.899		12.052	1.1204		-0.2529		-0.0034
04T- 43			C.896		14.157	1.2292		-0.3498		-0.0021
04T- 43			C.857		16.292	1.3678		-0.4438		-0.0022
047- 43			(. 500		18.390	1.5003		-0.5373		
047- 43			(.500		20.450	1.6116		-0.5222		-0.002C
W41 45	212	* *	,		101170	1.0110	0.3377	0.7222	0.001167	
04T- 43			(.758		-C.922	3.0774	0:0266	-0.045B	0.0014	-0.0028
04T- 43	273		(.796		-3.129	-C.1270	0.0354	-0.0316	0.0017	-0.0030
C4T- 43			(.798		-3.130	-0.1278		-0.0318		-0.1029
04T- 43			(.800	C.C	1.193	C.2576	0.0322	-0.0591	0.0012	-0.0027
04T- 43			(.860	C.0		9.4470		-C.0790		-0.0027
04T- 43			C. 8C2		5.593	0.6356		-0.1057		-0.0C27
04T- 43			C.801	C.C	7.769	C.8982		-0.1370	0.0011	-0.0028
04T- 43	.273		108.0	C.0	5. 652	C. 9246		-0.1737		-0.002€
C4T- 43			C.799		11.991	1.0506		-0.2325		-0.002€
C4T- 43			(.801		13.996	1.1609		-C.2907		-0.0022
041- 43	273		C.8C1		16.104	1.2910		-9.3700	-0.0005	-0.0018
04T- 43			(.800		18.185	1.4244	0.4915	-0.4602	0.0	-0.0021
04T- 43	273	13	C.8CO	C.0	2C.320	1.5422	0.5994	-0.5623	3.0014	-0.C039
04T- 43	774	1	(:694	C.C	-0.566	0.0650	0.0254	-C.9434	2.0014	-0.0029
04T- 43		2	C.697	-C.O	-3.C76	-C.1199	0.0335	-0.0298	0.0019	-0.0032
04T- 42	274		(.658	(.0	1.153	C.2374	0.0303	-0.0574	0.0012	-C.0027
C4T- 43			C. 699	(. 0		0.4170		-0.0798		-0.002€
04T- 43	274		C.695	r.0	5.518	0.5948	9.9659	-0.1097	0.0011	-0.0026
04T- 43	274	6	(.698	C. 0	7.594	3.7581	0.1044	-0.1415	0.0010	-0.002E
P4T- 43	274	7	C.695	C.C	5.738	C. 8892	0.1500	-0.1748	0.0013	-0.0027
04T- 43	274	8	(.698	C.C	11.786	1.0041	0.2197	-0.2141	0.0	-G.0025
04T- 43	274	Ç	(.658	C. 0	13.905	1.1299	0.2914	-0.2663	0.0	-0.0027
C4T- 43	274	10	C.655	(.C	15.57C	1.2499	0.3699	-0.3327	-0.0005	-C.OC2C
04T- 43	274	11	C.696	c.c	18.061	1.3732	0.4625	-0.4293	0.0007	-0.0035
04T- 43	274	12	C.697	c.c	2C.219	1.4997	0.5705	-0.5254	0.0012	-0.0045
04T- 43	275	1	1.205	0.0	-1.009	-1.0100	0.0527	0.0008	0.0013	-0.0034
04T- 43	275		1.204			-3.2008	9.0629	0.0666		-0.0633
04T- 43			1.202		1:157	7.1981		-0.0935		-0.0039
04T- 43			1.200	(.0		0.4193	0.0798	-0.1764	0.0008	-C.CC4C
04T- 43			1.260	C. 0	5.540	C.5312		-9.2660	1.0007	-0.0037
04T- 43			1.203	(.0	7.818	C.8436		-0.3540	0.0006	-0.0037
04T- 43			1.201		10.070	1.0411		-0.4415		-0.0039
0 4T- 43			1.201		12.169	1.2140		-0.5287		-C:0043
04T- 43			1.203		14.312	1.3776		-0.6278		-0.0040
C4T- 43			1.232		16.426	1.5253		-0.7197		-0.0046
04T- 43			1.231		18.555	1.6562		-0.8120	-0.0	-0.0048
04T- 43			1.201	(.0	20.672	1.7622	9.7203	-0.8967	9.0006	-0.0056
04T- 43	27 R	1	(.857	(.0	-C. 978	0.0318	2.0420	-0.0361	0.0334	C.CC11
041- 43			C. 889			-1.2629		-0.0002		-0.0014
., , , , , ,		-		50 0						

TEST RUN	PI	MACH	SHEEP	ALFHA	$c_{\mathbf{L}}$	$c_{\mathbf{D}}$	C _m	CA	$c_{\mathbf{p}}$
			(DEG)	(DFG)	-L	~D	m	O _I	On .
04T- 43 278	3	(. 290	C.C	1.686	C.2925	9.9494	-0.0614	0.0336	0.0005
041- 42 278	4	C.899	C. 0	4.263	9.5560	0.0772	-0.0919	0.0292	-0.0C2G
04T- 43 278		C.898	(.0	6.656	C.7671		-0.1152		-0.CC4C
-04T- 42 278		(.899	C.0	9.021	(.9238		-0.1492		-0.0052
04T- 43 278		(.500		11.258	1.0410		-0.1957	0.0218	-0.0057
C4T- 43 278		(.90)		13.472	1.1538		-0.2625		-0.0054
U-11- 45 216	0	(.40)		13.412	1.19 90	0.3137	-0.262)	0.0162	-0.0054
0/7 /3 :70		c cos		0 001	0 0272	0 0272	-0.0308	0 03/1	6 0017
041- 42 279		C. ECI		-0.991	0.0273		-0.0298	0.0361	
C4T- 43 279		C. E02		-3.517			-0.0008	0.0312	
C4T- 43 279		103.)	(.0		C.2547		-0.0564	0.0359	
C4T- 43 279		(.759	C.0		0.4632		-0.0835		-0.0C11
04T- 43 279		C.803	C.0		2.7002		-0.1110	0.0339	
041- 43 279		(.801	C.0		C. 8459		-0.1352	0.0264	
04T- 43 279		C.801	C.0	10.872	C. 9523	7.2053	-C.1654	0.0226	-0.0058
04T- 43 279	8	108.3	C.C	13.112	1.0739	0.2779	-0.2158	0.9231	-0.0065
C4T- 43 279	9	(.80)	0.0	15.353	1.1978	0.3582	-C.2802	0.9202	-0.0063
04T- 43 280	1	1.202	C.C	-1.C20	-9.0188	0.0677	0.0128	0.0178	C.0019
041- 43 280		1.202			-C.2577	0.0807		0.0161	0.0028
047- 43 280		1.203	C. C	1.419	0.2188	0.0741		0.0199	0.0
04T- 43 280		1.233	C.C		0.4815		-0.1980		-C.CC17
04T- 43 28C		1.203	C.C		1.7235		-0.2764	0.0203	-0.0033
04T- 4: 290		1.203	C.0		C.9316	0.2121		0.0183	-0.0049
04T- 43 280		1.233		11.440	1.1270	7.2903		0.0140	-0.0071
04T- 43 280		1.199		13.815	1.3081		-0.5463	0.0177	-0.0088
1141- 45 260	6	1.177	(.,	12.612	1.5001	0.3632	-17. 7403	0. 1174	-9.0966
04T- 42 283		C. 894		-C.956	0.0534	0 0443	-0.0492	0.0343	0.0015
047- 43 283		C.194			-3.2018		-0.0257	0.0347	
04T- 42 283		(.895	(.0		0.2665				
C4T- 42 283		(.855		3.432			-0.0714	0.0343	
C4T- 43 283			(.0		7.4962		-0.0982	0.0323	-0.CC34
		C.895	C. 0		0.7020		-0.1255		-0.0056
C4T- 42 283		C.898	(.0	7.918	C. 9704		-0.1495	0.0234	
04T- 43 283		C.837		10.008	C. 9855		-0.1967		-0.0073
04T- 43 283		C.899		12.C33	1.0935		-0.2529		-0.0078
041- 43 283		C.897		14.102	1.2154		-0.3417		-0.0083
C4T- 43 283		C.898		16.269	1.3514		-0.4418	0.0152	
04T- 42 283		(.900		18.429	1.4812		-0.5304		-C.0069
04T- 47 283		(.901		20.404			-0.6095		-0.C074
04T- 43 283	13	(.897	C.0	22.447	1.6937	0.7551	-0.6875	0.0123	-0.0080
047- 43 264	1	(.801	C.0	-1.C1C	0.0390	0.0494	-0.3460	0.0371	
04T- 42 284	2	(. 800	C.0	-3.215	-0.1912	0.0493	-0.0204	0.0340	C.CC39
047- 42 284	3	C. 749	C.0	1.155	C.2398	0.0441	-0.0714	0.0365	-0.0002
041- 43 284	4	C.801	C. C	3.407	0.4351	0.0590	-0.0982	0.0364	-C.9C27
04T- 42 284	5	108.3	0.0	5.547	0.6271	0.0860	-0.1237		-0.0C55
04T- 43 284		C. 799	C.0		0.7953		-9.1470		-0.0077
04T- 43 284		(.8)1	C. 0		C.9234		-0.1837		-0.0047
C4T- 43 284		(.749		11.941	1.7406		-0.2327		-0.0097
C4T- 43 284		(.801		14.033	1.1491		-0.2942		-0.0102
04T- 42 284		(.800		16.123	1.2701		-0.3617		-0.0096
								000200	0.0070

TEST	PUN F	Ţ	MACH	SHEEP (DEG)	AL PHA		CD.	Cm	C a	c_n
041- 43	284	11	C. 157	(, (18.286	1.4104	0.5034	-0.4592	0.0177	-0.0093
04T- 43			C. 798		20.407			-0.5507		-0.0043
04T- 43			(.799		72.302			-0.6276		
		_	,		12.502	1.0171	0.7114	-0.0276	0.0175	-C-0114
04T- 4?	285	1	(.655	C.C	-1.CO6	C.0340	0.0367	-0.0456	0.0384	0.0028
04T- 43		2	C.695	(.0	-3.140	-0.1631		-0.0227	0.0365	
04T- 43		3	C.698	C. 0	1.119	7.2180		-0.7689	0.0376	
C4T- 43			C.697	(.)	3.264	3.3929		-0.0941	9.9373	
04T- 4?		5	C.698	C.0	5.450			-0.1236	0.0357	
04T- 43		6	C.636	C. 7	7.611	C. 7537		-0.1520	0.0332	
N4T- 42	285	7	C.657	(.0		0.8740		-0.1829		-0.0088
04T- 43	265	E	(.699	C.C	11.854	C.9882		-C.2201	0.0229	-0.0100
C4T- 43	285	9	C.699		13.906	1.1083		-0.2633	0.0214	-6.0111
04T- 43	285 1	0	C.657		16.C13	1.2348		-0.3325	0.0182	-0.0104
04T- 43			C.65B		18. C49			-0.4195	0.0173	-0.0109
04T- 43			C.695		20.146	1.4697		-G.5111	0.0164	
04T- 43			C.700		22.163	1.5730		-0.5792	0.0164	-0.011C
					A.		7.0120	.76 71 72	0.0140	-0.0110
04T- 43			1.224			-0.0041	0.0671	-0.0005	0.0198	0:0010
04T- 43		2	1.220	-C.0	-3.239	-0.2108	9.0769		0.0170	0.0027
04T- 42 2		3	1.199	-C.O	-3.237	-0.2133	0.0772	0.0703	0.0176	0.0026
C4T- 43		4	1.198		-1.CO3			-0.0057	0.0195	0.0010
04T- 42		Ċ	1.207	-(.0	-3.237	-3.2120	0.0767	0.9723	0.0173	0.0027
04T- 42	286	ć	1.200	C. C		0.2159		-0.0906		-0.0011
	286	7	1.200	C. 0		0.4447		-0.1840		-0.0032
C4T- 43	286		1.199	(.)		7.6671		-0.2681		-0.0049
C4T- 43 2	286	S	1.201	0. C	7. 795	C. 85 03		-0.3385		-0.9055
04T- 43 2	2FE 1	0	1.199	C.0	10.123	1.0485		-0.4291		-0.0079
04T- 43 2			1.192		12.165	1.2189		-0.5200		-0.0097
04T- 43 2			1.201		14.373	1.3771		-0.5148		-0.0109
04T- 43 2			1.204		16.463	1.5094		-0.7002		-0.0131
04T- 43 2	1 385		1.199		18.624	1.5428		-0.7953		-C.C143
04T- 47 2	286 1	5	1.200		2C. 702	1.7449		-0.8866		-0.0157
C4T- 43 2			1.198		22.704	1.8429		-0.9774		-0.0168
C4T- 43 2			1.202	C.C	9.996	1.7399		-0.4232		-0.0073
								0011252	0.0171	9.3013
04T- 43 2		1	C.897	C. C	-1.093	-C.0277	0.0514	-0.0360	0.0309	0.0
04T- 43 3		2	C.895	C. 0	3.776		9.0738			-0.0029
114T- 43 7		3	(.896	(.0	é.167	C. 7027	0.1086			-0.9049
C4T- 42 2		4	(.898	C.0	8.554	C.4903	0.1589			-0.2050
041- 43 7		5	(.898	(.0	12.817	1.1480	0.2859	-0.2695		-C.0079
04T- 43 2	285	ć	(.858	C.0	21.723	1.6619	0.6984			-0.0C74
04T- 45 5	101	1	6 000							
04T- 43 2			6.896			-C.0238	3.0508			-0.0006
			C. 899			-0.2630	0.0680			-0.0C03
041- 43 2			(.855	(.0	1.400	C-2543	0.0535		0.0337	
04T- 43 2			C-897	C•0	3.820	0.4997	0.0755		0.0280	
04T- 43 2			C. ES5	(.0	6.133	0.6964	0.1070			-0.0044
04T- 43 2			C. 903	C. C	8.606	1.3929	0.1618		0.0211	
74 41 2	-/1	•	C.502	(.0	10.693	1.0398	0.2214	-0.7198	0.0264	-0.0078

TEST	RUN	PT	PACH	Sheep (DFG)	ALPHA (DEG)	CL	$c_{\mathbf{D}}$	Cm	C.	c_n
C4T- 43	291	8	C. 856	C.C	12.915	1.1656	0.2922	-0.2728	0-0196	-r.0c72
C4T- 43			(.899		15.143	1.3039		-0.3431		-0.0063
C4T- 43			(.903		17.260	1.4047		-0.4470		-0.0076
04T- 43			(.901		19.509	1.5303		-0.5453		-0.0067
04T- 43			C. £98		21.497	1.6324		-0.6734		-C.0072
04T- 43			C. 896		23.592	1.7355		-0.6957		-0.0084
									.,	
C4T- 43	292	1	C. 801	C. C	-1.C48	-0.0050	0.0458	-0.9364	0.0337	0.0008
04T- 43	252	2	C. 802		-3.318			-0.0161	0.0270	0.0001
C4T- 43	292	3	C. 799	C.9		C.2353		-0.0699	2.2369	0.0009
04T- 43	297	4	C. 8C1	C. 0	3.550	3.4354	0.0592	-0.0955	0.0360	
04T- 43	292	5	C. 798	(.0	5.933	0.6527		-0.1315	0.0343	-0.0042
04T- 43	292	6	C. 8C5	(.0	8.369	0.8625		-0.1635	0.0312	-0.0051
C4T- 43	292	7	C.804	C. 0	10.560	C. 9917	0.1917	-0.1970	0.0246	-0.007C
C4T- 43	292	8	C. 803	C.C	12.738	1.1149	0.2613	-0.2466	0.0211	-0.0C75
047- 43	292	9	C.603	C.0	14.817	1.2091	0.3377	-0.3035	0.0213	-0.0082
04T- 43	292	10	C. 801	C. 0	17.C39	1.3342	0.4293	-0.3884		-0.0071
C4T- 43	292	11	C.802	C.C	19.160	1.4682	0.5330	-0.4733	0.0181	-0.0090
04T- 43	292	12	C. 8C3	(.0	21.402	1.5722	0.6420	-0.5492	0.0163	-0.0099
04T- 43	792	13	C.804	C. 0	23.383	1.6778	0.7525	-0.6174	0.0147	-0.0101
04T- 43	293		C.700	0.0	-1.C39	-C. CO37	0.0431	-0.0336	0.0356	-0.0008
041- 43			C. 700	C.0	-3.338	-3.2072	0.0567	-0.2099	0.0286	-0.0003
04T- 43			C.699	C.C	1.243	0.2052	0.0421	-0.0615	0.0374	0.0002
04T- 43			C. 700	C. 0	3.560	0.4013		-0.0886	0.0366	-0.0C25
041- 43			C.701	C. 0	5.82 C	2.5899	0.0752	-0.1209	0.0352	-C.9043
04T- 43	293		C.702	C.0	7.583	C. 7744	9.1092	-0.1537	0.0331	-0.0Cf4
04T- 4?			C-702		10.254	0.9414		-0.1883	0.0273	-0.0085
04T- 43			(.700		12.544	1.0586		-0.2343	0.0184	-0.0083
041- 43			C.7C2		14.645	1.1765		-0.2793		-0.0C85
04T- 42			C.657		16.730	1.3025		-0.3463		-9.0079
04T- 43			C.701		18.916	1.4205		-0.4233		-0.0093
047- 43			C.699		21.190	1.5553		-0.5009		-c.0107
04T- 43	293	13	(.097	C-0	23.227	1.6722	0.7263	-0.5702	0.0150	-C.0176
0.5										
041- 43		_	1.157			-C.0483	0.0784	0.0049	0.0178	0.0012
047- 43			1.205			-9.2584				
047- 43			1.206		1.285			-0.0859		-0.0003
C4T- 43			1.204		3.710			-0.1814		-0.0015
04T- 43			1.203		5.598	0.6456		-0.2670		-0.0037
04T- 43	_		1.198		8.504	C.8722		-0.3512		-0.004A
C4T- 43			1.236		10.801	1.0600		-0.4418		-0.006A
04T- 43			1.199		13.C24	1.2426		-0.5324		-0.0040
	-		1.205		15.343	1.4112		-0.6326		-0.0102
041- 43			1.202		17.534	1.5595		-0.7293		-0.0108
04T- 43			1.204		15.868	1.6937		-0.8257		-0.0116
041- 4:	274	12	1.200	C. U	21.940	1.7901	0.1090	-0.9052	0.0158	-0.0149
04T- 43	20.5	1	C. 898	(.0	-1.125	-0.0327	0.0513	-0.0334	0.0280	-0.0006
C4T- 43			(.900			-C.2702		-0.0172		-0.0008
04. 43	21)	4.	C = 3/30	0.0	3. 770	C . 7. 1 UZ	7.0071	0.0112	3 6 6 7 7 5	0.00020

TE	ST	RUN	P	T MACH	SHEEP			c_{D}	$C_{\mathbf{m}}$	C.	$c_{\mathbf{n}}$
04 T-	- 4	? 295									
		295		3 (.858	C. 0				-0.0761	0.9374	-0.0003
		295		6 C.899	C.0				-0.1039	0.0261	-9.0C28
		255		0.931	C.0				-0.1320	0.0208	-0.0043
				6 (.837	C. 0				-0.1715	0.0220	-0.0056
		255		7 (.900		11.171		0.2303	-0.2293	9.0239	-0.0065
(141-	4 :	295		868.)	(.0	13.554	1-2014	0.3141	-0.282A	0.0195	-C.0075
CAT-	4 3	256	1	C.800	C. 0	-1.C79	-0.0109	0.0460	-0.0353	0 0227	
04T-	4 3	296		C.E03		-3.56B			-0.0144		
041-	4:	29€		C. E 32	C.C				-0.06AL		-0.0010
04T-	4 3	256		C. 799	C. 0						-C-0C01
		256		C- 602	C. 0				-0.0976		-0.0024
		296		(.803	0. C	4.719			-0.1327		-C.C043
		296		C. 801		10.884		0.1437	-0.1621		-0.0061
		256		C.797		13.124			-0.2018		-C.CC71
					(.0	13.124	1.1163	0.2732	-0.2483	0.0190	-0.0074
04T-	4:	297	1	C. 654	C.C	-0.991	9.9983	0-0444	-0.0332	0.0352	C CO16
		257	2	C.693		-3.216			-0.0103	0.0289	
04T-	43	297	3	. C.656	(.)		0.2074		-0.0601		
		25,7	4	6.698	C.0		C. 3826	0.0527	-7.7844		-0.0006
O4T-	42	257		C.697	C.0		C.5553		-0.1147		-0.0029
041-	43	257		C.694	C.C		C.7490		-0.1481		-C.CC51
04T-	43	297		C. 695	(.0		(.8994		-0.1814		-C.CO17
C4T-	43	297		(.654		11.891	1.0300		-0.1814		-C.0100
04T-	43	297		C.699		13.920	1.1274		-0.2698		-0.0107
04T-	4 ?	297		6.696		15.572	1.2560		-0.3324		-C.0108
C4T-	43	257		C.699		16.086	1.3715				-0.0109
041-				C.657		20.224	1.4991		-0.4162		-C.0102
C4T-				C.693		22.151	1.6020		-0.4954		-0.0119
C4T-				C.656		-1.C47	C.0109		-0.5625		-0.0119
						-1.04	6.0009	0.0441	-0.0328	0.0353	C.0026
041-				C. E03		-1.053		0.9470	-0.0352	0.0337	0.0016
04T-				C.797	C.0	-3.180	-C.1990		-0.0164	0.0278	
04T-			3	C.790	C.0	1.278	C.2323		-0.9680		-0.0026
04T-				C.8C2	C.0	3.317	C.4200		-0.0924		-0.0030
04T-			5	C. 751	C.0	5.555	C.6139.	0.0831			-0.0055
04T-			6	C. 799	C.0	7.612	C. 7940	0.1187			-0.0076
94 T-			7	C. 793	C. C	9.881	0.9551	9.1752			-0.0073
C4T-			8	(.300		11.900	1 . C5 C8	9.2341			-C.0097
04T-			ç	C.802		14.C38	1.1634		-G.2920	0.0203	
0+1-	4 ?	258.	10	C.757		16.076	1.2773		-0.3692		
04T-			11	(.799		18.311	1.4182	0.4942		0.0177	
C4T-				(.803		20.341	1.5325	0.5968		0.0174	
04T-	43	259		C.792		22.203	1.6224	0.6912		0.0165	
04T-	43	295	1	C.896		-1 622	0.0000			•	
04T-				(. 693	C 0		-C.0058	0.0511		0.0306	
04T-				(.696			-0.2297	0.0652		7.0247	
04T-				(.892		1.157	C-2433	0.0531		0.0325	
04T-				(.838	C.O	3.465	C.4772	0.0728	-0.0998	0.0291	
	• •	-,,	,		C. U	5.596	3.6564	0.0994	-0.1213	0.0239	-C.2057

											As .
TES	1	PLN	PT	MACH	SHEEP	BALPHA	$c_{\mathbf{L}}$	$c_{\mathbf{D}}$	C _m	CA	$c_{\mathbf{p}}$
					(DEG)	CEGI		D	***	-	-11
O. T.		300		6 000					-		
04 T-				C. 898		7.888			-0.1587		-0.0076
041-				C. 854		9.937			-0.2053		-0.0094
041-				(.90)		12.093			-0.2546		-0.2092
04T-				(.900		14.234			-7.3444		-6.1089
04T-				(.9(3		16.223			-0.4251		-0.0090
041-	_			(.897		18.321			-C.5245		-0.0089
C4 T-				(.896		20.435			-0.6184	0.0117	-0.0061
041-	4 :	195	13	C. 896	€.0	22.392	1.6862	0.7354	-C.6934	0.0110	-0.0045
C4T-	4.2	300		1 234						2	V
04T-				1.213		-1.C29			-0.0007		r.ncca
041-				1.203		-3.166			0.0757		0.0024
				1.203	(. (-0.0968		-0.0011
^4 T-				1.202	(.)				-0.1702	7.0770	
C4T-				1.200	C.C				-0.2512		-0.0045
041-				1.201		7.694	C. 8053		-0.3273	9.0191	-0.0054
041-				1.202		9.987	-		-0.4150	0.0184	-0.0072
04T-				1.194		12.160	1.1912	0.3159	-0.5144	0.0185	-0.0092
041-				1.199		14.336	1.3511	0.4025	-0.6076	0.0177	-0.0106
C4T-	-			1.203		16.480	1.4965	0.4973	-0.6986		-0.0116
041-				1.231	C.C	18.546	1.5260	0.5999	-0.7875		-0.0119
041-				1.234	(.0	20.695	1.7388	0.7102	-0.8852		-0.0141
041-			1.3	1.2)1	(.)	22.677	1.8332		-0.9652		-0.0153
04T-	4?	300	14	1.193	C.0	10.050	1.2254		-0.4134		-0.0075
									E of a trans		
C4T-				(.854	C. C	-1.122	-1.0509	0.0555	-2.7242	0.0413	-0.000B
04T-				C. 901	C.0		7.5096	9.9814	-0.1086	0.0351	-0.0048
041-				C.836	c.n	£.195	C. 7116	0.1139	-9.1330		-0.0068
041-				C. 500	C.0	8.529	C. 3978	0.1660	-0.1651		-0.0085
04T-				C. ES6	C.0	17.941	1.1564	0.2750	-0.2674		-0.0133
041-	4 3	305	Ŀ	(.500	C.0	21.594	1.6239	0.6827	-0.6195		-0.0106
0.45											
044-				(. 674			-7.0461		-0.0237		-0.0006
0.4T-				C.832			-7.2946		-0.0035	0.0322	-0.0(26
041-				(.898	0.0		0.2619		-0.0733	7.0435	-0.0010
C4T-				(.84)	C.0	3.779			-0.1059	0.0354	-0.0042
04T-				(.9)1	c. C. C.		9.7156	0.1143	-0.1326		-0.0054
C4T-				6.839			C. 87)1	0.1637	-0.1672	7. 9785	-0.0062
041-				(.859	(.)	10.738	1.0371	0.2254	-0.2191	0.0266	
041-				(.599		12.59C	1.1897	0.3017	-0.2738	1.7303	9710.0-
041-				C. 297	c.c	15.104	1.2941	0.3408	-0.3455	0.0232	
04T-			10	(.857	(.n	17.235	1.4018	0.4711	-0.4465	0.0229	
741-				(.9(0		19.450	1.5207		-0.5383	0.0107	
C4T-			17	(.859	C.C	21.579	1.6352		-0.6231	0.0162	
04T-	43	163	13	C.894	(.0	23.690	1.7331		-0.6975	0.0157	
à		201			-						
047-				0.800			-2.2915		C.0399	0.0441	
041-				(.90)			-:.2452		-0.0022	0.0345	
74T-				(.749		1.344			-0.7640	7.0494	
C4T-				C.PCI	(.0		C. 4395		-0.3939	0.0480	
041-	4:	104	5	(.802	C.C	6.CO7	0.6505	0.0926	-0.1280	0.0439	-C.0C52

	TEST	RUN	PT	MACH	SHEEP		c_{L}	c_{D}	c _m	C@	c_n
	04T- 43		E	C. 8C2	c. 0	8.356	7.8545	0.1395	-0.1596	0.0372	-0.0074
	C4T- 43		7	108.3	C.0	10.590	1.0148		-0.2018		-0.0093
	94T- 43			(.8)1		12.633	1.0941		-0.2412		-0.0093
	04T- 43			C. A.		14.816	1.2115		-0.3063	0.0280	-C.0102
	04T- 43		10	(.804	C.C	17.C77	1.3327		-0.3994		-0.0093
	04T- 43		11	(.8C2	C. C	19.179	1.4556		-0.4619		-0.0120
	04T- 43			C. F 12	C. 0	21.356	1.5674		-0.5478		-0.0125
	047- 43			C.802		23.461	1.6768		-0.6168		-C.0133
	04T- 43	304	14	C.801	C.0	-1.067	-0.0231		-0.0252		-0.0006
	C-4T+ /43		1	C. 658	c.0	-1.053	-(.9170	0.0478	-0.9277	1.0476	-0.0017
	041- 43			(.75)		-3.351	-7. 22 80	0.0508		2.0365	0.0007
	C4T- 4?		3	C. 700	C. C	1.303	2.2012		-0.0569	0.0507	0.0015
	04T- 43			C. 701	C. C	3.519	C. 3911		-0.1842	0.0493	-0.0021
	04T- 43			(.699	C.C	5. 834	C.5954		-0.1180		-0.0047
	04T- 43			(.699	C.0	8.104	C.7760		-0.1519		-C.CC17
	04T- 43			C. 700	C.C	10.289	C. 94 04		-0.1885		-0.0004
	04T- 43			C.700	(.0	12.454	1.0384		-0.2294		-0.0097
. 10	04T- 43			C. 693		14.599	1.1707		-0.2759		-C.0111
	C4T- 43			C.7C1	c.n	16.747	1.2824		-0.3423		-C.010C
	04T- 43			C.769		18.570	1.4130		-0.4236		-0.0121
	04T- 43			(.701	C. Ú	21.110	1.5354		-9.4953		-0.0130
	04T- 42	30.2	13	C.699	(.0	23.216	1.6536	0.7249	-0.5671		-0.0143
	04T- 43			1.203		-1.093	-1.0510	0.0837	0.0071	2.2261	0.0020
ď	04T- 43			1.202			-C.2525	2.9975	0.0924	9.0245	
	04T- 43			1.201		1.326	7.1963	0.0870	-0.7933	0.0295	
	04T- 43			1.233	c. c		0.4220	0.1068	-0.1867		-0.0022
	C4T 43			1.204		£.080	9.6629	0.1453			-0.0048
	04T- 43			1.233	C. C		7. BR 14	0.2002	-0.3578		-020065
	C4T- 43			1.204		10.8C6	1.0771	0.2535			-0.0091
	04T- 43			1.203		13.128	1.2657	9.3547		0.0241	-C.C115
	04T- 43			1.202		15.435	1.4409	0.4543			-0.0131
	041- 43		10	1.233		17.601	1.5970	0.5537			-0.2135
	041- 43			1.202		19.842	1.7139	0.6723		0.9198	
	04T- 43			1.205		22.067	1.9233	0.7522		0.0198	
			13	1.295	Lat.	22.892	1.8585	0.4371	-0.9654	7.0194	-0.0184
	C4T- 42			C. £56			-1.0009	0.0467		0.0289	
	04T- 43			C. £97		3.847		0.0737		0.0273	-0.0032
	04T- 43			C- 896		6.212		0.1105		2.0203	
	04T- 43			C.859	C.0			C.1635		0.0207	-0.0049
	04T- 43			(.9)1		17.951		0.2995	-0.2682	0.0217	
			,	(.819	(.0	23.726	1.7431	0.8103	-0.6934	0.0122	
	C4T= 43 3		1	(.847	C:00	-1.043 -	C. C035	0.0469	-0.0314	0.0282	0.007
	04T- 43 3		2	C. 858	C. 0	-3.568 -	1.2429	7.7643 .		0.0309 -	-0.0007
	04T 43 3			(.857	C- C	1.387	C. 2643	9.3527 -		0.0327 -	
	04T- 43 3			C.5()	(.0	3.863		0.9750 -		0.0268	
	047- 43, 3	210	5 (898		6.196	C. 7120	0.1113 -		0.0213	

					4						
	TEST	PLN	PT	MACH	SHEEP		C _L	c_{D}	C _m	CA	. 1
		•			(CFG)	INFGI	, ,	, "D	.~m	CA	c_n
1	047 4-		7				,	g -			
	047- 43	310		(. 849	C. 0			0.161	-0.1582	0 0202	0.004
	04T- 43			C. 853) C. 0	1.C. 770	1.0364		-0.2146		-0.0044
	14T- 43	31C	8	(.ASA	C.0	12.901	1.1521	1	-0.2669		-0.0049
	04T- 43		9	(.854	C. 0	15.086	1.2742		-0.2669		-C.CO7C
	04T- 42	310		(. 458		17.298			-0.3450		-0.0071
Ę	04T-, 43	310		(.900		19.435			-0.4415		-0.0062
	04T- 43			6.928					2 -0.5352	0.0149	-0.0C4 E
	C4T- 43	1.		C.837	(21.620			-C.6199	0-0132	-C.CO51
		310	. 13	C.011	(.(23.665	1.7320	0.8043	-0.6880	2.2129	-0.0066
	04T- 42	211	1.0					- (,	~		, , ,
	74T- 43	211		C.ect	C.0	-1. (26	G. CC50	0.0435	-0.0320	0.0328	2.0010
١.	047- 45	311		C. FC9	C. 0	-3.385	-0.2234	0.0572	-0.0057	0.0301	0.0011
	C4T- 43	311		C. 803	C. C	1.328	C. 2391	0.2457	-0.0646	0.0354	
	04T- 43	311		C. 900	C. C	1.685	C. 4504	0.0614	-0.7946		
	14T- 43	311	5	6.803	C.0	6. C15	C.6579		-G.1234	20000	-0.0C15
	74T- 43	311	6	C. ecs	C.O		C. 8584	0 1416	-0.1550	0.0332	-0.0C35
	04T- 43	311	7	C. 8C1		10.519	3.9342	7.1717	7-0-1550	7-0314	-0.0044
4	04T- 43	311		(.A)2		12.717	1.0925	0.1499	-0.1883	J.0304	-0.0055
	C4T- 43	311		C. 902		14.902			-0.2344	0.0282	-0.0072
	04T- 43	2.11		(.863		17.C17	1.2028	0.3474	-0.2998	0.0246	-0.0080
	04T- 43	211		(.80)			1.3330	0.4375	-0.3772	0.9211	-C.C073
	041- 43	311		C. ECI		15.214	1.4566		-0.4650	0.0213	-C.0112
	04T- 43	211		(.603		21.391	1.5750	0.6537	-0.5520	0.0197	-0.0119
	0	- 11	1)		(• O	23.412	1.6775	9.7627	-9.6179	2.0181	-0.0123
	04T- 43	212			- 1				,	,	0.66173
	04T- 43	112	. 1	C. 7C1	C.C	-1.020	7.0047	0.9425	-0.0287	0.0348	0.0009
	047- 43	31/		C. 700	C.C	-3.313	-7.2096	9.9547	-0.0016	0.0313	
	04T- 434	212	3	C.697	- C.O-	1.291	9.2163	0.0444	-0.0599	0.0369	0.0003
	04T- 43	317		0.760	. (.0	3.523	C. 3749	0.2569	-0.0859		0.0015
	04T- 43	312	5	(.699	C.0		0.5967	0.0804	-0.1195	0.0369	-0.0007
	04T- 43	312	6	C.7C2	C. 0		C.7780	0.0004	-0.1195	0.0358	-0.0032
	04T- 43 3	12	7	C. 760		10.337	7. 9338	0.170	-C-1487	0.0351	-0.0C42
-	CAT- 43 3	12		C. 699	Carc	12.505	1.4502	0.1795	-0.1871	0.0303	-0.0052
-	04T- 43 3	12		C. 700	C-0	14.654		9-2419	-0.2199	0.0297	-0.0071
-	0 +T- 43 3	112		C.699	C 0	16.808	1.1639	9.4220	-C.2706	0.0246	-C.GC79
(04T- 43 3	112		101			1-2906	0.4074	-0.3371	7.0221	-0.0083
(04T- 43 2	12		. 7C1		18.930	1.4078	7.5038	-0-4225	0.0217	-0.01C7
•	04T- 43 3	12		701		21.124	1.5303	0.6143	-0.5003	0.0221	-0-0147
					L.C.	23.195	1.6389	0.7253	-9.5663	0.0201	-0-0145
(041- 43 3	12	• •	2.22							
4	14T- 4 3	17		1.212	C.C.	-1.C52	-3.0323	9.0785	0.0079	0.0166	C.CC96
,	14T /: 2	1.5		1.202	(· Ú ·	-2.432	-5.2543	0.0917	0.0950	0.0162	
`	47- 4: 3	13	3 1	-204	C.C	1.315	C.2038	0.0832	-0.0882		0.0020
1	4T- 47 3	13		. 2 15	C. 0	3.742	2.4440	0.1069	-0.0002		0.0010
	4T- 43 3			.233	(. 0	6.105	0.5781	0.1463	-0.1037	0.0182 -	0.0021
ſ	4T- 43 3	13	£]	. 203	C.C	8.482	0.8923	0 2025	-0 25/7	0.0175 -	0.0034
	14T- 43 3		7 1	.234		C. 816	1.0886	0.2025	-0.3567	0.0161 -	
		13	E 1	-204	.C. 2' 1	3.160	1.2743	0.2739	0.4494	0.0170 -	0.0053
	14T- 47 3	13		.232	(.0)	5.394	1.4410	C. 3617	-9.5455	0.0171 -	0.0071
0	4T- 42 2	13		.201		7.605		0.4593		9.9180 -	0.0085
0	4T- 43-3			.293	C. C 1	9.847	1.5851	0.5655		0.0184 -	0.0092
0	4T- 47 7			.203	(()		1.7121	0.6809	-0.8408	0.0182 -	C.01C1
1	4T- 42 3			-203	6.07	7. UOU	1 . 81 48	0.8000 -	-0.9284	0.0190 -	C.0132
		-)	1	• 2 0 3	C 2	4.12,3	1.9114	0.9192 -	1.0247	0.0161 -	0.0122
						2					

						*					
TEST	RUN	PT	PACH	SafeP (DEG)			c_D	C _m	CA	cn	
14T- 43			0.901	c. c	-1.083	-C.0226	2.0505	-0.0346	0.0251	-0.0005	
04T- 43			C. 899	C.0	3.798	0.4348		-0.7941			
04T- 43		. 3	(.900	C.0	. 6.135			-0.1232		-C.004F	
04T- 43			C. 657	C.0	8.415			-0.1642		-C.3043	
04T- 43			C.898	C. 0	12.949			-0.2719		-0.0063	
04T- 43	316.	6	C. 857		23.627			-9.7034		-0.0033	
•		- 3								30.0.73	
C6T- 43		1	(.903	C.0	1.067	3.22 86	0.0490	-0.0558	0.0344	c.ccc1	
04T- 43			C. 900	C.C	4.440	C.5596		-0.1004		-0.0031	
04T- 43		3	(.905	(.0	6.457	0.7413		-0.1286		-9.0047	
04T- 43		4	C.900	C. 0	E. 747	C. 90 75		-0-1540		-0.0059	
C4T- 43		5	6.858	C.C	9.647	C. 9717		-0.1764		-0.0065	
C4T- 43		É	(.902	C.C	11. 22 3	1.0873		-0.2321		-0.0062	
04T- 43	4C1	7	C.402	C.0	22.937	1.6953		-0.6200		-0.0078	
								fr ₀			
041- 43		1	C. 500	C.C	7.424	C. 9236	0.1397	-0.1292	0-9247	-1.0051	
04T- 43		2	C.901	C. C	9.605	C. 9758		-0.1711	0.0261		
041- 43		3	C.504	C.0	11.638	1.0469		-0.2235		-0.0061	
04T- 4?		4	C.9C2	0.0	14.007	1.2070		-9.2977		-0.0057	
C4T- 43	402	5	C.9C1	C.0	16.231	1.3355		-C. 3826		-C.0057	
04T- 43		હ	(.897	C.0	19.334	1.4619		-C.4625		-0.0071	
04T- 43	_	7	C. 9C4	C.C	20.564	1.5933		-0.5484		-0.0066	
04T- 43	407	8	C.5C3	(.(22.788	1.6797		-0.6230		-C.9077	
04T- 43			C. 024			-7.9021	0.0832	2.0012	-0.0112	-0.0018	
04T- 43			C. C24	-C.C	4. CCI	-C.1799	0.1424	0.5773	3.0042		
74T- 42		É	C.C25	-C-1	15.008	C.2195	0.3445	0.0756	0.0274		
04T- 43			C. C25	C.C	24.01C	0.0284	0.3165	-0.4307	9.0238	0.0022	
047- 43			C.025	C.0	19.CC8	7.2191	9.3469		0.0195		
04T- 43			C.025		14.CO5	7.2146	0.2772	0.4806		-C.7644	
04T- 4?			C.025		5. CO2		0.1610	9.6342	2.0171		
04T- 43			(.924		4.001		0.1540	0.5740	0.0220	0.0054	
041- 43	404	12	C.C24	C. 1	-1.000	0.1842	7.0854	-9.1615	0.0082	-0.0010	
041- 43			C.024		-1.COO			-0.0038	-0.0066	0.0249	
04T- 43			0.024		4. CC1		0.0982		-0.0040	0.0093	
04T- 43			C.024			-0.0585	0.0984	0.9185	0.0109	0.0149	
C4T- 43			0.022			-0.7022	0.1235	0.1386	0.0084	0.0251	1
C4T- 43			C.250			-7.0016	0.0011	0.0023	0.0	0.0001	
047- 43			C-722			-7.1931	0.0741	0.2311	0.9462	0.0271	
041- 43			C-022			-7.1624	9.0437	0.0891	0.026.1		
04T- 43	406	E	C.C22	-(.3	14.C24	-C.1921	1.0524	0.1419	9.0275	0.0479	
041- 42	407		C.E52	C 0	1 020	0 11 71		0.0570			
047- 43			1.045	C.0	1.030	C. 2171		-0.0570		0.0011	
C4T- 43			C. E4 3	C.C	4.357	3.3456		-0.0637		-0.0016	
C4T- 42			C. E 47		6.359	7.5210		-0.1957		-r.cc24	
C4T- 43			C. 848		9.617	7.7738		-0.1201		-0.0040	
04T- 43			C.849	C.0	5.543	C. 4737		-0.1465		-0.9056	
047- 43			(.949		11.690	C.9331 1.0349		-9.1645		-0.0062	
	4., 1	,		Cott	11.640	1.1344	11./445	-0.2127	0.0703	-0.0060	

TEST	RUN	PŢ	MACH	SHEEP (DFG)	ALPHA (DEG)		c_{D}	· Cm	CA	$c_{\mathbf{n}}$
041- 43	437	e	(. 649	C. 0	20.390	1.5419	0.6135	-0.4981	0-0166	-0.0070
041- 43									74.7200	0.000
TAT- 43			(.250	(. c				-0.0486	0.0360	0.0021
04T- 43			C. 849	C.0	0.224		0.0417	-0.0486	0.0359	
04T- 43			C.849	C.C	C.223	0.1435	0.0417	-0.0488	0.0359	
			C. 851	C. 0		0.1438	9.9416	-0.0489	7.0359	
047- 42			C. E49	C-0		J.1442	0.0418	-0.0491	0.0354	
C4T- 43	4()	6	(.849	. c.o	0.218	0.1436	9.0418	-0.0493	9.9359	0.0021
PAT- 43	400		(.E5C							
C4T- 43			C. E49	C.0	C-220	7.1439		-0.0494		
04T- 47			C. E 45	C.C	2.540	C.3588		-0.0763	1.0360	-0.0002
04T- 43		4	C. E48	C. C	4.927	0.5845		-0.1049		-C.0C27
04T- 43			(.249	C.C	7.226	C.7959		-0.1249	0.0291	-0.0045
04T- 42			(.650	C.0	9.542	C. 9293	0.1829	-C.1593	9.0258	-0.0058
04T- 43					13.878	1.1569		-0.2695	7.0271	-0.0C71
04T- 43			C. 850		16.033	1.2883	9.4085	-0.341A	0.0200	-0.0067
	40.7	C	C. 650	6.6	19.182	1.4711	0.5060	-0.4143	0.0189	-C.CO72
04T- 43	410	1	C.7C3	C.0	-2.182	-0 2224	0 1200			is
C4T- 43		2	C.7(·)	c.0	C. 156	-0.0936 0.1151		-0.0177	0.0386	
041- 43		3	(.700	C.0	2.396	0.3050	0.0370	-0.0439	9.9386	0.0025
045- 43			(.701	(.0	4.671			-0.0706	0.0385	0.0002
04T- 4 X			C.699	C.0	6.980	C.4932	0.0639	-0.9377		
04T43			C. 700	C. C	9.253	3.6903	0.0959	-9.1254		-0.0052
04T- 43			C.700		11.384	0.9522	9.1519	-9.1522		-C.0070
04T- 42			6.693		13.612	C. 9763	0.7136	-0.1905		-0.0075
04T- 43			C.699		15.725			-0.2222		-0.0090
041- 43			(.699		17.736	1.2148	0.3015	-0.2760	0.0212	-0.0086
C4T- 43			C.700	C. C	19.962	1.4482		-0.3547	3.0190	-0.0084
C4T- 43			C.70-)	CaC	22.208	1.5731		-9.4203).0185	-0.0096
		-	,	000	22.200	1.01.2[U.0041	-0.5044	0.0173	-0.0096
047- 43		1	C.797	(.)	-2.214	-). C398	0-0430	-0.0218	3 0272	0.0050
04T- 43			C. 799	C.9	0.211	9.1368	0.0398	-0.0501	0.0370	0.0050
C4T- 47			(.799	C.C	2.430	C. 3327	0-0493	-0.0754	0.0371	0.0024
041- 43	411	4	C. 755	C.C	4.811	0.5457	0.0700	-0.1032		C.0C01
04T- 47		5	C.801	C.0	7.133	C. 7597	9.1126	-0-1284	3.0371	-0.0025
041- 43		E	108.3	C.C	9.429	C- 91 09	0.1704		0.0257	
047- 47			C.8C)		11.563	1.0141	0.2319	-0.1970	0.0204	
0;+T- 42			C. 9C1	(.0]	13.768	1.1286	3.3069	-0.2445	0.9204	2 2674
04T- 43	411		(.80)	C.C 1	15.910	1.2519	2.3986	-0.3093	3.0213	C 0073
047- 43			C.759		E. C97	1.3988	0.4868	-0.3868	0.0197	-0.0073
C4T- 43 4	411		C.797	(. O 2	C. 291	1.5169	0.5976	-0.4749	7.0178 -	
C4T- 43 4	411	12	C.757	C.0 2	22.444	1.5178	0.7114	-0.5537	0.0180 -	C.C102
CAT- 43 4									/10-/	0.0102
04T- 43 4			C-9C2			·C.1132	0.0503	-0.0319	0.0351	C.3C42
CAT- 43 4			0.932		C. 225	3.1492	0.0469 -	-0.0554	_	
041- 43 4			629.7 166.3		2.580	7.3811	0.0595 -	-0.0806	0.9342 -	
C4T- 43 4			C.501	C. C	5. C24	C.6744	0.0911 -	-0.1102	0.0298 -	
041- 43 4	12		(.504		7.396	C. R321	0.1417 -	-0.1369	0.0267 -	0.0051
, , ,			764	(.0	9.720	C. 5777	0.2018 -	-0.1771	7.9245 -	0.0056

									-		
TES	T	RUN	ן יו	PACH	SHEEP (DFG)	ALPHA		c_D	$c_{\mathbf{m}}$	C.	c_n
041-	43	412	7	C.859	C C	11.795	1 0703	0 3/30	0 2215	• • • • • • •	
04T-				C.897		13.991			-0.2215		-0.0053
OST-				C.5C5					-0.2963		-0.0058
04T-						16.171			-0.3800		-C.0053
041-				C.560		18.345			-0.4660		-0.0056
04T-				C. 901		20.508			-9.5450		-0.0060
1/41-	7 7	412	12	C.90)	(.(22.708	1.6891	0.7591	-0.6191	7.0145	-0.0070
04T-			1	(.549	, r.c	-2.354	-C.1634	0.0601	-0.0291	0.0358	0.0040
041-			2	(.546	C.0	0.196			-7.0632	0.0342	
C4T-				(.548	C.C				-0.0925	0.0281	
94T-			4	C. 547	(.0	5. 649			-0.1287		-0.0036
04T-			5	C.947	C. 0	7.410	2.8475		-0.1753		-0.0055
C4T-	43	413	é	(.550	0.0	5.844	1.C469		-1.2300		-C.CC72
04T-	4 ?	413	7	(.548	C.C	12.096	1.2276		-0.2954		-0.0081
04T-	4 :	413	3	(. 543		14.259	1.3764		-0.3551		-C.C089
C+T-	4 3	413		(.548		16.403	1.4341		-0.4136		-0.0013
041-	4 ?	413		C. 546		19.501	1.5394		-0.5075		-0.0060
041-	47	413		C.947		2C.775	1.6691		-0.6071		-0.0052
C4T-	42	413		(. 543		22.518	1.7618		-0.6766		-0.0056
							,	700777	0.00700	7.77	-0.0055
04T-				1.188	-(.0	-2.226	-C.1393	0.6719	0.0504	2.0181	C.ncze
041-				1.156		-2.231	-C.1393	0.9717	0.0536	0.0179	
047-				1.157	-(.0	0.210	7.0964	0.0682	-0.0337	0.0201	0.0008
041-				1.176	-C.0	2.482	0.3259		-0.1246	7.0224	
CAT-				1.174	-C.O	4.963	3.5743	0.1182	-0.2197		-C.0C2C
741-				1.156	C.C	7.325	C. 7874	9.1674	-0.2940		-0.0035
041-				1.156	C.C	9.700	0.9848	9.2314	-0.3708		-0.0055
C 4T-				1.155	C.C	12.058	1.1760	0.3139	-0.4664		-0.0075
C+T-				1.195		14.307	1.3442	0.4053	-0.5584		-0.0097
04T-				1.157		14.515	1.4974	0.5057	-0.6508		-0.0105
C4T-				1.195		16.676	1.6248	0.6137	-0.7425		-C.0118
04T-				1.193		20.910	1.7423	0.7316	-0.8346		-0.7149
041-	4 3	414	13	1.140	C.C	23.C76	1.8365	0.8507	-0.9153		-r.0156
04T-	4:	417	1	C. 9C2	C.0	7.994	0.2041	1.0546	-0.0763	0.0379	0.0033
04T-	42	417	2	C. 903	C. C	4.397	1.5456		-0.1125		
C4T-	43	417	3	C.901		6.419	(.7293		-C . 1 398		-C.0035
041-	4:	417		C. 533	C.0	8.735	2.9236		-0.1759		-C.7964
04T-	4 ?	417		C. 902		9.633	9.9638		-0.1993		-C.0073
04T-				C. 502		11.789	1.0380		-0.2389		-0.0082
041-	43	417	7	C. 9CJ		2C. 511	1.5897		-0.5589	0.0128	
G 4T-	43	418	1	(.9)3	C - 0	-2.271	-7.1124	7 7571	-0.0503	3 0210	0.0047
041-				C. 904			-C.1125		-9.0594	0.0310	0.0067
04T-				C.5C2	0.0	C.145	2.1232		-0.0714	0.7312	
041-				C.858	C.0	2.563	3.3543		-0.0714	0.0373	0.0044
041-				C.532	C.C	4.582	0.6725	7.0937			C.CC13
04T-				C.901	C. C	7.303	C.8720	0.1351		0.0336	
041-				(.9.))	C.0	9.539	C. 96 C5	0.1893		7.0275	
04T-				C.900		11.838	1.3941	0.2560		0.0201	
			•		• .,		1 . 3771	11. 6301	-1102473	7.0271	-0.0080

	1 F	5	T	RUN	P	T PACH			A CL	$c_{\mathbf{D}}$	C _m	C	0
							IDEG) (DEG			-111	C)	c_n
	0 4T	-	43	418		9 C.90	1 6	0 1					
	O-T	_	42	418		0 C.90		0 14.652			-0.311	4 0.0154	-0.0070
	C4T	-	43	418	_	1 6.50		0 16.248			-0.402	7 0-0109	-0.0045
					•			C 18.422	1.492	2 0.5270	-0.484	1 0.0124	-0.0054
	04T	-	43	419		1 0.69	9 6	0 1 1 7 7					301713
	C+T	_	43	419		2 C. 70		C -2.177			-0.041	5 0.0364	0.0076
	CAT	-	42	415		3 (.69	_				-0.0600	0-0415	0.0048
	CAT.	_	43	419		6 C.69					-0.084	0.0417	
	041	_	42	419		(.65	_				-0.1113	0-0402	-0.0017
	041-	-	4 2	419		6 (.69					-0.1403	0.0383	-C.0053
	C4T-	-	4 ?	419		C.65					-0.1723	0-0293	-0.0691
	04T-	-	43	419		C. 70		11.379			-0.2093	0.0192	-0.0115
	94T-	-	4 2	419		(.69		13.546		,	-0.2455	0-0151	-C.0113
	041-	-	43	419		C. 701		15.718			-0.3003	0-0142	-0.0093
					• •			17.790	1.3547	0.4391	-0.3704	0.0131	-0.0079
	G-4 T-	-	4:	420	1	C. 800		2 212					, ,
	04 T-	- (4 3	42C		C. au		-2.212	-0.0930		-0.0462	7.0341	0.0073
	041-	- 4	6.3	420		(.799			C. 1167	- · · · · · · · · · · · · · · · · · · ·	-0.7658	0-0417	0.0C48
	741-	- 4	43	42C		C.799			2.3204	0.0528	-0.0896	0.0410	0.0017
	C-T-		4 2	422		C. 401	.,		0.5367		-0.1163	0.0397	-C.0014
	C+T-	. 4	4 3	420		(.797			C. 7466		-0.1442	0.0380	-C.CC46
	04T-	. 4		420		C. 799			C.8941		-0.1762	9.0271	-0.0030
	0-+T-	. 4	, 2	420		C. 797		11.616	1.0257		-0.2113	0.0177	-C.0095
	041-	4	3	420		C.797		13. 817	1.1400	0.2947	-0.2647	0.0150	-0.0085
	04T-	4	2	420	-10	C.798		15. 879	1.2725	0.3745	-0.3285	0.0151	-0-0081
				•		() ())	(.)	19.C75	1.3978	7.4733	-0.4103	0.0160	-0.1082
	741-	4	3	421	1	1.197	-c.c	-7 276					007,472
	041-	4	3	421	2	1.149	-0.0	-2.275 0.091	-9.1519	7.0833		9.9204	C.0075
	04T-	4	2	421	3	1.199	-0.0		3. 3614	0.7777	-0.0365	0.9247	2.0csa
	C4 T-	4	3	421	4	1.15/	(.)	4.905	3.2983	0.0896	-r.1346	7.0288	C.9935
	14T-	4	3	421	5	1.197	C.0	7.223	C. 5395	0.1194	-0.2297	7.0249	0.0001
	04T-	4	3	421	ŧ	1.199	C.C	9.640	3. 75 41	0.1634	-0.3059	0.0270 -	6.9029
	0.4T-	4	3 4	421		1.150		11.942	2.9546	0.2254	-0.3849	0.0252 -	C.0055
	04T-	4	? 4	421		1.196	C. C	14.251	1.1594	7.3022	-0.4795	0.0244 -	0.0092
(N4T-	4	2 4	621		1.158		16.477	1.3424	9.3949	-9.5806	0.0221 -	9.9112
-	04T-	4	3 4	421		1.157		18.685	1.5204	9.4954 -	-0.6794	0.0202 -	0.0124
(C4T-	4	2 (121		1.199	-C.C	-1.(93	1.6407	7.6061 -		0.0188 -	C.0147
	-		•		•			10(7)	15 60 • 0.	0.0781	C.0104	0.0225	0.0068
(144-	4	3 4	24	1	(. 502	(.0	0.951	0.1792				
(141-	4	3 4	74		C.815		4.350	C. 5253	0.0519 -	0.0550		0.0010
()4T-	4	? (24		(. + 95	(.0	6.394	C.7123	0.0801 -	0.1022	0.0227 -	0.0033
-	14T-	4	2 4	74	5	(.897	C. 9	9.518	0.9456	0.1139 -	0.1293	0.0176 -	0.0043
-	14T-	4:	. 4	24	E	C. 501	Can i		1.0839	0.1961 -	C-1868	0.)187 -	0.0039
(14 T-	43	4	24	7	C.900	(.)		1.5386	0.2515 -	0.2382	0.0254 -	0.0041
								- ••••	• • >000	7.6744 -	U.5497	3.0159 -	0.0029
C	41-	47	4	25	1	(.817	(.0 -	-2.377 -	C. 1665	0 057			
0	41-	43	4	25	2	(.90)	C.7		0.9939			2.0289	0.0010
7	41-	4 ?		25 .	3	C. 507	C.0		0.3434		0.0459	0.0247 -0	0.0007
0	4T-	43	4	25	4 (1.394			0.5886	7.7617 -		0.0256 -	2.0021
Ü	47-	4 ?	4	25	5 ((.9()	C. 0	_	C. 7896	0.0906 -		0.0205 -	-9036
				_						0.1339 -	7.1422	0.0158 -0	-2044

TES	ST	P UN	PT	MACH	SHEF P			$c_{\mathbf{D}}$	c_{m}	C A	c_n
		425		(.849		9.596			-0.188	1 0.0192	-0.0042
		425		C.858		11.761			-0.237		-0.0032
		425		C. 898		13.589			-0.3069	9 0.9258	-r.cc54
041-	. 4	425	q	C.893	C.C	16.14C	1.3473	0.4164	-0.370		-0.0075
		426	1	C.699	C.0	-2.223	-0.1329	0.0468	-7.018	0 0314	(.3020
		426	2	C. 7CI	C.C				-0.0452		
		426	2	C. 700	(.0				-0.0776		-0.0003
		426	4	C.700	C. 9				-0.1107		-0.0022
		426	5	C.697	C.C				-0.1410		-0.0040
		426	6	(.700	C.0				-0.1754		-6.9037
		426	7	C.699	C.0	11.372	1.0168		-0.2062		-0.0042
		426	8	(.7C1	C.0	13.524	1.1308		-0.2430		-0.7060
		426	9	C.696		15.723	1.2473		-0.2959		-0.0083
04T-	4 ?	426	10	C.699		17. 806	1.3586		-0.3651		-0.0084
0 %T-	43	427	1	C.799	(.0	-2.261	-C.1390	0 0505	-0.0206	0.0000	
		427		C.800	- C. O		C.0919		-0.7466	_	
		427		(.799		2.467	7.3200		-0.0817	_	
		427		C. 758		4.759	0.5314		-0.1131		-0.0C05
		427		C.796	(.0		C. 7328		-C.14C5		-0.0026
		427		C.799	C.0		C. 9091		-0.1707		-0.0042
		427		(.799		11.584	1.0541		-0.2133		-0.0037
		427		C.756		13.800	1.1524		-0.2539		-0.3049
		427		(.798		15.941	1.2769		-0.3155		-0.0068
		427		C. 749		18.058	1.3963		-0.3963		-0.0004
04T-	42	478	1	1.160	r. r	-2.266	-C.1571	0 00/6	0.040.		
C4 T-				1.191			-C.1553	0.0845			-0.0006
C4T-				1.154			-C.1581	3.0344			-0.0005
CAT-				1.195			-C.1584				-0.0005
04T-				1.157			-C.1582	0.0845			-0.0004
04T-				1.196	1.0		0.0665		C.9481 -0.0415		-r.cr04
C4T-	_			1.155	(.0	2.443	3.2941		-0.1305		-0.0022
04T-				1.190	C.C	4.818			-0.2160		-0.0029
CAT-				1.195	(.0	7.229			-0.2980		-0.0030
OST-				1.195	(.0					0.0134	-0.0031
C4T-	43	42A	11	1.193			1.1508	0 2000	-0.4677		
041-	43	428		1.158			1.3282		-0.5663	0.0146	
C4T-	4 ?	428		1.150	C. 0	16.445	1.4896		-0.6652	0.0154	
041-	4 ?	428		1.194	C. 0		1.4317		-0.7591		
041-	43	429		1.198		20. 673	1.7442		-0.8454	0.0165	
N4T-	4 ?	421	1	(.848	C.0	1.042	C.7269	0 0410	-0 0441		
04T-				C.9C2	(.0	4.388	0.5313	0.0717	-0.0064	-0.0048	-0.0030
041-				(.902	c. 0	6.386	C.7943	0.1050	-0.1240	-0.0053	-0.0030
04 T-				C.898	-0.0		C. 39C5	0.1070	-0.1248	-0.0049	-0.0020
041-				(.898		9.562	C.9556	0 1707	-C.1882	-0.0034	
04T-				(. 899		11.843	1.1354		-C.2468		0.0003
041-				C. 897		2(.499	1.6001		-0.5638		0.0017

N											
169	. T	RUN	PT	PAC 4	SHEEP (DEG)		$c_{\mathbf{L}}$	$c_{\mathbf{D}}$	Cm	CA	c_n
041-	43	432	1	C. 9C3	C.C	-2.218	-7.7562	0.0460	-0.0617	0.0042	-0.0050
C4T-	43	432		C.907	C.0		J. 1475		-0.0637		
		432		C.899	C.0					-0.0054	
		432		C.849	(.0		7.5816		-0.1040	-0.0049	
		422		(.893	C.C		C.7838	0 1224	-0.1040	0.0049	-0.0028
		432		(.500	-0.0			9.1224	-0.1361		-C.0015
		422		C.500			C.9598		-0.1925		
		432				11.840	1.1322		-0.2457		
		432		C.971		13.544	1.2370		-0.3150		
				C.899		16.171	1.3717		-0.3920		-0.3025
1741-	4:	437	10	(.898	-6.0	18.338	1.4346	0.5094	-C.4763	9.0067	-0.0008
041-			1	C. 699	(.C	-2.131	-7.7667	0.0377	-0.0378	0.0006	-C.CL45
C41-	4 ?	433	2	C.699	C. 0	C. 140	-0.124A				-0.0035
C4T-	43	433	3	C.701	(.0	2.453	C.3192	9.0365	-0-0718	-0-0006	-0.0020
041-	43	433	4	(.699	C.0		0.5086	0.0525	-0-2965	-0.0002	-0.0014
241-	43	423	5	C.658	-(.)		C.7933	0.0834	-0.1309	-1.0	-0.0003
04T-	4 ?	423	E	C.701	-(.0		C. 9736		-0.1637		
04T-	4 :	433	7	C.699		11.436	1.0171		-0.1978	0.0117	
C4T-	43	433	8	(.700		13.587	1.1427		-C 2414		
04T-	43	433		C.701		15.700	1.2521		-0.2964		
C4T-	43	422		C. 700		17.893	1.3775		-0.3781		
									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.0.01.0.4	0.000.1
041-				C.80C		-7.151	-0.0647	0.0398	-0.7436	0.0013	-0.0046
041-				0.800	C.0	C. 185	7.1385	0.0336	-0.0573	-0.0016	-9.9637
041-				C.798	C.0	2.519	1.3447	2.0406	-0.0757		-0.0023
C4T-				(.798	C.0	4.823	1.5479	0.0605	-0.0995		
041-				C.798	C.C	7.127	C.7408	0.0978	-0.1270		-0.0007
C4T-			•	C. 199	-C.C	9.371	0.8998	0.1474	-C.1602	9.0011	0.0015
C4T-			7	C.801	-(.0.	11.585	1.0420		-0.2032	0.0073	0.0027
741-			a	C. 799	-C.C	13.783	1.1736		-0.2600	7.0077	C.0019
C4T-			9	(.800	-(.C	15.914	1.2839		-0.3729	0.0089	
041-	4 ?	434	10	(.798	-(.0	18.672	1.4097		-0.4056	0.0062	0.0006
C4T-	4 ?	435	1	1.137	6.0	-2.273	-9.1644	0.0709	0.0403	-9.0017	-0.0041
C4T-	4 1	4 35		1.156	C. C	0.054	0.0500			-0.0039	-0.0061
OAT-	43	435		1.198	C. C	2.429	0.2795	0 - 0741	-0.1324	-7.0058	-0.0061
04T-	43	435		1.155		4.825		0.1022	-0 2203	-0.0065	-0.0051
041-				1.196	0.0	7.181	C. 7473	0.1477	-C 3193	~0.0063	-0.0036
041-				1.195	0.0	9.589	0.9635	0 2100	-0.5107	-0.0052	-0.0020
041-				1.195		11.887	1.1565	0.2107	-0.4007	-0.0044	
OST-				1.134		14.190	1.3456	0 3904	-0.5063	-0.9149	
CAT-				1.195		16.415	1.5792	0 (834	-0.7963	-0.0027	
C4T-				1.192		18.681	1.6578	0.4020	-0.3047	-0.0009	
						16.071	1 400 17	11.5412	-0.7919	9.0004	0.0030
CST-				C.7C1		-7.115	-1.0501	0.0291	-C.0210	0.0024	-0.CC24
04T-				C. 700			3.1452		-0.0435		-0.0021
047-				C. 701	C.C	7.474	2.3336	0.0354			-0.0019
04 T-		_		C. 700	C.C	4.697	0.5805	0.0535			-0.0019
047-				(.699		6.976	C. 7149	0.0869	-0.1206	0.0021	-0.0018
04T-	43	738	É	(.699	C.O	9.237	2.8720	0.1415		0.0001	-9.0014

TEST	RUN	PT	MACH	SWEEP (DFG)	ALPHA (DEG)	$c_{\mathbf{L}}$	c_D	c _m	CA	c_n
047 43	. 20	-	. 7.0		11 2/0	0.0067	0 20//	0.10/1	0.0000	0.000
041- 43			(.760		11.369	0.9957		-0.1841		-0.0009
047- 43			C.701		13.570	1.1212		-0.2297		-0.0007
C4T- 43			C.767		15.699	1.2423		-0.2800		-C.0C02
C4T- 43	438	10	(.702	(.0	17.841	1.3032	0.4479	-9.3589	0.0019	-0.0006
C4T- 43	439	1	C.800	C.C	-2.114	-0.7488	0.6309	-0.9328	0.0022	-0.0024
04T- 43	439	2	(.759	(.0	C.2(0	C.1595	0.0276	-0.0472	0.0020	-C.0C21
04T- 43	439	3	C.797	C.0		0.3588	0.0379	-0.0659		-C.0C19
C4T- 43	440		(.746	C.0	-2.111	-0.0495		-0.0326		-0.CC24
04T- 43	440		163.0	0.0	0.227	0.1523		-0.0479		-0.0021
041- 43	440		C.796	C.0	2.522	0.3580	0.0379	-0.0659	0.0023	-C.0019
04T- 43	440	4	(.797	(.0	4.890	C.57.05	0.0609	-0.0908	0.0024	-G.OC18
04T- 4?	447	5	C. 799		7.214	0.7729	0.1023	-0.1184	.0.0036	-0.0015
04T- 43	440	É	(.798	(.0	9.427	7.9169	0.1574	-0.1497	0.0022	-0.0012
04T- 43	440	7	C.757	(.0	11.552	1.0259	0.2213	-0.1924		-0.0006
04T- 43			0.800		13.779	1.1541		-0.2521		-0.0004
04T- 43	440		C. 793		15.515	1.2743		-0.3153		-0.0006
04T- 43			C.801		19.122	1.4153		-0.3985		-0.0007
									, , , , ,	
041- 43	441	1	(.960	(.0	-2.156	-C.0595	0.0346	-0.0457	0.0020	-0.0025
047- 43	441	2	C. E99	(.0	C. 266	3.1806	0.0321	-0.0569	0.0018	-0.0024
C4T- 43	441	3	C. 857	(.0	2.656	C.4014	0.0465	-0.0723.	0.9017	-0.0023
04T- 43	441	4	C.90U	C.C	5. (26	C.6138		-0.0949	0.0018	-0.0022
04T- 43	441	5	C.897	C.C	7.354	2.8141		-0.1246	0.0030	-0.C021
04T- 43	441	6	(.897	C.0		C.9935	0.1892	-0.1699		-0.CC19
C4T- 43	441		(.50)	C.C	11.845	1.1274		-0.2206		-0.0012
C4T- 43	441	8	C.5C3	C. C	13.579	1.2233	0.3325	-0.3022	0.0022	-C.CCOB
C4T- 43	441	9	C. 902	C.C	16.159	1.3542	0.4223	-0.3989	0.0029	-C.0011
24T- 43	441	10	C.900		16.316	1.4974		-0.4712		-0.0019
0.7		•	<i>(</i> ; 00)			0 2205	0.0413		2 0000	0.0016
04T- 43			C.9C1	0.0	1.060	0.2385		-0.0732		-0.0015
047- 43			C. 9C5	C. 0	4.343	C.53C6		-C.0977		-0.0017
041- 43			(.931	C.0	6.355	0.7001		-0.1272		-0.0015
04T- 43			C.9C4	(.0	8.730	0.9094		-0.1789		-0.0012
041- 43			C.900	(.0	9.660	C. 9916		-0.1914		-0.0013
C4T- 43	444	1	0.901	C.9	11.677	1.1497	0.2500	-0.2541	0.0035	-r.cc16
041- 43	445	1	C. 9C4	-C.C	-2.225	-0.0701	0.0475	-C.0505	2.0006	-0.0023
04T- 43	445		C.5C3	-C.O		0.1663		-0.0692		-C.0C18
CAT- 43	445		C. 358		2.662	0.3826		-0.2876		-0.CC17
C4T- 43			C.771	-C.C				-0.1065		-0.0016
94T- 43			C.902		7.280			-0.1436		-C.CC14
04T- 43			C. 902		9.666			-0.1922		-0.0013
04T- 43			(.900		11.949	1.1443		-0.2516		-0.0C17
		·								
047- 4?	446	1	(.699	-0.0	-2.126	-0.9696	0.0382	-0.0386	0.0016	-0.0021
04T- 43	446	2	C.700			C.1303	0.0305	-0.0574	0.0017	-G.0C17
C41- 43	446		C.701			0.3219	9.9348	-0.0734	0.0016	-C.C015
				0						

TECT OU						
TEST RUI	PT MACH	SHEEP AL	PHA CL	$c_{\mathbf{D}}$	Cm Ce	c_n
04T- 42 44					/	
04T- 43 44	, ,				3461 3-001	4 -0.0020
04T- 43 44			296 C.1535	0.0329 -0.		8 -0.0016
04T- 43 44			542 C.3554	0.0388 -0.	0792 0.061	
04T- 43 44	,		871 C.56C9	0.0606 -0.		
041- 43 44			242 C. 77C1			8 -0.0011
C4T- 42 441			489 C. 9347			
047- 47 647			683 1.0641			
047- 43 447		-(.0 13.	893 1.1870			8 -0.0003
041- 43 447		-(.0 15.	967 1.2989			
C4T- 43 447	10 C.793	-C.C 18.	110 1.4233			0 -0.0004
	6			0.7104 -U.	4160 0.003;	1 -0.0007
C4T- 43 448	1 (.702	-0.0 -2.1	168 -C. C737	0 0221 0		
C4T- 43 448	2 (.701	-C.0 r.1				
04T- 43 448	3 (.701	-0.0 2.4				7 -0.CO17
04T- 43 448	4 C- 701	-(.0 4.7				-0.0016
14T- 47 44R	5 0.636	-(.0 é.e		9.0531 -0.1	1020 0.0016	-0.0013
047- 43 44R	6 C.698	-C.O 5.2		2.0797 -0.1	1328 0.0019	-0.0012
C47- 43 448	7 6.694	-C.0 11.4		0.1239 -0.1	1677 0-0016	-C.OC10
04T- 43 448	£ C.698			2.1903 -0.2	1037 0-0017	-0.2005
04T- 47 448	9 (.656	-(.0 13.5		0.2632 -0.2	429 0.0019	-0.0003
041- 43 448	10 0.635	-C.C 15.7		9.3505 -0.3	0.0030	-0.0001
	10 6.015	-(.0 17.7	82 1.3823	0.4388 -0.3	721 0.0025	0.0003
C4T- 43 449	1 1.195				(
04T- 43 449	2 1.195	-(.0 -2.3	38 -2.1711	0.7703 0.0	422 0.0012	-0.0024
04T- 42 449	2 1.197	-1.0 -2.3	38 -1.1711	7.9706 0.9		-0.0024
04T- 47 445		-(.0 -2.3	34 -0.1707			-0.0C23
DAT- 43 449	4 1.158	-0.0 0.0		0.0628 -0.0		-0.0025
04T- 43 449	5 1.157	-C.C 2.4		0.0716 -C.1		-0.0025
04T- 43 449	6 1.136	pero 4.5		0.1008 -0.2		-0.0025
04T- 43 449	7 1.193	-C.0 7.2	23 6.7599	9.1469 -0.3		-0.0025
047- 43 449	8 1-191	C.O 9.5	73 C. 9558	9-2063 -0.4		-2.2020
04T- 43 449	5 1.145	(.0 11.9	30 1.1630	0.2868 -0.4		-0.0017
041- 4: 449	10 1.192	(.0 14.23	33 1.3591	0.3827 -0.6		-0.0017
04T- 43 449	11 1.199	(.C 16.46	8 1.5159	9.4843 -C.7		-C.0019
047- 43 449	12 1.196	C.O 15.75	7 1.6679	0.6015 -0.80		-0.0021,-
04T- 43 445	13 1.176	C.0 20.52	6 1.7363	0.7176 -0.8		-0.CC18
047- 43 449	15 1.198	-C.0 C.C2		7.0629 -0.0		-0.0015
				363029 -0.0	0.0009	-0.0074
04T- 43 452	1 (.502	(.0 1.11	5 0.2541	0 0384 -0 04	70	
04T- 43 452	2 C.902	C.C 4.42	3 0.5501	0.0386 -0.06	79 -7.0009	-C.0030
C4T- 43 452	3 C. 931	C.O 6.47	6 2.7285	0.0704 -0.09	37 -0.0017	-0.0024
04T- 43 457	4 (.574	C.C 9.75		0.1056 -0.12	42 -0.0015	-0.GC17
041- 43 452	5 (.900	C.O 9.65		0.1602 -0.16	99, 0.0012	-0.0008
C4T- 43 452	6 C.901	-C.0 11.51	4 1.1467	0.1844 -0.18	771 0.0024	-0.0006
04T- 43 452	7 (.90)	C.O 16.24	0 1.3631	10.270 -0.24	11 0.0021	0.0012
		200 10024	· 1.3031	0.4192 -0.39	14 0.0043	-0.0013
C4T- 42 453	1 (.399	C.7 -2.18	C -C 04 33	0.0101		
04T- 43 453	2 C. 398	C. 0 C. 30		7.0405 -0.05	11 0.0611	-C.0042
04T- 42 453	3 C.964			0.0358 -0.06	28 -0.0016	-0.0034
04T- 43 463	4 C. 356	40	4 (6.3942	0.0502 -0.07	84 -0.000A .	-0.0026
04T- 43 453	5 (.853		7.0040	0.0783 -0.10	15 -0-0020 .	-0 0022
		C. 0 7. 32	1 0.7953	0.1216 -0.13	31 -0.0CC7 -	-0.0013

TF	ST	RIIN	P	MACH	SHEFF (DEG)			c_D	c_{m}	C.	cn
		3 453		C. ES2	(5.680	C. 577	0.1810	-0.182	1 0 0024	0.000
04 T-	- 4	453		7 0.858		11.908		3 2560	-0.2380	0.0026	
041-	- 4	453		(.902		14.070			-0.3093		
C41-	- 4	453		(.900		16.221					
041-	- 4:	453		(.900		18.341	1.4847		-0.3870		
						1.1.6.341	1.4041	0.5171	-0.4780	0.0036	0.0005
		454		(.649		-2.160	-7.9616	7.0332	-0.0322	C.0CC2	-0.0036
		454		C.659	C. C	0.203	C-1407	2.0293	-0.0499	0.0003	
		454		(.658	(.0	2.427	2.3249		-0.9666		
		454		C. 658	C. C	4.792	0.5231		-0.0945		-0.0013
		454		C.696	C.C	7.022			-0.1273		-0.0004
		454		(.697	-(.)						
		454		C. 76.)		11.424			-0.1892		
OAT-	4	4 4 4	8	(.699		13.620			-0.2354		_
04T-	43	454		C.7C1		15.786			-0.2979		
04T-	43	454		C.644		17. F68			-0.3733		
								"•4433	-0.3733	1.006.4	-0.0013
		455		C.800	C.0	-2.141	-0.0620	0.0357	-0.0337	0.0005	-0.0036
		455		C. FOI	C. 0		0.1444		-9.9547		-0.0026
		455		C. EGC	C.0	2.530	C.3499		-0.0703		-0.0016
		455		C. 137	C. 0	4.908	0.5572		-0.0961		-9.0014
		455	5	C.712	C.0	7.216	5.7445		-0.1252		-0.0005
		455	6	(.757	-(.0	9.446	C. 32.32		-0.1555		
		455	7	(. 175		11.615	1.0263		-0.1902	0.0042	
C4T-	43	455	3	(.800)		13.783	1.1591		-0.2548		
04T-	43	455		C. 795		15.947	1.2653		-0.3183	7.7053	0.1004
04T-	42	455		(.757		18.176	1.4202		-0.4072		-2.0004
				e		1	1.446.7	7.4104	-11.40 / 2	1.9056	-0.0012
0+T-				1.197			-2.1579	0.0638	9. 3596	-0.0011	-0.2045
04T-				1.196	C.C	-7.265	-C.1574	0.0643		-0.0010	-0.0046
04T-			3	1.193	C. O	C.138	0.0666	0.0582		-0.0025	-0.0043
C4T-			4	1.193	C.C	2.399	9.2371		-0.1285	-0.0033	-0.0036
9.+T-			5	1.143	C. 0	4. 914	C. 5445		-0.2334		-0.0076
0+T-			6	1.197	C. 0	7.274	C. 7660	0.1487			-0.001A
04T-			7	1.200	(.0	9.635	C. 98 G5		-0.4022		-0.0003
04 T-	4 :	45.6		1.197	C.C	12.C41	1.1834	0.2965	-0.4033	-7.0013	-0.0003
C4 T-	_		ς	1.158			1.3694	0.3927	-0.4006	-7.00,13	
2417	43	456	10	1.199	C. 0	16.467	1.5176	0.4884	-0.6932		6.0001
C+T-	43	456		1.197		18.427	1.6624		-0.7898	0.0011	
C+ T-	4:	4=6		1.193		20.990	1.7300		-C.9744		0.0001
							1. (7,1.)	9.1242	-0.9744	0.0050	-0.0006
C4T-				C-500	C.C	C.865	C.1207	2.0530	-0.0609	0.0247	C.0056
047-				C. 896	(.0	4.170	0.4199	0.0736		0.0260	
04T-				C.904	C. 0	6.277	0.6459		-0.1208		
04T-				0.405	(. n	8.660	0.8750		-0.1640	0.0135	
C4T-				(.900	0.0	9.611	C. 9530		-0.1795	0.0109	
04T-	43	455	6	(.563		11.881	1.1271		-0.2353	0.0119	
							• ,		700 173	0.0117	-1. •00 20
C4T-			1	C.9C3	C.0	-2.442	-2.2142	0.0624	-0-1260	0.0259	C CC24
04T-	43	450	2	C.9C6	C. G	C. CO7	0.0376	2.0524	-2-0553	0.0245	C.0059
										3.0273	C.0079

	TEST		RUN	PT	₩ Δ(11	SHEE			c_D	· C _m	Ce	C _n
	C4T- 4			3	C. 5C4	· C.	0 2.422	0.2590	2 2 2 4 2 4			
	04T- 4			4	(.898	3 (-0.0741		
4	04T- 4	3 4	460		C.9C4					-0.0962		
	04T- 4	2 4	460		C. ESS					-0.1401		-0.0004
	04T- 4				(.695		11.854			-0.17.56		-0.0019
	04T- 4	3 4	160		C. 855	_	13.942			-0.2319		-0.0012
	04T- 4	2 4	160		C. 689		16.069			-0.2990		-0.0010
	04T- 4	2 4	60		C.503		18.334			-0.3837		-0.0016
							10.334	1.4878	0.5760	-0.4788	0.0061	-9.0033
	14T- 4	2 4	61	- 1	C.700		-2.317	2 1000	*			
	04T- 4	2 4	61		C. 760		-0.054			-0.0253	9.0243	0.0070
	C4T- 4	2 4	61	3	(.699	(.0			_	-0.0436	7.0243	0.9057
	041- 4	= 4	61	4	C. 659	C.0	_			-0.0672	0.0247	0.0044
	041- 4	1 4	61		C.657					-0.0936	2.0255	6.2033
	C4T- 4	3 4	61		C.770					-0.1279	0.0244	0.0013
	04T- 4	2 4	61		C. 701				,	-0.1581	0.0129	-0-0
	04T- 4	2 4	61		C.659		11.366			-0.1874	0.0046	-0.0007
	C4T- 4	2 4	61		C. 7C2		12.563	1.0981		-0.2290	9.0054	-(.0011
	04T- 4			10	C. 659		15.740	1.2296	0.3547	-0.2853	0.0034	-0.0011
		_	- 1	1.7	C. 034	L. 1)	17.854	1.3599	9.4463	-0.3621	0.0024	-0.0009
	04T- 4	4	62	1	C.799	c 0	2 22 2					
	04T- 4	4	62	2	(.793	(.0	-2.337		0.0557	-0.0289	0.0262	0.0076
	04T- 4"	4	62		(.800		-0.013	3.0147	0.0467	-0.7462	0.0257	0.0062
	04T- 45	4	62		(.799		2.342	C.2204	0.0523	-0.0684	0.0256	C.004E
	C4T- 4				C. 799		4.608	C.4183	0.0677	-0.9945	0.9267	0.0036
	0+1- 4	4	62		C. 757		6.976	0.6344	0.0991	-0.1290	0.0255	0.0011
	C4T- 43	4	62		C.800	(.0		C. 8485	0.1520	-0.1592	0.0114	-0-0001
	04T- 43	4	6.2		(.799		11.597	1.0169	0.2237	-0.2042	0.2022	G.0001
	04T- 4	4	3	9	C. 80	(0 0	13.751	1.1372	9.2940	-C.2506	0.0052	-0-0012
	C4T- 42	4	. 2	10	C. 757		15.893	1.2651	9.3763	-0.3138	0.0027	-C-OCCR
	• • • • • • • • • • • • • • • • • • • •			10	C. 151	C. 0	18.130	1.4099	0.4782	-0.3982	0.0071	-0-0614
	C4T- 43	46	4.7	,	1.157							3000,4
	C4T- 43	46	3		1.196		-7.382	-C.2194	J. 0804	0.0652	9.0156	C.CC37
	04T- 42				1.190	C.0	0. C38	C. 21 66	0.0706	-0.0191	0.0129	0.0016
	041- 43				1.197	(.0	2.515	C.2658	2.0803	-0.1156	0.0103	0.0001
	C4T- 43				1.196	(.0	4.789	C.5013	9.1073	-0.2093	0.0085 -	0.0011
(04T- 43	44	2		1.195	C.0	7.239	C.7436	0.1555	-0.3004	0.0075 -	0.0022
(04T- 42	46			1.196	(.0	9.621	0.3563	7.2196	-0.3844	0.0069 -	0.0029
1	14T- 43	46	3		1.174		11.957	1.1514	0.2984 .	-0.4735	0.0063 -	0.0041
1)4T- 43	44	3		1.195	(.0	14.164	1.3312	0.3898	-0.5749	0.0070 -	0.0056
(04T- 43	46				(.(16.463	1.4959	0.4951 -	-C.6717	0.0082 -	0-0070
(4T- 43	44	3	12 1	100		18.700	1.6380	0.6084 -	-0.7659	0.0079 -	C-0072
					• 1 26	- C. n	C. 016	C.0132	9.0701	-0.0154		C.CC15
-	41- 43	41	•	1 0	. 901	(0	1 252	0 14 5-				
(4T- 4?	46	6		. 898	(.0 (.0	1.257	0.3457	9.C481 -	-0.0754	0.0149 -	C.0026
•	4T- 42	46	E		. 502	C.0	4.644	(.6544	0.0877 -	·0 • 1 C 38	0.0154 -	0.0032
	4T- 42				.9C1	C.C	6.614	(.4195	0.1274 -	0.1292	0.0140 -	0.0038
C	4T- 43	46	•		.849	C.C	9-870	0.9999	0.1975 -	0.1635	0.0128 -	0.0043
C	41- 43	46	ć.		500		9.806 11.551	1.0700	9.2154 -	0.1853	0.0130 -	P.CC46-
		-			.,,,		11. 77['	1.1762	0.2820 -	0.2360	0.0033 -	0.0022

							•				- 4
T 531	*	RUN	PŢ	MACH	SHEFP (CEG)	(DEG)	c_{L}	CD	Cm	C <u>/</u>	cn
041-	, -	117			- M.	, ,					,
			-	C.400		-2.006	0.0260		-0.0526		-0.0017
C+T-				C. 899.					-0.0690		-0.GC24
C4T-				C. 499	C.0		3.4953		-0.0886		-0.0029
041-				0.900	0			f .	-0.1121		-0.0034
041-				6.900	" C.O				-0.1336		-0.0C38
CAT-				(. 899	C.C				-0.1828		-0.9047
O4T−	4 :	467	′	C.897	Ǖ0	11.583	1.1794	02833	-0.2354	0.0036	-0.0022
04T-	43	46P	. 1	C.700	. C. C	-1. 554	C.0451	0.0325	-0.0342	0.0161	-0.)005
04T-	42	466		C. 699	(.0		0.2421		-0.0545		-0.0014
04T-	4 ?	468	3	C.658	C.0		0.4272		-0.0766		-C.0021
04T-	43	468	4	(.619	C.C.		1.6215		-C.1941		-0.0031
044-	43	468	5	C.699	C.0		0.8135		-0.1313		-0.CC44°
C4T-	43	466	6	(.700	. C.C			0.1654			-C.0C47
041-	43	468		C. 799	C.C	11.529	1.0475		-C.1921		-0.0046
クチャー	43	468		C. 7()		12.716	1.1749		-0.2323		-0.9051
04T-	42	468		(.701		15.802	1.2833		-C.2909		-0.0044
CAT-			1	C. £99		17.577	1.4063		-0.3755		-0.0046
				· (4 =	- "					, , , , , ,	3 8 00 4 13
041-				C.753		-1.989	0.0335		-0.0398		-0.0008
041-				C. 793	C•0		0.2530		-0.0605	0.0164	-0.0C15
041-				C.749	C.O.		C.4627		-0.0842	0.0173	-0.0023
041-				C.758	C.0		C.6716		-0.1092	0.0171	-0.7632
OAT				(.753	C.C	7.390	C.8774	0.1266	-0.1343	0.0191	-0.0043
C4T-				C. 755	C • C	9. 592	0.9829	9.1921	-0.1585	0.0133	-0.0045
041-	43	465	7	(.83.)	(.0	11.689	1.0838	0.2464	-0.2021	0.0082	-0.GC37
กร์ร์-	43	470	1	1.176	0.0	-2.145	-0.0754	7. 7654	0.0115	2.0097	-0.0007
041-	4 ?	470		1.196	C.0	C. 242	7.1576		-0.0759		-0.0010
9+T-	43	47C	3	1.193	-0.0	2.632	1.4020		-0.1727		-0.0015
04T-	43	470	4	1.195	(.0	5. (66	C.647H	0.1237	-0.2663		-C.0024
04T-			-	1.192	C.C	7.454	3.8685		-0.3338		-0.0031
041-	43	470	6	1.133	C. 0	5.819	1.0664	0.2473	-0.4194		-0.9041
041-	4?	470	7	1.152	C.C	12.090	1.2534	2.3305	-0.5147	2.0100	-0.0053
CAT-			3	1.199	(.0	14.364	1.4185	0.4259	-0.6047		-9.0058
041-	43	470	G	1.195	C.C	16.599	1.5734	0.5331	-0.7047	0.0087	-0.0060
C4T-	43	470	10	1.196	C.0	18.864	1.7081	0.6496	-0.8014	0.0079	-0.corc
041-	42	473				1.104	C.2507		-C 0715	0 0145	-0.0010
041-				C. 902		4.462			-0.1013		-0.0021
041-				(.903		6.456			-0.1234		-0'-0071
CAT-				C. 502	(.0				-0.1528		
04T-				C.9C3	C. C				-0.1725		-0.0041 -0.0043
C+T-	-	d.		C.931			1.0392		-0.2219		-0.0022
041-	43	474	1	(.502	.(.0	-2.206	*0.0920	0.0394	-0.9421	0.0177	0.0007
O+T-	4 ?	474		C. 9C3	(.0	C. 280			-0.0640		100007
04T-				5.902	(.0	2.673			-0.0875		-0-0017
04T-				0.902	C. 0				-0.1078		-C4 0625
041-				(.854	C.C	7.371	C482 G3		-0.1343		-0.0035
-	-			1			34 4/3	, , . ,	75.343	7.01.7	000. 10

	TEST	T	RUN	PT	FACH	SWEEP (DEG)	ALPHA (CEG)	$\mathbf{c_L}$	c_{D}	C _m	C.I	Cn	
	04T-			ŧ	c. cal	C. 0	9.707	1.9830	0.1936	-0.1749	0.0194	-C.C046	
	04T-			7	C. 394.	C.0	11. 815	1.C875		-9.2297		-0.CC38	
	041-	43	474	8	(.898	C.C	13.54C			-0.2975		-0.0036	
	041-	4?	474	5	(.902	c.c	16.743	1.3428		-0.3877		-0.0032	
	CAT-	42	475		c.7c1		-3 903	2 2/60					
	041-				0.701	C. C		-0.745R		-0.0293	1.0214		
	C4T-				C.649	C.C				-0.0524	0.0213		
	041-				· C.700	0.0		C.3387		-0.0751	0.0214		
	04T-				C.698		7.048	C.7232		-0.1019		-0.0022	
	04T-				C. 700	(.0	,			-0.1306 -0.1542		-0.0037	
	041-				(.649		11.434	0.9907		-0.1884		-0.0041	
	94T-				C.699		13.562	1.1138		-0.2290		-0.0044	
	041-				C.731		15.716	1.2347		-0.2846		-0.0047	
	CAT-				C.698		17. 871	1.3597		-0.3650		-0.0046	
					C 0 0 7.17	1	11.611	1.07771	9.4304	-0.3650	0.0100	-11.011/41	
	CAT-				C.8C3		-2.151			-0.0329	0.0197	0.0016	
	04T-				C. £02	. C.O		0.1533		-0.0560	0.0202		
	041-				C.749	C.0		C.3538		-0.0789		-C.0008	
	041-				0.791	C.C		2.5773		-0.1056	0.0210		
	04T-				C.737	C.0	7.253	C. 7806		-0.1238		-0.0033	
	04T-				C.749		9.451	0.9013		-0.1483		-0.0038	
	041-				C. 759		11.608	1.0281		-0.2010	0.0112		
	041-				C.759		13.808	1.1458		-0.2517	0.0143		
			7,1			C. 0	15.509	1.2642	0.3510	-0.3137	0.0121	-0.0037	
	04T-				1.156		-2.208	-0.1318	0.0621		0.0081	0.0001	
	04T-				1.195	C.0	0.204	C. 9977		-0.0402	0.0095	-0.0006	
	047-				1.195	C.0		3.3267		-0.1303		-C.C009	
	941-				1.14	C.C	4.969	0.5721		-0.2256		-0.0016	
	04T-				1.195	C. C	7.352	C. 7955		-0.3074		-0.C023	
	CAT-				1.194	C.C	9.657	C. 9919		-0.3852		-G.003C	
	04T-				1.194		11.991	1.1917		-0.4740		-0.0045	
	CAT-				1.195		14.296	1.3581		-0.5748		-7.0054	
	04T-				1.198		16.514	1,-5077		-0.6649		-0.0060	
	041-	4 5	411	5	1.199		18.708	1.5440	0.5113	-0.7628	0.0130	-0.0069	
	C4T-				(.69)		-2.098	-0.0473	0.0311	-0.0326	0.0211	0.0022	
\	04T-				C. 7()	C.0	0.171	0.1492	0.0290	-0.0537	0.9210	0.0008	
	7:47-				C.732	C.0	2.435	0.3371	0.0382	-0.0775	0.0211	-0.0005	
	047-				(.693	C. 0	4.726	3.5265		-0.1027	0.0209	-0.0019	
	CAT-				C. 700	C. 0	7. CC8	0.7226		-0.1323	0.0207	-0.0035	
	047-				C. 701	C. 0	9.226	C.8592		-0.1559		-C.0C38	
	COT-				C.647		11.456	(.9978	0.2085			-C.CC41	
	047-				C. 699		13:593	1.1143		-0.2278		-C.UC46	
	0.4T-				C. 653		15.723	1.2393		-0.2826		-0.0048	
	194T-	4 :	460	10	C.693	(.0	17.887	1.3710	0.4541	-0.3547	0.0114	-C.C046	
	04T-	42	481	1	C.'egg'	C.C	-2.142	-1.0582	0.0335	-0.0357	0.0194	C.CC19	
	C4 T-	4 ?	481	2	(.800)	C.0	C. 212	0.1468	0.0311		2.0202	0.0007	
										16			

TE	S T	RUN	P.	T MACH	SHEFP (DEG)			c_{D}	c_{m}	C.	c_n
041-	- 4:	481		. C. ECO	C.C	2.554	0.3642	0.0431	-0 0024		
		481		C. 799					-0.0821		-0.0005
		481		(.799					-0.1075		-0.0020
		481	-	(.80)		9.396			-0-1333		-0.00?1
		481		C. 798		11.653			-0.1512		-0.0036
		481		C.759		13.803			-0.1966		-0.0033
		481		C.8CO		15.948			-0.2426		-0.004C
				(• 6()		17.948	1.2752	0.3825	-0.3070	0.0121	-0.0034
		482	1	C. 901	C.0	-2.205	-C. 0939	0.0389	-0.9458	0.0176	0.0011
		492	2	C.901	C.C				-0.0676		-0.0002
		482	3	C. 500	(.0				-0.0926		-0.CC13
		482	4	C. 501	C.O				-0.1207		-0.0024
		487		C.897		_			-0.1410		
04T-	4 3	482		C.902					-0.1752		-0.0035
94T-	43	482		C.898		11.830			-0.2223		-0.9043
041-	4 2	482		(.858		14.C10			-0.2922		-0.0037
-								9.3317	-0.2422	0.0138	-0.00 36
		483		1.138	(.0	-7.258	-0.1414	0.0619	0.0403	0.0087	0.0006
		483		1.198	(.0	C.132	0.3942		-0.0489		-0.0001
		483		1.195	C.0	2.515	0.3350		-0.1435		-0.0005
		483		1.192	C.0	4.582	9.5848		-0.2382		-0.0013
04T-				1.191	C.C	7.334	5.8947		-0.3139		-0.0020
		483		1.139	C. C	9.678	1.0062		-0.3919		-0.0028
04T-			7	1.173	(.C	11.994	1.1704		-0.4780		-0.0028
C4 T-			3	1.191		14.274	1.3691		-9.5771		-0.0040
DiT-			9	1.133		16.533	1.5164		-0.6565		-0.0056
04T-	43	483	10	1.136		18.759	1.6578		-0.7600	0.0141	6 0071
0/7								1	(7.00)	7.01141	-0.0071
C4T-				(.700			-7.2408	0.0305_	-0.0426	7.0114	-0.CC17
04T-				C. 7(0			-7.1255	7.0345	-0.0367	0.0114	
04T-				C. 701		-2.899	-0.1047	0.0343	-0.0374	J.0115	
041-				(.732			-7.7346	7.0302	-C.0435	0.0115	
041-				C.7C2	C.0	C-228	0.1623	0.9285	-0.0616	0.0112	
041-				(.699	2.0	2.481	0.3479	0.0384	-0.0820		-0.0018
041-				C.698	C.O	4.721	0.5259	0.0566	-9.1034	0.9113	
C4T-				C.698	C. 0	6.924	7.7151	0.0892	-0.1312	9.0119	
C41-				C. 700	- (· C		7.8693	0.1435	-0.1579	0.0117	1
041-				C.648		11.452	C. 9941	0.2092		0.0112	
041-				C.699		13.570	1.1078	0.2800	-0.2229	0.0109	-0-0031
C4T-				C.7C1		15.655	1.2194		-0.2691	0.2101 .	
04T-	4 !	486	13	C. 760	c.c	17.651	1.3316	0.4423	-0.3353	0.0096	
04T-				(.798	C.0	-2.120	-7.0376	0.0323	-0-0485	0.0119 -	0.0014
04T-				C. 833	C. C	-2.119	-7.0371	J.0328 -		0.0113 -	
041-			3	C.757				0.0324 -	-0-0436	0.0114 -	
041-				(.7;7	. C. C	0.253	C.1746	0.0302 -	-0.2655	0.0116 -	0 0015
041-			5	C. 831		2.631	3.3795	0.0423 -		0.0113 -	0.0015
O÷T-				C. 799		4.542	3.5828	7.0654 -		0.0122 -	0.0017
94T-			1	C. 749		7.266	0.7808	0.1084/-		9.0132 -	0.0017
041-	43	457	8	C.801		9.434	C. 91 90	0.1636 -		0.0125 -	0.9017
								7		-	0.0017

TEST	1	RUN	PI	PACH	SHEEP (DEG)			c_D	· c _m	C 2	c_n
04T-	4 :	447	ç	(.797	-(-0	11.542	1.0295	0 225	-0.1984	0.0100	2 2224
C4T-	43	497		C. 798		13.706			-0.1964		-0.0024
04T-	43	487		C.800		15.508			-0.3136		-0.0030
C4T-	43	487		C. 779		18.C51			-0.3136		-C.0038
				0			104.711	0.400	-0.0000	0.0092	-0.0051
04T-			1	C.90C	(.C	-2.155	-7.9477	0-0369	-0.9607	3 0114	-0.CC11
04T-			2	C.902	(.0	-2.155	-9.9488		-0.0614		-0.0011
CAT-			3	(.901	C.C				-0.0748		-0.0011
041-			4	(.897	C.0	2.616			-0.0910		-0.0019
04T-				C.892	C.0	4.979	2.6152		-0.1081		-0.0026
047-				(.855	C. 0		0.8071		-0.1381		-0.0024
04T-				C.853	(.0	5.648	1.0076		-0.1842		-0.0025
04T-				C.8 49	-C.C	11.549	1.1478		-0.2358		-0.0023
04T-				(.896		13.574			-0.2997		-0.0035
047-				(.853		16.080	1.3373		-0.3792		-0.0050
04T-	4 3	466	11	C.9C4	C.0	18.444	1.4907		-0.4742		-0.0072
04T-		400				/					
04T- 4				1.194		-1.054	-7.0268	0.0565		0.0124	
C4T-				1.197		-2.198		0.0604		0.0125	0.0012
041-				1.197			-0.1271	0.0605		0.0125	C.CC12
041-				1.198	-c.c		7.0943		-0.0397	0.0124	
04T-				1.195		7.473	3.2952		-0.1200	0.0119	
C+T- 4				1.194		4.840	7.5408		-C.2204	0.0118	
04T- 4				1.202	(.0	7.196	9.7607		-0.3029		-0.CC37
C4T- 4				1.200		11.913	C. 9712		-0.3866	0.0115	-C-CC53
041- 4				1.198		14.156	1.1654		-0.4711		-0.0074
04T- 4				1.195		16.475	1.5047		-0.5659		-0.0096
04T- 4				1.195		18.667	1.64 (6		-0.6607		-0.0115
			•	,		20.2001	1.04(0)	0.0751	-0.7514	0.0075	-0.0120
C4T- 4				C. 703	C.C	-2.175	-7.9812	0.0431	-0.0395	0.0480	0.0071
04T- 4			2	C.703	(.)	C.123	0.1250		-0.0620	0.0483	0.0044
747- 4				C.702	C.0	2.401	C.3138		-0.9861	0.0485	C.0017
04T- 4				(.7C2	C.0	4.703	C.>756		-0.1113		-0.0009
041- 4				C.698	C.C	6.898	0.6918	0.0965	-0.1312	0.0461	
047- 4				C.698	(. G	5.225	048585	0.1538	-0.1521	0.0396	
C4T- 4			7	C.658		11.389	C. 9862	7.2164	-0.1866	0.0325	
04T- 4				C. 7C5		13.545	1.0764	0.2870	-0.2162	0.0328	
74T- 4		492		C.733		15.671	1.2176		-0.2661	0.0296	
74T 4		497	10	C. 701	C.0	17.85C	1.3399	0.4551	-0.3370	7.0258	
04T- 4	3	497	1	C. 8CO	Cic	-2.268	-7.7946	0.015	0.2		
C4T- 4				C. 799	C. C	0.100	C.1360		-0.0419	9.0461	0.0074
04T- 4				0.300	(.0	2.437	2.3412		-0.0654	0.0468	
04T- 4				(.755	C.0	4.803	7.5501		-0.0895	0.0472	6.0021
04T- 4				(.797	C. 0	7.164	C.7653		-0.1143 -0.1345	0.0476	
04T- 4				(.86)		9.335	C. 9076		-0.1345 -0.1537	0.0452	-0.0038
04T- 4				C.797		11.572	1.0144		-0.1859	0.0359	-0.0058
C4T- 4	à	493		(.719		13.733	1.1274		-0.2369	0.0335	-0.0084
04T- 4	3	453		C. 797		15.902	1.2476		-0.2932	0.0328	-0.0104
								7070	3.2772	0.0243 ·	-0.0114

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T	EST		Q UN	PT	MACH	SHEFP (DEG)	AL PHA (DEG)	$c_{\mathbf{L}}$	c_D	C _m	C _¶	c_n
04	T- 4	. ?	493	10	C. 791	(. C	18.073	1.3809	0.4845	-0.3622	0.0264	-0.0124
04	T- 4		454	1	C.5C4	C.C	-2.261	-7.1768	0-0516	-0.0486	0.0447	0.0073
	T- 4				(. 898		-2.253			-0.0494	0.0443	
	T- 4				(.503		~2.253			-0.0492		
			494		(.905	(.0		0.1621	1	-0.0714		
	T- 4				(.900	C.0				-0.0949	0.0435	
	T 4				C.931	(.0		1.6392		-0.1192		-C.CC14
	r- 4				(.90)	C.0		C. 8362		-0.1326	0.0365	-0.0036
	T- 4				C.901	C. 0		1.0058		-0.1637		-0.0062
04	T- 4	3	494		(.899		11.799	1.9811		-0.2119	0.0302	-C.0C73
	_			1								
	7- 4				1.158			-9.1335		0.0444	0.0285	0.0071
	T- 4				1.199	-0.0	0.246	0.1067		-0.0439	0.0309	C.CC39
	T- 4				1.196	C.0		C.34C5		-0.1338	7.9331	(.CC11
	T- 4				1.197	C.C	4.937	7.5663		-0.2195	0.0327	-0.0018
	T- 4				1.195	C. C	7.279	C.7790		-C-2908	0.0307	-0.0047
	T- 4				1.192	(.0	9.630	C. 9755		-0.3633		-C.OC84
	T- 4				1.191		11.574	1.1653		-0.4541		-C.7127
	T- 4				1.231		14.195	1.3202		-0.5372		-0.0161
	T- 4				1.200		16.452	1.4745		-0.6277		-0.0193
17.4	T- 4	•	495	10	1.196	C. C	14.653	1.6063	0.6105	-0.7126	0.0237	-0.0221
	T- 4			1		-(.2		-7.4442	0.0531	0.0198	-7.0068	C.CO17
	T- 4				C.024	-C-1		-1.0134	-7.0439	0.0793	-0.0045	C.GCRZ
	T- 4				C.024	-(.1		-1.03C1	-0.0129	0.1089	0.0100	C-C142
	T- 4				C.024			-C.8356	-7.1529	0.1069	0.0170	0.0209
	1- 4				C. C24			-1.0687	-0.3348	0.0828	0.0323	0.0219
	r- 4	-			C.C24			-C. 7564	-0.2760	0.0141	0.0297	0.0295
	r- 4				C.C24			-0.9085	-0.2710	0.0758	0.0327	0.0221
	1- 4				C.024		14.009		0.8304	0.0176	0.0161	0.0235
	- 4				C.022		9.C14		0.2589	0.0746		-0.0057
	r- 4				C.C24	-0.0	3.992		0.1782	0.2164	0.0037	0.0087
()4)	r- 4		458	11	C.C24	-c.o	-C.989	C.4164	3.0753	-0.0105	0.0097	0.0008
	r- 4				C. 687	C.0	-2.C46	-7.0535	7.0349	-0.0478	0.0473	0.0054
041	r- 4	3	459	. 2	C.658	C.0	-2.C50	-1.0540	0.0376		0.0475	0.0055
	- 4				C.7CO			-7.0534		-0.7498	0.0474	C.CC55
	- 4				(.699			-C.C523		-0.0492	0.0475	0.0055
	- 4				C.699	(.0	C.18G	C-1311		-0.0455	0.0474	0.0029
	- 4				C.760	C.0	2.219	0.2815		-0.0392	0.0474	C.0009
	- 4				C.699	(.)	4.387	0.4313		-0.0313	0.0471	-0.0013
	- 4				C.656	(.0	6.537	2.5956		-0.0245		-0.0043
	- 4				0.696		e. 726	0.7540		-0.0191		-0.0064
	- 4				C.655		1C.773	C.8425	7.1765	0.0009		-0.0075
	- 4				C.697		12.884	0.9437	0.2331	0.0146		-0.0093
	- 4				C.655		14.998	1.0254	0.2915	0.0358		-0.CC97
	- 4 - 4				C.699		17.036	1.0757	0.3498	0.0530	0.0218	
	- 4				(.697		15.112	1.1332	0.4163	0.0547	0.0219	
U41	- 4	•	ל ל פּ	10	C.699	(.0	21.266	1.2001	0.4942	0.0473	0.0216	-0.0086

{ - "1

TEST P	IN PT PAC	H SHEEL						
		(DEG			$c_{ extsf{D}}$	C_{m}	C ₂	0
C+T- 43 4	26 14					•••	OH.	Cn
	35 16 (.6	99 C.C	23.224	1.26	32 0.57CI	0.04.		
04T- 43 5	00 1 6 3				207761	0.0433	9.0204	-0.0079
	co 1 (.76 co 2 (.79		-2.094	-9.058	9 9-0407	-0.0510		
047- 43 50	00 3 6/36		-7.098	-7.059	0.0380	-0.0510		- 0 - ,
04T- 42 50	C 4 6 76	, C.C	C.137	(.144	9 0-0396	-0.0533		,
C4T- 43 50	C 5 6 70			9.317	7 7-0462	-0.0481	0.0459	
047- 47 50	0 6 (80			0.494	0 0.0634	-0.0418	0.0464	C.0006
04T- 43 EC	C 7 6 76			C.674	0 0.0952	-0.0366	0.0468	-0.0018
04T- 42 EC	0 8 6 70		9.877	C. 910	9 9 1421	-C.0291	0.0439	
04T- 47 50	0 9 6 70	• • • • • • • • • • • • • • • • • • • •	10.854	C. 387	0.1910	-0.0155	0.0341	-0.0065
04T- 43 50	0 10 6 76		12.552	C. 9740	. 0.2505	-0.0004	0.0287	-0.0072
04T- 43 5C	0 11 6 20		15. 645	1.0380	7 7 3075	0.9216	0.0271	
C4T- 42 50	C 12 (22		17.194	1.1152	0.3751	0.0364	0.0255	-0.1075
04T- 42 FO	C 13 (74)		15.304	1.1700	9.4419	0.0383	0.0221	-0.0054
04T- 43 5C	14 (.80		21.336	1.2216	0.5140	0.0241	0.0205	-0.CG29
			23.398	1.2860	0.5973	0.0136	0.0216	-0.0061
04T- 42 501	1 (. 859		0.04.5				0.0214	-0.0083
04T- 43 50	2 (con		-0.942	9.0585		-0-0662	0 2/22	
C4T- 43 501	3 C CC/	C.0	-2.113 -	-0.0679	7.0454 -	-0-0594	0.0433	C.0034
04T- 43 501	4 (())	(.)	C.113	C.1569	0.0452 -	-0-0635	0.0434	0.0049
P4T- 43 501	6 / 000		2.296	5.3519	7.7553 -	0-0675	0.0439	0.0022
C4T- 43 EC1	£ (aca	(.0	4.586	0.5828	0.0815 -	_	2.0442 -	6.0003
C4T- 43 5C1	7 6 601	(.0	f: 744	C.7694	0.1221 -		0.0405 -	7.0027
04T- 43 5C1	H C CC3		P. 854	C. 91 07	0.1741 -	0-0891	0.0358 -	0.0048
C4T- 43 5C1	5 (.903		C. 547	3.9688	0.2243 -		0.0373 -	0.0066
04T- 47 5C1	10 (.699	()	3.093	1.0435	7.2809 -	0-0447	0.0245 -	C-CC64
04T- 43 501	11 (cca		5.181	1.0969	n. 3391 -	0.0296	0.0222 -	0.0064
C4T- 43 501	12 C. FSn	-c.o i	7.379	1.1980	0.4221 -	0.0384	0.0200 -	0.7048
041- 43 5C1	1? 0.503	(.0.2	_	1.7415	0.4829 -(0.0237 (0.0180 -0	0.0032
147- 43 501	14 (.893	C. C 2		1.2920	0.5589 -(0.0290	-2171 -	0.0002
		. ,	ו מככיי	1.3422	0.6351 -0	_	.0172 -0	(7)[]
04T- 42 EC2	1 1.199	C.O	2 110				-0172 -0	7•0028
041- 42 502	2 1-177	C. 0	2.110 -: 0.057	. C756	0.0653 -0	0.0352 0	-9240 n	
047- 47 502	3 1.196			1115	9.0649 -0	-0657 n		-0021 -0008
047- 47 502	4 1.199			3121	0.0776 -0	-0997 a	.0296 -C	-0008
04T- 44 502	: 1.195			-5066	3-1041 -0	.1279 a	.0295 -0	0021
047- 47 502	6 1.158	C. C A		.6836 .8414	0 - 1428 -0	-1441 0	0279 -0	0040
04T- 43 5C2	7 1.193	C.C 11		.9903	0-1924 -0	• I 77/ 7	0264 -0	-0076
047- 43 502	F 1.196	C.O 13			0.2532 -0	- I O O / /	.0245 -0	-0094
C4T- 43 502	9 1.196	C.C 15			0.3196 -0	-1/46 0	0229 -0	.0104
04T- 43 502	10 1.196	C.0 17	_		0-3970 -0.		0217 -0	.C122
04T- 43 5C2	11 1.194	C. 0 1 c			0.4750 -0.		0216 -0	.6.143
041- 43 502	12 1.193	C.O 21			0.5536 -0.	19411 0	0208 -0	0143
741- 4: 507	13 1.194	0.0 23			0.6523 -0.	2023 9.	0199 -C.	2413
047- 43 505				7779	0.7412 -0.	2077 0.	0177 -r.	0180
04T- 43 505	1 (.533	(.0 1	. C31 :.	2264	1 0553			
04T- 43 505	2 (.5)3				0.0552 -0.		0327 -0.	CCO2
047- 43 505	3 C.9C3	(.C A.			0.1179 -0.	1400	9218 -0.	0041
42 714	4 (.900				1699 -0.	1811 0.	0224 -0-	0058
			-).1910 -G.	1943).	0235 -C.	0061
								-

	TES	T	RUN	PT	PACH	SHEEP (DEG)	ALPHA IDEGI		c_{D}	Cm	C.	c_n
(041-	43	505	5	C. 904	C- 0	11.769	1.0919	0.2544	-0.2491	0.0201	-0.0059
			505		C.899		16.205			-0.3950		-0.0056
											0.0170	0.5076
			506	1	C.9C1	C.0	-2.275	-0.1447	0.0587	-0.0315	0.0303	0.0035
			506		C. 5C5	C. 0	C.193	0.1289		-0.0659	0.0312	
	04T-				C.897	C.0	2.600	7.3815		-0.1005		-0.CC13
			506		C. 9C3	C.C				-0.1241		-C.CC31
			506		C.9J2	0.0	7.290	C.7957	0.1331	-0.1522		-0.9043
			506		C.903	(.0	9.568		3.1915	-0.1913		-0.0061
			506		C.9C3		11.761			-0.2442	0.0208	-C.9056
	04T-				C. 9C4		13.935			-0.3025	0.0153	-C.0054
•	141-	4 ?	506	ς	(.901	(.c	16.154	1.3458	0.4247	-0.3934	0.0151	-C.0052
(041-	42	507	1	C.701	C . C	-2.218	-C.1164	0 0400	-0.0291	0.00/0	2 224
			507		C.700	C.C	0.108			-0.0271	0.0342	
			507		(.7CC	C.C	2.343			-0.0843		-0.0001
			507		C.7C2	C. 0				-C.1147		-0.0075
(04T-	43	507		C. 701	0.0				-0.1429		-C.0C51
(04T-	42	507		C. 702	C.0	9.179			-0.1718		-0.0077
1) 4T-	43	507		C.701		11.322	C. 9949		-0.2080		-C.UORE
			507	٤	(.699		13.512	1.1177		-0.2501		-0.0087
			507		(.7C3		15.689			-0.2978		-0.0094
()4T-	43	507	10	C.699		17,809	1.3592		-0.3715		-0.0094
									15		4	4
	-1+(C.8CO		-2.234	-0.1231		-0.0304	0.0318	C.0C41
	141-				C.832	C.0	0.153	C-11CO		-0.0609	0.0366	0.0023
	141-				C. 80C	0.0	2.410	C.3257		-0.0907		-C.CC02
)4T-				(.798	C.0	4.829			-0.1218	0.0365	
)4T-				C. 758	C.0	7.148	0.7512		-0.1487		-0.0050
	14T-				C. 800	C. C	9.376	0.9172		-0.1733	3.0275	
	141-				(.799 (.798		11.576	1.0291		-0.215A	0.0215	
	41-				(.831		13.749	1.1484		-0.2628	6.0211	_
)4T-				(.798		15.908 18.089	1.2640		-0.3317		-C.0079
•	, , , , .		J. 1, C	10	(. / 70		15.649	1.3964	9.4785	-0.4087	0.0188	-0.0088
	14T-			1	1.153	0.0	4.949	7.5361	9.1162	-0.2261	0-0212	-0.0020
	4T-				1.194	C.C	-2.281	-3.1493	2.0807	0.0411	9.9166	0.0024
)- 4 T-				1.154	C. 0	C. 067	7.7611		-0.9381	0.0179	
	4T-				1.195	(.0	2.448	0-2874	0.0963	-0.1316	0.0211	-0.0005
					1.193	C.C.		0.5301		-0.2252	0.0212	-0.0019
)4T-				1.193	C7 0	7.217	0.7472		-0.2995		-0.0037
	4 T-				1.192	(.0	5.533	C.9483		-C.3743		-C.0C57
	4T-				1-171		11.907	1.1452		-0.4677		-C.CC78
	4T-				1.148		14.149	1.3101	7.3835		0.0177	
	4T-				1.199		16.390	1.4574	0.4835		0.0168	
	4T-				1.198		18.63C	1.6113	0.5946		0.0153	
,	, -		364	12	1.2)1	·(. C	C. C96	0.0583	0.0753	-0.0351	0.0177	0.0006
0	4T-	4 3	512	1	(.501	C. 0	C. 958	C. 1665	0.0587	-0.0472	0.0364	-0-0010
	4T-				C.932	C. 0	4.381	0.5313	0.0902		0.0320	
			. 8.		ς.						300 320	

TES	T	RUN	PT	MACH	SHEEP (DEG)	AL FHA		c_{D}	$c_{\rm m}$	C _ℓ	c_n
041-	4 2	512	2	C. 901	(.0	6.383	6 7107	0 1000			
CAT-				C.902					-0.1401		-0.0065
041-				(.96	C.0				-9.1778	0.0255	
041-					C.0				-0.2032	0.0261	
1/41-	4 :	212	C	(.905	(.0	11.837	1.1249	0.2687	-0.2554	7.0289	-0.0078
04T-	42	513	1	C. 904	C- 0	-2.379	-2.1877	0.0635	-0.0099	0.0354	C.0019
04T-				C. 9C7	C. 0				-0.0371		-0.0001
CAT-	43	513		C. 903	(.0				-0.0769		-0.0029
041-	43	513		(.565	C.0	4.582		2.0998			-0.0056
04T-				C. 901	C. n				-0.1212		
04T-				C. 5C3	C.0	9.591	0.9673		-0.1964		-0.0064
041-				0.926		11.842			-0.2544	0.0253	
04T-				C.905		14. C2 C				0.0291	
041-				(.934		16.148			-0.3127	0.0316	
04T-				(.902		18.348			-0.3856		-0.0099
•		,	10	(.702	(. 0	10.340	1.4767	9.7263	-0.4651	0.0242	-0.0089
C4T-			1	C.7C2	(.0	-2.248	-0.1470	0.0512	-0.0123	0.0407	0.0026
04T-	43	514	2	C. /31	C.C	C. C45	3.0755		-0.0439	0.0435	0.0010
CAT-	43	514	3	C.7C1	C. G	2.423	C. 2995		-0.0825	7.9481	
04T-	43	514		(.701	C.C	4.703	1.4940		-0.1133	0.0485	-0.0019
047-	4:	514		C. 701	C.0	6.937	7.5838		-0.1436	0.0455	
04T-	43	514		(.7C1	C. 0	5.108	C.8527		-0.1758	0.0437	
CAT-				C.7C3		11.432	1.0195		-0.2120	_	
04T-				C.701		13.552	1.1311			0.0451	_
C+1-				C.679		15.721			-9.2502	0.0461	-C.C96
04T-				(.659		17.844	1.2537		-0.3050	0.0380	-C.C128
	• -			to the		11.644	1.3515	7.4713	-0.3753	0.0335	-0.0144
041-			1	0.800	(.0	-2.270	-C.1550	0.0541	-0.0146	0.0382	C.0C27
041-			2	C. EC3	C. 0	0.095	C. 2905		-0.0478	0.0401	0.0007
0-+T-			3	CLECS	(.0	2.502	3.3332		-0.0876	0.0460	-0.0016
041-	43	515	4	C.801	C. 0	2.454	C.3310		-0.0874	7.0460	-0.0015
V41-			5	(.79)	C.0	4.777	3.5402	0.0785		9.0469	
CAT-	43	515	E	(.801	C.0	7.151	C. 7397		-0.1436		-0.0053
G4T-	43	515	7	(.8)1	C.0	9.402	0.9208		-0.1794		-0.0061
04T-	43	515	E	(.796		11.652	1.2590		-0.2230		-0.0078
04T-	43	515		(.80)		13.766	1.1684	0.3030			-0.5095
								,,,,,,,	7.2041	0.0311	-0.5695
04T-				(.899	(.0	-2.376	-C.1857	0.0636	-0.0200	0.0364	C.C022
04T-			2	C.5C2	C.0	C. C59	7.9783		-0.0421	0.0348	0.0001
041-			3	C. 900	(.0	2.595	7.3476	0.0694			-C.CC27
041-			4	C. 9C7	C. C	4. 938	C. 5906	2.9958			-0.0052
041-			5	(.876	C. 0	7.233	(.7939	0.1362		0.0230	
04T-			6	0.902	C. 0	5.568	5.9499	0.1913			-0.0062
041-				0.900		11.836	1.1183	0.2607			-0.0079
CAT-	43	518		C.9C2		13.952	1.2356	0.3298			-C.C096
								J	383004	1,103[3	-1.00130
941-				C.657	C.0	-2.265	-3.1543	0.0529	-0.0199	0.0409	0.0029
04T-				C. 732	C. 0	C. C73	7.0696	0.9447		0.0430	6.0009
C4T-			3	C.712	(.)	2.318	C. 2923	0.9507		0.0475	
04T-	43	519	4	(.701	C.C	4.599	0.4779	0.0670		9.0484	
								3		7.0404	• () 1 3 C

TEST	RUN	PŢ	MACH	SWFEP (DEG)	AL PHA	$\mathtt{c}_{\mathtt{L}}$	c_D	Cm	C g	c_n
C4T- 43 O4T- 43 O4T- 43 O4T- 43 O4T- 43 O4T- 43	519 519 519 519 519 520	6 7 8 9 10	C.699 C.700 C.701 C.701 C.699 C.698	C.0 C.0 C.0 C.C	6.892 9.173 11.373 13.467 15.563 17.671	0.6748 0.8571 1.0079 1.0951 1.2003 1.2999 -C.1580 0.0832	0.1407 0.1977 0.2612 0.3369 0.4204	-0.1410 -0.1713 -0.2046 -0.2593 -0.3262 -0.4064	-0.0434 0.0468 0.0393 0.0377 0.0337	
04T- 43 04T- 43 04T- 43 04T- 43 04T- 43 04T- 43 04T- 43 THIS JOR	520 520 520 520 520 520 520	3 4 5 6 7 8 9	C.758 C.758 C.860 C.800 C.799 C.759 C.800 C.769	C.O C.O C.O C.O	2.421 4.735	C.3163 C.5236 O.7290 C.8975 I.3419 1.1378 1.2362 1.3455	0.0558 0.0761 0.1119 0.1594 0.2211 0.2860 0.3634	-0.0849 -0.1128 -0.1382 -0.1660 -0.2141 -0.2717 -0.3523 -0.4282	0.9444 0.9364 0.9324 0.0402 0.9377 0.0350	0.0007 -0.0015 -0.0043 +0.0056 -0.0076 -0.0076 -0.0094 -0.0132 -0.0137

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13. ABSTRACT		

The Wing Mounted Roll Control Study (Contract F33615-69-C-1225) was an investigation of various methods for improving control effectiveness at high-lift transonic conditions. Emphasis was placed upon the use of leading edge devices as primary controls and also as suxiliary devices with conventional controls. Selected configurations were tested in AEDC 4T facility and limited validation was obtained in the AEDC 16T facility. Control configurations investigated included leading edge flaps and allerons both singly and in combination, as well as spoilers, differential horizontal tail and several suxiliary devices. Use of differential leading edge deflection significantly improved alleron: effectiveness at high angle of attack transonic conditions. Because of the important effects that the wing-body configuration has upon wing mounted control devices, considerable data and analysis is presented for the longitudinal characteristics. Testing of the same model in two different size facilities provided significant information on wall interference effects at transonic conditions.

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Security Classification

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4.	KET WORDS		LIN		LIN	КВ	LIN	кс
	X2. W0N03		ROLE	WT	ROLE	wT	ROLE	WT
Aerodynamic (ontrols			1				
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Transonic	4							
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Roll Control					an .			
Maneuvering			-					
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