NASA CONTRACTOR REPORT NASA CR-112016

EFFECTS OF LEADING-EDGE CAMBER ON LOW-SPEED CHARACTERISTICS OF SLENDER DELTA WINGS - TECHNIQUES AND TABULATED DATA

By W. H. Wentz, Jr.

Prepared under Contract No. NASA1-10082 by
AERONAUTICAL ENGINEERING DEPARTMENT
Wichita State University
Wichita, Kansas

for

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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SUMMARY

This report is a supplement to the basic report, "Effects of Leading-Edge Camber on Low-Speed Characteristics of Slender Delta Wings", published under separate cover as NASA CR-2002. The two documents constitute the final reports of research conducted at Wichita State University under NASA Contract NAS1-10082.

This report consists of three Appendices as follows:

Appendix A - Effects of Transition Fixing and Reynolds Number Variation on Force Characteristics.

Appendix B - Force and Moment Data Reduction Techniques and Tabulated Data.

Appendix C - Pressure Data Reduction Techniqes and Tabulated Pressure Coefficient Data.

APPENDIX A - EFFECTS OF TRANSITION FIXING AND REYNOLDS NUMBER VARIATION ON FORCE CHARACTERISTICS

The data presented here are the results of special tests to determine the importance of transition fixing and Reynolds number variation on forces produced by thin delta wings.

Transition fixing was achieved by applying a 6.3 mm (1/4") wide strip of spray adhesive (rubber cement) to the models, and sprinkling #120 grit (0.125 mm or 0.0049" dia.) onto the wet adhesive. These strips were applied along lines emanating from the apex located along 65% semi-span rays. Tests were made with grit on both surfaces, upper surface only, lower surface only and clean.

Reynolds number was varied by testing at three dynamic pressures. Correspondence between dynamic pressure and Reynolds number based upon mean aerodynamic chord is shown in Table A1.

Table A1 - Test Reynolds Number

Dynamic Pressure	Reynolds Number
958 newtons/m^2 (20 psf)	1.2×10^6
1916 newtons/m^2 (40 psf)	1.7×10^6
2874 newtons/m^2 (60 psf)	2.1×10^6

The results of these tests are shown in figures A1 through A18. No significant changes are noted due to either Reynolds number variation or transition fixing, within the range of Reynolds numbers of the present tests.

While testing the apex camber model at maximum Reynolds number, the pitching moment limit of the balance was reached. For this reason the run was terminated at an angle of attack of 20°, rather than the usual 40° maximum.

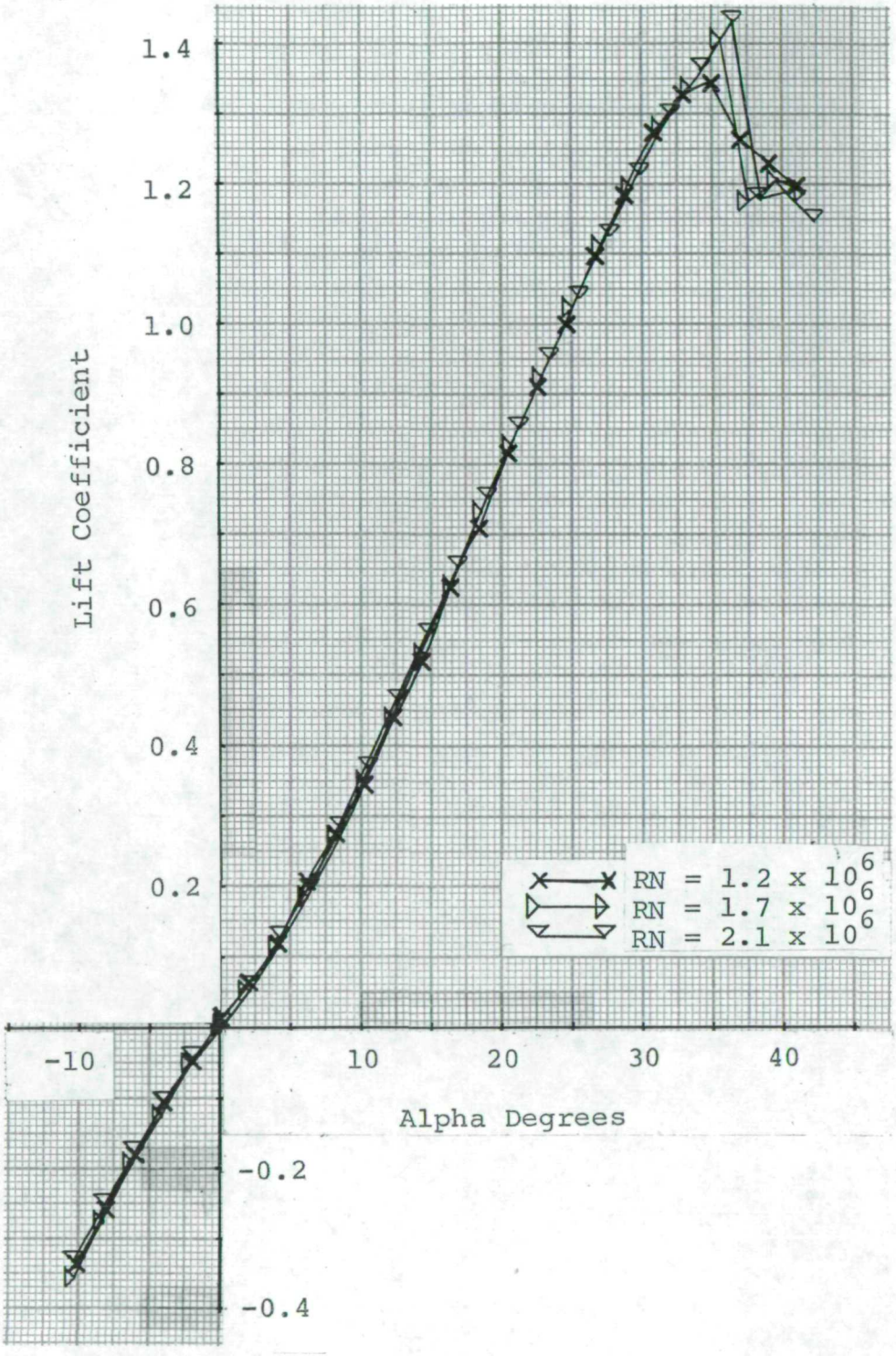


Figure A1 - Effect of Reynolds Number on Lift - Flat Plate Model

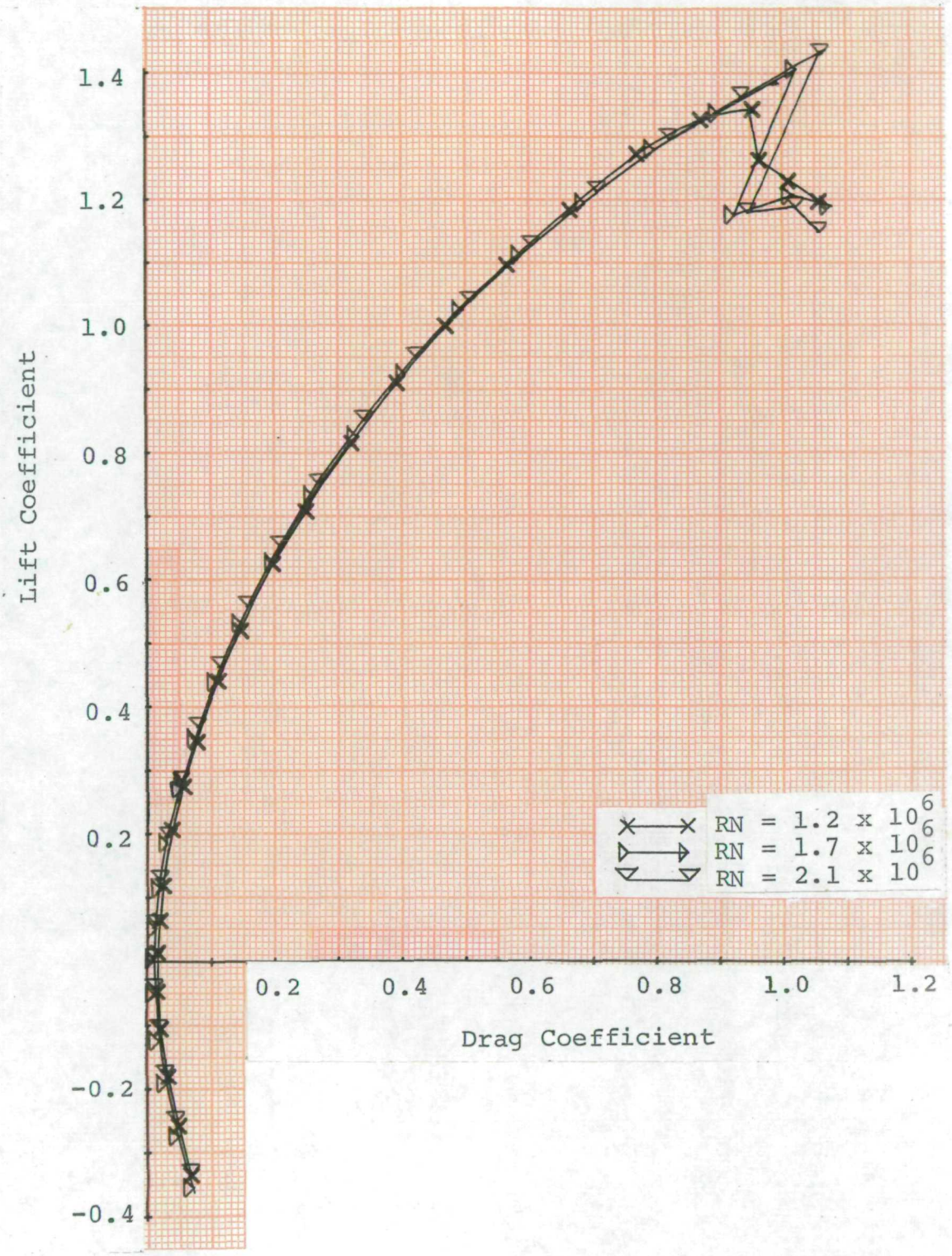


Figure A2 - Effect of Reynolds Number on Drag - Flat Plate Model

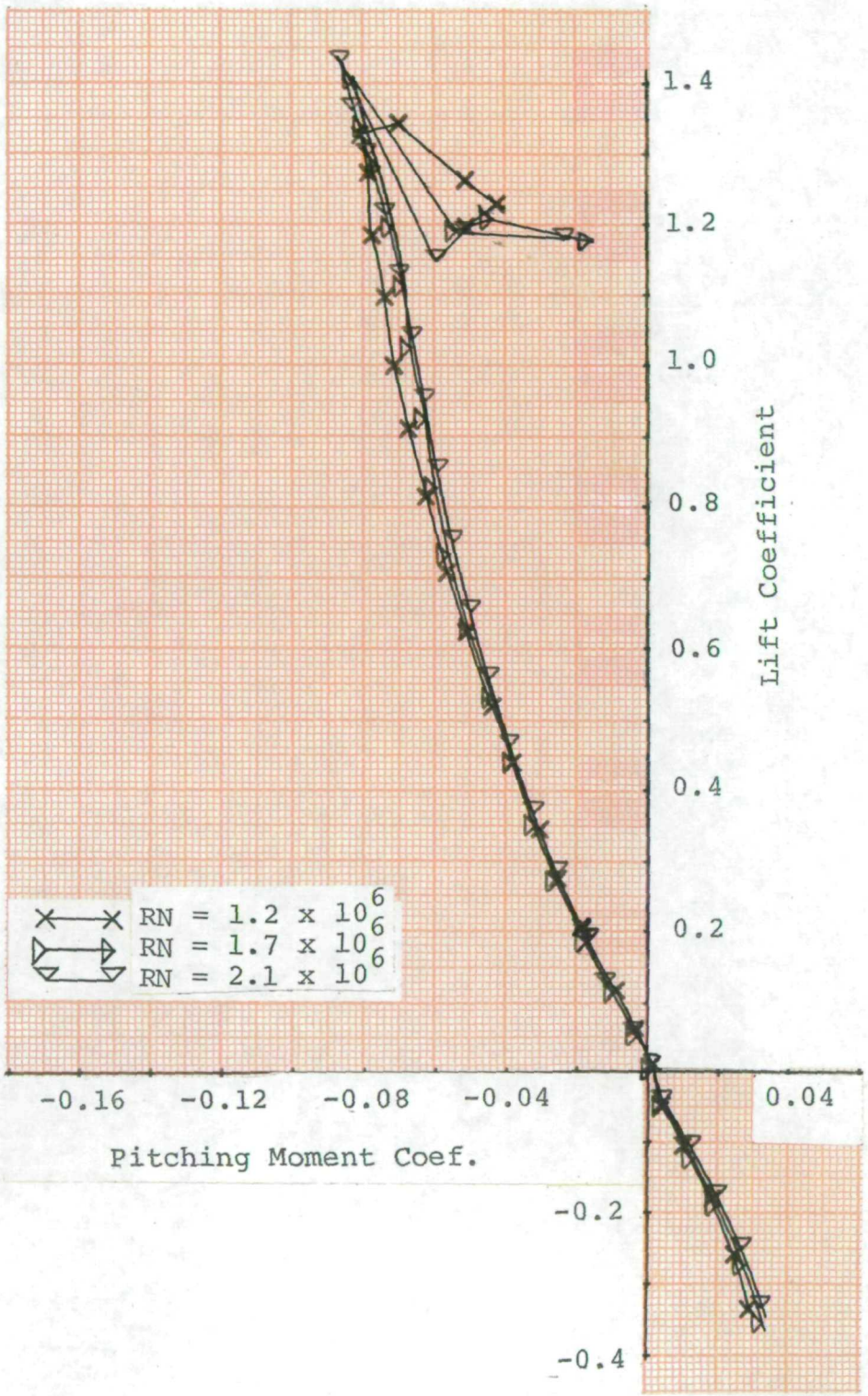


Figure A3 - Effect of Reynolds Number on Pitching Characteristics - Flat Plate Model

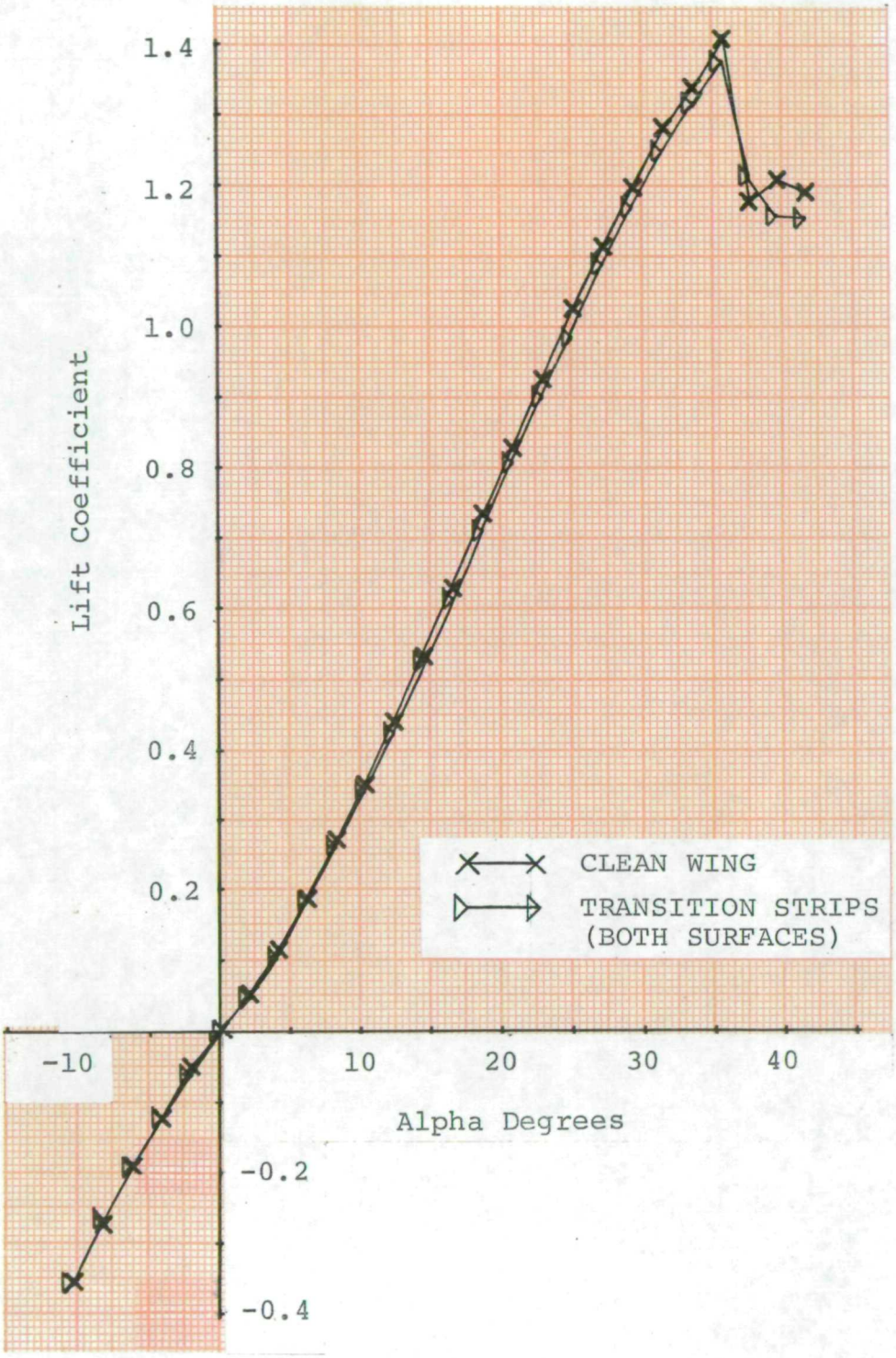


Figure A4 - Effect of Transition Fixing on Lift - Flat Plate Model

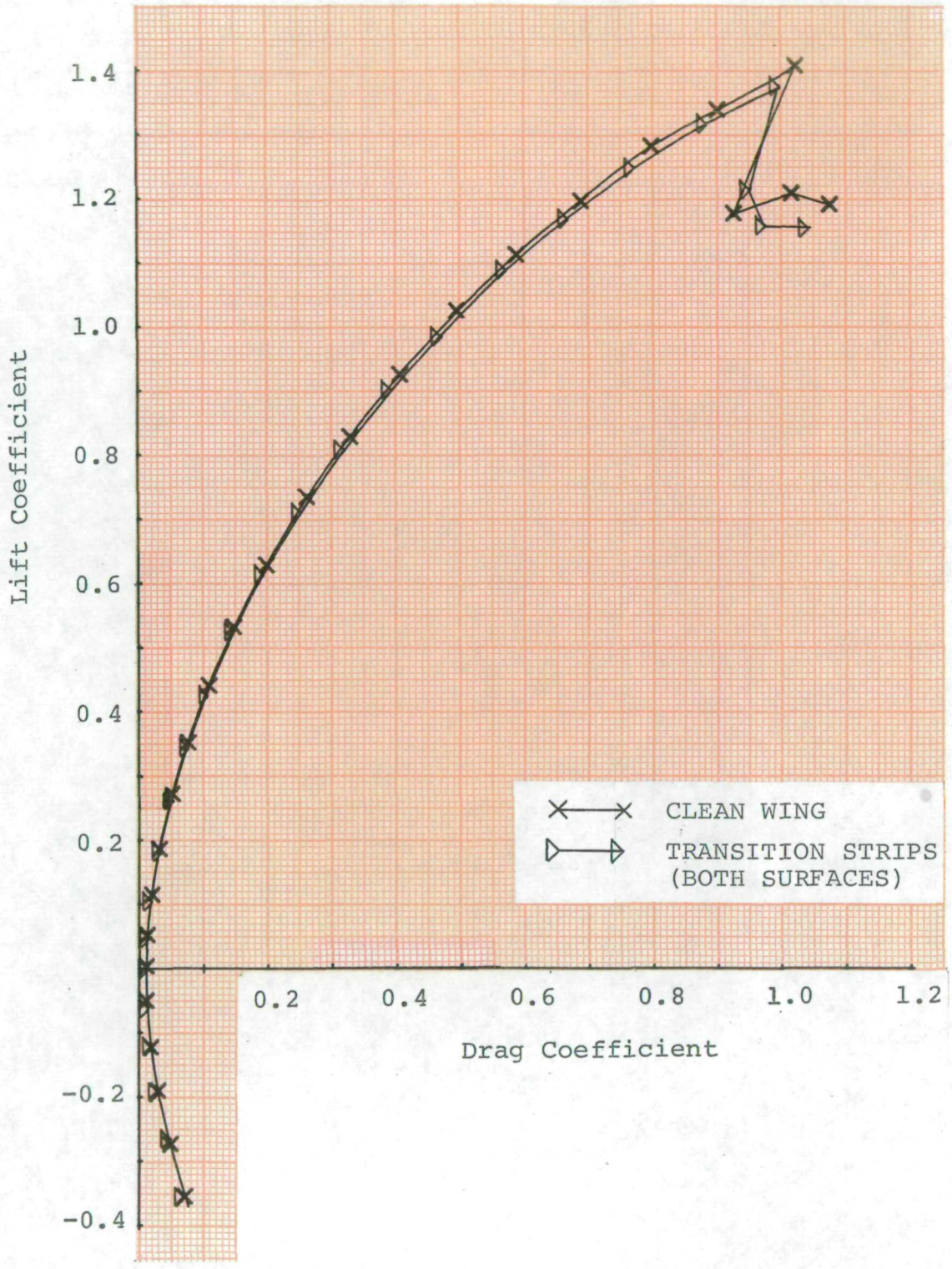


Figure A5 - Effect of Transition Fixing on Drag - Flat Plate Model

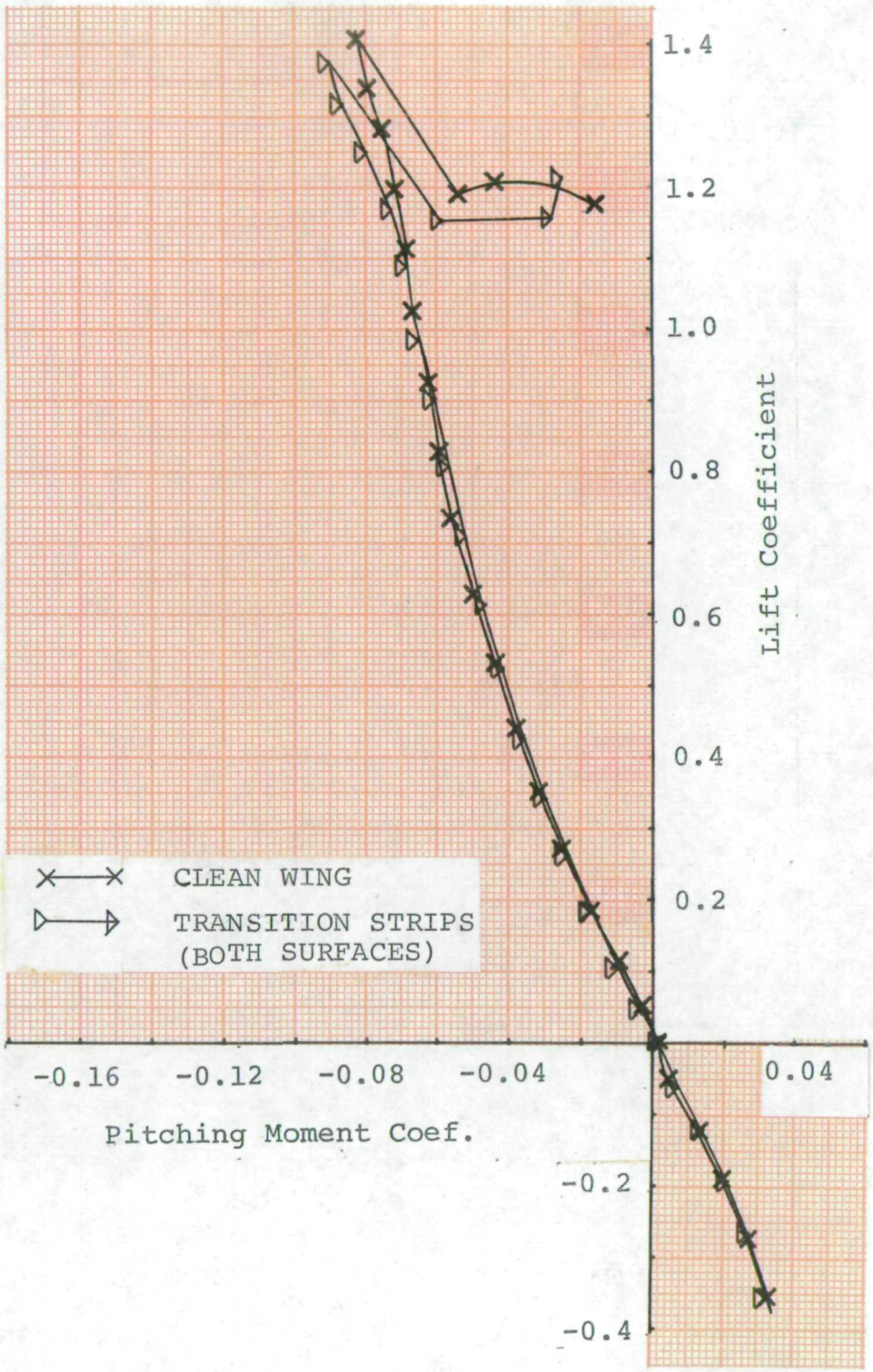


Figure A6 - Effect of Transition Fixing on Pitching - Characteristics - Flat Plate Model

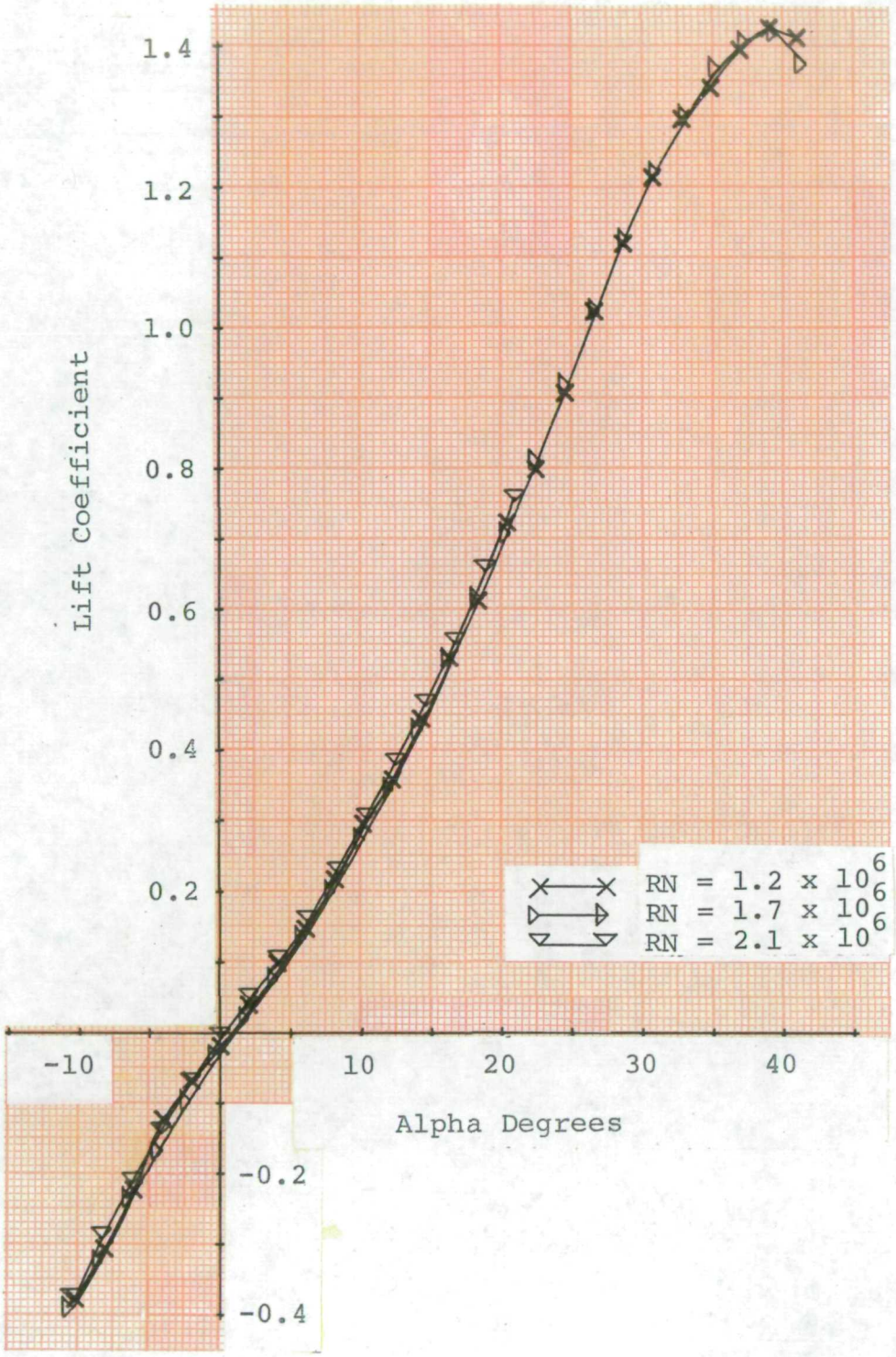


Figure A7 - Effect of Reynolds Number on Lift - Apex Camber Model

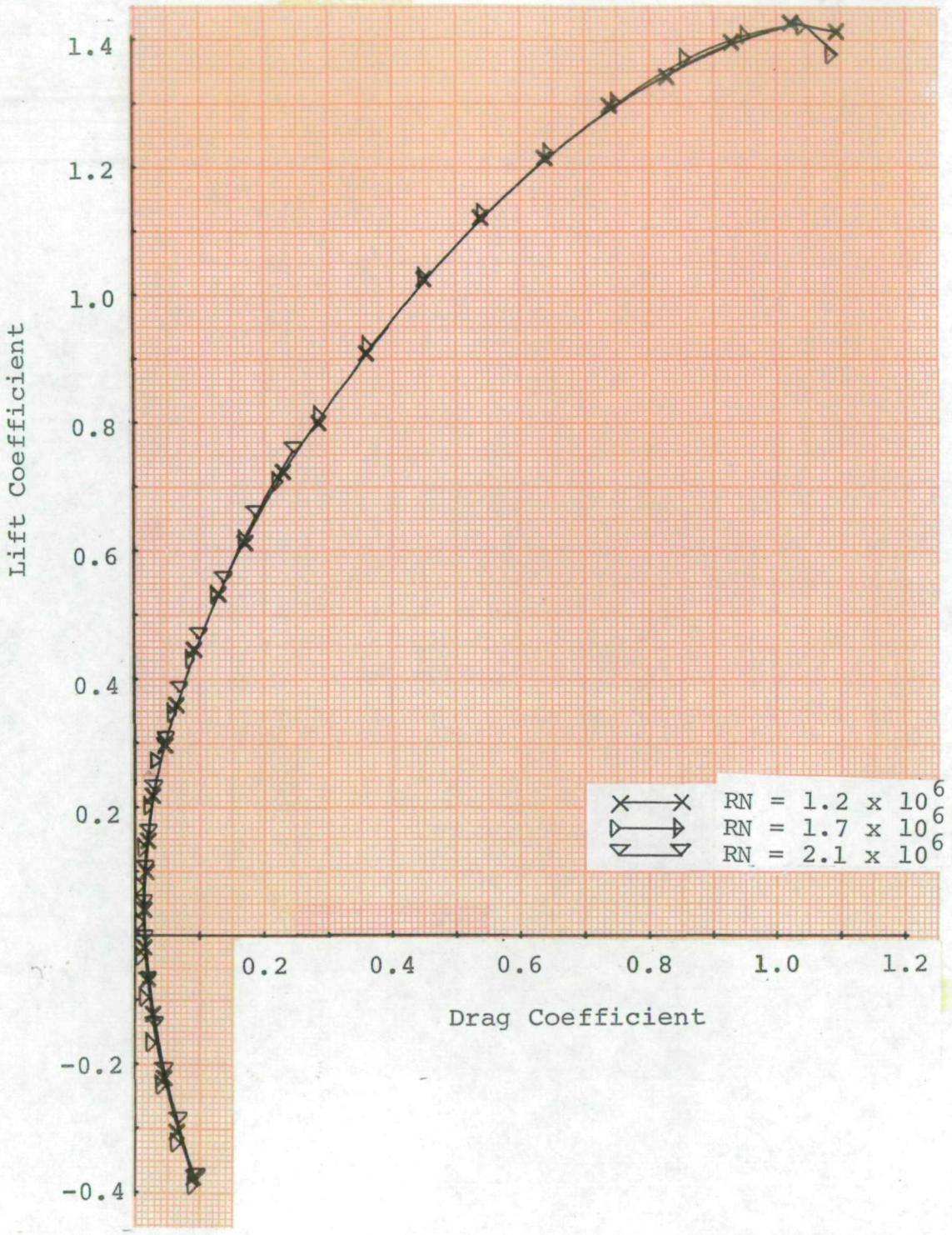


Figure A8 - Effect of Reynolds Number on Drag - Apex Camber Model

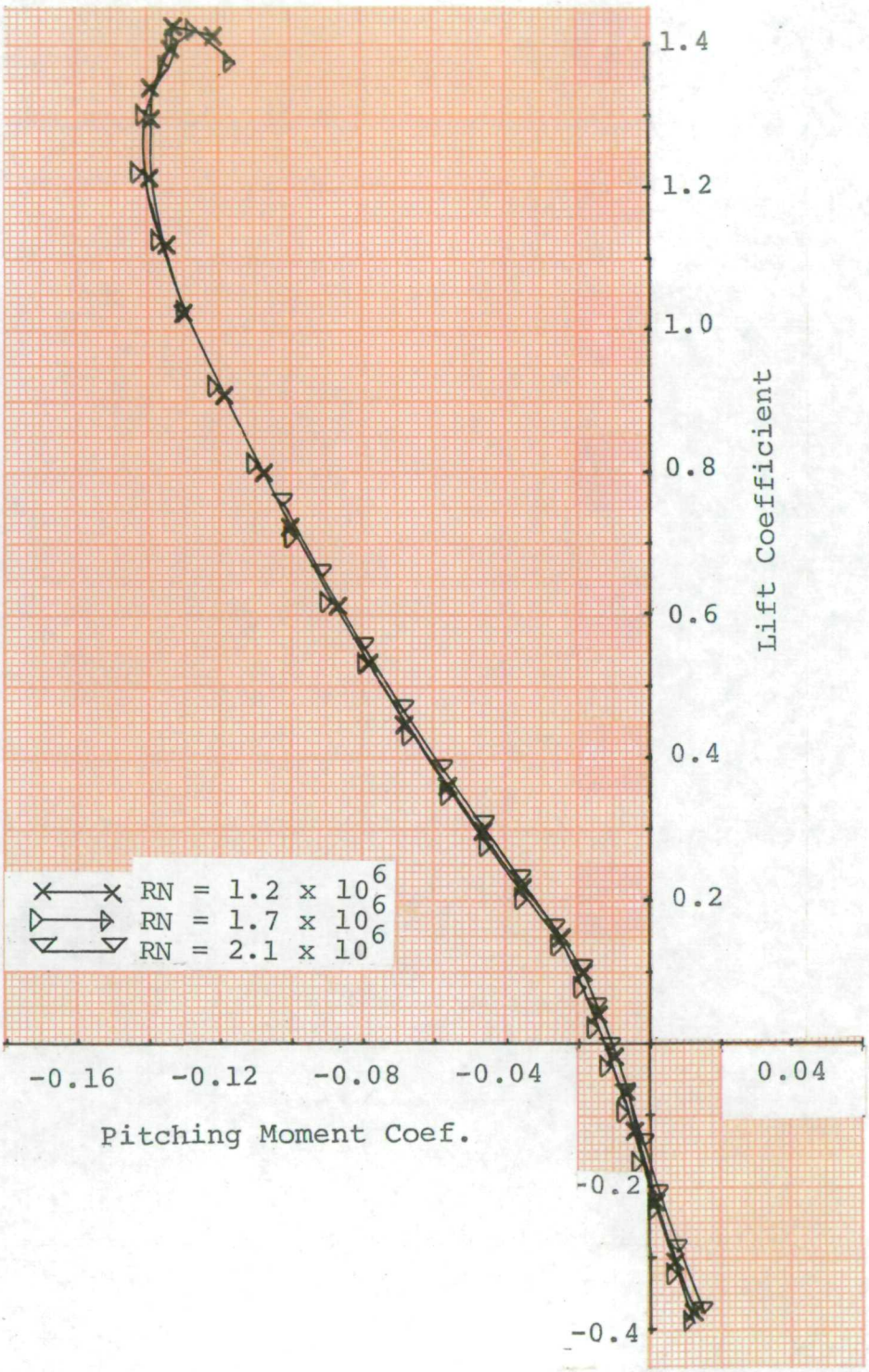


Figure A9 - Effect of Reynolds Number on Pitching Characteristics - Apex Camber Model

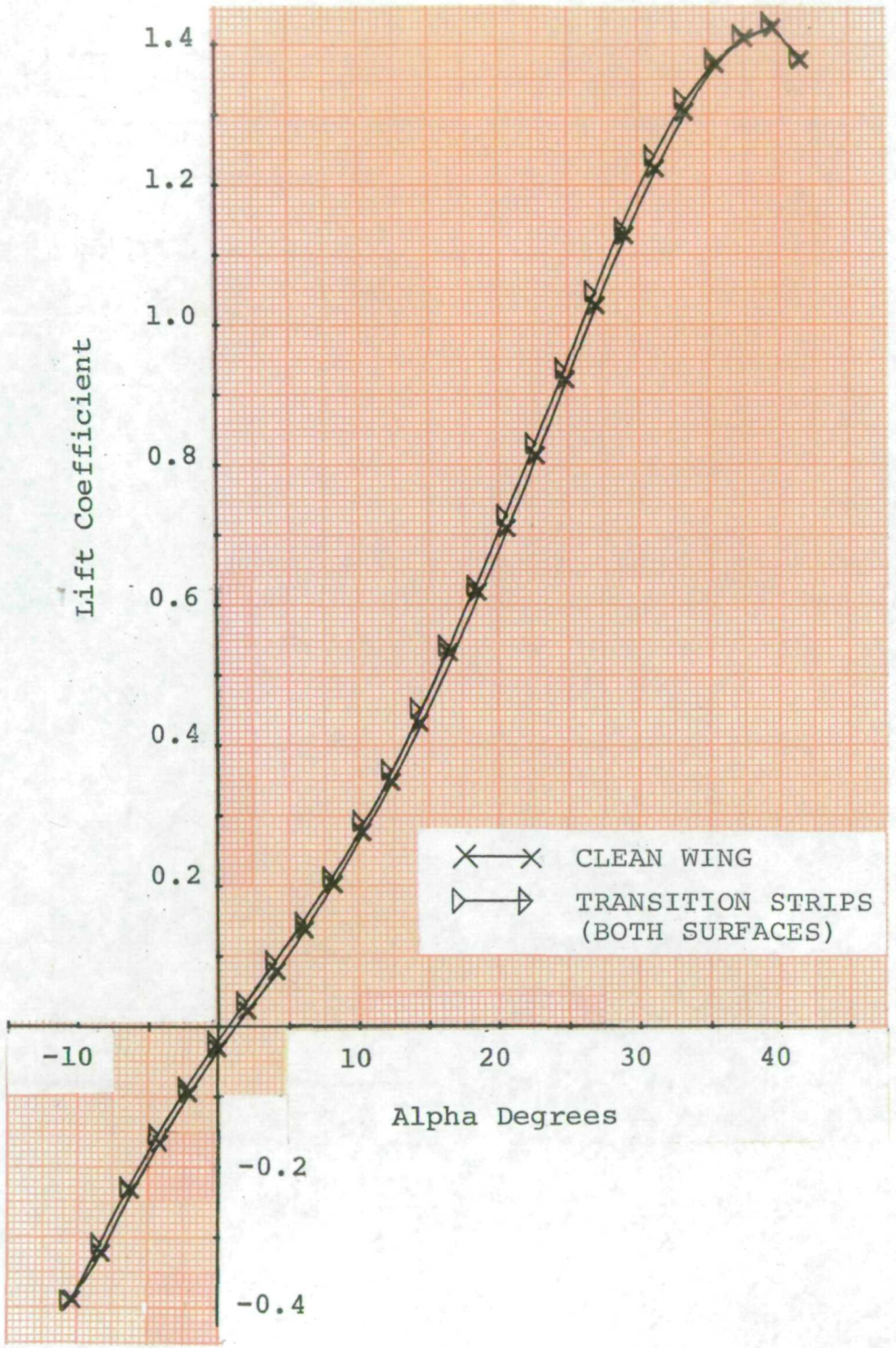


Figure A10 - Effect of Transition Fixing on Lift - Apex Camber Model

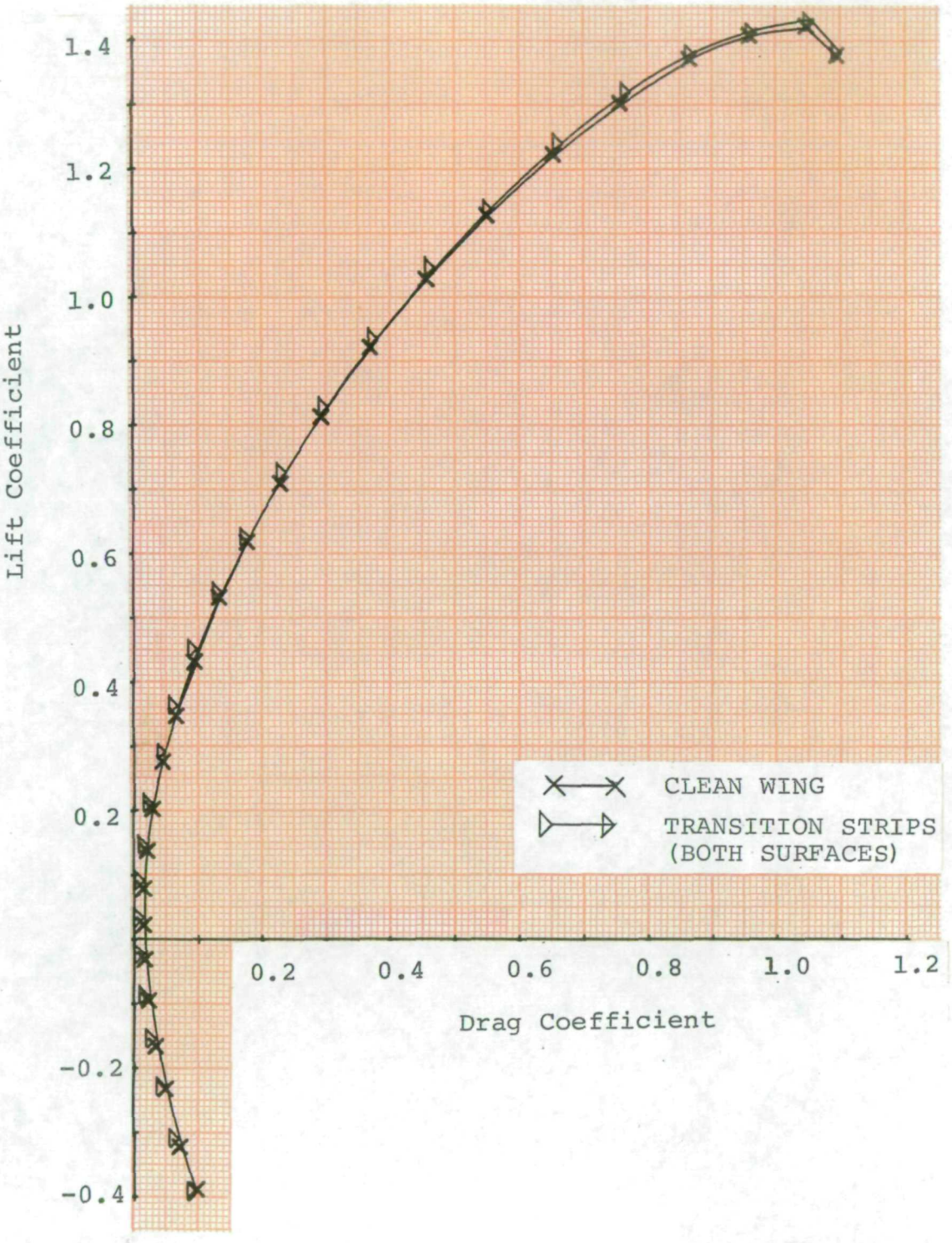


Figure A11 - Effect of Transition Fixing on Drag - Apex Camber Model

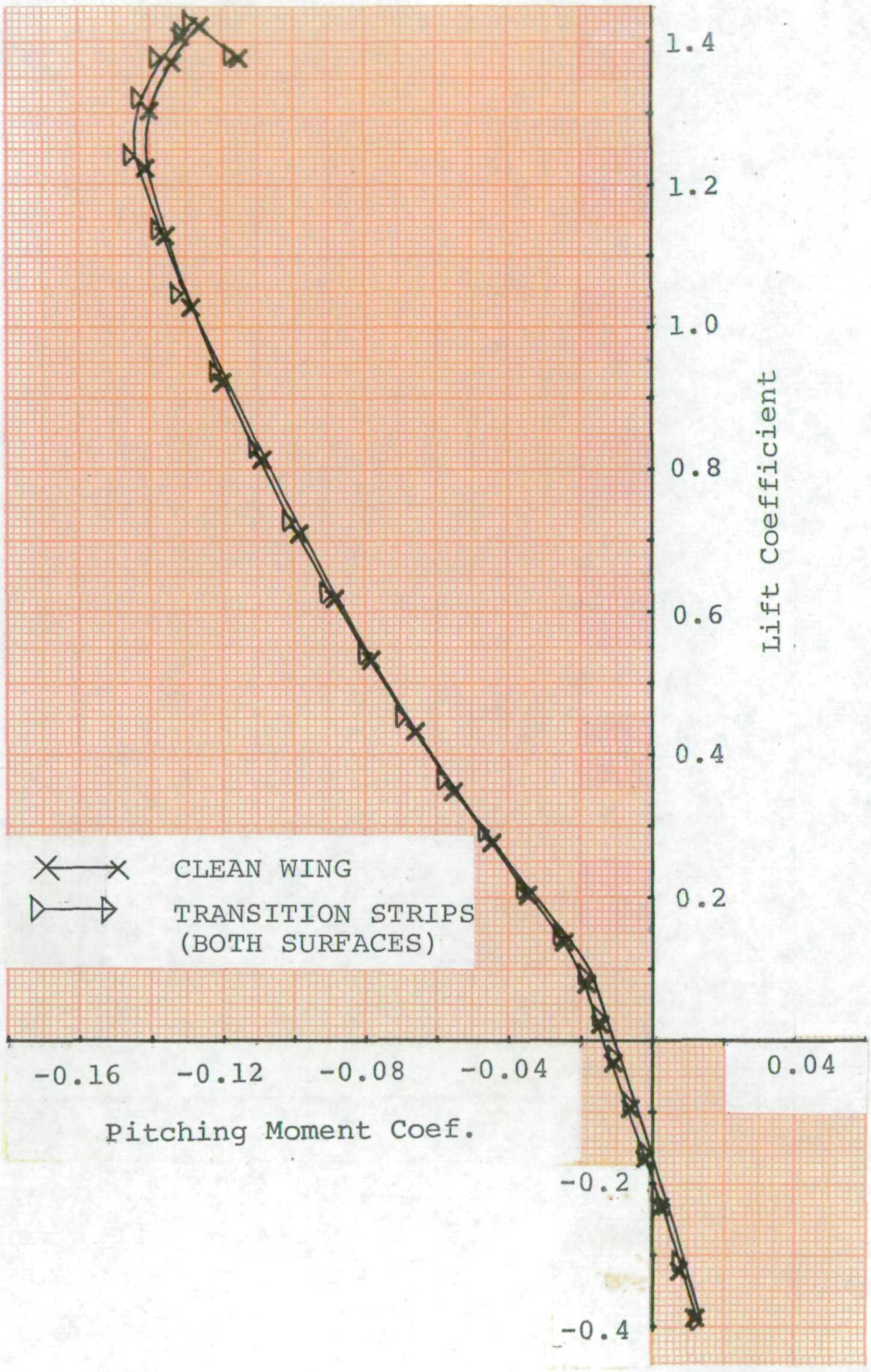


Figure A12 - Effect of Transition Fixing on Pitching Characteristics - Apex Camber Model

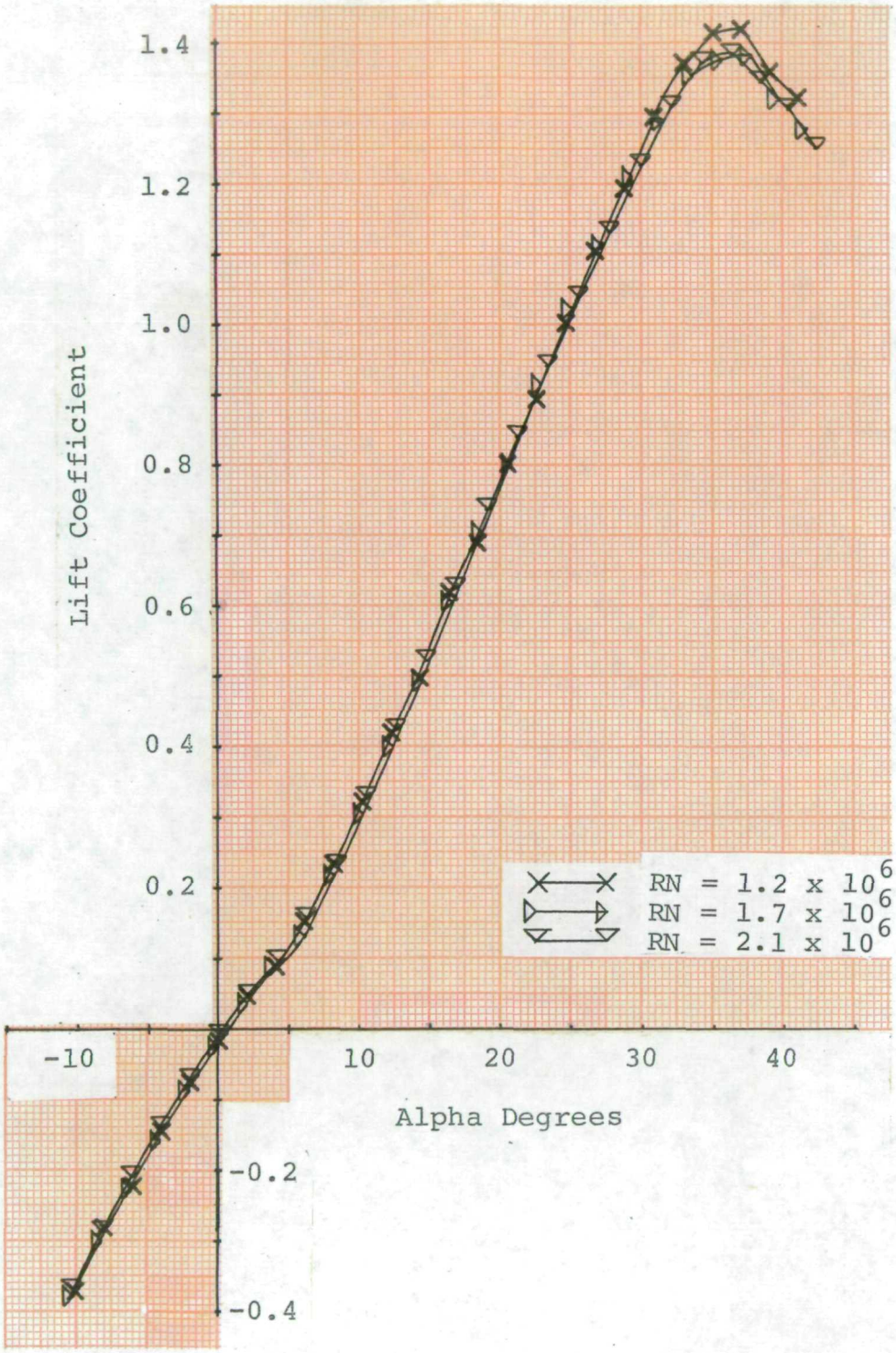


Figure A13 - Effect of Reynolds Number on Lift - Conical Camber Model

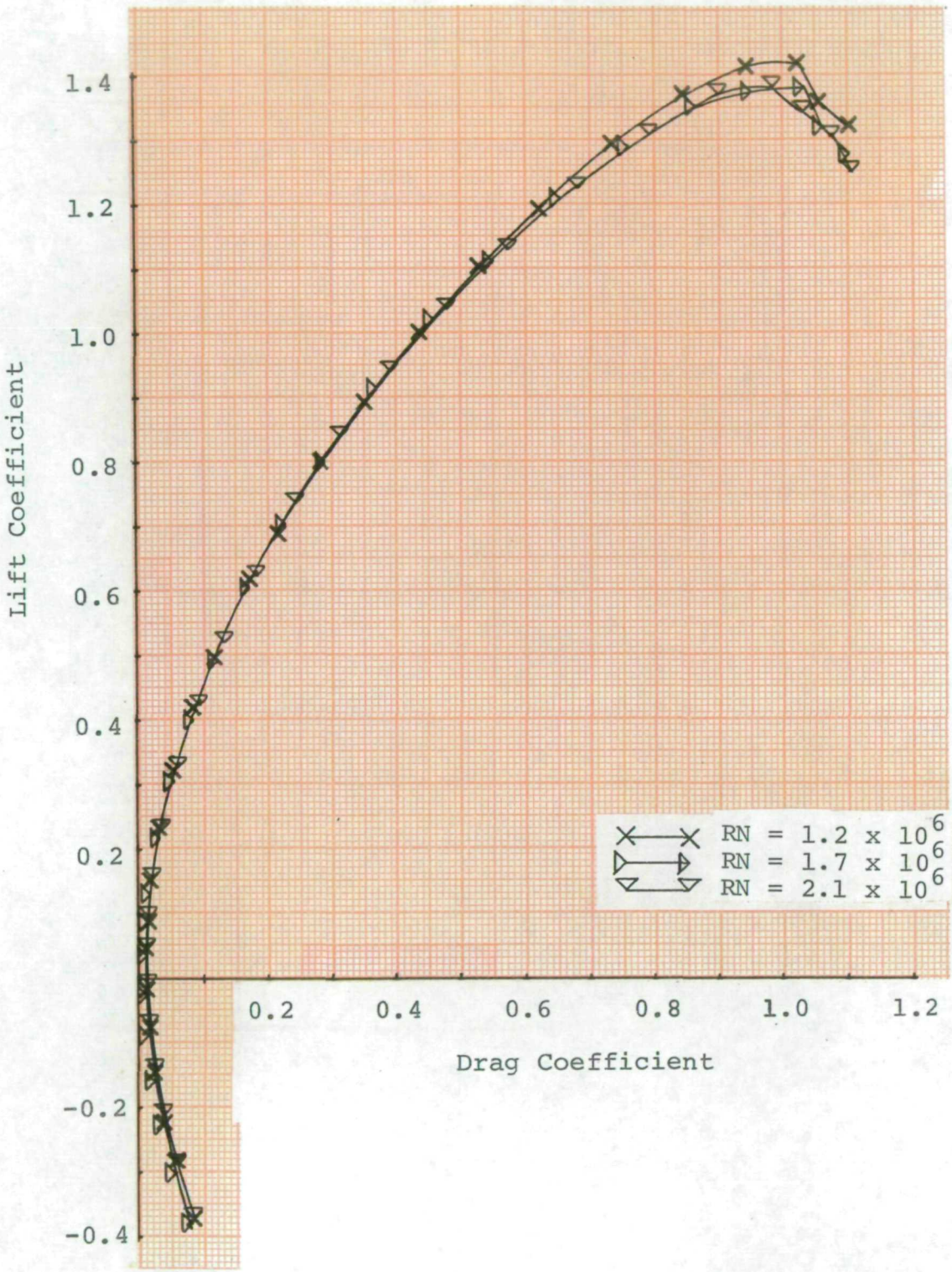


Figure A14 - Effect of Reynolds Number on Drag - Conical Camber Model

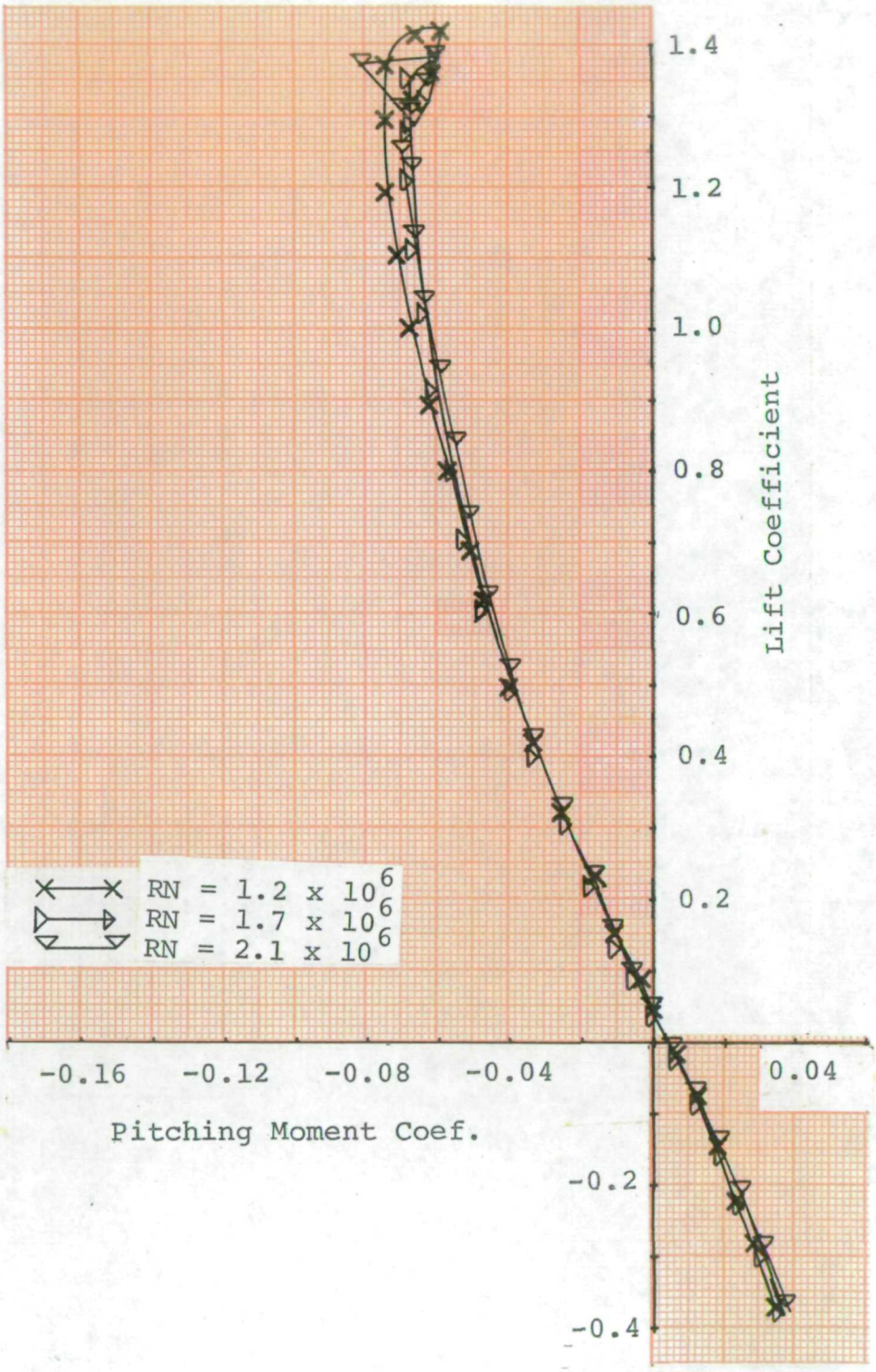


Figure A15 - Effect of Reynolds Number on Pitching Characteristics - Conical Camber Model

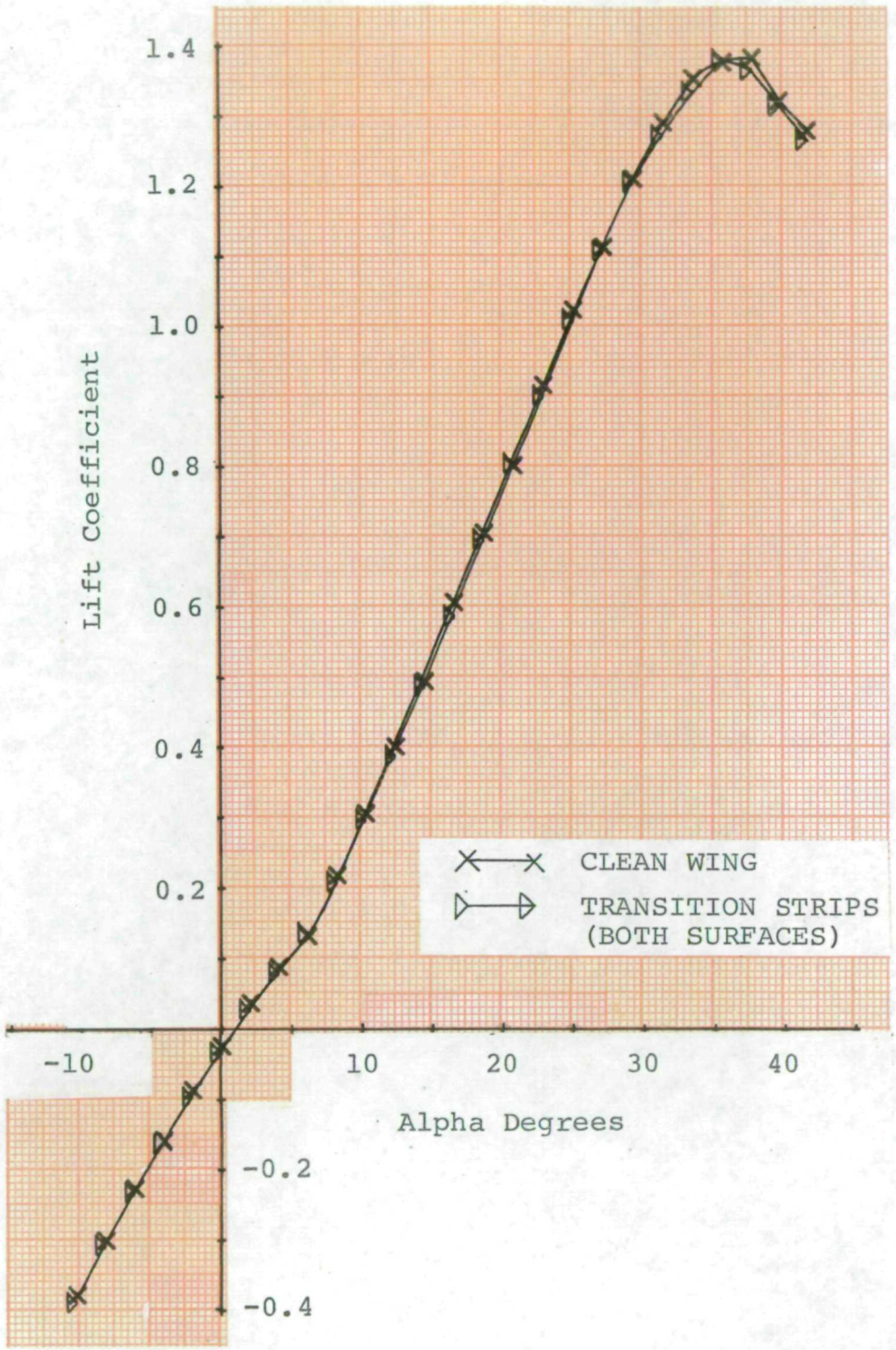


Figure A16 - Effect of Transition Fixing on Lift - Conical Camber Model

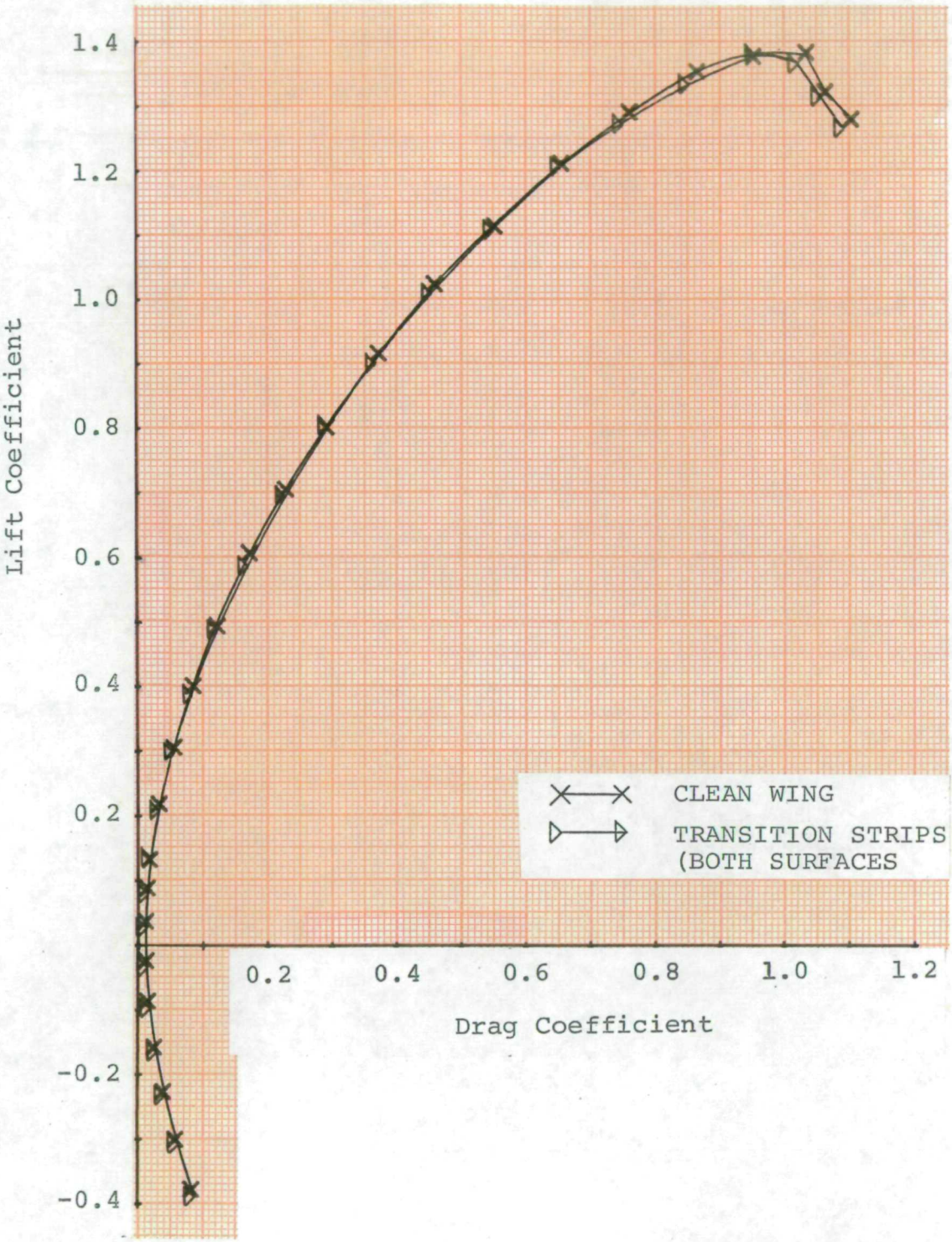


Figure A17 - Effect of Transition Fixing on Drag - Conical Camber Model

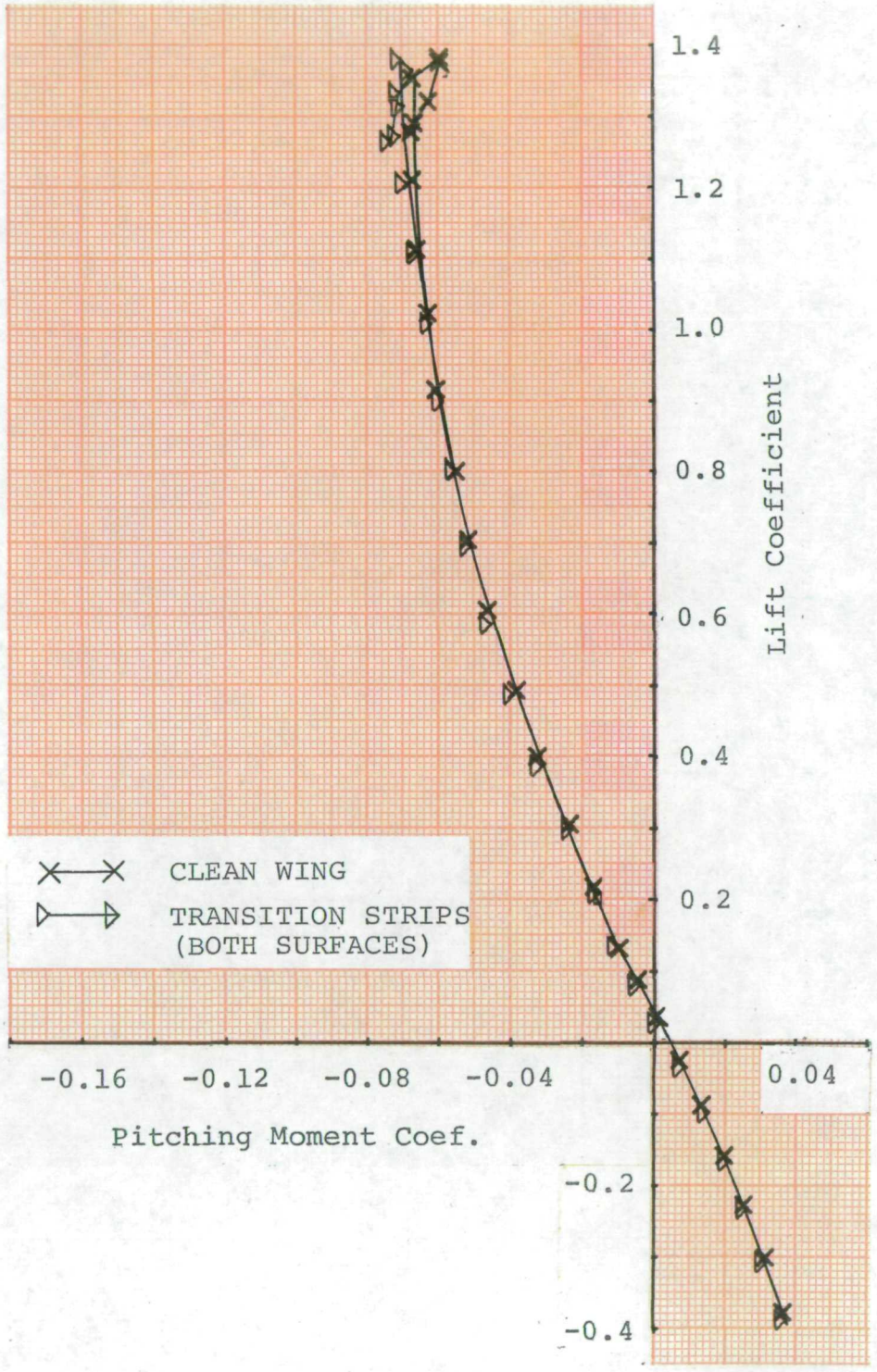


Figure A18 - Effect of Transition Fixing on Pitching Characteristics - Conical Camber Model

APPENDIX B - FORCE AND MOMENT DATA REDUCTION TECHNIQUES AND TABULATED DATA

This appendix consists of three parts: (I) a description of the corrections to the wind tunnel force measurements; (II) a program listing of the force data reduction routine; and (III) the tabulated force and moment coefficient data preceded by a run log with appropriate notes.

Part I - Corrections to the Wind Tunnel Force and Moment Measurements.

1) Boundary Corrections:

(a) $\Delta\alpha$ due to downwash

$$\Delta\alpha_a = \frac{\delta S C_L}{C}$$

δ = Boundary correction factor (0.119) (Ref. B1, p. 196).

C = Tunnel cross sectional area (68.0 ft^2).

S = Wing surface area (1.792 ft^2).

C_L = Lift coefficient.

(b) $\Delta\alpha$ due to streamline curvature

$$\Delta\alpha_b = \tau_2 \frac{\delta S C_L}{C}$$ (Ref. B2, p. 327 and fig. 6.56).

τ_2 = Streamline curvature factor (0.23).

δ = Boundary Correction factor as in (a).

S = Wing surface area

C = Tunnel Cross-sectional area

C_L = Lift coefficient

2) Correction for α due to sting bending

(a) Under normal force = 0.0123 * FN (degrees)

(b) Under pitching moment = 0.0015 * M (degrees)

Total correction of angle of attack:

$$\Delta\alpha = \frac{\delta S C_L}{C} (1 + \tau_2) * 57.3 + 0.0123 * FN + 0.0015 * M$$

where FN = Normal Force, pounds

and M = Pitching Moment, inch-pounds.

3) Corrections to velocity and dynamic pressure:

(a) Wake blockage: (Ref B2, p. 323, Eqn. 6:36).

(Note - Solid blockage was negligible).

$$\frac{V_{cor}}{V_{un}} = 1 + \frac{S}{2C} C_{DO} + \frac{5S}{2C} [C_{D_t} - C_{D_O} - C_{D_i}]$$

$$\frac{V_{cor}}{V_{un}} = 1 + \frac{S}{2C} [C_{DO} + 5 C_{D_S}]$$

where S = Wing area = 1.792 ft^2.

C = Tunnel Cross-sectional area = 68 ft^2.

C_{DS} = C_D due to separated flow.

$$C_{Di} = C_D \text{ induced} = \left(\frac{dC_D}{dC_L^2}\right) \cdot C_L^2.$$

$C_{DO} = C_D$ at zero lift.

C_{Dt} = Total drag coefficient

From analysis of preliminary run data, it was found that C_{DS} was negligible for angles of attack less than 20°. The experimental value of $\frac{dC_D}{dC_L^2}$ was determined for each model by taking the slope of the C_D versus C_L^2 curve. This slope determination and a typical magnitude for C_{DS} are illustrated by figure B1.

Thus:

$$C_{DS} = C_{Dt} - C_{DO} - \left(\frac{dC_D}{dC_L^2}\right) C_L^2 \quad \text{(for } \alpha > 20°\text{)}$$

$C_{DS} = 0$ for $\alpha < 20°$. (see fig. B1).

(b) From the tunnel q calibration -

q actual = q indicated x.975.

4) (a) Corrections for the static tares of the model have been incorporated in the data reduction program.

(b) Fuselage aerodynamic tare and interference effects

have also been determined by conducting tests, with model inverted and with an image fuselage, through the incidence range of -10° to 40°. It was necessary to invert the model since the pitch mechanism used limits the maximum negative angle of attack to -10°. Results of these tests show the following fuselage tare plus interference effects:

$$\Delta C_{DO} = .0017$$

$$\Delta C_{Di} = \text{negligible}$$

$$\Delta C_{MO} = +.0049$$

$$\Delta\left(\frac{dC_M}{dC_L}\right) \sim \text{negligible}$$

$$\Delta\alpha_{L=O} < 0.1°$$

$$\Delta\left(\frac{dC_L}{d\alpha}\right) \sim \text{negligible}$$

No evaluation was made of dynamic tare and interference effects with sideslip.

APPENDIX B REFERENCES

B1. Glauert: Airfoil and Airscrew Theory. Cambridge University Press, London.

B2. Pope and Harper: Low Speed Wind Tunnel Testing. John Wiley, 1966.

Illustration of Method Used to Compute Drag Due to Separation.

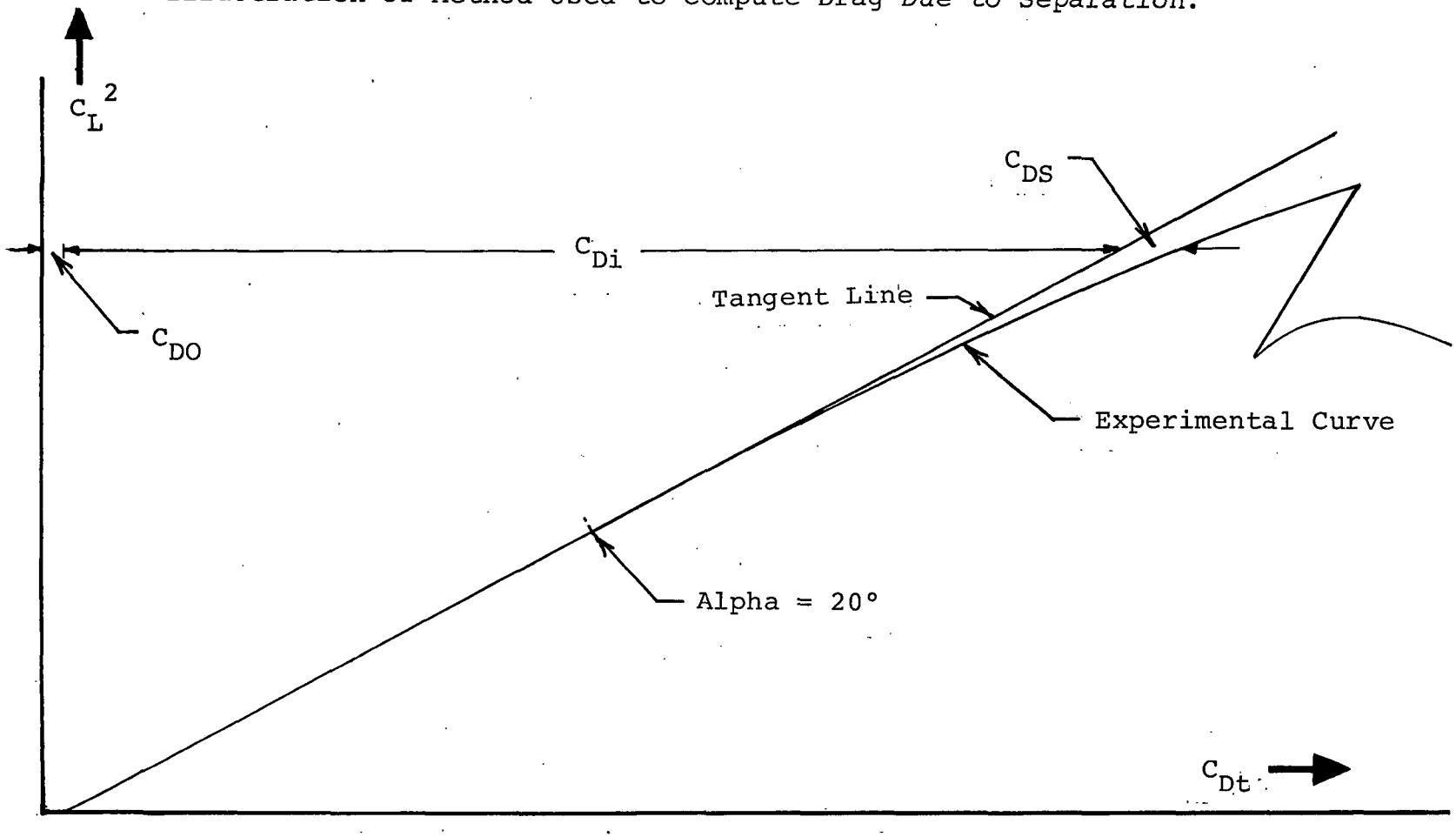


Figure B1 - Evaluation of Separation Drag

Part 11- Force Data Reduction Routine Program Listing.

```
PAGE   1    02/05/72    0309    LDP,010,PETER

// JOB T

LOG DRIVE   CART SPEC   CART AVAIL   PHY DRIVE
  0000        0002        0002         0000

V2 M08   ACTUAL 16K  CONFIG 16K

// FOR
*IOCS (CARD, 1132 PRINTER,PLOTTER)
*LIST SOURCE PROGRAM
      REAL IC(6,27)
      DIMENSION COEFF(26,8),FM(6),FMREF(6),QR(6),R(6),RC(6),RR(6,4)
      DIMENSION SC(6),T1(6,26),T2(6,26)
      DIMENSION AC(26)
      DIMENSION V1(11),V2(11),V3(11,26),V4(11,26,8),IV5(11),IV6(11)
    2 FORMAT(10I5)
    4 FORMAT(1H1)
    7 FORMAT(10X,F3.0,6F6.0,3X,2F5.0,8X,I4,4X,I2)
    8 FORMAT(10X,'INTERACTION CORRECTIONS DO NOT CONVERGE, EPS=',F10.6)
    9 FORMAT(2F5.1,F6.2,8F7.4,2I4)
      IIN=5
      IOUT=6
      IOP=7
      WRITE(IOUT,4)
C
C   MODEL GEOMETRY
C
      S=1.792
      C=20.
      SPAN=17.24
C
C   SENSITIVITY CONSTANTS
C
      SC(1)=.1762
      SC(2)=.066
      SC(3)=.229
      SC(4)=.131
      SC(5)=.0652
      SC(6)=.0512
C
C   INTERACTION CONSTANTS
C
      DO 10 I=1,6
      DO 10 J=1,27
      IC(I,J)=0.
      IC(I,I)=1.
   10 CONTINUE
C
C   EFFECT OF OTHER COMPONENTS ON NORMAL FORCE
C
      IC(1,3)=1.1533E-02
      IC(1,4)=2.5510E-02
      IC(1,5)=1.0248E-02
      IC(1,6)=2.4396E-02
      IC(1,8)=-1.270E-05
      IC(1,14)=-7.526E-06
      IC(1,24)=-4.724E-05
C
C   EFFECT OF OTHER COMPONENTS ON AXIAL  FORCE
C
```

```
      IC(2,1)=4.7085E-02
      IC(2,3)=-5.011E-03
      IC(2,4)=-1.395E-02
      IC(2,5)=1.0092E-02
      IC(2,6)=1.4083E-02
      IC(2,7)=8.9803E-06
      IC(2,8)=1.5127E-05
      IC(2,9)=1.4611E-05
      IC(2,10)=1.2910E-06
      IC(2,12)=2.5212E-06
      IC(2,17)=8.0910E-06
      IC(2,18)=1.5594E-06
      IC(2,19)=8.7470E-07
      IC(2,20)=5.2847E-07
      IC(2,22)=7.7589E-06
      IC(2,24)=-2.685E-05
      IC(2,26)=1.0023E-05
      IC(3,1)=-9.296E-04
      IC(3,4)=-2.164E-02
C
C   EFFECT OF OTHER COMPONENTS ON PITCHING MOMENT
C
      IC(3,5)=-1.295E-02
      IC(3,7)=2.2639E-06
      IC(3,10)=-7.323E-06
      IC(3,12)=-8.939E-06
      IC(3,20)=2.5010E-06
C
C   EFFECT OF OTHER COMPONENTS ON ROLLING MOMENT
      IC(4,1)=4.2865E-02
      IC(4,2)=-6.500E-04
      IC(4,3)=5.0080E-02
      IC(4,5)=-3.323E-02
      IC(4,6)=-8.299E-04
      IC(4,7)=-5.077E-06
      IC(4,8)=3.4941E-06
      IC(4,9)=-1.677E-06
      IC(4,11)=-1.141E-05
      IC(4,12)=-3.330E-05
      IC(4,14)=-4.768E-06
      IC(4,15)=-6.333E-06
      IC(4,16)=-5.241E-06
      IC(4,17)=1.5287E-05
      IC(4,18)=5.0814E-07
      IC(4,20)=-5.423E-06
      IC(4,21)=-8.626E-06
      IC(4,22)=1.0545E-05
      IC(4,24)=1.0191E-05
      IC(4,26)=3.2758E-06
      IC(4,27)=1.4170E-05
C
C   EFFECT OF OTHER COMPONENTS ON YAWING MOMENT
C
      IC(5,2)=-3.466E-03
      IC(5,3)=-1.344E-03
      IC(5,4)=-1.576E-03
      IC(5,9)=1.3025E-06
      IC(5,10)=5.7620E-06
      IC(5,14)=-4.058E-06
      IC(5,15)=1.4239E-05
```

```
      IC(5,19)=2.1557E-05
      IC(5,20)=-9.058E-07
      IC(5,27)=1.4483E-05
C
C   EFFECT OF OTHER COMPONENTS ON SIDE   FORCE
C
      IC(6,1)=-3.005E-03
      IC(6,2)=-1.767E-03
      IC(6,3)=1.7245E-04
      IC(6,4)=1.2552E-02
      IC(6,5)=5.2006E-02
      IC(6,7)=2.9244E-07
      IC(6,8)=-4.390E-06
      IC(6,9)=-3.865E-07
      IC(6,10)=2.6445E-05
      IC(6,11)=-7.304E-06
      IC(6,15)=5.1734E-06
      IC(6,16)=-2.595E-05
      IC(6,19)=7.0746E-06
      IC(6,20)=1.9294E-06
      IC(6,21)=-1.097E-05
      IC(6,24)=9.8946E-06
      IC(6,27)=1.1264E-05
  100 CONTINUE
      READ(IIN,2) NOR,NOAL
C****NOR=NUMBER OF RUNS FOR THE PARTICULAR MODEL. NOAL=NUMBER OF
C****ALPHAS PER RUN
      IF(NOR) 101,100,101
  101 CONTINUE
C****STATIC TARE CARDS. THESE ARE FOR 26 ALPHAS.
      DO 102 I=1,26
      READ(IIN,7) QR(1),RR(1,1),RR(2,1),RR(3,1),RR(4,1),RR(5,1),RR(6,1),
     1ALPHA,PSI
C
C         FOLLOWING CARD FOR IMAGE RUN ONLY -CORRECTION FOR TARE
C
C     RR(4,1)=RR(4,1)+.58/.066*SIN(ALPHA/57.3)
C
      DO 102 J=1,6
      T1(J,I)=RR(J,1)
  102 CONTINUE
      DO 103 I=1,NOAL
      DO 103 J=1,6
C****6TH ALPHA IS ASSUMED TO BE ZERO. IF OTHERWISE T1(J,6) SHOULD BE
C****CHANGED ACCORDINGLY
      T2(J,I)=T1(J,6)-T1(J,I)
  103 CONTINUE
      DO 240 IJK=1,NOR
C
C   ZERO ALPHA VALUES TAKEN AT THE END OF RUN
C
      DO 111 I=1,3
      READ(IIN,7) QR(I),RR(1,I),RR(2,I),RR(3,I),RR(4,I),RR(5,I),
     1RR(6,I),ALPHA,PSI,IRUN,MOD
      NRUN=-IRUN
      NMOD=-MOD
      IF(RR(1,1))100,100,111
  111 CONTINUE
C
C   MEAN OF 3 VALUES
```

```
C
      Q=(QR(1)+QR(2)+QR(3))/30.*.975
      DO 112 I=1,6
      RR(I,4)=(RR(I,1)+RR(I,2)+RR(I,3))/3.
  112 CONTINUE
      CDOR=RR(4,4)
      PSI=PSI/100.
C
C   ZERO Q VALUES
C
C   THE FOLLOWING CARD REQUIRED IF COEFFICIENTS ARE NOT TO BE
C   REFERENCED TO ZERO ALPHA VALUES. INPUT TO BE CHANGED ACCORDINGLY
C     READ(IIN,7) QR(1),RR(1,4),RR(2,4),RR(3,4),RR(4,4),RR(5,4),RR(6,4)
C
      READ(IIN,7) QR(1),RR(1,4),RR(2,4),RR(3,4),RR(4,4),RR(5,4),RR(6,4)
      CDO=(CDOR-RR(4,4))*SC(2)/Q/S
      CDS=0.
C
C   ACTUAL READINGS BEGIN. 26 ALPHAS FROM -10 DEG TO +40 DEG.(NORMALLY)
C   3 CARDS FOR EACH ALPHA
C
      DO 24 I=1,NOAL
      DO 113 J=1,3
      READ(IIN,7) QR(J),RR(1,J),RR(2,J),RR(3,J),RR(4,J),RR(5,J),
     1RR(6,J),ALPHA,PSI
  113 CONTINUE
      Q=(QR(1)+QR(2)+QR(3))/30.*.975
      ALPHA=ALPHA/100.
      PSI=PSI/100.
C
C   MEAN OF 3 VALUES
C
      DO 114 J=1,6
      R(J)=(RR(J,1)+RR(J,2)+RR(J,3))/3.-RR(J,4)+T2(J,I)
  114 CONTINUE
C
C   SHUFFLE SEQUENCE  TO MATCH  SEQUENCE OF INTERACTION COEFFICIENTS
C
      STORE=R(2)
      R(2)=R(4)
      R(4)=STORE
      SUM1=0.
C
C   INITIAL VALUES OF FORCES AND MOMENTS(INTERACTIONS IGNORED)
C
      DO 12 J=1,6
      FM(J)=SC(J)*R(J)
      FMREF(J)=FM(J)
      SUM1=SUM1+ABS(FM(J))
   12 CONTINUE
C
C   BEGIN ITERATION
C
      DO 16 II=1,20
      DO 13 J=1,6
      PART1=IC(J,1)*FM(1)+IC(J,2)*FM(2)+IC(J,3)*FM(3)+IC(J,4)*FM(4)+
     1IC(J,5)*FM(5)+IC(J,6)*FM(6)
      PART2=(IC(J,7)*FM(1)+IC(J,8)*FM(2)+IC(J,9)*FM(3)+IC(J,10)*FM(4)+
     1IC(J,11)*FM(5)+IC(J,12)*FM(6))*FM(1)
      PART3=(IC(J,13)*FM(2)+IC(J,14)*FM(3)+IC(J,15)*FM(4)+IC(J,16)*
```

```
     1FM(5)+IC(J,17)*FM(6))*FM(2)
      PART4=(IC(J,18)*FM(3)+IC(J,19)*FM(4)+IC(J,20)*FM(5)+IC(J,21)*
     1FM(6))*FM(3)
      PART5=(IC(J,22)*FM(4)+IC(J,23)*FM(5)+IC(J,24)*FM(6))*FM(4)
      PART6=(IC(J,25)*FM(5)+IC(J,26)*FM(6))*FM(5)+IC(J,27)*FM(6)**2
      RC(J)=PART1+PART2+PART3+PART4+PART5+PART6
   13 CONTINUE
      SUM2=0.
C
C    CHECK CONVERGENCE
C
      DO 14 K=1,6
      FM(K)=FMREF(K)-RC(K)+FM(K)
      SUM2=SUM2+ABS(FM(K))
   14 CONTINUE
      EPS=ABS(SUM1-SUM2)
      IF(EPS-.001) 17,17,15
   15 CONTINUE
      SUM1=SUM2
   16 CONTINUE
C
C    NO CONVERGENCE CASE,  PRINT OUT ERROR
C
   17 CONTINUE
      IF(II-20) 19,18,18
   18 CONTINUE
      WRITE(IOUT,8) EPS
   19 CONTINUE
C
C    FOR INVERTED RUNS MAKE SIGN CHANGES AT THIS POINT
C    THE FOLLOWING 5 CARDS REQUIRED FOR INVERTED RUNS ONLY
C      DO 20 J=1,6
C      FM(J)=-FM(J)
C   20 CONTINUE
C      FM(2)=-FM(2)
C      FM(4)=-FM(4)
C
      DO 20 J=1,6
      FM(J)=-FM(J)
   20 CONTINUE
      FM(2)=-FM(2)
      FM(4)=-FM(4)
C
C    ALPHA CORRECTION FOR STING BENDING
C
C
C    COEFFICIENTS
C
      ALPHC=ALPHA
      QC=Q
      DO 233 IJ=1,3
      COEFF(I,1)=FM(1)/QC/S
      COEFF(I,2)=FM(2)/QC/S
      COEFF(I,3)=FM(3)/QC/S/C
      COEFF(I,4)=FM(4)/QC/S/SPAN
      COEFF(I,5)=FM(5)/QC/S/SPAN
      COEFF(I,6)=FM(6)/QC/S
      COEFF(I,7)=COEFF(I,1)*COS(ALPHC/57.3)-COEFF(I,2)*SIN(ALPHC/57.3)
      COEFF(I,8)=COEFF(I,2)*COS(ALPHC/57.3)+COEFF(I,1)*SIN(ALPHC/57.3)
      ALPHC=ALPHA+.0123*FM(1)+.0015*FM(3)+.119*S/68.*COEFF(I,7)*1.23
```

```
     1*57.3
      IF(I-16)232,231,231
  231 CONTINUE
      DCD=(COEFF(16,8)-COEFF(11,8))/((COEFF(16,7))**2-(COEFF(11,7))**2)
      CDS=COEFF(I,8)-CDO-DCD*(COEFF(I,7))**2
  232 CONTINUE
      QC=Q*(1.+(S/136.*(CDO+5.*CDS)))
  233 CONTINUE
      AC(I)=ALPHC
   24 CONTINUE
      V1(IJK)=QC
      V2(IJK)=PSI
      IV5(IJK)=MOD
      IV6(IJK)=IRUN
      DO 240 I=1,NOAL
      V3(IJK,I)=AC(I)
      DO 240 J=1,8
      V4(IJK,I,J)=COEFF(I,J)
  240 CONTINUE
      READ(IIN,9) XXX
      DO 241 IJK=1,NOR
      DO 241 I=1,NOAL
      WRITE(IOUT,9)V1(IJK),V2(IJK),V3(IJK,I),(V4(IJK,I,J),J=1,8),IV5(IJK
     1),IV6(IJK)
      WRITE(  2,9) V1(IJK),V2(IJK),V3(IJK,I),(V4(IJK,I,J),J=1,8),IV5(IJK
     1),IV6(IJK)
  241 CONTINUE
      GO TO 100
   25 CONTINUE
      CALL EXIT
      END

UNREFERENCED STATEMENTS
 25

FEATURES SUPPORTED
 ONE WORD INTEGERS
 IOCS

CORE REQUIREMENTS FOR
 COMMON       0  VARIABLES    6836  PROGRAM    2668

END OF COMPILATION

// XEQ
```

Part III - Force and Moment Tabulated Data

Run Log - Model No. 1 - Flat Plate Delta

Run No.	α	q psf	β	Remarks
1	-10° to 40°	0	0	Static Tare (Data not presented.)
2	-10° to 40°	20	0	Clean
3	-10° to 40°	40	0	Clean
4	-10° to 40°	60	0	Clean
5	-10° to 40°	20	0	Trips on both surfaces
6	-10° to 40°	40	0	Trips on both surfaces
7	-10° to 40°	60	0	Trips on both surfaces
8	-10° to 40°	20	0	Trips on lower surface
9	-10° to 40°	40	0	Trips on lower surface
10	-10° to 40°	60	0	Trips on lower surface
11	-10° to 40°	20	0	Trips on upper surface
12	-10° to 40°	40	0	Trips on upper surface
13	-10° to 40°	60	0	Trips on upper surface
14	-10° to 40°	40	0	Inverted with Image Fuselage
15	-10° to 40°	40	0	Inverted without Image Fuselage
16	-10° to 40°	0	0	Inverted-Static tare (Data not presented)
17	-10° to 40°	40	-25°	Clean
18	-10° to 40°	40	-20°	Clean
19	-10° to 40°	40	-15°	Clean
20	-10° to 40°	40	-10°	Clean

Run Log - Model No. 1 - Continued

Run No.	α	q psf	β	Remarks
21	-10° to 40°	40	-5°	Clean
22	-10° to 40°	40	0	Clean
23	-10° to 40°	40	5°	Clean
24	-10° to 40°	40	10°	Clean
25	-10° to 40°	40	15°	Clean
26	-10° to 40°	40	20°	Clean
27	-10° to 40°	40	25°	Clean

Run Log - Model No. 2 - Apex Camber Model

Run No.	α	q psf	β	Remarks
1	-10° to 40°	0	0	Static Tare (Data not presented)
2	-10° to 40°	20	0	Trips on Upper Surface
3	-10° to 40°	40	0	Trips on Upper Surface
4	-10° to 20°	60	0	Trips on Upper Surface
5	-10° to 40°	20	0	Clean
6	-10° to 40°	40	0	Clean
7	-10° to 20°	60	0	Clean
8	-10° to 40°	40	-25	Clean
9	-10° to 40°	40	-20	Clean
10	-10° to 40°	40	-15	Clean
11	-10° to 40°	40	-10	Clean
12	-10° to 40°	40	- 5	Clean

Run Log - Model 2 - Continued

Run No.	α	q psf	β	Remarks
13	-10° to 40°	40	0	Clean
14	-10° to 40°	40	5	Clean
15	-10° to 40°	40	10	Clean
16	-10° to 40°	40	15	Clean
17	-10° to 40°	40	20	Clean
18	-10° to 40°	40	25	Clean

Run Log - Model No. 3 - Conical Camber Model

Run No.	α	q psf	β	Remarks
1	-10° to 40°	0	0	Static Tare (Data not presented)
2	-10° to 40°	20	0	Trips on upper surface
3	-10° to 40°	40	0	Trips on upper surface
4	-10° to 40°	60	0	Trips on upper surface
5	-10° to 40°	20	0	Clean
6	-10° to 40°	40	0	Clean
7	-10° to 40°	60	0	Clean
8	-10° to 40°	40	-25	Clean
9	-10° to 40°	40	-20	Clean
10	-10° to 40°	40	-15	Clean
11	-10° to 40°	40	-10	Clean
12	-10° to 40°	40	- 5	Clean
13	-10° to 40°	40	0	Clean

Run Log - Model 3 - Continued

Run No.	α	q psf	β	Remarks
14	-10° to 40°	40	5	Clean
15	-10° to 40°	40	10	Clean
16	-10° to 40°	40	15	Clean
17	-10° to 40°	40	20	Clean
18	-10° to 40°	40	25	Clean

Run Log - Model No. 4 - Flap at the Leading-Edge, δ_n=24°

Run No.	α	q psf	β	Remarks
101	-10° to 40°	0	0	Static tare
102	-10° to 40°	40	-25	Clean
103	-10° to 40°	40	-20	Clean
104	-10° to 40°	40	-15	Clean
105	-10° to 40°	40	-10	Clean
106	-10° to 40°	40	- 5	Clean
107	-10° to 40°	40	0	Clean
108	-10° to 40°	40	5	Clean
109	-10° to 40°	40	10	Clean
110	-10° to 40°	40	15	Clean
111	-10° to 40°	40	20	Clean
112	-10° to 40°	40	25	Clean

Run Log - Model No. 5 - Flap at the Leading-Edge, $\delta_n=36°$

Run No.	α	q psf	β	Remarks
1	-10° to 40°	40	-25	Clean
2	-10° to 40°	40	-20	Clean
3	-10° to 40°	40	-15	Clean
4	-10° to 40°	40	-10	Clean
5	-10° to 40°	40	- 5	Clean
6	-10° to 40°	40	0	Clean
7	-10° to 40°	40	5	Clean
8	-10° to 40°	40	10	Clean
9	-10° to 40°	40	15	Clean
10	-10° to 40°	40	20	Clean
11	-10° to 40°	40	25	Clean

Run Log - Model No. 6 - Flap at the Leading-Edge, $\delta_n=48°$

Run No.	α	q psf	β	Remarks
1	-10° to 40°	40	-25	Clean
2	-10° to 40°	40	-20	Clean
3	-10° to 40°	40	-15	Clean
4	-10° to 40°	40	-10	Clean
5	-10° to 40°	40	- 5	Clean
6	-10° to 40°	40	0	Clean
7	-10° to 40°	40	5	Clean
8	-10° to 40°	40	10	Clean
9	-10° to 40°	40	15	Clean

Run Log - Model 6 - Continued

Run No.	α	q psf	β	Remarks
10	-10° to 40°	40	20	Clean
11	-10° to 40°	40	25	Clean

Run Log - Model No. 7 - Flap at the Leading-Edge, $\delta_n = 60°$

Run No.	α	q psf	β	Remarks
1	-10° to 40°	0	0	Static Tare
2	-10° to 40°	40	-25	Clean
3	-10° to 40°	40	-20	Clean
4	-10° to 40°	40	-15	Clean
5	-10° to 40°	40*	-10	Clean
6	-10° to 40°	40*	- 5	Clean
7	-10° to 40°	40*	0	Clean
8	-10° to 40°	40*	0	Clean
9	-10° to 40°	40*	10	Clean
10	-10° to 40°	40	15	Clean
11	-10° to 40°	40	20	Clean
12	-10° to 40°	40	25	Clean

* Pitching moment limit on balance required reduction in q for certain conditions:

β = -10; for α range of -10° to 30°; q = 40 psf; and α = 32° to 40°, q = 30 psf.

β = - 5; for α range of -10° to 26°; q = 40 psf; and α = 28° to 40°, q = 30 psf.

* (Continued)

β = 0; for α range of -10° to 26°; q = 40 psf; and α = 28° to 40°, q = 30 psf.

β = 5; for α range of -10° to 26°; q = 40 psf; and α = 28° to 40°, q = 30 psf.

β = 10; for α range of -10° to 30°; q = 40 psf; and α = 32° to 40°, q = 30 psf.

WICHITA STATE UNIVERSITY

MODEL 1
RUN 2
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.19	-0.3432	0.0061	0.0286	0.0013	0.0002	-0.0021	-0.3367	0.0667
-8.14	-0.2634	0.0108	0.0246	0.0014	0.0	-0.0012	-0.2592	0.0480
-6.09	-0.1827	0.0119	0.0183	0.0008	-0.0	-0.0007	-0.1803	0.0312
-4.05	-0.1065	0.0123	0.0101	0.0	-0.0001	-0.0002	-0.1053	0.0198
-2.02	-0.0479	0.0121	0.0041	0.0	-0.0001	-0.0	-0.0474	0.0138
0.01	0.0132	0.0156	0.0014	-0.0006	-0.0001	0.0042	0.0132	0.0156
2.03	0.0647	0.0170	-0.0035	-0.0007	-0.0	0.0048	0.0641	0.0193
4.06	0.1202	0.0156	-0.0090	-0.0013	-0.0001	0.0061	0.1187	0.0241
6.11	0.2087	0.0155	-0.0189	-0.0018	-0.0002	0.0067	0.2058	0.0376
8.15	0.2806	0.0164	-0.0255	-0.0021	-0.0004	0.0091	0.2754	0.0560
10.19	0.3527	0.0154	-0.0305	-0.0031	-0.0004	0.0081	0.3444	0.0776
12.25	0.4532	0.0153	-0.0382	-0.0020	-0.0006	0.0088	0.4396	0.1111
14.29	0.5382	0.0135	-0.0441	-0.0031	-0.0007	0.0099	0.5182	0.1460
16.36	0.6541	0.0136	-0.0513	-0.0033	-0.0009	0.0110	0.6237	0.1973
18.41	0.7499	0.0134	-0.0568	-0.0037	-0.0009	0.0114	0.7072	0.2497
20.49	0.8761	0.0151	-0.0625	-0.0040	-0.0010	0.0130	0.8153	0.3208
22.55	0.9911	0.0131	-0.0676	-0.0035	-0.0011	0.0143	0.9103	0.3923
24.61	1.1028	0.0101	-0.0716	-0.0036	-0.0011	0.0127	0.9983	0.4686
26.69	1.2330	0.0130	-0.0741	-0.0063	-0.0010	0.0136	1.0958	0.5655
28.76	1.3580	0.0132	-0.0774	-0.0035	-0.0013	0.0146	1.1840	0.6651
30.84	1.4883	0.0100	-0.0785	-0.0056	-0.0013	0.0169	1.2727	0.7716
32.89	1.5878	0.0123	-0.0807	-0.0016	-0.0014	0.0169	1.3266	0.8726
34.93	1.6473	0.0142	-0.0701	-0.0021	-0.0011	0.0182	1.3423	0.9550
36.91	1.5897	0.0131	-0.0512	0.0016	-0.0010	0.0165	1.2631	0.9654
38.92	1.5903	0.0138	-0.0426	-0.0022	-0.0012	0.0156	1.2285	1.0098
40.91	1.5974	0.0157	-0.0509	-0.0022	-0.0013	0.0170	1.1968	1.0581

WICHITA STATE UNIVERSITY

MODEL 1
RUN 3
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3619	0.0050	0.0327	0.0015	0.0004	-0.0048	-0.3551	0.0698
-8.24	-0.2776	0.0077	0.0273	0.0013	0.0003	-0.0037	-0.2737	0.0474
-6.16	-0.1921	0.0077	0.0196	0.0006	0.0001	-0.0031	-0.1901	0.0283
-4.10	-0.1228	0.0085	0.0129	-0.0005	0.0	-0.0025	-0.1219	0.0173
-2.04	-0.0501	0.0079	0.0042	-0.0007	0.0	-0.0022	-0.0498	0.0097
0.0	0.0042	0.0095	0.0014	-0.0007	0.0	-0.0010	0.0042	0.0095
2.04	0.0524	0.0111	-0.0031	-0.0009	-0.0	-0.0010	0.0519	0.0130
4.10	0.1164	0.0116	-0.0096	-0.0018	-0.0001	-0.0	0.1152	0.0199
6.16	0.1890	0.0109	-0.0176	-0.0021	-0.0002	0.0010	0.1867	0.0311
8.24	0.2757	0.0116	-0.0254	-0.0023	-0.0002	0.0017	0.2712	0.0511
10.32	0.3594	0.0117	-0.0318	-0.0027	-0.0003	0.0021	0.3515	0.0759
12.40	0.4525	0.0114	-0.0380	-0.0029	-0.0004	0.0027	0.4394	0.1084
14.50	0.5518	0.0102	-0.0437	-0.0034	-0.0004	0.0039	0.5317	0.1481
16.59	0.6579	0.0115	-0.0499	-0.0037	-0.0005	0.0061	0.6271	0.1989
18.71	0.7791	0.0123	-0.0562	-0.0032	-0.0006	0.0070	0.7340	0.2616
20.82	0.8910	0.0133	-0.0595	-0.0033	-0.0007	0.0080	0.8281	0.3292
22.94	1.0104	0.0139	-0.0626	-0.0039	-0.0009	0.0110	0.9250	0.4066
25.06	1.1382	0.0141	-0.0668	-0.0039	-0.0010	0.0118	1.0250	0.4949
27.18	1.2584	0.0147	-0.0685	-0.0031	-0.0011	0.0120	1.1127	0.5880
29.30	1.3808	0.0149	-0.0718	-0.0047	-0.0012	0.0132	1.1968	0.6888
31.42	1.5093	0.0137	-0.0753	-0.0045	-0.0013	0.0136	1.2807	0.7986
33.52	1.6131	0.0126	-0.0795	-0.0038	-0.0013	0.0139	1.3378	0.9013
35.64	1.7383	0.0114	-0.0824	-0.0050	-0.0015	0.0150	1.4060	1.0223
37.53	1.4972	0.0170	-0.0159	-0.0027	-0.0006	0.0120	1.1768	0.9257
39.56	1.5780	0.0150	-0.0438	0.0005	-0.0010	0.0125	1.2070	1.0165
41.56	1.6028	0.0148	-0.0540	-0.0021	-0.0013	0.0137	1.1895	1.0744

WICHITA STATE UNIVERSITY

MODEL 1
RUN 4
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.41	-0.3403	0.0048	0.0322	0.0016	0.0003	-0.0037	-0.3338	0.0663
-8.30	-0.2552	0.0063	0.0265	0.0008	0.0003	-0.0028	-0.2516	0.0431
-6.20	-0.1779	0.0075	0.0195	0.0006	0.0002	-0.0015	-0.1760	0.0267
-4.12	-0.1074	0.0081	0.0122	-0.0002	0.0001	-0.0007	-0.1066	0.0158
-2.05	-0.0427	0.0078	0.0041	-0.0003	-0.0	-0.0003	-0.0424	0.0093
0.01	0.0054	0.0088	0.0019	-0.0005	-0.0	0.0001	0.0054	0.0088
2.07	0.0572	0.0097	-0.0041	-0.0007	-0.0	0.0007	0.0569	0.0117
4.15	0.1288	0.0096	-0.0120	-0.0011	-0.0001	0.0009	0.1277	0.0190
6.24	0.1975	0.0097	-0.0181	-0.0014	-0.0001	0.0018	0.1953	0.0311
8.35	0.2885	0.0093	-0.0256	-0.0018	-0.0002	0.0027	0.2840	0.0511
10.46	0.3772	0.0090	-0.0323	-0.0020	-0.0004	0.0040	0.3693	0.0774
12.59	0.4775	0.0091	-0.0392	-0.0023	-0.0004	0.0049	0.4640	0.1130
14.72	0.5793	0.0087	-0.0450	-0.0021	-0.0005	0.0058	0.5580	0.1557
16.86	0.6842	0.0087	-0.0501	-0.0024	-0.0006	0.0059	0.6523	0.2069
19.02	0.7978	0.0090	-0.0549	-0.0020	-0.0007	0.0068	0.7513	0.2685
21.18	0.9160	0.0096	-0.0593	-0.0020	-0.0009	0.0084	0.8507	0.3399
23.35	1.0395	0.0098	-0.0627	-0.0021	-0.0010	0.0097	0.9504	0.4210
25.50	1.1538	0.0098	-0.0664	-0.0017	-0.0011	0.0103	1.0371	0.5058
27.67	1.2769	0.0103	-0.0700	-0.0018	-0.0012	0.0108	1.1260	0.6023
29.84	1.4044	0.0098	-0.0741	-0.0021	-0.0013	0.0120	1.2132	0.7075
32.02	1.5357	0.0087	-0.0790	-0.0025	-0.0014	0.0129	1.2973	0.8217
34.18	1.6528	0.0089	-0.0833	-0.0025	-0.0015	0.0137	1.3623	0.9360
36.35	1.7788	0.0072	-0.0864	-0.0027	-0.0017	0.0150	1.4282	1.0602
38.17	1.5112	0.0150	-0.0236	0.0015	-0.0009	0.0125	1.1787	0.9458
40.16	1.5656	0.0129	-0.0514	0.0003	-0.0014	0.0130	1.1880	1.0196
42.13	1.5596	0.0140	-0.0594	-0.0007	-0.0015	0.0129	1.1472	1.0566

WICHITA STATE UNIVERSITY

MODEL 1
RUN 5
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.19	-0.3443	0.0073	0.0305	0.0027	0.0001	-0.0018	-0.3375	0.0681
-8.13	-0.2495	0.0118	0.0253	0.0029	0.0	-0.0005	-0.2453	0.0470
-6.09	-0.1799	0.0133	0.0189	0.0018	-0.0001	0.0006	-0.1774	0.0323
-4.05	-0.1057	0.0140	0.0113	0.0014	-0.0002	0.0010	-0.1045	0.0215
-2.02	-0.0488	0.0113	0.0046	0.0016	-0.0002	0.0021	-0.0484	0.0130
0.0	0.0108	0.0106	0.0014	0.0011	-0.0001	0.0013	0.0108	0.0106
2.03	0.0524	0.0094	-0.0023	0.0007	-0.0002	0.0027	0.0520	0.0113
4.07	0.1265	0.0094	-0.0103	0.0002	-0.0002	0.0040	0.1255	0.0183
6.11	0.2021	0.0080	-0.0170	-0.0006	-0.0002	0.0044	0.2001	0.0295
8.15	0.2864	0.0088	-0.0256	-0.0010	-0.0003	0.0093	0.2822	0.0493
10.20	0.3676	0.0092	-0.0315	-0.0019	-0.0004	0.0098	0.3601	0.0742
12.26	0.4726	0.0110	-0.0377	-0.0024	-0.0004	0.0113	0.4595	0.1112
14.31	0.5528	0.0080	-0.0433	-0.0023	-0.0006	0.0107	0.5336	0.1444
16.36	0.6542	0.0071	-0.0479	-0.0030	-0.0007	0.0123	0.6257	0.1912
18.43	0.7685	0.0067	-0.0532	-0.0033	-0.0007	0.0146	0.7269	0.2494
20.49	0.8729	0.0071	-0.0584	-0.0032	-0.0007	0.0159	0.8152	0.3122
22.55	0.9817	0.0064	-0.0607	-0.0050	-0.0011	0.0179	0.9041	0.3824
24.62	1.0907	0.0060	-0.0641	-0.0040	-0.0011	0.0190	0.9890	0.4598
26.69	1.2296	0.0079	-0.0687	-0.0043	-0.0011	0.0186	1.0949	0.5595
28.74	1.3214	0.0053	-0.0721	-0.0041	-0.0014	0.0200	1.1560	0.6401
30.82	1.4589	0.0022	-0.0766	-0.0063	-0.0014	0.0180	1.2517	0.7495
32.87	1.5560	0.0021	-0.0811	-0.0056	-0.0014	0.0167	1.3056	0.8464
34.92	1.6334	0.0031	-0.0743	-0.0005	-0.0012	0.0165	1.3374	0.9376
36.97	1.6967	0.0030	-0.0560	-0.0039	-0.0013	0.0174	1.3536	1.0229
38.90	1.5168	0.0088	-0.0151	-0.0058	-0.0009	0.0149	1.1747	0.9595
40.88	1.5314	0.0109	-0.0399	-0.0038	-0.0013	0.0148	1.1506	1.0106

WICHITA STATE UNIVERSITY

MODEL 1
RUN 6
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3634	0.0056	0.0323	0.0013	0.0004	-0.0035	-0.3565	0.0706
-8.23	-0.2687	0.0089	0.0269	0.0007	0.0002	-0.0010	-0.2646	0.0473
-6.16	-0.1948	0.0097	0.0210	0.0001	0.0001	-0.0003	-0.1926	0.0306
-4.10	-0.1225	0.0112	0.0139	-0.0001	0.0	0.0	-0.1214	0.0199
-2.05	-0.0611	0.0113	0.0068	-0.0003	-0.0	0.0008	-0.0607	0.0135
0.0	-0.0001	0.0119	0.0019	-0.0008	-0.0	0.0016	-0.0001	0.0119
2.04	0.0475	0.0128	-0.0035	-0.0011	-0.0001	0.0027	0.0470	0.0145
4.09	0.1062	0.0131	-0.0100	-0.0015	-0.0	0.0034	0.1050	0.0206
6.16	0.1846	0.0148	-0.0175	-0.0021	-0.0	0.0048	0.1820	0.0345
8.23	0.2669	0.0150	-0.0241	-0.0022	-0.0001	0.0037	0.2620	0.0531
10.31	0.3523	0.0143	-0.0302	-0.0028	-0.0002	0.0042	0.3441	0.0772
12.39	0.4387	0.0139	-0.0358	-0.0028	-0.0003	0.0053	0.4255	0.1077
14.49	0.5455	0.0116	-0.0417	-0.0036	-0.0005	0.0050	0.5253	0.1478
16.59	0.6441	0.0112	-0.0465	-0.0036	-0.0005	0.0054	0.6141	0.1947
18.69	0.7539	0.0112	-0.0520	-0.0039	-0.0005	0.0060	0.7105	0.2522
20.80	0.8688	0.0119	-0.0569	-0.0037	-0.0006	0.0074	0.8079	0.3197
22.91	0.9828	0.0113	-0.0608	-0.0034	-0.0007	0.0077	0.9008	0.3931
25.02	1.0917	0.0108	-0.0652	-0.0036	-0.0007	0.0086	0.9847	0.4715
27.15	1.2298	0.0121	-0.0685	-0.0029	-0.0007	0.0084	1.0887	0.5720
29.26	1.3464	0.0119	-0.0724	-0.0039	-0.0008	0.0098	1.1687	0.6685
31.37	1.4682	0.0100	-0.0798	-0.0041	-0.0010	0.0120	1.2483	0.7729
33.47	1.5863	0.0119	-0.0865	-0.0044	-0.0012	0.0129	1.3165	0.8850
35.58	1.6996	0.0117	-0.0901	-0.0038	-0.0013	0.0140	1.3754	0.9986
37.56	1.5426	0.0144	-0.0251	0.0035	-0.0004	0.0113	1.2140	0.9519
39.52	1.5137	0.0165	-0.0278	-0.0063	-0.0007	0.0112	1.1570	0.9761
41.50	1.5551	0.0166	-0.0586	-0.0021	-0.0009	0.0123	1.1536	1.0429

WICHITA STATE UNIVERSITY

MODEL 1
RUN 7
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.40	-0.3390	0.0064	0.0322	0.0011	0.0003	-0.0029	-0.3322	0.0675
-8.29	-0.2541	0.0085	0.0266	0.0006	0.0002	-0.0017	-0.2502	0.0451
-6.19	-0.1727	0.0096	0.0200	0.0002	0.0	-0.0003	-0.1707	0.0282
-4.12	-0.1094	0.0096	0.0132	-0.0001	0.0	-0.0001	-0.1084	0.0174
-2.05	-0.0458	0.0090	0.0055	-0.0005	0.0	0.0003	-0.0455	0.0107
0.02	0.0113	0.0104	0.0012	-0.0009	-0.0	0.0010	0.0113	0.0104
2.08	0.0637	0.0100	-0.0049	-0.0011	-0.0	0.0011	0.0633	0.0123
4.15	0.1310	0.0096	-0.0121	-0.0015	-0.0	0.0008	0.1299	0.0191
6.25	0.2079	0.0103	-0.0190	-0.0019	-0.0001	0.0015	0.2056	0.0329
8.35	0.2907	0.0100	-0.0257	-0.0018	-0.0002	0.0015	0.2862	0.0521
10.46	0.3744	0.0104	-0.0317	-0.0017	-0.0003	0.0024	0.3663	0.0782
12.58	0.4693	0.0098	-0.0370	-0.0020	-0.0004	0.0034	0.4559	0.1118
14.72	0.5706	0.0098	-0.0426	-0.0020	-0.0005	0.0041	0.5493	0.1544
16.86	0.6779	0.0096	-0.0479	-0.0019	-0.0005	0.0055	0.6459	0.2058
19.01	0.7855	0.0096	-0.0522	-0.0019	-0.0006	0.0063	0.7395	0.2649
21.16	0.8982	0.0106	-0.0572	-0.0018	-0.0008	0.0067	0.8338	0.3342
23.32	1.0175	0.0104	-0.0617	-0.0021	-0.0009	0.0081	0.9302	0.4124
25.48	1.1359	0.0101	-0.0662	-0.0024	-0.0009	0.0094	1.0210	0.4978
27.64	1.2530	0.0107	-0.0703	-0.0023	-0.0010	0.0096	1.1050	0.5908
29.80	1.3809	0.0102	-0.0762	-0.0017	-0.0010	0.0103	1.1932	0.6953
31.96	1.5066	0.0090	-0.0831	-0.0030	-0.0012	0.0122	1.2733	0.8054
34.12	1.6257	0.0091	-0.0891	-0.0030	-0.0013	0.0133	1.3407	0.9195
36.29	1.7528	0.0086	-0.0934	-0.0021	-0.0015	0.0153	1.4076	1.0445
38.13	1.4917	0.0151	-0.0262	-0.0027	-0.0009	0.0131	1.1640	0.9330
40.12	1.5285	0.0152	-0.0489	-0.0012	-0.0012	0.0127	1.1591	0.9966
42.12	1.5738	0.0142	-0.0676	-0.0012	-0.0014	0.0139	1.1577	1.0662

WICHITA STATE UNIVERSITY

MODEL 1
RUN 8
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.18	-0.3318	0.0021	0.0287	0.0022	0.0003	-0.0062	-0.3262	0.0607
-8.13	-0.2423	0.0046	0.0243	0.0007	0.0	-0.0054	-0.2392	0.0389
-6.09	-0.1719	0.0050	0.0179	0.0003	0.0	-0.0050	-0.1704	0.0232
-4.04	-0.0908	0.0064	0.0104	-0.0007	-0.0001	-0.0044	-0.0901	0.0128
-2.02	-0.0425	0.0055	0.0049	-0.0008	-0.0002	-0.0041	-0.0423	0.0070
0.01	0.0257	0.0055	0.0009	-0.0013	-0.0001	-0.0024	0.0257	0.0055
2.04	0.0754	0.0070	-0.0034	-0.0018	-0.0001	-0.0021	0.0751	0.0097
4.07	0.1293	0.0069	-0.0096	-0.0023	-0.0003	-0.0017	0.1285	0.0161
6.11	0.2038	0.0061	-0.0182	-0.0030	-0.0003	0.0006	0.2020	0.0278
8.16	0.2873	0.0072	-0.0246	-0.0031	-0.0004	0.0005	0.2833	0.0479
10.20	0.3767	0.0082	-0.0326	-0.0041	-0.0004	0.0030	0.3693	0.0749
12.25	0.4638	0.0073	-0.0391	-0.0039	-0.0005	0.0023	0.4516	0.1056
14.30	0.5527	0.0055	-0.0455	-0.0044	-0.0006	0.0038	0.5341	0.1419
16.36	0.6539	0.0063	-0.0515	-0.0050	-0.0007	0.0039	0.6256	0.1903
18.43	0.7794	0.0054	-0.0569	-0.0037	-0.0007	0.0055	0.7377	0.2516
20.49	0.8850	0.0071	-0.0617	-0.0050	-0.0008	0.0081	0.8265	0.3166
22.56	1.0061	0.0057	-0.0653	-0.0066	-0.0009	0.0085	0.9269	0.3914
24.63	1.1160	0.0073	-0.0697	-0.0076	-0.0010	0.0125	1.0113	0.4717
26.72	1.2723	0.0102	-0.0736	-0.0055	-0.0009	0.0115	1.1319	0.5812
28.77	1.3705	0.0098	-0.0764	-0.0050	-0.0009	0.0127	1.1965	0.6683
30.84	1.4914	0.0071	-0.0801	-0.0066	-0.0010	0.0144	1.2769	0.7707
32.91	1.6241	0.0077	-0.0798	-0.0077	-0.0011	0.0108	1.3592	0.8890
34.96	1.6877	0.0091	-0.0704	-0.0026	-0.0007	0.0109	1.3779	0.9746
36.94	1.6240	0.0086	-0.0498	-0.0032	-0.0007	0.0117	1.2928	0.9829
38.93	1.6074	0.0098	-0.0416	-0.0023	-0.0008	0.0119	1.2441	1.0178
40.92	1.6043	0.0132	-0.0498	-0.0039	-0.0008	0.0124	1.2036	1.0608

WICHITA STATE UNIVERSITY

MODEL 1
RUN 9
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3665	0.0045	0.0323	0.0012	0.0004	-0.0029	-0.3597	0.0701
-8.23	-0.2648	0.0070	0.0259	0.0005	0.0003	-0.0015	-0.2610	0.0448
-6.16	-0.1961	0.0079	0.0202	0.0004	0.0002	-0.0004	-0.1941	0.0289
-4.10	-0.1263	0.0084	0.0137	-0.0003	0.0001	0.0002	-0.1254	0.0175
-2.04	-0.0553	0.0075	0.0047	-0.0010	0.0001	0.0019	-0.0550	0.0094
-0.0	-0.0024	0.0084	0.0008	-0.0008	0.0	0.0027	-0.0024	0.0084
2.04	0.0482	0.0099	-0.0028	-0.0014	-0.0	0.0029	0.0478	0.0116
4.10	0.1179	0.0103	-0.0104	-0.0013	-0.0	0.0036	0.1169	0.0187
6.16	0.1924	0.0109	-0.0184	-0.0020	-0.0001	0.0044	0.1901	0.0315
8.23	0.2691	0.0113	-0.0243	-0.0026	-0.0002	0.0046	0.2646	0.0498
10.32	0.3624	0.0112	-0.0320	-0.0024	-0.0003	0.0056	0.3545	0.0760
12.40	0.4529	0.0110	-0.0379	-0.0033	-0.0003	0.0062	0.4400	0.1080
14.50	0.5524	0.0105	-0.0435	-0.0032	-0.0004	0.0073	0.5322	0.1485
16.60	0.6660	0.0102	-0.0498	-0.0041	-0.0005	0.0082	0.6353	0.2001
18.70	0.7662	0.0109	-0.0544	-0.0041	-0.0005	0.0095	0.7222	0.2561
20.81	0.8827	0.0114	-0.0595	-0.0037	-0.0007	0.0116	0.8210	0.3243
22.94	1.0132	0.0115	-0.0643	-0.0049	-0.0008	0.0124	0.9285	0.4055
25.05	1.1258	0.0112	-0.0673	-0.0040	-0.0009	0.0126	1.0152	0.4868
27.18	1.2633	0.0117	-0.0707	-0.0044	-0.0009	0.0134	1.1184	0.5876
29.30	1.3861	0.0114	-0.0731	-0.0047	-0.0010	0.0149	1.2032	0.6884
31.42	1.5085	0.0107	-0.0769	-0.0043	-0.0011	0.0162	1.2817	0.7955
33.52	1.6138	0.0112	-0.0801	-0.0039	-0.0011	0.0167	1.3392	0.9005
35.63	1.7329	0.0113	-0.0822	-0.0038	-0.0012	0.0175	1.4018	1.0189
37.51	1.5082	0.0159	-0.0292	-0.0014	-0.0006	0.0149	1.1866	0.9312
39.56	1.5971	0.0133	-0.0525	0.0010	-0.0012	0.0155	1.2228	1.0274
41.53	1.5864	0.0150	-0.0565	-0.0023	-0.0011	0.0153	1.1775	1.0632

WICHITA STATE UNIVERSITY

MODEL 1
RUN 10
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.42	-0.3476	0.0041	0.0323	0.0015	0.0003	-0.0028	-0.3411	0.0669
-8.30	-0.2556	0.0065	0.0264	0.0007	0.0003	-0.0018	-0.2519	0.0433
-6.21	-0.1814	0.0076	0.0188	0.0003	0.0002	-0.0009	-0.1795	0.0272
-4.12	-0.1105	0.0081	0.0120	-0.0006	0.0001	-0.0006	-0.1096	0.0160
-2.05	-0.0413	0.0071	0.0038	-0.0009	-0.0	0.0007	-0.0410	0.0086
0.01	0.0062	0.0084	0.0011	-0.0008	-0.0	0.0012	0.0062	0.0084
2.08	0.0662	0.0098	-0.0055	-0.0013	-0.0001	0.0014	0.0658	0.0122
4.15	0.1317	0.0104	-0.0124	-0.0014	-0.0001	0.0023	0.1305	0.0199
6.24	0.2045	0.0100	-0.0192	-0.0018	-0.0002	0.0032	0.2022	0.0322
8.35	0.2922	0.0104	-0.0266	-0.0017	-0.0002	0.0042	0.2876	0.0528
10.47	0.3844	0.0103	-0.0329	-0.0022	-0.0003	0.0055	0.3761	0.0800
12.59	0.4786	0.0097	-0.0389	-0.0021	-0.0003	0.0062	0.4650	0.1139
14.72	0.5785	0.0096	-0.0443	-0.0021	-0.0004	0.0067	0.5571	0.1564
16.87	0.6914	0.0095	-0.0502	-0.0022	-0.0005	0.0076	0.6588	0.2098
19.02	0.7990	0.0094	-0.0552	-0.0024	-0.0006	0.0085	0.7523	0.2693
21.18	0.9187	0.0103	-0.0596	-0.0024	-0.0007	0.0082	0.8528	0.3416
23.35	1.0399	0.0098	-0.0629	-0.0027	-0.0008	0.0088	0.9508	0.4212
25.51	1.1566	0.0097	-0.0674	-0.0021	-0.0009	0.0100	1.0396	0.5068
27.67	1.2785	0.0102	-0.0706	-0.0016	-0.0009	0.0104	1.1275	0.6029
29.84	1.4040	0.0092	-0.0755	-0.0016	-0.0010	0.0110	1.2133	0.7067
32.02	1.5358	0.0086	-0.0800	-0.0022	-0.0011	0.0125	1.2975	0.8217
34.19	1.6597	0.0092	-0.0832	-0.0025	-0.0012	0.0138	1.3677	0.9403
36.14	1.5675	0.0126	-0.0580	-0.0121	-0.0014	0.0151	1.2584	0.9347
38.14	1.5297	0.0142	-0.0407	0.0024	-0.0009	0.0130	1.1942	0.9560
40.20	1.6076	0.0125	-0.0573	-0.0005	-0.0012	0.0134	1.2196	1.0474
42.15	1.5758	0.0144	-0.0599	-0.0007	-0.0013	0.0137	1.1585	1.0683

WICHITA STATE UNIVERSITY

MODEL 1
RUN 11
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.19	-0.3623	0.0070	0.0330	0.0018	0.0004	-0.0054	-0.3553	0.0710
-8.14	-0.2698	0.0089	0.0273	0.0014	0.0002	-0.0043	-0.2658	0.0470
-6.09	-0.1848	0.0127	0.0196	0.0010	0.0001	0.0014	-0.1824	0.0323
-4.05	-0.1068	0.0136	0.0122	-0.0005	0.0	0.0026	-0.1056	0.0211
-2.02	-0.0548	0.0130	0.0055	-0.0001	0.0	0.0027	-0.0543	0.0150
0.0	0.0030	0.0124	0.0024	-0.0008	0.0	0.0040	0.0030	0.0124
2.02	0.0479	0.0128	-0.0020	-0.0013	-0.0	0.0033	0.0474	0.0145
4.06	0.1160	0.0126	-0.0098	-0.0018	-0.0001	0.0023	0.1148	0.0208
6.10	0.1862	0.0123	-0.0168	-0.0019	-0.0002	0.0027	0.1838	0.0321
8.14	0.2621	0.0119	-0.0232	-0.0022	-0.0002	0.0031	0.2578	0.0489
10.20	0.3646	0.0149	-0.0313	-0.0027	-0.0003	0.0055	0.3562	0.0792
12.24	0.4391	0.0145	-0.0364	-0.0036	-0.0003	0.0069	0.4260	0.1073
14.30	0.5485	0.0115	-0.0425	-0.0046	-0.0005	0.0076	0.5287	0.1468
16.36	0.6415	0.0108	-0.0473	-0.0034	-0.0005	0.0048	0.6124	0.1911
18.42	0.7569	0.0121	-0.0525	-0.0049	-0.0005	0.0069	0.7143	0.2508
20.48	0.8557	0.0119	-0.0566	-0.0057	-0.0006	0.0075	0.7974	0.3105
22.55	0.9794	0.0088	-0.0593	-0.0061	-0.0008	0.0087	0.9010	0.3839
24.61	1.0804	0.0095	-0.0628	-0.0063	-0.0009	0.0096	0.9783	0.4586
26.67	1.1946	0.0108	-0.0678	-0.0051	-0.0010	0.0088	1.0625	0.5460
28.75	1.3327	0.0099	-0.0712	-0.0060	-0.0009	0.0098	1.1636	0.6498
30.81	1.4371	0.0094	-0.0748	-0.0063	-0.0009	0.0122	1.2294	0.7442
32.88	1.5806	0.0100	-0.0800	-0.0059	-0.0009	0.0140	1.3219	0.8667
34.92	1.6328	0.0141	-0.0726	-0.0012	-0.0008	0.0163	1.3306	0.9464
36.92	1.5716	0.0122	-0.0374	0.0012	-0.0004	0.0169	1.2491	0.9538
38.89	1.5147	0.0167	-0.0253	-0.0054	-0.0008	0.0172	1.1684	0.9641
40.88	1.5280	0.0189	-0.0369	-0.0035	-0.0008	0.0172	1.1428	1.0144

WICHITA STATE UNIVERSITY

MODEL 1
RUN 12
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3671	0.0039	0.0340	0.0018	0.0004	-0.0054	-0.3604	0.0697
-8.23	-0.2696	0.0064	0.0277	0.0011	0.0001	-0.0039	-0.2659	0.0449
-6.16	-0.1935	0.0067	0.0214	0.0005	0.0	-0.0030	-0.1916	0.0274
-4.09	-0.1202	0.0077	0.0147	-0.0001	0.0	-0.0018	-0.1193	0.0163
-2.04	-0.0542	0.0078	0.0066	-0.0005	0.0	-0.0001	-0.0539	0.0097
0.0	0.0039	0.0084	0.0024	-0.0006	-0.0	0.0006	0.0039	0.0084
2.05	0.0522	0.0090	-0.0025	-0.0009	-0.0	0.0004	0.0518	0.0108
4.10	0.1145	0.0093	-0.0095	-0.0014	-0.0	0.0015	0.1136	0.0175
6.17	0.1947	0.0088	-0.0169	-0.0019	-0.0002	0.0025	0.1926	0.0297
8.24	0.2707	0.0092	-0.0234	-0.0024	-0.0002	0.0021	0.2665	0.0479
10.32	0.3574	0.0086	-0.0296	-0.0024	-0.0003	0.0020	0.3501	0.0726
12.41	0.4551	0.0086	-0.0360	-0.0032	-0.0004	0.0026	0.4426	0.1062
14.50	0.5560	0.0074	-0.0414	-0.0035	-0.0005	0.0031	0.5364	0.1465
16.60	0.6525	0.0070	-0.0468	-0.0037	-0.0006	0.0043	0.6233	0.1931
18.70	0.7625	0.0070	-0.0516	-0.0039	-0.0007	0.0049	0.7199	0.2512
20.81	0.8739	0.0080	-0.0555	-0.0041	-0.0007	0.0063	0.8140	0.3180
22.92	0.9942	0.0076	-0.0603	-0.0041	-0.0007	0.0075	0.9127	0.3944
25.04	1.1117	0.0071	-0.0642	-0.0040	-0.0009	0.0079	1.0042	0.4770
27.15	1.2293	0.0075	-0.0678	-0.0031	-0.0010	0.0079	1.0903	0.5677
29.26	1.3478	0.0079	-0.0731	-0.0042	-0.0009	0.0110	1.1719	0.6658
31.38	1.4767	0.0068	-0.0790	-0.0045	-0.0010	0.0127	1.2571	0.7749
33.50	1.6040	0.0081	-0.0846	-0.0042	-0.0011	0.0136	1.3330	0.8921
35.61	1.7163	0.0070	-0.0862	-0.0048	-0.0012	0.0142	1.3912	1.0051
37.55	1.5070	0.0120	-0.0152	-0.0009	-0.0004	0.0128	1.1874	0.9279
39.51	1.4986	0.0123	-0.0260	-0.0060	-0.0008	0.0123	1.1482	0.9630
41.51	1.5621	0.0118	-0.0583	-0.0020	-0.0010	0.0119	1.1619	1.0441

WICHITA STATE UNIVERSITY

MODEL 1
RUN 13
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.41	-0.3448	0.0059	0.0323	0.0016	0.0004	-0.0031	-0.3380	0.0681
-8.30	-0.2590	0.0071	0.0266	0.0008	0.0003	-0.0023	-0.2552	0.0445
-6.21	-0.1878	0.0076	0.0203	0.0003	0.0002	-0.0014	-0.1859	0.0279
-4.13	-0.1182	0.0085	0.0141	-0.0005	0.0001	-0.0002	-0.1173	0.0170
-2.05	-0.0501	0.0084	0.0063	-0.0001	0.0	0.0001	-0.0497	0.0101
0.01	0.0037	0.0096	0.0020	-0.0008	0.0	0.0006	0.0037	0.0096
2.08	0.0625	0.0097	-0.0044	-0.0011	-0.0	0.0014	0.0621	0.0120
4.15	0.1286	0.0104	-0.0112	-0.0014	-0.0	0.0017	0.1275	0.0197
6.24	0.2018	0.0100	-0.0184	-0.0017	-0.0001	0.0019	0.1995	0.0319
8.35	0.2893	0.0095	-0.0253	-0.0015	-0.0002	0.0025	0.2849	0.0515
10.46	0.3751	0.0095	-0.0316	-0.0016	-0.0003	0.0030	0.3671	0.0775
12.59	0.4739	0.0097	-0.0374	-0.0019	-0.0004	0.0038	0.4603	0.1128
14.72	0.5703	0.0092	-0.0428	-0.0019	-0.0004	0.0040	0.5492	0.1538
16.86	0.6781	0.0086	-0.0478	-0.0024	-0.0005	0.0052	0.6464	0.2050
19.02	0.7943	0.0086	-0.0531	-0.0022	-0.0006	0.0059	0.7481	0.2670
21.16	0.9030	0.0090	-0.0578	-0.0022	-0.0007	0.0075	0.8388	0.3345
23.32	1.0222	0.0089	-0.0624	-0.0022	-0.0008	0.0084	0.9351	0.4129
25.48	1.1377	0.0089	-0.0661	-0.0017	-0.0008	0.0096	1.0231	0.4976
27.64	1.2547	0.0100	-0.0695	-0.0024	-0.0008	0.0098	1.1068	0.5911
29.80	1.3769	0.0107	-0.0752	-0.0021	-0.0009	0.0123	1.1894	0.6937
31.97	1.5115	0.0092	-0.0821	-0.0032	-0.0010	0.0142	1.2772	0.8083
34.14	1.6372	0.0096	-0.0877	-0.0031	-0.0012	0.0150	1.3496	0.9269
36.30	1.7587	0.0085	-0.0921	-0.0028	-0.0013	0.0157	1.4122	1.0483
38.12	1.4832	0.0156	-0.0266	-0.0049	-0.0007	0.0135	1.1572	0.9280
40.12	1.5535	0.0125	-0.0576	0.0005	-0.0011	0.0139	1.1797	1.0108
42.11	1.5616	0.0138	-0.0668	-0.0012	-0.0011	0.0136	1.1492	1.0574

WICHITA STATE UNIVERSITY

MODEL 1
RUN 14
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3433	0.0069	0.0283	0.0017	0.0005	-0.0032	-0.3365	0.0682
-8.24	-0.2618	0.0073	0.0223	0.0020	0.0004	-0.0030	-0.2581	0.0447
-6.16	-0.1837	0.0068	0.0162	0.0016	0.0002	-0.0019	-0.1819	0.0264
-4.10	-0.1119	0.0071	0.0094	0.0006	0.0001	-0.0011	-0.1112	0.0151
-2.04	-0.0412	0.0062	0.0009	0.0003	-0.0001	-0.0003	-0.0410	0.0076
0.0	0.0066	0.0072	-0.0030	-0.0001	-0.0001	-0.0009	0.0066	0.0072
2.04	0.0553	0.0066	-0.0073	-0.0005	-0.0002	-0.0010	0.0550	0.0086
4.10	0.1233	0.0070	-0.0147	-0.0010	-0.0002	-0.0008	0.1224	0.0158
6.16	0.1892	0.0067	-0.0221	-0.0018	-0.0003	-0.0	0.1874	0.0269
8.23	0.2689	0.0061	-0.0301	-0.0025	-0.0003	0.0007	0.2653	0.0445
10.31	0.3586	0.0053	-0.0366	-0.0031	-0.0003	0.0023	0.3518	0.0694
12.40	0.4595	0.0036	-0.0438	-0.0042	-0.0004	0.0027	0.4480	0.1022
14.49	0.5529	0.0038	-0.0494	-0.0048	-0.0004	0.0036	0.5344	0.1420
16.59	0.6616	0.0020	-0.0552	-0.0052	-0.0004	0.0066	0.6334	0.1909
18.69	0.7655	0.0019	-0.0606	-0.0067	-0.0004	0.0077	0.7245	0.2471
20.81	0.8849	0.0015	-0.0647	-0.0067	-0.0006	0.0099	0.8266	0.3157
22.91	0.9931	0.0007	-0.0678	-0.0076	-0.0006	0.0094	0.9144	0.3873
25.04	1.1178	0.0007	-0.0706	-0.0075	-0.0008	0.0110	1.0125	0.4737
27.17	1.2480	-0.0003	-0.0727	-0.0097	-0.0008	0.0129	1.1104	0.5695
29.28	1.3623	-0.0014	-0.0730	-0.0100	-0.0007	0.0145	1.1889	0.6651
31.40	1.4821	-0.0019	-0.0739	-0.0106	-0.0002	0.0138	1.2660	0.7706
33.51	1.5797	-0.0026	-0.0687	-0.0115	0.0004	0.0156	1.3185	0.8700
35.47	1.5029	0.0026	-0.0494	0.0042	0.0017	0.0013	1.2224	0.8742
37.55	1.5819	0.0003	-0.0527	0.0034	-0.0020	0.0038	1.2540	0.9643
39.55	1.5408	0.0029	-0.0323	-0.0091	-0.0035	0.0191	1.1862	0.9833
41.55	1.5743	0.0015	-0.0457	-0.0037	-0.0031	0.0233	1.1771	1.0453

WICHITA STATE UNIVERSITY

MODEL 1
RUN 15
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3523	0.0043	0.0237	0.0019	0.0004	-0.0018	-0.3458	0.0673
-8.24	-0.2553	0.0044	0.0162	0.0014	0.0003	-0.0008	-0.2520	0.0409
-6.18	-0.1861	0.0043	0.0097	0.0007	0.0002	-0.0011	-0.1846	0.0243
-4.11	-0.1073	0.0051	0.0036	0.0006	0.0001	-0.0003	-0.1067	0.0128
-2.05	-0.0415	0.0039	-0.0034	-0.0005	-0.0	0.0005	-0.0413	0.0054
-0.01	0.0068	0.0055	-0.0080	-0.0002	-0.0001	-0.0007	0.0068	0.0055
2.04	0.0569	0.0046	-0.0111	-0.0006	-0.0001	-0.0005	0.0567	0.0066
4.10	0.1297	0.0052	-0.0199	-0.0014	-0.0002	0.0004	0.1290	0.0145
6.16	0.2003	0.0042	-0.0278	-0.0022	-0.0003	0.0014	0.1987	0.0256
8.23	0.2820	0.0033	-0.0351	-0.0028	-0.0004	0.0044	0.2786	0.0437
10.31	0.3634	0.0017	-0.0406	-0.0030	-0.0003	0.0060	0.3572	0.0667
12.39	0.4591	0.0014	-0.0475	-0.0040	-0.0003	0.0062	0.4481	0.0999
14.49	0.5547	0.0001	-0.0524	-0.0042	-0.0003	0.0056	0.5370	0.1389
16.58	0.6609	0.0002	-0.0593	-0.0046	-0.0003	0.0067	0.6333	0.1888
18.69	0.7757	-0.0008	-0.0646	-0.0051	-0.0004	0.0081	0.7351	0.2478
20.80	0.8910	-0.0024	-0.0696	-0.0063	-0.0006	0.0098	0.8338	0.3142
22.92	1.0088	-0.0033	-0.0719	-0.0070	-0.0007	0.0107	0.9304	0.3898
25.04	1.1307	-0.0030	-0.0759	-0.0082	-0.0009	0.0120	1.0257	0.4758
27.16	1.2452	-0.0046	-0.0775	-0.0098	-0.0008	0.0129	1.1101	0.5642
29.28	1.3748	-0.0047	-0.0797	-0.0095	-0.0010	0.0153	1.2014	0.6683
31.40	1.4901	-0.0076	-0.0787	-0.0098	-0.0007	0.0169	1.2758	0.7699
33.51	1.6026	-0.0097	-0.0788	-0.0101	-0.0003	0.0193	1.3415	0.8768
35.49	1.5196	-0.0046	-0.0506	0.0052	0.0025	0.0064	1.2399	0.8785
37.56	1.6101	-0.0061	-0.0599	0.0025	-0.0016	0.0097	1.2801	0.9767
39.57	1.5814	-0.0062	-0.0418	-0.0084	-0.0038	0.0235	1.2230	1.0025
41.57	1.6047	-0.0065	-0.0510	-0.0047	-0.0031	0.0269	1.2048	1.0599

WICHITA STATE UNIVERSITY

MODEL 1
RUN 17
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3414	0.0041	0.0217	-0.0405	-0.0050	0.0185	-0.3351	0.0652
-8.23	-0.2529	0.0051	0.0167	-0.0291	-0.0048	0.0209	-0.2495	0.0413
-6.16	-0.1772	0.0052	0.0126	-0.0192	-0.0032	0.0201	-0.1756	0.0242
-4.10	-0.1114	0.0060	0.0089	-0.0091	-0.0033	0.0237	-0.1107	0.0140
-2.04	-0.0509	0.0052	0.0048	0.0007	-0.0038	0.0268	-0.0507	0.0070
0.0	0.0056	0.0056	0.0007	0.0098	-0.0041	0.0287	0.0056	0.0056
2.05	0.0586	0.0061	-0.0027	0.0190	-0.0037	0.0274	0.0584	0.0082
4.11	0.1241	0.0062	-0.0077	0.0294	-0.0036	0.0265	0.1234	0.0151
6.18	0.1918	0.0071	-0.0118	0.0386	-0.0044	0.0255	0.1899	0.0277
8.25	0.2688	0.0070	-0.0158	0.0482	-0.0050	0.0253	0.2650	0.0455
10.32	0.3437	0.0075	-0.0199	0.0565	-0.0056	0.0259	0.3368	0.0690
12.41	0.4317	0.0089	-0.0215	0.0645	-0.0063	0.0275	0.4197	0.1015
14.49	0.5145	0.0091	-0.0253	0.0704	-0.0070	0.0273	0.4959	0.1377
16.58	0.6072	0.0090	-0.0301	0.0756	-0.0076	0.0278	0.5793	0.1820
18.67	0.6978	0.0101	-0.0328	0.0794	-0.0083	0.0278	0.6578	0.2330
20.76	0.7840	0.0118	-0.0342	0.0811	-0.0092	0.0281	0.7289	0.2890
22.85	0.8718	0.0128	-0.0360	0.0806	-0.0100	0.0290	0.7984	0.3504
24.92	0.9434	0.0138	-0.0375	0.0790	-0.0108	0.0300	0.8497	0.4100
26.98	1.0031	0.0160	-0.0374	0.0748	-0.0113	0.0312	0.8867	0.4694
29.01	1.0467	0.0173	-0.0422	0.0681	-0.0117	0.0334	0.9069	0.5228
31.03	1.0785	0.0169	-0.0482	0.0607	-0.0116	0.0367	0.9154	0.5705
33.01	1.0913	0.0195	-0.0623	0.0510	-0.0112	0.0413	0.9044	0.6110
34.99	1.1115	0.0173	-0.0816	0.0466	-0.0100	0.0452	0.9006	0.6517
36.93	1.1127	0.0156	-0.1099	0.0442	-0.0081	0.0516	0.8800	0.6811
38.89	1.1085	0.0156	-0.1253	0.0419	-0.0087	0.0550	0.8530	0.7081
40.87	1.1065	0.0165	-0.1329	0.0405	-0.0096	0.0573	0.8259	0.7366

WICHITA STATE UNIVERSITY

MODEL 1
RUN 18
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3401	0.0050	0.0254	-0.0382	-0.0046	0.0152	-0.3337	0.0658
-8.23	-0.2566	0.0056	0.0205	-0.0287	-0.0038	0.0151	-0.2532	0.0423
-6.16	-0.1810	0.0049	0.0150	-0.0197	-0.0027	0.0136	-0.1794	0.0243
-4.09	-0.1094	0.0040	0.0097	-0.0104	-0.0020	0.0137	-0.1089	0.0118
-2.04	-0.0507	0.0036	0.0046	-0.0014	-0.0024	0.0163	-0.0505	0.0054
0.0	0.0017	0.0059	0.0025	0.0062	-0.0027	0.0177	0.0017	0.0059
2.05	0.0528	0.0064	-0.0027	0.0153	-0.0025	0.0179	0.0525	0.0083
4.10	0.1145	0.0067	-0.0069	0.0241	-0.0025	0.0169	0.1138	0.0149
6.17	0.1825	0.0076	-0.0114	0.0323	-0.0033	0.0174	0.1806	0.0272
8.24	0.2583	0.0085	-0.0178	0.0416	-0.0040	0.0176	0.2544	0.0455
10.32	0.3477	0.0088	-0.0228	0.0508	-0.0046	0.0175	0.3405	0.0710
12.41	0.4346	0.0097	-0.0248	0.0576	-0.0052	0.0174	0.4224	0.1029
14.49	0.5127	0.0092	-0.0258	0.0624	-0.0057	0.0173	0.4941	0.1373
16.59	0.6117	0.0097	-0.0309	0.0676	-0.0062	0.0174	0.5834	0.1840
18.67	0.6999	0.0103	-0.0349	0.0719	-0.0067	0.0170	0.6597	0.2339
20.76	0.7908	0.0111	-0.0370	0.0743	-0.0071	0.0169	0.7355	0.2908
22.85	0.8810	0.0113	-0.0382	0.0758	-0.0078	0.0165	0.8075	0.3526
24.92	0.9509	0.0132	-0.0391	0.0753	-0.0084	0.0171	0.8568	0.4127
26.98	1.0084	0.0156	-0.0370	0.0712	-0.0089	0.0178	0.8915	0.4715
29.01	1.0308	0.0162	-0.0374	0.0636	-0.0091	0.0195	0.8936	0.5141
30.99	1.0397	0.0170	-0.0466	0.0539	-0.0088	0.0238	0.8824	0.5500
32.95	1.0579	0.0180	-0.0736	0.0453	-0.0077	0.0293	0.8778	0.5907
34.93	1.0979	0.0179	-0.1045	0.0433	-0.0047	0.0362	0.8898	0.6433
36.92	1.1194	0.0185	-0.1182	0.0388	-0.0052	0.0409	0.8837	0.6873
38.92	1.1479	0.0178	-0.1296	0.0371	-0.0059	0.0431	0.8819	0.7351
40.91	1.1554	0.0188	-0.1387	0.0349	-0.0068	0.0458	0.8608	0.7709

WICHITA STATE UNIVERSITY

MODEL 1
RUN 19
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3464	0.0049	0.0280	-0.0326	-0.0029	0.0096	-0.3399	0.0668
-8.23	-0.2598	0.0063	0.0230	-0.0246	-0.0022	0.0098	-0.2562	0.0434
-6.15	-0.1787	0.0074	0.0156	-0.0161	-0.0016	0.0094	-0.1769	0.0266
-4.09	-0.1070	0.0077	0.0099	-0.0085	-0.0010	0.0104	-0.1061	0.0154
-2.04	-0.0532	0.0057	0.0039	-0.0014	-0.0013	0.0106	-0.0530	0.0076
0.0	0.0023	0.0060	0.0022	0.0047	-0.0013	0.0117	0.0023	0.0060
2.05	0.0539	0.0067	-0.0022	0.0119	-0.0012	0.0116	0.0536	0.0086
4.10	0.1094	0.0071	-0.0071	0.0184	-0.0013	0.0114	0.1086	0.0149
6.16	0.1781	0.0073	-0.0126	0.0255	-0.0020	0.0124	0.1763	0.0263
8.23	0.2586	0.0080	-0.0192	0.0338	-0.0027	0.0128	0.2548	0.0450
10.31	0.3435	0.0075	-0.0239	0.0409	-0.0032	0.0137	0.3366	0.0689
12.40	0.4389	0.0079	-0.0299	0.0482	-0.0038	0.0141	0.4269	0.1021
14.50	0.5318	0.0067	-0.0316	0.0541	-0.0042	0.0138	0.5131	0.1397
16.59	0.6206	0.0070	-0.0336	0.0577	-0.0047	0.0145	0.5928	0.1839
18.69	0.7228	0.0063	-0.0372	0.0609	-0.0051	0.0148	0.6827	0.2377
20.78	0.8190	0.0074	-0.0401	0.0641	-0.0055	0.0148	0.7630	0.2976
22.87	0.9090	0.0076	-0.0427	0.0665	-0.0059	0.0147	0.8345	0.3603
24.95	0.9853	0.0093	-0.0437	0.0669	-0.0064	0.0138	0.8894	0.4241
27.02	1.0546	0.0123	-0.0436	0.0654	-0.0067	0.0133	0.9339	0.4901
29.05	1.0754	0.0143	-0.0410	0.0589	-0.0071	0.0149	0.9332	0.5347
31.03	1.0641	0.0162	-0.0431	0.0501	-0.0068	0.0188	0.9035	0.5624
32.99	1.0815	0.0176	-0.0672	0.0432	-0.0057	0.0222	0.8975	0.6037
35.00	1.1618	0.0161	-0.1034	0.0439	-0.0027	0.0294	0.9424	0.6796
37.03	1.2281	0.0161	-0.1178	0.0437	-0.0027	0.0305	0.9706	0.7526
39.07	1.2960	0.0154	-0.1304	0.0446	-0.0029	0.0306	0.9963	0.8289
41.11	1.3567	0.0160	-0.1404	0.0457	-0.0029	0.0313	1.0116	0.9042

WICHITA STATE UNIVERSITY

MODEL 1
RUN 20
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3520	0.0045	0.0315	-0.0232	-0.0014	0.0049	-0.3455	0.0675
-8.22	-0.2609	0.0063	0.0247	-0.0170	-0.0008	0.0055	-0.2573	0.0436
-6.16	-0.1848	0.0065	0.0180	-0.0114	-0.0005	0.0052	-0.1831	0.0263
-4.09	-0.1092	0.0066	0.0105	-0.0059	-0.0001	0.0064	-0.1084	0.0143
-2.04	-0.0478	0.0068	0.0047	-0.0008	-0.0003	0.0081	-0.0476	0.0085
0.0	0.0031	0.0072	0.0027	0.0025	-0.0002	0.0085	0.0031	0.0072
2.04	0.0494	0.0075	-0.0016	0.0066	-0.0002	0.0074	0.0491	0.0093
4.10	0.1150	0.0069	-0.0077	0.0115	-0.0004	0.0078	0.1142	0.0151
6.17	0.1867	0.0071	-0.0145	0.0170	-0.0010	0.0080	0.1848	0.0271
8.24	0.2643	0.0070	-0.0201	0.0224	-0.0014	0.0082	0.2606	0.0448
10.32	0.3592	0.0080	-0.0274	0.0282	-0.0019	0.0085	0.3520	0.0723
12.41	0.4553	0.0076	-0.0337	0.0335	-0.0022	0.0096	0.4430	0.1054
14.50	0.5519	0.0064	-0.0396	0.0389	-0.0026	0.0099	0.5326	0.1444
16.61	0.6613	0.0057	-0.0448	0.0439	-0.0030	0.0113	0.6320	0.1945
18.72	0.7713	0.0056	-0.0496	0.0484	-0.0033	0.0110	0.7287	0.2528
20.83	0.8905	0.0063	-0.0533	0.0525	-0.0037	0.0113	0.8299	0.3226
22.93	0.9942	0.0055	-0.0564	0.0565	-0.0041	0.0111	0.9134	0.3926
25.03	1.0778	0.0062	-0.0516	0.0557	-0.0045	0.0114	0.9739	0.4617
27.10	1.1483	0.0100	-0.0541	0.0535	-0.0049	0.0114	1.0176	0.5320
29.16	1.2043	0.0097	-0.0528	0.0494	-0.0052	0.0109	1.0469	0.5954
31.18	1.2252	0.0105	-0.0497	0.0427	-0.0053	0.0124	1.0427	0.6435
33.14	1.1913	0.0143	-0.0512	0.0329	-0.0045	0.0152	0.9896	0.6634
35.14	1.2347	0.0150	-0.0734	0.0301	-0.0038	0.0176	1.0010	0.7230
37.18	1.3366	0.0129	-0.1016	0.0311	-0.0024	0.0208	1.0570	0.8181
39.24	1.4184	0.0119	-0.1153	0.0340	-0.0011	0.0233	1.0910	0.9066
41.32	1.5030	0.0112	-0.1176	0.0410	-0.0009	0.0228	1.1214	1.0008

WICHITA STATE UNIVERSITY

MODEL 1
RUN 21
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3603	0.0040	0.0319	-0.0112	-0.0002	-0.0	-0.3537	0.0685
-8.24	-0.2746	0.0049	0.0262	-0.0088	-0.0	0.0002	-0.2710	0.0442
-6.17	-0.1976	0.0060	0.0197	-0.0061	0.0001	0.0005	-0.1958	0.0272
-4.10	-0.1200	0.0060	0.0120	-0.0029	0.0003	0.0014	-0.1193	0.0146
-2.04	-0.0530	0.0065	0.0047	-0.0006	0.0001	0.0022	-0.0527	0.0084
0.0	0.0015	0.0068	0.0019	0.0009	0.0001	0.0026	0.0015	0.0068
2.04	0.0454	0.0085	-0.0020	0.0025	0.0001	0.0033	0.0451	0.0101
4.10	0.1125	0.0080	-0.0091	0.0045	-0.0	0.0040	0.1116	0.0160
6.16	0.1876	0.0087	-0.0160	0.0076	-0.0003	0.0048	0.1856	0.0288
8.24	0.2696	0.0087	-0.0232	0.0108	-0.0006	0.0056	0.2656	0.0473
10.32	0.3639	0.0081	-0.0303	0.0137	-0.0009	0.0062	0.3566	0.0732
12.42	0.4675	0.0077	-0.0372	0.0170	-0.0011	0.0075	0.4549	0.1081
14.51	0.5609	0.0073	-0.0434	0.0199	-0.0014	0.0080	0.5411	0.1476
16.60	0.6622	0.0066	-0.0484	0.0214	-0.0016	0.0089	0.6327	0.1956
18.71	0.7718	0.0068	-0.0536	0.0234	-0.0018	0.0091	0.7288	0.2541
20.83	0.8921	0.0075	-0.0568	0.0260	-0.0022	0.0103	0.8311	0.3242
22.94	1.0121	0.0068	-0.0606	0.0282	-0.0025	0.0113	0.9294	0.4009
25.06	1.1342	0.0080	-0.0646	0.0311	-0.0028	0.0117	1.0239	0.4877
27.18	1.2588	0.0092	-0.0673	0.0341	-0.0030	0.0111	1.1155	0.5833
29.29	1.3697	0.0094	-0.0701	0.0356	-0.0035	0.0116	1.1899	0.6784
31.38	1.4453	0.0098	-0.0665	0.0322	-0.0037	0.0127	1.2288	0.7610
33.38	1.4412	0.0123	-0.0635	0.0244	-0.0037	0.0139	1.1966	0.8033
35.33	1.3942	0.0148	-0.0598	0.0118	-0.0030	0.0152	1.1287	0.8185
37.34	1.4138	0.0140	-0.0663	0.0099	-0.0024	0.0169	1.1155	0.8687
39.42	1.5043	0.0126	-0.0702	0.0145	-0.0023	0.0176	1.1539	0.9651
41.47	1.5547	0.0135	-0.0738	0.0196	-0.0025	0.0177	1.1560	1.0397

WICHITA STATE UNIVERSITY

MODEL 1
RUN 22
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3603	0.0066	0.0330	0.0017	0.0003	-0.0036	-0.3533	0.0710
-8.23	-0.2743	0.0082	0.0269	0.0007	0.0004	-0.0026	-0.2703	0.0475
-6.17	-0.2043	0.0093	0.0207	0.0005	0.0002	-0.0017	-0.2021	0.0312
-4.10	-0.1266	0.0097	0.0133	-0.0	0.0001	-0.0008	-0.1256	0.0188
-2.04	-0.0539	0.0092	0.0051	-0.0003	0.0	-0.0001	-0.0536	0.0111
0.0	-0.0001	0.0104	0.0016	-0.0004	0.0	0.0	-0.0001	0.0104
2.04	0.0460	0.0119	-0.0017	-0.0007	-0.0	0.0003	0.0456	0.0135
4.10	0.1136	0.0121	-0.0098	-0.0013	-0.0	0.0014	0.1125	0.0202
6.16	0.1843	0.0119	-0.0167	-0.0016	-0.0	0.0017	0.1820	0.0316
8.24	0.2710	0.0124	-0.0241	-0.0019	-0.0001	0.0022	0.2665	0.0511
10.32	0.3596	0.0120	-0.0315	-0.0027	-0.0002	0.0027	0.3516	0.0763
12.41	0.4561	0.0122	-0.0378	-0.0028	-0.0003	0.0031	0.4428	0.1100
14.50	0.5541	0.0105	-0.0436	-0.0029	-0.0003	0.0045	0.5337	0.1490
16.59	0.6571	0.0100	-0.0496	-0.0036	-0.0004	0.0055	0.6269	0.1973
18.70	0.7678	0.0104	-0.0543	-0.0033	-0.0005	0.0061	0.7239	0.2561
20.81	0.8799	0.0121	-0.0574	-0.0036	-0.0006	0.0069	0.8181	0.3240
22.93	1.0030	0.0120	-0.0621	-0.0038	-0.0007	0.0081	0.9190	0.4019
25.04	1.1172	0.0124	-0.0650	-0.0030	-0.0008	0.0086	1.0069	0.4842
27.18	1.2564	0.0130	-0.0681	-0.0038	-0.0008	0.0093	1.1116	0.5856
29.29	1.3768	0.0137	-0.0712	-0.0041	-0.0009	0.0106	1.1939	0.6857
31.41	1.5041	0.0122	-0.0768	-0.0037	-0.0010	0.0121	1.2772	0.7944
33.52	1.6145	0.0132	-0.0794	-0.0035	-0.0011	0.0134	1.3386	0.9027
35.63	1.7302	0.0132	-0.0825	-0.0030	-0.0012	0.0144	1.3985	1.0188
37.53	1.5037	0.0184	-0.0228	-0.0033	-0.0005	0.0121	1.1813	0.9306
39.56	1.5994	0.0159	-0.0510	-0.0004	-0.0008	0.0126	1.2228	1.0310
41.54	1.5931	0.0164	-0.0563	-0.0025	-0.0010	0.0134	1.1814	1.0688

WICHITA STATE UNIVERSITY

MODEL 1
RUN 23
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3675	0.0057	0.0319	0.0146	0.0011	-0.0077	-0.3605	0.0715
-8.24	-0.2812	0.0072	0.0259	0.0113	0.0008	-0.0070	-0.2773	0.0475
-6.17	-0.1974	0.0079	0.0188	0.0073	0.0003	-0.0062	-0.1954	0.0291
-4.10	-0.1238	0.0081	0.0125	0.0039	0.0	-0.0049	-0.1229	0.0169
-2.05	-0.0613	0.0082	0.0061	0.0008	-0.0	-0.0047	-0.0610	0.0104
-0.0	-0.0039	0.0092	0.0020	-0.0013	-0.0	-0.0040	-0.0039	0.0092
2.04	0.0496	0.0097	-0.0025	-0.0041	-0.0	-0.0037	0.0492	0.0114
4.09	0.1037	0.0092	-0.0073	-0.0064	-0.0001	-0.0024	0.1028	0.0166
6.16	0.1792	0.0099	-0.0148	-0.0102	0.0	-0.0020	0.1771	0.0291
8.23	0.2590	0.0099	-0.0216	-0.0141	0.0003	-0.0014	0.2549	0.0469
10.31	0.3477	0.0094	-0.0293	-0.0175	0.0004	-0.0006	0.3404	0.0715
12.41	0.4566	0.0095	-0.0368	-0.0217	0.0004	0.0001	0.4438	0.1074
14.50	0.5503	0.0074	-0.0429	-0.0247	0.0005	0.0013	0.5309	0.1450
16.59	0.6528	0.0071	-0.0473	-0.0269	0.0005	0.0019	0.6235	0.1933
18.70	0.7631	0.0071	-0.0525	-0.0305	0.0007	0.0025	0.7205	0.2515
20.81	0.8809	0.0076	-0.0573	-0.0321	0.0008	0.0042	0.8207	0.3202
22.93	1.0020	0.0078	-0.0607	-0.0342	0.0009	0.0054	0.9197	0.3977
25.04	1.1161	0.0076	-0.0647	-0.0369	0.0010	0.0068	1.0080	0.4794
27.17	1.2386	0.0085	-0.0665	-0.0399	0.0012	0.0077	1.0981	0.5731
29.29	1.3466	0.0084	-0.0599	-0.0390	0.0015	0.0086	1.1703	0.6662
31.36	1.4190	0.0082	-0.0635	-0.0373	0.0015	0.0102	1.2074	0.7455
33.36	1.4164	0.0111	-0.0622	-0.0283	0.0016	0.0086	1.1769	0.7881
35.29	1.3486	0.0141	-0.0572	-0.0157	0.0011	0.0054	1.0925	0.7908
37.31	1.3902	0.0136	-0.0693	-0.0137	0.0002	0.0046	1.0975	0.8535
39.38	1.4789	0.0123	-0.0787	-0.0152	-0.0001	0.0048	1.1353	0.9478
41.45	1.5562	0.0114	-0.0804	-0.0204	-0.0004	0.0061	1.1587	1.0389

WICHITA STATE UNIVERSITY

MODEL 1
RUN 24
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3655	0.0038	0.0314	0.0270	0.0024	-0.0105	-0.3589	0.0693
-8.25	-0.2823	0.0055	0.0255	0.0208	0.0019	-0.0099	-0.2786	0.0460
-6.16	-0.1896	0.0062	0.0178	0.0132	0.0011	-0.0079	-0.1878	0.0266
-4.10	-0.1253	0.0061	0.0121	0.0076	0.0005	-0.0069	-0.1245	0.0150
-2.05	-0.0627	0.0056	0.0063	0.0021	0.0005	-0.0070	-0.0625	0.0079
-0.0	-0.0069	0.0059	0.0029	-0.0027	0.0006	-0.0072	-0.0069	0.0059
2.04	0.0460	0.0079	-0.0016	-0.0082	0.0005	-0.0065	0.0457	0.0095
4.09	0.1017	0.0082	-0.0066	-0.0135	0.0005	-0.0057	0.1008	0.0155
6.15	0.1711	0.0087	-0.0132	-0.0195	0.0009	-0.0049	0.1692	0.0270
8.22	0.2492	0.0088	-0.0195	-0.0256	0.0012	-0.0041	0.2454	0.0444
10.31	0.3414	0.0090	-0.0271	-0.0320	0.0015	-0.0033	0.3343	0.0699
12.39	0.4336	0.0085	-0.0316	-0.0376	0.0017	-0.0021	0.4216	0.1014
14.49	0.5333	0.0071	-0.0379	-0.0433	0.0018	-0.0013	0.5146	0.1403
16.59	0.6353	0.0076	-0.0427	-0.0485	0.0020	-0.0005	0.6067	0.1887
18.70	0.7519	0.0076	-0.0484	-0.0537	0.0021	0.0012	0.7098	0.2483
20.80	0.8585	0.0079	-0.0514	-0.0585	0.0024	0.0028	0.7997	0.3123
22.92	0.9747	0.0080	-0.0551	-0.0632	0.0026	0.0045	0.8946	0.3870
24.98	1.0339	0.0089	-0.0513	-0.0568	0.0031	0.0044	0.9333	0.4448
27.06	1.1089	0.0118	-0.0519	-0.0563	0.0035	0.0045	0.9821	0.5151
29.12	1.1676	0.0118	-0.0495	-0.0540	0.0035	0.0052	1.0141	0.5787
31.15	1.1910	0.0132	-0.0481	-0.0461	0.0037	0.0045	1.0123	0.6275
33.11	1.1551	0.0169	-0.0499	-0.0373	0.0031	0.0013	0.9582	0.6452
35.11	1.2072	0.0174	-0.0733	-0.0340	0.0019	0.0	0.9774	0.7087
37.16	1.3078	0.0154	-0.0983	-0.0351	0.0003	-0.0004	1.0329	0.8023
39.21	1.3968	0.0149	-0.1148	-0.0377	-0.0015	-0.0019	1.0728	0.8947
41.27	1.4656	0.0151	-0.1228	-0.0420	-0.0021	-0.0009	1.0915	0.9781

WICHITA STATE UNIVERSITY

MODEL 1
RUN 25
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3482	0.0058	0.0261	0.0341	0.0041	-0.0166	-0.3415	0.0681
-8.24	-0.2727	0.0066	0.0222	0.0271	0.0034	-0.0155	-0.2689	0.0457
-6.17	-0.1954	0.0075	0.0166	0.0188	0.0024	-0.0141	-0.1934	0.0285
-4.10	-0.1202	0.0080	0.0099	0.0102	0.0016	-0.0130	-0.1193	0.0166
-2.05	-0.0593	0.0075	0.0048	0.0025	0.0017	-0.0145	-0.0590	0.0096
-0.0	-0.0072	0.0086	0.0029	-0.0041	0.0019	-0.0147	-0.0072	0.0086
2.03	0.0331	0.0096	0.0003	-0.0106	0.0017	-0.0140	0.0328	0.0108
4.09	0.0960	0.0100	-0.0053	-0.0189	0.0016	-0.0121	0.0951	0.0168
6.15	0.1682	0.0098	-0.0113	-0.0272	0.0021	-0.0112	0.1662	0.0278
8.22	0.2469	0.0106	-0.0176	-0.0353	0.0026	-0.0110	0.2429	0.0458
10.30	0.3325	0.0107	-0.0241	-0.0435	0.0030	-0.0095	0.3252	0.0700
12.39	0.4201	0.0105	-0.0280	-0.0503	0.0034	-0.0076	0.4080	0.1004
14.48	0.5110	0.0094	-0.0303	-0.0562	0.0037	-0.0064	0.4924	0.1369
16.57	0.5980	0.0097	-0.0329	-0.0598	0.0040	-0.0052	0.5704	0.1798
18.66	0.6945	0.0098	-0.0359	-0.0633	0.0043	-0.0037	0.6548	0.2316
20.76	0.7899	0.0109	-0.0381	-0.0664	0.0045	-0.0019	0.7347	0.2902
22.85	0.8809	0.0114	-0.0405	-0.0686	0.0047	-0.0012	0.8074	0.3526
24.93	0.9649	0.0129	-0.0431	-0.0694	0.0052	0.0004	0.8695	0.4184
27.00	1.0303	0.0157	-0.0420	-0.0680	0.0056	0.0003	0.9108	0.4818
29.03	1.0652	0.0165	-0.0408	-0.0626	0.0058	0.0007	0.9233	0.5314
31.03	1.0637	0.0174	-0.0412	-0.0533	0.0057	-0.0016	0.9024	0.5633
32.99	1.0710	0.0185	-0.0620	-0.0453	0.0048	-0.0046	0.8882	0.5988
34.99	1.1461	0.0185	-0.0967	-0.0453	0.0015	-0.0107	0.9283	0.6725
37.03	1.2097	0.0182	-0.1116	-0.0454	0.0006	-0.0110	0.9547	0.7431
39.06	1.2772	0.0182	-0.1256	-0.0459	0.0005	-0.0114	0.9801	0.8191
41.09	1.3278	0.0196	-0.1371	-0.0453	0.0003	-0.0123	0.9878	0.8875

WICHITA STATE UNIVERSITY

MODEL 1
RUN 26
Q 40PSF
BETA 20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3481	0.0059	0.0226	0.0398	0.0055	-0.0220	-0.3414	0.0683
-8.24	-0.2649	0.0063	0.0179	0.0302	0.0049	-0.0219	-0.2612	0.0443
-6.17	-0.1884	0.0067	0.0140	0.0212	0.0037	-0.0194	-0.1865	0.0269
-4.11	-0.1224	0.0075	0.0094	0.0120	0.0026	-0.0182	-0.1215	0.0162
-2.05	-0.0601	0.0071	0.0050	0.0022	0.0029	-0.0206	-0.0598	0.0092
-0.0	-0.0063	0.0085	0.0027	-0.0062	0.0033	-0.0214	-0.0063	0.0085
2.04	0.0437	0.0087	-0.0007	-0.0150	0.0030	-0.0205	0.0434	0.0103
4.09	0.1021	0.0087	-0.0070	-0.0244	0.0027	-0.0184	0.1012	0.0160
6.16	0.1710	0.0093	-0.0113	-0.0335	0.0034	-0.0175	0.1690	0.0276
8.23	0.2475	0.0097	-0.0166	-0.0425	0.0039	-0.0167	0.2435	0.0450
10.31	0.3272	0.0101	-0.0196	-0.0517	0.0044	-0.0157	0.3201	0.0685
12.38	0.4107	0.0102	-0.0248	-0.0595	0.0048	-0.0147	0.3990	0.0981
14.47	0.4894	0.0101	-0.0245	-0.0643	0.0053	-0.0136	0.4713	0.1321
16.57	0.5895	0.0101	-0.0290	-0.0697	0.0056	-0.0114	0.5621	0.1778
18.66	0.6886	0.0114	-0.0336	-0.0747	0.0060	-0.0094	0.6487	0.2312
20.75	0.7824	0.0129	-0.0364	-0.0778	0.0063	-0.0077	0.7270	0.2893
22.83	0.8566	0.0129	-0.0370	-0.0782	0.0069	-0.0065	0.7845	0.3443
24.91	0.9353	0.0144	-0.0378	-0.0771	0.0075	-0.0056	0.8422	0.4071
26.97	0.9954	0.0178	-0.0376	-0.0747	0.0079	-0.0062	0.8790	0.4674
29.02	1.0487	0.0185	-0.0404	-0.0701	0.0083	-0.0075	0.9081	0.5249
31.01	1.0461	0.0186	-0.0439	-0.0581	0.0081	-0.0101	0.8870	0.5549
32.98	1.0640	0.0191	-0.0623	-0.0501	0.0073	-0.0144	0.8820	0.5953
34.94	1.0873	0.0187	-0.0916	-0.0456	0.0040	-0.0205	0.8805	0.6381
36.93	1.1222	0.0133	-0.1137	-0.0423	0.0031	-0.0250	0.8890	0.6850
38.92	1.1415	0.0134	-0.1268	-0.0389	0.0037	-0.0276	0.8796	0.7277
40.91	1.1594	0.0142	-0.1380	-0.0373	0.0043	-0.0289	0.8668	0.7701

WICHITA STATE UNIVERSITY

MODEL 1
RUN 27
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3509	-0.0006	0.0209	0.0429	0.0047	-0.0251	-0.3453	0.0622
-8.26	-0.2780	0.0003	0.0171	0.0334	0.0053	-0.0266	-0.2750	0.0403
-6.18	-0.1916	0.0003	0.0127	0.0218	0.0040	-0.0242	-0.1905	0.0209
-4.11	-0.1293	-0.0	0.0097	0.0113	0.0039	-0.0244	-0.1289	0.0092
-2.06	-0.0621	0.0003	0.0033	-0.0001	0.0044	-0.0276	-0.0621	0.0025
-0.0	-0.0078	0.0022	0.0029	-0.0088	0.0045	-0.0285	-0.0078	0.0022
2.04	0.0490	0.0032	-0.0019	-0.0188	0.0041	-0.0277	0.0489	0.0050
4.10	0.1114	0.0031	-0.0077	-0.0295	0.0036	-0.0248	0.1109	0.0111
6.16	0.1773	0.0041	-0.0109	-0.0390	0.0043	-0.0233	0.1759	0.0231
8.23	0.2521	0.0045	-0.0155	-0.0485	0.0049	-0.0228	0.2489	0.0406
10.30	0.3209	0.0049	-0.0171	-0.0567	0.0054	-0.0221	0.3149	0.0623
12.38	0.4038	0.0058	-0.0215	-0.0653	0.0058	-0.0212	0.3931	0.0923
14.47	0.4882	0.0055	-0.0243	-0.0715	0.0063	-0.0193	0.4713	0.1273
16.56	0.5840	0.0061	-0.0293	-0.0770	0.0069	-0.0173	0.5580	0.1724
18.65	0.6710	0.0070	-0.0306	-0.0813	0.0077	-0.0166	0.6335	0.2213
20.74	0.7611	0.0083	-0.0337	-0.0833	0.0085	-0.0158	0.7089	0.2773
22.83	0.8503	0.0093	-0.0352	-0.0836	0.0095	-0.0154	0.7801	0.3385
24.89	0.9156	0.0099	-0.0357	-0.0818	0.0101	-0.0153	0.8263	0.3944
26.95	0.9787	0.0133	-0.0369	-0.0779	0.0110	-0.0170	0.8663	0.4555
29.00	1.0373	0.0137	-0.0405	-0.0726	0.0113	-0.0186	0.9005	0.5150
31.03	1.0727	0.0141	-0.0467	-0.0644	0.0112	-0.0199	0.9119	0.5650
33.03	1.0936	0.0157	-0.0563	-0.0573	0.0107	-0.0223	0.9082	0.6093
35.00	1.1087	0.0156	-0.0737	-0.0497	0.0096	-0.0276	0.8992	0.6488
36.98	1.1241	0.0145	-0.0900	-0.0472	0.0080	-0.0323	0.8892	0.6879
38.90	1.1130	0.0131	-0.1207	-0.0446	0.0063	-0.0386	0.8579	0.7092
40.88	1.1111	0.0141	-0.1305	-0.0435	0.0069	-0.0417	0.8308	0.7378

WICHITA STATE UNIVERSITY

MODEL 2
RUN 2
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.23	-0.3820	0.0247	0.0106	0.0016	-0.0008	-0.0070	-0.3715	0.0922
-8.18	-0.2997	0.0228	0.0066	0.0012	-0.0007	-0.0063	-0.2934	0.0653
-6.13	-0.2088	0.0234	0.0019	0.0003	-0.0005	-0.0011	-0.2051	0.0456
-4.08	-0.1337	0.0201	-0.0023	0.0002	-0.0007	-0.0051	-0.1319	0.0296
-2.05	-0.0671	0.0177	-0.0064	-0.0002	-0.0007	-0.0023	-0.0664	0.0201
-0.01	-0.0126	0.0123	-0.0099	0.0	-0.0006	-0.0027	-0.0126	0.0123
2.01	0.0425	0.0103	-0.0144	-0.0009	-0.0007	-0.0018	0.0421	0.0118
4.04	0.1007	0.0064	-0.0185	-0.0011	-0.0009	0.0004	0.1000	0.0135
6.07	0.1527	0.0034	-0.0248	-0.0013	-0.0011	0.0009	0.1514	0.0195
8.10	0.2192	-0.0046	-0.0349	-0.0021	-0.0016	0.0017	0.2177	0.0263
10.14	0.3054	-0.0085	-0.0463	-0.0021	-0.0016	0.0029	0.3021	0.0454
12.17	0.3669	-0.0135	-0.0559	-0.0020	-0.0017	0.0032	0.3615	0.0641
14.22	0.4532	-0.0189	-0.0669	-0.0031	-0.0018	0.0043	0.4439	0.0929
16.27	0.5480	-0.0245	-0.0769	-0.0038	-0.0021	0.0060	0.5330	0.1300
18.33	0.6614	-0.0300	-0.0902	-0.0044	-0.0021	0.0080	0.6373	0.1795
20.38	0.7569	-0.0360	-0.0997	-0.0047	-0.0022	0.0104	0.7220	0.2297
22.44	0.8719	-0.0412	-0.1091	-0.0051	-0.0022	0.0138	0.8216	0.2947
24.49	0.9835	-0.0494	-0.1204	-0.0080	-0.0024	0.0179	0.9154	0.3627
26.57	1.1185	-0.0531	-0.1271	-0.0097	-0.0022	0.0234	1.0241	0.4528
28.64	1.2555	-0.0626	-0.1365	-0.0081	-0.0018	0.0240	1.1318	0.5469
30.70	1.3723	-0.0684	-0.1420	-0.0078	-0.0017	0.0242	1.2148	0.6419
32.77	1.4810	-0.0761	-0.1403	-0.0064	-0.0017	0.0248	1.2865	0.7376
34.80	1.5303	-0.0801	-0.1330	-0.0059	-0.0019	0.0234	1.3022	0.8077
36.86	1.6250	-0.0849	-0.1329	-0.0094	-0.0015	0.0280	1.3511	0.9068
38.92	1.7263	-0.0910	-0.1271	-0.0052	-0.0021	0.0239	1.4003	1.0136
40.95	1.7709	-0.0919	-0.1227	-0.0024	-0.0028	0.0206	1.3978	1.0912

WICHITA STATE UNIVERSITY

MODEL 2
RUN 3
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.40	-0.4022	0.0248	0.0136	0.0017	-0.0008	-0.0102	-0.3911	0.0970
-8.32	-0.3156	0.0231	0.0085	0.0008	-0.0008	-0.0091	-0.3089	0.0685
-6.24	-0.2330	0.0231	0.0040	0.0007	-0.0008	-0.0056	-0.2291	0.0483
-4.16	-0.1553	0.0207	-0.0011	0.0004	-0.0007	-0.0040	-0.1534	0.0319
-2.10	-0.0868	0.0179	-0.0053	0.0002	-0.0007	-0.0025	-0.0861	0.0211
-0.04	-0.0211	0.0152	-0.0092	-0.0001	-0.0007	-0.0026	-0.0211	0.0153
2.01	0.0356	0.0126	-0.0135	-0.0009	-0.0008	-0.0013	0.0351	0.0139
4.06	0.0930	0.0079	-0.0175	-0.0012	-0.0010	0.0001	0.0922	0.0144
6.10	0.1482	0.0040	-0.0242	-0.0011	-0.0012	0.0006	0.1469	0.0198
8.15	0.2147	-0.0023	-0.0342	-0.0018	-0.0016	0.0018	0.2129	0.0281
10.22	0.2965	-0.0067	-0.0453	-0.0023	-0.0017	0.0045	0.2930	0.0460
12.28	0.3713	-0.0111	-0.0567	-0.0028	-0.0019	0.0060	0.3652	0.0681
14.35	0.4626	-0.0174	-0.0683	-0.0030	-0.0021	0.0072	0.4525	0.0977
16.43	0.5575	-0.0229	-0.0785	-0.0036	-0.0021	0.0084	0.5413	0.1357
18.51	0.6509	-0.0275	-0.0892	-0.0041	-0.0022	0.0124	0.6260	0.1805
20.60	0.7645	-0.0337	-0.1001	-0.0040	-0.0022	0.0141	0.7275	0.2374
22.71	0.8820	-0.0410	-0.1098	-0.0053	-0.0022	0.0162	0.8295	0.3026
24.82	1.0105	-0.0493	-0.1204	-0.0061	-0.0021	0.0180	0.9379	0.3794
26.94	1.1469	-0.0565	-0.1313	-0.0071	-0.0020	0.0193	1.0480	0.4691
29.05	1.2664	-0.0632	-0.1365	-0.0063	-0.0018	0.0202	1.1378	0.5596
31.17	1.4072	-0.0711	-0.1442	-0.0082	-0.0019	0.0236	1.2408	0.6676
33.30	1.5279	-0.0802	-0.1417	-0.0047	-0.0020	0.0203	1.3210	0.7719
35.42	1.6292	-0.0860	-0.1368	-0.0045	-0.0023	0.0195	1.3775	0.8741
37.51	1.7090	-0.0912	-0.1300	-0.0044	-0.0029	0.0190	1.4111	0.9683
39.58	1.7754	-0.0949	-0.1278	-0.0042	-0.0039	0.0214	1.4287	1.0581
41.60	1.7647	-0.0933	-0.1162	0.0007	-0.0049	0.0156	1.3816	1.1018

WICHITA STATE UNIVERSITY

MODEL 2
RUN 4
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.54	-0.3897	0.0252	0.0138	0.0015	-0.0009	-0.0089	-0.3785	0.0961
-8.42	-0.2961	0.0234	0.0082	0.0011	-0.0007	-0.0077	-0.2895	0.0665
-6.31	-0.2144	0.0217	0.0023	0.0006	-0.0007	-0.0054	-0.2107	0.0452
-4.22	-0.1439	0.0200	-0.0016	0.0002	-0.0006	-0.0044	-0.1420	0.0305
-2.13	-0.0735	0.0174	-0.0062	0.0	-0.0005	-0.0029	-0.0728	0.0201
-0.04	-0.0088	0.0143	-0.0104	-0.0008	-0.0006	-0.0022	-0.0087	0.0143
2.03	0.0503	0.0109	-0.0143	-0.0009	-0.0007	-0.0006	0.0499	0.0127
4.09	0.1018	0.0074	-0.0187	-0.0012	-0.0010	0.0012	0.1010	0.0147
6.16	0.1632	0.0033	-0.0268	-0.0013	-0.0011	0.0020	0.1619	0.0208
8.24	0.2364	-0.0024	-0.0368	-0.0012	-0.0014	0.0030	0.2343	0.0314
10.31	0.3055	-0.0072	-0.0468	-0.0014	-0.0015	0.0039	0.3018	0.0475
12.40	0.3901	-0.0127	-0.0590	-0.0015	-0.0017	0.0048	0.3837	0.0713
14.50	0.4807	-0.0180	-0.0698	-0.0020	-0.0019	0.0068	0.4699	0.1029
16.61	0.5778	-0.0236	-0.0813	-0.0023	-0.0019	0.0071	0.5604	0.1425
18.73	0.6818	-0.0300	-0.0920	-0.0023	-0.0021	0.0091	0.6553	0.1905
20.87	0.7997	-0.0364	-0.1034	-0.0026	-0.0021	0.0106	0.7602	0.2508

WICHITA STATE UNIVERSITY

MODEL 2
RUN 5
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.23	-0.3878	0.0215	0.0117	0.0019	-0.0009	-0.0158	-0.3778	0.0901
-8.19	-0.3125	0.0198	0.0065	0.0015	-0.0008	-0.0131	-0.3065	0.0641
-6.14	-0.2257	0.0207	0.0013	0.0013	-0.0008	-0.0065	-0.2222	0.0447
-4.08	-0.1248	0.0188	-0.0044	0.0001	-0.0009	-0.0039	-0.1231	0.0277
-2.05	-0.0688	0.0178	-0.0068	0.0001	-0.0009	-0.0022	-0.0681	0.0203
-0.02	-0.0192	0.0132	-0.0099	-0.0001	-0.0009	-0.0030	-0.0192	0.0133
2.01	0.0411	0.0128	-0.0146	-0.0012	-0.0010	-0.0015	0.0406	0.0143
4.04	0.0991	0.0103	-0.0188	-0.0012	-0.0012	0.0008	0.0982	0.0173
6.07	0.1492	0.0048	-0.0247	-0.0015	-0.0014	0.0012	0.1478	0.0205
8.10	0.2194	-0.0033	-0.0356	-0.0019	-0.0017	0.0013	0.2176	0.0276
10.14	0.2993	-0.0063	-0.0466	-0.0022	-0.0018	0.0032	0.2957	0.0464
12.17	0.3640	-0.0117	-0.0562	-0.0029	-0.0021	0.0052	0.3583	0.0652
14.22	0.4541	-0.0191	-0.0683	-0.0030	-0.0019	0.0063	0.4449	0.0930
16.27	0.5467	-0.0245	-0.0779	-0.0040	-0.0022	0.0061	0.5317	0.1295
18.31	0.6346	-0.0291	-0.0868	-0.0048	-0.0024	0.0107	0.6116	0.1717
20.37	0.7569	-0.0356	-0.1000	-0.0054	-0.0025	0.0167	0.7219	0.2301
22.42	0.8465	-0.0415	-0.1075	-0.0067	-0.0026	0.0227	0.7984	0.2845
24.49	0.9754	-0.0489	-0.1184	-0.0078	-0.0024	0.0256	0.9079	0.3598
26.56	1.1165	-0.0555	-0.1300	-0.0085	-0.0023	0.0286	1.0235	0.4496
28.64	1.2418	-0.0637	-0.1346	-0.0083	-0.0021	0.0287	1.1204	0.5392
30.71	1.3697	-0.0712	-0.1393	-0.0074	-0.0017	0.0301	1.2140	0.6382
32.78	1.4894	-0.0805	-0.1387	-0.0077	-0.0016	0.0293	1.2958	0.7386
34.82	1.5727	-0.0867	-0.1390	-0.0070	-0.0014	0.0243	1.3406	0.8269
36.88	1.6725	-0.0942	-0.1333	-0.0078	-0.0013	0.0233	1.3943	0.9285
38.93	1.7507	-0.1003	-0.1324	-0.0053	-0.0008	0.0175	1.4249	1.0221
40.96	1.7828	-0.0996	-0.1212	-0.0033	-0.0045	0.0170	1.4117	1.0934

WICHITA STATE UNIVERSITY

MODEL 2
RUN 6
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.40	-0.4001	0.0242	0.0117	0.0021	-0.0008	-0.0086	-0.3892	0.0961
-8.33	-0.3288	0.0232	0.0072	0.0008	-0.0007	-0.0088	-0.3219	0.0706
-6.25	-0.2369	0.0221	0.0021	0.0009	-0.0007	-0.0053	-0.2331	0.0478
-4.18	-0.1687	0.0206	-0.0022	0.0008	-0.0007	-0.0048	-0.1667	0.0329
-2.11	-0.0951	0.0182	-0.0063	0.0	-0.0007	-0.0024	-0.0944	0.0217
-0.05	-0.0308	0.0146	-0.0109	-0.0001	-0.0007	-0.0020	-0.0308	0.0146
1.99	0.0224	0.0125	-0.0144	-0.0009	-0.0008	-0.0010	0.0219	0.0133
4.04	0.0798	0.0084	-0.0183	-0.0013	-0.0009	-0.0	0.0790	0.0140
6.09	0.1392	0.0044	-0.0246	-0.0012	-0.0012	0.0011	0.1380	0.0192
8.14	0.2042	-0.0017	-0.0344	-0.0015	-0.0015	0.0024	0.2024	0.0271
10.20	0.2797	-0.0060	-0.0446	-0.0016	-0.0017	0.0046	0.2763	0.0436
12.26	0.3531	-0.0100	-0.0553	-0.0023	-0.0017	0.0057	0.3471	0.0651
14.33	0.4416	-0.0156	-0.0658	-0.0031	-0.0019	0.0090	0.4318	0.0941
16.42	0.5464	-0.0230	-0.0783	-0.0033	-0.0021	0.0103	0.5307	0.1323
18.50	0.6418	-0.0287	-0.0884	-0.0044	-0.0022	0.0131	0.6177	0.1764
20.58	0.7442	-0.0356	-0.0986	-0.0046	-0.0022	0.0142	0.7092	0.2283
22.69	0.8620	-0.0437	-0.1090	-0.0050	-0.0023	0.0165	0.8122	0.2922
24.80	0.9907	-0.0511	-0.1200	-0.0056	-0.0020	0.0182	0.9207	0.3691
26.92	1.1234	-0.0584	-0.1287	-0.0061	-0.0020	0.0207	1.0281	0.4564
29.03	1.2527	-0.0665	-0.1357	-0.0070	-0.0018	0.0238	1.1275	0.5498
31.16	1.3835	-0.0737	-0.1412	-0.0085	-0.0017	0.0263	1.2220	0.6527
33.28	1.5037	-0.0830	-0.1399	-0.0051	-0.0016	0.0214	1.3026	0.7558
35.41	1.6176	-0.0900	-0.1337	-0.0056	-0.0013	0.0187	1.3706	0.8639
37.50	1.6996	-0.0953	-0.1316	-0.0057	-0.0031	0.0199	1.4064	0.9591
39.57	1.7625	-0.0987	-0.1261	-0.0045	-0.0052	0.0216	1.4214	1.0468
41.59	1.7545	-0.0969	-0.1153	0.0004	-0.0062	0.0163	1.3766	1.0921

WICHITA STATE UNIVERSITY

MODEL 2
RUN 7
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.54	-0.3896	0.0238	0.0143	0.0016	-0.0008	-0.0090	-0.3786	0.0947
-8.42	-0.2982	0.0223	0.0072	0.0011	-0.0007	-0.0065	-0.2917	0.0658
-6.32	-0.2177	0.0211	0.0021	0.0002	-0.0006	-0.0040	-0.2140	0.0450
-4.22	-0.1446	0.0191	-0.0021	0.0002	-0.0005	-0.0028	-0.1428	0.0297
-2.13	-0.0735	0.0165	-0.0071	-0.0006	-0.0005	-0.0016	-0.0728	0.0192
-0.04	-0.0075	0.0136	-0.0112	-0.0007	-0.0005	-0.0012	-0.0075	0.0136
2.02	0.0477	0.0106	-0.0149	-0.0010	-0.0006	-0.0001	0.0473	0.0122
4.09	0.1014	0.0072	-0.0189	-0.0013	-0.0010	0.0011	0.1007	0.0144
6.15	0.1593	0.0029	-0.0267	-0.0014	-0.0012	0.0019	0.1580	0.0200
8.23	0.2286	-0.0036	-0.0360	-0.0014	-0.0014	0.0017	0.2267	0.0290
10.31	0.3053	-0.0090	-0.0463	-0.0020	-0.0016	0.0029	0.3020	0.0458
12.40	0.3865	-0.0144	-0.0578	-0.0019	-0.0015	0.0040	0.3806	0.0688
14.49	0.4735	-0.0202	-0.0685	-0.0023	-0.0016	0.0053	0.4635	0.0989
16.60	0.5677	-0.0262	-0.0794	-0.0026	-0.0018	0.0064	0.5515	0.1370
18.73	0.6795	-0.0331	-0.0913	-0.0030	-0.0019	0.0090	0.6542	0.1868
20.86	0.7919	-0.0401	-0.1022	-0.0031	-0.0021	0.0105	0.7542	0.2445

WICHITA STATE UNIVERSITY

MODEL 2
RUN 8
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.30	-0.2885	0.0189	0.0026	-0.0392	0.0229	0.0247	-0.2805	0.0702
-8.24	-0.2309	0.0166	0.0002	-0.0314	0.0194	0.0299	-0.2261	0.0495
-6.18	-0.1655	0.0174	-0.0016	-0.0230	0.0169	0.0316	-0.1626	0.0351
-4.12	-0.1137	0.0171	-0.0019	-0.0170	0.0128	0.0350	-0.1122	0.0252
-2.07	-0.0536	0.0156	-0.0082	-0.0062	0.0114	0.0349	-0.0530	0.0175
-0.02	-0.0048	0.0128	-0.0115	0.0035	0.0100	0.0325	-0.0048	0.0128
2.02	0.0495	0.0106	-0.0158	0.0126	0.0090	0.0306	0.0491	0.0123
4.07	0.1105	0.0066	-0.0208	0.0218	0.0091	0.0277	0.1098	0.0144
6.12	0.1693	0.0030	-0.0261	0.0303	0.0102	0.0223	0.1680	0.0210
8.19	0.2433	-0.0029	-0.0322	0.0390	0.0116	0.0138	0.2412	0.0317
10.25	0.3092	-0.0076	-0.0370	0.0465	0.0123	0.0054	0.3056	0.0475
12.33	0.3918	-0.0127	-0.0435	0.0556	0.0121	-0.0052	0.3855	0.0712
14.40	0.4758	-0.0179	-0.0491	0.0633	0.0110	-0.0153	0.4653	0.1009
16.48	0.5601	-0.0233	-0.0546	0.0699	0.0088	-0.0256	0.5437	0.1366
18.56	0.6448	-0.0275	-0.0609	0.0754	0.0054	-0.0317	0.6200	0.1791
20.65	0.7399	-0.0310	-0.0652	0.0793	0.0012	-0.0378	0.7033	0.2318
22.73	0.8214	-0.0329	-0.0671	0.0796	-0.0031	-0.0390	0.7703	0.2870
24.82	0.9088	-0.0351	-0.0696	0.0788	-0.0071	-0.0391	0.8396	0.3495
26.90	0.9904	-0.0360	-0.0718	0.0746	-0.0109	-0.0356	0.8996	0.4160
28.96	1.0608	-0.0375	-0.0755	0.0715	-0.0129	-0.0311	0.9463	0.4808
31.01	1.1214	-0.0379	-0.0803	0.0655	-0.0135	-0.0238	0.9806	0.5453
33.06	1.1738	-0.0394	-0.0841	0.0589	-0.0133	-0.0170	1.0053	0.6072
35.07	1.2029	-0.0385	-0.0890	0.0501	-0.0122	-0.0068	1.0066	0.6597
37.08	1.2308	-0.0388	-0.0982	0.0427	-0.0097	0.0063	1.0053	0.7111
39.05	1.2326	-0.0379	-0.1107	0.0367	-0.0075	0.0191	0.9811	0.7472
41.03	1.2305	-0.0368	-0.1213	0.0325	-0.0075	0.0274	0.9524	0.7799

WICHITA STATE UNIVERSITY

MODEL 2
RUN 9
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3318	0.0212	0.0048	-0.0379	0.0164	0.0345	-0.3226	0.0805
-8.27	-0.2593	0.0198	0.0010	-0.0300	0.0142	0.0351	-0.2537	0.0569
-6.20	-0.1810	0.0202	-0.0039	-0.0224	0.0153	0.0312	-0.1778	0.0397
-4.13	-0.1127	0.0196	-0.0062	-0.0165	0.0175	0.0226	-0.1110	0.0276
-2.07	-0.0600	0.0169	-0.0069	-0.0084	0.0149	0.0226	-0.0593	0.0191
-0.02	-0.0057	0.0145	-0.0102	0.0007	0.0123	0.0225	-0.0057	0.0146
2.01	0.0431	0.0121	-0.0139	0.0090	0.0100	0.0217	0.0427	0.0136
4.06	0.0946	0.0090	-0.0183	0.0167	0.0090	0.0200	0.0937	0.0157
6.11	0.1545	0.0048	-0.0231	0.0245	0.0092	0.0157	0.1531	0.0212
8.17	0.2180	-0.0015	-0.0300	0.0321	0.0101	0.0088	0.2160	0.0294
10.24	0.2989	-0.0064	-0.0368	0.0400	0.0109	0.0015	0.2953	0.0468
12.30	0.3717	-0.0113	-0.0439	0.0471	0.0111	-0.0068	0.3656	0.0681
14.37	0.4489	-0.0159	-0.0520	0.0536	0.0103	-0.0142	0.4388	0.0960
16.46	0.5447	-0.0212	-0.0591	0.0604	0.0083	-0.0230	0.5284	0.1339
18.54	0.6380	-0.0253	-0.0666	0.0663	0.0053	-0.0280	0.6129	0.1788
20.62	0.7307	-0.0297	-0.0725	0.0703	0.0024	-0.0343	0.6943	0.2296
22.71	0.8253	-0.0337	-0.0775	0.0724	-0.0013	-0.0378	0.7743	0.2875
24.81	0.9199	-0.0367	-0.0799	0.0729	-0.0047	-0.0392	0.8504	0.3527
26.90	1.0111	-0.0392	-0.0813	0.0718	-0.0078	-0.0378	0.9194	0.4225
28.97	1.0798	-0.0407	-0.0811	0.0667	-0.0098	-0.0331	0.9644	0.4874
31.01	1.1274	-0.0397	-0.0820	0.0591	-0.0102	-0.0223	0.9867	0.5469
33.05	1.1669	-0.0415	-0.0821	0.0520	-0.0095	-0.0137	1.0007	0.6017
35.07	1.1948	-0.0394	-0.0862	0.0445	-0.0074	-0.0020	1.0005	0.6543
37.07	1.2124	-0.0393	-0.0939	0.0383	-0.0046	0.0090	0.9910	0.6995
39.07	1.2358	-0.0383	-0.1065	0.0330	-0.0022	0.0209	0.9836	0.7491
41.08	1.2788	-0.0383	-0.1185	0.0314	-0.0013	0.0273	0.9890	0.8115

WICHITA STATE UNIVERSITY

MODEL 2
RUN 10
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3636	0.0227	0.0117	-0.0336	0.0109	0.0307	-0.3536	0.0878
-8.29	-0.2810	0.0212	0.0046	-0.0257	0.0099	0.0304	-0.2750	0.0615
-6.21	-0.1939	0.0209	-0.0012	-0.0190	0.0106	0.0292	-0.1905	0.0417
-4.15	-0.1257	0.0208	-0.0072	-0.0127	0.0115	0.0245	-0.1238	0.0298
-2.08	-0.0629	0.0187	-0.0100	-0.0060	0.0107	0.0229	-0.0622	0.0209
-0.02	-0.0017	0.0158	-0.0122	0.0015	0.0096	0.0196	-0.0016	0.0158
2.01	0.0459	0.0129	-0.0150	0.0080	0.0083	0.0178	0.0454	0.0145
4.06	0.1006	0.0093	-0.0195	0.0143	0.0076	0.0153	0.0997	0.0164
6.11	0.1540	0.0054	-0.0239	0.0196	0.0079	0.0114	0.1525	0.0218
8.17	0.2203	-0.0004	-0.0310	0.0255	0.0083	0.0055	0.2181	0.0309
10.23	0.2950	-0.0057	-0.0395	0.0319	0.0089	-0.0002	0.2914	0.0467
12.29	0.3667	-0.0109	-0.0478	0.0380	0.0090	-0.0061	0.3606	0.0673
14.36	0.4524	-0.0164	-0.0569	0.0442	0.0081	-0.0116	0.4424	0.0963
16.45	0.5485	-0.0216	-0.0651	0.0506	0.0063	-0.0172	0.5322	0.1345
18.53	0.6412	-0.0265	-0.0741	0.0559	0.0046	-0.0221	0.6164	0.1786
20.62	0.7419	-0.0323	-0.0815	0.0590	0.0024	-0.0274	0.7058	0.2310
22.71	0.8441	-0.0367	-0.0872	0.0639	0.0	-0.0311	0.7928	0.2921
24.81	0.9409	-0.0414	-0.0918	0.0650	-0.0028	-0.0335	0.8714	0.3571
26.91	1.0505	-0.0461	-0.0969	0.0666	-0.0055	-0.0370	0.9576	0.4343
29.00	1.1411	-0.0501	-0.0981	0.0674	-0.0080	-0.0380	1.0223	0.5094
31.06	1.2097	-0.0524	-0.1005	0.0642	-0.0094	-0.0342	1.0633	0.5793
33.10	1.2277	-0.0499	-0.0886	0.0494	-0.0086	-0.0164	1.0557	0.6287
35.12	1.2343	-0.0471	-0.0844	0.0404	-0.0055	-0.0012	1.0367	0.6715
37.14	1.2600	-0.0469	-0.0877	0.0350	-0.0020	0.0125	1.0328	0.7233
39.16	1.2964	-0.0471	-0.0941	0.0317	0.0009	0.0213	1.0350	0.7821
41.20	1.3640	-0.0490	-0.1078	0.0299	0.0035	0.0299	1.0587	0.8615

WICHITA STATE UNIVERSITY

MODEL 2
RUN 11
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.38	-0.3839	0.0246	0.0122	-0.0224	0.0068	0.0203	-0.3732	0.0934
-8.30	-0.2937	0.0223	0.0052	-0.0171	0.0061	0.0198	-0.2874	0.0645
-6.23	-0.2182	0.0209	0.0009	-0.0131	0.0059	0.0217	-0.2146	0.0445
-4.15	-0.1424	0.0200	-0.0030	-0.0086	0.0056	0.0191	-0.1405	0.0303
-2.09	-0.0685	0.0183	-0.0076	-0.0036	0.0051	0.0177	-0.0678	0.0208
-0.03	-0.0125	0.0156	-0.0107	0.0007	0.0047	0.0146	-0.0124	0.0156
2.01	0.0384	0.0132	-0.0137	0.0052	0.0040	0.0127	0.0380	0.0145
4.06	0.0960	0.0091	-0.0185	0.0089	0.0039	0.0105	0.0951	0.0158
6.11	0.1536	0.0044	-0.0247	0.0128	0.0043	0.0077	0.1523	0.0208
8.16	0.2160	-0.0008	-0.0321	0.0163	0.0048	0.0038	0.2139	0.0298
10.23	0.2969	-0.0068	-0.0415	0.0206	0.0054	-0.0008	0.2934	0.0460
12.28	0.3652	-0.0113	-0.0504	0.0250	0.0056	-0.0044	0.3592	0.0665
14.36	0.4549	-0.0173	-0.0607	0.0292	0.0050	-0.0074	0.4450	0.0960
16.44	0.5503	-0.0222	-0.0710	0.0342	0.0041	-0.0121	0.5341	0.1343
18.52	0.6424	-0.0281	-0.0801	0.0382	0.0031	-0.0155	0.6181	0.1773
20.62	0.7571	-0.0340	-0.0902	0.0427	0.0018	-0.0192	0.7206	0.2347
22.71	0.8590	-0.0407	-0.0982	0.0469	0.0003	-0.0228	0.8081	0.2940
24.81	0.9726	-0.0469	-0.1058	0.0497	-0.0014	-0.0267	0.9025	0.3655
26.92	1.0910	-0.0529	-0.1109	0.0515	-0.0037	-0.0285	0.9967	0.4467
29.02	1.1982	-0.0590	-0.1173	0.0547	-0.0052	-0.0309	1.0764	0.5296
31.12	1.3063	-0.0637	-0.1208	0.0559	-0.0069	-0.0317	1.1512	0.6206
33.21	1.3974	-0.0700	-0.1212	0.0554	-0.0083	-0.0315	1.2074	0.7069
35.29	1.4618	-0.0703	-0.1140	0.0479	-0.0088	-0.0228	1.2337	0.7872
37.25	1.3831	-0.0622	-0.0942	0.0249	-0.0041	0.0075	1.1385	0.7877
39.29	1.4136	-0.0619	-0.0904	0.0212	-0.0001	0.0189	1.1333	0.8472
41.34	1.4697	-0.0642	-0.0944	0.0211	0.0023	0.0257	1.1459	0.9225

WICHITA STATE UNIVERSITY

MODEL 2
RUN 12
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.39	-0.3852	0.0246	0.0109	-0.0100	0.0029	0.0060	-0.3744	0.0937
-8.31	-0.3086	0.0230	0.0066	-0.0081	0.0027	0.0063	-0.3020	0.0674
-6.24	-0.2269	0.0223	0.0007	-0.0055	0.0027	0.0088	-0.2231	0.0468
-4.17	-0.1520	0.0207	-0.0032	-0.0036	0.0025	0.0085	-0.1501	0.0318
-2.10	-0.0839	0.0186	-0.0069	-0.0018	0.0023	0.0088	-0.0831	0.0217
-0.04	-0.0174	0.0154	-0.0111	0.0004	0.0020	0.0068	-0.0174	0.0154
2.00	0.0346	0.0131	-0.0147	0.0023	0.0017	0.0059	0.0341	0.0143
4.05	0.0902	0.0087	-0.0183	0.0041	0.0014	0.0054	0.0893	0.0151
6.11	0.1533	0.0045	-0.0261	0.0060	0.0017	0.0032	0.1519	0.0208
8.16	0.2159	-0.0014	-0.0347	0.0076	0.0022	0.0007	0.2139	0.0292
10.22	0.2920	-0.0073	-0.0450	0.0100	0.0023	0.0	0.2886	0.0446
12.27	0.3665	-0.0125	-0.0553	0.0122	0.0023	-0.0005	0.3608	0.0657
14.35	0.4610	-0.0191	-0.0667	0.0147	0.0018	-0.0019	0.4513	0.0956
16.43	0.5526	-0.0252	-0.0768	0.0174	0.0015	-0.0041	0.5371	0.1321
18.52	0.6594	-0.0309	-0.0888	0.0199	0.0011	-0.0040	0.6350	0.1800
20.62	0.7745	-0.0384	-0.0991	0.0223	0.0006	-0.0059	0.7384	0.2367
22.71	0.8774	-0.0445	-0.1052	0.0234	-0.0001	-0.0071	0.8265	0.2976
24.82	0.9933	-0.0514	-0.1125	0.0255	-0.0010	-0.0087	0.9232	0.3702
26.93	1.1186	-0.0579	-0.1210	0.0279	-0.0015	-0.0103	1.0236	0.4550
29.04	1.2372	-0.0655	-0.1274	0.0297	-0.0024	-0.0113	1.1135	0.5432
30.82	1.2908	0.7644	-0.2308	0.0347	-0.0023	-0.0114	0.7167	1.3179
33.27	1.4874	-0.0808	-0.1371	0.0302	-0.0047	-0.0120	1.2878	0.7485
35.37	1.5798	-0.0845	-0.1346	0.0295	-0.0057	-0.0111	1.3370	0.8456
37.45	1.6591	-0.0889	-0.1344	0.0262	-0.0073	-0.0082	1.3711	0.9383
39.50	1.6819	-0.0871	-0.1252	0.0152	-0.0066	0.0028	1.3532	1.0026
41.54	1.6983	-0.0854	-0.1108	0.0115	-0.0044	0.0139	1.3278	1.0624

WICHITA STATE UNIVERSITY

MODEL 2
RUN 13
Q 40PSF
BETA ODEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.40	-0.4006	0.0255	0.0120	0.0018	-0.0008	-0.0086	-0.3894	0.0974
-8.32	-0.3141	0.0238	0.0067	0.0013	-0.0007	-0.0078	-0.3073	0.0690
-6.23	-0.2216	0.0226	0.0013	0.0012	-0.0005	-0.0048	-0.2178	0.0466
-4.17	-0.1540	0.0214	-0.0035	0.0010	-0.0006	-0.0039	-0.1520	0.0325
-2.10	-0.0822	0.0184	-0.0082	0.0007	-0.0006	-0.0024	-0.0815	0.0214
-0.04	-0.0147	0.0157	-0.0116	0.0	-0.0006	-0.0023	-0.0147	0.0157
2.00	0.0358	0.0137	-0.0152	-0.0005	-0.0007	-0.0012	0.0353	0.0150
4.06	0.0931	0.0097	-0.0191	-0.0008	-0.0010	0.0	0.0922	0.0163
6.11	0.1561	0.0048	-0.0266	-0.0007	-0.0012	0.0010	0.1547	0.0214
8.16	0.2216	-0.0007	-0.0354	-0.0014	-0.0016	0.0018	0.2194	0.0306
10.22	0.2955	-0.0059	-0.0460	-0.0015	-0.0017	0.0029	0.2918	0.0466
12.28	0.3743	-0.0125	-0.0581	-0.0024	-0.0018	0.0044	0.3684	0.0673
14.35	0.4624	-0.0182	-0.0677	-0.0028	-0.0020	0.0057	0.4525	0.0969
16.43	0.5584	-0.0248	-0.0783	-0.0035	-0.0021	0.0074	0.5426	0.1341
18.52	0.6649	-0.0308	-0.0903	-0.0033	-0.0022	0.0093	0.6402	0.1819
20.62	0.7829	-0.0386	-0.1017	-0.0046	-0.0023	0.0115	0.7464	0.2396
22.71	0.8883	-0.0453	-0.1105	-0.0051	-0.0021	0.0140	0.8370	0.3011
24.83	1.0178	-0.0530	-0.1206	-0.0054	-0.0020	0.0163	0.9459	0.3792
26.94	1.1413	-0.0597	-0.1286	-0.0056	-0.0019	0.0181	1.0445	0.4638
29.07	1.2833	-0.0684	-0.1365	-0.0075	-0.0019	0.0216	1.1548	0.5637
31.19	1.4145	-0.0752	-0.1419	-0.0075	-0.0017	0.0233	1.2490	0.6682
33.31	1.5253	-0.0841	-0.1390	-0.0046	-0.0015	0.0212	1.3209	0.7674
35.43	1.6290	-0.0902	-0.1328	-0.0057	-0.0017	0.0210	1.3796	0.8708
37.52	1.7163	-0.0948	-0.1310	-0.0048	-0.0017	0.0209	1.4189	0.9701
39.60	1.7903	-0.0990	-0.1271	-0.0041	-0.0016	0.0201	1.4425	1.0649
41.61	1.7766	-0.0973	-0.1155	0.0019	-0.0021	0.0122	1.3928	1.1071

WICHITA STATE UNIVERSITY

MODEL 2
RUN 14
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.40	-0.4000	0.0252	0.0137	0.0139	-0.0044	-0.0247	-0.3888	0.0970
-8.32	-0.3137	0.0239	0.0078	0.0109	-0.0040	-0.0234	-0.3069	0.0690
-6.24	-0.2308	0.0231	0.0028	0.0082	-0.0038	-0.0194	-0.2269	0.0481
-4.17	-0.1563	0.0207	-0.0014	0.0056	-0.0038	-0.0174	-0.1544	0.0320
-2.10	-0.0819	0.0182	-0.0064	0.0029	-0.0036	-0.0141	-0.0812	0.0212
-0.04	-0.0224	0.0148	-0.0108	-0.0003	-0.0035	-0.0119	-0.0224	0.0148
2.01	0.0375	0.0121	-0.0144	-0.0032	-0.0033	-0.0090	0.0370	0.0134
4.05	0.0906	0.0083	-0.0182	-0.0057	-0.0033	-0.0063	0.0898	0.0147
6.10	0.1483	0.0040	-0.0242	-0.0074	-0.0043	-0.0025	0.1470	0.0198
8.16	0.2181	-0.0019	-0.0340	-0.0100	-0.0051	0.0011	0.2162	0.0290
10.22	0.2904	-0.0077	-0.0434	-0.0127	-0.0057	0.0050	0.2872	0.0438
12.28	0.3673	-0.0138	-0.0539	-0.0159	-0.0060	0.0096	0.3618	0.0646
14.35	0.4536	-0.0199	-0.0641	-0.0188	-0.0057	0.0127	0.4444	0.0931
16.43	0.5475	-0.0255	-0.0744	-0.0220	-0.0056	0.0161	0.5324	0.1304
18.51	0.6459	-0.0322	-0.0843	-0.0251	-0.0053	0.0217	0.6227	0.1745
20.61	0.7577	-0.0388	-0.0952	-0.0289	-0.0047	0.0275	0.7229	0.2303
22.70	0.8615	-0.0454	-0.1034	-0.0322	-0.0041	0.0334	0.8123	0.2905
24.81	0.9834	-0.0531	-0.1126	-0.0358	-0.0029	0.0397	0.9149	0.3644
26.92	1.1053	-0.0591	-0.1190	-0.0372	-0.0021	0.0420	1.0123	0.4477
29.03	1.2245	-0.0669	-0.1259	-0.0404	-0.0012	0.0465	1.1031	0.5356
31.14	1.3443	-0.0718	-0.1302	-0.0418	0.0001	0.0494	1.1878	0.6338
33.25	1.4554	-0.0792	-0.1314	-0.0417	0.0017	0.0504	1.2605	0.7318
35.35	1.5515	-0.0833	-0.1305	-0.0394	0.0036	0.0496	1.3136	0.8297
37.44	1.6314	-0.0870	-0.1252	-0.0355	0.0048	0.0462	1.3481	0.9228
39.47	1.6447	-0.0832	-0.1182	-0.0218	0.0034	0.0292	1.3225	0.9813
41.51	1.6689	-0.0829	-0.1086	-0.0162	0.0008	0.0162	1.3046	1.0441

WICHITA STATE UNIVERSITY

MODEL 2
RUN 15
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.38	-0.3891	0.0239	0.0136	0.0255	-0.0083	-0.0366	-0.3784	0.0936
-8.32	-0.3136	0.0227	0.0080	0.0199	-0.0077	-0.0350	-0.3070	0.0678
-6.23	-0.2208	0.0223	0.0029	0.0141	-0.0073	-0.0294	-0.2171	0.0461
-4.16	-0.1514	0.0202	-0.0019	0.0095	-0.0072	-0.0264	-0.1495	0.0312
-2.10	-0.0834	0.0183	-0.0063	0.0043	-0.0069	-0.0214	-0.0827	0.0214
-0.04	-0.0188	0.0159	-0.0104	-0.0015	-0.0064	-0.0180	-0.0188	0.0159
2.00	0.0301	0.0138	-0.0132	-0.0067	-0.0060	-0.0137	0.0296	0.0149
4.05	0.0832	0.0107	-0.0175	-0.0110	-0.0057	-0.0097	0.0822	0.0165
6.10	0.1412	0.0064	-0.0229	-0.0154	-0.0065	-0.0044	0.1398	0.0214
8.15	0.2015	0.0008	-0.0297	-0.0196	-0.0079	0.0006	0.1994	0.0293
10.21	0.2790	-0.0052	-0.0389	-0.0239	-0.0089	0.0078	0.2755	0.0442
12.27	0.3521	-0.0100	-0.0484	-0.0292	-0.0092	0.0146	0.3462	0.0650
14.34	0.4341	-0.0153	-0.0584	-0.0344	-0.0091	0.0208	0.4243	0.0927
16.42	0.5277	-0.0211	-0.0673	-0.0396	-0.0081	0.0258	0.5121	0.1289
18.50	0.6224	-0.0270	-0.0763	-0.0447	-0.0071	0.0322	0.5988	0.1719
20.59	0.7261	-0.0333	-0.0856	-0.0496	-0.0058	0.0401	0.6914	0.2242
22.69	0.8344	-0.0397	-0.0949	-0.0538	-0.0041	0.0481	0.7852	0.2852
24.78	0.9332	-0.0451	-0.1003	-0.0560	-0.0019	0.0531	0.8662	0.3501
26.88	1.0375	-0.0500	-0.1041	-0.0580	0.0001	0.0577	0.9480	0.4244
28.99	1.1561	-0.0565	-0.1097	-0.0610	0.0019	0.0615	1.0386	0.5108
31.08	1.2597	-0.0605	-0.1155	-0.0630	0.0036	0.0641	1.1100	0.5985
33.19	1.3663	-0.0664	-0.1153	-0.0629	0.0058	0.0640	1.1797	0.6924
35.26	1.4183	-0.0654	-0.1054	-0.0549	0.0068	0.0550	1.1958	0.7655
37.24	1.3649	-0.0574	-0.0888	-0.0348	0.0030	0.0251	1.1212	0.7803
39.26	1.3750	-0.0555	-0.0866	-0.0294	-0.0007	0.0120	1.0998	0.8271
41.30	1.4350	-0.0572	-0.0931	-0.0280	-0.0042	0.0040	1.1158	0.9042

WICHITA STATE UNIVERSITY

MODEL 2
RUN 16
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.37	-0.3736	0.0265	0.0118	0.0370	-0.0127	-0.0471	-0.3627	0.0934
-8.30	-0.2941	0.0247	0.0050	0.0296	-0.0126	-0.0442	-0.2874	0.0669
-6.22	-0.2077	0.0245	-0.0020	0.0217	-0.0121	-0.0381	-0.2038	0.0469
-4.16	-0.1418	0.0238	-0.0058	0.0147	-0.0107	-0.0358	-0.1397	0.0341
-2.09	-0.0679	0.0217	-0.0102	0.0075	-0.0116	-0.0276	-0.0671	0.0242
-0.03	-0.0085	0.0197	-0.0132	0.0	-0.0122	-0.0219	-0.0085	0.0197
2.00	0.0360	0.0160	-0.0157	-0.0071	-0.0109	-0.0178	0.0354	0.0172
4.05	0.0920	0.0128	-0.0198	-0.0145	-0.0099	-0.0142	0.0909	0.0193
6.10	0.1414	0.0093	-0.0234	-0.0202	-0.0097	-0.0097	0.1396	0.0243
8.15	0.2007	0.0021	-0.0288	-0.0259	-0.0109	-0.0034	0.1983	0.0306
10.22	0.2745	-0.0034	-0.0353	-0.0322	-0.0120	0.0051	0.2707	0.0453
12.28	0.3509	-0.0084	-0.0463	-0.0397	-0.0127	0.0147	0.3447	0.0664
14.34	0.4281	-0.0132	-0.0534	-0.0461	-0.0121	0.0229	0.4181	0.0932
16.42	0.5187	-0.0190	-0.0622	-0.0525	-0.0108	0.0301	0.5029	0.1283
18.50	0.6104	-0.0239	-0.0707	-0.0584	-0.0088	0.0385	0.5865	0.1710
20.59	0.7161	-0.0300	-0.0793	-0.0638	-0.0061	0.0460	0.6809	0.2238
22.68	0.8112	-0.0348	-0.0842	-0.0672	-0.0035	0.0537	0.7618	0.2807
24.78	0.9085	-0.0401	-0.0877	-0.0691	-0.0005	0.0602	0.8416	0.3443
26.87	1.0084	-0.0440	-0.0929	-0.0710	0.0021	0.0648	0.9195	0.4165
28.96	1.1077	-0.0478	-0.0972	-0.0727	0.0049	0.0675	0.9923	0.4946
31.05	1.1916	-0.0490	-0.0971	-0.0706	0.0069	0.0661	1.0462	0.5726
33.10	1.2223	-0.0482	-0.0890	-0.0590	0.0073	0.0500	1.0503	0.6271
35.12	1.2315	-0.0442	-0.0841	-0.0480	0.0051	0.0322	1.0328	0.6722
37.14	1.2591	-0.0438	-0.0865	-0.0427	0.0024	0.0202	1.0302	0.7252
39.14	1.2788	-0.0424	-0.0950	-0.0363	-0.0016	0.0067	1.0186	0.7742
41.18	1.3431	-0.0440	-0.1039	-0.0355	-0.0044	0.0011	1.0398	0.8513

WICHITA STATE UNIVERSITY

MODEL 2
RUN 17
Q 40PSF
BETA 20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3368	0.0246	0.0048	0.0403	-0.0187	-0.0495	-0.3269	0.0847
-8.28	-0.2695	0.0232	0.0016	0.0332	-0.0166	-0.0490	-0.2633	0.0618
-6.21	-0.1974	0.0229	-0.0021	0.0249	-0.0154	-0.0439	-0.1938	0.0441
-4.14	-0.1236	0.0217	-0.0070	0.0157	-0.0148	-0.0391	-0.1217	0.0305
-2.08	-0.0631	0.0197	-0.0086	0.0090	-0.0161	-0.0288	-0.0623	0.0220
-0.03	-0.0156	0.0176	-0.0103	0.0002	-0.0139	-0.0255	-0.0156	0.0176
2.00	0.0368	0.0150	-0.0145	-0.0088	-0.0117	-0.0239	0.0362	0.0162
4.05	0.0886	0.0116	-0.0193	-0.0176	-0.0106	-0.0207	0.0876	0.0178
6.10	0.1479	0.0071	-0.0237	-0.0262	-0.0110	-0.0156	0.1463	0.0228
8.16	0.2084	0.0022	-0.0295	-0.0341	-0.0123	-0.0086	0.2059	0.0318
10.22	0.2821	-0.0039	-0.0358	-0.0419	-0.0142	0.0019	0.2783	0.0462
12.29	0.3577	-0.0093	-0.0433	-0.0499	-0.0149	0.0128	0.3515	0.0670
14.36	0.4343	-0.0143	-0.0506	-0.0568	-0.0146	0.0231	0.4243	0.0938
16.43	0.5188	-0.0197	-0.0581	-0.0639	-0.0127	0.0317	0.5032	0.1278
18.51	0.6117	-0.0247	-0.0652	-0.0697	-0.0100	0.0424	0.5878	0.1708
20.60	0.7045	-0.0298	-0.0707	-0.0744	-0.0067	0.0500	0.6700	0.2199
22.69	0.8043	-0.0337	-0.0760	-0.0773	-0.0025	0.0574	0.7550	0.2791
24.78	0.8898	-0.0371	-0.0786	-0.0786	0.0008	0.0620	0.8234	0.3392
26.87	0.9841	-0.0387	-0.0821	-0.0785	0.0044	0.0645	0.8953	0.4102
28.95	1.0735	-0.0396	-0.0847	-0.0764	0.0074	0.0625	0.9585	0.4850
31.01	1.1235	-0.0381	-0.0828	-0.0677	0.0089	0.0532	0.9825	0.5461
33.06	1.1744	-0.0389	-0.0845	-0.0613	0.0087	0.0427	1.0055	0.6080
35.08	1.2055	-0.0386	-0.0864	-0.0543	0.0073	0.0322	1.0086	0.6612
37.09	1.2235	-0.0367	-0.0918	-0.0463	0.0043	0.0190	0.9981	0.7085
39.08	1.2405	-0.0361	-0.1042	-0.0399	0.0013	0.0064	0.9857	0.7539
41.07	1.2729	-0.0349	-0.1202	-0.0363	-0.0006	-0.0032	0.9825	0.8100

WICHITA STATE UNIVERSITY

MODEL 2
RUN 18
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.2950	0.0205	0.0018	0.0397	-0.0244	-0.0395	-0.2865	0.0730
-8.25	-0.2460	0.0188	0.0049	0.0345	-0.0198	-0.0452	-0.2407	0.0540
-6.19	-0.1835	0.0188	0.0	0.0266	-0.0176	-0.0431	-0.1804	0.0385
-4.13	-0.1246	0.0180	-0.0015	0.0188	-0.0147	-0.0436	-0.1230	0.0269
-2.08	-0.0689	0.0172	-0.0072	0.0093	-0.0126	-0.0423	-0.0682	0.0197
-0.04	-0.0188	0.0147	-0.0117	-0.0014	-0.0114	-0.0398	-0.0187	0.0147
1.99	0.0320	0.0123	-0.0167	-0.0118	-0.0106	-0.0365	0.0315	0.0134
4.05	0.0892	0.0081	-0.0216	-0.0209	-0.0107	-0.0321	0.0884	0.0144
6.11	0.1542	0.0048	-0.0267	-0.0305	-0.0119	-0.0258	0.1529	0.0212
8.16	0.2200	-0.0005	-0.0323	-0.0394	-0.0135	-0.0178	0.2179	0.0307
10.23	0.2914	-0.0047	-0.0369	-0.0481	-0.0157	-0.0058	0.2876	0.0471
12.30	0.3642	-0.0100	-0.0435	-0.0570	-0.0169	0.0056	0.3580	0.0677
14.37	0.4403	-0.0154	-0.0488	-0.0645	-0.0164	0.0179	0.4303	0.0942
16.44	0.5222	-0.0207	-0.0537	-0.0712	-0.0143	0.0286	0.5067	0.1279
18.52	0.6111	-0.0255	-0.0605	-0.0778	-0.0110	0.0403	0.5875	0.1699
20.61	0.7059	-0.0303	-0.0658	-0.0826	-0.0068	0.0486	0.6714	0.2201
22.70	0.8012	-0.0330	-0.0694	-0.0850	-0.0018	0.0549	0.7518	0.2788
24.78	0.8799	-0.0345	-0.0722	-0.0846	0.0026	0.0564	0.8133	0.3374
26.87	0.9755	-0.0350	-0.0756	-0.0827	0.0064	0.0566	0.8860	0.4097
28.95	1.0521	-0.0367	-0.0783	-0.0786	0.0094	0.0538	0.9384	0.4771
31.00	1.1083	-0.0366	-0.0796	-0.0725	0.0114	0.0491	0.9688	0.5394
33.05	1.1665	-0.0378	-0.0843	-0.0654	0.0121	0.0398	0.9984	0.6044
35.08	1.2058	-0.0374	-0.0886	-0.0579	0.0113	0.0305	1.0082	0.6623
37.09	1.2385	-0.0373	-0.0990	-0.0489	0.0092	0.0189	1.0105	0.7171
39.08	1.2611	-0.0375	-0.1109	-0.0432	0.0069	0.0076	1.0026	0.7660
41.05	1.2584	-0.0356	-0.1227	-0.0379	0.0042	-0.0050	0.9723	0.7996

WICHITA STATE UNIVERSITY

MODEL 3
RUN 2
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.20	-0.3823	0.0186	0.0363	0.0035	0.0013	-0.0090	-0.3730	0.0861
-8.16	-0.3039	0.0182	0.0315	0.0032	0.0010	-0.0070	-0.2983	0.0611
-6.11	-0.2267	0.0175	0.0258	0.0022	0.0009	-0.0050	-0.2236	0.0416
-4.07	-0.1514	0.0163	0.0206	0.0011	0.0006	-0.0042	-0.1499	0.0270
-2.04	-0.0931	0.0155	0.0150	0.0009	0.0004	-0.0034	-0.0924	0.0188
-0.0	-0.0149	0.0125	0.0063	-0.0	0.0003	0.0026	-0.0149	0.0125
2.02	0.0385	0.0119	0.0010	-0.0005	0.0002	0.0029	0.0380	0.0132
4.05	0.0973	0.0091	-0.0054	-0.0007	0.0	0.0034	0.0964	0.0159
6.08	0.1562	0.0062	-0.0114	-0.0015	-0.0004	0.0041	0.1546	0.0227
8.13	0.2295	0.0021	-0.0162	-0.0023	-0.0007	0.0057	0.2269	0.0345
10.17	0.3150	0.0011	-0.0240	-0.0020	-0.0004	0.0062	0.3099	0.0567
12.22	0.4060	-0.0004	-0.0319	-0.0034	-0.0004	0.0068	0.3969	0.0855
14.27	0.4839	-0.0021	-0.0375	-0.0035	-0.0005	0.0101	0.4695	0.1171
16.33	0.5883	-0.0048	-0.0443	-0.0043	-0.0006	0.0117	0.5659	0.1608
18.40	0.7215	-0.0076	-0.0530	-0.0047	-0.0005	0.0141	0.6870	0.2205
20.46	0.8265	-0.0096	-0.0560	-0.0040	-0.0002	0.0115	0.7777	0.2800
22.53	0.9494	-0.0108	-0.0615	-0.0063	-0.0001	0.0158	0.8811	0.3539
24.61	1.0780	-0.0140	-0.0658	-0.0056	-0.0001	0.0185	0.9859	0.4361
26.68	1.2062	-0.0153	-0.0674	-0.0062	0.0002	0.0206	1.0846	0.5279
28.76	1.3282	-0.0171	-0.0675	-0.0074	0.0002	0.0217	1.1726	0.6239
30.83	1.4612	-0.0204	-0.0699	-0.0092	0.0006	0.0231	1.2651	0.7314
32.90	1.5757	-0.0227	-0.0692	-0.0069	0.0008	0.0227	1.3353	0.8367
34.96	1.6768	-0.0239	-0.0609	-0.0040	0.0017	0.0206	1.3879	0.9413
36.99	1.7250	-0.0233	-0.0562	-0.0064	0.0011	0.0231	1.3918	1.0193
38.98	1.7153	-0.0232	-0.0610	-0.0001	-0.0	0.0177	1.3480	1.0609
40.96	1.7057	-0.0231	-0.0658	-0.0029	0.0004	0.0222	1.3032	1.1007

WICHITA STATE UNIVERSITY

MODEL 3
RUN 3
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3963	0.0155	0.0373	0.0027	0.0010	-0.0081	-0.3870	0.0865
-8.26	-0.3124	0.0159	0.0317	0.0021	0.0008	-0.0061	-0.3068	0.0607
-6.19	-0.2336	0.0146	0.0260	0.0018	0.0006	-0.0047	-0.2307	0.0398
-4.13	-0.1657	0.0152	0.0210	0.0013	0.0005	-0.0037	-0.1642	0.0271
-2.07	-0.0972	0.0145	0.0153	0.0009	0.0004	-0.0031	-0.0966	0.0180
-0.01	-0.0323	0.0137	0.0083	0.0003	0.0002	-0.0001	-0.0323	0.0137
2.03	0.0291	0.0118	0.0016	-0.0003	0.0002	0.0011	0.0286	0.0129
4.08	0.0827	0.0086	-0.0042	-0.0007	0.0001	0.0017	0.0818	0.0145
6.12	0.1381	0.0041	-0.0100	-0.0011	-0.0001	0.0035	0.1369	0.0188
8.19	0.2131	0.0022	-0.0154	-0.0013	-0.0005	0.0048	0.2106	0.0326
10.27	0.3036	0.0005	-0.0230	-0.0021	-0.0003	0.0054	0.2986	0.0547
12.36	0.3982	-0.0017	-0.0313	-0.0028	-0.0003	0.0073	0.3893	0.0835
14.45	0.5035	-0.0031	-0.0390	-0.0034	-0.0003	0.0093	0.4884	0.1226
16.56	0.6119	-0.0051	-0.0453	-0.0039	-0.0004	0.0105	0.5880	0.1694
18.67	0.7322	-0.0076	-0.0510	-0.0039	-0.0002	0.0117	0.6961	0.2272
20.79	0.8565	-0.0106	-0.0550	-0.0035	0.0	0.0117	0.8045	0.2942
22.91	0.9737	-0.0121	-0.0582	-0.0050	0.0	0.0142	0.9016	0.3679
25.04	1.1073	-0.0149	-0.0617	-0.0051	0.0001	0.0160	1.0095	0.4551
27.17	1.2376	-0.0161	-0.0652	-0.0050	0.0004	0.0175	1.1084	0.5507
29.30	1.3736	-0.0191	-0.0685	-0.0062	0.0007	0.0209	1.2072	0.6556
31.40	1.4785	-0.0218	-0.0706	-0.0071	0.0012	0.0232	1.2733	0.7517
33.51	1.5840	-0.0251	-0.0705	-0.0060	0.0028	0.0259	1.3346	0.8536
35.61	1.6804	-0.0266	-0.0701	-0.0040	0.0032	0.0248	1.3816	0.9568
37.64	1.7068	-0.0251	-0.0670	-0.0041	0.0022	0.0247	1.3668	1.0226
39.62	1.6869	-0.0238	-0.0694	0.0001	0.0014	0.0226	1.3146	1.0574
41.59	1.6729	-0.0236	-0.0731	-0.0038	0.0024	0.0260	1.2668	1.0928

WICHITA STATE UNIVERSITY

MODEL 3
RUN 4
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.45	-0.3770	0.0150	0.0363	0.0028	0.0010	-0.0081	-0.3681	0.0832
-8.34	-0.2959	0.0155	0.0305	0.0022	0.0008	-0.0067	-0.2905	0.0583
-6.24	-0.2183	0.0149	0.0252	0.0017	0.0006	-0.0056	-0.2154	0.0386
-4.16	-0.1515	0.0143	0.0198	0.0007	0.0004	-0.0046	-0.1501	0.0253
-2.08	-0.0805	0.0132	0.0129	0.0005	0.0003	-0.0034	-0.0799	0.0161
-0.0	-0.0177	0.0123	0.0064	-0.0	0.0002	-0.0015	-0.0177	0.0123
2.05	0.0317	0.0102	0.0007	0.0	0.0003	-0.0010	0.0313	0.0114
4.12	0.0923	0.0061	-0.0060	-0.0008	0.0	0.0004	0.0917	0.0127
6.18	0.1452	0.0029	-0.0109	-0.0010	-0.0001	0.0021	0.1440	0.0185
8.30	0.2357	0.0002	-0.0176	-0.0012	-0.0002	0.0033	0.2332	0.0343
10.40	0.3237	-0.0008	-0.0249	-0.0018	-0.0002	0.0045	0.3185	0.0576
12.54	0.4308	-0.0034	-0.0335	-0.0019	-0.0002	0.0059	0.4213	0.0902
14.68	0.5394	-0.0051	-0.0407	-0.0019	-0.0002	0.0079	0.5231	0.1317
16.83	0.6537	-0.0078	-0.0460	-0.0026	-0.0001	0.0091	0.6280	0.1818
18.99	0.7662	-0.0098	-0.0506	-0.0028	0.0	0.0107	0.7277	0.2399
21.16	0.8928	-0.0123	-0.0561	-0.0036	0.0006	0.0136	0.8371	0.3107
23.32	1.0129	-0.0135	-0.0597	-0.0024	0.0	0.0108	0.9355	0.3886
25.48	1.1332	-0.0157	-0.0641	-0.0024	0.0	0.0124	1.0297	0.4734
27.66	1.2595	-0.0177	-0.0673	-0.0021	0.0002	0.0142	1.1238	0.5690
29.84	1.3917	-0.0208	-0.0705	-0.0030	0.0	0.0164	1.2174	0.6745
32.02	1.5205	-0.0237	-0.0741	-0.0044	-0.0	0.0189	1.3018	0.7861
34.17	1.6228	-0.0262	-0.0714	-0.0027	0.0016	0.0211	1.3573	0.8899
36.29	1.6952	-0.0276	-0.0677	-0.0028	0.0023	0.0218	1.3826	0.9813
38.28	1.6905	-0.0257	-0.0700	0.0005	0.0009	0.0198	1.3428	1.0272
40.27	1.6837	-0.0242	-0.0718	0.0010	0.0013	0.0201	1.3002	1.0700
42.23	1.6623	-0.0242	-0.0767	-0.0028	0.0018	0.0232	1.2471	1.0993

WICHITA STATE UNIVERSITY

MODEL 3
RUN 5
Q 20PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.20	-0.3805	0.0161	0.0343	0.0042	0.0008	-0.0073	-0.3716	0.0833
-8.15	-0.2870	0.0172	0.0280	0.0036	0.0004	-0.0050	-0.2816	0.0577
-6.12	-0.2252	0.0150	0.0227	0.0036	0.0005	-0.0054	-0.2224	0.0389
-4.07	-0.1467	0.0132	0.0178	0.0033	0.0003	-0.0044	-0.1453	0.0236
-2.03	-0.0762	0.0136	0.0123	0.0026	0.0	-0.0033	-0.0756	0.0163
-0.0	-0.0160	0.0114	0.0063	0.0024	-0.0001	0.0010	-0.0160	0.0114
2.03	0.0480	0.0081	-0.0	0.0015	0.0	0.0002	0.0477	0.0098
4.05	0.0891	0.0084	-0.0035	0.0015	-0.0001	0.0020	0.0883	0.0146
6.08	0.1532	0.0014	-0.0112	0.0013	-0.0005	0.0036	0.1522	0.0177
8.13	0.2353	-0.0023	-0.0166	0.0010	-0.0008	0.0041	0.2333	0.0310
10.18	0.3268	-0.0040	-0.0259	0.0002	-0.0005	0.0044	0.3224	0.0538
12.24	0.4282	-0.0066	-0.0338	-0.0006	-0.0005	0.0054	0.4198	0.0843
14.28	0.5112	-0.0087	-0.0405	-0.0008	-0.0005	0.0081	0.4976	0.1176
16.36	0.6428	-0.0091	-0.0473	-0.0002	-0.0006	0.0105	0.6193	0.1722
18.40	0.7219	-0.0113	-0.0509	-0.0026	-0.0007	0.0133	0.6886	0.2172
20.48	0.8503	-0.0145	-0.0576	-0.0013	-0.0004	0.0136	0.8016	0.2838
22.54	0.9611	-0.0168	-0.0625	-0.0025	-0.0002	0.0145	0.8942	0.3529
24.62	1.0941	-0.0201	-0.0680	-0.0039	-0.0001	0.0171	1.0031	0.4374
26.69	1.2250	-0.0227	-0.0715	-0.0057	-0.0001	0.0199	1.1046	0.5299
28.76	1.3464	-0.0271	-0.0748	-0.0065	-0.0	0.0213	1.1934	0.6241
30.84	1.4890	-0.0320	-0.0747	-0.0070	-0.0	0.0223	1.2948	0.7359
32.91	1.6116	-0.0344	-0.0747	-0.0051	0.0005	0.0226	1.3716	0.8468
34.97	1.7008	-0.0349	-0.0659	-0.0042	0.0016	0.0207	1.4136	0.9463
37.01	1.7499	-0.0351	-0.0590	-0.0052	0.0009	0.0231	1.4185	1.0252
38.98	1.7216	-0.0333	-0.0614	0.0008	0.0	0.0175	1.3592	1.0572
40.97	1.7228	-0.0340	-0.0669	-0.0028	0.0008	0.0204	1.3230	1.1040

WICHITA STATE UNIVERSITY

MODEL 3
RUN 6
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3857	0.0120	0.0366	0.0019	0.0008	-0.0070	-0.3773	0.0810
-8.26	-0.3045	0.0128	0.0314	0.0015	0.0007	-0.0053	-0.2995	0.0565
-6.19	-0.2289	0.0129	0.0253	0.0009	0.0006	-0.0044	-0.2262	0.0375
-4.12	-0.1583	0.0120	0.0197	0.0001	0.0002	-0.0030	-0.1570	0.0233
-2.06	-0.0869	0.0110	0.0133	-0.0002	0.0	-0.0024	-0.0864	0.0142
-0.01	-0.0240	0.0111	0.0071	-0.0006	-0.0001	-0.0003	-0.0240	0.0111
2.04	0.0372	0.0094	0.0010	-0.0012	-0.0001	0.0005	0.0369	0.0107
4.08	0.0901	0.0074	-0.0045	-0.0019	-0.0004	0.0013	0.0893	0.0138
6.12	0.1342	0.0035	-0.0097	-0.0020	-0.0003	0.0024	0.1330	0.0178
8.20	0.2209	0.0009	-0.0167	-0.0025	-0.0008	0.0049	0.2185	0.0324
10.28	0.3108	-0.0009	-0.0234	-0.0029	-0.0005	0.0050	0.3060	0.0545
12.37	0.4106	-0.0025	-0.0324	-0.0036	-0.0004	0.0062	0.4016	0.0854
14.46	0.5087	-0.0050	-0.0383	-0.0039	-0.0004	0.0088	0.4938	0.1222
16.57	0.6302	-0.0069	-0.0462	-0.0048	-0.0005	0.0104	0.6059	0.1731
18.68	0.7405	-0.0094	-0.0516	-0.0047	-0.0003	0.0110	0.7046	0.2282
20.79	0.8521	-0.0122	-0.0551	-0.0048	-0.0001	0.0117	0.8010	0.2910
22.92	0.9891	-0.0137	-0.0604	-0.0053	-0.0	0.0146	0.9163	0.3726
25.05	1.1219	-0.0161	-0.0628	-0.0058	-0.0	0.0162	1.0232	0.4605
27.17	1.2431	-0.0175	-0.0657	-0.0061	0.0	0.0172	1.1138	0.5521
29.31	1.3774	-0.0210	-0.0669	-0.0066	0.0	0.0194	1.2113	0.6559
31.43	1.4986	-0.0237	-0.0665	-0.0069	-0.0	0.0207	1.2910	0.7613
33.54	1.6075	-0.0260	-0.0670	-0.0057	0.0002	0.0211	1.3542	0.8666
35.62	1.6740	-0.0268	-0.0594	-0.0047	0.0007	0.0191	1.3763	0.9533
37.68	1.7271	-0.0266	-0.0594	-0.0050	0.0005	0.0207	1.3831	1.0346
39.64	1.6960	-0.0245	-0.0625	0.0004	-0.0003	0.0177	1.3216	1.0632
41.62	1.6885	-0.0244	-0.0673	-0.0044	0.0004	0.0218	1.2784	1.1034

WICHITA STATE UNIVERSITY

MODEL 3
RUN 7
Q 60PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.45	-0.3783	0.0139	0.0370	0.0027	0.0009	-0.0072	-0.3695	0.0823
-8.34	-0.2927	0.0145	0.0310	0.0022	0.0007	-0.0055	-0.2875	0.0569
-6.24	-0.2131	0.0144	0.0244	0.0017	0.0006	-0.0044	-0.2102	0.0374
-4.15	-0.1417	0.0139	0.0183	0.0006	0.0002	-0.0031	-0.1403	0.0242
-2.07	-0.0720	0.0125	0.0118	-0.0	-0.0	-0.0020	-0.0715	0.0151
0.0	-0.0083	0.0124	0.0049	-0.0	0.0	-0.0	-0.0083	0.0124
2.06	0.0481	0.0100	-0.0008	-0.0008	-0.0	0.0010	0.0477	0.0117
4.12	0.0973	0.0068	-0.0063	-0.0015	-0.0003	0.0019	0.0966	0.0138
6.20	0.1571	0.0034	-0.0114	-0.0010	-0.0003	0.0036	0.1558	0.0203
8.29	0.2335	0.0017	-0.0167	-0.0013	-0.0002	0.0037	0.2308	0.0354
10.42	0.3324	0.0	-0.0255	-0.0018	-0.0001	0.0046	0.3269	0.0602
12.54	0.4337	-0.0023	-0.0334	-0.0022	-0.0002	0.0063	0.4238	0.0919
14.68	0.5376	-0.0041	-0.0401	-0.0025	-0.0002	0.0083	0.5211	0.1322
16.83	0.6497	-0.0062	-0.0460	-0.0029	-0.0001	0.0097	0.6237	0.1821
19.00	0.7759	-0.0087	-0.0513	-0.0033	-0.0	0.0107	0.7365	0.2443
21.16	0.8966	-0.0106	-0.0550	-0.0034	-0.0	0.0120	0.8400	0.3139
23.33	1.0202	-0.0128	-0.0593	-0.0035	-0.0	0.0136	0.9418	0.3923
25.50	1.1441	-0.0146	-0.0637	-0.0036	-0.0001	0.0149	1.0389	0.4794
27.68	1.2690	-0.0167	-0.0664	-0.0033	0.0	0.0160	1.1316	0.5746
29.87	1.4033	-0.0194	-0.0673	-0.0039	0.0001	0.0184	1.2266	0.6820
32.04	1.5306	-0.0217	-0.0703	-0.0045	0.0001	0.0194	1.3089	0.7937
34.17	1.6406	-0.0248	-0.0812	-0.0011	0.0006	0.0197	1.3712	0.9009
36.32	1.6976	-0.0247	-0.0606	-0.0027	0.0007	0.0198	1.3824	0.9857
38.31	1.6948	-0.0233	-0.0630	0.0002	-0.0002	0.0176	1.3442	1.0324
40.30	1.6915	-0.0225	-0.0675	-0.0018	-0.0	0.0195	1.3046	1.0768
42.26	1.6689	-0.0214	-0.0701	-0.0027	0.0003	0.0211	1.2495	1.1065

WICHITA STATE UNIVERSITY

MODEL 3
RUN 8
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3273	0.0136	0.0196	-0.0547	-0.0146	0.0588	-0.3196	0.0719
-8.24	-0.2649	0.0134	0.0182	-0.0469	-0.0140	0.0571	-0.2602	0.0512
-6.17	-0.1960	0.0129	0.0176	-0.0366	-0.0131	0.0534	-0.1935	0.0339
-4.11	-0.1347	0.0131	0.0156	-0.0266	-0.0123	0.0507	-0.1334	0.0228
-2.05	-0.0779	0.0132	0.0117	-0.0161	-0.0111	0.0461	-0.0774	0.0160
0.0	-0.0096	0.0133	0.0069	-0.0049	-0.0099	0.0429	-0.0096	0.0133
2.06	0.0602	0.0118	-0.0005	0.0060	-0.0083	0.0356	0.0598	0.0139
4.12	0.1207	0.0117	-0.0040	0.0148	-0.0066	0.0276	0.1195	0.0203
6.17	0.1891	0.0070	-0.0122	0.0249	-0.0043	0.0158	0.1873	0.0273
8.24	0.2648	0.0020	-0.0171	0.0332	-0.0012	0.0019	0.2618	0.0400
10.31	0.3427	-0.0024	-0.0250	0.0421	0.0028	-0.0144	0.3376	0.0590
12.39	0.4250	-0.0067	-0.0299	0.0488	0.0069	-0.0299	0.4166	0.0846
14.49	0.5187	-0.0055	-0.0313	0.0522	0.0072	-0.0264	0.5036	0.1244
16.59	0.6190	-0.0038	-0.0315	0.0577	0.0055	-0.0229	0.5943	0.1731
18.69	0.7176	-0.0043	-0.0347	0.0616	0.0034	-0.0234	0.6811	0.2258
20.80	0.8212	-0.0042	-0.0354	0.0657	0.0010	-0.0239	0.7692	0.2876
22.89	0.9096	-0.0027	-0.0348	0.0653	-0.0017	-0.0217	0.8390	0.3513
24.98	0.9963	-0.0029	-0.0359	0.0638	-0.0027	-0.0220	0.9044	0.4180
27.04	1.0575	-0.0012	-0.0372	0.0601	-0.0027	-0.0213	0.9425	0.4796
29.09	1.1177	-0.0017	-0.0415	0.0553	-0.0020	-0.0194	0.9775	0.5419
31.11	1.1585	-0.0014	-0.0486	0.0479	-0.0009	-0.0160	0.9926	0.5974
33.12	1.1993	-0.0013	-0.0654	0.0405	0.0006	-0.0103	1.0051	0.6542
35.12	1.2540	-0.0025	-0.0892	0.0362	0.0037	-0.0041	1.0271	0.7194
37.10	1.2795	-0.0034	-0.1125	0.0333	0.0063	0.0066	1.0225	0.7691
39.10	1.3103	-0.0034	-0.1258	0.0318	0.0059	0.0110	1.0190	0.8237
41.08	1.3119	-0.0047	-0.1372	0.0285	0.0043	0.0182	0.9920	0.8584

WICHITA STATE UNIVERSITY

MODEL 3
RUN 9
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3373	0.0148	0.0212	-0.0499	-0.0137	0.0503	-0.3292	0.0749
-8.24	-0.2679	0.0143	0.0211	-0.0422	-0.0124	0.0469	-0.2631	0.0525
-6.17	-0.2014	0.0136	0.0193	-0.0333	-0.0111	0.0435	-0.1987	0.0352
-4.11	-0.1378	0.0130	0.0167	-0.0238	-0.0103	0.0403	-0.1365	0.0228
-2.05	-0.0785	0.0122	0.0122	-0.0134	-0.0093	0.0366	-0.0780	0.0150
-0.0	-0.0140	0.0120	0.0064	-0.0025	-0.0079	0.0325	-0.0140	0.0120
2.05	0.0469	0.0099	0.0007	0.0066	-0.0066	0.0280	0.0465	0.0116
4.10	0.1049	0.0091	-0.0036	0.0144	-0.0050	0.0202	0.1039	0.0165
6.16	0.1664	0.0053	-0.0093	0.0221	-0.0027	0.0102	0.1648	0.0231
8.23	0.2474	-0.0006	-0.0173	0.0305	0.0010	-0.0042	0.2449	0.0347
10.30	0.3272	-0.0051	-0.0237	0.0373	0.0050	-0.0200	0.3228	0.0534
12.38	0.4098	-0.0064	-0.0263	0.0414	0.0070	-0.0252	0.4016	0.0815
14.48	0.5046	-0.0064	-0.0276	0.0472	0.0060	-0.0204	0.4902	0.1199
16.59	0.6108	-0.0062	-0.0299	0.0529	0.0035	-0.0200	0.5872	0.1684
18.69	0.7209	-0.0064	-0.0337	0.0578	0.0006	-0.0184	0.6849	0.2250
20.79	0.8158	-0.0070	-0.0366	0.0613	-0.0002	-0.0209	0.7651	0.2829
22.89	0.9130	-0.0065	-0.0383	0.0628	-0.0015	-0.0213	0.8436	0.3490
24.98	1.0025	-0.0067	-0.0385	0.0624	-0.0022	-0.0214	0.9116	0.4173
27.04	1.0621	-0.0049	-0.0364	0.0587	-0.0025	-0.0209	0.9482	0.4786
29.10	1.1185	-0.0050	-0.0374	0.0546	-0.0019	-0.0198	0.9797	0.5396
31.09	1.1351	-0.0046	-0.0470	0.0456	0.0	-0.0161	0.9744	0.5822
33.10	1.1763	-0.0052	-0.0658	0.0402	0.0019	-0.0111	0.9882	0.6379
35.11	1.2582	-0.0067	-0.0992	0.0398	0.0066	-0.0020	1.0331	0.7181
37.13	1.3153	-0.0068	-0.1152	0.0383	0.0079	0.0017	1.0527	0.7886
39.13	1.3486	-0.0076	-0.1303	0.0354	0.0071	0.0060	1.0509	0.8452
41.14	1.3852	-0.0083	-0.1436	0.0330	0.0062	0.0108	1.0487	0.9050

WICHITA STATE UNIVERSITY

MODEL 3
RUN 10
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3562	0.0151	0.0304	-0.0425	-0.0111	0.0395	-0.3477	0.0787
-8.25	-0.2833	0.0154	0.0261	-0.0350	-0.0096	0.0359	-0.2782	0.0559
-6.18	-0.2108	0.0139	0.0210	-0.0270	-0.0080	0.0321	-0.2080	0.0365
-4.11	-0.1398	0.0141	0.0189	-0.0189	-0.0073	0.0292	-0.1385	0.0241
-2.06	-0.0816	0.0130	0.0124	-0.0108	-0.0068	0.0258	-0.0810	0.0159
-0.0	-0.0127	0.0109	0.0061	-0.0016	-0.0059	0.0224	-0.0127	0.0109
2.04	0.0330	0.0110	0.0024	0.0045	-0.0050	0.0204	0.0326	0.0122
4.09	0.0967	0.0105	-0.0030	0.0112	-0.0036	0.0152	0.0957	0.0174
6.15	0.1600	0.0055	-0.0104	0.0178	-0.0009	0.0057	0.1585	0.0226
8.21	0.2261	0.0001	-0.0158	0.0228	0.0022	-0.0058	0.2237	0.0324
10.28	0.3108	-0.0034	-0.0221	0.0275	0.0052	-0.0171	0.3064	0.0521
12.39	0.4087	-0.0038	-0.0237	0.0324	0.0049	-0.0138	0.4000	0.0838
14.48	0.5119	-0.0045	-0.0294	0.0393	0.0027	-0.0127	0.4967	0.1236
16.59	0.6240	-0.0060	-0.0357	0.0461	0.0012	-0.0133	0.5998	0.1724
18.70	0.7303	-0.0070	-0.0376	0.0502	0.0006	-0.0148	0.6940	0.2275
20.80	0.8261	-0.0077	-0.0382	0.0516	-0.0	-0.0168	0.7750	0.2861
22.89	0.9271	-0.0083	-0.0408	0.0538	-0.0005	-0.0182	0.8573	0.3531
25.00	1.0283	-0.0093	-0.0427	0.0553	-0.0014	-0.0191	0.9359	0.4261
27.07	1.1031	-0.0089	-0.0433	0.0536	-0.0019	-0.0181	0.9863	0.4941
29.14	1.1622	-0.0096	-0.0403	0.0496	-0.0018	-0.0162	1.0198	0.5575
31.15	1.1729	-0.0080	-0.0406	0.0425	-0.0011	-0.0121	1.0079	0.5998
33.13	1.1916	-0.0072	-0.0576	0.0349	0.0008	-0.0060	1.0018	0.6452
35.16	1.2880	-0.0096	-0.0911	0.0336	0.0036	0.0018	1.0585	0.7338
37.20	1.3647	-0.0104	-0.1072	0.0352	0.0062	0.0071	1.0933	0.8168
39.24	1.4363	-0.0110	-0.1237	0.0364	0.0064	0.0080	1.1194	0.8999
41.29	1.5069	-0.0132	-0.1330	0.0393	0.0069	0.0087	1.1409	0.9844

WICHITA STATE UNIVERSITY

MODEL 3
RUN 11
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3862	0.0153	0.0352	-0.0301	-0.0072	0.0245	-0.3772	0.0844
-8.26	-0.3081	0.0154	0.0305	-0.0248	-0.0060	0.0216	-0.3027	0.0596
-6.18	-0.2204	0.0138	0.0238	-0.0187	-0.0049	0.0194	-0.2176	0.0375
-4.12	-0.1526	0.0129	0.0178	-0.0132	-0.0044	0.0180	-0.1513	0.0238
-2.06	-0.0890	0.0128	0.0134	-0.0080	-0.0040	0.0168	-0.0885	0.0160
-0.01	-0.0239	0.0121	0.0072	-0.0022	-0.0037	0.0166	-0.0239	0.0121
2.03	0.0312	0.0107	0.0018	0.0028	-0.0032	0.0143	0.0308	0.0118
4.08	0.0883	0.0097	-0.0034	0.0075	-0.0022	0.0114	0.0874	0.0160
6.13	0.1478	0.0043	-0.0101	0.0110	0.0001	0.0044	0.1465	0.0201
8.20	0.2189	0.0004	-0.0163	0.0142	0.0029	-0.0053	0.2166	0.0317
10.29	0.3112	-0.0006	-0.0205	0.0179	0.0034	-0.0061	0.3063	0.0549
12.37	0.4035	-0.0023	-0.0268	0.0225	0.0021	-0.0051	0.3946	0.0841
14.47	0.5117	-0.0042	-0.0345	0.0282	0.0012	-0.0048	0.4965	0.1238
16.57	0.6195	-0.0071	-0.0400	0.0328	0.0011	-0.0058	0.5958	0.1699
18.69	0.7377	-0.0093	-0.0463	0.0375	0.0010	-0.0072	0.7018	0.2276
20.80	0.8487	-0.0117	-0.0490	0.0421	0.0010	-0.0098	0.7976	0.2903
22.93	0.9802	-0.0136	-0.0532	0.0461	0.0009	-0.0121	0.9081	0.3693
25.06	1.1070	-0.0161	-0.0532	0.0486	0.0002	-0.0129	1.0096	0.4543
27.12	1.1713	-0.0152	-0.0541	0.0449	-0.0009	-0.0104	1.0494	0.5204
29.21	1.2519	-0.0162	-0.0527	0.0420	-0.0015	-0.0088	1.1006	0.5968
31.25	1.2960	-0.0154	-0.0509	0.0360	-0.0018	-0.0060	1.1159	0.6592
33.26	1.2946	-0.0131	-0.0488	0.0277	-0.0013	-0.0	1.0898	0.6990
35.25	1.3179	-0.0120	-0.0630	0.0216	0.0005	0.0059	1.0831	0.7507
37.30	1.4191	-0.0147	-0.0876	0.0213	0.0018	0.0114	1.1377	0.8483
39.36	1.5103	-0.0176	-0.1036	0.0219	0.0040	0.0179	1.1789	0.9443
41.44	1.6024	-0.0207	-0.1098	0.0286	0.0058	0.0186	1.2150	1.0450

WICHITA STATE UNIVERSITY

MODEL 3
RUN 12
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3842	0.0149	0.0358	-0.0129	-0.0029	0.0084	-0.3753	0.0836
-8.26	-0.3046	0.0161	0.0305	-0.0107	-0.0021	0.0075	-0.2991	0.0597
-6.19	-0.2306	0.0156	0.0247	-0.0087	-0.0020	0.0073	-0.2275	0.0404
-4.12	-0.1542	0.0148	0.0179	-0.0059	-0.0019	0.0069	-0.1528	0.0258
-2.06	-0.0850	0.0140	0.0117	-0.0033	-0.0019	0.0065	-0.0845	0.0171
-0.01	-0.0270	0.0122	0.0072	-0.0012	-0.0017	0.0075	-0.0270	0.0122
2.03	0.0322	0.0103	0.0006	0.0011	-0.0016	0.0064	0.0318	0.0114
4.08	0.0903	0.0091	-0.0055	0.0038	-0.0011	0.0051	0.0894	0.0155
6.12	0.1378	0.0049	-0.0100	0.0047	0.0001	0.0016	0.1365	0.0195
8.20	0.2211	0.0018	-0.0164	0.0054	0.0021	-0.0013	0.2186	0.0333
10.28	0.3130	0.0001	-0.0233	0.0079	0.0012	0.0003	0.3080	0.0560
12.37	0.4136	-0.0014	-0.0315	0.0110	0.0006	0.0002	0.4043	0.0872
14.46	0.5046	-0.0035	-0.0369	0.0131	0.0004	0.0018	0.4895	0.1226
16.57	0.6231	-0.0060	-0.0454	0.0159	0.0003	0.0024	0.5989	0.1719
18.68	0.7375	-0.0080	-0.0510	0.0178	0.0002	0.0023	0.7013	0.2286
20.79	0.8549	-0.0101	-0.0553	0.0202	0.0002	0.0013	0.8029	0.2940
22.91	0.9758	-0.0125	-0.0594	0.0223	0.0001	0.0015	0.9037	0.3684
25.03	1.1001	-0.0151	-0.0629	0.0241	0.0001	0.0016	1.0031	0.4518
27.17	1.2379	-0.0166	-0.0654	0.0264	0.0001	0.0009	1.1088	0.5504
29.30	1.3673	-0.0198	-0.0670	0.0282	-0.0001	0.0004	1.2021	0.6518
31.40	1.4558	-0.0208	-0.0602	0.0264	-0.0009	0.0017	1.2534	0.7408
33.48	1.5459	-0.0221	-0.0640	0.0253	-0.0004	0.0034	1.3015	0.8345
35.48	1.5306	-0.0200	-0.0616	0.0124	-0.0005	0.0108	1.2580	0.8720
37.47	1.5305	-0.0186	-0.0612	0.0053	0.0001	0.0168	1.2260	0.9164
39.53	1.5909	-0.0193	-0.0653	0.0088	0.0014	0.0170	1.2394	0.9976
41.55	1.6274	-0.0204	-0.0717	0.0123	0.0015	0.0172	1.2314	1.0641

WICHITA STATE UNIVERSITY

MODEL 3
RUN 13
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3850	0.0130	0.0359	0.0026	0.0009	-0.0077	-0.3764	0.0819
-8.26	-0.3105	0.0137	0.0313	0.0026	0.0008	-0.0074	-0.3053	0.0582
-6.19	-0.2308	0.0128	0.0252	0.0016	0.0006	-0.0060	-0.2281	0.0377
-4.12	-0.1567	0.0123	0.0191	0.0008	0.0002	-0.0040	-0.1554	0.0236
-2.06	-0.0877	0.0111	0.0121	0.0003	0.0	-0.0035	-0.0872	0.0143
-0.01	-0.0250	0.0113	0.0066	0.0	-0.0	-0.0007	-0.0250	0.0113
2.03	0.0301	0.0099	0.0014	-0.0005	-0.0001	0.0004	0.0298	0.0110
4.08	0.0864	0.0065	-0.0045	-0.0012	-0.0004	0.0012	0.0857	0.0126
6.12	0.1390	0.0024	-0.0102	-0.0015	-0.0005	0.0034	0.1379	0.0173
8.19	0.2144	0.0006	-0.0155	-0.0017	-0.0008	0.0047	0.2122	0.0311
10.28	0.3148	-0.0014	-0.0250	-0.0023	-0.0005	0.0056	0.3100	0.0547
12.37	0.4121	-0.0032	-0.0326	-0.0031	-0.0004	0.0073	0.4032	0.0851
14.46	0.5053	-0.0051	-0.0395	-0.0034	-0.0004	0.0096	0.4906	0.1211
16.57	0.6230	-0.0073	-0.0462	-0.0038	-0.0004	0.0108	0.5992	0.1706
18.66	0.7239	-0.0095	-0.0513	-0.0045	-0.0005	0.0118	0.6888	0.2226
20.79	0.8519	-0.0121	-0.0569	-0.0047	-0.0002	0.0125	0.8007	0.2910
22.90	0.9729	-0.0132	-0.0609	-0.0052	-0.0001	0.0138	0.9014	0.3665
25.05	1.1149	-0.0167	-0.0640	-0.0048	-0.0	0.0159	1.0171	0.4568
27.16	1.2383	-0.0184	-0.0664	-0.0056	0.0	0.0176	1.1101	0.5489
29.30	1.3743	-0.0210	-0.0693	-0.0067	0.0	0.0197	1.2087	0.6542
31.43	1.4992	-0.0235	-0.0689	-0.0061	0.0002	0.0195	1.2915	0.7617
33.54	1.6071	-0.0257	-0.0691	-0.0067	0.0003	0.0211	1.3538	0.8664
35.62	1.6731	-0.0263	-0.0596	-0.0049	0.0009	0.0195	1.3752	0.9532
37.68	1.7297	-0.0266	-0.0602	-0.0048	0.0005	0.0204	1.3852	1.0362
39.64	1.6973	-0.0248	-0.0624	-0.0004	-0.0001	0.0166	1.3228	1.0638
41.61	1.6790	-0.0246	-0.0675	-0.0036	0.0004	0.0197	1.2716	1.0966

WICHITA STATE UNIVERSITY

MODEL 3
RUN 14
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3890	0.0143	0.0354	0.0189	0.0049	-0.0239	-0.3801	0.0839
-8.26	-0.3073	0.0136	0.0301	0.0156	0.0040	-0.0206	-0.3021	0.0576
-6.19	-0.2276	0.0129	0.0238	0.0122	0.0032	-0.0170	-0.2249	0.0374
-4.12	-0.1531	0.0132	0.0171	0.0084	0.0026	-0.0141	-0.1517	0.0242
-2.07	-0.0892	0.0115	0.0124	0.0052	0.0021	-0.0128	-0.0888	0.0147
-0.01	-0.0302	0.0115	0.0069	0.0019	0.0017	-0.0087	-0.0302	0.0115
2.03	0.0277	0.0097	0.0015	-0.0012	0.0014	-0.0060	0.0274	0.0106
4.08	0.0833	0.0076	-0.0042	-0.0043	0.0010	-0.0031	0.0826	0.0135
6.12	0.1397	0.0031	-0.0104	-0.0066	-0.0010	0.0038	0.1386	0.0180
8.19	0.2124	0.0004	-0.0164	-0.0076	-0.0029	0.0114	0.2101	0.0306
10.28	0.3033	-0.0006	-0.0220	-0.0112	-0.0021	0.0112	0.2986	0.0534
12.37	0.4111	-0.0023	-0.0307	-0.0151	-0.0013	0.0127	0.4020	0.0858
14.46	0.5122	-0.0049	-0.0381	-0.0187	-0.0011	0.0154	0.4972	0.1231
16.57	0.6194	-0.0072	-0.0444	-0.0217	-0.0010	0.0178	0.5958	0.1696
18.68	0.7341	-0.0094	-0.0500	-0.0243	-0.0010	0.0210	0.6985	0.2261
20.79	0.8548	-0.0118	-0.0544	-0.0270	-0.0008	0.0231	0.8033	0.2923
22.91	0.9760	-0.0143	-0.0580	-0.0300	-0.0005	0.0263	0.9046	0.3668
25.04	1.1052	-0.0161	-0.0608	-0.0325	-0.0002	0.0293	1.0081	0.4532
27.17	1.2349	-0.0178	-0.0653	-0.0358	0.0	0.0322	1.1068	0.5480
29.28	1.3337	-0.0196	-0.0589	-0.0339	0.0014	0.0331	1.1729	0.6352
31.37	1.4271	-0.0209	-0.0600	-0.0339	0.0014	0.0349	1.2293	0.7252
33.42	1.4887	-0.0205	-0.0650	-0.0303	0.0011	0.0329	1.2537	0.8029
35.41	1.4646	-0.0187	-0.0587	-0.0159	0.0015	0.0215	1.2044	0.8334
37.42	1.4858	-0.0165	-0.0641	-0.0100	0.0005	0.0164	1.1900	0.8897
39.47	1.5570	-0.0189	-0.0734	-0.0116	-0.0005	0.0168	1.2139	0.9753
41.54	1.6336	-0.0222	-0.0797	-0.0166	-0.0013	0.0202	1.2375	1.0666

WICHITA STATE UNIVERSITY

MODEL 3
RUN 15
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3834	0.0139	0.0333	0.0356	0.0094	-0.0399	-0.3747	0.0826
-8.25	-0.2957	0.0145	0.0281	0.0289	0.0079	-0.0346	-0.2906	0.0569
-6.19	-0.2294	0.0131	0.0229	0.0230	0.0064	-0.0305	-0.2267	0.0378
-4.13	-0.1554	0.0133	0.0174	0.0162	0.0053	-0.0264	-0.1540	0.0244
-2.07	-0.0926	0.0129	0.0135	0.0098	0.0047	-0.0228	-0.0920	0.0162
-0.02	-0.0327	0.0119	0.0068	0.0032	0.0040	-0.0169	-0.0327	0.0120
2.02	0.0206	0.0110	0.0020	-0.0026	0.0036	-0.0140	0.0201	0.0117
4.08	0.0826	0.0094	-0.0041	-0.0084	0.0025	-0.0089	0.0817	0.0152
6.13	0.1399	0.0052	-0.0098	-0.0131	0.0001	-0.0001	0.1386	0.0201
8.18	0.2063	0.0002	-0.0158	-0.0174	-0.0030	0.0116	0.2042	0.0296
10.26	0.2889	-0.0014	-0.0206	-0.0205	-0.0050	0.0192	0.2846	0.0500
12.36	0.3930	-0.0007	-0.0271	-0.0267	-0.0026	0.0166	0.3840	0.0834
14.45	0.4841	-0.0024	-0.0332	-0.0323	-0.0017	0.0199	0.4694	0.1184
16.55	0.5974	-0.0056	-0.0386	-0.0377	-0.0013	0.0239	0.5742	0.1648
18.67	0.7104	-0.0081	-0.0426	-0.0422	-0.0014	0.0284	0.6756	0.2196
20.79	0.8410	-0.0095	-0.0490	-0.0479	-0.0011	0.0327	0.7896	0.2896
22.90	0.9501	-0.0112	-0.0509	-0.0517	-0.0006	0.0360	0.8795	0.3594
24.99	1.0352	-0.0109	-0.0486	-0.0491	0.0009	0.0362	0.9429	0.4275
27.08	1.1220	-0.0103	-0.0510	-0.0487	0.0016	0.0372	1.0037	0.5015
29.16	1.2035	-0.0111	-0.0510	-0.0469	0.0022	0.0375	1.0564	0.5767
31.21	1.2432	-0.0104	-0.0468	-0.0409	0.0023	0.0353	1.0686	0.6353
33.21	1.2402	-0.0083	-0.0474	-0.0321	0.0020	0.0294	1.0422	0.6723
35.22	1.2898	-0.0078	-0.0640	-0.0276	0.0001	0.0236	1.0582	0.7375
37.26	1.3943	-0.0105	-0.0923	-0.0271	-0.0022	0.0197	1.1160	0.8359
39.32	1.4842	-0.0124	-0.1079	-0.0281	-0.0050	0.0153	1.1560	0.9309
41.40	1.5756	-0.0158	-0.1152	-0.0341	-0.0068	0.0182	1.1923	1.0301

WICHITA STATE UNIVERSITY

MODEL 3
RUN 16
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3619	0.0145	0.0263	0.0480	0.0130	-0.0544	-0.3534	0.0792
-8.26	-0.2916	0.0146	0.0239	0.0409	0.0116	-0.0500	-0.2865	0.0564
-6.19	-0.2185	0.0138	0.0202	0.0322	0.0095	-0.0434	-0.2157	0.0373
-4.12	-0.1489	0.0132	0.0160	0.0231	0.0082	-0.0384	-0.1475	0.0238
-2.07	-0.0923	0.0133	0.0129	0.0146	0.0075	-0.0344	-0.0917	0.0166
-0.02	-0.0354	0.0135	0.0066	0.0053	0.0063	-0.0272	-0.0353	0.0135
2.02	0.0221	0.0120	0.0026	-0.0031	0.0054	-0.0216	0.0217	0.0127
4.08	0.0831	0.0109	-0.0031	-0.0105	0.0039	-0.0143	0.0821	0.0168
6.13	0.1462	0.0063	-0.0105	-0.0182	0.0015	-0.0036	0.1447	0.0218
8.19	0.2134	0.0015	-0.0153	-0.0242	-0.0017	0.0090	0.2110	0.0319
10.26	0.2906	-0.0024	-0.0217	-0.0298	-0.0054	0.0251	0.2864	0.0494
12.35	0.3815	-0.0025	-0.0251	-0.0338	-0.0064	0.0289	0.3732	0.0791
14.45	0.4877	-0.0026	-0.0312	-0.0422	-0.0029	0.0259	0.4730	0.1191
16.55	0.5853	-0.0039	-0.0347	-0.0482	-0.0014	0.0288	0.5622	0.1629
18.66	0.6879	-0.0051	-0.0351	-0.0525	-0.0003	0.0330	0.6534	0.2152
20.76	0.7925	-0.0065	-0.0366	-0.0542	0.0006	0.0351	0.7433	0.2749
22.87	0.9031	-0.0062	-0.0412	-0.0577	0.0012	0.0397	0.8345	0.3453
24.96	0.9934	-0.0064	-0.0411	-0.0582	0.0019	0.0417	0.9033	0.4134
27.04	1.0730	-0.0057	-0.0429	-0.0583	0.0026	0.0431	0.9582	0.4828
29.10	1.1314	-0.0057	-0.0413	-0.0541	0.0029	0.0428	0.9913	0.5453
31.12	1.1465	-0.0049	-0.0407	-0.0454	0.0023	0.0393	0.9840	0.5883
33.11	1.1652	-0.0036	-0.0541	-0.0392	0.0003	0.0341	0.9780	0.6335
35.13	1.2502	-0.0054	-0.0833	-0.0379	-0.0025	0.0272	1.0255	0.7150
37.17	1.3368	-0.0069	-0.1066	-0.0395	-0.0066	0.0222	1.0694	0.8022
39.20	1.4070	-0.0072	-0.1242	-0.0400	-0.0074	0.0223	1.0948	0.8837
41.25	1.4795	-0.0086	-0.1385	-0.0414	-0.0080	0.0236	1.1181	0.9690

WICHITA STATE UNIVERSITY

MODEL 3
RUN 17
Q 40PSF
BETA 20DEG

LOW SPFED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3388	0.0134	0.0179	0.0534	0.0142	-0.0638	-0.3309	0.0739
-8.25	-0.2706	0.0132	0.0173	0.0459	0.0133	-0.0606	-0.2658	0.0519
-6.19	-0.2127	0.0113	0.0165	0.0378	0.0121	-0.0561	-0.2103	0.0342
-4.13	-0.1498	0.0123	0.0148	0.0279	0.0109	-0.0511	-0.1486	0.0231
-2.07	-0.0936	0.0119	0.0116	0.0180	0.0100	-0.0469	-0.0931	0.0152
-0.01	-0.0300	0.0114	0.0064	0.0063	0.0085	-0.0384	-0.0300	0.0114
2.03	0.0282	0.0104	0.0017	-0.0032	0.0072	-0.0320	0.0278	0.0114
4.10	0.1030	0.0099	-0.0047	-0.0133	0.0055	-0.0224	0.1020	0.0172
6.15	0.1581	0.0055	-0.0090	-0.0212	0.0036	-0.0117	0.1566	0.0224
8.22	0.2364	0.0012	-0.0165	-0.0300	0.0	0.0039	0.2338	0.0349
10.29	0.3157	-0.0045	-0.0239	-0.0382	-0.0041	0.0222	0.3114	0.0519
12.36	0.3958	-0.0080	-0.0275	-0.0435	-0.0071	0.0354	0.3883	0.0768
14.45	0.4803	-0.0069	-0.0292	-0.0474	-0.0071	0.0347	0.4669	0.1132
16.56	0.5965	-0.0064	-0.0332	-0.0557	-0.0029	0.0322	0.5735	0.1638
18.67	0.6945	-0.0068	-0.0329	-0.0596	-0.0004	0.0335	0.6601	0.2158
20.77	0.7994	-0.0080	-0.0364	-0.0634	0.0007	0.0363	0.7503	0.2760
22.88	0.9026	-0.0066	-0.0381	-0.0657	0.0020	0.0403	0.8342	0.3447
24.97	0.9936	-0.0074	-0.0384	-0.0644	0.0033	0.0422	0.9038	0.4127
27.03	1.0535	-0.0058	-0.0371	-0.0624	0.0038	0.0425	0.9410	0.4736
29.08	1.1062	-0.0059	-0.0383	-0.0572	0.0034	0.0423	0.9696	0.5326
31.11	1.1476	-0.0059	-0.0451	-0.0513	0.0020	0.0409	0.9856	0.5879
33.09	1.1663	-0.0047	-0.0622	-0.0425	-0.0002	0.0339	0.9797	0.6329
35.11	1.2335	-0.0056	-0.0860	-0.0405	-0.0043	0.0287	1.0123	0.7049
37.12	1.2982	-0.0058	-0.1115	-0.0399	-0.0078	0.0232	1.0386	0.7789
39.13	1.3407	-0.0063	-0.1250	-0.0373	-0.0080	0.0195	1.0439	0.8413
41.13	1.3708	-0.0080	-0.1408	-0.0345	-0.0072	0.0158	1.0378	0.8956

WICHITA STATE UNIVERSITY

MODEL 3
RUN 18
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3364	0.0132	0.0142	0.0577	0.0144	-0.0697	-0.3286	0.0733
-8.27	-0.2820	0.0127	0.0135	0.0507	0.0148	-0.0688	-0.2772	0.0532
-6.20	-0.2134	0.0117	0.0137	0.0403	0.0142	-0.0651	-0.2109	0.0347
-4.13	-0.1525	0.0119	0.0135	0.0298	0.0130	-0.0598	-0.1513	0.0228
-2.07	-0.0860	0.0118	0.0084	0.0175	0.0116	-0.0535	-0.0855	0.0149
-0.01	-0.0248	0.0115	0.0046	0.0066	0.0104	-0.0460	-0.0248	0.0115
2.04	0.0438	0.0108	-0.0012	-0.0047	0.0089	-0.0386	0.0433	0.0123
4.10	0.1114	0.0095	-0.0055	-0.0147	0.0074	-0.0294	0.1105	0.0175
6.16	0.1789	0.0071	-0.0123	-0.0249	0.0053	-0.0167	0.1771	0.0263
8.23	0.2527	0.0018	-0.0189	-0.0345	0.0023	-0.0022	0.2499	0.0380
10.29	0.3281	-0.0033	-0.0263	-0.0437	-0.0014	0.0162	0.3234	0.0553
12.37	0.4117	-0.0080	-0.0323	-0.0523	-0.0060	0.0362	0.4038	0.0803
14.45	0.4918	-0.0102	-0.0358	-0.0571	-0.0081	0.0473	0.4788	0.1127
16.56	0.5927	-0.0063	-0.0347	-0.0599	-0.0064	0.0406	0.5700	0.1628
18.67	0.6926	-0.0054	-0.0338	-0.0647	-0.0021	0.0369	0.6579	0.2165
20.77	0.8009	-0.0047	-0.0364	-0.0687	0.0005	0.0379	0.7505	0.2796
22.86	0.8898	-0.0034	-0.0370	-0.0698	0.0028	0.0389	0.8211	0.3426
24.95	0.9732	-0.0033	-0.0382	-0.0684	0.0041	0.0399	0.8838	0.4075
27.02	1.0430	-0.0024	-0.0395	-0.0658	0.0043	0.0423	0.9303	0.4716
29.08	1.1163	-0.0026	-0.0429	-0.0609	0.0036	0.0428	0.9769	0.5403
31.11	1.1615	-0.0024	-0.0500	-0.0539	0.0030	0.0405	0.9956	0.5981
33.13	1.1982	-0.0015	-0.0609	-0.0462	0.0020	0.0359	1.0042	0.6536
35.12	1.2406	-0.0021	-0.0829	-0.0391	-0.0004	0.0279	1.0159	0.7120
37.11	1.2781	-0.0025	-0.1046	-0.0359	-0.0044	0.0213	1.0207	0.7692
39.09	1.2962	-0.0033	-0.1241	-0.0333	-0.0057	0.0130	1.0081	0.8146
41.07	1.3158	-0.0045	-0.1391	-0.0320	-0.0053	0.0095	0.9949	0.8611

WICHITA STATE UNIVERSITY

MODEL 4
RUN 102
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3215	0.0096	0.0166	-0.0420	0.0006	0.0292	-0.3146	0.0670
-8.23	-0.2468	0.0093	0.0129	-0.0319	-0.0001	0.0310	-0.2429	0.0446
-6.16	-0.1753	0.0085	0.0091	-0.0225	0.0	0.0303	-0.1733	0.0273
-4.11	-0.1108	0.0086	0.0039	-0.0137	0.0007	0.0283	-0.1099	0.0166
-2.05	-0.0520	0.0081	0.0010	-0.0041	-0.0003	0.0281	-0.0517	0.0100
0.0	0.0098	0.0078	-0.0031	0.0071	-0.0020	0.0274	0.0098	0.0078
2.05	0.0630	0.0076	-0.0071	0.0166	-0.0024	0.0266	0.0627	0.0098
4.10	0.1207	0.0057	-0.0122	0.0256	-0.0019	0.0228	0.1200	0.0144
6.16	0.1864	0.0050	-0.0193	0.0347	-0.0013	0.0176	0.1848	0.0250
8.23	0.2621	0.0026	-0.0244	0.0439	-0.0018	0.0133	0.2591	0.0401
10.29	0.3371	0.0021	-0.0302	0.0528	-0.0035	0.0091	0.3312	0.0623
12.37	0.4132	0.0014	-0.0335	0.0600	-0.0054	0.0064	0.4033	0.0900
14.45	0.4998	0.0008	-0.0388	0.0674	-0.0073	0.0026	0.4838	0.1255
16.54	0.5911	0.0014	-0.0425	0.0728	-0.0092	0.0008	0.5662	0.1697
18.63	0.6872	-0.0002	-0.0461	0.0771	-0.0109	0.0	0.6513	0.2194
20.71	0.7717	0.0001	-0.0493	0.0800	-0.0126	-0.0010	0.7217	0.2731
22.80	0.8634	0.0	-0.0519	0.0811	-0.0145	-0.0019	0.7959	0.3347
24.89	0.9465	-0.0005	-0.0535	0.0798	-0.0162	-0.0022	0.8588	0.3978
26.95	1.0132	-0.0006	-0.0545	0.0750	-0.0176	-0.0008	0.9034	0.4587
28.99	1.0598	0.0007	-0.0589	0.0670	-0.0182	0.0023	0.9266	0.5143
31.01	1.0894	0.0019	-0.0637	0.0570	-0.0169	0.0111	0.9327	0.5629
32.99	1.1033	0.0042	-0.0777	0.0474	-0.0137	0.0214	0.9230	0.6044
34.96	1.1248	0.0038	-0.1038	0.0418	-0.0101	0.0330	0.9196	0.6476
36.94	1.1343	0.0044	-0.1165	0.0389	-0.0095	0.0392	0.9039	0.6852
38.91	1.1339	0.0051	-0.1277	0.0364	-0.0101	0.0431	0.8790	0.7163
40.89	1.1384	0.0045	-0.1361	0.0354	-0.0107	0.0464	0.8575	0.7487

WICHITA STATE UNIVERSITY

MODEL 4
RUN 103
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3406	0.0141	0.0224	-0.0412	-0.0006	0.0294	-0.3325	0.0749
-8.24	-0.2586	0.0144	0.0165	-0.0313	-0.0012	0.0296	-0.2538	0.0513
-6.17	-0.1800	0.0132	0.0102	-0.0213	-0.0011	0.0291	-0.1776	0.0324
-4.11	-0.1154	0.0135	0.0059	-0.0133	-0.0005	0.0271	-0.1141	0.0217
-2.05	-0.0520	0.0129	0.0024	-0.0046	-0.0005	0.0254	-0.0515	0.0148
-0.0	0.0021	0.0127	-0.0015	0.0046	-0.0012	0.0235	0.0021	0.0127
2.04	0.0516	0.0116	-0.0055	0.0127	-0.0015	0.0222	0.0512	0.0134
4.09	0.1088	0.0104	-0.0105	0.0212	-0.0011	0.0194	0.1077	0.0181
6.15	0.1748	0.0079	-0.0180	0.0298	-0.0005	0.0150	0.1729	0.0266
8.21	0.2517	0.0071	-0.0250	0.0387	-0.0011	0.0109	0.2481	0.0430
10.29	0.3308	0.0059	-0.0314	0.0469	-0.0028	0.0076	0.3244	0.0649
12.37	0.4135	0.0039	-0.0351	0.0541	-0.0045	0.0043	0.4030	0.0924
14.44	0.4943	0.0031	-0.0399	0.0609	-0.0061	0.0013	0.4779	0.1263
16.53	0.5907	0.0034	-0.0443	0.0663	-0.0076	0.0004	0.5653	0.1714
18.63	0.6897	0.0016	-0.0480	0.0711	-0.0091	-0.0016	0.6530	0.2219
20.72	0.7870	0.0008	-0.0527	0.0746	-0.0105	-0.0032	0.7358	0.2793
22.81	0.8797	-0.0004	-0.0556	0.0772	-0.0119	-0.0055	0.8110	0.3407
24.91	0.9692	-0.0002	-0.0562	0.0778	-0.0135	-0.0070	0.8791	0.4080
26.98	1.0389	-0.0005	-0.0563	0.0749	-0.0150	-0.0069	0.9261	0.4708
29.02	1.0731	0.0004	-0.0541	0.0661	-0.0155	-0.0036	0.9381	0.5210
31.02	1.0860	0.0012	-0.0585	0.0551	-0.0136	0.0048	0.9300	0.5607
32.99	1.0973	0.0039	-0.0744	0.0461	-0.0101	0.0153	0.9182	0.6009
34.94	1.1079	0.0048	-0.1040	0.0389	-0.0066	0.0281	0.9054	0.6385
36.94	1.1411	0.0056	-0.1191	0.0359	-0.0060	0,0335	0.9086	0.6904
38.96	1.1838	0.0056	-0.1305	0.0343	-0.0065	0.0353	0.9169	0.7487
40.95	1.2094	0.0049	-0.1431	0.0328	-0.0070	0.0377	0.9101	0.7965

WICHITA STATE UNIVERSITY

MODEL 4
RUN 104
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3553	0.0118	0.0251	-0.0335	-0.0004	0.0187	-0.3474	0.0753
-8.24	-0.2673	0.0121	0.0185	-0.0255	-0.0006	0.0190	-0.2628	0.0503
-6.18	-0.1935	0.0117	0.0133	-0.0185	-0.0006	0.0185	-0.1911	0.0325
-4.11	-0.1165	0.0116	0.0064	-0.0104	-0.0003	0.0169	-0.1154	0.0199
-2.06	-0.0638	0.0115	0.0037	-0.0046	-0.0003	0.0158	-0.0633	0.0138
-0.0	0.0028	0.0108	-0.0025	0.0038	-0.0006	0.0137	0.0028	0.0108
2.04	0.0529	0.0097	-0.0065	0.0107	-0.0008	0.0125	0.0525	0.0116
4.09	0.1068	0.0081	-0.0117	0.0169	-0.0004	0.0109	0.1059	0.0157
6.14	0.1718	0.0059	-0.0192	0.0238	0.0001	0.0069	0.1702	0.0242
8.21	0.2461	0.0045	-0.0263	0.0312	-0.0005	0.0050	0.2429	0.0396
10.28	0.3254	0.0033	-0.0325	0.0382	-0.0018	0.0023	0.3195	0.0613
12.36	0.4080	0.0022	-0.0365	0.0440	-0.0031	0.0008	0.3980	0.0895
14.44	0.4959	0.0011	-0.0417	0.0501	-0.0045	-0.0012	0.4799	0.1248
16.53	0.5909	0.0007	-0.0459	0.0547	-0.0058	-0.0031	0.5662	0.1689
18.63	0.7000	-0.0021	-0.0524	0.0591	-0.0073	-0.0055	0.6640	0.2217
20.73	0.7975	-0.0023	-0.0560	0.0632	-0.0087	-0.0073	0.7467	0.2800
22.82	0.8927	-0.0040	-0.0588	0.0659	-0.0100	-0.0093	0.8244	0.3425
24.92	0.9994	-0.0049	-0.0627	0.0682	-0.0112	-0.0111	0.9084	0.4167
27.01	1.0807	-0.0052	-0.0621	0.0676	-0.0123	-0.0121	0.9652	0.4861
29.07	1.1322	-0.0052	-0.0596	0.0619	-0.0130	-0.0108	0.9921	0.5455
31.07	1.1289	-0.0026	-0.0558	0.0510	-0.0118	-0.0034	0.9683	0.5804
33.05	1.1255	0.0006	-0.0634	0.0420	-0.0089	0.0063	0.9430	0.6143
35.04	1.1795	0.0003	-0.0911	0.0381	-0.0056	0.0159	0.9655	0.6776
37.07	1.2525	0.0009	-0.1116	0.0387	-0.0037	0.0216	0.9987	0.7559
39.12	1.3278	-0.0002	-0.1274	0.0400	-0.0028	0.0238	1.0303	0.8376
41.16	1.4038	-0.0011	-0.1419	0.0422	-0.0021	0.0254	1.0575	0.9231

WICHITA STATE UNIVERSITY

MODEL 4
RUN 105
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3664	0.0116	0.0260	-0.0238	0.0004	0.0129	-0.3584	0.0772
-8.26	-0.2834	0.0122	0.0202	-0.0185	0.0003	0.0129	-0.2787	0.0528
-6.18	-0.2047	0.0117	0.0149	-0.0135	0.0004	0.0120	-0.2023	0.0337
-4.12	-0.1297	0.0122	0.0085	-0.0083	0.0004	0.0112	-0.1285	0.0215
-2.06	-0.0643	0.0108	0.0035	-0.0033	0.0004	0.0103	-0.0639	0.0131
-0.0	-0.0057	0.0108	-0.0010	0.0017	0.0001	0.0090	-0.0057	0.0108
2.03	0.0454	0.0090	-0.0060	0.0063	-0.0	0.0083	0.0451	0.0106
4.08	0.1073	0.0083	-0.0134	0.0109	0.0002	0.0072	0.1064	0.0159
6.14	0.1725	0.0061	-0.0208	0.0153	0.0006	0.0062	0.1709	0.0246
8.20	0.2427	0.0048	-0.0280	0.0205	-0.0	0.0047	0.2395	0.0393
10.27	0.3279	0.0031	-0.0355	0.0260	-0.0009	0.0032	0.3220	0.0615
12.35	0.4177	0.0021	-0.0426	0.0323	-0.0019	0.0017	0.4075	0.0914
14.45	0.5206	-0.0001	-0.0501	0.0376	-0.0028	0.0001	0.5042	0.1298
16.55	0.6276	-0.0015	-0.0575	0.0433	-0.0038	-0.0014	0.6020	0.1773
18.66	0.7412	-0.0041	-0.0628	0.0477	-0.0048	-0.0035	0.7035	0.2331
20.76	0.8500	-0.0060	-0.0678	0.0517	-0.0060	-0.0053	0.7969	0.2956
22.87	0.9637	-0.0081	-0.0704	0.0565	-0.0072	-0.0074	0.8911	0.3671
24.96	1.0467	-0.0079	-0.0712	0.0531	-0.0086	-0.0075	0.9523	0.4345
27.05	1.1457	-0.0096	-0.0741	0.0543	-0.0094	-0.0076	1.0247	0.5125
29.13	1.2251	-0.0104	-0.0737	0.0541	-0.0103	-0.0084	1.0752	0.5874
31.19	1.2726	-0.0110	-0.0690	0.0474	-0.0107	-0.0075	1.0943	0.6496
33.18	1.2543	-0.0064	-0.0633	0.0357	-0.0091	-0.0006	1.0532	0.6812
35.16	1.2463	-0.0043	-0.0689	0.0286	-0.0061	0.0087	1.0213	0.7142
37.20	1.3284	-0.0036	-0.0887	0.0273	-0.0040	0.0144	1.0602	0.8004
39.27	1.4265	-0.0053	-0.1068	0.0286	-0.0020	0.0190	1.1077	0.8987
41.34	1.5234	-0.0079	-0.1175	0.0327	0.0	0.0237	1.1490	1.0004

WICHITA STATE UNIVERSITY

MODEL 4
RUN 106
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3726	0.0115	0.0264	-0.0115	0.0009	0.0040	-0.3645	0.0783
-8.26	-0.2841	0.0121	0.0203	-0.0090	0.0009	0.0038	-0.2794	0.0528
-6.19	-0.2056	0.0115	0.0146	-0.0066	0.0007	0.0037	-0.2032	0.0336
-4.12	-0.1318	0.0117	0.0095	-0.0036	0.0006	0.0041	-0.1306	0.0212
-2.06	-0.0660	0.0114	0.0041	-0.0016	0.0007	0.0038	-0.0655	0.0138
-0.0	-0.0044	0.0108	-0.0009	0.0007	0.0005	0.0030	-0.0044	0.0108
2.03	0.0455	0.0100	-0.0065	0.0027	0.0002	0.0030	0.0451	0.0116
4.08	0.1051	0.0079	-0.0134	0.0044	0.0003	0.0027	0.1043	0.0153
6.14	0.1741	0.0062	-0.0217	0.0067	0.0003	0.0025	0.1725	0.0248
8.20	0.2478	0.0050	-0.0287	0.0093	0.0	0.0023	0.2445	0.0403
10.27	0.3318	0.0035	-0.0370	0.0121	-0.0004	0.0013	0.3258	0.0627
12.35	0.4192	0.0012	-0.0449	0.0144	-0.0009	0.0004	0.4092	0.0909
14.44	0.5156	-0.0004	-0.0523	0.0170	-0.0013	0.0005	0.4994	0.1282
16.53	0.6141	-0.0010	-0.0575	0.0196	-0.0018	0.0006	0.5890	0.1738
18.64	0.7363	-0.0047	-0.0657	0.0214	-0.0024	-0.0001	0.6992	0.2309
20.75	0.8465	-0.0059	-0.0709	0.0235	-0.0030	-0.0007	0.7937	0.2943
22.87	0.9698	-0.0082	-0.0762	0.0255	-0.0037	-0.0007	0.8968	0.3693
24.99	1.0962	-0.0100	-0.0791	0.0283	-0.0044	-0.0008	0.9978	0.4540
27.11	1.2232	-0.0123	-0.0838	0.0303	-0.0052	-0.0025	1.0944	0.5465
29.23	1.3484	-0.0142	-0.0880	0.0334	-0.0058	-0.0039	1.1836	0.6461
31.33	1.4341	-0.0165	-0.0845	0.0302	-0.0066	-0.0037	1.2336	0.7315
33.41	1.5180	-0.0160	-0.0874	0.0315	-0.0075	-0.0038	1.2760	0.8224
35.37	1.4606	-0.0127	-0.0774	0.0154	-0.0070	0.0010	1.1984	0.8350
37.38	1.4742	-0.0108	-0.0773	0.0080	-0.0053	0.0077	1.1780	0.8864
39.44	1.5392	-0.0119	-0.0792	0.0117	-0.0041	0.0099	1.1962	0.9687
41.49	1.5953	-0.0130	-0.0812	0.0147	-0.0035	0.0112	1.2035	1.0471

WICHITA STATE UNIVERSITY

MODEL 4
RUN 107
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3754	0.0111	0.0256	0.0014	0.0005	-0.0026	-0.3673	0.0784
-8.26	-0.2867	0.0111	0.0200	0.0014	0.0004	-0.0030	-0.2821	0.0522
-6.19	-0.2112	0.0116	0.0151	0.0005	0.0003	-0.0025	-0.2088	0.0343
-4.12	-0.1385	0.0116	0.0099	0.0002	0.0002	-0.0021	-0.1373	0.0216
-2.06	-0.0672	0.0113	0.0044	-0.0003	0.0001	-0.0009	-0.0667	0.0137
-0.0	-0.0060	0.0103	-0.0008	-0.0009	0.0	-0.0013	-0.0060	0.0103
2.03	0.0449	0.0101	-0.0059	-0.0015	-0.0	-0.0009	0.0445	0.0117
4.08	0.1048	0.0083	-0.0134	-0.0019	-0.0001	-0.0004	0.1039	0.0158
6.13	0.1691	0.0073	-0.0210	-0.0025	-0.0003	-0.0	0.1674	0.0254
8.19	0.2395	0.0062	-0.0281	-0.0024	-0.0003	0.0002	0.2361	0.0403
10.27	0.3250	0.0049	-0.0366	-0.0032	-0.0004	0.0007	0.3189	0.0628
12.35	0.4186	0.0029	-0.0446	-0.0035	-0.0006	0.0012	0.4083	0.0924
14.43	0.5034	0.0011	-0.0514	-0.0037	-0.0007	0.0017	0.4873	0.1265
16.52	0.6087	0.0005	-0.0590	-0.0039	-0.0010	0.0023	0.5834	0.1736
18.63	0.7203	-0.0021	-0.0652	-0.0042	-0.0011	0.0040	0.6832	0.2280
20.73	0.8247	-0.0035	-0.0712	-0.0043	-0.0012	0.0055	0.7726	0.2886
22.85	0.9518	-0.0059	-0.0771	-0.0047	-0.0013	0.0061	0.8794	0.3640
24.97	1.0804	-0.0068	-0.0814	-0.0043	-0.0015	0.0065	0.9823	0.4499
27.09	1.2043	-0.0094	-0.0854	-0.0052	-0.0015	0.0079	1.0765	0.5400
29.22	1.3421	-0.0119	-0.0914	-0.0062	-0.0014	0.0092	1.1772	0.6447
31.34	1.4779	-0.0154	-0.0969	-0.0049	-0.0014	0.0102	1.2702	0.7557
33.45	1.5969	-0.0163	-0.1006	-0.0065	-0.0014	0.0119	1.3413	0.8667
35.55	1.6749	-0.0193	-0.0947	-0.0041	-0.0013	0.0117	1.3739	0.9581
37.60	1.7058	-0.0190	-0.0848	-0.0051	-0.0013	0.0120	1.3631	1.0257
39.57	1.6631	-0.0176	-0.0773	0.0020	-0.0016	0.0084	1.2931	1.0459
41.57	1.6563	-0.0157	-0.0761	-0.0038	-0.0013	0.0103	1.2496	1.0872

WICHITA STATE UNIVERSITY

MODEL 4
RUN 108
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3752	0.0119	0.0264	0.0143	0.0001	-0.0102	-0.3669	0.0791
-8.26	-0.2883	0.0124	0.0206	0.0110	0.0001	-0.0089	-0.2836	0.0537
-6.19	-0.2111	0.0119	0.0148	0.0084	0.0001	-0.0077	-0.2086	0.0347
-4.12	-0.1376	0.0115	0.0096	0.0049	-0.0	-0.0063	-0.1364	0.0214
-2.06	-0.0688	0.0101	0.0043	0.0016	-0.0001	-0.0047	-0.0683	0.0126
-0.01	-0.0111	0.0097	-0.0001	-0.0010	-0.0001	-0.0040	-0.0111	0.0097
2.03	0.0471	0.0090	-0.0064	-0.0043	-0.0002	-0.0030	0.0468	0.0107
4.08	0.1012	0.0074	-0.0128	-0.0073	-0.0005	-0.0011	0.1004	0.0146
6.13	0.1637	0.0061	-0.0198	-0.0096	-0.0009	0.0005	0.1621	0.0235
8.19	0.2332	0.0043	-0.0272	-0.0132	-0.0007	0.0021	0.2302	0.0375
10.27	0.3217	0.0026	-0.0358	-0.0173	-0.0004	0.0038	0.3161	0.0599
12.35	0.4119	0.0008	-0.0439	-0.0209	-0.0001	0.0054	0.4022	0.0889
14.43	0.5070	-0.0011	-0.0509	-0.0243	0.0001	0.0074	0.4913	0.1253
16.54	0.6229	-0.0021	-0.0579	-0.0274	0.0004	0.0092	0.5977	0.1753
18.63	0.7131	-0.0053	-0.0630	-0.0302	0.0007	0.0110	0.6774	0.2227
20.75	0.8389	-0.0062	-0.0690	-0.0332	0.0010	0.0129	0.7867	0.2913
22.86	0.9578	-0.0082	-0.0740	-0.0356	0.0011	0.0145	0.8858	0.3645
24.98	1.0815	-0.0097	-0.0785	-0.0380	0.0012	0.0157	0.9845	0.4479
27.10	1.2092	-0.0118	-0.0817	-0.0411	0.0017	0.0184	1.0818	0.5404
29.20	1.2998	-0.0138	-0.0789	-0.0409	0.0025	0.0197	1.1413	0.6221
31.31	1.4133	-0.0156	-0.0826	-0.0423	0.0030	0.0216	1.2155	0.7211
33.37	1.4738	-0.0149	-0.0828	-0.0384	0.0030	0.0206	1.2390	0.7982
35.32	1.4116	-0.0119	-0.0736	-0.0222	0.0029	0.0140	1.1586	0.8065
37.33	1.4191	-0.0082	-0.0728	-0.0154	0.0009	0.0071	1.1333	0.8541
39.39	1.4806	-0.0097	-0.0769	-0.0170	-0.0002	0.0055	1.1504	0.9320
41.44	1.5486	-0.0112	-0.0816	-0.0199	-0.0012	0.0042	1.1683	1.0166

WICHITA STATE UNIVERSITY

MODEL 4
RUN 109
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3753	0.0129	0.0268	0.0262	0.0005	-0.0174	-0.3669	0.0801
-8.26	-0.2904	0.0134	0.0223	0.0207	0.0006	-0.0169	-0.2854	0.0550
-6.19	-0.2097	0.0128	0.0152	0.0146	0.0005	-0.0145	-0.2070	0.0353
-4.13	-0.1394	0.0132	0.0091	0.0088	0.0003	-0.0128	-0.1381	0.0232
-2.06	-0.0693	0.0124	0.0042	0.0032	0.0002	-0.0106	-0.0689	0.0149
-0.0	-0.0051	0.0115	-0.0006	-0.0028	0.0003	-0.0099	-0.0051	0.0115
2.03	0.0415	0.0099	-0.0052	-0.0073	0.0003	-0.0088	0.0411	0.0114
4.08	0.0981	0.0083	-0.0109	-0.0125	-0.0001	-0.0060	0.0972	0.0153
6.13	0.1611	0.0071	-0.0184	-0.0180	-0.0007	-0.0021	0.1594	0.0243
8.19	0.2330	0.0054	-0.0258	-0.0232	-0.0004	0.0004	0.2298	0.0386
10.26	0.3101	0.0038	-0.0322	-0.0294	0.0003	0.0035	0.3044	0.0590
12.34	0.4004	0.0020	-0.0405	-0.0360	0.0010	0.0057	0.3907	0.0876
14.43	0.4958	0.0010	-0.0467	-0.0419	0.0017	0.0080	0.4799	0.1246
16.53	0.6029	-0.0001	-0.0533	-0.0474	0.0023	0.0109	0.5781	0.1714
18.63	0.7133	-0.0030	-0.0601	-0.0526	0.0029	0.0146	0.6769	0.2250
20.74	0.8261	-0.0036	-0.0646	-0.0576	0.0038	0.0179	0.7738	0.2892
22.84	0.9154	-0.0046	-0.0625	-0.0575	0.0050	0.0204	0.8454	0.3510
24.92	1.0060	-0.0041	-0.0665	-0.0575	0.0056	0.0217	0.9141	0.4202
27.03	1.1117	-0.0059	-0.0690	-0.0582	0.0062	0.0229	0.9929	0.4999
29.11	1.1981	-0.0073	-0.0704	-0.0578	0.0068	0.0241	1.0502	0.5765
31.16	1.2366	-0.0072	-0.0654	-0.0520	0.0073	0.0234	1.0619	0.6337
33.14	1.1995	-0.0030	-0.0568	-0.0389	0.0061	0.0153	1.0060	0.6533
35.14	1.2179	-0.0023	-0.0638	-0.0340	0.0037	0.0076	0.9972	0.6991
37.18	1.2955	-0.0017	-0.0848	-0.0324	0.0011	0.0033	1.0333	0.7815
39.22	1.3857	-0.0032	-0.1060	-0.0328	-0.0014	-0.0008	1.0755	0.8738
41.28	1.4718	-0.0052	-0.1180	-0.0358	-0.0033	-0.0036	1.1094	0.9672

WICHITA STATE UNIVERSITY

MODEL 4
RUN 110
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3726	0.0119	0.0251	0.0365	0.0009	-0.0265	-0.3644	0.0786
-8.27	-0.2898	0.0112	0.0200	0.0285	0.0013	-0.0264	-0.2852	0.0527
-6.19	-0.2067	0.0110	0.0138	0.0203	0.0012	-0.0244	-0.2043	0.0332
-4.12	-0.1326	0.0113	0.0088	0.0128	0.0008	-0.0215	-0.1314	0.0208
-2.07	-0.0738	0.0104	0.0044	0.0056	0.0009	-0.0184	-0.0734	0.0130
-0.01	-0.0119	0.0099	-0.0004	-0.0027	0.0011	-0.0165	-0.0119	0.0099
2.02	0.0356	0.0081	-0.0040	-0.0097	0.0012	-0.0149	0.0353	0.0094
4.08	0.0932	0.0068	-0.0094	-0.0174	0.0006	-0.0126	0.0924	0.0134
6.13	0.1569	0.0045	-0.0159	-0.0250	-0.0001	-0.0077	0.1555	0.0213
8.19	0.2209	0.0038	-0.0224	-0.0319	0.0	-0.0034	0.2181	0.0352
10.26	0.3084	0.0022	-0.0299	-0.0402	0.0012	0.0005	0.3030	0.0572
12.34	0.3878	0.0014	-0.0346	-0.0472	0.0024	0.0040	0.3785	0.0843
14.42	0.4681	0.0001	-0.0387	-0.0523	0.0035	0.0069	0.4533	0.1166
16.51	0.5624	0.0003	-0.0436	-0.0574	0.0045	0.0093	0.5391	0.1601
18.60	0.6618	-0.0016	-0.0493	-0.0624	0.0056	0.0128	0.6277	0.2095
20.71	0.7709	-0.0022	-0.0530	-0.0669	0.0068	0.0170	0.7219	0.2704
22.80	0.8709	-0.0038	-0.0566	-0.0699	0.0079	0.0201	0.8043	0.3340
24.89	0.9624	-0.0047	-0.0584	-0.0719	0.0087	0.0228	0.8749	0.4008
26.98	1.0559	-0.0060	-0.0614	-0.0730	0.0095	0.0240	0.9437	0.4737
29.05	1.1119	-0.0058	-0.0576	-0.0683	0.0103	0.0232	0.9748	0.5348
31.06	1.1112	-0.0041	-0.0526	-0.0569	0.0101	0.0178	0.9540	0.5698
33.02	1.0946	-0.0001	-0.0594	-0.0461	0.0071	0.0069	0.9178	0.5965
35.02	1.1442	0.0001	-0.0830	-0.0421	0.0037	-0.0016	0.9368	0.6568
37.04	1.2046	0.0007	-0.1040	-0.0413	0.0016	-0.0069	0.9611	0.7262
39.07	1.2697	0.0006	-0.1191	-0.0416	0.0005	-0.0082	0.9853	0.8008
41.10	1.3293	0.0001	-0.1330	-0.0417	0.0	-0.0094	1.0015	0.8740

WICHITA STATE UNIVERSITY

MODEL 4
RUN 111
Q 40PSF
BETA 20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3633	0.0119	0.0219	0.0423	0.0001	-0.0289	-0.3553	0.0770
-8.26	-0.2791	0.0112	0.0172	0.0327	0.0005	-0.0295	-0.2746	0.0512
-6.19	-0.2062	0.0107	0.0127	0.0240	0.0002	-0.0279	-0.2038	0.0329
-4.12	-0.1319	0.0114	0.0072	0.0147	-0.0002	-0.0248	-0.1308	0.0209
-2.06	-0.0691	0.0101	0.0033	0.0055	0.0004	-0.0230	-0.0686	0.0126
-0.01	-0.0127	0.0102	-0.0005	-0.0044	0.0014	-0.0226	-0.0127	0.0102
2.03	0.0402	0.0089	-0.0056	-0.0136	0.0019	-0.0205	0.0399	0.0103
4.08	0.0979	0.0078	-0.0101	-0.0223	0.0014	-0.0172	0.0971	0.0147
6.14	0.1658	0.0058	-0.0171	-0.0314	0.0004	-0.0110	0.1642	0.0235
8.19	0.2249	0.0046	-0.0223	-0.0391	0.0004	-0.0059	0.2220	0.0366
10.27	0.3083	0.0030	-0.0286	-0.0485	0.0018	-0.0008	0.3028	0.0579
12.34	0.3862	0.0020	-0.0336	-0.0558	0.0034	0.0030	0.3768	0.0845
14.42	0.4641	0.0005	-0.0369	-0.0620	0.0048	0.0067	0.4494	0.1161
16.51	0.5647	0.0008	-0.0429	-0.0687	0.0063	0.0095	0.5412	0.1613
18.60	0.6536	-0.0009	-0.0454	-0.0733	0.0074	0.0123	0.6197	0.2076
20.70	0.7565	-0.0008	-0.0481	-0.0775	0.0087	0.0160	0.7080	0.2667
22.79	0.8542	-0.0027	-0.0550	-0.0807	0.0100	0.0188	0.7885	0.3283
24.88	0.9439	-0.0026	-0.0552	-0.0821	0.0115	0.0217	0.8574	0.3947
26.96	1.0183	-0.0041	-0.0559	-0.0802	0.0129	0.0228	0.9095	0.4579
29.01	1.0687	-0.0035	-0.0534	-0.0734	0.0140	0.0210	0.9363	0.5152
31.03	1.0912	-0.0020	-0.0566	-0.0628	0.0129	0.0144	0.9361	0.5608
33.01	1.0919	0.0016	-0.0653	-0.0512	0.0099	0.0028	0.9148	0.5962
34.96	1.1114	0.0021	-0.0962	-0.0444	0.0048	-0.0090	0.9095	0.6386
36.95	1.1465	0.0027	-0.1150	-0.0404	0.0037	-0.0148	0.9145	0.6914
38.95	1.1682	0.0029	-0.1270	-0.0377	0.0039	-0.0173	0.9066	0.7367
40.95	1.1929	0.0026	-0.1380	-0.0355	0.0045	-0.0199	0.8993	0.7838

WICHITA STATE UNIVERSITY

MODEL 4
RUN 112
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3474	0.0124	0.0187	0.0449	-0.0020	-0.0276	-0.3396	0.0746
-8.27	-0.2794	0.0113	0.0146	0.0355	-0.0011	-0.0307	-0.2749	0.0514
-6.19	-0.2013	0.0099	0.0089	0.0251	-0.0008	-0.0308	-0.1990	0.0316
-4.13	-0.1386	0.0103	0.0073	0.0149	-0.0001	-0.0298	-0.1375	0.0202
-2.07	-0.0755	0.0094	0.0027	0.0052	0.0008	-0.0292	-0.0751	0.0121
-0.01	-0.0163	0.0084	-0.0005	-0.0057	0.0024	-0.0295	-0.0163	0.0084
2.02	0.0367	0.0067	-0.0048	-0.0157	0.0031	-0.0280	0.0365	0.0080
4.08	0.0985	0.0053	-0.0095	-0.0255	0.0026	-0.0249	0.0978	0.0123
6.14	0.1628	0.0042	-0.0155	-0.0350	0.0016	-0.0191	0.1614	0.0216
8.20	0.2329	0.0022	-0.0209	-0.0446	0.0013	-0.0120	0.2302	0.0355
10.27	0.3075	0.0013	-0.0266	-0.0534	0.0027	-0.0071	0.3023	0.0561
12.35	0.3872	0.0001	-0.0310	-0.0622	0.0045	-0.0030	0.3782	0.0829
14.41	0.4574	-0.0014	-0.0350	-0.0688	0.0060	0.0013	0.4433	0.1124
16.51	0.5589	-0.0011	-0.0410	-0.0760	0.0078	0.0060	0.5362	0.1577
18.61	0.6586	-0.0014	-0.0441	-0.0809	0.0097	0.0073	0.6246	0.2087
20.69	0.7426	-0.0010	-0.0458	-0.0838	0.0114	0.0092	0.6951	0.2614
22.77	0.8243	-0.0019	-0.0492	-0.0857	0.0130	0.0104	0.7608	0.3173
24.86	0.9157	-0.0023	-0.0522	-0.0854	0.0148	0.0118	0.8318	0.3828
26.92	0.9813	-0.0027	-0.0521	-0.0813	0.0162	0.0125	0.8761	0.4419
28.98	1.0413	-0.0032	-0.0548	-0.0755	0.0168	0.0118	0.9125	0.5017
31.01	1.0891	-0.0028	-0.0611	-0.0659	0.0161	0.0064	0.9349	0.5587
33.01	1.1117	-0.0002	-0.0711	-0.0557	0.0139	-0.0022	0.9323	0.6056
35.01	1.1382	-0.0002	-0.0872	-0.0489	0.0103	-0.0124	0.9324	0.6528
36.97	1.1566	-0.0001	-0.1120	-0.0445	0.0073	-0.0227	0.9241	0.6955
38.93	1.1496	-0.0002	-0.1243	-0.0423	0.0074	-0.0274	0.8944	0.7223
40.91	1.1521	0.0006	-0.1346	-0.0405	0.0081	-0.0304	0.8702	0.7550

WICHITA STATE UNIVERSITY

MODEL 5
RUN 1
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.30	-0.3122	0.0193	0.0123	-0.0401	0.0110	0.0285	-0.3037	0.0749
-8.23	-0.2343	0.0170	0.0074	-0.0313	0.0097	0.0288	-0.2294	0.0504
-6.18	-0.1766	0.0168	0.0048	-0.0245	0.0088	0.0296	-0.1738	0.0357
-4.11	-0.1097	0.0161	0.0008	-0.0154	0.0074	0.0300	-0.1083	0.0239
-2.06	-0.0586	0.0146	-0.0026	-0.0066	0.0053	0.0306	-0.0580	0.0167
-0.0	0.0033	0.0141	-0.0064	0.0044	0.0027	0.0303	0.0033	0.0141
2.04	0.0593	0.0126	-0.0109	0.0137	0.0014	0.0296	0.0588	0.0147
4.09	0.1254	0.0102	-0.0169	0.0238	0.0005	0.0269	0.1243	0.0191
6.15	0.1834	0.0077	-0.0213	0.0320	0.0006	0.0223	0.1815	0.0273
8.21	0.2510	0.0048	-0.0276	0.0403	0.0014	0.0153	0.2477	0.0406
10.27	0.3236	0.0025	-0.0337	0.0489	0.0016	0.0068	0.3179	0.0602
12.34	0.3986	-0.0003	-0.0392	0.0556	0.0007	-0.0012	0.3895	0.0849
14.41	0.4832	-0.0034	-0.0480	0.0640	-0.0014	-0.0062	0.4689	0.1169
16.49	0.5642	-0.0035	-0.0513	0.0695	-0.0046	-0.0102	0.5419	0.1568
18.58	0.6633	-0.0066	-0.0582	0.0752	-0.0074	-0.0153	0.6309	0.2050
20.66	0.7460	-0.0077	-0.0612	0.0781	-0.0105	-0.0186	0.7007	0.2560
22.74	0.8301	-0.0103	-0.0671	0.0798	-0.0133	-0.0222	0.7696	0.3113
24.83	0.9231	-0.0097	-0.0700	0.0782	-0.0165	-0.0214	0.8419	0.3788
26.90	1.0015	-0.0108	-0.0744	0.0743	-0.0186	-0.0189	0.8981	0.4434
28.94	1.0484	-0.0099	-0.0760	0.0663	-0.0194	-0.0117	0.9223	0.4987
30.98	1.0919	-0.0091	-0.0796	0.0577	-0.0187	-0.0026	0.9408	0.5542
32.99	1.1171	-0.0058	-0.0871	0.0498	-0.0166	0.0084	0.9402	0.6034
34.96	1.1320	-0.0048	-0.1057	0.0408	-0.0116	0.0231	0.9304	0.6447
36.94	1.1514	-0.0035	-0.1220	0.0368	-0.0103	0.0330	0.9224	0.6892
38.93	1.1521	-0.0030	-0.1298	0.0345	-0.0111	0.0371	0.8982	0.7215
40.90	1.1485	-0.0031	-0.1390	0.0331	-0.0124	0.0399	0.8701	0.7496

WICHITA STATE UNIVERSITY

MODEL 5
RUN 2
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3289	0.0172	0.0170	-0.0376	0.0072	0.0311	-0.3205	0.0758
-8.24	-0.2565	0.0168	0.0136	-0.0298	0.0062	0.0306	-0.2515	0.0534
-6.17	-0.1797	0.0149	0.0069	-0.0214	0.0064	0.0282	-0.1770	0.0342
-4.11	-0.1104	0.0148	0.0025	-0.0138	0.0059	0.0266	-0.1091	0.0227
-2.06	-0.0532	0.0131	-0.0019	-0.0052	0.0043	0.0256	-0.0527	0.0150
-0.0	0.0027	0.0113	-0.0053	0.0037	0.0027	0.0246	0.0027	0.0113
2.03	0.0517	0.0101	-0.0100	0.0118	0.0017	0.0223	0.0513	0.0119
4.08	0.1105	0.0080	-0.0141	0.0199	0.0013	0.0192	0.1097	0.0158
6.14	0.1741	0.0054	-0.0211	0.0284	0.0013	0.0139	0.1725	0.0240
8.20	0.2422	0.0016	-0.0289	0.0362	0.0020	0.0078	0.2395	0.0362
10.26	0.3152	-0.0017	-0.0349	0.0438	0.0020	0.0005	0.3105	0.0544
12.33	0.3938	-0.0042	-0.0419	0.0510	0.0011	-0.0049	0.3856	0.0799
14.41	0.4791	-0.0066	-0.0492	0.0588	-0.0013	-0.0086	0.4657	0.1127
16.49	0.5725	-0.0084	-0.0557	0.0654	-0.0037	-0.0138	0.5513	0.1544
18.58	0.6635	-0.0109	-0.0602	0.0700	-0.0065	-0.0194	0.6324	0.2010
20.67	0.7627	-0.0127	-0.0660	0.0744	-0.0093	-0.0238	0.7181	0.2573
22.76	0.8538	-0.0148	-0.0703	0.0769	-0.0119	-0.0264	0.7931	0.3166
24.86	0.9523	-0.0158	-0.0713	0.0772	-0.0145	-0.0284	0.8707	0.3860
26.93	1.0253	-0.0163	-0.0724	0.0736	-0.0164	-0.0276	0.9215	0.4498
28.98	1.0816	-0.0163	-0.0737	0.0696	-0.0176	-0.0245	0.9540	0.5098
31.00	1.0967	-0.0138	-0.0738	0.0565	-0.0163	-0.0125	0.9472	0.5530
32.99	1.1075	-0.0095	-0.0821	0.0465	-0.0138	0.0010	0.9342	0.5950
34.95	1.1206	-0.0086	-0.1077	0.0393	-0.0072	0.0190	0.9234	0.6348
36.95	1.1557	-0.0076	-0.1214	0.0352	-0.0070	0.0245	0.9282	0.6886
38.96	1.1902	-0.0083	-0.1343	0.0331	-0.0069	0.0273	0.9307	0.7419
40.96	1.2175	-0.0085	-0.1456	0.0314	-0.0077	0.0294	0.9250	0.7917

WICHITA STATE UNIVERSITY

MODEL 5
RUN 3
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3586	0.0158	0.0209	-0.0312	0.0045	0.0268	-0.3500	0.0799
-8.25	-0.2683	0.0153	0.0153	-0.0236	0.0034	0.0260	-0.2633	0.0536
-6.19	-0.1942	0.0144	0.0090	-0.0167	0.0032	0.0249	-0.1915	0.0353
-4.12	-0.1206	0.0128	0.0042	-0.0114	0.0033	0.0225	-0.1193	0.0214
-2.06	-0.0635	0.0118	-0.0002	-0.0045	0.0024	0.0205	-0.0631	0.0141
-0.01	-0.0074	0.0109	-0.0042	0.0022	0.0016	0.0185	-0.0074	0.0109
2.02	0.0429	0.0092	-0.0086	0.0087	0.0009	0.0160	0.0426	0.0107
4.07	0.1003	0.0075	-0.0144	0.0152	0.0008	0.0136	0.0995	0.0146
6.12	0.1565	0.0052	-0.0209	0.0209	0.0013	0.0091	0.1550	0.0219
8.17	0.2228	0.0021	-0.0291	0.0272	0.0021	0.0039	0.2202	0.0338
10.25	0.3059	-0.0012	-0.0377	0.0342	0.0020	-0.0012	0.3012	0.0532
12.31	0.3807	-0.0034	-0.0451	0.0403	0.0009	-0.0048	0.3727	0.0778
14.39	0.4693	-0.0060	-0.0534	0.0467	-0.0006	-0.0079	0.4561	0.1108
16.47	0.5648	-0.0082	-0.0607	0.0522	-0.0026	-0.0123	0.5439	0.1522
18.57	0.6735	-0.0122	-0.0682	0.0578	-0.0049	-0.0164	0.6423	0.2029
20.65	0.7559	-0.0136	-0.0719	0.0615	-0.0070	-0.0194	0.7121	0.2538
22.76	0.8660	-0.0160	-0.0754	0.0646	-0.0095	-0.0232	0.8048	0.3202
24.85	0.9649	-0.0184	-0.0806	0.0664	-0.0116	-0.0259	0.8833	0.3887
26.95	1.0637	-0.0203	-0.0839	0.0684	-0.0138	-0.0290	0.9574	0.4639
29.02	1.1274	-0.0222	-0.0806	0.0651	-0.0157	-0.0308	0.9967	0.5275
31.05	1.1517	-0.0197	-0.0760	0.0542	-0.0164	-0.0237	0.9968	0.5771
33.03	1.1316	-0.0133	-0.0742	0.0417	-0.0127	-0.0074	0.9560	0.6056
35.02	1.1647	-0.0130	-0.0954	0.0361	-0.0072	0.0089	0.9613	0.6577
37.04	1.2346	-0.0114	-0.1168	0.0352	-0.0048	0.0164	0.9923	0.7346
39.08	1.2993	-0.0122	-0.1322	0.0345	-0.0042	0.0186	1.0163	0.8096
41.11	1.3604	-0.0128	-0.1434	0.0359	-0.0036	0.0201	1.0333	0.8848

WICHITA STATE UNIVERSITY

MODEL 5
RUN 4
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3715	0.0161	0.0234	-0.0220	0.0036	0.0192	-0.3626	0.0826
-8.27	-0.2872	0.0156	0.0172	-0.0171	0.0028	0.0184	-0.2820	0.0568
-6.20	-0.2071	0.0147	0.0109	-0.0123	0.0023	0.0177	-0.2043	0.0370
-4.13	-0.1389	0.0138	0.0054	-0.0083	0.0024	0.0152	-0.1375	0.0238
-2.07	-0.0691	0.0126	0.0010	-0.0036	0.0021	0.0143	-0.0686	0.0151
-0.01	-0.0094	0.0115	-0.0033	0.0008	0.0015	0.0123	-0.0094	0.0115
2.02	0.0429	0.0103	-0.0083	0.0051	0.0010	0.0105	0.0425	0.0118
4.07	0.0998	0.0083	-0.0149	0.0092	0.0008	0.0093	0.0989	0.0154
6.12	0.1621	0.0054	-0.0229	0.0130	0.0014	0.0066	0.1606	0.0227
8.17	0.2287	0.0030	-0.0319	0.0173	0.0019	0.0032	0.2259	0.0355
10.24	0.3052	-0.0008	-0.0407	0.0220	0.0018	0.0001	0.3005	0.0534
12.31	0.3904	-0.0029	-0.0491	0.0269	0.0006	-0.0022	0.3821	0.0803
14.39	0.4734	-0.0051	-0.0564	0.0311	-0.0003	-0.0042	0.4598	0.1126
16.49	0.5853	-0.0081	-0.0653	0.0361	-0.0018	-0.0064	0.5635	0.1583
18.58	0.6836	-0.0118	-0.0718	0.0400	-0.0033	-0.0082	0.6518	0.2066
20.67	0.7812	-0.0139	-0.0782	0.0438	-0.0047	-0.0105	0.7359	0.2627
22.76	0.8833	-0.0172	-0.0854	0.0472	-0.0063	-0.0138	0.8212	0.3258
24.87	1.0012	-0.0196	-0.0900	0.0500	-0.0082	-0.0172	0.9166	0.4033
26.97	1.1113	-0.0238	-0.0946	0.0528	-0.0102	-0.0217	1.0011	0.4828
29.07	1.2213	-0.0268	-0.1010	0.0556	-0.0123	-0.0253	1.0804	0.5700
31.16	1.2981	-0.0292	-0.0984	0.0535	-0.0140	-0.0266	1.1259	0.6466
33.17	1.2980	-0.0252	-0.0889	0.0408	-0.0140	-0.0196	1.1002	0.6892
35.21	1.3215	-0.0222	-0.0824	0.0282	-0.0102	-0.0022	1.0925	0.7438
37.16	1.2965	-0.0166	-0.0934	0.0247	-0.0064	0.0087	1.0433	0.7699
39.21	1.3831	-0.0185	-0.1109	0.0241	-0.0040	0.0149	1.0833	0.8600
41.27	1.4758	-0.0213	-0.1256	0.0268	-0.0029	0.0173	1.1232	0.9574

WICHITA STATE UNIVERSITY

MODEL 5
RUN 5
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3779	0.0165	0.0243	-0.0107	0.0023	0.0084	-0.3688	0.0842
-8.27	-0.2881	0.0165	0.0179	-0.0088	0.0019	0.0080	-0.2827	0.0578
-6.20	-0.2170	0.0151	0.0122	-0.0067	0.0016	0.0073	-0.2141	0.0384
-4.13	-0.1369	0.0142	0.0055	-0.0038	0.0015	0.0070	-0.1356	0.0240
-2.07	-0.0688	0.0129	0.0009	-0.0016	0.0015	0.0061	-0.0683	0.0154
-0.01	-0.0046	0.0119	-0.0039	0.0003	0.0010	0.0048	-0.0046	0.0119
2.03	0.0478	0.0097	-0.0086	0.0021	0.0008	0.0041	0.0474	0.0114
4.08	0.1073	0.0072	-0.0162	0.0046	0.0004	0.0041	0.1066	0.0148
6.12	0.1649	0.0043	-0.0238	0.0060	0.0008	0.0029	0.1635	0.0219
8.18	0.2392	0.0013	-0.0342	0.0083	0.0010	0.0009	0.2366	0.0353
10.24	0.3163	-0.0015	-0.0433	0.0107	0.0006	0.0011	0.3115	0.0547
12.31	0.3984	-0.0036	-0.0521	0.0134	0.0001	0.0004	0.3900	0.0814
14.40	0.4929	-0.0075	-0.0617	0.0161	-0.0004	-0.0008	0.4793	0.1152
16.48	0.5894	-0.0101	-0.0703	0.0191	-0.0010	-0.0021	0.5681	0.1575
18.59	0.7103	-0.0153	-0.0796	0.0223	-0.0018	-0.0032	0.6781	0.2119
20.69	0.8209	-0.0187	-0.0880	0.0242	-0.0025	-0.0034	0.7746	0.2725
22.79	0.9300	-0.0224	-0.0951	0.0267	-0.0034	-0.0049	0.8661	0.3395
24.91	1.0591	-0.0265	-0.1024	0.0300	-0.0042	-0.0068	0.9717	0.4219
27.03	1.1950	-0.0310	-0.1096	0.0329	-0.0052	-0.0076	1.0786	0.5155
29.14	1.3024	-0.0355	-0.1080	0.0322	-0.0062	-0.0088	1.1548	0.6032
31.24	1.4093	-0.0389	-0.1123	0.0322	-0.0067	-0.0086	1.2251	0.6977
33.33	1.5063	-0.0408	-0.1163	0.0313	-0.0074	-0.0073	1.2809	0.7937
35.41	1.5834	-0.0431	-0.1171	0.0292	-0.0080	-0.0053	1.3154	0.8824
37.37	1.5121	-0.0364	-0.1025	0.0109	-0.0067	0.0045	1.2239	0.8888
39.41	1.5486	-0.0362	-0.0997	0.0079	-0.0043	0.0121	1.2194	0.9552
41.45	1.5896	-0.0380	-0.0979	0.0129	-0.0035	0.0128	1.2165	1.0238

WICHITA STATE UNIVERSITY

MODEL 5
RUN 6
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3832	0.0166	0.0245	0.0024	0.0008	-0.0025	-0.3740	0.0853
-8.28	-0.2994	0.0154	0.0195	0.0016	0.0007	-0.0027	-0.2940	0.0584
-6.20	-0.2128	0.0138	0.0127	0.0015	0.0005	-0.0022	-0.2101	0.0367
-4.13	-0.1433	0.0136	0.0074	0.0009	0.0004	-0.0018	-0.1420	0.0239
-2.07	-0.0711	0.0117	0.0014	0.0005	0.0002	-0.0005	-0.0707	0.0143
-0.01	-0.0068	0.0104	-0.0032	0.0001	0.0	-0.0007	-0.0068	0.0104
2.04	0.0570	0.0088	-0.0097	-0.0003	-0.0001	-0.0003	0.0566	0.0109
4.08	0.1048	0.0065	-0.0149	-0.0011	-0.0002	0.0001	0.1040	0.0140
6.13	0.1754	0.0031	-0.0255	-0.0013	-0.0004	0.0006	0.1741	0.0218
8.18	0.2353	0.0007	-0.0334	-0.0015	-0.0006	0.0009	0.2328	0.0342
10.25	0.3186	-0.0023	-0.0435	-0.0022	-0.0008	0.0016	0.3140	0.0544
12.32	0.4052	-0.0055	-0.0536	-0.0027	-0.0009	0.0020	0.3971	0.0810
14.40	0.4973	-0.0088	-0.0624	-0.0030	-0.0010	0.0025	0.4839	0.1151
16.49	0.6011	-0.0120	-0.0713	-0.0031	-0.0012	0.0030	0.5798	0.1591
18.58	0.7072	-0.0163	-0.0798	-0.0029	-0.0014	0.0035	0.6755	0.2099
20.68	0.8195	-0.0190	-0.0886	-0.0033	-0.0016	0.0041	0.7733	0.2717
22.80	0.9453	-0.0237	-0.0965	-0.0038	-0.0018	0.0053	0.8806	0.3445
24.91	1.0693	-0.0269	-0.1031	-0.0031	-0.0022	0.0056	0.9811	0.4260
27.03	1.1891	-0.0315	-0.1088	-0.0035	-0.0023	0.0059	1.0735	0.5122
29.16	1.3306	-0.0363	-0.1162	-0.0042	-0.0026	0.0070	1.1796	0.6166
31.28	1.4647	-0.0414	-0.1221	-0.0040	-0.0027	0.0080	1.2732	0.7252
33.40	1.5946	-0.0447	-0.1264	-0.0052	-0.0028	0.0094	1.3558	0.8406
35.51	1.6889	-0.0489	-0.1224	-0.0026	-0.0026	0.0103	1.4032	0.9412
37.57	1.7249	-0.0492	-0.1092	-0.0030	-0.0024	0.0103	1.3971	1.0127
39.56	1.6987	-0.0480	-0.1026	0.0036	-0.0026	0.0073	1.3402	1.0448
41.55	1.6875	-0.0465	-0.0978	0.0017	-0.0029	0.0073	1.2936	1.0846

WICHITA STATE UNIVERSITY

MODEL 5
RUN 7
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3892	0.0161	0.0258	0.0144	-0.0003	-0.0122	-0.3799	0.0859
-8.27	-0.2967	0.0147	0.0194	0.0112	-0.0002	-0.0113	-0.2915	0.0573
-6.20	-0.2128	0.0137	0.0124	0.0080	-0.0003	-0.0103	-0.2100	0.0366
-4.14	-0.1462	0.0132	0.0071	0.0043	-0.0005	-0.0091	-0.1448	0.0238
-2.07	-0.0710	0.0121	0.0011	0.0012	-0.0009	-0.0069	-0.0705	0.0147
-0.01	-0.0108	0.0113	-0.0034	-0.0015	-0.0010	-0.0055	-0.0107	0.0113
2.02	0.0409	0.0096	-0.0079	-0.0043	-0.0009	-0.0039	0.0406	0.0111
4.07	0.0947	0.0074	-0.0142	-0.0069	-0.0008	-0.0032	0.0940	0.0141
6.12	0.1594	0.0045	-0.0229	-0.0095	-0.0016	-0.0010	0.1580	0.0215
8.17	0.2259	0.0021	-0.0324	-0.0121	-0.0022	0.0010	0.2233	0.0342
10.24	0.3047	-0.0011	-0.0411	-0.0159	-0.0019	0.0033	0.3000	0.0530
12.31	0.3936	-0.0040	-0.0518	-0.0191	-0.0017	0.0056	0.3854	0.0799
14.38	0.4801	-0.0072	-0.0605	-0.0223	-0.0015	0.0084	0.4668	0.1122
16.47	0.5781	-0.0096	-0.0691	-0.0250	-0.0011	0.0102	0.5571	0.1547
18.57	0.6922	-0.0141	-0.0783	-0.0284	-0.0007	0.0130	0.6606	0.2070
20.67	0.8009	-0.0175	-0.0852	-0.0313	-0.0002	0.0155	0.7556	0.2663
22.78	0.9183	-0.0217	-0.0933	-0.0341	0.0002	0.0183	0.8551	0.3355
24.89	1.0381	-0.0255	-0.0999	-0.0359	0.0005	0.0200	0.9524	0.4137
27.01	1.1742	-0.0295	-0.1073	-0.0391	0.0005	0.0212	1.0595	0.5070
29.12	1.2777	-0.0333	-0.1060	-0.0388	0.0009	0.0214	1.1324	0.5928
31.22	1.3773	-0.0362	-0.1091	-0.0379	0.0012	0.0225	1.1966	0.6829
33.30	1.4641	-0.0374	-0.1112	-0.0366	0.0015	0.0234	1.2442	0.7726
35.36	1.5276	-0.0393	-0.1114	-0.0310	0.0021	0.0220	1.2684	0.8521
37.31	1.4434	-0.0317	-0.0949	-0.0117	0.0008	0.0090	1.1672	0.8497
39.36	1.4847	-0.0315	-0.0911	-0.0137	-0.0009	0.0050	1.1679	0.9173
41.41	1.5423	-0.0334	-0.0951	-0.0151	-0.0025	0.0019	1.1788	0.9950

WICHITA STATE UNIVERSITY

MODEL 5
RUN 8
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3791	0.0175	0.0264	0.0264	-0.0009	-0.0222	-0.3698	0.0853
-8.27	-0.2920	0.0166	0.0202	0.0204	-0.0005	-0.0223	-0.2865	0.0585
-6.20	-0.2154	0.0156	0.0124	0.0146	-0.0005	-0.0208	-0.2124	0.0387
-4.13	-0.1420	0.0149	0.0068	0.0091	-0.0006	-0.0181	-0.1405	0.0251
-2.07	-0.0737	0.0134	0.0017	0.0037	-0.0009	-0.0155	-0.0732	0.0161
-0.02	-0.0142	0.0130	-0.0028	-0.0013	-0.0010	-0.0129	-0.0142	0.0130
2.02	0.0322	0.0118	-0.0064	-0.0058	-0.0009	-0.0109	0.0317	0.0129
4.07	0.0960	0.0101	-0.0138	-0.0115	-0.0010	-0.0088	0.0951	0.0169
6.12	0.1586	0.0067	-0.0208	-0.0162	-0.0017	-0.0060	0.1569	0.0236
8.17	0.2197	0.0036	-0.0296	-0.0205	-0.0028	-0.0019	0.2170	0.0348
10.24	0.2998	0.0010	-0.0387	-0.0261	-0.0029	0.0017	0.2948	0.0543
12.31	0.3832	-0.0021	-0.0477	-0.0318	-0.0021	0.0048	0.3748	0.0795
14.38	0.4653	-0.0057	-0.0545	-0.0361	-0.0012	0.0092	0.4522	0.1100
16.47	0.5623	-0.0075	-0.0617	-0.0414	-0.0002	0.0135	0.5414	0.1522
18.55	0.6561	-0.0112	-0.0687	-0.0454	0.0009	0.0171	0.6256	0.1981
20.66	0.7751	-0.0140	-0.0765	-0.0495	0.0021	0.0206	0.7302	0.2603
22.74	0.8635	-0.0168	-0.0814	-0.0522	0.0032	0.0253	0.8028	0.3183
24.85	0.9737	-0.0196	-0.0874	-0.0550	0.0048	0.0297	0.8918	0.3913
26.95	1.0849	-0.0225	-0.0911	-0.0575	0.0065	0.0346	0.9772	0.4717
29.05	1.1903	-0.0251	-0.0954	-0.0592	0.0079	0.0391	1.0527	0.5561
31.13	1.2678	-0.0278	-0.0943	-0.0573	0.0090	0.0404	1.0996	0.6317
33.14	1.2554	-0.0229	-0.0822	-0.0445	0.0097	0.0337	1.0637	0.6672
35.12	1.2281	-0.0189	-0.0775	-0.0328	0.0062	0.0175	1.0153	0.6911
37.14	1.2713	-0.0163	-0.0903	-0.0280	0.0018	0.0062	1.0233	0.7546
39.18	1.3429	-0.0167	-0.1050	-0.0274	-0.0006	0.0016	1.0515	0.8355
41.24	1.4378	-0.0193	-0.1217	-0.0288	-0.0025	-0.0003	1.0938	0.9333

WICHITA STATE UNIVERSITY

MODEL 5
RUN 9
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3681	0.0153	0.0257	0.0365	-0.0012	-0.0289	-0.3594	0.0811
-8.26	-0.2870	0.0156	0.0200	0.0287	-0.0006	-0.0298	-0.2818	0.0567
-6.20	-0.2145	0.0142	0.0142	0.0211	-0.0005	-0.0288	-0.2117	0.0373
-4.14	-0.1444	0.0139	0.0067	0.0133	-0.0006	-0.0268	-0.1430	0.0243
-2.07	-0.0752	0.0127	0.0017	0.0054	-0.0008	-0.0240	-0.0747	0.0154
-0.02	-0.0172	0.0116	-0.0028	-0.0016	-0.0010	-0.0214	-0.0172	0.0116
2.01	0.0313	0.0109	-0.0067	-0.0089	-0.0009	-0.0183	0.0309	0.0120
4.06	0.0897	0.0098	-0.0128	-0.0164	-0.0012	-0.0149	0.0888	0.0161
6.12	0.1540	0.0069	-0.0190	-0.0237	-0.0017	-0.0110	0.1524	0.0233
8.17	0.2176	0.0044	-0.0263	-0.0306	-0.0030	-0.0059	0.2148	0.0354
10.23	0.2886	0.0013	-0.0341	-0.0370	-0.0035	0.0003	0.2838	0.0525
12.30	0.3672	-0.0015	-0.0425	-0.0445	-0.0027	0.0060	0.3591	0.0767
14.37	0.4478	-0.0037	-0.0491	-0.0508	-0.0011	0.0108	0.4347	0.1075
16.46	0.5486	-0.0071	-0.0573	-0.0570	0.0006	0.0171	0.5281	0.1486
18.54	0.6363	-0.0109	-0.0630	-0.0616	0.0024	0.0218	0.6067	0.1920
20.64	0.7348	-0.0128	-0.0683	-0.0663	0.0043	0.0265	0.6922	0.2469
22.73	0.8354	-0.0146	-0.0720	-0.0690	0.0062	0.0306	0.7762	0.3094
24.83	0.9395	-0.0157	-0.0769	-0.0718	0.0082	0.0346	0.8592	0.3803
26.92	1.0329	-0.0181	-0.0800	-0.0730	0.0099	0.0382	0.9292	0.4515
29.01	1.1188	-0.0196	-0.0800	-0.0719	0.0120	0.0406	0.9879	0.5255
31.05	1.1462	-0.0189	-0.0745	-0.0628	0.0131	0.0376	0.9917	0.5749
33.03	1.1240	-0.0130	-0.0728	-0.0486	0.0105	0.0215	0.9494	0.6017
35.02	1.1423	-0.0116	-0.0850	-0.0419	0.0051	0.0064	0.9422	0.6460
37.02	1.2048	-0.0100	-0.1126	-0.0397	0.0004	-0.0039	0.9679	0.7174
39.05	1.2659	-0.0098	-0.1267	-0.0390	-0.0001	-0.0059	0.9893	0.7899
41.08	1.3226	-0.0105	-0.1382	-0.0392	-0.0010	-0.0070	1.0038	0.8613

WICHITA STATE UNIVERSITY

MODEL 5
RUN 10
Q 40PSF
BETA 20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3578	0.0143	0.0242	0.0429	-0.0018	-0.0333	-0.3494	0.0783
-8.25	-0.2691	0.0145	0.0167	0.0324	-0.0016	-0.0332	-0.2643	0.0530
-6.19	-0.2055	0.0135	0.0114	0.0242	-0.0016	-0.0320	-0.2028	0.0356
-4.13	-0.1388	0.0132	0.0053	0.0152	-0.0016	-0.0307	-0.1375	0.0232
-2.07	-0.0714	0.0130	0.0002	0.0060	-0.0018	-0.0284	-0.0709	0.0156
-0.02	-0.0180	0.0116	-0.0043	-0.0021	-0.0020	-0.0257	-0.0180	0.0116
2.02	0.0361	0.0105	-0.0081	-0.0110	-0.0015	-0.0232	0.0357	0.0117
4.07	0.0933	0.0088	-0.0133	-0.0198	-0.0013	-0.0205	0.0924	0.0154
6.12	0.1541	0.0069	-0.0187	-0.0278	-0.0017	-0.0164	0.1525	0.0233
8.18	0.2190	0.0039	-0.0249	-0.0357	-0.0026	-0.0097	0.2162	0.0350
10.25	0.3019	0.0010	-0.0334	-0.0446	-0.0036	-0.0019	0.2969	0.0548
12.31	0.3745	-0.0025	-0.0410	-0.0521	-0.0033	0.0053	0.3665	0.0773
14.39	0.4567	-0.0050	-0.0474	-0.0596	-0.0011	0.0114	0.4436	0.1086
16.46	0.5383	-0.0070	-0.0531	-0.0657	0.0012	0.0173	0.5182	0.1457
18.55	0.6291	-0.0106	-0.0582	-0.0713	0.0035	0.0240	0.5999	0.1900
20.64	0.7254	-0.0116	-0.0629	-0.0758	0.0060	0.0304	0.6829	0.2448
22.73	0.8211	-0.0132	-0.0666	-0.0783	0.0086	0.0340	0.7624	0.3051
24.82	0.9129	-0.0138	-0.0699	-0.0792	0.0109	0.0373	0.8343	0.3706
26.90	0.9895	-0.0156	-0.0700	-0.0770	0.0130	0.0380	0.8895	0.4337
28.97	1.0598	-0.0162	-0.0716	-0.0722	0.0146	0.0365	0.9351	0.4990
30.98	1.0795	-0.0143	-0.0711	-0.0607	0.0140	0.0278	0.9328	0.5434
32.99	1.0975	-0.0102	-0.0777	-0.0516	0.0114	0.0162	0.9261	0.5890
34.97	1.1185	-0.0086	-0.0976	-0.0440	0.0053	0.0018	0.9215	0.6339
36.94	1.1374	-0.0071	-0.1171	-0.0382	0.0027	-0.0087	0.9133	0.6778
38.95	1.1747	-0.0067	-0.1306	-0.0356	0.0025	-0.0123	0.9178	0.7332
40.95	1.1936	-0.0063	-0.1393	-0.0334	0.0033	-0.0141	0.9057	0.7775

WICHITA STATE UNIVERSITY

MODEL 5
RUN 11
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3412	0.0141	0.0219	0.0457	-0.0046	-0.0343	-0.3331	0.0750
-8.25	-0.2654	0.0139	0.0153	0.0351	-0.0035	-0.0365	-0.2606	0.0519
-6.19	-0.2008	0.0127	0.0114	0.0259	-0.0029	-0.0376	-0.1983	0.0343
-4.13	-0.1382	0.0125	0.0056	0.0163	-0.0025	-0.0374	-0.1369	0.0224
-2.07	-0.0739	0.0112	0.0005	0.0061	-0.0022	-0.0361	-0.0734	0.0139
-0.01	-0.0072	0.0098	-0.0043	-0.0051	-0.0020	-0.0343	-0.0072	0.0098
2.02	0.0395	0.0091	-0.0078	-0.0127	-0.0014	-0.0331	0.0392	0.0105
4.08	0.1060	0.0077	-0.0139	-0.0234	-0.0011	-0.0308	0.1052	0.0152
6.14	0.1692	0.0054	-0.0188	-0.0327	-0.0013	-0.0269	0.1677	0.0235
8.20	0.2343	0.0032	-0.0233	-0.0412	-0.0021	-0.0204	0.2314	0.0366
10.26	0.3036	0.0003	-0.0300	-0.0498	-0.0030	-0.0118	0.2986	0.0544
12.34	0.3936	-0.0032	-0.0385	-0.0596	-0.0028	-0.0024	0.3852	0.0809
14.40	0.4639	-0.0055	-0.0440	-0.0667	-0.0013	0.0061	0.4507	0.1100
16.47	0.5411	-0.0067	-0.0491	-0.0728	0.0012	0.0119	0.5208	0.1469
18.56	0.6291	-0.0100	-0.0528	-0.0778	0.0040	0.0195	0.5995	0.1907
20.64	0.7193	-0.0113	-0.0592	-0.0823	0.0071	0.0253	0.6771	0.2430
22.71	0.7966	-0.0132	-0.0629	-0.0842	0.0102	0.0289	0.7400	0.2954
24.80	0.8891	-0.0135	-0.0652	-0.0836	0.0133	0.0309	0.8127	0.3607
26.87	0.9666	-0.0135	-0.0695	-0.0814	0.0153	0.0306	0.8683	0.4249
28.94	1.0312	-0.0132	-0.0709	-0.0734	0.0164	0.0270	0.9088	0.4874
30.98	1.0796	-0.0135	-0.0748	-0.0662	0.0164	0.0194	0.9326	0.5441
33.00	1.1143	-0.0109	-0.0813	-0.0584	0.0147	0.0102	0.9405	0.5977
35.00	1.1422	-0.0103	-0.0942	-0.0488	0.0110	-0.0017	0.9415	0.6467
36.97	1.1574	-0.0088	-0.1150	-0.0427	0.0063	-0.0154	0.9300	0.6889
38.95	1.1658	-0.0089	-0.1252	-0.0406	0.0066	-0.0213	0.9122	0.7259
40.92	1.1576	-0.0080	-0.1344	-0.0378	0.0076	-0.0252	0.8800	0.7521

WICHITA STATE UNIVERSITY

MODEL 6
RUN 1
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.29	-0.3023	0.0207	0.0137	-0.0375	0.0173	0.0330	-0.2937	0.0744
-8.23	-0.2435	0.0200	0.0107	-0.0306	0.0135	0.0375	-0.2381	0.0547
-6.17	-0.1761	0.0179	0.0053	-0.0216	0.0114	0.0384	-0.1732	0.0368
-4.12	-0.1122	0.0172	-0.0	-0.0131	0.0111	0.0371	-0.1106	0.0252
-2.06	-0.0566	0.0157	-0.0033	-0.0053	0.0099	0.0360	-0.0560	0.0178
-0.01	-0.0023	0.0143	-0.0074	0.0039	0.0083	0.0349	-0.0023	0.0143
2.02	0.0515	0.0128	-0.0127	0.0129	0.0064	0.0355	0.0510	0.0146
4.08	0.1147	0.0114	-0.0184	0.0220	0.0048	0.0351	0.1135	0.0196
6.14	0.1854	0.0098	-0.0243	0.0309	0.0039	0.0342	0.1833	0.0296
8.20	0.2513	0.0074	-0.0297	0.0389	0.0036	0.0329	0.2476	0.0432
10.27	0.3264	0.0051	-0.0354	0.0460	0.0033	0.0294	0.3202	0.0633
12.34	0.4022	0.0015	-0.0428	0.0534	0.0040	0.0232	0.3926	0.0875
14.41	0.4785	-0.0019	-0.0492	0.0605	0.0044	0.0150	0.4639	0.1172
16.48	0.5665	-0.0056	-0.0568	0.0674	0.0041	0.0057	0.5448	0.1553
18.57	0.6505	-0.0098	-0.0595	0.0716	0.0010	0.0005	0.6198	0.1977
20.63	0.7266	-0.0136	-0.0652	0.0756	-0.0009	-0.0079	0.6848	0.2433
22.71	0.7985	-0.0162	-0.0653	0.0733	-0.0042	-0.0141	0.7428	0.2933
24.77	0.8721	-0.0172	-0.0722	0.0697	-0.0079	-0.0136	0.7990	0.3497
26.83	0.9525	-0.0188	-0.0819	0.0665	-0.0110	-0.0142	0.8585	0.4131
28.89	1.0279	-0.0204	-0.0895	0.0642	-0.0129	-0.0111	0.9098	0.4788
30.94	1.0790	-0.0223	-0.0941	0.0579	-0.0140	-0.0064	0.9369	0.5355
32.96	1.1158	-0.0188	-0.1019	0.0495	-0.0132	0.0026	0.9464	0.5912
34.96	1.1375	-0.0185	-0.1117	0.0416	-0.0118	0.0121	0.9429	0.6365
36.94	1.1512	-0.0171	-0.1235	0.0367	-0.0104	0.0233	0.9304	0.6782
38.92	1.1544	-0.0171	-0.1353	0.0332	-0.0090	0.0325	0.9089	0.7118
40.90	1.1567	-0.0165	-0.1451	0.0320	-0.0100	0.0360	0.8852	0.7448

WICHITA STATE UNIVERSITY

MODEL 6
RUN 2
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3368	0.0220	0.0181	-0.0378	0.0105	0.0384	-0.3274	0.0820
-8.25	-0.2600	0.0204	0.0140	-0.0294	0.0087	0.0385	-0.2544	0.0575
-6.18	-0.1855	0.0194	0.0057	-0.0201	0.0077	0.0377	-0.1823	0.0393
-4.12	-0.1210	0.0186	0.0007	-0.0130	0.0079	0.0355	-0.1194	0.0273
-2.07	-0.0577	0.0169	-0.0041	-0.0054	0.0084	0.0322	-0.0571	0.0190
-0.01	-0.0007	0.0158	-0.0076	0.0028	0.0075	0.0299	-0.0007	0.0158
2.03	0.0522	0.0139	-0.0108	0.0109	0.0061	0.0289	0.0516	0.0158
4.07	0.1067	0.0116	-0.0171	0.0188	0.0048	0.0278	0.1056	0.0191
6.13	0.1710	0.0091	-0.0229	0.0270	0.0038	0.0271	0.1691	0.0274
8.19	0.2366	0.0066	-0.0284	0.0338	0.0034	0.0247	0.2333	0.0403
10.26	0.3184	0.0031	-0.0362	0.0412	0.0035	0.0210	0.3128	0.0598
12.33	0.3945	-0.0011	-0.0446	0.0485	0.0039	0.0163	0.3857	0.0831
14.39	0.4685	-0.0048	-0.0526	0.0547	0.0043	0.0096	0.4550	0.1117
16.47	0.5547	-0.0078	-0.0586	0.0605	0.0028	0.0054	0.5341	0.1497
18.54	0.6390	-0.0126	-0.0674	0.0661	0.0019	-0.0033	0.6099	0.1911
20.62	0.7292	-0.0170	-0.0724	0.0697	0.0	-0.0113	0.6884	0.2409
22.70	0.8056	-0.0203	-0.0725	0.0684	-0.0031	-0.0147	0.7510	0.2922
24.78	0.8939	-0.0229	-0.0785	0.0678	-0.0063	-0.0196	0.8212	0.3539
26.84	0.9672	-0.0252	-0.0842	0.0655	-0.0093	-0.0235	0.8743	0.4143
28.91	1.0434	-0.0272	-0.0911	0.0633	-0.0117	-0.0222	0.9265	0.4805
30.95	1.0852	-0.0265	-0.0924	0.0558	-0.0124	-0.0144	0.9443	0.5353
32.96	1.1147	-0.0223	-0.0976	0.0486	-0.0112	-0.0001	0.9474	0.5878
34.93	1.1164	-0.0195	-0.1117	0.0390	-0.0075	0.0151	0.9264	0.6232
36.93	1.1498	-0.0177	-0.1289	0.0341	-0.0059	0.0231	0.9298	0.6767
38.94	1.1828	-0.0181	-0.1391	0.0322	-0.0051	0.0274	0.9313	0.7293
40.95	1.2236	-0.0187	-0.1525	0.0309	-0.0059	0.0300	0.9363	0.7878

WICHITA STATE UNIVERSITY

MODEL 6
RUN 3
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3606	0.0229	0.0228	-0.0317	0.0075	0.0309	-0.3506	0.0873
-8.26	-0.2804	0.0214	0.0167	-0.0250	0.0061	0.0311	-0.2744	0.0615
-6.19	-0.2030	0.0190	0.0089	-0.0172	0.0052	0.0315	-0.1998	0.0408
-4.13	-0.1268	0.0171	0.0020	-0.0110	0.0062	0.0276	-0.1252	0.0262
-2.07	-0.0652	0.0162	-0.0024	-0.0051	0.0061	0.0247	-0.0646	0.0185
-0.01	-0.0008	0.0146	-0.0069	0.0022	0.0053	0.0226	-0.0008	0.0146
2.03	0.0520	0.0125	-0.0108	0.0086	0.0044	0.0214	0.0515	0.0144
4.08	0.1079	0.0101	-0.0164	0.0148	0.0031	0.0214	0.1069	0.0178
6.13	0.1682	0.0082	-0.0230	0.0209	0.0025	0.0208	0.1664	0.0261
8.18	0.2330	0.0058	-0.0300	0.0264	0.0023	0.0200	0.2298	0.0389
10.25	0.3107	0.0	-0.0393	0.0322	0.0028	0.0165	0.3057	0.0553
12.31	0.3824	-0.0034	-0.0474	0.0378	0.0033	0.0126	0.3743	0.0781
14.38	0.4687	-0.0072	-0.0567	0.0435	0.0031	0.0089	0.4558	0.1094
16.45	0.5517	-0.0099	-0.0650	0.0488	0.0029	0.0029	0.5319	0.1467
18.54	0.6551	-0.0170	-0.0736	0.0536	0.0018	-0.0020	0.6265	0.1922
20.62	0.7452	-0.0208	-0.0813	0.0567	-0.0	-0.0064	0.7048	0.2429
22.71	0.8412	-0.0252	-0.0873	0.0602	-0.0021	-0.0112	0.7857	0.3014
24.79	0.9311	-0.0285	-0.0939	0.0620	-0.0045	-0.0179	0.8573	0.3645
26.88	1.0301	-0.0336	-0.0993	0.0635	-0.0072	-0.0225	0.9340	0.4357
28.96	1.1181	-0.0375	-0.1039	0.0645	-0.0095	-0.0269	0.9964	0.5086
31.01	1.1626	-0.0372	-0.0992	0.0575	-0.0115	-0.0244	1.0155	0.5671
33.02	1.1673	-0.0324	-0.0965	0.0455	-0.0111	-0.0112	0.9964	0.6090
35.03	1.1730	-0.0292	-0.0972	0.0376	-0.0073	0.0053	0.9773	0.6493
37.01	1.2169	-0.0258	-0.1230	0.0331	-0.0020	0.0214	0.9872	0.7120
39.05	1.2873	-0.0271	-0.1386	0.0328	-0.0006	0.0264	1.0167	0.7899
41.09	1.3611	-0.0284	-0.1539	0.0339	-0.0	0.0286	1.0444	0.8732

WICHITA STATE UNIVERSITY

MODEL 6
RUN 4
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3770	0.0230	0.0245	-0.0223	0.0051	0.0220	-0.3668	0.0904
-8.27	-0.2891	0.0220	0.0173	-0.0175	0.0041	0.0210	-0.2829	0.0634
-6.20	-0.2107	0.0196	0.0106	-0.0123	0.0035	0.0199	-0.2073	0.0423
-4.14	-0.1407	0.0183	0.0044	-0.0079	0.0040	0.0189	-0.1390	0.0284
-2.07	-0.0690	0.0164	-0.0012	-0.0033	0.0039	0.0170	-0.0684	0.0189
-0.01	-0.0067	0.0145	-0.0057	0.0009	0.0034	0.0143	-0.0067	0.0145
2.02	0.0479	0.0124	-0.0106	0.0055	0.0027	0.0134	0.0474	0.0141
4.08	0.1114	0.0100	-0.0165	0.0096	0.0018	0.0135	0.1104	0.0179
6.13	0.1680	0.0075	-0.0242	0.0133	0.0014	0.0131	0.1662	0.0254
8.18	0.2425	0.0039	-0.0340	0.0172	0.0016	0.0124	0.2394	0.0385
10.24	0.3102	-0.0002	-0.0429	0.0205	0.0022	0.0106	0.3053	0.0549
12.31	0.3948	-0.0048	-0.0542	0.0251	0.0023	0.0091	0.3868	0.0794
14.37	0.4768	-0.0098	-0.0639	0.0293	0.0025	0.0063	0.4643	0.1088
16.45	0.5647	-0.0137	-0.0722	0.0328	0.0020	0.0037	0.5454	0.1467
18.54	0.6645	-0.0195	-0.0811	0.0363	0.0011	0.0018	0.6363	0.1928
20.62	0.7615	-0.0235	-0.0906	0.0395	-0.0001	-0.0004	0.7210	0.2461
22.71	0.8679	-0.0300	-0.1018	0.0432	-0.0012	-0.0043	0.8122	0.3074
24.80	0.9742	-0.0338	-0.1092	0.0464	-0.0027	-0.0086	0.8985	0.3779
26.91	1.0961	-0.0397	-0.1197	0.0507	-0.0046	-0.0142	0.9954	0.4607
29.00	1.2008	-0.0443	-0.1256	0.0535	-0.0066	-0.0180	1.0717	0.5435
31.10	1.3016	-0.0491	-0.1285	0.0547	-0.0089	-0.0212	1.1399	0.6302
33.18	1.3722	-0.0499	-0.1252	0.0503	-0.0110	-0.0229	1.1757	0.7091
35.17	1.3460	-0.0464	-0.1140	0.0354	-0.0106	-0.0099	1.1270	0.7374
37.14	1.3088	-0.0374	-0.1077	0.0231	-0.0055	0.0106	1.0659	0.7605
39.18	1.3642	-0.0385	-0.1146	0.0208	-0.0024	0.0198	1.0817	0.8321
41.24	1.4388	-0.0413	-0.1245	0.0228	-0.0001	0.0255	1.1092	0.9174

WICHITA STATE UNIVERSITY

MODEL 6
RUN 5
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3855	0.0237	0.0238	-0.0106	0.0028	0.0101	-0.3750	0.0926
-8.28	-0.2975	0.0219	0.0167	-0.0081	0.0025	0.0094	-0.2912	0.0646
-6.21	-0.2223	0.0193	0.0112	-0.0061	0.0020	0.0097	-0.2189	0.0433
-4.15	-0.1496	0.0187	0.0048	-0.0036	0.0020	0.0094	-0.1479	0.0295
-2.08	-0.0803	0.0170	-0.0005	-0.0016	0.0020	0.0086	-0.0796	0.0199
-0.02	-0.0102	0.0137	-0.0059	0.0004	0.0017	0.0079	-0.0102	0.0137
2.03	0.0496	0.0119	-0.0108	0.0026	0.0014	0.0078	0.0491	0.0137
4.07	0.1076	0.0091	-0.0174	0.0045	0.0009	0.0081	0.1066	0.0167
6.12	0.1693	0.0067	-0.0255	0.0059	0.0005	0.0083	0.1676	0.0247
8.18	0.2405	0.0028	-0.0354	0.0076	0.0008	0.0079	0.2377	0.0370
10.24	0.3178	-0.0012	-0.0460	0.0099	0.0010	0.0072	0.3130	0.0552
12.29	0.3854	-0.0058	-0.0554	0.0116	0.0010	0.0066	0.3778	0.0763
14.37	0.4860	-0.0111	-0.0682	0.0140	0.0009	0.0065	0.4735	0.1098
16.45	0.5757	-0.0156	-0.0796	0.0158	0.0007	0.0058	0.5566	0.1480
18.53	0.6830	-0.0227	-0.0919	0.0192	0.0004	0.0049	0.6548	0.1955
20.62	0.7891	-0.0274	-0.1028	0.0210	-0.0	0.0038	0.7482	0.2522
22.72	0.8988	-0.0327	-0.1126	0.0234	-0.0006	0.0026	0.8417	0.3169
24.82	1.0185	-0.0384	-0.1222	0.0258	-0.0013	0.0007	0.9405	0.3927
26.93	1.1492	-0.0452	-0.1335	0.0298	-0.0022	-0.0014	1.0450	0.4802
29.04	1.2540	-0.0518	-0.1347	0.0291	-0.0038	-0.0030	1.1215	0.5634
31.14	1.3657	-0.0579	-0.1409	0.0299	-0.0053	-0.0070	1.1988	0.6566
33.24	1.4712	-0.0610	-0.1456	0.0298	-0.0072	-0.0099	1.2639	0.7554
35.31	1.5550	-0.0659	-0.1489	0.0303	-0.0087	-0.0124	1.3069	0.8451
37.38	1.6178	-0.0670	-0.1479	0.0246	-0.0103	-0.0107	1.3262	0.9289
39.35	1.5590	-0.0594	-0.1329	0.0083	-0.0080	0.0062	1.2431	0.9426
41.43	1.6447	-0.0643	-0.1346	0.0109	-0.0070	0.0094	1.2756	1.0401

WICHITA STATE UNIVERSITY

MODEL 6
RUN 6
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3866	0.0238	0.0235	0.0014	0.0002	-0.0041	-0.3760	0.0930
-8.29	-0.3089	0.0222	0.0179	0.0017	0.0	-0.0035	-0.3025	0.0665
-6.21	-0.2187	0.0207	0.0107	0.0008	0.0	-0.0023	-0.2152	0.0443
-4.14	-0.1494	0.0197	0.0056	0.0006	-0.0	-0.0013	-0.1476	0.0305
-2.08	-0.0798	0.0176	-0.0003	0.0004	-0.0	-0.0009	-0.0791	0.0205
-0.02	-0.0111	0.0160	-0.0058	-0.0001	-0.0001	-0.0012	-0.0111	0.0160
2.02	0.0474	0.0135	-0.0112	-0.0005	-0.0002	-0.0009	0.0468	0.0152
4.07	0.1070	0.0109	-0.0177	-0.0010	-0.0002	0.0006	0.1060	0.0185
6.12	0.1717	0.0075	-0.0270	-0.0014	-0.0003	0.0012	0.1699	0.0258
8.17	0.2352	0.0038	-0.0365	-0.0018	-0.0006	0.0025	0.2323	0.0372
10.23	0.3069	0.0	-0.0445	-0.0018	-0.0006	0.0027	0.3020	0.0545
12.29	0.3858	-0.0044	-0.0569	-0.0028	-0.0007	0.0034	0.3779	0.0778
14.37	0.4816	-0.0104	-0.0692	-0.0030	-0.0008	0.0045	0.4691	0.1094
16.44	0.5702	-0.0152	-0.0791	-0.0034	-0.0010	0.0051	0.5511	0.1468
18.52	0.6711	-0.0209	-0.0905	-0.0035	-0.0011	0.0062	0.6430	0.1933
20.62	0.7890	-0.0265	-0.1050	-0.0041	-0.0013	0.0069	0.7478	0.2530
22.71	0.8971	-0.0333	-0.1145	-0.0041	-0.0014	0.0073	0.8404	0.3156
24.82	1.0215	-0.0391	-0.1257	-0.0041	-0.0014	0.0084	0.9436	0.3932
26.93	1.1496	-0.0459	-0.1358	-0.0053	-0.0015	0.0107	1.0457	0.4798
29.04	1.2788	-0.0528	-0.1463	-0.0059	-0.0016	0.0115	1.1437	0.5746
31.16	1.4136	-0.0599	-0.1527	-0.0049	-0.0018	0.0119	1.2406	0.6803
33.29	1.5505	-0.0652	-0.1589	-0.0055	-0.0019	0.0132	1.3319	0.7966
35.39	1.6365	-0.0707	-0.1529	-0.0029	-0.0016	0.0120	1.3750	0.8902
37.47	1.6960	-0.0736	-0.1443	-0.0039	-0.0018	0.0121	1.3908	0.9733
39.52	1.7437	-0.0758	-0.1430	-0.0038	-0.0019	0.0121	1.3933	1.0511
41.52	1.7298	-0.0741	-0.1353	0.0014	-0.0026	0.0074	1.3442	1.0912

WICHITA STATE UNIVERSITY

MODEL 6
RUN 7
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3827	0.0234	0.0228	0.0126	-0.0024	-0.0162	-0.3723	0.0919
-8.29	-0.3065	0.0223	0.0184	0.0109	-0.0021	-0.0161	-0.3001	0.0663
-6.21	-0.2169	0.0198	0.0106	0.0073	-0.0017	-0.0145	-0.2135	0.0432
-4.14	-0.1483	0.0183	0.0047	0.0037	-0.0018	-0.0120	-0.1466	0.0290
-2.08	-0.0806	0.0159	-0.0003	0.0015	-0.0021	-0.0103	-0.0800	0.0189
-0.02	-0.0161	0.0146	-0.0051	-0.0011	-0.0020	-0.0096	-0.0161	0.0146
2.02	0.0432	0.0124	-0.0100	-0.0040	-0.0018	-0.0077	0.0428	0.0139
4.07	0.0998	0.0102	-0.0166	-0.0071	-0.0014	-0.0062	0.0988	0.0172
6.12	0.1587	0.0077	-0.0240	-0.0092	-0.0012	-0.0058	0.1570	0.0245
8.17	0.2241	0.0045	-0.0332	-0.0114	-0.0016	-0.0040	0.2212	0.0363
10.23	0.2985	0.0001	-0.0435	-0.0142	-0.0024	-0.0024	0.2937	0.0531
12.29	0.3783	-0.0038	-0.0543	-0.0170	-0.0022	-0.0010	0.3705	0.0768
14.36	0.4691	-0.0100	-0.0660	-0.0194	-0.0027	0.0017	0.4570	0.1066
16.43	0.5609	-0.0130	-0.0775	-0.0226	-0.0027	0.0039	0.5416	0.1462
18.52	0.6611	-0.0198	-0.0892	-0.0254	-0.0026	0.0065	0.6331	0.1911
20.61	0.7674	-0.0252	-0.0998	-0.0281	-0.0025	0.0093	0.7271	0.2465
22.71	0.8865	-0.0310	-0.1119	-0.0309	-0.0020	0.0128	0.8298	0.3135
24.81	1.0017	-0.0363	-0.1214	-0.0345	-0.0015	0.0166	0.9246	0.3873
26.91	1.1105	-0.0420	-0.1253	-0.0365	-0.0008	0.0205	1.0093	0.4651
29.01	1.2164	-0.0478	-0.1314	-0.0358	0.0003	0.0233	1.0870	0.5480
31.10	1.3196	-0.0530	-0.1385	-0.0373	0.0015	0.0278	1.1573	0.6362
33.20	1.4242	-0.0565	-0.1421	-0.0372	0.0030	0.0317	1.2227	0.7325
35.29	1.5196	-0.0617	-0.1448	-0.0369	0.0043	0.0347	1.2760	0.8275
37.34	1.5611	-0.0612	-0.1395	-0.0281	0.0053	0.0313	1.2782	0.8982
39.31	1.5051	-0.0548	-0.1259	-0.0106	0.0029	0.0106	1.1993	0.9111
41.36	1.5555	-0.0555	-0.1241	-0.0111	0.0005	0.0044	1.2042	0.9863

WICHITA STATE UNIVERSITY

MODEL 6
RUN 8
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3795	0.0232	0.0239	0.0246	-0.0047	-0.0276	-0.3691	0.0911
-8.28	-0.2996	0.0223	0.0179	0.0197	-0.0040	-0.0278	-0.2933	0.0652
-6.21	-0.2186	0.0198	0.0108	0.0142	-0.0033	-0.0253	-0.2152	0.0433
-4.14	-0.1448	0.0184	0.0038	0.0087	-0.0036	-0.0224	-0.1431	0.0288
-2.09	-0.0830	0.0169	-0.0004	0.0044	-0.0039	-0.0183	-0.0824	0.0199
-0.02	-0.0146	0.0154	-0.0062	-0.0011	-0.0037	-0.0161	-0.0146	0.0154
2.02	0.0413	0.0139	-0.0104	-0.0061	-0.0031	-0.0144	0.0408	0.0153
4.07	0.0991	0.0111	-0.0159	-0.0110	-0.0024	-0.0128	0.0980	0.0181
6.12	0.1573	0.0081	-0.0231	-0.0155	-0.0020	-0.0117	0.1555	0.0248
8.17	0.2274	0.0043	-0.0317	-0.0194	-0.0023	-0.0104	0.2245	0.0366
10.23	0.3041	0.0008	-0.0425	-0.0238	-0.0030	-0.0069	0.2991	0.0549
12.29	0.3781	-0.0062	-0.0511	-0.0282	-0.0040	-0.0016	0.3708	0.0744
14.37	0.4637	-0.0111	-0.0606	-0.0327	-0.0036	0.0010	0.4520	0.1043
16.44	0.5495	-0.0155	-0.0689	-0.0371	-0.0038	0.0057	0.5314	0.1406
18.52	0.6419	-0.0215	-0.0776	-0.0401	-0.0030	0.0104	0.6155	0.1834
20.60	0.7370	-0.0262	-0.0858	-0.0434	-0.0019	0.0146	0.6991	0.2348
22.70	0.8518	-0.0337	-0.0988	-0.0477	-0.0009	0.0207	0.7988	0.2975
24.78	0.9483	-0.0381	-0.1052	-0.0510	0.0002	0.0259	0.8769	0.3629
26.88	1.0530	-0.0428	-0.1127	-0.0542	0.0017	0.0309	0.9586	0.4378
28.98	1.1672	-0.0476	-0.1198	-0.0567	0.0036	0.0363	1.0441	0.5238
31.07	1.2620	-0.0521	-0.1236	-0.0578	0.0058	0.0416	1.1079	0.6066
33.13	1.3185	-0.0515	-0.1190	-0.0534	0.0077	0.0434	1.1322	0.6776
35.12	1.2768	-0.0455	-0.1028	-0.0361	0.0073	0.0279	1.0705	0.6974
37.12	1.2776	-0.0403	-0.1025	-0.0285	0.0032	0.0108	1.0430	0.7389
39.15	1.3208	-0.0396	-0.1105	-0.0258	-0.0008	-0.0006	1.0493	0.8031
41.21	1.3974	-0.0429	-0.1181	-0.0268	-0.0028	-0.0045	1.0795	0.8883

WICHITA STATE UNIVERSITY

MODEL 6
RUN 9
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3656	0.0220	0.0209	0.0344	-0.0076	-0.0380	-0.3557	0.0873
-8.27	-0.2842	0.0207	0.0153	0.0270	-0.0063	-0.0382	-0.2782	0.0614
-6.20	-0.2093	0.0186	0.0104	0.0199	-0.0054	-0.0367	-0.2061	0.0411
-4.14	-0.1351	0.0178	0.0024	0.0120	-0.0053	-0.0337	-0.1335	0.0275
-2.07	-0.0711	0.0165	-0.0014	0.0059	-0.0063	-0.0282	-0.0704	0.0190
-0.02	-0.0142	0.0154	-0.0055	-0.0009	-0.0061	-0.0257	-0.0142	0.0154
2.01	0.0356	0.0131	-0.0091	-0.0078	-0.0052	-0.0227	0.0351	0.0143
4.06	0.0913	0.0114	-0.0145	-0.0154	-0.0044	-0.0216	0.0902	0.0178
6.11	0.1509	0.0090	-0.0208	-0.0220	-0.0036	-0.0199	0.1491	0.0250
8.16	0.2087	0.0063	-0.0279	-0.0277	-0.0034	-0.0179	0.2057	0.0359
10.23	0.2893	0.0019	-0.0371	-0.0342	-0.0038	-0.0138	0.2844	0.0533
12.29	0.3575	-0.0015	-0.0439	-0.0404	-0.0044	-0.0093	0.3496	0.0745
14.36	0.4406	-0.0063	-0.0541	-0.0466	-0.0053	-0.0022	0.4284	0.1031
16.43	0.5266	-0.0092	-0.0606	-0.0521	-0.0040	0.0015	0.5077	0.1401
18.51	0.6154	-0.0150	-0.0692	-0.0573	-0.0034	0.0091	0.5883	0.1811
20.59	0.7105	-0.0198	-0.0786	-0.0614	-0.0024	0.0166	0.6721	0.2313
22.67	0.7999	-0.0237	-0.0829	-0.0633	-0.0002	0.0210	0.7472	0.2864
24.76	0.8964	-0.0277	-0.0895	-0.0658	0.0019	0.0294	0.8256	0.3502
26.84	0.9890	-0.0316	-0.0952	-0.0675	0.0041	0.0358	0.8967	0.4184
28.93	1.0739	-0.0339	-0.0967	-0.0655	0.0068	0.0396	0.9563	0.4898
30.99	1.1283	-0.0351	-0.0955	-0.0606	0.0088	0.0391	0.9854	0.5508
33.00	1.1317	-0.0300	-0.0903	-0.0494	0.0090	0.0278	0.9655	0.5911
35.00	1.1419	-0.0272	-0.0934	-0.0423	0.0062	0.0134	0.9510	0.6327
36.99	1.1739	-0.0237	-0.1131	-0.0365	0.0	-0.0037	0.9519	0.6874
39.01	1.2413	-0.0241	-0.1331	-0.0361	-0.0022	-0.0101	0.9796	0.7627
41.05	1.3152	-0.0250	-0.1490	-0.0368	-0.0031	-0.0110	1.0082	0.8449

WICHITA STATE UNIVERSITY

MODEL 6
RUN 10
Q 40PSF
BETA 20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.32	-0.3408	0.0220	0.0176	0.0389	-0.0121	-0.0392	-0.3313	0.0828
-8.25	-0.2660	0.0206	0.0131	0.0309	-0.0101	-0.0399	-0.2603	0.0586
-6.19	-0.1930	0.0193	0.0071	0.0223	-0.0087	-0.0392	-0.1898	0.0400
-4.14	-0.1376	0.0187	0.0028	0.0148	-0.0079	-0.0369	-0.1359	0.0286
-2.08	-0.0677	0.0173	-0.0035	0.0064	-0.0088	-0.0317	-0.0670	0.0197
-0.02	-0.0130	0.0158	-0.0071	-0.0017	-0.0086	-0.0285	-0.0130	0.0158
2.01	0.0367	0.0146	-0.0111	-0.0100	-0.0072	-0.0270	0.0361	0.0159
4.06	0.0878	0.0124	-0.0153	-0.0179	-0.0055	-0.0267	0.0867	0.0185
6.11	0.1532	0.0101	-0.0225	-0.0276	-0.0044	-0.0253	0.1512	0.0263
8.17	0.2128	0.0084	-0.0279	-0.0343	-0.0041	-0.0231	0.2094	0.0386
10.23	0.2838	0.0049	-0.0331	-0.0405	-0.0040	-0.0197	0.2784	0.0552
12.30	0.3629	0.0001	-0.0411	-0.0481	-0.0048	-0.0133	0.3545	0.0774
14.36	0.4385	-0.0034	-0.0495	-0.0556	-0.0050	-0.0058	0.4257	0.1055
16.44	0.5208	-0.0077	-0.0563	-0.0620	-0.0053	0.0042	0.5018	0.1399
18.52	0.6141	-0.0124	-0.0628	-0.0675	-0.0031	0.0102	0.5862	0.1833
20.60	0.7029	-0.0160	-0.0681	-0.0714	-0.0012	0.0186	0.6635	0.2323
22.68	0.7844	-0.0202	-0.0728	-0.0729	0.0008	0.0279	0.7315	0.2838
24.76	0.8636	-0.0218	-0.0751	-0.0715	0.0039	0.0326	0.7934	0.3418
26.82	0.9408	-0.0246	-0.0814	-0.0698	0.0069	0.0372	0.8507	0.4026
28.89	1.0148	-0.0269	-0.0871	-0.0676	0.0095	0.0387	0.9015	0.4666
30.93	1.0625	-0.0263	-0.0899	-0.0600	0.0106	0.0318	0.9249	0.5235
32.96	1.1022	-0.0230	-0.0933	-0.0540	0.0098	0.0220	0.9373	0.5803
34.95	1.1200	-0.0208	-0.1038	-0.0458	0.0063	0.0084	0.9299	0.6247
36.93	1.1339	-0.0184	-0.1225	-0.0383	0.0031	-0.0036	0.9175	0.6665
38.93	1.1693	-0.0190	-0.1365	-0.0359	0.0018	-0.0096	0.9215	0.7200
40.94	1.1986	-0.0187	-0.1473	-0.0331	0.0023	-0.0126	0.9177	0.7712

WICHITA STATE UNIVERSITY

MODEL 6
RUN 11
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.29	-0.3031	0.0193	0.0138	0.0368	-0.0178	-0.0304	-0.2948	0.0732
-8.23	-0.2450	0.0185	0.0123	0.0309	-0.0139	-0.0374	-0.2398	0.0535
-6.19	-0.1904	0.0174	0.0071	0.0233	-0.0115	-0.0390	-0.1874	0.0378
-4.13	-0.1354	0.0167	0.0029	0.0144	-0.0099	-0.0391	-0.1338	0.0265
-2.08	-0.0771	0.0149	-0.0018	0.0064	-0.0090	-0.0381	-0.0765	0.0177
-0.04	-0.0256	0.0140	-0.0060	-0.0019	-0.0079	-0.0379	-0.0256	0.0140
2.00	0.0288	0.0128	-0.0106	-0.0114	-0.0064	-0.0370	0.0284	0.0138
4.06	0.0903	0.0110	-0.0151	-0.0210	-0.0057	-0.0366	0.0893	0.0174
6.12	0.1562	0.0098	-0.0215	-0.0305	-0.0047	-0.0347	0.1543	0.0264
8.18	0.2302	0.0072	-0.0291	-0.0401	-0.0044	-0.0318	0.2268	0.0399
10.25	0.3012	0.0044	-0.0329	-0.0471	-0.0040	-0.0274	0.2956	0.0579
12.31	0.3726	0.0019	-0.0387	-0.0539	-0.0045	-0.0201	0.3636	0.0813
14.38	0.4515	-0.0016	-0.0460	-0.0616	-0.0051	-0.0119	0.4377	0.1106
16.45	0.5332	-0.0050	-0.0534	-0.0685	-0.0045	-0.0030	0.5127	0.1462
18.53	0.6115	-0.0101	-0.0574	-0.0736	-0.0032	0.0069	0.5830	0.1847
20.61	0.6879	-0.0124	-0.0590	-0.0765	-0.0002	0.0137	0.6483	0.2305
22.68	0.7634	-0.0151	-0.0628	-0.0764	0.0029	0.0195	0.7102	0.2804
24.74	0.8348	-0.0174	-0.0675	-0.0748	0.0059	0.0239	0.7654	0.3335
26.81	0.9146	-0.0195	-0.0759	-0.0717	0.0089	0.0273	0.8251	0.3950
28.87	0.9913	-0.0211	-0.0844	-0.0695	0.0108	0.0265	0.8783	0.4601
30.92	1.0516	-0.0219	-0.0902	-0.0636	0.0124	0.0239	0.9135	0.5215
32.95	1.0944	-0.0202	-0.0936	-0.0566	0.0120	0.0170	0.9293	0.5783
34.96	1.1275	-0.0202	-0.1031	-0.0497	0.0106	0.0083	0.9356	0.6295
36.95	1.1491	-0.0181	-0.1204	-0.0418	0.0082	-0.0031	0.9293	0.6762
38.92	1.1487	-0.0176	-0.1327	-0.0381	0.0059	-0.0147	0.9048	0.7079
40.90	1.1530	-0.0170	-0.1405	-0.0359	0.0068	-0.0190	0.8826	0.7421

WICHITA STATE UNIVERSITY

MODEL 7
RUN 2
Q 40PSF
BETA -25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.27	-0.2790	0.0213	0.0126	-0.0352	0.0202	0.0264	-0.2707	0.0707
-8.21	-0.2218	0.0213	0.0104	-0.0292	0.0170	0.0305	-0.2165	0.0528
-6.16	-0.1679	0.0190	0.0080	-0.0232	0.0135	0.0345	-0.1649	0.0369
-4.11	-0.1125	0.0173	0.0027	-0.0155	0.0106	0.0359	-0.1110	0.0253
-2.05	-0.0575	0.0158	-0.0024	-0.0074	0.0091	0.0364	-0.0569	0.0179
-0.02	-0.0052	0.0148	-0.0092	0.0019	0.0083	0.0340	-0.0052	0.0148
2.01	0.0425	0.0132	-0.0140	0.0105	0.0080	0.0336	0.0420	0.0147
4.07	0.1087	0.0109	-0.0203	0.0202	0.0074	0.0357	0.1076	0.0186
6.12	0.1647	0.0097	-0.0261	0.0280	0.0069	0.0356	0.1627	0.0272
8.18	0.2342	0.0067	-0.0342	0.0366	0.0066	0.0357	0.2309	0.0400
10.24	0.3097	0.0044	-0.0412	0.0446	0.0066	0.0351	0.3039	0.0594
12.30	0.3822	0.0016	-0.0487	0.0518	0.0066	0.0334	0.3730	0.0830
14.37	0.4515	-0.0018	-0.0531	0.0570	0.0069	0.0307	0.4379	0.1103
16.44	0.5355	-0.0066	-0.0605	0.0629	0.0073	0.0255	0.5155	0.1452
18.51	0.6163	-0.0111	-0.0670	0.0682	0.0075	0.0199	0.5879	0.1852
20.58	0.6808	-0.0158	-0.0686	0.0689	0.0070	0.0162	0.6429	0.2245
22.65	0.7567	-0.0201	-0.0738	0.0694	0.0059	0.0103	0.7061	0.2728
24.70	0.8236	-0.0244	-0.0793	0.0688	0.0043	0.0086	0.7584	0.3220
26.77	0.9009	-0.0289	-0.0854	0.0658	0.0024	0.0040	0.8173	0.3800
28.81	0.9574	-0.0301	-0.0932	0.0609	0.0	0.0074	0.8533	0.4350
30.85	1.0184	-0.0316	-0.1040	0.0551	-0.0008	0.0157	0.8905	0.4951
32.89	1.0728	-0.0338	-0.1118	0.0519	-0.0008	0.0204	0.9192	0.5542
34.91	1.1060	-0.0341	-0.1180	0.0462	-0.0008	0.0266	0.9265	0.6050
36.91	1.1167	-0.0328	-0.1240	0.0390	-0.0014	0.0333	0.9126	0.6443
38.89	1.1173	-0.0337	-0.1298	0.0339	-0.0017	0.0410	0.8908	0.6753
40.89	1.1366	-0.0342	-0.1380	0.0325	-0.0017	0.0472	0.8817	0.7182

WICHITA STATE UNIVERSITY

MODEL 7
RUN 3
Q 40PSF
BETA -20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.31	-0.3193	0.0269	0.0153	-0.0331	0.0150	0.0366	-0.3094	0.0837
-8.24	-0.2506	0.0259	0.0103	-0.0270	0.0117	0.0395	-0.2443	0.0616
-6.19	-0.1875	0.0237	0.0050	-0.0200	0.0104	0.0389	-0.1839	0.0438
-4.12	-0.1093	0.0213	-0.0029	-0.0128	0.0131	0.0300	-0.1074	0.0291
-2.07	-0.0540	0.0191	-0.0070	-0.0064	0.0139	0.0251	-0.0533	0.0211
-0.02	-0.0044	0.0168	-0.0099	0.0013	0.0127	0.0230	-0.0044	0.0168
2.01	0.0420	0.0146	-0.0136	0.0093	0.0106	0.0223	0.0414	0.0161
4.05	0.0915	0.0119	-0.0184	0.0163	0.0086	0.0239	0.0905	0.0184
6.11	0.1511	0.0098	-0.0243	0.0242	0.0065	0.0260	0.1492	0.0258
8.16	0.2202	0.0060	-0.0330	0.0326	0.0052	0.0277	0.2171	0.0372
10.22	0.2885	0.0024	-0.0401	0.0394	0.0054	0.0284	0.2835	0.0535
12.29	0.3674	-0.0022	-0.0478	0.0454	0.0057	0.0278	0.3595	0.0760
14.35	0.4435	-0.0073	-0.0575	0.0512	0.0062	0.0256	0.4315	0.1028
16.42	0.5287	-0.0127	-0.0666	0.0573	0.0068	0.0217	0.5107	0.1372
18.50	0.6130	-0.0180	-0.0736	0.0623	0.0069	0.0168	0.5871	0.1774
20.56	0.6856	-0.0244	-0.0802	0.0640	0.0073	0.0103	0.6505	0.2178
22.64	0.7739	-0.0283	-0.0862	0.0652	0.0062	0.0083	0.7251	0.2718
24.71	0.8512	-0.0352	-0.0914	0.0658	0.0055	0.0013	0.7879	0.3238
26.77	0.9195	-0.0370	-0.0972	0.0607	0.0031	0.0015	0.8376	0.3811
28.83	0.9941	-0.0402	-0.1046	0.0584	0.0017	0.0047	0.8903	0.4442
30.87	1.0526	-0.0433	-0.1115	0.0545	0.0008	0.0094	0.9256	0.5029
32.91	1.1064	-0.0454	-0.1181	0.0511	0.0009	0.0182	0.9535	0.5631
34.93	1.1291	-0.0456	-0.1210	0.0438	0.0007	0.0274	0.9518	0.6091
36.93	1.1382	-0.0440	-0.1238	0.0375	0.0017	0.0342	0.9363	0.6487
38.93	1.1510	-0.0436	-0.1295	0.0329	0.0041	0.0458	0.9228	0.6893
40.95	1.1919	-0.0450	-0.1390	0.0315	0.0045	0.0517	0.9297	0.7471

WICHITA STATE UNIVERSITY

MODEL 7
RUN 4
Q 40PSF
BETA -15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3537	0.0272	0.0211	-0.0301	0.0092	0.0340	-0.3431	0.0902
-8.26	-0.2676	0.0281	0.0122	-0.0225	0.0082	0.0331	-0.2608	0.0663
-6.19	-0.1962	0.0244	0.0055	-0.0163	0.0078	0.0317	-0.1924	0.0454
-4.13	-0.1256	0.0228	-0.0004	-0.0114	0.0090	0.0264	-0.1236	0.0318
-2.07	-0.0604	0.0197	-0.0065	-0.0054	0.0090	0.0241	-0.0597	0.0218
-0.02	-0.0074	0.0184	-0.0098	0.0003	0.0085	0.0213	-0.0074	0.0184
2.01	0.0470	0.0162	-0.0148	0.0073	0.0078	0.0194	0.0464	0.0178
4.06	0.1014	0.0138	-0.0204	0.0132	0.0064	0.0181	0.1002	0.0210
6.11	0.1552	0.0105	-0.0257	0.0187	0.0047	0.0191	0.1532	0.0269
8.16	0.2254	0.0063	-0.0349	0.0247	0.0038	0.0195	0.2222	0.0382
10.22	0.2906	0.0015	-0.0432	0.0298	0.0035	0.0191	0.2857	0.0530
12.28	0.3687	-0.0023	-0.0518	0.0343	0.0038	0.0215	0.3607	0.0761
14.34	0.4479	-0.0075	-0.0637	0.0398	0.0044	0.0208	0.4358	0.1036
16.42	0.5354	-0.0128	-0.0737	0.0446	0.0050	0.0184	0.5172	0.1390
18.48	0.6165	-0.0192	-0.0828	0.0482	0.0060	0.0137	0.5908	0.1772
20.56	0.7031	-0.0249	-0.0889	0.0506	0.0051	0.0130	0.6671	0.2236
22.63	0.7934	-0.0322	-0.0997	0.0536	0.0054	0.0101	0.7447	0.2755
24.72	0.8888	-0.0384	-0.1076	0.0533	0.0042	0.0068	0.8234	0.3367
26.79	0.9732	-0.0435	-0.1148	0.0531	0.0033	0.0061	0.8883	0.3998
28.87	1.0727	-0.0493	-0.1264	0.0554	0.0024	0.0032	0.9632	0.4747
30.94	1.1689	-0.0559	-0.1361	0.0571	0.0016	0.0029	1.0312	0.5531
33.01	1.2405	-0.0611	-0.1391	0.0547	0.0006	0.0050	1.0735	0.6246
35.02	1.2379	-0.0587	-0.1300	0.0413	0.0007	0.0196	1.0474	0.6624
37.02	1.2309	-0.0556	-0.1294	0.0324	0.0023	0.0346	1.0163	0.6967
39.04	1.2682	-0.0555	-0.1355	0.0293	0.0051	0.0477	1.0200	0.7557
41.07	1.2987	-0.0571	-0.1357	0.0285	0.0079	0.0542	1.0166	0.8102

WICHITA STATE UNIVERSITY

MODEL 7
RUN 5
Q 40PSF
BETA -10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.34	-0.3659	0.0262	0.0212	-0.0198	0.0069	0.0216	-0.3552	0.0915
-8.28	-0.2955	0.0256	0.0167	-0.0167	0.0059	0.0219	-0.2887	0.0679
-6.20	-0.2082	0.0234	0.0072	-0.0113	0.0058	0.0199	-0.2045	0.0458
-4.14	-0.1413	0.0198	0.0015	-0.0073	0.0056	0.0183	-0.1395	0.0300
-2.09	-0.0779	0.0179	-0.0036	-0.0035	0.0051	0.0179	-0.0771	0.0207
-0.03	-0.0138	0.0140	-0.0096	0.0012	0.0047	0.0160	-0.0138	0.0140
2.01	0.0367	0.0114	-0.0132	0.0050	0.0040	0.0144	0.0363	0.0126
4.06	0.0995	0.0086	-0.0202	0.0093	0.0032	0.0125	0.0987	0.0156
6.11	0.1586	0.0062	-0.0275	0.0132	0.0024	0.0126	0.1570	0.0230
8.16	0.2266	0.0032	-0.0370	0.0165	0.0020	0.0126	0.2238	0.0354
10.21	0.2877	-0.0015	-0.0450	0.0193	0.0018	0.0131	0.2834	0.0494
12.28	0.3745	-0.0063	-0.0578	0.0232	0.0022	0.0139	0.3673	0.0735
14.34	0.4509	-0.0124	-0.0690	0.0264	0.0026	0.0131	0.4400	0.0996
16.41	0.5430	-0.0195	-0.0819	0.0307	0.0033	0.0116	0.5264	0.1346
18.49	0.6407	-0.0267	-0.0928	0.0342	0.0030	0.0128	0.6161	0.1778
20.55	0.7187	-0.0337	-0.1004	0.0349	0.0033	0.0111	0.6848	0.2207
22.64	0.8259	-0.0406	-0.1128	0.0367	0.0033	0.0118	0.7779	0.2804
24.72	0.9210	-0.0491	-0.1241	0.0383	0.0030	0.0107	0.8571	0.3405
26.81	1.0316	-0.0552	-0.1351	0.0404	0.0026	0.0101	0.9456	0.4160
28.89	1.1371	-0.0624	-0.1467	0.0439	0.0025	0.0089	1.0257	0.4948
30.97	1.2383	-0.0700	-0.1575	0.0462	0.0016	0.0077	1.0977	0.5772
32.87	1.3498	-0.0780	-0.1649	0.0451	0.0010	0.0070	1.1760	0.6670
34.92	1.4189	-0.0820	-0.1679	0.0436	0.0004	0.0074	1.2104	0.7449
36.97	1.4933	-0.0840	-0.1701	0.0394	-0.0003	0.0140	1.2436	0.8310
38.96	1.4427	-0.0789	-0.1516	0.0222	0.0017	0.0369	1.1715	0.8457
40.98	1.4625	-0.0803	-0.1462	0.0187	0.0044	0.0448	1.1568	0.8984

WICHITA STATE UNIVERSITY

MODEL 7
RUN 6
Q 40PSF
BETA -5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3823	0.0287	0.0240	-0.0102	0.0026	0.0093	-0.3709	0.0970
-8.28	-0.2956	0.0281	0.0159	-0.0080	0.0023	0.0086	-0.2885	0.0704
-6.22	-0.2244	0.0255	0.0096	-0.0062	0.0023	0.0090	-0.2203	0.0497
-4.15	-0.1466	0.0217	0.0029	-0.0038	0.0022	0.0086	-0.1446	0.0323
-2.09	-0.0822	0.0190	-0.0025	-0.0020	0.0021	0.0083	-0.0815	0.0219
-0.03	-0.0205	0.0166	-0.0081	0.0	0.0019	0.0080	-0.0205	0.0167
2.01	0.0378	0.0136	-0.0138	0.0022	0.0017	0.0069	0.0373	0.0149
4.05	0.0914	0.0104	-0.0194	0.0038	0.0011	0.0057	0.0905	0.0169
6.11	0.1582	0.0070	-0.0281	0.0059	0.0007	0.0052	0.1565	0.0238
8.15	0.2193	0.0027	-0.0368	0.0072	0.0003	0.0055	0.2167	0.0338
10.21	0.2953	-0.0012	-0.0481	0.0085	0.0004	0.0055	0.2908	0.0511
12.28	0.3754	-0.0071	-0.0589	0.0094	0.0007	0.0066	0.3683	0.0728
14.34	0.4587	-0.0124	-0.0718	0.0123	0.0004	0.0077	0.4475	0.1015
16.41	0.5577	-0.0198	-0.0856	0.0142	0.0002	0.0085	0.5405	0.1386
18.49	0.6551	-0.0276	-0.0995	0.0164	0.0004	0.0076	0.6301	0.1816
20.57	0.7555	-0.0352	-0.1135	0.0185	0.0007	0.0077	0.7198	0.2324
22.65	0.8592	-0.0416	-0.1266	0.0208	0.0007	0.0090	0.8089	0.2924
24.74	0.9702	-0.0508	-0.1389	0.0228	0.0007	0.0091	0.9024	0.3598
26.83	1.0777	-0.0587	-0.1463	0.0219	0.0005	0.0098	0.9882	0.4341
28.74	1.1704	-0.0646	-0.1572	0.0205	0.0	0.0092	1.0573	0.5061
30.81	1.2787	-0.0729	-0.1672	0.0210	0.0	0.0107	1.1356	0.5923
32.89	1.4016	-0.0824	-0.1760	0.0202	-0.0003	0.0134	1.2216	0.6920
34.96	1.5017	-0.0884	-0.1829	0.0199	-0.0006	0.0159	1.2814	0.7881
37.03	1.5929	-0.0935	-0.1868	0.0170	-0.0011	0.0182	1.3280	0.8846
39.09	1.6677	-0.0992	-0.1842	0.0186	-0.0011	0.0198	1.3569	0.9745
41.11	1.6751	-0.1004	-0.1755	0.0111	-0.0002	0.0286	1.3282	1.0257

WICHITA STATE UNIVERSITY

MODEL 7
RUN 7
Q 40PSF
BETA 0DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.37	-0.3934	0.0281	0.0241	0.0016	-0.0001	-0.0065	-0.3819	0.0985
-8.29	-0.3040	0.0267	0.0160	0.0013	-0.0	-0.0055	-0.2970	0.0703
-6.22	-0.2284	0.0249	0.0093	0.0008	-0.0002	-0.0043	-0.2243	0.0495
-4.16	-0.1546	0.0220	0.0026	0.0009	-0.0002	-0.0041	-0.1526	0.0331
-2.10	-0.0874	0.0180	-0.0028	0.0	-0.0003	-0.0023	-0.0866	0.0212
-0.04	-0.0239	0.0154	-0.0082	-0.0001	-0.0004	-0.0018	-0.0239	0.0154
2.01	0.0364	0.0119	-0.0138	-0.0007	-0.0004	-0.0017	0.0359	0.0131
4.05	0.0927	0.0085	-0.0196	-0.0016	-0.0006	-0.0016	0.0919	0.0150
6.11	0.1567	0.0057	-0.0273	-0.0015	-0.0008	-0.0019	0.1552	0.0224
8.16	0.2283	0.0015	-0.0390	-0.0016	-0.0008	-0.0017	0.2258	0.0339
10.21	0.2989	-0.0031	-0.0489	-0.0022	-0.0010	-0.0014	0.2947	0.0499
12.27	0.3765	-0.0075	-0.0604	-0.0024	-0.0013	-0.0001	0.3695	0.0726
14.34	0.4588	-0.0132	-0.0726	-0.0037	-0.0011	0.0002	0.4478	0.1008
16.41	0.5496	-0.0198	-0.0857	-0.0035	-0.0014	0.0024	0.5328	0.1362
18.48	0.6433	-0.0271	-0.0986	-0.0044	-0.0018	0.0023	0.6188	0.1782
20.55	0.7421	-0.0343	-0.1130	-0.0049	-0.0019	0.0030	0.7069	0.2283
22.65	0.8609	-0.0418	-0.1280	-0.0048	-0.0021	0.0053	0.8106	0.2929
24.72	0.9620	-0.0494	-0.1407	-0.0048	-0.0023	0.0058	0.8945	0.3575
26.83	1.0862	-0.0587	-0.1526	-0.0053	-0.0025	0.0077	0.9958	0.4378
28.75	1.2064	-0.0666	-0.1665	-0.0068	-0.0024	0.0099	1.0896	0.5219
30.83	1.3152	-0.0750	-0.1754	-0.0071	-0.0023	0.0115	1.1678	0.6096
32.91	1.4169	-0.0830	-0.1764	-0.0030	-0.0017	0.0116	1.2347	0.7001
34.97	1.5014	-0.0901	-0.1777	-0.0059	-0.0021	0.0112	1.2819	0.7867
37.04	1.5980	-0.0964	-0.1831	-0.0064	-0.0021	0.0126	1.3336	0.8856
39.09	1.6716	-0.1034	-0.1858	-0.0055	-0.0023	0.0131	1.3626	0.9737
41.11	1.7027	-0.1054	-0.1839	-0.0035	-0.0021	0.0134	1.3520	1.0402

WICHITA STATE UNIVERSITY

MODEL 7
RUN 8
Q 40PSF
BETA 5DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.36	-0.3891	0.0311	0.0236	0.0134	-0.0032	-0.0228	-0.3772	0.1006
-8.29	-0.3047	0.0308	0.0153	0.0102	-0.0028	-0.0213	-0.2970	0.0744
-6.22	-0.2309	0.0271	0.0098	0.0082	-0.0028	-0.0189	-0.2266	0.0520
-4.16	-0.1608	0.0242	0.0033	0.0049	-0.0027	-0.0171	-0.1586	0.0359
-2.09	-0.0860	0.0216	-0.0027	0.0021	-0.0030	-0.0133	-0.0851	0.0248
-0.04	-0.0255	0.0188	-0.0083	-0.0005	-0.0029	-0.0109	-0.0255	0.0188
2.00	0.0296	0.0160	-0.0130	-0.0034	-0.0030	-0.0092	0.0290	0.0170
4.05	0.0930	0.0125	-0.0193	-0.0066	-0.0029	-0.0096	0.0918	0.0191
6.10	0.1512	0.0091	-0.0277	-0.0085	-0.0028	-0.0099	0.1493	0.0251
8.16	0.2183	0.0058	-0.0355	-0.0105	-0.0020	-0.0113	0.2152	0.0368
10.21	0.2932	0.0009	-0.0462	-0.0123	-0.0025	-0.0100	0.2884	0.0529
12.27	0.3722	-0.0054	-0.0589	-0.0150	-0.0032	-0.0083	0.3648	0.0738
14.33	0.4408	-0.0099	-0.0683	-0.0170	-0.0040	-0.0055	0.4295	0.0995
16.41	0.5470	-0.0173	-0.0837	-0.0211	-0.0036	-0.0063	0.5296	0.1378
18.48	0.6392	-0.0239	-0.0959	-0.0225	-0.0043	-0.0041	0.6138	0.1799
20.55	0.7350	-0.0310	-0.1097	-0.0257	-0.0050	-0.0023	0.6991	0.2290
22.65	0.8574	-0.0396	-0.1253	-0.0296	-0.0053	0.0005	0.8066	0.2936
24.73	0.9637	-0.0477	-0.1374	-0.0318	-0.0055	0.0027	0.8952	0.3599
26.81	1.0511	-0.0536	-0.1419	-0.0297	-0.0050	0.0050	0.9622	0.4263
28.72	1.1476	-0.0575	-0.1538	-0.0314	-0.0047	0.0087	1.0340	0.5011
30.80	1.2665	-0.0680	-0.1656	-0.0321	-0.0044	0.0120	1.1227	0.5900
32.89	1.3901	-0.0773	-0.1738	-0.0317	-0.0040	0.0132	1.2093	0.6898
34.95	1.4795	-0.0834	-0.1773	-0.0297	-0.0034	0.0116	1.2604	0.7792
37.02	1.5719	-0.0891	-0.1832	-0.0282	-0.0031	0.0110	1.3088	0.8752
39.07	1.6422	-0.0934	-0.1835	-0.0229	-0.0033	0.0073	1.3338	0.9625
41.10	1.6718	-0.0956	-0.1749	-0.0214	-0.0037	0.0030	1.3226	1.0271

WICHITA STATE UNIVERSITY

MODEL 7
RUN 9
Q 40PSF
BETA 10DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.35	-0.3774	0.0271	0.0225	0.0235	-0.0060	-0.0355	-0.3664	0.0946
-8.28	-0.2995	0.0273	0.0160	0.0193	-0.0051	-0.0342	-0.2924	0.0702
-6.22	-0.2259	0.0253	0.0087	0.0142	-0.0046	-0.0329	-0.2219	0.0496
-4.16	-0.1551	0.0226	0.0023	0.0093	-0.0046	-0.0297	-0.1531	0.0338
-2.10	-0.0944	0.0200	-0.0020	0.0053	-0.0052	-0.0259	-0.0936	0.0234
-0.04	-0.0235	0.0164	-0.0088	-0.0015	-0.0052	-0.0213	-0.0235	0.0164
1.99	0.0237	0.0146	-0.0125	-0.0060	-0.0050	-0.0201	0.0232	0.0154
4.05	0.0817	0.0122	-0.0180	-0.0110	-0.0047	-0.0196	0.0806	0.0180
6.09	0.1416	0.0078	-0.0252	-0.0156	-0.0041	-0.0197	0.1400	0.0228
8.15	0.2103	0.0034	-0.0343	-0.0202	-0.0036	-0.0201	0.2077	0.0332
10.21	0.2827	0.0002	-0.0431	-0.0235	-0.0035	-0.0197	0.2782	0.0504
12.27	0.3587	-0.0049	-0.0547	-0.0275	-0.0045	-0.0177	0.3515	0.0714
14.32	0.4335	-0.0111	-0.0654	-0.0312	-0.0056	-0.0159	0.4228	0.0965
16.39	0.5137	-0.0167	-0.0748	-0.0344	-0.0068	-0.0123	0.4975	0.1289
18.48	0.6252	-0.0233	-0.0900	-0.0414	-0.0064	-0.0103	0.6003	0.1760
20.55	0.7056	-0.0298	-0.0974	-0.0426	-0.0067	-0.0075	0.6712	0.2197
22.63	0.7975	-0.0360	-0.1053	-0.0435	-0.0068	-0.0035	0.7500	0.2735
24.69	0.8778	-0.0419	-0.1154	-0.0443	-0.0066	-0.0008	0.8150	0.3286
26.77	0.9810	-0.0483	-0.1255	-0.0457	-0.0062	0.0009	0.8976	0.3988
28.86	1.0879	-0.0554	-0.1358	-0.0482	-0.0061	0.0041	0.9795	0.4766
30.95	1.1993	-0.0630	-0.1482	-0.0510	-0.0060	0.0072	1.0610	0.5628
32.84	1.3003	-0.0692	-0.1581	-0.0538	-0.0053	0.0130	1.1300	0.6469
34.89	1.3728	-0.0737	-0.1608	-0.0522	-0.0049	0.0119	1.1682	0.7248
36.94	1.4275	-0.0750	-0.1573	-0.0451	-0.0041	0.0060	1.1861	0.7979
38.91	1.3668	-0.0697	-0.1407	-0.0268	-0.0061	-0.0186	1.1073	0.8042
40.94	1.3979	-0.0707	-0.1357	-0.0235	-0.0085	-0.0265	1.1022	0.8626

WICHITA STATE UNIVERSITY

MODEL 7
RUN 10
Q 40PSF
BETA 15DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.33	-0.3451	0.0286	0.0182	0.0306	-0.0101	-0.0417	-0.3344	0.0900
-8.27	-0.2791	0.0282	0.0136	0.0254	-0.0081	-0.0430	-0.2721	0.0680
-6.20	-0.2079	0.0244	0.0076	0.0192	-0.0072	-0.0406	-0.2041	0.0468
-4.15	-0.1459	0.0229	0.0015	0.0128	-0.0073	-0.0383	-0.1438	0.0334
-2.09	-0.0751	0.0195	-0.0043	0.0060	-0.0081	-0.0303	-0.0743	0.0223
-0.03	-0.0181	0.0187	-0.0089	-0.0005	-0.0092	-0.0250	-0.0181	0.0187
2.00	0.0290	0.0172	-0.0126	-0.0067	-0.0094	-0.0221	0.0284	0.0182
4.05	0.0836	0.0141	-0.0176	-0.0138	-0.0086	-0.0214	0.0824	0.0200
6.10	0.1417	0.0106	-0.0240	-0.0209	-0.0068	-0.0231	0.1398	0.0256
8.15	0.2049	0.0074	-0.0313	-0.0274	-0.0061	-0.0227	0.2018	0.0364
10.21	0.2749	0.0038	-0.0400	-0.0329	-0.0060	-0.0223	0.2698	0.0524
12.28	0.3578	-0.0014	-0.0495	-0.0387	-0.0062	-0.0215	0.3499	0.0746
14.34	0.4338	-0.0071	-0.0595	-0.0439	-0.0072	-0.0175	0.4221	0.1004
16.41	0.5223	-0.0137	-0.0711	-0.0496	-0.0085	-0.0123	0.5049	0.1344
18.47	0.5989	-0.0194	-0.0790	-0.0532	-0.0098	-0.0074	0.5742	0.1713
20.55	0.6875	-0.0249	-0.0858	-0.0578	-0.0090	-0.0051	0.6525	0.2180
22.63	0.7808	-0.0294	-0.0936	-0.0590	-0.0086	-0.0001	0.7320	0.2733
24.69	0.8526	-0.0358	-0.0992	-0.0602	-0.0086	0.0033	0.7896	0.3236
26.76	0.9309	-0.0402	-0.1048	-0.0581	-0.0077	0.0065	0.8493	0.3832
28.84	1.0268	-0.0457	-0.1141	-0.0581	-0.0068	0.0097	0.9214	0.4553
30.92	1.1188	-0.0522	-0.1247	-0.0590	-0.0059	0.0112	0.9867	0.5300
32.98	1.1816	-0.0561	-0.1252	-0.0548	-0.0051	0.0081	1.0217	0.5961
34.99	1.1901	-0.0547	-0.1225	-0.0450	-0.0046	-0.0005	1.0063	0.6376
37.00	1.1980	-0.0512	-0.1229	-0.0374	-0.0065	-0.0132	0.9876	0.6800
39.01	1.2193	-0.0527	-0.1257	-0.0340	-0.0084	-0.0203	0.9806	0.7265
41.04	1.2635	-0.0535	-0.1328	-0.0327	-0.0099	-0.0247	0.9882	0.7892

WICHITA STATE UNIVERSITY

MODEL 7
RUN 11
Q 40PSF
BETA 20DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.30	-0.3085	0.0256	0.0136	0.0345	-0.0168	-0.0391	-0.2990	0.0803
-8.24	-0.2508	0.0263	0.0099	0.0289	-0.0136	-0.0433	-0.2445	0.0620
-6.19	-0.1912	0.0241	0.0055	0.0225	-0.0116	-0.0441	-0.1875	0.0446
-4.13	-0.1276	0.0212	-0.0002	0.0141	-0.0106	-0.0411	-0.1257	0.0303
-2.07	-0.0634	0.0184	-0.0052	0.0065	-0.0114	-0.0351	-0.0627	0.0207
-0.03	-0.0114	0.0168	-0.0092	-0.0010	-0.0113	-0.0325	-0.0113	0.0168
2.00	0.0349	0.0159	-0.0134	-0.0091	-0.0105	-0.0316	0.0344	0.0171
4.05	0.0836	0.0141	-0.0173	-0.0167	-0.0098	-0.0306	0.0824	0.0200
6.10	0.1393	0.0116	-0.0226	-0.0246	-0.0082	-0.0317	0.1372	0.0263
8.15	0.2059	0.0086	-0.0297	-0.0332	-0.0072	-0.0314	0.2026	0.0377
10.21	0.2720	0.0056	-0.0372	-0.0401	-0.0076	-0.0305	0.2667	0.0537
12.28	0.3555	-0.0	-0.0463	-0.0475	-0.0080	-0.0277	0.3474	0.0756
14.34	0.4305	-0.0048	-0.0543	-0.0533	-0.0086	-0.0247	0.4183	0.1020
16.41	0.5146	-0.0101	-0.0641	-0.0594	-0.0101	-0.0200	0.4964	0.1357
18.49	0.6078	-0.0162	-0.0740	-0.0655	-0.0114	-0.0127	0.5816	0.1774
20.55	0.6799	-0.0218	-0.0807	-0.0694	-0.0121	-0.0067	0.6443	0.2183
22.63	0.7587	-0.0251	-0.0819	-0.0700	-0.0107	-0.0016	0.7099	0.2688
24.69	0.8223	-0.0288	-0.0840	-0.0672	-0.0088	-0.0014	0.7592	0.3174
26.76	0.8928	-0.0318	-0.0894	-0.0633	-0.0075	0.0012	0.8116	0.3735
28.82	0.9676	-0.0348	-0.0970	-0.0613	-0.0062	0.0040	0.8646	0.4359
30.86	1.0252	-0.0384	-0.1027	-0.0584	-0.0050	0.0018	0.8997	0.4929
32.91	1.0885	-0.0416	-0.1102	-0.0548	-0.0051	-0.0037	0.9364	0.5565
34.93	1.1106	-0.0414	-0.1123	-0.0483	-0.0054	-0.0103	0.9343	0.6020
36.93	1.1215	-0.0406	-0.1151	-0.0419	-0.0050	-0.0148	0.9208	0.6414
38.93	1.1334	-0.0401	-0.1208	-0.0362	-0.0055	-0.0204	0.9069	0.6810
40.94	1.1670	-0.0419	-0.1294	-0.0338	-0.0054	-0.0251	0.9089	0.7331

WICHITA STATE UNIVERSITY

MODEL 7
RUN 12
Q 40PSF
BETA 25DEG

LOW SPEED WIND TUNNEL TESTS
ON
THE EFFECT OF LEADING EDGE CAMBER ON DELTA WINGS

FORCE AND MOMENT COEFFICIENTS

ALPHA	NORMAL	AXIAL	PITCH	ROLL	YAW	SIDE	LIFT	DRAG
-10.27	-0.2847	0.0238	0.0160	0.0355	-0.0195	-0.0368	-0.2759	0.0742
-8.22	-0.2349	0.0245	0.0123	0.0304	-0.0173	-0.0372	-0.2290	0.0579
-6.18	-0.1849	0.0229	0.0088	0.0245	-0.0147	-0.0396	-0.1813	0.0426
-4.13	-0.1302	0.0214	0.0021	0.0154	-0.0120	-0.0414	-0.1283	0.0308
-2.08	-0.0709	0.0187	-0.0035	0.0072	-0.0104	-0.0412	-0.0702	0.0213
-0.04	-0.0233	0.0183	-0.0084	-0.0012	-0.0100	-0.0402	-0.0232	0.0183
1.99	0.0255	0.0173	-0.0136	-0.0103	-0.0098	-0.0393	0.0249	0.0182
4.05	0.0845	0.0162	-0.0190	-0.0193	-0.0097	-0.0399	0.0831	0.0221
6.10	0.1464	0.0131	-0.0268	-0.0281	-0.0096	-0.0399	0.1442	0.0286
8.16	0.2140	0.0111	-0.0325	-0.0374	-0.0093	-0.0391	0.2102	0.0414
10.22	0.2839	0.0083	-0.0393	-0.0456	-0.0098	-0.0359	0.2779	0.0585
12.29	0.3608	0.0053	-0.0455	-0.0530	-0.0094	-0.0360	0.3514	0.0820
14.35	0.4386	0.0015	-0.0530	-0.0597	-0.0102	-0.0315	0.4245	0.1102
16.42	0.5159	-0.0031	-0.0589	-0.0644	-0.0106	-0.0283	0.4957	0.1428
18.51	0.6110	-0.0092	-0.0674	-0.0717	-0.0120	-0.0197	0.5823	0.1852
20.57	0.6856	-0.0145	-0.0737	-0.0761	-0.0124	-0.0112	0.6470	0.2273
22.64	0.7604	-0.0194	-0.0789	-0.0786	-0.0118	-0.0035	0.7093	0.2748
24.71	0.8281	-0.0229	-0.0798	-0.0779	-0.0097	0.0004	0.7618	0.3253
26.76	0.8801	-0.0248	-0.0811	-0.0698	-0.0065	-0.0	0.7970	0.3741
28.81	0.9364	-0.0258	-0.0865	-0.0639	-0.0045	0.0003	0.8330	0.4285
30.85	1.0072	-0.0286	-0.0985	-0.0606	-0.0033	-0.0013	0.8794	0.4919
32.89	1.0609	-0.0302	-0.1068	-0.0562	-0.0029	-0.0029	0.9072	0.5507
34.91	1.0942	-0.0322	-0.1133	-0.0499	-0.0021	-0.0066	0.9157	0.5997
36.91	1.1137	-0.0320	-0.1208	-0.0430	-0.0017	-0.0137	0.9097	0.6432
38.90	1.1188	-0.0333	-0.1247	-0.0378	-0.0009	-0.0196	0.8915	0.6767
40.92	1.1486	-0.0348	-0.1297	-0.0364	0.0003	-0.0213	0.8907	0.7261

APPENDIX C - PRESSURE DATA REDUCTION TECHNIQUES AND TABULATED PRESSURE COEFFICIENT DATA

Part I - Integrated Pressure Forces.

Integrated pressure forces, corrected for sting bending and wind tunnel wall effects, are given in Table C1.

Table C1 - Results of Pressure Integrations

Flat Plate Model 741 $\beta = 0°$

α Corrected (Degrees)	C_L	C_D (Pressure Drag)	C_M (about $.30\bar{C}$)
0	0.0471	0	+0.0048
10.2	0.3461	0.0621	-0.0297
20.4	0.8174	0.3039	-0.0648
25.6	1.0606	0.5053	-0.0712
30.7	1.2967	0.7647	-0.0864
35.8	1.3945	0.995	-0.1408
40.7	1.2598	1.072	-0.0590

Notes:

1) $\alpha_{cor} = \alpha_{indicated} + \Delta\alpha$

Where $\Delta\alpha = +.55 * C_L$ (Degrees)

This correction includes sting bending plus tunnel wall effects.

2) $C_D = C_{D_{uncorrected}} + .0096 * C_L^2$

This correction is for tunnel wall effects.

Part II - Tabulated C_P Results.

The data presented in this section are listed as C_P versus Tap No., where the tap numbers correspond to pressure tap locations on the wing panels. The coordinates of the pressure taps are given in Table C2. These coordinates apply to all models since the planforms are identical.

Notes:

1) Tap locations number 1, 40, and 41 were not used.

2) Model numbers are designated as follows:

Name	Model Number
Flat Plate	741
Apex Camber	742
Conical Camber	743

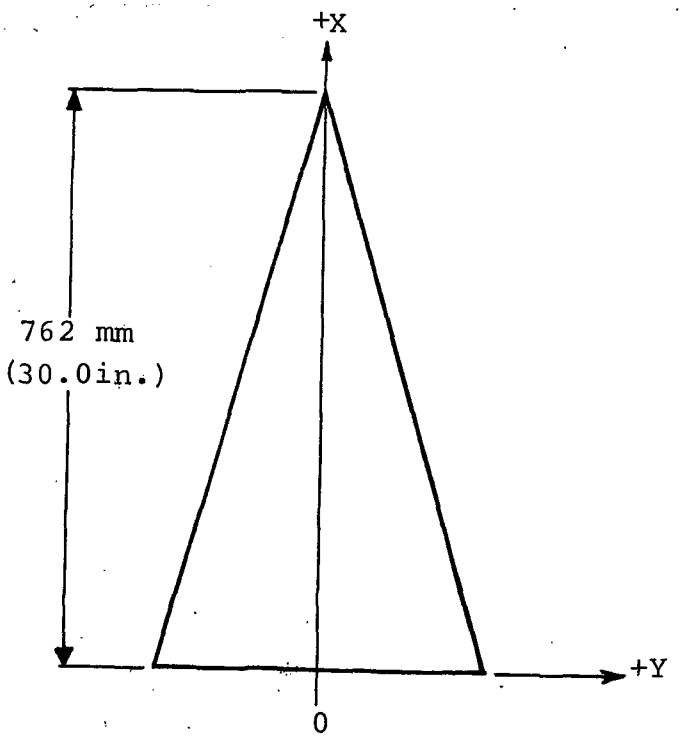
3) Certain taps developed leaks or became pinched during fabrication, and therefore did not produce valid data. These are listed below:

Model	Invalid Tap
741	26
742	9
743	(All taps OK)

4) During certain runs, the minimum pressures developed at a few points on the wings exceeded the range of manometer at the test dynamic pressure of 40 psf. When this occurred, the dynamic pressure was reduced until all pressures were within the range of the manometer bank. After completing the run series, the reduced q conditions were repeated at full dynamic pressure with the troublesome pressure tap locations disconnected. These repeat runs are tabulated at the end of each run series, and disconnected taps are noted.

Table C2 - Co-ordinates of the Pressure Taps

Upper Surface					Lower Surface				
	X		Y			X		Y	
Pressure Tap No.	(mm)	(inches)	(mm)	(inches)	Pressure Tap No.	(mm)	(inches)	(mm)	(inches)
1	(not used)		(not used)		48	711.2	28	6.3	0.250
2	711.2	28	- 6.3	-0.250	49	660.4	26	11.6	0.456
3	711.2	28	0	0	50	660.4	26	21.2	0.836
4	660.4	26	- 21.2	-0.836	51	457.2	18	25.4	1.000
5	660.4	26	- 11.6	-0.456	52	457.2	18	50.8	2.000
6	660.4	26	0	0	53	457.2	18	69.9	2.750
7	558.8	22	- 50.4	-1.983	54	457.2	18	79.5	3.130
8	558.8	22	- 40.6	-1.603	55	254.0	10	31.7	1.250
9	558.8	22	- 28.4	-1.124	56	254.0	10	63.4	2.500
10	558.8	22	- 14.2	-0.559	57	254.0	10	95.3	3.750
11	558.8	22	0	0	58	254.0	10	128.1	5.044
12	457.2	18	- 79.5	-3.130	59	254.0	10	137.8	5.424
13	457.2	18	- 69.9	-2.750	60	50.8	2	50.1	1.975
14	457.2	18	- 53.8	-2.115	61	50.8	2	101.0	3.975
15	457.2	18	- 43.1	-1.696	62	50.8	2	151.8	5.975
16	457.2	18	- 21.4	-0.839	63	50.8	2	186.1	7.338
17	457.2	18	0	0	64	50.8	2	196.0	7.718
18	355.6	14	-108.9	-4.277					
19	355.6	14	- 99.0	-3.897					
20	355.6	14	- 86.5	-3.400					
21	355.6	14	- 71.7	-2.821					
22	355.6	14	- 57.3	-2.248					
23	355.6	14	- 28.4	-1.118					
24	355.6	14	0	0					
25	254.0	10	-138.1	-5.424					
26	254.0	10	-128.1	-5.044					
27	254.0	10	-108.1	-4.250					
28	254.0	10	- 89.6	-3.526					
29	254.0	10	- 71.4	-2.810					
30	254.0	10	- 34.0	-1.398					
31	254.0	10	0	0					
32	152.4	6	-167.0	-6.571					
33	152.4	6	-157.0	-6.191					
34	152.4	6	-128.6	-5.101					
35	152.4	6	-107.4	-4.231					
36	152.4	6	- 85.5	-3.372					
37	152.4	6	- 42.3	-1.678					
38	152.4	6	0	0					
39	50.8	2	-167.0	-6.571					
40	(not used)		(not used)						
41	(not used)		(not used)						
42	50.8	2	-186.2	-7.338					
43	50.8	2	-151.1	-5.951					
44	50.8	2	-125.2	-4.937					
45	50.8	2	- 86.3	-3.395					
46	50.8	2	- 49.7	-1.958					
47	50.8	2	0	0					



COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.500000
2	-0.617021	34	-0.595745
3	-0.180851	35	-0.755319
4	-0.957447	36	-0.723404
5	-0.351064	37	0.0
6	-0.159574	38	-0.021277
7	-0.925532	39	-0.244681
8	-1.063829	40	**********
9	-0.755319	41	**********
10	-0.074468	42	-0.255319
11	-0.117021	43	-0.329787
12	-0.882979	44	-0.446808
13	-0.968085	45	-0.489362
14	-1.202127	46	-0.095745
15	-0.755319	47	-0.021277
16	-0.031915	48	0.063830
17	-0.095745	49	0.063830
18	-0.765957	50	0.021277
19	-0.819149	51	-0.053191
20	-0.968085	52	-0.021277
21	-1.212766	53	-0.042553
22	-0.712766	54	-0.053191
23	-0.010638	55	-0.053191
24	-0.085106	56	0.117021
25	-0.648936	57	0.053191
26	0.0	58	0.0
27	-0.787234	59	-0.021277
28	-0.989362	60	-0.255319
29	-0.797872	61	0.042553
30	0.010638	62	-0.021277
31	-0.053191	63	-0.031915
32	-0.468085	64	-0.031915

Note: For data at BETA = -25°, ALPHA = 0°, see page C66.

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.621053
2	-3.389473	34	-0.715789
3	-0.315789	35	-0.810526
4	-2.294736	36	-0.905263
5	-2.473683	37	-0.863158
6	-0.294737	38	-0.484210
7	-1.852632	39	-0.347368
8	-2.242105	40	**********
9	-3.221052	41	**********
10	-0.505263	42	-0.368421
11	-0.221053	43	-0.484210
12	-1.536841	44	-0.547368
13	-1.589473	45	-0.631579
14	-2.357894	46	-0.663158
15	-2.873684	47	-0.494737
16	-0.642105	48	0.200000
17	-0.168421	49	0.200000
18	-1.094736	50	0.084211
19	-1.178946	51	0.094737
20	-1.231579	52	0.073684
21	-1.536841	53	0.0
22	-1.905263	54	-0.052632
23	-1.031578	55	0.010526
24	-0.252632	56	0.242105
25	-0.821053	57	0.147368
26	0.0	58	0.021053
27	-0.957895	59	-0.031579
28	-1.105263	60	-0.210526
29	-1.273684	61	0.105263
30	-1.073684	62	0.031579
31	-0.357895	63	-0.021053
32	-0.578947	64	-0.031579

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.673684
2	-4.136842	34	-0.747368
3	-0.526316	35	-0.789474
4	-3.052631	36	-0.852632
5	-3.894736	37	-0.873684
6	-0.442105	38	-0.768421
7	-2.052631	39	-0.421053
8	-2.326315	40	**********
9	-3.915789	41	**********
10	-1.305263	42	-0.463158
11	-0.357895	43	-0.526316
12	-1.599999	44	-0.547368
13	-1.599999	45	-0.610526
14	-1.905263	46	-0.705263
15	-2.252631	47	-0.652632
16	-1.831578	48	0.273684
17	-0.705263	49	0.284211
18	-1.115789	50	0.115789
19	-1.168421	51	0.168421
20	-1.252631	52	0.126316
21	-1.399473	53	0.021053
22	-1.536841	54	-0.052632
23	-1.473683	55	-0.010526
24	-0.915789	56	0.305263
25	-0.842105	57	0.189474
26	~~-0.910526~~	58	0.031579
27	-0.978947	59	-0.042105
28	-1.063157	60	-0.231579
29	-1.126315	61	0.115789
30	-1.126315	62	0.052632
31	-0.894737	63	-0.010526
32	-0.631579	64	-0.031579

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.707317
2	-4.914634	34	-0.731707
3	-0.853658	35	-0.756098
4	-3.353658	36	-0.804878
5	-4.585365	37	-0.865854
6	-0.804878	38	-0.853658
7	-1.926828	39	-0.573171
8	-2.097561	40	**********
9	-2.524390	41	**********
10	-2.329268	42	-0.573171
11	-1.500000	43	-0.609756
12	-1.439024	44	-0.621951
13	-1.475609	45	-0.658537
14	-1.609756	46	-0.731707
15	-1.670732	47	-0.731707
16	-1.670732	48	0.353658
17	-1.426828	49	0.353658
18	-1.060975	50	0.158537
19	-1.121951	51	0.231707
20	-1.158536	52	0.182927
21	-1.207316	53	0.036585
22	-1.256097	54	-0.060976
23	-1.280487	55	0.0
24	-1.195122	56	0.378049
25	-0.829268	57	0.243902
26	0.0	58	0.036585
27	-0.902439	59	-0.048780
28	-0.939024	60	-0.292683
29	-0.987805	61	0.121951
30	-1.048780	62	0.060976
31	-1.000000	63	-0.012195
32	-0.682927	64	-0.036585

Note: This run was made at q = 35 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.757895
2	-3.168421	34	-0.778947
3	-2.621052	35	-0.789474
4	-1.915789	36	-0.810526
5	-2.073684	37	-0.842105
6	-1.936842	38	-0.863158
7	-1.305263	39	-0.621053
8	-1.347368	40	**********
9	-1.421052	41	**********
10	-1.442104	42	-0.642105
11	-1.410526	43	-0.673684
12	-1.084210	44	-0.694737
13	-1.094736	45	-0.715789
14	-1.136842	46	-0.757895
15	-1.168421	47	-0.768421
16	-1.200000	48	0.378947
17	-1.178946	49	0.378947
18	-0.947368	50	-1.010526
19	-0.957895	51	0.263158
20	-0.968421	52	0.200000
21	-1.000000	53	0.021053
22	-1.021052	54	-0.105263
23	-1.052631	55	-0.021053
24	-1.042105	56	0.431579
25	-0.852632	57	0.273684
26	0.0	58	0.0
27	-0.873684	59	-0.105263
28	-0.894737	60	-0.273684
29	-0.915789	61	0.084211
30	-0.947368	62	0.042105
31	-0.947368	63	-0.031579
32	-0.747368	64	-0.063158

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.770833
2	-1.010416	34	-0.791667
3	-1.000000	35	-0.802083
4	-0.979167	36	-0.833333
5	-0.989583	37	-0.885417
6	-0.989583	38	-0.895833
7	-0.968750	39	-0.656250
8	-0.968750	40	**********
9	-0.979167	41	**********
10	-0.979167	42	-0.666667
11	-0.968750	43	-0.697917
12	-0.958333	44	-0.729167
13	-0.958333	45	-0.760417
14	-0.958333	46	-0.843750
15	-0.958333	47	-0.864583
16	-0.958333	48	0.385417
17	-0.958333	49	0.385417
18	-0.916667	50	0.135417
19	-0.927083	51	0.302083
20	-0.927083	52	0.197917
21	-0.937500	53	-0.031250
22	-0.947917	54	-0.197917
23	-0.958333	55	-0.031250
24	-0.968750	56	0.489583
25	-0.854167	57	0.312500
26	0.0	58	-0.020833
27	-0.864583	59	-0.156250
28	-0.875000	60	-0.270833
29	-0.895833	61	0.093750
30	-0.927083	62	0.041667
31	-0.937500	63	-0.052083
32	-0.760417	64	-0.104167

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.695122
2	-4.865853	34	-0.731707
3	-0.853658	35	-0.756098
4	-3.341463	36	-0.804878
5	-4.560975	37	-0.865854
6	-0.792683	38	-0.841463
7	-1.560975	39	-0.560976
8	-2.097561	40	**********
9	-2.512195	41	**********
10	-2.329268	42	-0.573171
11	-1.487804	43	-0.597561
12	-1.426828	44	-0.621951
13	-1.463414	45	-0.658537
14	-1.597561	46	-0.731707
15	-1.658536	47	-0.719512
16	-1.658536	48	0.353658
17	-1.426828	49	0.353658
18	-1.060975	50	0.146341
19	-1.109756	51	0.231707
20	-1.158536	52	0.170732
21	-1.195122	53	0.036585
22	-1.256097	54	-0.060976
23	-1.280487	55	0.0
24	-1.195122	56	0.378049
25	-0.829268	57	0.243902
~~26~~	~~0.0~~	58	0.036585
27	-0.902439	59	-0.048780
28	-0.939024	60	-0.280488
29	-0.987805	61	0.109756
30	-1.036585	62	0.060976
31	-1.000000	63	-0.012195
32	-0.682927	64	-0.036585

Note: This run was made at q = 35 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.694737
2	~~0.0~~	34	-0.726316
3	-0.863158	35	-0.747368
4	-3.221052	36	-0.789474
5	-4.463158	37	-0.852632
6	-0.800000	38	-0.842105
7	-1.873684	39	-0.557895
8	-2.042105	40	**********
9	-2.421052	41	**********
10	-2.263158	42	-0.578947
11	-1.494737	43	-0.610526
12	-1.389473	44	-0.631579
13	-1.431579	45	-0.663158
14	-1.557895	46	-0.726316
15	-1.621052	47	-0.726316
16	-1.599999	48	0.336842
17	-1.400000	49	0.336842
18	-1.031578	50	0.136842
19	-1.084210	51	0.210526
20	-1.136842	52	0.157895
21	-1.178946	53	0.021053
22	-1.221052	54	-0.084211
23	-1.242105	55	0.010526
24	-1.168421	56	0.368421
25	-0.810526	57	0.231579
26	~~0.010526~~	58	0.021053
27	-0.884210	59	-0.063158
28	-0.915789	60	-0.263158
29	-0.968421	61	0.084211
30	-1.021052	62	0.052632
31	-0.978947	63	-0.021053
32	-0.673684	64	-0.063158

Note: Tube # 2 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.073684
2	0.010526	34	-0.052632
3	-0.063158	35	-0.031579
4	0.010526	36	-0.031579
5	-0.042105	37	-0.031579
6	-0.063158	38	-0.031579
7	0.0	39	-0.052632
8	-0.042105	40	**********
9	-0.073684	41	**********
10	-0.031579	42	-0.094737
11	-0.021053	43	-0.063158
12	-0.084211	44	-0.052632
13	-0.052632	45	-0.052632
14	-0.052632	46	-0.052632
15	-0.042105	47	-0.052632
16	-0.031579	48	-0.021053
17	-0.031579	49	-0.021053
18	-0.031579	50	-0.021053
19	-0.063158	51	-0.094737
20	-0.073684	52	-0.063158
21	-0.052632	53	-0.042105
22	-0.042105	54	-0.042105
23	-0.031579	55	-0.042105
24	-0.031579	56	0.0
25	-0.031579	57	-0.010526
26	0.0	58	-0.021053
27	-0.063158	59	-0.021053
28	-0.042105	60	-0.168421
29	-0.031579	61	-0.031579
30	-0.031579	62	-0.042105
31	-0.031579	63	-0.042105
32	-0.031579	64	-0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.505263
2	-0.484210	34	-0.642105
3	-0.189474	35	-0.905263
4	-1.021052	36	-0.652632
5	-0.157895	37	0.021053
6	-0.178947	38	-0.052632
7	-0.905263	39	-0.242105
8	-1.168421	40	**********
9	-0.589474	41	**********
10	-0.105263	42	-0.263158
11	-0.147368	43	-0.378947
12	-0.884210	44	-0.621053
13	-0.978947	45	-0.557895
14	-1.284210	46	0.010526
15	-0.473684	47	-0.052632
16	-0.084211	48	0.073684
17	-0.126316	49	0.073684
18	-0.747368	50	0.031579
19	-0.810526	51	0.0
20	-1.084210	52	0.0
21	-1.242105	53	-0.021053
22	-0.442105	54	-0.042105
23	-0.052632	55	0.021053
24	-0.115789	56	0.084211
25	-0.631579	57	0.052632
26	0.0	58	0.0
27	-0.852632	59	-0.031579
28	-1.094736	60	-0.136842
29	-0.589474	61	0.010526
30	-0.031579	62	-0.021053
31	-0.084211	63	-0.031579
32	-0.473684	64	-0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.673684
2	-2.705263	34	-0.757895
3	-0.378947	35	-0.873684
4	-2.305263	36	-0.978947
5	-2.210526	37	-0.800000
6	-0.368421	38	-0.294737
7	-1.842105	39	-0.378947
8	-2.221052	40	**********
9	-2.863157	41	**********
10	-0.452632	42	-0.410526
11	-0.284211	43	-0.526316
12	-1.621052	44	-0.610526
13	-1.642105	45	-0.694737
14	-2.652631	46	-0.663158
15	-2.684210	47	-0.347368
16	-0.473684	48	0.221053
17	-0.231579	49	0.221053
18	-1.073684	50	0.105263
19	-1.157894	51	0.147368
20	-1.189473	52	0.105263
21	-1.715789	53	0.031579
22	-2.105263	54	-0.042105
23	-0.536842	55	0.105263
24	-0.210526	56	0.221053
25	-0.873684	57	0.147368
26	0.0	58	0.021053
27	-0.989474	59	-0.042105
28	-1.221052	60	-0.042105
29	-1.410526	61	0.063158
30	-0.831579	62	0.021053
31	-0.263158	63	-0.021053
32	-0.621053	64	-0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.723404
2	-3.797872	34	-0.808511
3	-0.606383	35	-0.882979
4	-3.117021	36	-0.925532
5	-3.457446	37	-0.893617
6	-0.542553	38	-0.680851
7	-2.308510	39	-0.457447
8	-2.680851	40	**********
9	-3.829786	41	**********
10	-1.095744	42	-0.510638
11	-0.617021	43	-0.585106
12	-1.670213	44	-0.638298
13	-1.648935	45	-0.702128
14	-2.223404	46	-0.734043
15	-2.531915	47	-0.595745
16	-1.425531	48	0.308511
17	-0.521277	49	0.308511
18	-1.212766	50	0.148936
19	-1.255319	51	0.223404
20	-1.319148	52	0.170213
21	-1.531915	53	0.053191
22	-1.680851	54	-0.042553
23	-1.393617	55	0.148936
24	-0.648936	56	0.297872
25	-0.904255	57	0.202128
26	0.0	58	0.042553
27	-1.042553	59	-0.042553
28	-1.159574	60	-0.021277
29	-1.223404	61	0.106383
30	-1.138297	62	0.063830
31	-0.712766	63	0.0
32	-0.680851	64	-0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.623656
2	-4.247312	34	-0.655914
3	-0.741935	35	-0.677419
4	-2.924730	36	-0.720430
5	-3.602150	37	-0.731183
6	-0.688172	38	-0.698925
7	-1.612903	39	-0.505376
8	-1.774193	40	**********
9	-2.075269	41	**********
10	-1.827956	42	-0.516129
11	-1.086021	43	-0.548387
12	-1.193548	44	-0.569892
13	-1.236559	45	-0.591398
14	-1.333333	46	-0.634409
15	-1.365591	47	-0.602150
16	-1.333333	48	0.344086
17	-1.086021	49	0.344086
18	-0.892473	50	0.161290
19	-0.935484	51	0.258065
20	-0.967742	52	0.204301
21	-1.021505	53	0.075269
22	-1.053763	54	-0.032258
23	-1.053763	55	0.150538
24	-0.956989	56	0.311828
25	-0.720430	57	0.107527
26	0.0	58	0.043011
27	-0.784946	59	-0.032258
28	-0.817204	60	-0.075269
29	-0.849462	61	0.075269
30	-0.870968	62	0.064516
31	-0.817204	63	0.0
32	-0.602150	64	-0.032258

Note: This run was made at q = 35 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.789474
2	-1.210526	34	-0.810526
3	-1.157894	35	-0.842105
4	-1.157894	36	-0.873684
5	-1.157894	37	-0.915789
6	-1.136842	38	-0.905263
7	-1.105263	39	-0.652632
8	-1.115789	40	**********
9	-1.126315	41	**********
10	-1.115789	42	-0.673684
11	-1.115789	43	-0.705263
12	-1.063157	44	-0.747368
13	-1.063157	45	-0.789474
14	-1.073684	46	-0.873684
15	-1.073684	47	-0.842105
16	-1.084210	48	0.400000
17	-1.094210	49	0.400000
18	-1.000000	50	0.168421
19	-1.010526	51	0.326316
20	-1.021052	52	0.231579
21	-1.021052	53	0.042105
22	-1.031578	54	-0.115789
23	-1.042105	55	0.136842
24	-1.042105	56	0.421053
25	-0.905263	57	0.284211
26	-0.010526	58	0.031579
27	-0.926316	59	-0.094737
28	-0.947368	60	-0.105263
29	-0.968421	61	0.073684
30	-0.989474	62	0.063158
31	-0.989474	63	0.0
32	-0.778947	64	-0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.800000
2	-0.989474	34	-0.821053
3	-0.978947	35	-0.852632
4	-0.978947	36	-0.894737
5	-0.978947	37	-0.936842
6	-0.978947	38	-0.926316
7	-0.989474	39	-0.684210
8	-0.989474	40	**********
9	-0.989474	41	**********
10	-0.978947	42	-0.694737
11	-0.978947	43	-0.726316
12	-0.978947	44	-0.778947
13	-0.978947	45	-0.831579
14	-0.989474	46	-0.915789
15	-0.989474	47	-0.873684
16	-0.989474	48	0.473684
17	-1.000000	49	0.473684
18	-0.936842	50	0.221053
19	-0.947368	51	0.389474
20	-0.947368	52	0.284211
21	-0.957895	53	0.063158
22	-0.968421	54	-0.126316
23	-0.978947	55	0.136842
24	-0.989474	56	0.505263
25	-0.873684	57	0.336842
26	0.0	58	0.021053
27	-0.894737	59	-0.147368
28	-0.905263	60	-0.084211
29	-0.926316	61	0.094737
30	-0.957895	62	0.073684
31	-0.968421	63	-0.021053
32	-0.789474	64	-0.073684

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.684210
2	0.0	34	-0.715789
3	-0.821053	35	-0.747368
4	-3.147367	36	-0.778947
5	-3.926315	37	-0.810526
6	-0.789474	38	-0.778947
7	-1.757895	39	-0.557895
8	-1.936842	40	**********
9	-2.221052	41	**********
10	-2.000000	42	-0.578947
11	-1.252631	43	-0.610526
12	-1.305263	44	-0.631579
13	-1.347368	45	-0.663158
14	-1.452631	46	-0.705263
15	-1.494737	47	-0.673684
16	-1.463158	48	0.389474
17	-1.210526	49	0.389474
18	-0.978947	50	0.189474
19	-1.021052	51	0.294737
20	-1.073684	52	0.221053
21	-0.168421	53	0.073684
22	-0.200000	54	-0.042105
23	-0.200000	55	0.168421
24	-0.105263	56	0.357895
25	-0.789474	57	0.242105
26	0.0	58	0.052632
27	-0.852632	59	-0.042105
28	-0.894737	60	-0.063158
29	-0.936842	61	0.084211
30	-0.957895	62	0.063158
31	-0.894737	63	0.0
32	-0.673684	64	-0.042105

Note: Tube # 2 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-15 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.052632
2	0.010526	34	-0.031579
3	-0.031579	35	-0.031579
4	0.0	36	-0.021053
5	-0.031579	37	-0.021053
6	-0.042105	38	-0.021053
7	0.0	39	-0.042105
8	-0.031579	40	**********
9	-0.063158	41	**********
10	-0.021053	42	-0.084211
11	-0.021053	43	-0.063158
12	-0.084211	44	-0.063158
13	-0.042105	45	-0.052632
14	-0.052632	46	-0.052632
15	-0.031579	47	-0.052632
16	-0.021053	48	-0.010526
17	-0.021053	49	-0.021053
18	-0.031579	50	-0.021053
19	-0.052632	51	-0.042105
20	-0.063158	52	-0.042105
21	-0.031579	53	-0.031579
22	-0.031579	54	-0.031579
23	-0.021053	55	-0.021053
24	-0.021053	56	-0.010526
25	-0.010526	57	-0.021053
26	-0.010526	58	-0.021053
27	-0.042105	59	-0.031579
28	-0.031579	60	-0.073684
29	-0.021053	61	-0.052632
30	-0.021053	62	-0.052632
31	-0.010526	63	-0.042105
32	-0.021053	64	-0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-15 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.489583
2	-0.312500	34	-0.687500
3	-0.166667	35	-0.947917
4	-0.927083	36	-0.395833
5	-0.104167	37	-0.031250
6	-0.177083	38	-0.072917
7	-0.822917	39	-0.260417
8	-1.239583	40	**********
9	-0.312500	41	**********
10	-0.125000	42	-0.270833
11	-0.145833	43	-0.406250
12	-0.822917	44	-0.750000
13	-0.854167	45	-0.395833
14	-1.083333	46	-0.010417
15	-0.218750	47	-0.062500
16	-0.104167	48	0.093750
17	-0.135417	49	0.083333
18	-0.687500	50	0.062500
19	-0.760417	51	0.052083
20	-1.125000	52	0.041667
21	-1.041666	53	0.010417
22	-0.229167	54	-0.020833
23	-0.104167	55	0.062500
24	-0.135417	56	0.072917
25	-0.593750	57	0.052083
26	0.0	58	0.010417
27	-0.062500	59	-0.020833
28	-1.020833	60	-0.031250
29	-0.322917	61	-0.010417
30	-0.072917	62	-0.020833
31	-0.104167	63	-0.031250
32	-0.458333	64	-0.041667

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-15 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.705263
2	-2.221052	34	-0.778947
3	-0.452632	35	-1.010526
4	-2.263158	36	-1.094736
5	-1.799999	37	-0.547368
6	-0.442105	38	-0.221053
7	-1.842105	39	-0.410526
8	-2.147367	40	**********
9	-2.400000	41	**********
10	-0.526316	42	-0.463158
11	-0.357895	43	-0.568421
12	-1.642105	44	-0.684210
13	-1.642105	45	-0.778947
14	-2.599999	46	-0.557895
15	-2.315789	47	-0.210526
16	-0.463158	48	0.252632
17	-0.284211	49	0.252632
18	-1.168421	50	0.136842
19	-1.252631	51	0.200000
20	-1.326315	52	0.157895
21	-2.347368	53	0.073684
22	-2.063157	54	-0.021053
23	-0.410526	55	0.189474
24	-0.221053	56	0.210526
25	-0.821053	57	0.157895
26	0.0	58	0.052632
27	-0.905263	59	-0.021053
28	-1.473683	60	0.042105
29	-1.515789	61	0.063158
30	-0.389474	62	0.031579
31	-0.200000	63	0.0
32	-0.663158	64	-0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-15 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.708333
2	-4.364583	34	-0.750000
3	-0.854167	35	-0.791667
4	-3.427083	36	-0.822917
5	-3.593750	37	-0.812500
6	-0.729167	38	-0.718750
7	-1.885416	39	-0.572917
8	-2.062500	40	**********
9	-2.458333	41	**********
10	-1.812500	42	-0.583333
11	-0.895833	43	-0.625000
12	-1.385416	44	-0.666667
13	-1.427083	45	-0.687500
14	-1.583333	46	-0.708333
15	-1.593750	47	-0.635417
16	-1.458333	48	0.416667
17	-0.968750	49	0.427083
18	-1.031250	50	0.218750
19	-1.083333	51	0.343750
20	-1.145833	52	0.270833
21	-1.197916	53	0.114583
22	-1.218750	54	-0.020833
23	-1.156250	55	0.270833
24	-0.927083	56	0.343750
25	-0.822917	57	0.260417
26	-0.0	58	0.083333
27	-0.906250	59	-0.031250
28	-0.958333	60	0.062500
29	-0.989583	61	0.083333
30	-0.968750	62	0.083333
31	-0.833333	63	0.031250
32	-0.687500	64	-0.020833

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-15 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.873684
2	-1.389473	34	-0.905263
3	-1.347368	35	-0.957895
4	-1.357894	36	-1.021052
5	-1.357894	37	-1.031578
6	-1.336842	38	-0.947368
7	-1.294736	39	-0.726316
8	-1.305263	40	**********
9	-1.326315	41	**********
10	-1.315789	42	-0.736842
11	-1.294736	43	-0.778947
12	-1.231579	44	-0.842105
13	-1.231579	45	-0.905263
14	-1.252631	46	-0.968421
15	-1.263158	47	-0.863158
16	-1.263158	48	0.463158
17	-1.242105	49	0.463158
18	-1.136842	50	0.231579
19	-1.147367	51	0.410526
20	-1.157894	52	0.315789
21	-1.178946	53	0.115789
22	-1.189473	54	-0.052632
23	-1.200000	55	0.305263
24	-1.189473	56	0.431579
25	-0.989474	57	0.326316
26	0.0	58	0.073684
27	-1.021052	59	-0.063158
28	-1.073684	60	0.084211
29	-1.094736	61	0.136842
30	-1.105263	62	0.115789
31	-1.063157	63	0.052632
32	-0.863158	64	-0.010526

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-15 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.978947
2	-1.336842	34	-1.010526
3	-1.326315	35	-1.084210
4	-1.336842	36	-1.157894
5	-1.336842	37	-1.168421
6	-1.336842	38	-1.073684
7	-1.326315	39	-0.810526
8	-1.326315	40	**********
9	-1.336842	41	**********
10	-1.336842	42	-0.831579
11	-1.326315	43	-0.894737
12	-1.294736	44	-0.978947
13	-1.305263	45	-1.063157
14	-1.315789	46	-1.147367
15	-1.326315	47	-1.000000
16	-1.326315	48	0.526316
17	-1.326315	49	0.526316
18	-1.178946	50	0.263158
19	-1.189473	51	0.473684
20	-1.210526	52	0.263158
21	-1.242105	53	0.126316
22	-1.263158	54	-0.094737
23	-1.273684	55	0.315789
24	-1.273684	56	0.505263
25	-1.063157	57	0.368421
26	0.0	58	0.084211
27	-1.105263	59	-0.084211
28	-1.157894	60	0.126316
29	-1.200000	61	0.178947
30	-1.210526	62	0.157895
31	-1.147367	63	0.073684
32	-0.968421	64	0.105263

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.031250
2	0.031250	34	-0.020833
3	0.010417	35	-0.020833
4	0.020833	36	-0.020833
5	0.0	37	-0.010417
6	-0.010417	38	-0.010417
7	0.010417	39	-0.041667
8	-0.010417	40	**********
9	-0.020833	41	**********
10	0.0	42	-0.052083
11	0.0	43	-0.041667
12	-0.052083	44	-0.041667
13	-0.020833	45	-0.041667
14	-0.020833	46	-0.041667
15	-0.010417	47	-0.031250
16	0.0	48	0.010417
17	0.0	49	0.0
18	-0.010417	50	0.0
19	-0.020833	51	0.020833
20	-0.041667	52	0.0
21	-0.020833	53	0.0
22	-0.020833	54	-0.010417
23	-0.010417	55	-0.010417
24	-0.010417	56	-0.010417
25	-0.010417	57	-0.010417
26	0.0	58	-0.010417
27	-0.020833	59	-0.020833
28	-0.020833	60	-0.041667
29	-0.010417	61	-0.041667
30	-0.010417	62	-0.041667
31	-0.010417	63	-0.031250
32	-0.010417	64	-0.031250

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.463158
2	-0.189474	34	-0.694737
3	-0.147368	35	-0.778947
4	-0.821053	36	-0.168421
5	-0.115789	37	-0.042105
6	-0.168421	38	-0.063158
7	-0.736842	39	-0.252632
8	-1.115789	40	**********
9	-0.210526	41	**********
10	-0.126316	42	-0.284211
11	-0.147368	43	-0.452632
12	-0.747368	44	-0.726316
13	-0.884210	45	-0.178947
14	-0.800000	46	-0.042105
15	-0.136842	47	-0.063158
16	-0.115789	48	0.115789
17	-0.136842	49	0.105263
18	-0.631579	50	0.084211
19	-0.684210	51	0.115789
20	-1.084210	52	0.084211
21	-0.747368	53	0.063158
22	-0.126316	54	0.031579
23	-0.105263	55	0.084211
24	-0.115789	56	0.073684
25	-0.536842	57	0.063158
26	-0.0	58	0.042105
27	-0.831579	59	0.010526
28	-0.789474	60	0.0
29	-0.157895	61	-0.021053
30	-0.073684	62	-0.021053
31	-0.094737	63	0.0
32	-0.421053	64	-0.010526

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.863158
2	-1.768420	34	-0.884210
3	-0.484210	35	-1.642105
4	-2.052631	36	-1.336842
5	-1.368421	37	-0.252632
6	-0.484210	38	-0.157895
7	-1.821053	39	-0.421053
8	-1.989473	40	**********
9	-1.905263	41	**********
10	-0.547368	42	-0.442105
11	-0.421053	43	-0.463158
12	-1.621052	44	-0.905263
13	-1.631578	45	-1.052631
14	-2.210526	46	-0.210526
15	-1.915789	47	-0.105263
16	-0.494737	48	0.284211
17	-6.031578	49	0.284211
18	-1.273684	50	0.178947
19	-1.305263	51	0.263158
20	-1.526316	52	0.210526
21	-2.368421	53	0.115789
22	-1.726315	54	0.021053
23	-0.389474	55	0.221053
24	-0.284211	56	0.210526
25	-1.052631	57	0.189474
26	0.0	58	0.084211
27	-1.252631	59	0.010526
28	-2.115789	60	0.084211
29	-1.515789	61	0.063158
30	-0.305263	62	0.052632
31	-0.210526	63	0.021053
32	-0.789474	64	-0.010526

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.852632
2	-2.778947	34	-0.947368
3	-0.715789	35	-1.252631
4	-2.821053	36	-1.252631
5	-2.210526	37	-0.652632
6	-0.673684	38	-0.284211
7	-2.442104	39	-0.526316
8	-2.663157	40	**********
9	-2.673684	41	**********
10	-0.915789	42	-0.568421
11	-0.578947	43	-0.684210
12	-2.021052	44	-0.873684
13	-1.989473	45	-0.957895
14	-3.021052	46	-0.610526
15	-2.705263	47	-0.221053
16	-0.800000	48	0.378947
17	-0.442105	49	0.378947
18	-1.273684	50	0.221053
19	-1.284210	51	0.347368
20	-1.547368	52	0.273684
21	-2.526316	53	0.157895
22	-2.126315	54	0.021053
23	-0.600000	55	0.305263
24	-0.347368	56	0.294737
25	-1.073684	57	0.252632
26	0.0	58	0.157895
27	-1.178946	59	0.0
28	-1.747368	60	0.126316
29	-1.621052	61	0.105263
30	-0.652632	62	0.084211
31	-0.336842	63	0.042105
32	-0.831579	64	0.0

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.822917
2	-3.791666	34	-0.916667
3	-0.927083	35	-0.979167
4	-3.572916	36	-0.979167
5	-3.031250	37	-0.854167
6	-0.843750	38	-0.552083
7	-2.531250	39	-0.583333
8	-2.781250	40	**********
9	-3.020833	41	**********
10	-1.208333	42	-0.614583
11	-0.656250	43	-0.697917
12	-1.489583	44	-0.770833
13	-1.479166	45	-0.802083
14	-2.239583	46	-0.729167
15	-2.208333	47	-0.468750
16	-1.322916	48	0.458333
17	-0.656250	49	0.468750
18	-1.218750	50	0.270833
19	-1.291666	51	0.312500
20	-1.437500	52	0.333333
21	-1.572916	53	0.187500
22	-1.572916	54	0.010417
23	-1.197916	55	0.354167
24	-0.625000	56	0.364583
25	-0.958333	57	0.302083
26	-0.010417	58	0.114583
27	-1.135416	59	-0.010417
28	-1.218750	60	0.156250
29	-1.208333	61	0.145833
30	-1.020833	62	0.125000
31	-0.593750	63	0.062500
32	-0.781250	64	0.0

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.875000
2	-4.177083	34	-0.937500
3	-1.052083	35	-0.979167
4	-2.697916	36	-1.000000
5	-2.781250	37	-0.947917
6	-1.135416	38	-0.781250
7	-1.479166	39	-0.718750
8	-1.812500	40	**********
9	-1.885416	41	**********
10	-1.583333	42	-0.729167
11	-1.166666	43	-0.791667
12	-1.343750	44	-0.864583
13	-1.375000	45	-0.895833
14	-1.479166	46	-0.885417
15	-1.458333	47	-0.666667
16	-1.343750	48	0.531250
17	-1.083333	49	0.531250
18	-1.125000	50	0.302083
19	-1.156250	51	0.479167
20	-1.208333	52	0.385417
21	-1.239583	53	0.197917
22	-1.250000	54	0.010417
23	-1.197916	55	0.406250
24	-1.020833	56	0.427083
25	-1.000000	57	0.364583
26	0.0	58	0.125000
27	-1.062500	59	-0.020833
28	-1.093750	60	0.166667
29	-1.104166	61	0.166667
30	-1.072916	62	0.145833
31	-0.937500	63	0.062500
32	-0.854167	64	0.010417

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-10 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.021052
2	-2.010526	34	-1.157894
3	-1.884210	35	-1.273684
4	-1.915789	36	-1.315789
5	-1.915789	37	-1.168421
6	-1.799999	38	-0.842105
7	-1.736841	39	-0.831579
8	-1.778947	40	**********
9	-1.799999	41	**********
10	-1.768420	42	-0.842105
11	-1.652631	43	-0.978947
12	-1.599999	44	-1.147367
13	-1.631578	45	-1.252631
14	-1.684210	46	-1.147367
15	-1.673684	47	-0.684210
16	-1.642105	48	0.578947
17	-1.505262	49	0.589474
18	-1.452631	50	0.315789
19	-1.473683	51	0.568421
20	-1.515789	52	0.452632
21	-1.536841	53	0.210526
22	-1.557895	54	-0.042105
23	-1.536841	55	0.473684
24	-1.400000	56	0.536842
25	-1.210526	57	0.431579
26	0.0	58	0.157895
27	-1.315789	59	-0.031579
28	-1.378947	60	0.273684
29	-1.400000	61	0.273684
30	-1.368421	62	0.231579
31	-1.157894	63	0.136842
32	-1.000000	64	0.052632

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.052632
2	-0.084211	34	-0.042105
3	-0.052632	35	-0.042105
4	-0.063158	36	-0.031579
5	-0.063158	37	-0.031579
6	-0.073684	38	-0.021053
7	-0.063158	39	-0.052632
8	-0.063158	40	**********
9	-0.084211	41	**********
10	-0.042105	42	-0.063158
11	-0.042105	43	-0.063158
12	-0.126316	44	-0.063158
13	-0.073684	45	-0.073684
14	-0.073684	46	-0.052632
15	-0.052632	47	-0.042105
16	-0.042105	48	0.010526
17	-0.063158	49	0.0
18	-0.063158	50	0.0
19	-0.063158	51	0.115789
20	-0.073684	52	-0.063158
21	-0.052632	53	0.010526
22	-0.063158	54	0.010526
23	-0.052632	55	-0.010526
24	-0.052632	56	-0.010526
25	-0.031579	57	-0.010526
26	-0.010526	58	-0.010526
27	-0.042105	59	0.0
28	-0.031579	60	-0.052632
29	-0.031579	61	-0.052632
30	-0.031579	62	-0.042105
31	-0.021053	63	-0.031579
32	-0.052632	64	-0.021053

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.357895
2	-0.178947	34	-0.600000
3	-0.147368	35	-0.368421
4	-0.610526	36	-0.126316
5	-0.189474	37	-0.084211
6	-0.189474	38	-0.084211
7	-0.631579	39	-0.242105
8	-0.663158	40	**********
9	-0.200000	41	**********
10	-0.157895	42	-0.273684
11	-0.157895	43	-0.547368
12	-0.652632	44	-0.336842
13	-0.621053	45	-0.115789
14	-0.431579	46	-0.094737
15	-0.189474	47	-0.094737
16	-0.157895	48	0.168421
17	-0.157895	49	0.136842
18	-0.505263	50	0.147368
19	-0.536842	51	0.221053
20	-0.589474	52	0.157895
21	-0.410526	53	0.147368
22	-0.178947	54	0.115789
23	-0.136842	55	0.073684
24	-0.136842	56	0.084211
25	-0.421053	57	0.094737
26	-0.010526	58	0.105263
27	-0.589474	59	0.094737
28	-0.410526	60	-0.031579
29	-0.147368	61	-0.031579
30	-0.115789	62	-0.010526
31	-0.115789	63	0.042105
32	-0.347368	64	0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.642105
2	-1.094736	34	-1.000000
3	-0.515789	35	-1.094736
4	-1.505262	36	-0.673684
5	-0.894737	37	-0.221053
6	-0.505263	38	-0.168421
7	-1.484210	39	-0.357895
8	-1.463158	40	**********
9	-1.084210	41	**********
10	-0.515789	42	-0.368421
11	-0.452632	43	-0.631579
12	-1.442104	44	-0.800000
13	-1.294736	45	-0.515789
14	-1.400000	46	-0.178947
15	-1.000000	47	-0.126316
16	-0.473684	48	0.347368
17	-0.400000	49	0.326316
18	-1.021052	50	0.273684
19	-1.021052	51	0.357895
20	-1.315789	52	0.305263
21	-1.410526	53	0.242105
22	-0.936842	54	0.147368
23	-0.389474	55	0.231579
24	-0.326316	56	0.242105
25	-0.831579	57	0.242105
26	~~-0.010526~~	58	0.189474
27	-1.231579	59	0.105263
28	-1.315789	60	0.042105
29	-0.726316	61	0.031579
30	-0.305263	62	0.052632
31	-0.242105	63	0.084211
32	-0.652632	64	0.063158

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.781250
2	-1.802083	34	-1.197916
3	-0.760417	35	-1.343750
4	-2.104166	36	-0.937500
5	-1.416666	37	-0.343750
6	-1.760416	38	-0.239583
7	-2.000000	39	-0.385417
8	-2.031250	40	**********
9	-1.625000	41	**********
10	-0.760417	42	-0.406250
11	-0.625000	43	-0.708333
12	-1.718750	44	-0.916667
13	-1.718750	45	-0.666667
14	-2.052083	46	-0.229167
15	-1.510416	47	-0.145833
16	-0.687500	48	0.437500
17	-0.531250	49	0.427083
18	-1.312500	50	0.322917
19	-1.343750	51	0.447917
20	-1.875000	52	0.385417
21	-1.958333	53	0.270833
22	-1.385416	54	0.114583
23	-0.562500	55	0.322917
24	-0.427083	56	0.322917
25	-1.083333	57	0.312500
26	-0.010417	58	0.208333
27	-1.583333	59	0.093750
28	-1.687500	60	0.093750
29	-1.156250	61	0.083333
30	-0.447917	62	0.083333
31	-0.322917	63	0.093750
32	-0.802083	64	0.052083

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.926316
2	-2.589473	34	-1.421052
3	-1.031578	35	-1.631578
4	-2.842105	36	-1.231579
5	-2.031578	37	-0.452632
6	-0.978947	38	-0.284211
7	-2.621052	39	-0.484210
8	-2.736841	40	**********
9	-2.242105	41	**********
10	-1.052631	42	-0.494737
11	-0.810526	43	-0.778947
12	-2.115789	44	-1.031578
13	-2.252631	45	-0.821053
14	-2.852632	46	-0.273684
15	-2.115789	47	-0.136842
16	-0.915789	48	0.547368
17	-0.663158	49	0.547368
18	-1.621052	50	0.378947
19	-1.673684	51	0.547368
20	-2.463158	52	0.473684
21	-2.526316	53	0.326316
22	-1.799999	54	0.115789
23	-0.747368	55	0.442105
24	-0.536842	56	0.431579
25	-1.368421	57	0.400000
26	~~0.0~~	58	0.242105
27	-1.926315	59	0.073684
28	-2.063157	60	0.178947
29	-1.505262	61	0.147368
30	-0.610526	62	0.147368
31	-0.410526	63	0.126316
32	-0.926316	64	0.073684

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.010526
2	-3.421052	34	-1.589473
3	-1.315789	35	-1.842105
4	-3.621052	36	-1.442104
5	-2.673684	37	-0.536842
6	-1.231579	38	-0.305263
7	-3.126315	39	-0.589474
8	-3.473683	40	**********
9	-2.778947	41	**********
10	-1.347368	42	-0.621053
11	-0.989474	43	-0.915789
12	-2.357894	44	-1.136842
13	-2.842105	45	-0.915789
14	-3.589473	46	-0.305263
15	-2.652631	47	-0.126316
16	-1.126315	48	0.621053
17	-0.778947	49	-3.589473
18	-1.905263	50	0.389474
19	-1.978947	51	0.631579
20	-2.947368	52	0.536842
21	-2.989473	53	0.336842
22	-2.200000	54	0.073684
23	-0.926316	55	0.526316
24	-0.631579	56	0.515789
25	-1.568420	57	0.473684
26	0.0	58	0.252632
27	-2.231579	59	0.031579
28	-2.400000	60	0.252632
29	-1.810526	61	0.221053
30	-0.726316	62	0.210526
31	-0.463158	63	0.157895
32	-1.000000	64	0.052632

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 0 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.978947
2	-4.126315	34	-1.168421
3	-1.505262	35	-1.178946
4	-4.231579	36	-1.042105
5	-3.168421	37	-0.642105
6	-1.357894	38	-0.494737
7	-3.147367	39	-0.600000
8	-3.852632	40	**********
9	-3.178946	41	**********
10	-1.410526	42	-0.642105
11	-0.968421	43	-0.852632
12	-1.599999	44	-0.884210
13	-2.189473	45	-0.800000
14	-2.831578	46	-0.463158
15	-2.136842	47	-0.294737
16	-0.884210	48	0.694737
17	-0.557895	49	0.715789
18	-1.284210	50	0.431579
19	-1.494737	51	0.726316
20	-1.873684	52	0.642105
21	-1.789474	53	0.452632
22	-1.284210	54	0.221053
23	-0.863158	55	0.589474
24	-0.631579	56	0.578947
25	-1.178946	57	0.536842
26	0.0	58	0.326316
27	-1.505262	59	0.126316
28	-1.484210	60	0.263158
29	-1.294736	61	0.242105
30	-0.842105	62	0.231579
31	-0.673684	63	0.168421
32	-0.915789	64	0.063158

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.031250
2	-0.020833	34	-0.031250
3	-0.010417	35	-0.031250
4	-0.020833	36	-0.031250
5	-0.020833	37	-0.031250
6	-0.041667	38	-0.031250
7	-0.020833	39	-0.052083
8	-0.020833	40	**********
9	-0.020833	41	**********
10	-0.010417	42	-0.052083
11	-0.010417	43	-0.062500
12	-0.062500	44	-0.062500
13	-0.031250	45	-0.062500
14	-0.031250	46	-0.052083
15	-0.031250	47	-0.052083
16	-0.031250	48	0.010417
17	-0.020833	49	-0.010417
18	-0.031250	50	0.010417
19	-0.031250	51	0.218750
20	-0.031250	52	0.072917
21	-0.031250	53	0.052083
22	-0.031250	54	0.062500
23	-0.031250	55	0.010417
24	-0.031250	56	0.0
25	-0.031250	57	-0.010417
26	0.0	58	-0.010417
27	-0.031250	59	0.020833
28	-0.031250	60	-0.052083
29	-0.031250	61	-0.052083
30	-0.031250	62	-0.052083
31	-0.031250	63	-0.031250
32	-0.031250	64	0.0

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.237113
2	-0.175258	34	-0.237113
3	-0.154639	35	-0.144330
4	-0.340206	36	-0.113402
5	-0.185567	37	-0.092783
6	-0.175258	38	-0.082474
7	-0.360825	39	-0.164948
8	-0.309278	40	**********
9	-0.175258	41	**********
10	-0.154639	42	-0.195876
11	-0.144330	43	-0.216495
12	-0.350515	44	-0.144330
13	-0.381443	45	-0.113402
14	-0.206186	46	-0.103093
15	-0.175258	47	-0.082474
16	-0.144330	48	0.175258
17	-0.134021	49	0.154639
18	-0.268041	50	0.206186
19	-0.340206	51	0.288660
20	-0.298969	52	0.216495
21	-0.195876	53	0.226804
22	-0.154639	54	0.237113
23	-0.134021	55	0.103093
24	-0.134021	56	0.103093
25	-0.237113	57	0.134021
26	0.0	58	0.185567
27	-0.257732	59	0.206186
28	-0.175258	60	-0.020619
29	-0.134021	61	-0.020619
30	-0.113402	62	0.0
31	-0.061856	63	0.082474
32	-0.195876	64	0.113402

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.421053
2	-0.768421	34	-0.526316
3	-0.484210	35	-0.431579
4	-1.063157	36	-0.315789
5	-0.673684	37	-0.189474
6	-0.473684	38	-0.147368
7	-0.957895	39	-0.242105
8	-1.000000	40	**********
9	-0.673684	41	**********
10	-0.473684	42	-0.273684
11	-0.410526	43	-0.389474
12	-0.821053	44	-0.315789
13	-0.926316	45	-0.231579
14	-0.768421	46	-0.147368
15	-0.578947	47	-0.105263
16	-0.400000	48	0.410526
17	-0.347368	49	0.389474
18	-0.610526	50	0.400000
19	-0.747368	51	0.463158
20	-0.821053	52	0.410526
21	-0.652632	53	0.389474
22	-0.484210	54	0.326316
23	-0.336842	55	0.263158
24	-0.284211	56	0.273684
25	-0.505263	57	0.305263
26	-0.052632	58	0.326316
27	-0.673684	59	0.273684
28	-0.547368	60	0.031579
29	-0.400000	61	0.021053
30	-0.263158	62	0.073684
31	-0.210526	63	0.168421
32	-0.389474	64	0.178947

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.526316
2	-1.157894	34	-0.631579
3	-0.705263	35	-0.536842
4	-1.463158	36	-0.410526
5	-0.978947	37	-0.263158
6	-0.663158	38	-0.305263
7	-1.252631	39	-0.284211
8	-1.326315	40	**********
9	-0.936842	41	**********
10	-0.621053	42	-0.326316
11	-0.547368	43	-0.431579
12	-1.021052	44	-0.368421
13	-1.157894	45	-0.273684
14	-1.021052	46	-0.189474
15	-0.768421	47	-0.252632
16	-0.505263	48	0.515789
17	-0.442105	49	0.494737
18	-0.747368	50	0.463158
19	-0.905263	51	0.547368
20	-1.000000	52	0.494737
21	-0.831579	53	0.452632
22	-0.642105	54	0.347368
23	-0.421053	55	0.336842
24	-0.357895	56	0.357895
25	-0.610526	57	0.378947
26	0.0	58	0.368421
27	-0.800000	59	0.284211
28	-0.684210	60	0.021053
29	-0.526316	61	0.031579
30	-0.357895	62	0.094737
31	-0.357895	63	0.189474
32	-0.473684	64	0.178947

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.674419
2	-1.709302	34	-0.779070
3	-1.034883	35	-0.651163
4	-2.011627	36	-0.488372
5	-1.383720	37	-0.372093
6	-0.918605	38	-0.627907
7	-1.581395	39	-0.337209
8	-1.674418	40	**********
9	-1.232557	41	**********
10	-0.790698	42	-0.395349
11	-0.686046	43	-0.511628
12	-1.279069	44	-0.430233
13	-1.418604	45	-0.325581
14	-1.255814	46	-0.302326
15	-0.988372	47	-0.558140
16	-0.686046	48	0.686046
17	-0.732558	49	0.674419
18	-0.953488	50	0.593023
19	-1.139534	51	0.686046
20	-1.220930	52	0.639535
21	-1.023255	53	0.581395
22	-0.302326	54	0.430233
23	-0.569767	55	0.453488
24	-0.720930	56	0.476744
25	-0.790698	57	0.488372
26	0.0	58	0.453488
27	-0.972093	59	0.348837
28	-0.837209	60	0.023256
29	-0.651163	61	0.046512
30	-0.476744	62	0.116279
31	-0.686046	63	0.197674
32	-0.604651	64	0.186046

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.760417
2	-1.645833	34	-0.770833
3	-1.083333	35	-0.656250
4	-1.802083	36	-0.552083
5	-1.250000	37	-0.572917
6	-1.166666	38	-0.802083
7	-1.447916	39	-0.375000
8	-1.500000	40	**********
9	-1.093750	41	**********
10	-0.906250	42	-0.479167
11	-1.208333	43	-0.500000
12	-1.260416	44	-0.406250
13	-1.322916	45	-0.322917
14	-1.114583	46	-0.406250
15	-0.927083	47	-0.687500
16	-0.875000	48	0.729167
17	-1.125000	49	0.708333
18	-1.010416	50	0.635417
19	-1.135416	51	0.687500
20	-1.145833	52	0.635417
21	-0.979167	53	0.562500
22	-0.833333	54	0.416667
23	-0.822917	55	0.479167
24	-1.041666	56	0.489583
25	-0.864583	57	0.500000
26	0.0	58	0.427083
27	-0.968750	59	0.302083
28	-0.833333	60	0.010417
29	-0.708333	61	0.041667
30	-0.729167	62	0.114583
31	-0.947917	63	0.177083
32	-0.656250	64	0.135417

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 10 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.873684
2	-1.768420	34	-0.884210
3	-1.821053	35	-0.694737
4	-1.947368	36	-0.515789
5	-1.578947	37	-0.484210
6	-1.757895	38	-0.863158
7	-1.810526	39	-0.357895
8	-1.789474	40	**********
9	-1.431579	41	**********
10	-1.400000	42	-0.473684
11	-1.621052	43	-0.505263
12	-1.652631	44	-0.357895
13	-1.705263	45	-0.231579
14	-1.431579	46	-0.273684
15	-1.231579	47	-0.726316
16	-1.231579	48	0.810526
17	-1.484210	49	0.789474
18	-1.347368	50	0.694737
19	-1.505262	51	0.778947
20	-1.473683	52	0.726316
21	-1.242105	53	0.600000
22	-1.042105	54	0.410526
23	-1.084210	55	0.589474
24	-1.410526	56	0.600000
25	-1.063157	57	0.600000
26	0.0	58	0.463158
27	-1.200000	59	0.294737
28	-0.978947	60	0.094737
29	-0.789474	61	0.115789
30	-0.800000	62	0.189474
31	-1.157894	63	0.231579
32	-0.715789	64	0.147368

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	0.0
2	0.010526	34	0.0
3	-0.010526	35	0.0
4	0.0	36	0.0
5	0.0	37	0.0
6	-0.021053	38	0.0
7	0.0	39	-0.021053
8	0.0	40	**********
9	0.0	41	**********
10	0.0	42	-0.021053
11	0.0	43	-0.031579
12	-0.042105	44	-0.031579
13	-0.010526	45	-0.031579
14	0.0	46	-0.031579
15	-0.010526	47	-0.031579
16	-0.010526	48	0.031579
17	-0.010526	49	0.0
18	-0.010526	50	0.042105
19	-0.010526	51	0.284211
20	-0.010526	52	0.105263
21	0.0	53	0.084211
22	0.0	54	0.105263
23	0.0	55	0.063158
24	0.0	56	0.052632
25	0.0	57	0.031579
26	0.0	58	0.031579
27	0.0	59	0.063158
28	0.0	60	0.0
29	0.0	61	-0.010526
30	0.0	62	-0.021053
31	0.0	63	0.0
32	0.0	64	0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.147368
2	-0.147368	34	-0.115789
3	-0.147368	35	-0.094737
4	-0.210526	36	-0.084211
5	-0.157895	37	-0.063158
6	-0.157895	38	-0.052632
7	-0.231579	39	-0.105263
8	-0.189474	40	**********
9	-0.147368	41	**********
10	-0.136842	42	-0.126316
11	-0.126316	43	-0.105263
12	-0.252632	44	-0.094737
13	-0.210526	45	-0.084211
14	-0.147368	46	-0.073684
15	-0.136842	47	-0.052632
16	-0.126316	48	0.210526
17	-0.115789	49	0.178947
18	-0.178947	50	0.252632
19	-0.189474	51	0.326316
20	-0.157895	52	0.263158
21	-0.136842	53	0.294737
22	-0.115789	54	0.315789
23	-0.115789	55	0.157895
24	-0.105263	56	0.157895
25	-0.157895	57	0.178947
26	0.0	58	0.242105
27	-0.136842	59	0.284211
28	-0.115789	60	0.0
29	-0.094737	61	-0.010526
30	-0.084211	62	0.021053
31	-0.084211	63	0.136842
32	-0.126316	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.297872
2	-0.574468	34	-0.297872
3	-0.382979	35	-0.265957
4	-0.702128	36	-0.223404
5	-0.500000	37	-0.180851
6	-0.361702	38	-0.212766
7	-0.606383	39	-0.180851
8	-0.606383	40	**********
9	-0.446808	41	**********
10	-0.351064	42	-0.212766
11	-0.276596	43	-0.234043
12	-0.531915	44	-0.202128
13	-0.531915	45	-0.170213
14	-0.436170	46	-0.148936
15	-0.361702	47	-0.223404
16	-0.276596	48	0.446808
17	-0.223404	49	0.414894
18	-0.372340	50	0.457447
19	-0.425532	51	0.500000
20	-0.414894	52	0.457447
21	-0.393617	53	0.468085
22	-0.329787	54	0.425532
23	-0.255319	55	0.297872
24	-0.202128	56	0.308511
25	-0.340425	57	0.340425
26	0.0	58	0.393617
27	-0.372340	59	0.372340
28	-0.329787	60	0.0
29	-0.276596	61	0.010638
30	-0.223404	62	0.085106
31	-0.202128	63	0.212766
32	-0.265957	64	0.244681

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.372340
2	-0.904255	34	-0.372340
3	-0.638298	35	-0.319149
4	-1.063829	36	-0.276596
5	-0.776596	37	-0.244681
6	-0.585106	38	-0.478723
7	-0.851064	39	-0.212766
8	-0.872340	40	**********
9	-0.670213	41	**********
10	-0.500000	42	-0.244681
11	-0.425532	43	-0.255319
12	-0.734043	44	-0.223404
13	-0.734043	45	-0.191489
14	-0.638298	46	-0.202128
15	-0.542553	47	-0.457447
16	-0.425532	48	0.563830
17	-0.382979	49	0.542553
18	-0.531915	50	0.553191
19	-0.595745	51	0.595745
20	-0.595745	52	0.553191
21	-0.531915	53	0.542553
22	-0.457447	54	0.478723
23	-0.372340	55	0.372340
24	-0.457447	56	0.382979
25	-0.436170	57	0.414894
26	0.0	58	0.446808
27	-0.478723	59	0.404255
28	-0.425532	60	0.010638
29	-0.361702	61	0.031915
30	-0.308511	62	0.117021
31	-0.468085	63	0.234043
32	-0.340425	64	0.255319

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.404255
2	-1.170213	34	-0.382979
3	-0.861702	35	-0.340425
4	-1.244680	36	-0.340425
5	-0.914894	37	-0.500000
6	-0.723404	38	-0.723404
7	-0.957447	39	-0.223404
8	-0.957447	40	**********
9	-0.765957	41	**********
10	-0.638298	42	-0.255319
11	-0.851064	43	-0.255319
12	-0.829787	44	-0.244681
13	-0.808511	45	-0.265957
14	-0.691489	46	-0.457447
15	-0.617021	47	-0.638298
16	-0.574468	48	0.680851
17	-0.925532	49	0.648936
18	-0.617021	50	0.627660
19	-0.659574	51	0.659574
20	-0.648936	52	0.627660
21	-0.553191	53	0.606383
22	-0.489362	54	0.521277
23	-0.553191	55	0.436170
24	-0.893617	56	0.446808
25	-0.489362	57	0.489362
26	0.0	58	0.489362
27	-0.500000	59	0.425532
28	-0.436170	60	0.0
29	-0.404255	61	0.031915
30	-0.542553	62	0.127660
31	-0.819149	63	0.234043
32	-0.372340	64	0.234043

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.568421
2	-1.305263	34	-0.484210
3	-1.357894	35	-0.442105
4	-1.210526	36	-0.473684
5	-1.242105	37	-0.757895
6	-1.336842	38	-0.926316
7	-1.136842	39	-0.294737
8	-1.084210	40	**********
9	-1.073684	41	**********
10	-1.231579	42	-0.347368
11	-1.284210	43	-0.273684
12	-1.063157	44	-0.252632
13	-1.000000	45	-0.305263
14	-0.915789	46	-0.621053
15	-0.968421	47	-0.842105
16	-1.147367	48	0.757895
17	-1.221052	49	0.715789
18	-0.873684	50	0.705263
19	-0.884210	51	0.726316
20	-0.831579	52	0.694737
21	-0.778947	53	0.642105
22	-0.842105	54	0.526316
23	-1.073684	55	0.505263
24	-1.063157	56	0.526316
25	-0.652632	57	0.547368
26	0.0	58	0.515789
27	-0.652632	59	0.410526
28	-0.589474	60	0.0
29	-0.631579	61	0.052632
30	-0.894737	62	0.157895
31	-1.042105	63	0.263158
32	-0.526316	64	0.231579

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 15 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.627660
2	-1.340425	34	-0.574468
3	-1.351064	35	-0.563830
4	-1.308510	36	-0.638298
5	-1.340425	37	-0.882979
6	-1.361702	38	-1.053191
7	-1.255319	39	-0.308511
8	-1.255319	40	**********
9	-1.276595	41	**********
10	-1.329786	42	-0.351064
11	-1.351064	43	-0.297872
12	-1.202127	44	-0.297872
13	-1.180851	45	-0.393617
14	-1.191489	46	-0.712766
15	-1.244680	47	-0.989362
16	-1.329786	48	0.840425
17	-1.351064	49	0.808511
18	-1.010638	50	0.765957
19	-1.031915	51	0.797872
20	-1.010638	52	0.765957
21	-1.021276	53	0.691489
22	-1.085106	54	0.542553
23	-1.223404	55	0.595745
24	-1.276595	56	0.606383
25	-0.819149	57	0.617021
26	0.0	58	0.553191
27	-0.787234	59	0.414894
28	-0.776596	60	0.053191
29	-0.829787	61	0.106383
30	-1.021276	62	0.212766
31	-1.138297	63	0.297872
32	-0.595745	64	0.234043

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.021053
2	-0.031579	34	-0.021053
3	-0.073684	35	-0.021053
4	-0.021053	36	-0.021053
5	-0.031579	37	-0.021053
6	-0.073684	38	-0.021053
7	-0.021053	39	-0.031579
8	-0.021053	40	**********
9	-0.021053	41	**********
10	-0.021053	42	-0.031579
11	-0.021053	43	-0.042105
12	-0.073684	44	-0.042105
13	-0.021053	45	-0.042105
14	-0.021053	46	-0.052632
15	-0.021053	47	-0.042105
16	-0.021053	48	0.031579
17	-0.021053	49	-0.010526
18	-0.021053	50	0.031579
19	-0.021053	51	0.315789
20	-0.021053	52	0.115789
21	-0.021053	53	0.084211
22	-0.021053	54	0.115789
23	-0.021053	55	0.105263
24	-0.021053	56	0.073684
25	-0.021053	57	0.042105
26	0.0	58	0.031579
27	-0.021053	59	0.084211
28	-0.021053	60	0.021053
29	-0.021053	61	-0.010526
30	-0.021053	62	-0.021053
31	-0.021053	63	0.0
32	-0.021053	64	0.063158

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.074468
2	-0.148936	34	-0.074468
3	-0.180851	35	-0.063830
4	-0.159574	36	-0.063830
5	-0.148936	37	-0.053191
6	-0.180851	38	-0.031915
7	-0.148936	39	-0.074468
8	-0.148936	40	**********
9	-0.138298	41	**********
10	-0.138298	42	-0.085106
11	-0.127660	43	-0.085106
12	-0.180851	44	-0.085106
13	-0.138298	45	-0.074468
14	-0.138298	46	-0.074468
15	-0.127660	47	-0.042553
16	-0.138298	48	0.212766
17	-0.117021	49	0.170213
18	-0.117021	50	0.276596
19	-0.127660	51	0.361702
20	-0.117021	52	0.287234
21	-0.095745	53	0.329787
22	-0.095745	54	0.372340
23	-0.095745	55	0.191489
24	-0.085106	56	0.180851
25	-0.085106	57	0.191489
26	-0.010638	58	0.276596
27	-0.085106	59	0.329787
28	-0.085106	60	0.010638
29	-0.074468	61	-0.010638
30	-0.074468	62	0.021277
31	-0.063830	63	0.148936
32	-0.074468	64	0.202128

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.148936
2	-0.510638	34	-0.148936
3	-0.361702	35	-0.127660
4	-0.531915	36	-0.106383
5	-0.457447	37	-0.095745
6	-0.340425	38	-0.053191
7	-0.457447	39	-0.095745
8	-0.436170	40	**********
9	-0.382979	41	**********
10	-0.329787	42	-0.148936
11	-0.255319	43	-0.148936
12	-0.468085	44	-0.138298
13	-0.372340	45	-0.127660
14	-0.340425	46	-0.138298
15	-0.319149	47	-0.361702
16	-0.265957	48	0.489362
17	-0.212766	49	0.436170
18	-0.297872	50	0.521277
19	-0.308511	51	0.531915
20	-0.308511	52	0.500000
21	-0.234043	53	0.531915
22	-0.212766	54	0.521277
23	-0.191489	55	0.329787
24	-0.159574	56	0.329787
25	-0.202128	57	0.372340
26	-0.042553	58	0.446808
27	-0.202128	59	0.457447
28	-0.180851	60	0.0
29	-0.170213	61	0.010638
30	-0.148936	62	0.095745
31	-0.212766	63	0.255319
32	-0.148936	64	0.308511

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.244681
2	-0.765957	34	-0.234043
3	-0.617021	35	-0.223404
4	-0.776596	36	-0.212766
5	-0.648936	37	-0.319149
6	-0.531915	38	-0.680851
7	-0.606383	39	-0.159574
8	-0.595745	40	**********
9	-0.521277	41	**********
10	-0.425532	42	-0.170213
11	-0.382979	43	-0.170213
12	-0.553191	44	-0.170213
13	-0.510638	45	-0.170213
14	-0.478723	46	-0.329787
15	-0.446808	47	-0.617021
16	-0.425532	48	0.606383
17	-0.542553	49	0.563830
18	-0.404255	50	0.606383
19	-0.414894	51	0.617021
20	-0.404255	52	0.595745
21	-0.372340	53	0.606383
22	-0.351064	54	0.563830
23	-0.351064	55	0.404255
24	-0.670213	56	0.414894
25	-0.308511	57	0.446808
26	-0.010638	58	0.510638
27	-0.308511	59	0.489362
28	-0.297872	60	0.010638
29	-0.287234	61	0.031915
30	-0.329787	62	0.127660
31	-0.723404	63	0.287234
32	-0.234043	64	0.329787

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.273684
2	-0.905263	34	-0.284211
3	-0.863158	35	-0.326316
4	-0.863158	36	-0.410526
5	-0.715789	37	-0.642105
6	-0.715789	38	-0.768421
7	-0.673684	39	-0.168421
8	-0.663158	40	**********
9	-0.600000	41	**********
10	-0.642105	42	-0.189474
11	-1.200000	43	-0.221053
12	-0.600000	44	-0.284211
13	-0.547368	45	-0.368421
14	-0.505263	46	-0.578947
15	-0.515789	47	-0.673684
16	-0.705263	48	0.705263
17	-1.200000	49	0.663158
18	-0.442105	50	0.694737
19	-0.452632	51	0.684210
20	-0.442105	52	0.652632
21	-0.431579	53	0.663158
22	-0.473684	54	0.600000
23	-0.536842	55	0.463158
24	-1.052631	56	0.473684
25	-0.357895	57	0.505263
26	-0.0	58	0.547368
27	-0.357895	59	0.505263
28	-0.378947	60	0.010526
29	-0.452632	61	0.052632
30	-0.726316	62	0.147368
31	-0.905263	63	0.294737
32	-0.273684	64	0.326316

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.389474
2	-1.157894	34	-0.452632
3	-1.189473	35	-0.557895
4	-1.063157	36	-0.673684
5	-1.136842	37	-0.821053
6	-1.147367	38	-0.894737
7	-0.926316	39	-0.210526
8	-0.989474	40	**********
9	-1.063157	41	**********
10	-1.105263	42	-0.231579
11	-1.136842	43	-0.294737
12	-0.842105	44	-0.400000
13	-0.852632	45	-0.526316
14	-0.947368	46	-0.715789
15	-1.010526	47	-0.821053
16	-1.063157	48	0.757895
17	-1.105263	49	0.715789
18	-0.705263	50	0.757895
19	-0.726316	51	0.736842
20	-0.800000	52	0.705263
21	-0.884210	53	0.705263
22	-0.947368	54	0.631579
23	-1.021052	55	0.526316
24	-1.052631	56	0.536842
25	-0.547368	57	0.568421
26	0.0	58	0.589474
27	-0.631579	59	0.515789
28	-0.736842	60	0.021053
29	-0.821053	61	0.073684
30	-0.947368	62	0.178947
31	-0.989474	63	0.326316
32	-0.378947	64	0.326316

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 20 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.563830
2	-1.021276	34	-0.648936
3	-1.021276	35	-0.723404
4	-1.010638	36	-0.787234
5	-1.021276	37	-0.872340
6	-1.021276	38	-0.936170
7	-1.000000	39	-0.319149
8	-1.010638	40	**********
9	-1.021276	41	**********
10	-1.021276	42	-0.351064
11	-1.031915	43	-0.457447
12	-1.000000	44	-0.553191
13	-1.010638	45	-0.648936
14	-1.031915	46	-0.797872
15	-1.031915	47	-0.904255
16	-1.042553	48	0.840425
17	-1.042553	49	0.797872
18	-0.936170	50	0.819149
19	-0.957447	51	0.797872
20	-0.989362	52	0.776596
21	-1.010638	53	0.765957
22	-1.021276	54	0.659574
23	-1.031915	55	0.595745
24	-1.031915	56	0.606383
25	-0.744681	57	0.638298
26	-0.010633	58	0.627660
27	-0.829787	59	0.531915
28	-0.882979	60	0.053191
29	-0.914894	61	0.117021
30	-0.957447	62	0.234043
31	-0.978723	63	0.372340
32	-0.542553	64	0.340425

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.021277
2	-0.053191	34	-0.021277
3	-0.106383	35	-0.021277
4	-0.021277	36	-0.021277
5	-0.031915	37	-0.021277
6	-0.095745	38	-0.021277
7	-0.021277	39	-0.021277
8	-0.021277	40	**********
9	-0.031915	41	**********
10	-0.031915	42	-0.031915
11	-0.031915	43	-0.031915
12	-0.063830	44	-0.042553
13	-0.031915	45	-0.042553
14	-0.031915	46	-0.053191
15	-0.021277	47	-0.042553
16	-0.021277	48	0.021277
17	-0.031915	49	-0.010638
18	-0.021277	50	0.053191
19	-0.031915	51	0.351064
20	-0.031915	52	0.138298
21	-0.021277	53	0.117021
22	-0.021277	54	0.159574
23	-0.021277	55	0.170213
24	-0.031915	56	0.117021
25	-0.010638	57	0.074468
26	0.0	58	0.063830
27	-0.021277	59	0.127660
28	-0.021277	60	0.063830
29	-0.021277	61	0.010638
30	-0.021277	62	0.0
31	-0.021277	63	0.021277
32	-0.021277	64	0.117021

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.042553
2	-0.148936	34	-0.042553
3	-0.202128	35	-0.042553
4	-0.127660	36	-0.042553
5	-0.148936	37	-0.031915
6	-0.180851	38	0.0
7	-0.117021	39	-0.042553
8	-0.117021	40	**********
9	-0.127660	41	**********
10	-0.127660	42	-0.042553
11	-0.117021	43	-0.053191
12	-0.138298	44	-0.053191
13	-0.106383	45	-0.053191
14	-0.106383	46	-0.053191
15	-0.106383	47	0.0
16	-0.117021	48	0.244681
17	-0.106383	49	0.202128
18	-0.085106	50	0.319149
19	-0.085106	51	0.404255
20	-0.085106	52	0.340425
21	-0.085106	53	0.393617
22	-0.085106	54	0.457447
23	-0.085106	55	0.265957
24	-0.074468	56	0.234043
25	-0.053191	57	0.244681
26	0.0	58	0.340425
27	-0.063830	59	0.414894
28	-0.063830	60	0.042553
29	-0.063830	61	0.010638
30	-0.063830	62	0.053191
31	-0.031915	63	0.180851
32	-0.042553	64	0.265957

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.138298
2	-0.436170	34	-0.138298
3	-0.297872	35	-0.127660
4	-0.404255	36	-0.127660
5	-0.382979	37	-0.148936
6	-0.265957	38	-0.531915
7	-0.329787	39	-0.106383
8	-0.329787	40	**********
9	-0.308511	41	**********
10	-0.265957	42	-0.106383
11	-0.191489	43	-0.106383
12	-0.308511	44	-0.106383
13	-0.276596	45	-0.106383
14	-0.265957	46	-0.202128
15	-0.255319	47	-0.510638
16	-0.212766	48	0.500000
17	-0.159574	49	0.446808
18	-0.223404	50	0.563830
19	-0.223404	51	0.563830
20	-0.223404	52	0.531915
21	-0.223404	53	0.585106
22	-0.212766	54	0.606383
23	-0.202128	55	0.382979
24	-0.265957	56	0.372340
25	-0.180851	57	0.404255
26	-0.010638	58	0.510638
27	-0.180851	59	0.542553
28	-0.170213	60	0.021277
29	-0.159574	61	0.031915
30	-0.159574	62	0.117021
31	-0.404255	63	0.297872
32	-0.138298	64	0.372340

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.180851
2	-0.574468	34	-0.180851
3	-0.510638	35	-0.180851
4	-0.510638	36	-0.212766
5	-0.457447	37	-0.478723
6	-0.382979	38	-0.776596
7	-0.393617	39	-0.117021
8	-0.393617	40	**********
9	-0.361702	41	**********
10	-0.308511	42	-0.127660
11	-0.308511	43	-0.138298
12	-0.361702	44	-0.159574
13	-0.319149	45	-0.212766
14	-0.308511	46	-0.478723
15	-0.297872	47	-0.659574
16	-0.297872	48	0.617021
17	-0.691489	49	0.574468
18	-0.244681	50	0.670213
19	-0.255319	51	0.638298
20	-0.255319	52	0.617021
21	-0.297872	53	0.659574
22	-0.297872	54	0.648936
23	-0.393617	55	0.446808
24	-0.957447	56	0.436170
25	-0.234043	57	0.478723
26	0.0	58	0.574468
27	-0.234043	59	0.574468
28	-0.234043	60	0.042553
29	-0.244681	61	0.063830
30	-0.446808	62	0.159574
31	-0.904255	63	0.340425
32	-0.180851	64	0.404255

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.255319
2	-0.776596	34	-0.297872
3	-0.978723	35	-0.393617
4	-0.702128	36	-0.521277
5	-0.627660	37	-0.744681
6	-0.787234	38	-0.851064
7	-0.563830	39	-0.159574
8	-0.563830	40	**********
9	-0.553191	41	**********
10	-0.723404	42	-0.170213
11	-1.510638	43	-0.244681
12	-0.521277	44	-0.340425
13	-0.468085	45	-0.457447
14	-0.478723	46	-0.648936
15	-0.542553	47	-0.734043
16	-0.893617	48	0.734043
17	-1.414893	49	0.680851
18	-0.382979	50	0.755319
19	-0.393617	51	0.702128
20	-0.404255	52	0.691489
21	-0.446808	53	0.734043
22	-0.553191	54	0.691489
23	-0.914894	55	0.510638
24	-1.191489	56	0.510638
25	-0.319149	57	0.553191
26	0.0	58	0.617021
27	-0.361702	59	0.606383
28	-0.425532	60	0.053191
29	-0.563830	61	0.085106
30	-0.851064	62	0.191489
31	-1.000000	63	0.372340
32	-0.244681	64	0.414894

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.404494
2	-1.022471	34	-0.573034
3	-3.022471	35	-0.696629
4	-0.865169	36	-0.786517
5	-1.213483	37	-0.887640
6	-2.191010	38	-0.910112
7	-0.741573	39	-0.224719
8	-0.865169	40	**********
9	-1.179775	41	**********
10	-1.449438	42	-0.258427
11	-1.561797	43	-0.438202
12	-0.730337	44	-0.573034
13	-0.741573	45	-0.674157
14	-0.966292	46	-0.797753
15	-1.101123	47	-0.820225
16	-1.235954	48	0.853933
17	-1.292134	49	0.786517
18	-0.584270	50	0.865169
19	-0.651685	51	0.797753
20	-0.786517	52	0.797753
21	-0.898876	53	0.820225
22	-0.988764	54	0.764045
23	-1.089888	55	0.595506
24	-1.134831	56	0.606742
25	-0.483146	57	0.640449
26	0.0	58	0.696629
27	-0.696629	59	0.651685
28	-0.808989	60	0.078652
29	-0.898876	61	0.112360
30	-0.988764	62	0.247191
31	-1.011235	63	0.426966
32	-0.370786	64	0.460674

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA= 25 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.521277
2	-1.031915	34	-0.659574
3	-1.053191	35	-0.744681
4	-1.010638	36	-0.797872
5	-1.031915	37	-0.882979
6	-1.031915	38	-0.925532
7	-0.978723	39	-0.297872
8	-1.000000	40	**********
9	-1.021276	41	**********
10	-1.021276	42	-0.340425
11	-1.021276	43	-0.510638
12	-0.957447	44	-0.606383
13	-0.978723	45	-0.691489
14	-1.010638	46	-0.819149
15	-1.021276	47	-0.893617
16	-1.021276	48	0.840425
17	-1.021276	49	0.787234
18	-0.872340	50	0.861702
19	-0.925532	51	0.797872
20	-0.978723	52	0.808511
21	-1.000000	53	0.819149
22	-1.010638	54	0.744681
23	-1.010638	55	0.627660
24	-1.010638	56	0.638298
25	-0.670213	57	0.670213
26	0.0	58	0.702128
27	-0.840425	59	0.627660
28	-0.893617	60	0.106383
29	-0.925532	61	0.148936
30	-0.968085	62	0.287234
31	-0.978723	63	0.446808
32	-0.468085	64	0.446808

COEFFICIENT OF PRESSURE DATA

MODEL 741 BETA=-25 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.063158
2	0.010526	34	-0.042105
3	-0.094737	35	-0.031579
4	0.021053	36	-0.021053
5	-0.021053	37	-0.021053
6	-0.073684	38	-0.021053
7	0.010526	39	-0.042105
8	-0.042105	40	**********
9	-0.073684	41	**********
10	-0.042105	42	-0.084211
11	-0.031579	43	-0.052632
12	-0.063158	44	-0.042105
13	-0.052632	45	-0.031579
14	-0.063158	46	-0.031579
15	-0.042105	47	-0.042105
16	-0.031579	48	-0.031579
17	-0.031579	49	-0.021053
18	-0.031579	50	-0.010526
19	-0.073684	51	-0.136842
20	-0.084211	52	-0.073684
21	-0.042105	53	-0.052632
22	-0.031579	54	-0.042105
23	-0.021053	55	-0.084211
24	-0.021053	56	0.031579
25	-0.021053	57	0.0
26	0.0	58	-0.010526
27	-0.052632	59	-0.010526
28	-0.031579	60	-0.315789
29	-0.021053	61	0.010526
30	-0.021053	62	-0.031579
31	-0.021053	63	-0.031579
32	-0.021053	64	-0.031579

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.148936
2	0.319149	34	-0.053191
3	-0.553191	35	-0.042553
4	0.319149	36	-0.031915
5	-0.074468	37	-0.021277
6	-0.255319	38	-0.010638
7	0.223404	39	-0.106383
8	-0.180851	40	**********
9	-0.0	41	**********
10	-0.223404	42	-0.117021
11	-0.063830	43	-0.063830
12	0.117021	44	-0.053191
13	-0.244681	45	-0.042553
14	-0.244681	46	-0.031915
15	-0.095745	47	-0.031915
16	-0.063830	48	-0.255319
17	-0.042553	49	0.021277
18	0.021277	50	0.010638
19	-0.319149	51	0.170213
20	-0.255319	52	0.085106
21	-0.074468	53	0.053191
22	-0.053191	54	0.042553
23	-0.031915	55	-0.042553
24	-0.021277	56	0.031915
25	-0.074468	57	0.010638
26	-0.276596	58	-0.010638
27	-0.106383	59	-0.010638
28	-0.053191	60	-0.127660
29	-0.042553	61	0.0
30	-0.031915	62	-0.010638
31	-0.021277	63	-0.010638
32	-0.234043	64	-0.021277

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.553191
2	0.127660	34	-0.361702
3	-0.436170	35	-0.255319
4	0.074468	36	-0.191489
5	-0.297234	37	-0.127660
6	-0.255319	38	-0.095745
7	-0.212766	39	-0.946808
8	-0.563830	40	**********
9	-0.053191	41	**********
10	-0.276596	42	-0.904255
11	-0.148936	43	-0.255319
12	-0.414894	44	-0.191489
13	-0.819149	45	-0.138298
14	-0.680851	46	-0.095745
15	-0.255319	47	-0.085106
16	-0.138298	48	0.053191
17	-0.106383	49	0.223404
18	-0.734043	50	0.180851
19	-0.968085	51	0.095745
20	-0.840425	52	0.085106
21	-0.340425	53	0.063830
22	-0.265957	54	0.042553
23	-0.170213	55	-0.074468
24	-0.138298	56	0.106383
25	-1.159574	57	0.074468
26	-1.053191	58	0.042553
27	-0.446808	59	0.042553
28	-0.297872	60	-0.223404
29	-0.223404	61	0.053191
30	-0.148936	62	-0.010638
31	-0.117021	63	-0.021277
32	-1.297872	64	-0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.913978
2	-0.225806	34	-1.107527
3	-0.473118	35	-1.129032
4	-0.419355	36	-0.870968
5	-0.655914	37	-0.322581
6	-0.494624	38	-0.301075
7	-0.978495	39	-0.580645
8	-1.193548	40	**********
9	-0.053763	41	**********
10	-0.817204	42	-0.612903
11	-0.430107	43	-0.688172
12	-1.301075	44	-0.741935
13	-1.795698	45	-0.709677
14	-0.870968	46	-0.430107
15	-0.720430	47	-0.236559
16	-0.548387	48	0.322581
17	-0.440860	49	0.387097
18	-3.258064	50	0.311828
19	-1.763440	51	0.161290
20	-1.000000	52	0.182796
21	-0.752688	53	0.161290
22	-0.731183	54	0.139785
23	-0.591398	55	0.075269
24	-0.290323	56	0.225806
25	-1.612903	57	0.150538
26	-1.763440	58	0.107527
27	-1.838709	59	0.096774
28	-0.881720	60	-0.107527
29	-0.494624	61	0.075269
30	-0.559140	62	0.021505
31	-0.268817	63	-0.010753
32	-0.903226	64	-0.010753

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.819149
2	-0.478723	34	-0.872340
3	-0.574468	35	-0.946808
4	-0.819149	36	-0.968085
5	-0.925532	37	-0.882979
6	-0.712766	38	-0.563830
7	-1.436170	39	-0.617021
8	-1.872340	40	**********
9	-0.0	41	**********
10	-0.861702	42	-0.627660
11	-0.819149	43	-0.670213
12	-3.648935	44	-0.712766
13	-2.234042	45	-0.744681
14	-1.234042	46	-0.723404
15	-0.946808	47	-0.531915
16	-0.914894	48	0.457447
17	-0.638298	49	0.478723
18	-1.787233	50	0.404255
19	-1.904255	51	0.265957
20	-2.031915	52	0.265957
21	-1.914893	53	0.255319
22	-1.425531	54	0.212766
23	-0.659574	55	0.127660
24	-0.680851	56	0.297872
25	-1.159574	57	0.212766
26	-1.170213	58	0.159574
27	-1.255319	59	0.138298
28	-1.329786	60	-0.085106
29	-1.319148	61	0.106383
30	-0.127660	62	0.053191
31	-0.510638	63	0.010638
32	-0.808511	64	0.010638

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.829787
2	-0.712766	34	-0.861702
3	-0.648936	35	-0.904255
4	-1.234042	36	-0.936170
5	-1.180851	37	-0.957447
6	-0.914894	38	-0.882979
7	-2.787233	39	-0.638298
8	-2.276595	40	**********
9	-0.0	41	**********
10	-1.106382	42	-0.659574
11	-1.180851	43	-0.691489
12	-1.989361	44	-0.734043
13	-2.053191	45	-0.776596
14	-2.063829	46	-0.829787
15	-1.904255	47	-0.851064
16	-1.329786	48	0.563830
17	-0.936170	49	0.574468
18	-1.297872	50	0.500000
19	-1.319148	51	0.340425
20	-1.361702	52	0.340425
21	-1.404255	53	0.319149
22	-1.425531	54	0.265957
23	-1.340425	55	0.159574
24	-1.042553	56	0.361702
25	-1.021276	57	0.255319
26	-1.031915	58	0.191489
27	-1.053191	59	0.180851
28	-1.095744	60	-0.095745
29	-1.138297	61	0.106383
30	-1.138297	62	0.063830
31	-1.010638	63	0.021277
32	-0.829787	64	0.021277

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.819149
2	-0.925532	34	-0.840425
3	-0.744681	35	-0.872340
4	-1.553191	36	-0.904255
5	-1.510638	37	-0.936170
6	-0.893617	38	-0.925532
7	-1.914893	39	-0.659574
8	-1.893617	40	**********
9	-0.0	41	**********
10	-1.574468	42	-0.670213
11	-1.351064	43	-0.712766
12	-1.319148	44	-0.744681
13	-1.329786	45	-0.776596
14	-1.361702	46	-0.840425
15	-1.372340	47	-0.829787
16	-1.361702	48	0.670213
17	-1.287233	49	0.680851
18	-1.117021	50	0.606383
19	-1.127659	51	0.404255
20	-1.138297	52	0.393617
21	-1.138297	53	0.382979
22	-1.159574	54	0.308511
23	-1.170213	55	0.170213
24	-1.159574	56	0.425532
25	-0.968085	57	0.308511
26	-0.978723	58	0.244681
27	-0.989362	59	0.223404
28	-1.010638	60	-0.117021
29	-1.031915	61	0.085106
30	-1.053191	62	0.063830
31	-1.042553	63	0.021277
32	-0.808511	64	0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-25 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.806452
2	-1.139785	34	-0.827957
3	-0.806452	35	-0.860215
4	-1.655913	36	-0.892473
5	-1.602150	37	-0.935484
6	-1.010753	38	-0.946237
7	-1.107527	39	-0.677419
8	-1.107527	40	**********
9	0.0	41	**********
10	-1.096774	42	-0.698925
11	-1.096774	43	-0.731183
12	-1.075269	44	-0.763441
13	-1.075269	45	-0.795699
14	-1.075269	46	-0.881720
15	-1.075269	47	-0.881720
16	-1.086021	48	0.795699
17	-1.086021	49	0.774194
18	-1.021505	50	0.709677
19	-1.032258	51	0.451613
20	-1.032258	52	0.440860
21	-1.032258	53	0.430107
22	-1.043011	54	0.344086
23	-1.053763	55	0.150538
24	-1.064516	56	0.505376
25	-0.924731	57	0.365591
26	-0.935484	58	0.290323
27	-0.935484	59	0.258065
28	-0.956989	60	-0.129032
29	-0.967742	61	0.086021
30	-1.000000	62	0.064516
31	-1.010753	63	0.0
32	-0.806452	64	0.021505

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.042553
2	0.244681	34	-0.063830
3	-0.436170	35	-0.053191
4	0.223404	36	-0.042553
5	-0.063830	37	-0.031915
6	-0.223404	38	-0.021277
7	0.159574	39	-0.117021
8	-0.159574	40	**********
9	0.0	41	**********
10	-0.191489	42	-0.127660
11	-0.074468	43	-0.085106
12	0.042553	44	-0.074468
13	-0.223404	45	-0.074468
14	-0.223404	46	-0.063830
15	-0.148936	47	-0.053191
16	-0.074468	48	-0.234043
17	-0.053191	49	0.010638
18	-0.010638	50	-0.010638
19	-0.276596	51	0.117021
20	-0.223404	52	0.053191
21	-0.074468	53	0.021277
22	-0.085106	54	0.010638
23	-0.063830	55	0.021277
24	-0.042553	56	0.021277
25	-0.085106	57	0.0
26	-0.255319	58	-0.010638
27	-0.127660	59	-0.010638
28	-0.063830	60	-0.063830
29	-0.053191	61	-0.031915
30	-0.031915	62	-0.042553
31	-0.021277	63	-0.042553
32	-0.234043	64	-0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.680851
2	0.031915	34	-0.351064
3	-0.382979	35	-0.244681
4	-0.021277	36	-0.180851
5	-0.308511	37	-0.127660
6	-0.276596	38	-0.095745
7	-0.234043	39	-0.808511
8	-0.553191	40	**********
9	-0.063830	41	**********
10	-0.319149	42	-0.968085
11	-0.180851	43	-0.223404
12	-0.468085	44	-0.191489
13	-0.765957	45	-0.159574
14	-0.648936	46	-0.106383
15	-0.287234	47	-0.085106
16	-0.191489	48	0.053191
17	-0.159574	49	0.180851
18	-0.765957	50	0.127660
19	-0.914894	51	0.085106
20	-0.734043	52	0.063830
21	-0.319149	53	0.042553
22	-0.234043	54	0.021277
23	-0.170213	55	0.031915
24	-0.138298	56	0.085106
25	-1.053191	57	0.042553
26	-0.925532	58	0.010638
27	-0.425532	59	0.010638
28	-0.287234	60	-0.117021
29	-0.212766	61	0.0
30	-0.148936	62	-0.031915
31	-0.117021	63	-0.042553
32	-1.319148	64	-0.042553

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.010638
2	-0.276596	34	-1.244680
3	-0.351064	35	-1.180851
4	-0.478723	36	-0.670213
5	-0.617021	37	-0.297872
6	-0.468085	38	-0.308511
7	-1.010638	39	-0.585106
8	-1.170213	40	**********
9	-0.010638	41	**********
10	-0.819149	42	-0.617021
11	-0.351064	43	-0.744681
12	-2.074468	44	-0.808511
13	-1.521276	45	-0.734043
14	-0.797872	46	-0.297872
15	-0.691489	47	-0.244681
16	-0.553191	48	0.287234
17	-0.489362	49	0.351064
18	-3.159574	50	0.276596
19	-2.372340	51	0.180851
20	-0.819149	52	0.180851
21	-0.627660	53	0.159574
22	-0.595745	54	0.127660
23	-0.595745	55	0.148936
24	-0.297872	56	0.212766
25	-1.755319	57	0.148936
26	-1.957446	58	0.095745
27	-1.957446	59	0.085106
28	-0.038298	60	0.0
29	-0.436170	61	0.053191
30	-0.521277	62	0.021277
31	-0.265957	63	-0.010638
32	-0.957447	64	-0.010638

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.893617
2	-0.468085	34	-1.010638
3	-0.446808	35	-1.106382
4	-0.808511	36	-1.095744
5	-0.797872	37	-0.787234
6	-0.595745	38	-0.436170
7	-1.106382	39	-0.617021
8	-1.648935	40	**********
9	-0.0	41	**********
10	-0.808511	42	-0.627660
11	-0.670213	43	-0.702128
12	-3.893617	44	-0.797872
13	-2.659574	45	-0.829787
14	-0.989362	46	-0.723404
15	-0.787234	47	-0.382979
16	-0.819149	48	0.414894
17	-0.691489	49	0.446808
18	-2.138297	50	0.382979
19	-2.351064	51	0.297872
20	-2.414893	52	0.276596
21	-1.925531	53	0.265957
22	-0.893617	54	0.212766
23	-0.638298	55	0.212766
24	-0.744681	56	0.287234
25	-1.255319	57	0.212766
26	-1.308510	58	0.159574
27	-1.500000	59	0.138298
28	-1.563829	60	0.053191
29	-1.414893	61	0.095745
30	-0.638298	62	0.053191
31	-0.563830	63	0.021277
32	-0.872340	64	0.010638

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.851064
2	-0.670213	34	-0.904255
3	-0.521277	35	-0.957447
4	-1.180851	36	-0.989362
5	-1.053191	37	-0.978723
6	-0.851064	38	-0.936170
7	-3.723404	39	-0.670213
8	-1.819148	40	**********
9	0.0	41	**********
10	-0.989362	42	-0.680851
11	-1.106382	43	-0.723404
12	-2.202127	44	-0.776596
13	-2.319148	45	-0.829787
14	-2.255319	46	-0.840425
15	-1.957446	47	-0.702128
16	-1.010638	48	0.521277
17	-1.095744	49	0.553191
18	-1.361702	50	0.489362
19	-1.404255	51	0.382979
20	-1.489361	52	0.351064
21	-1.563829	53	0.340425
22	-1.553191	54	0.276596
23	-1.308510	55	0.255319
24	-0.851064	56	0.361702
25	-1.031915	57	0.276596
26	-1.042553	58	0.202128
27	-1.106382	59	0.180851
28	-1.170213	60	0.053191
29	-1.202127	61	0.117021
30	-1.148935	62	0.085106
31	-0.893617	63	0.031915
32	-0.840425	64	0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.840425
2	-0.882979	34	-0.872340
3	-0.595745	35	-0.893617
4	-1.393617	36	-0.914894
5	-1.308510	37	-0.936170
6	-0.776596	38	-0.914894
7	-1.925531	39	-0.691489
8	-1.968084	40	**********
9	-0.010638	41	**********
10	-1.585106	42	-0.702128
11	-1.276595	43	-0.734043
12	-1.329786	44	-0.765957
13	-1.361702	45	-0.787234
14	-1.436170	46	-0.840425
15	-1.436170	47	-0.787234
16	-1.382978	48	0.638298
17	-1.234042	49	0.659574
18	-1.085106	50	0.585106
19	-1.095744	51	0.446808
20	-1.117021	52	0.414894
21	-1.148935	53	0.393617
22	-1.159574	54	0.340425
23	-1.159574	55	0.276596
24	-1.106382	56	0.425532
25	-0.968085	57	0.329787
26	-0.978723	58	0.244681
27	-0.989362	59	0.223404
28	-1.010638	60	0.010638
29	-1.031915	61	0.085106
30	-1.042553	62	0.074468
31	-1.021276	63	0.031915
32	-0.840425	64	0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-20 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.840425
2	-1.042553	34	-0.872340
3	-0.638298	35	-0.904255
4	-1.691489	36	-0.936170
5	-1.382978	37	-0.978723
6	-0.936170	38	-0.957447
7	-1.202127	39	-0.712766
8	-1.212766	40	**********
9	-0.0	41	**********
10	-1.212766	42	-0.734043
11	-1.180851	43	-0.765957
12	-1.074468	44	-0.808511
13	-1.085106	45	-0.861702
14	-1.085106	46	-0.936170
15	-1.085106	47	-0.893617
16	-1.095744	48	0.755319
17	-1.095744	49	0.755319
18	-1.010638	50	0.680851
19	-1.021276	51	0.500000
20	-1.021276	52	0.478723
21	-1.031915	53	0.457447
22	-1.042553	54	0.372340
23	-1.053191	55	0.276596
24	-1.063829	56	0.489362
25	-0.936170	57	0.372340
26	-0.946808	58	0.287234
27	-0.957447	59	0.255319
28	-0.968085	60	0.021277
29	-0.989362	61	0.095745
30	-1.021276	62	0.074468
31	-1.010638	63	0.031915
32	-0.829787	64	0.042553

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.115789
2	0.231579	34	-0.052632
3	-0.263158	35	-0.052632
4	0.210526	36	-0.042105
5	-0.021053	37	-0.031579
6	-0.136842	38	-0.031579
7	0.147368	39	-0.115789
8	-0.094737	40	**********
9	-0.010526	41	**********
10	-0.126316	42	-0.105263
11	-0.042105	43	-0.084211
12	0.063158	44	-0.073684
13	-0.147368	45	-0.063158
14	-0.147368	46	-0.063158
15	-0.115789	47	-0.052632
16	-0.042105	48	-0.221053
17	-0.031579	49	-0.042105
18	0.0	50	0.094737
19	-0.210526	51	0.021053
20	-0.168421	52	0.010526
21	-0.063158	53	-0.021053
22	-0.052632	54	0.021053
23	-0.042105	55	0.010526
24	-0.031579	56	-0.010526
25	-0.073684	57	-0.031579
26	-0.200000	58	-0.031579
27	-0.115789	59	-0.021053
28	-0.052632	60	-0.042105
29	-0.042105	61	-0.042105
30	-0.031579	62	-0.042105
31	-0.031579	63	-0.042105
32	-0.178947	64	-0.052632

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.510638
2	0.010638	34	-0.319149
3	-0.265957	35	-0.223404
4	-0.031915	36	-0.170213
5	-0.265957	37	-0.117021
6	-0.223404	38	-0.095745
7	-0.223404	39	-0.787234
8	-0.478723	40	**********
9	-0.0	41	**********
10	-0.255319	42	-1.042553
11	-0.138298	43	-0.191489
12	-0.457447	44	-0.170213
13	-0.670213	45	-0.148936
14	-0.563830	46	-0.095745
15	-0.244681	47	-0.085106
16	-0.159574	48	0.042553
17	-0.127660	49	0.148936
18	-0.712766	50	0.117021
19	-0.819149	51	0.095745
20	-0.489362	52	0.074468
21	-0.287234	53	0.042553
22	-0.212766	54	0.031915
23	-0.148936	55	0.074468
24	-0.127660	56	0.074468
25	-0.882979	57	0.053191
26	-0.787234	58	0.021277
27	-0.372340	59	0.010638
28	-0.255319	60	-0.010638
29	-0.191489	61	-0.010638
30	-0.127660	62	-0.021277
31	-0.117021	63	-0.031915
32	-1.765957	64	-0.042553

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.095744
2	-0.276596	34	-1.382978
3	-0.297872	35	-1.127659
4	-0.478723	36	-0.489362
5	-0.542553	37	-0.287234
6	-0.382979	38	-0.297872
7	-0.946808	39	-0.595745
8	-1.074468	40	**********
9	0.0	41	**********
10	-0.680851	42	-0.670213
11	-0.276596	43	-0.851064
12	-2.776595	44	-0.872340
13	-1.117021	45	-0.659574
14	-0.659574	46	-0.234043
15	-0.595745	47	-0.244681
16	-0.563830	48	0.276596
17	-0.319149	49	0.319149
18	-2.819148	50	0.276596
19	-3.255319	51	0.223404
20	-0.595745	52	0.191489
21	-0.439362	53	0.170213
22	-0.478723	54	0.127660
23	-0.574468	55	0.202128
24	-0.297872	56	0.212766
25	-1.744680	57	0.159574
26	-2.010633	58	0.117021
27	-1.765957	59	0.085106
28	-0.563830	60	0.074468
29	-0.414894	61	0.053191
30	-0.425532	62	0.031915
31	-0.287234	63	0.0
32	-1.021276	64	-0.021277

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.042553
2	-0.436170	34	-1.202127
3	-0.351064	35	-1.255319
4	-0.787234	36	-1.148935
5	-0.691489	37	-0.563830
6	-0.468085	38	-0.457447
7	-1.478723	39	-0.617021
8	-1.382978	40	**********
9	-0.0	41	**********
10	-0.723404	42	-0.670213
11	-0.680851	43	-0.787234
12	-3.829786	44	-0.893617
13	-3.276595	45	-0.893617
14	-0.808511	46	-0.563830
15	-0.627660	47	-0.297872
16	-0.702128	48	0.382979
17	-0.638298	49	0.414894
18	-2.351064	50	0.372340
19	-2.776595	51	0.319149
20	-2.670213	52	0.287234
21	-1.255319	53	0.255319
22	-0.723404	54	0.202128
23	-0.606383	55	0.276596
24	-0.670213	56	0.287234
25	-1.457446	57	0.223404
26	-1.553191	58	0.159574
27	-1.819148	59	0.138298
28	-1.712766	60	0.106383
29	-1.191489	61	0.085106
30	-0.521277	62	0.063830
31	-0.606383	63	0.021277
32	-0.968085	64	0.010638

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.968085
2	-0.627660	34	-1.106382
3	-0.436170	35	-1.180851
4	-1.117021	36	-1.191489
5	-0.936170	37	-1.000000
6	-0.585106	38	-0.585106
7	-4.595744	39	-0.691489
8	-1.234042	40	**********
9	~~-0.0~~	41	**********
10	-0.819149	42	-0.712766
11	-0.904255	43	-0.787234
12	-3.000000	44	-0.893617
13	-3.351064	45	-0.957447
14	-2.106382	46	-0.861702
15	-1.127659	47	-0.489362
16	-0.819149	48	0.500000
17	-1.095744	49	0.521277
18	-1.861702	50	0.478723
19	-2.010638	51	0.414894
20	-2.180851	52	0.382979
21	-2.138297	53	0.351064
22	-1.882978	54	0.287234
23	-0.914894	55	0.340425
24	-0.829787	56	0.372340
25	-1.276595	57	0.297872
26	-1.351064	58	0.234043
27	-1.489361	59	0.202128
28	-1.553191	60	0.159574
29	-1.510638	61	0.138298
30	-1.053191	62	0.117021
31	-0.744681	63	0.063830
32	-0.946808	64	0.053191

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.842105
2	-0.821053	34	-0.873684
3	-0.484210	35	-0.905263
4	-1.105263	36	-0.926316
5	-1.063157	37	-0.926316
6	-0.684210	38	-0.852632
7	-2.336842	39	-0.705263
8	-2.347368	40	**********
9	-0.0	41	**********
10	-1.252631	42	-0.715789
11	-1.073684	43	-0.747368
12	-1.526316	44	-0.778947
13	-1.599999	45	-0.810526
14	-1.694736	46	-0.831579
15	-1.642105	47	-0.736842
16	-1.452631	48	0.610526
17	-1.052631	49	0.631579
18	-1.136842	50	0.578947
19	-1.168421	51	0.484210
20	-1.231579	52	0.442105
21	-1.252631	53	0.421053
22	-1.263158	54	0.347368
23	-1.200000	55	0.357895
24	-1.031578	56	0.431579
25	-0.947368	57	0.347368
26	-0.968421	58	0.273684
27	-1.010526	59	0.242105
28	-1.052631	60	0.115789
29	-1.063157	61	0.126316
30	-1.031578	62	0.115789
31	-0.936842	63	0.073684
32	-0.831579	64	0.073684

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-15 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.904255
2	-0.978723	34	-0.925532
3	-0.585106	35	-0.957447
4	-2.265957	36	-0.978723
5	-1.308510	37	-0.989362
6	-0.808511	38	-0.946808
7	-1.574468	39	-0.563830
8	-1.606382	40	**********
9	0.0	41	**********
10	-1.553191	42	-0.776596
11	-1.414893	43	-0.819149
12	-1.287233	44	-0.851064
13	-1.319148	45	-0.893617
14	-1.372340	46	-0.936170
15	-1.361702	47	-0.861702
16	-1.319148	48	0.734043
17	-1.223404	49	0.744681
18	-1.095744	50	0.680851
19	-1.106382	51	0.563830
20	-1.127659	52	0.521277
21	-1.148935	53	0.500000
22	-1.159574	54	0.414894
23	-1.159574	55	0.404255
24	-1.117021	56	0.510638
25	-0.989362	57	0.404255
26	-1.000000	58	0.329787
27	-1.010638	59	0.297872
28	-1.031915	60	0.138298
29	-1.042553	61	0.148936
30	-1.042553	62	0.127660
31	-1.021276	63	0.063830
32	-0.904255	64	0.063830

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.084211
2	0.200000	34	-0.031579
3	-0.094737	35	-0.031579
4	0.168421	36	-0.021053
5	0.010526	37	-0.021053
6	-0.063158	38	-0.010526
7	0.115789	39	-0.084211
8	-0.052632	40	**********
9	0.0	41	**********
10	-0.084211	42	-0.084211
11	-0.010526	43	-0.063158
12	0.063158	44	-0.052632
13	-0.094737	45	-0.052632
14	-0.094737	46	-0.042105
15	-0.073684	47	-0.031579
16	-0.021053	48	-0.200000
17	-0.010526	49	-0.021053
18	0.010526	50	-0.094737
19	-0.136842	51	0.094737
20	-0.115789	52	0.010526
21	-0.031579	53	-0.031579
22	-0.021053	54	-0.042105
23	-0.010526	55	0.010526
24	-0.010526	56	0.0
25	-0.031579	57	-0.010526
26	-0.126316	58	-0.031579
27	-0.052632	59	-0.021053
28	-0.031579	60	-0.031579
29	-0.021053	61	-0.031579
30	-0.010526	62	-0.042105
31	-0.010526	63	-0.031579
32	-0.115789	64	-0.021053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.494737
2	0.0	34	-0.252632
3	-0.157895	35	-0.231579
4	-0.063158	36	-0.157895
5	-0.221053	37	-0.105263
6	-0.189474	38	-0.094737
7	-0.231579	39	-0.694737
8	-0.410526	40	**********
9	-0.0	41	**********
10	-0.178947	42	-1.084210
11	-0.115789	43	-0.136842
12	-0.442105	44	-0.147368
13	-0.578947	45	-0.157895
14	-0.431579	46	-0.094737
15	-0.200000	47	-0.073684
16	-0.136842	48	0.042105
17	-0.115789	49	0.136842
18	-0.600000	50	0.105263
19	-0.673684	51	0.126316
20	-0.400000	52	0.094737
21	-0.252632	53	0.073684
22	-0.189474	54	0.063158
23	-0.136842	55	0.084211
24	-0.115789	56	0.084211
25	-0.873684	57	0.063158
26	-0.631579	58	0.042105
27	-0.336842	59	0.031579
28	-0.242105	60	0.0
29	-0.178947	61	-0.010526
30	-0.115789	62	-0.010526
31	-0.105263	63	-0.010526
32	-1.473683	64	-0.021053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.136842
2	-0.252632	34	-1.484210
3	-0.221053	35	-0.852632
4	-0.463158	36	-0.400000
5	-0.452632	37	-0.273684
6	-0.284211	38	-0.200000
7	-0.694737	39	-0.631579
8	-0.936842	40	**********
9	-0.0	41	**********
10	-0.463158	42	-0.684210
11	-0.252632	43	-0.968421
12	-2.757895	44	-0.863158
13	-0.947368	45	-0.473684
14	-0.526316	46	-0.210526
15	-0.473684	47	-0.147368
16	-0.557895	48	0.252632
17	-0.231579	49	0.305263
18	-2.378947	50	0.263158
19	-3.536841	51	0.273684
20	-0.473684	52	0.221053
21	-0.410526	53	0.189474
22	-0.378947	54	0.157895
23	-0.557895	55	0.231579
24	-0.252632	56	0.210526
25	-1.663157	57	0.178947
26	-1.384210	58	0.126316
27	-1.505262	59	0.105263
28	-0.368421	60	0.084211
29	-0.326316	61	0.052632
30	-0.368421	62	0.042105
31	-0.231579	63	0.021053
32	-1.115789	64	0.0

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.126315
2	-0.400000	34	-1.442104
3	-0.273684	35	-1.389473
4	-0.757895	36	-0.989474
5	-0.610526	37	-0.421053
6	-0.305263	38	-0.389474
7	-2.821053	39	-0.673684
8	-1.084210	40	**********
9	0.0	41	**********
10	-0.600000	42	-0.726316
11	-0.484210	43	-0.957895
12	-3.526316	44	-1.052631
13	-3.799999	45	-0.884210
14	-0.642105	46	-0.357895
15	-0.526316	47	-0.231579
16	-0.600000	48	0.357895
17	-0.347368	49	0.410526
18	-2.463158	50	0.368421
19	-3.726315	51	0.368421
20	-2.568420	52	0.315789
21	-0.642105	53	0.284211
22	-0.526316	54	0.231579
23	-0.515789	55	0.315789
24	-0.431579	56	0.294737
25	-1.642105	57	0.252632
26	-1.705263	58	0.189474
27	-2.126315	59	0.168421
28	-1.526316	60	0.126316
29	-0.810526	61	0.094737
30	-0.484210	62	0.084211
31	-0.463158	63	0.042105
32	-1.094736	64	0.031579

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.225351
2	-0.591549	34	-1.436619
3	-0.366197	35	-1.507042
4	-0.971831	36	-1.352112
5	-0.788732	37	-0.718310
6	-0.507042	38	-0.507042
7	-4.901408	39	-0.732394
8	-0.816901	40	**********
9	-0.014085	41	**********
10	-0.676056	42	-0.774648
11	-0.718310	43	-0.985915
12	-3.690141	44	-1.126760
13	-5.436619	45	-1.098591
14	-0.859155	46	-0.619718
15	-0.718310	47	-0.366197
16	-0.676056	48	0.464789
17	-0.859155	49	0.507042
18	-2.380281	50	0.478873
19	-2.760563	51	0.464789
20	-2.915492	52	0.408451
21	-2.211267	53	0.366197
22	-1.295774	54	0.309859
23	-0.774648	55	0.394366
24	-0.816901	56	0.380282
25	-1.619718	57	0.323944
26	-1.704225	58	0.253521
27	-2.014084	59	0.225352
28	-1.929577	60	0.183099
29	-1.549295	61	0.154930
30	-0.746479	62	0.140845
31	-0.676056	63	0.084507
32	-1.169014	64	0.070423

Note: This run was made at q = 30 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.126760
2	-0.774648	34	-1.267605
3	-0.436620	35	-1.338028
4	-0.732394	36	-1.323943
5	-0.943662	37	-1.056337
6	-0.633803	38	-0.633803
7	-5.295774	39	-0.774648
8	-2.690141	40	**********
9	-0.014085	41	**********
10	-0.788732	42	-0.788732
11	-0.802817	43	-0.915493
12	-2.859155	44	-1.056337
13	-3.183098	45	-1.098591
14	-2.816901	46	-0.887324
15	-1.971830	47	-0.450704
16	-1.112676	48	0.591549
17	-1.000000	49	0.619718
18	-1.943662	50	0.577465
19	-2.098591	51	0.549296
20	-2.225351	52	0.492958
21	-2.154929	53	0.450704
22	-1.971830	54	0.366197
23	-1.211267	55	0.464789
24	-0.929577	56	0.464789
25	-1.436619	57	0.394366
26	-1.521127	58	0.309859
27	-1.661971	59	0.267606
28	-1.676056	60	0.225352
29	-1.619718	61	0.211268
30	-1.183098	62	0.183099
31	-0.774648	63	0.112676
32	-1.084507	64	0.098592

Note: This run was made at q = 30 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.916667
2	-0.958333	34	-0.979167
3	-0.489583	35	-1.020833
4	-2.177083	36	-1.031250
5	-1.031250	37	-0.968750
6	-0.718750	38	-0.614583
7	-2.218750	39	-0.562500
8	-2.302083	40	**********
9	0.0	41	**********
10	-1.583333	42	-0.781250
11	-1.239583	43	-0.833333
12	-1.531250	44	-0.885417
13	-1.625000	45	-0.916667
14	-1.687500	46	-0.885417
15	-1.614583	47	-0.677083
16	-1.427083	48	0.708333
17	-1.125000	49	0.729167
18	-1.218750	50	0.687500
19	-1.260416	51	0.604167
20	-1.312500	52	0.552083
21	-1.333333	53	0.520833
22	-1.333333	54	0.427083
23	-1.197916	55	0.500000
24	-1.072916	56	0.531250
25	-1.052083	57	0.447917
26	-1.072916	58	0.364583
27	-1.125000	59	0.322917
28	-1.145833	60	0.208333
29	-1.145833	61	0.197917
30	-1.083333	62	0.187500
31	-0.937500	63	0.125000
32	-0.906250	64	0.114583

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.231579
2	-0.589474	34	-1.442104
3	-0.347368	35	-1.515789
4	-0.978947	36	-1.368421
5	-0.789474	37	-0.726316
6	-0.505263	38	-0.515789
7	~~0.0~~	39	-0.736842
8	-0.810526	40	**********
9	~~0.0~~	41	**********
10	-0.663158	42	-0.789474
11	-0.726316	43	-0.989474
12	-3.610526	44	-1.136842
13	~~0.0~~	45	-1.105263
14	-0.852632	46	-0.631579
15	-0.705263	47	-0.294737
16	-0.663158	48	0.473684
17	-0.852632	49	0.515789
18	-2.357894	50	0.473684
19	-2.684210	51	0.452632
20	-2.884210	52	0.400000
21	-2.252631	53	0.368421
22	-1.336842	54	0.305263
23	-0.778947	55	0.400000
24	-0.810526	56	0.378947
25	-1.621052	57	0.326316
26	-1.705263	58	0.252632
27	-2.000000	59	0.221053
28	-1.936842	60	0.189474
29	-1.568420	61	0.147368
30	-0.757895	62	0.126316
31	-0.673684	63	0.073684
32	-1.157894	64	0.115789

Note: Tube #7, 13 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=-10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.094736
2	-0.768421	34	-1.231579
3	-0.431579	35	-1.305263
4	-0.736842	36	-1.294736
5	-0.947368	37	-1.052631
6	-0.631579	38	-0.652632
7	~~0.0~~	39	-0.757895
8	-3.021052	40	**********
9	~~0.0~~	41	**********
10	-0.789474	42	-0.789474
11	-0.800000	43	-0.905263
12	-2.684210	44	-1.031578
13	~~0.010526~~	45	-1.084210
14	-2.747368	46	-0.894737
15	-2.052631	47	-0.473684
16	-1.136842	48	0.589474
17	-1.000000	49	0.621053
18	-1.842105	50	0.578947
19	-2.000000	51	0.547368
20	-2.105263	52	0.484210
21	-2.063157	53	0.452632
22	-1.915789	54	0.368421
23	-1.252631	55	0.463158
24	-0.926316	56	0.463158
25	-1.389473	57	0.389474
26	-1.463158	58	0.305263
27	-1.589473	59	0.273684
28	-1.621052	60	0.221053
29	-1.568420	61	0.200000
30	-1.189473	62	0.178947
31	-0.789474	63	0.115789
32	-1.052631	64	0.094737

Note: Tube # 7, 13 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.052083
2	0.093750	34	-0.031250
3	0.104167	35	-0.031250
4	0.062500	36	-0.031250
5	0.010417	37	-0.031250
6	-0.010417	38	-0.020833
7	0.041667	39	-0.072917
8	-0.020833	40	**********
9	0.0	41	**********
10	-0.031250	42	-0.062500
11	-0.020833	43	-0.062500
12	0.010417	44	-0.062500
13	-0.041667	45	-0.062500
14	-0.052083	46	-0.052083
15	-0.041667	47	-0.041667
16	-0.020833	48	-0.208333
17	-0.020833	49	-0.062500
18	-0.010417	50	-0.406250
19	-0.072917	51	0.135417
20	-0.062500	52	-0.114583
21	-0.031250	53	-0.072917
22	-0.031250	54	-0.010417
23	-0.020833	55	0.020833
24	-0.020833	56	0.031250
25	-0.031250	57	-0.166667
26	-0.072917	58	-0.020833
27	-0.041667	59	-0.041667
28	-0.031250	60	-0.041667
29	-0.031250	61	-0.052083
30	-0.020833	62	-0.031250
31	-0.020833	63	-0.031250
32	-0.072917	64	-0.020833

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.189473
2	-0.031579	34	-0.147368
3	-0.042105	35	-0.136842
4	-0.084211	36	-0.136842
5	-0.147368	37	-0.094737
6	-0.136842	38	-0.084211
7	-0.221053	39	-0.536842
8	-0.284211	40	**********
9	-0.0	41	**********
10	-0.105263	42	-0.705263
11	-0.115789	43	-0.126316
12	-0.284211	44	-0.115789
13	-0.389474	45	-0.126316
14	-0.221053	46	-0.094737
15	-0.178947	47	-0.084211
16	-0.115789	48	0.042105
17	-0.105263	49	0.136842
18	-0.873684	50	0.063158
19	-0.357895	51	0.221053
20	-0.263158	52	0.168421
21	-0.189474	53	0.115789
22	-0.157895	54	0.126316
23	-0.115789	55	0.094737
24	-0.105263	56	0.094737
25	-0.926316	57	0.105263
26	-0.705263	58	0.094737
27	-0.200000	59	0.094737
28	-0.168421	60	-0.010526
29	-0.157895	61	-0.010526
30	-0.105263	62	0.010526
31	-0.094737	63	0.052632
32	-0.736842	64	0.042105

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.916667
2	-0.218750	34	-1.229166
3	-0.156250	35	-0.562500
4	-0.437500	36	-0.343750
5	-0.354167	37	-0.229167
6	-0.218750	38	-0.218750
7	-0.489583	39	-0.447917
8	-0.604167	40	**********
9	-0.0	41	**********
10	-0.343750	42	-0.468750
11	-0.229167	43	-0.927083
12	-2.416666	44	-0.541667
13	-1.489583	45	-0.291667
14	-0.395833	46	-0.166667
15	-0.333333	47	-0.156250
16	-0.343750	48	0.208333
17	-0.239583	49	0.291667
18	-1.687500	50	0.270833
19	-2.739583	51	0.354167
20	-0.677083	52	0.291667
21	-0.375000	53	0.270833
22	-0.343750	54	0.239583
23	-0.302083	55	0.239583
24	-0.270833	56	0.239583
25	-1.291666	57	0.229167
26	-1.520833	58	0.197917
27	-1.145833	59	0.177083
28	-0.666667	60	0.052083
29	-0.364583	61	0.052083
30	-0.270833	62	0.052083
31	-0.208333	63	0.072917
32	-0.906250	64	0.052083

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.978947
2	-0.368421	34	-1.536841
3	-0.210526	35	-1.073684
4	-0.557895	36	-0.621053
5	-0.463158	37	-0.368421
6	-0.336842	38	-0.326316
7	-3.442104	39	-0.484210
8	-0.515789	40	**********
9	-0.010526	41	**********
10	-0.452632	42	-0.515789
11	-0.326316	43	-0.968421
12	-2.621052	44	-0.842105
13	-3.484210	45	-0.494737
14	-0.536842	46	-0.252632
15	-0.484210	47	-0.200000
16	-0.505263	48	0.326316
17	-0.368421	49	0.389474
18	-1.968421	50	0.368421
19	-2.842105	51	0.442105
20	-1.884210	52	0.378947
21	-0.800000	53	0.336842
22	-0.589474	54	0.305263
23	-0.526316	55	0.326316
24	-0.431579	56	0.326316
25	-1.410526	57	0.305263
26	-1.463158	58	0.252632
27	-1.915789	59	0.221053
28	-1.063157	60	0.094737
29	-0.673684	61	0.094737
30	-0.421053	62	0.094737
31	-0.400000	63	0.094737
32	-0.968421	64	0.063158

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.065933
2	-0.472527	34	-1.648351
3	-0.307692	35	-1.450549
4	-0.505494	36	-0.956044
5	-0.560440	37	-0.505494
6	-0.417582	38	-0.428571
7	-4.373626	39	-0.637363
8	-1.186812	40	**********
9	0.0	41	**********
10	-0.527472	42	-0.637363
11	-0.472527	43	-0.978022
12	-2.780219	44	-0.989011
13	-4.626373	45	-0.681319
14	-0.989011	46	-0.318681
15	-0.736264	47	-0.230769
16	-0.659341	48	0.439560
17	-0.560440	49	0.494505
18	-2.142857	50	0.472527
19	-2.340659	51	0.527472
20	-2.846153	52	0.461538
21	-1.571428	53	0.417582
22	-1.010988	54	0.362637
23	-0.714286	55	0.417582
24	-0.637363	56	0.406593
25	-1.560439	57	0.384615
26	-1.582417	58	0.318681
27	-2.252747	59	0.274725
28	-1.670329	60	0.153846
29	-1.054945	61	0.142857
30	-0.637363	62	0.142857
31	-0.560440	63	0.109890
32	-1.043956	64	0.087912

Note: This run was made at q = 38 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.115789
2	-0.547368	34	-1.610526
3	-0.389474	35	-1.547368
4	-2.705263	36	-1.147367
5	-0.694737	37	-0.621053
6	-0.515789	38	-0.505263
7	-4.294736	39	-0.610526
8	-3.568420	40	**********
9	-0.010526	41	**********
10	-0.705263	42	-0.610526
11	-0.642105	43	-0.936842
12	-3.126315	44	-1.010526
13	-4.115789	45	-0.800000
14	-2.000000	46	-0.389474
15	-1.200000	47	-0.263158
16	-0.915789	48	0.578947
17	-0.821053	49	0.621053
18	-2.294736	50	0.600000
19	-2.336842	51	0.631579
20	-3.242105	52	0.568421
21	-2.284210	53	0.526316
22	-1.473683	54	0.442105
23	-0.915789	55	0.526316
24	-0.821053	56	0.515789
25	-1.557895	57	0.473684
26	-1.578947	58	0.400000
27	-2.231579	59	0.357895
28	-1.957894	60	0.231579
29	-1.357894	61	0.210526
30	-0.757895	62	0.200000
31	-0.642105	63	0.157895
32	-1.105263	64	0.126316

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.166666
2	-0.555556	34	-1.486111
3	-0.444444	35	-1.486111
4	-4.805555	36	-1.222221
5	-0.722222	37	-0.722222
6	-0.583333	38	-0.569444
7	-4.138888	39	-0.611111
8	-5.666666	40	**********
9	-0.0	41	**********
10	-0.888889	42	-0.611111
11	-0.819444	43	-0.902778
12	-3.000000	44	-0.986111
13	-3.055555	45	-0.833333
14	-2.833333	46	-0.430556
15	-1.666666	47	-0.291667
16	-1.097221	48	0.694444
17	-1.000000	49	0.722222
18	-2.055555	50	0.708333
19	-2.097221	51	0.722222
20	-2.736111	52	0.652778
21	-2.291666	53	0.625000
22	-1.708333	54	0.541667
23	-1.097221	55	0.611111
24	-0.986111	56	0.583333
25	-1.555555	57	0.541667
26	-1.597221	58	0.458333
27	-1.972221	59	0.416667
28	-1.847221	60	0.291667
29	-1.500000	61	0.263889
30	-0.930556	62	0.250000
31	-0.777778	63	0.194444
32	-1.166666	64	0.166667

Note: This run was made at q = 30 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.063157
2	-0.473684	34	-1.652631
3	-0.305263	35	-1.463158
4	-0.536842	36	-0.968421
5	-0.568421	37	-0.505263
6	-0.421053	38	-0.421053
7	~~0.0~~	39	-0.642105
8	-1.252631	40	**********
9	~~0.0~~	41	**********
10	-0.526316	42	-0.642105
11	-0.473684	43	-0.968421
12	-2.789474	44	-0.989474
13	~~0.0~~	45	-0.684210
14	-1.021052	46	-0.305263
15	-0.757895	47	-0.221053
16	-0.663158	48	0.463158
17	-0.568421	49	0.515789
18	-2.157894	50	0.494737
19	-2.347368	51	0.547368
20	-2.894736	52	0.473684
21	-1.610526	53	0.442105
22	-1.021052	54	0.378947
23	-0.715789	55	0.431579
24	-0.642105	56	0.421053
25	-1.568420	57	0.400000
26	-1.578947	58	0.326316
27	-2.263158	59	0.284211
28	-1.694736	60	0.178947
29	-1.073684	61	0.157895
30	-0.631579	62	0.147368
31	-0.557895	63	0.126316
32	-1.042105	64	0.094737

Note: Tube #1,13 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA= 0 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.135416
2	-0.541667	34	-1.447916
3	-0.437500	35	-1.447916
4	~~-0.010417~~	36	-1.208333
5	-0.708333	37	-0.708333
6	-0.583333	38	-0.562500
7	-3.968750	39	-0.604167
8	~~-0.0~~	40	**********
9	~~-0.0~~	41	**********
10	-0.885417	42	-0.625000
11	-0.822917	43	-0.895833
12	-2.864583	44	-0.979167
13	-2.937500	45	-0.833333
14	-2.822916	46	-0.437500
15	-1.677083	47	-0.291667
16	-1.093750	48	0.687500
17	-1.000000	49	0.718750
18	-2.000000	50	0.697917
19	-2.041666	51	0.718750
20	-2.635416	52	0.645833
21	-2.260416	53	0.614583
22	-1.708333	54	0.531250
23	-1.104166	55	0.604167
24	-0.979167	56	0.583333
25	-1.541666	57	0.541667
26	-1.562500	58	0.458333
27	-1.916666	59	0.406250
28	-1.812500	60	0.291667
29	-1.468750	61	0.260417
30	-0.916667	62	0.250000
31	-0.760417	63	0.187500
32	-1.135416	64	0.156250

Note: Tube #4, 8 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.020833
2	0.0	34	-0.020833
3	-0.135417	35	-0.020833
4	-0.010417	36	-0.020833
5	-0.010417	37	-0.020833
6	-0.093750	38	-0.020833
7	-0.010417	39	-0.041667
8	-0.010417	40	**********
9	0.0	41	**********
10	-0.031250	42	-0.062500
11	-0.031250	43	-0.062500
12	-0.031250	44	-0.062500
13	-0.031250	45	-0.062500
14	-0.031250	46	-0.062500
15	-0.031250	47	0.260417
16	-0.031250	48	-0.270833
17	-0.031250	49	-0.177083
18	-0.031250	50	-0.833333
19	-0.031250	51	0.135417
20	-0.031250	52	-0.333333
21	-0.031250	53	-0.062500
22	-0.031250	54	-0.052083
23	-0.031250	55	0.020833
24	-0.031250	56	-0.135417
25	-0.031250	57	0.010417
26	-0.031250	58	-0.218750
27	-0.031250	59	-0.125000
28	-0.020833	60	-0.093750
29	-0.020833	61	-0.031250
30	-0.020833	62	-0.093750
31	-0.020833	63	-0.031250
32	-0.031250	64	-0.010417

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.458333
2	-0.072917	34	-0.145833
3	-0.187500	35	-0.114583
4	-0.093750	36	-0.093750
5	-0.125000	37	-0.093750
6	-0.197917	38	-0.093750
7	-0.166667	39	-0.250000
8	-0.187500	40	**********
9	-0.0	41	**********
10	-0.125000	42	-0.364583
11	-0.125000	43	-0.156250
12	-0.604167	44	-0.125000
13	-0.187500	45	-0.104167
14	-0.145833	46	-0.093750
15	-0.125000	47	-0.093750
16	-0.114583	48	0.020833
17	-0.125000	49	0.125000
18	-0.520833	50	-0.260417
19	-0.260417	51	0.312500
20	-0.156250	52	0.177083
21	-0.125000	53	0.218750
22	-0.114583	54	0.208333
23	-0.104167	55	0.114583
24	-0.114583	56	0.114583
25	-0.427083	57	0.145833
26	-0.468750	58	0.187500
27	-0.145833	59	0.187500
28	-0.125000	60	-0.020833
29	-0.114583	61	0.0
30	-0.104167	62	0.031250
31	-0.104167	63	0.125000
32	-0.333333	64	0.145833

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.578947
2	-0.242105	34	-0.505263
3	-0.242105	35	-0.347368
4	-0.284211	36	-0.284211
5	-0.326316	37	-0.242105
6	-0.284211	38	-0.221053
7	-1.536841	39	-0.273684
8	-0.357895	40	**********
9	-0.010526	41	**********
10	-0.273684	42	-0.347368
11	-0.263158	43	-0.368421
12	-1.200000	44	-0.284211
13	-1.305263	45	-0.231579
14	-0.368421	46	-0.178947
15	-0.315789	47	-0.168421
16	-0.273684	48	0.252632
17	-0.242105	49	0.326316
18	-0.863158	50	0.284211
19	-1.242105	51	0.452632
20	-0.684210	52	0.389474
21	-0.421053	53	0.378947
22	-0.347368	54	0.357895
23	-0.284211	55	0.273684
24	-0.242105	56	0.284211
25	-0.631579	57	0.305263
26	-0.852632	58	0.326316
27	-0.621053	59	0.305263
28	-0.400000	60	0.031579
29	-0.315789	61	0.031579
30	-0.273684	62	0.073684
31	-0.242105	63	0.157895
32	-0.452632	64	0.157895

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.610526
2	-0.336842	34	-0.642105
3	-0.294737	35	-0.536842
4	-0.578947	36	-0.431579
5	-0.400000	37	-0.336842
6	-0.347368	38	-0.421053
7	-1.968421	39	-0.305263
8	-0.873684	40	**********
9	~~-0.0~~	41	**********
10	-0.357895	42	-0.347368
11	-0.494737	43	-0.421053
12	-1.368421	44	-0.357895
13	-1.789474	45	-0.294737
14	-0.621053	46	-0.221053
15	-0.494737	47	-0.263158
16	-0.400000	48	0.347368
17	-0.442105	49	0.421053
18	-0.978947	50	0.400000
19	-1.400000	51	0.536842
20	-1.052631	52	0.473684
21	-0.673684	53	0.452632
22	-0.526316	54	0.431579
23	-0.431579	55	0.357895
24	-0.484210	56	0.368421
25	-0.715789	57	0.389474
26	-0.884210	58	0.378947
27	-0.821053	59	0.347368
28	-0.600000	60	0.052632
29	-0.505263	61	0.052632
30	-0.410526	62	0.094737
31	-0.515789	63	0.178947
32	-0.526316	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.673684
2	-0.431579	34	-0.736842
3	-0.368421	35	-0.642105
4	-1.894736	36	-0.536842
5	-0.515789	37	-0.442105
6	-0.473684	38	-0.484210
7	-2.294736	39	-0.326316
8	-1.915789	40	**********
9	0.0	41	**********
10	-0.526316	42	-0.378947
11	-0.673684	43	-0.463158
12	-1.578947	44	-0.410526
13	-2.063157	45	-0.336842
14	-1.000000	46	-0.273684
15	-0.726316	47	-0.315789
16	-0.589474	48	0.452632
17	-0.768421	49	0.526316
18	-1.126315	50	0.515789
19	-1.452631	51	0.621053
20	-1.305263	52	0.568421
21	-0.947368	53	0.536842
22	-0.768421	54	0.505263
23	-0.631579	55	0.431579
24	-0.747368	56	0.442105
25	-0.863158	57	0.463158
26	-0.957895	58	0.421053
27	-1.000000	59	0.400000
28	-0.842105	60	0.084211
29	-0.694737	61	0.084211
30	-0.557895	62	0.136842
31	-0.621053	63	0.189474
32	-0.610526	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.736842
2	-0.505263	34	-0.800000
3	-0.431579	35	-0.715789
4	-3.273684	36	-0.610526
5	-0.621053	37	-0.515789
6	-0.600000	38	-0.642105
7	-2.431579	39	-0.336842
8	-2.715789	40	**********
9	-0.0	41	**********
10	-0.757895	42	-0.400000
11	-0.810526	43	-0.463158
12	-1.705263	44	-0.421053
13	-2.105263	45	-0.347368
14	-1.421052	46	-0.294737
15	-1.063157	47	-0.463158
16	-1.000000	48	0.589474
17	-0.978947	49	0.642105
18	-1.263158	50	0.631579
19	-1.484210	51	0.715789
20	-1.473683	52	0.663158
21	-1.178946	53	0.631579
22	-1.000000	54	0.589474
23	-0.905263	55	0.526316
24	-0.894737	56	0.536842
25	-0.968421	57	0.536842
26	-1.052631	58	0.494737
27	-1.115789	59	0.463158
28	-0.968421	60	0.105263
29	-0.842105	61	0.115789
30	-0.715789	62	0.168421
31	-0.778947	63	0.210526
32	-0.673684	64	0.178947

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+10 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.750000
2	-0.593750	34	-0.781250
3	-0.479167	35	-0.708333
4	-3.520833	36	-0.635417
5	-0.802083	37	-0.666667
6	-0.666667	38	-0.843750
7	-2.250000	39	-0.354167
8	-3.375000	40	**********
9	-0.0	41	**********
10	-1.135416	42	-0.416667
11	-1.229166	43	-0.437500
12	-1.656250	44	-0.406250
13	-2.062500	45	-0.385417
14	-1.541666	46	-0.489583
15	-1.187500	47	-0.708333
16	-0.989583	48	0.718750
17	-1.104166	49	0.750000
18	-1.270833	50	0.750000
19	-1.489583	51	0.770833
20	-1.489583	52	0.729167
21	-1.239583	53	0.708333
22	-1.052083	54	0.677083
23	-0.895833	55	0.583333
24	-1.072916	56	0.593750
25	-0.937500	57	0.593750
26	-1.093750	58	0.541667
27	-1.093750	59	0.510417
28	-0.947917	60	0.104167
29	-0.822917	61	0.125000
30	-0.791667	62	0.187500
31	-0.947917	63	0.218750
32	-0.666667	64	0.187500

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+15 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.010417
2	0.010417	34	-0.010417
3	-0.270833	35	-0.010417
4	-0.010417	36	-0.010417
5	-0.156250	37	-0.020833
6	-0.145833	38	-0.020833
7	0.0	39	-0.031250
8	0.0	40	**********
9	0.0	41	**********
10	-0.020833	42	-0.020833
11	-0.031250	43	-0.031250
12	-0.010417	44	-0.031250
13	-0.010417	45	-0.031250
14	-0.020833	46	-0.041667
15	-0.010417	47	-0.031250
16	-0.010417	48	-0.312500
17	-0.020833	49	-0.239583
18	-0.010417	50	-1.031250
19	-0.010417	51	0.041667
20	-0.010417	52	-0.218750
21	-0.010417	53	-0.104167
22	-0.010417	54	-0.031250
23	-0.020833	55	0.0
24	-0.020833	56	0.041667
25	-0.010417	57	0.072917
26	-0.010417	58	-0.218750
27	-0.020833	59	-0.072917
28	-0.010417	60	-0.020833
29	-0.010417	61	0.0
30	-0.010417	62	-0.041667
31	-0.020833	63	0.010417
32	-0.010417	64	0.010417

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+15 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.221053
2	-0.105263	34	-0.105263
3	-0.273684	35	-0.094737
4	-0.094737	36	-0.084211
5	-0.200000	37	-0.084211
6	-0.221053	38	-0.094737
7	-0.147368	39	-0.168421
8	-0.147368	40	**********
9	0.0	41	**********
10	-0.105263	42	-0.200000
11	-0.673684	43	-0.115789
12	-0.452632	44	-0.105263
13	-0.147368	45	-0.094737
14	-0.126316	46	-0.094737
15	-0.115789	47	-0.084211
16	-0.105263	48	0.0
17	-0.136842	49	0.063158
18	-0.347368	50	-0.252632
19	-0.200000	51	0.273684
20	-0.126316	52	0.221053
21	-0.115789	53	0.252632
22	-0.105263	54	0.252632
23	-0.105263	55	0.115789
24	-0.115789	56	0.147368
25	-0.284211	57	0.178947
26	-0.231579	58	0.252632
27	-0.115789	59	0.263158
28	-0.094737	60	0.0
29	-0.094737	61	0.010526
30	-0.105263	62	0.052632
31	-0.105263	63	0.168421
32	-0.242105	64	0.210526

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+15 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.357895
2	-0.231579	34	-0.336842
3	-0.252632	35	-0.273684
4	-0.263158	36	-0.231579
5	-0.294737	37	-0.200000
6	-0.315789	38	-0.242105
7	-1.052631	39	-0.189474
8	-0.368421	40	**********
9	-0.052632	41	**********
10	-0.200000	42	-0.231579
11	-0.221053	43	-0.231579
12	-0.810526	44	-0.200000
13	-0.831579	45	-0.168421
14	-0.273684	46	-0.157895
15	-0.242105	47	-0.242105
16	-0.200000	48	0.284211
17	-0.294737	49	0.357895
18	-0.526316	50	0.263158
19	-0.715789	51	0.494737
20	-0.389474	52	0.442105
21	-0.326316	53	0.442105
22	-0.315789	54	0.421053
23	-0.263158	55	0.305263
24	-0.294737	56	0.315789
25	-0.410526	57	0.357895
26	-0.526316	58	0.389474
27	-0.378947	59	0.378947
28	-0.347368	60	0.031579
29	-0.294737	61	0.031579
30	-0.242105	62	0.084211
31	-0.242105	63	0.200000
32	-0.326316	64	0.221053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=±15 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.410526
2	-0.378947	34	-0.400000
3	-0.347368	35	-0.368421
4	-0.915789	36	-0.326316
5	-0.421053	37	-0.273684
6	-0.421053	38	-0.442105
7	-1.442104	39	-0.210526
8	-0.894737	40	**********
9	-0.0	41	**********
10	-0.368421	42	-0.252632
11	-0.652632	43	-0.273684
12	-0.968421	44	-0.252632
13	-1.189473	45	-0.231579
14	-0.505263	46	-0.210526
15	-0.452632	47	-0.294737
16	-0.378947	48	0.378947
17	-0.684210	49	0.442105
18	-0.663158	50	0.421053
19	-0.884210	51	0.578947
20	-0.673684	52	0.526316
21	-0.600000	53	0.515789
22	-0.505263	54	0.494737
23	-0.389474	55	0.378947
24	-0.684210	56	0.389474
25	-0.505263	57	0.421053
26	-0.600000	58	0.442105
27	-0.536842	59	0.431579
28	-0.452632	60	0.021053
29	-0.410526	61	0.031579
30	-0.336842	62	0.105263
31	-0.600000	63	0.221053
32	-0.368421	64	0.221053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+15 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.473684
2	-0.473684	34	-0.484210
3	-0.442105	35	-0.452632
4	-2.000000	36	-0.410526
5	-0.536842	37	-0.431579
6	-0.578947	38	-0.568421
7	-1.726315	39	-0.242105
8	-1.494737	40	**********
9	-0.0	41	**********
10	-0.600000	42	-0.284211
11	-0.831579	43	-0.305263
12	-1.105263	44	-0.284211
13	-1.231579	45	-0.263158
14	-0.842105	46	-0.273684
15	-0.778947	47	-0.463158
16	-0.673684	48	0.473684
17	-0.905263	49	0.547368
18	-0.831579	50	0.536842
19	-0.947368	51	0.652632
20	-0.873684	52	0.610526
21	-0.726316	53	0.600000
22	-0.631579	54	0.578947
23	-0.673684	55	0.442105
24	-0.768421	56	0.463158
25	-0.600000	57	0.494737
26	-0.694737	58	0.494737
27	-0.673684	59	0.473684
28	-0.600000	60	0.042105
29	-0.536842	61	0.052632
30	-0.568421	62	0.136842
31	-0.652632	63	0.231579
32	-0.431579	64	0.221053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+15 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.531915
2	-0.553191	34	-0.531915
3	-0.468085	35	-0.510638
4	-2.776595	36	-0.521277
5	-0.638298	37	-0.691489
6	-0.648936	38	-0.872340
7	-1.776595	39	-0.276596
8	-1.765957	40	**********
9	0.0	41	**********
10	-1.010638	42	-0.297872
11	-1.042553	43	-0.308511
12	-1.180851	44	-0.319149
13	-1.382978	45	-0.361702
14	-1.021276	46	-0.574468
15	-0.893617	47	-0.755319
16	-0.904255	48	0.617021
17	-1.053191	49	0.680851
18	-0.861702	50	0.670213
19	-1.021276	51	0.744681
20	-0.946808	52	0.712766
21	-0.840425	53	0.702128
22	-0.776596	54	0.680851
23	-0.787234	55	0.531915
24	-1.063829	56	0.542553
25	-0.670213	57	0.563830
26	-0.744681	58	0.553191
27	-0.723404	59	0.531915
28	-0.670213	60	0.031915
29	-0.638298	61	0.085106
30	-0.744681	62	0.170213
31	-0.968085	63	0.265957
32	-0.500000	64	0.244681

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+15 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.642105
2	-0.705263	34	-0.631579
3	-0.547368	35	-0.642105
4	-0.042105	36	-0.694737
5	-0.842105	37	-0.852632
6	-0.778947	38	-0.947368
7	-1.831578	39	-0.378947
8	-2.189473	40	**********
9	0.0	41	**********
10	-1.242105	42	-0.400000
11	-1.421052	43	-0.389474
12	-1.178946	44	-0.410526
13	-1.547368	45	-0.473684
14	-1.073684	46	-0.694737
15	-0.926316	47	-0.863158
16	-1.031578	48	0.736842
17	-1.231579	49	0.778947
18	-0.915789	50	0.778947
19	-1.115789	51	0.800000
20	-0.989474	52	0.768421
21	-0.894737	53	0.757895
22	-0.894737	54	0.726316
23	-1.031578	55	0.600000
24	-1.136842	56	0.610526
25	-0.789474	57	0.631579
26	-0.852632	58	0.600000
27	-0.800000	59	0.568421
28	-0.789474	60	0.073684
29	-0.821053	61	0.126316
30	-0.947368	62	0.221053
31	-1.021052	63	0.294737
32	-0.631579	64	0.263158

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.021053
2	-0.221053	34	-0.021053
3	-0.421053	35	-0.021053
4	-0.021053	36	-0.021053
5	-0.389474	37	-0.031579
6	-0.221053	38	-0.031579
7	0.0	39	-0.031579
8	-0.084211	40	**********
9	0.0	41	**********
10	-0.042105	42	-0.042105
11	-0.052632	43	-0.052632
12	-0.021053	44	-0.052632
13	-0.052632	45	-0.052632
14	-0.031579	46	-0.063158
15	-0.031579	47	-0.052632
16	-0.031579	48	-0.400000
17	-0.042105	49	-0.431579
18	-0.031579	50	-1.157894
19	-0.031579	51	-0.210526
20	-0.021053	52	-0.115789
21	-0.021053	53	-0.157895
22	-0.021053	54	0.010526
23	-0.031579	55	-0.063158
24	-0.042105	56	0.031579
25	-0.031579	57	0.094737
26	-0.021053	58	-0.157895
27	-0.021053	59	-0.084211
28	-0.021053	60	0.0
29	-0.021053	61	-0.063158
30	-0.031579	62	-0.031579
31	-0.042105	63	0.010526
32	-0.031579	64	0.021053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.083333
2	-0.208333	34	-0.083333
3	-0.364583	35	-0.072917
4	-0.114583	36	-0.072917
5	-0.364583	37	-0.083333
6	-0.260417	38	-0.093750
7	-0.208333	39	-0.062500
8	-0.156250	40	**********
9	-0.0	41	**********
10	-0.104167	42	-0.083333
11	-0.187500	43	-0.093750
12	-0.333333	44	-0.083333
13	-0.145833	45	-0.083333
14	-0.125000	46	-0.083333
15	-0.114583	47	-0.083333
16	-0.125000	48	-0.062500
17	-0.145833	49	-0.093750
18	-0.239583	50	-0.250000
19	-0.135417	51	0.187500
20	-0.114583	52	0.270833
21	-0.104167	53	0.270833
22	-0.093750	54	0.281250
23	-0.114583	55	0.177083
24	-0.135417	56	0.197917
25	-0.156250	57	0.218750
26	-0.104167	58	0.322917
27	-0.093750	59	0.333333
28	-0.083333	60	0.041667
29	-0.083333	61	0.041667
30	-0.104167	62	0.083333
31	-0.114583	63	0.218750
32	-0.104167	64	0.291667

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.208333
2	-0.364583	34	-0.187500
3	-0.385417	35	-0.218750
4	-0.427083	36	-0.197917
5	-0.406250	37	-0.187500
6	-0.427083	38	-0.260417
7	-0.895833	39	-0.125000
8	-0.375000	40	**********
9	-0.0	41	**********
10	-0.239583	42	-0.145833
11	-0.395833	43	-0.166667
12	-0.604167	44	-0.166667
13	-0.552083	45	-0.156250
14	-0.343750	46	-0.156250
15	-0.333333	47	-0.239583
16	-0.333333	48	0.260417
17	-0.302083	49	0.260417
18	-0.395833	50	0.270833
19	-0.385417	51	0.541667
20	-0.375000	52	0.479167
21	-0.354167	53	0.500000
22	-0.291667	54	0.489583
23	-0.281250	55	0.333333
24	-0.270833	56	0.343750
25	-0.270833	57	0.385417
26	-0.302083	58	0.458333
27	-0.291667	59	0.458333
28	-0.239583	60	0.020833
29	-0.260417	61	0.020833
30	-0.239583	62	0.093750
31	-0.218750	63	0.239583
32	-0.197917	64	0.281250

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.294737
2	-0.452632	34	-0.294737
3	-0.452632	35	-0.294737
4	-1.042105	36	-0.284211
5	-0.484210	37	-0.305263
6	-0.536842	38	-0.452632
7	-1.105263	39	-0.168421
8	-0.673684	40	**********
9	~~-0.6~~	41	**********
10	-0.431579	42	-0.178947
11	-0.810526	43	-0.200000
12	-0.684210	44	-0.200000
13	-0.736842	45	-0.200000
14	-0.652632	46	-0.231579
15	-0.505263	47	-0.410526
16	-0.442105	48	0.400000
17	-0.715789	49	0.421053
18	-0.484210	50	0.452632
19	-0.568421	51	0.631579
20	-0.505263	52	0.578947
21	-0.442105	53	0.589474
22	-0.400000	54	0.578947
23	-0.410526	55	0.410526
24	-0.705263	56	0.431579
25	-0.347368	57	0.473684
26	-0.410526	58	0.515789
27	-0.389474	59	0.505263
28	-0.357895	60	0.010526
29	-0.347368	61	0.031579
30	-0.347368	62	0.126316
31	-0.610526	63	0.273684
32	-0.263158	64	0.294737

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.347368
2	-0.536842	34	-0.357895
3	-0.526316	35	-0.357895
4	-1.821053	36	-0.378947
5	-0.568421	37	-0.515789
6	-0.663158	38	-0.831579
7	-1.231579	39	-0.200000
8	-0.947368	40	**********
9	0.0	41	**********
10	-0.778947	42	-0.210526
11	-0.936842	43	-0.221053
12	-0.736842	44	-0.231579
13	-0.915789	45	-0.242105
14	-0.736842	46	-0.431579
15	-0.747368	47	-0.705263
16	-0.726316	48	0.515789
17	-0.915789	49	0.578947
18	-0.568421	50	0.568421
19	-0.652632	51	0.705263
20	-0.631579	52	0.663158
21	-0.610526	53	0.673684
22	-0.568421	54	0.652632
23	-0.694737	55	0.473684
24	-0.831579	56	0.494737
25	-0.452632	57	0.526316
26	-0.473684	58	0.547368
27	-0.484210	59	0.536842
28	-0.473684	60	0.021053
29	-0.473684	61	0.052632
30	-0.578947	62	0.157895
31	-0.884210	63	0.305263
32	-0.336842	64	0.315789

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.412371
2	-0.618557	34	-0.443299
3	-0.608247	35	-0.515464
4	-2.402061	36	-0.618557
5	-0.659794	37	-0.804124
6	-0.731959	38	-0.896907
7	-1.226804	39	-0.226804
8	-1.144329	40	**********
9	0.0	41	**********
10	-1.072165	42	-0.226804
11	-1.195876	43	-0.278350
12	-0.804124	44	-0.360825
13	-0.938144	45	-0.463917
14	-0.824742	46	-0.680412
15	-0.824742	47	-0.793814
16	-0.948454	48	0.628866
17	-1.237113	49	0.680412
18	-0.649485	50	0.670103
19	-0.701031	51	0.742268
20	-0.680412	52	0.721649
21	-0.680412	53	0.721649
22	-0.731959	54	0.701031
23	-0.948454	55	0.536082
24	-1.103092	56	0.546392
25	-0.536082	57	0.577320
26	-0.556701	58	0.587629
27	-0.567010	59	0.567010
28	-0.608247	60	0.041237
29	-0.711340	61	0.092783
30	-0.907216	62	0.206186
31	-1.000000	63	0.319588
32	-0.412371	64	0.319588

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+20 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.568421
2	-0.747368	34	-0.631579
3	-0.642105	35	-0.705263
4	-2.578947	36	-0.789474
5	-0.821053	37	-0.894737
6	-0.947368	38	-0.968421
7	-1.126315	39	-0.315789
8	-1.336842	40	**********
9	-0.0	41	**********
10	-1.136842	42	-0.326316
11	-1.221052	43	-0.410526
12	-0.957895	44	-0.515789
13	-1.010526	45	-0.621053
14	-1.010526	46	-0.789474
15	-1.042105	47	-0.905263
16	-1.094736	48	0.757895
17	-1.115789	49	0.789474
18	-0.894737	50	0.789474
19	-0.926316	51	0.810526
20	-0.947368	52	0.789474
21	-1.010526	53	0.789474
22	-1.031578	54	0.768421
23	-1.063157	55	0.610526
24	-1.063157	56	0.621053
25	-0.747368	57	0.652632
26	-0.768421	58	0.642105
27	-0.821053	59	0.631579
28	-0.873684	60	0.073684
29	-0.926316	61	0.136842
30	-0.989474	62	0.252632
31	-1.021052	63	0.368421
32	-0.557895	64	0.347368

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.020833
2	-0.781250	34	-0.020833
3	-0.572917	35	-0.020833
4	-0.020833	36	-0.020833
5	-0.385417	37	-0.031250
6	-0.281250	38	-0.031250
7	-0.041667	39	-0.020833
8	-0.114583	40	**********
9	-0.0	41	**********
10	-0.052083	42	-0.031250
11	-0.072917	43	-0.041667
12	-0.072917	44	-0.052083
13	-0.041667	45	-0.062500
14	-0.031250	46	-0.072917
15	-0.031250	47	-0.052083
16	-0.041667	48	-0.531250
17	-0.062500	49	-0.645833
18	-0.020833	50	-1.218750
19	-0.020833	51	-0.500000
20	-0.020833	52	-0.031250
21	-0.020833	53	-0.010417
22	-0.031250	54	0.0
23	-0.041667	55	-0.031250
24	-0.041667	56	0.031250
25	-0.020833	57	-0.135417
26	-0.020833	58	-0.166667
27	-0.020833	59	-0.166667
28	-0.020833	60	0.072917
29	-0.020833	61	-0.031250
30	-0.020833	62	0.0
31	-0.031250	63	0.052083
32	-0.020833	64	0.052083

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.062500
2	-0.458333	34	-0.052083
3	-0.468750	35	-0.072917
4	-0.156250	36	-0.062500
5	-0.343750	37	-0.072917
6	-0.312500	38	-0.093750
7	-0.208333	39	-0.052083
8	-0.166667	40	**********
9	-0.0	41	**********
10	-0.145833	42	-0.062500
11	-0.229167	43	-0.062500
12	-0.197917	44	-0.062500
13	-0.114583	45	-0.062500
14	-0.104167	46	-0.083333
15	-0.104167	47	-0.083333
16	-0.156250	48	-0.187500
17	-0.156250	49	-0.322917
18	-0.104167	50	-0.260417
19	-0.104167	51	0.260417
20	-0.104167	52	0.291667
21	-0.093750	53	0.270833
22	-0.114583	54	0.281250
23	-0.114583	55	0.218750
24	-0.135417	56	0.250000
25	-0.093750	57	0.270833
26	-0.104167	58	0.395833
27	-0.083333	59	0.406250
28	-0.093750	60	0.072917
29	-0.093750	61	0.062500
30	-0.093750	62	0.104167
31	-0.114583	63	0.270833
32	-0.072917	64	0.364583

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.159574
2	-0.510638	34	-0.170213
3	-0.510638	35	-0.170213
4	-0.457447	36	-0.170213
5	-0.510638	37	-0.191489
6	-0.521277	38	-0.265957
7	-0.723404	39	-0.106383
8	-0.297872	40	**********
9	-0.0	41	**********
10	-0.255319	42	-0.117021
11	-0.617021	43	-0.117021
12	-0.382979	44	-0.117021
13	-0.308511	45	-0.127660
14	-0.361702	46	-0.159574
15	-0.329787	47	-0.212766
16	-0.361702	48	0.159574
17	-0.340425	49	0.095745
18	-0.276596	50	0.276596
19	-0.276596	51	0.595745
20	-0.244681	52	0.542553
21	-0.276596	53	0.574468
22	-0.308511	54	0.563830
23	-0.276596	55	0.393617
24	-0.319149	56	0.393617
25	-0.202128	57	0.446808
26	-0.202128	58	0.531915
27	-0.234043	59	0.542553
28	-0.223404	60	0.042553
29	-0.212766	61	0.031915
30	-0.234043	62	0.117021
31	-0.265957	63	0.297872
32	-0.148936	64	0.372340

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.221053
2	-0.547368	34	-0.242105
3	-0.547368	35	-0.242105
4	-0.915789	36	-0.252632
5	-0.589474	37	-0.326316
6	-0.652632	38	-0.557895
7	-0.789474	39	-0.126316
8	-0.410526	40	**********
9	-0.010526	41	**********
10	-0.431579	42	-0.136842
11	-0.936842	43	-0.157895
12	-0.452632	44	-0.168421
13	-0.536842	45	-0.178947
14	-0.442105	46	-0.294737
15	-0.378947	47	-0.536842
16	-0.526316	48	-0.178947
17	-0.621053	49	0.673684
18	-0.315789	50	0.473684
19	-0.368421	51	0.663158
20	-0.326316	52	0.621053
21	-0.357895	53	0.652632
22	-0.378947	54	0.642105
23	-0.368421	55	0.452632
24	-0.610526	56	0.463158
25	-0.252632	57	0.505263
26	-0.284211	58	0.568421
27	-0.315789	59	0.578947
28	-0.315789	60	0.021053
29	-0.315789	61	0.042105
30	-0.326316	62	0.147368
31	-0.536842	63	0.326316
32	-0.200000	64	0.378947

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.270833
2	-0.625000	34	-0.291667
3	-0.656250	35	-0.312500
4	-1.510416	36	-0.375000
5	-0.708333	37	-0.656250
6	-0.875000	38	-0.885417
7	-0.895833	39	-0.156250
8	-0.666667	40	**********
9	0.0	41	**********
10	-0.822917	42	-0.166667
11	-0.947917	43	-0.187500
12	-0.541667	44	-0.229167
13	-0.645833	45	-0.302083
14	-0.687500	46	-0.562500
15	-0.635417	47	-0.739583
16	-0.718750	48	0.479167
17	-0.895833	49	0.593750
18	-0.468750	50	0.583333
19	-0.489583	51	0.708333
20	-0.500000	52	0.697917
21	-0.510417	53	0.718750
22	-0.531250	54	0.708333
23	-0.666667	55	0.500000
24	-1.020833	56	0.510417
25	-0.354167	57	0.562500
26	-0.364583	58	0.614583
27	-0.395833	59	0.614583
28	-0.416667	60	0.041667
29	-0.458333	61	0.072917
30	-0.687500	62	0.187500
31	-1.020833	63	0.364583
32	-0.270833	64	0.395833

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.357895
2	-0.715789	34	-0.442105
3	-0.768421	35	-0.568421
4	-1.978947	36	-0.684210
5	-0.905263	37	-0.863158
6	-0.852632	38	-0.947368
7	-0.905263	39	-0.200000
8	-1.094736	40	**********
9	0.0	41	**********
10	-1.210526	42	-0.221053
11	-1.315789	43	-0.326316
12	-0.673684	44	-0.442105
13	-0.736842	45	-0.568421
14	-0.768421	46	-0.757895
15	-0.842105	47	-0.800000
16	-1.115789	48	0.642105
17	-1.326315	49	0.715789
18	-0.589474	50	0.705263
19	-0.621053	51	0.778947
20	-0.663158	52	0.768421
21	-0.747368	53	0.778947
22	-0.884210	54	0.768421
23	-1.105263	55	0.568421
24	-1.210526	56	0.578947
25	-0.473684	57	0.621053
26	-0.484210	58	0.652632
27	-0.557895	59	0.642105
28	-0.673684	60	0.073684
29	-0.800000	61	0.105263
30	-1.000000	62	0.136842
31	-1.084210	63	0.400000
32	-0.347368	64	0.421053

COEFFICIENT OF PRESSURE DATA

MODEL 742 BETA=+25 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.536842
2	-0.789474	34	-0.673684
3	-0.821053	35	-0.768421
4	-1.915789	36	-0.831579
5	-1.284210	37	-0.873684
6	-1.073684	38	-0.978947
7	-1.010526	39	-0.305263
8	-1.094736	40	**********
9	0.0	41	**********
10	-1.178946	42	-0.347368
11	-1.200000	43	0.126316
12	-0.926316	44	-0.610526
13	-0.989474	45	-0.694737
14	-1.094736	46	-0.842105
15	-1.115789	47	-0.905263
16	-1.136842	48	0.757895
17	-1.147367	49	0.800000
18	-0.831579	50	0.789474
19	-0.926316	51	0.810526
20	-1.000000	52	0.810526
21	-1.052631	53	0.821053
22	-1.084210	54	0.810526
23	-1.115789	55	0.631579
24	-1.115789	56	0.642105
25	-0.642105	57	0.673684
26	-0.747368	58	0.705263
27	-0.842105	59	0.694737
28	-0.915789	60	0.210526
29	-0.968421	61	0.157895
30	-1.031578	62	0.294737
31	-1.063157	63	0.442105
32	-0.484210	64	0.442105

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.159574
2	0.0	34	-0.063830
3	-0.095745	35	-0.053191
4	-0.031915	36	-0.042553
5	-0.031915	37	-0.031915
6	-0.095745	38	-0.031915
7	-0.095745	39	0.191489
8	-0.063830	40	**********
9	-0.095745	41	**********
10	-0.042553	42	-0.202128
11	-0.031915	43	-0.106383
12	0.021277	44	-0.074468
13	-0.170213	45	-0.053191
14	-0.106383	46	-0.042553
15	-0.063830	47	-0.042553
16	-0.031915	48	-0.010638
17	-0.021277	49	-0.010638
18	0.138298	50	0.0
19	-0.234043	51	-0.117021
20	-0.191489	52	-0.053191
21	-0.042553	53	-0.021277
22	-0.031915	54	-0.021277
23	-0.021277	55	-0.053191
24	-0.021277	56	0.031915
25	0.170213	57	0.021277
26	-0.180851	58	0.010638
27	-0.180851	59	0.0
28	-0.063830	60	-0.287234
29	-0.042553	61	0.010638
30	-0.031915	62	-0.021277
31	-0.021277	63	-0.021277
32	0.212766	64	0.0

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.957447
2	-0.308511	34	-0.372340
3	-0.265957	35	-0.255319
4	-0.521277	36	-0.191489
5	-0.297872	37	-0.127660
6	-0.255319	38	-0.106383
7	-0.936170	39	-0.319149
8	-0.489362	40	**********
9	-0.382979	41	**********
10	-0.255319	42	-0.808511
11	-0.202128	43	-0.297872
12	-0.861702	44	-0.202128
13	-0.765957	45	-0.148936
14	-0.414894	46	-0.095745
15	-0.319149	47	-0.095745
16	-0.223404	48	0.106383
17	-0.180851	49	0.095745
18	-0.776596	50	0.095745
19	-1.074468	51	0.0
20	-0.595745	52	0.042553
21	-0.361702	53	0.063830
22	-0.276596	54	0.063830
23	-0.180851	55	0.0
24	-0.148936	56	0.127660
25	-0.702128	57	0.095745
26	-1.000000	58	0.095745
27	-0.595745	59	0.063830
28	-0.308511	60	-0.212766
29	-0.234043	61	0.042553
30	-0.170213	62	0.010638
31	-0.127660	63	0.021277
32	-0.510638	64	0.031915

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.755319
2	-2.627659	34	-0.680851
3	-0.425532	35	-0.638298
4	-1.968084	36	-0.723404
5	-2.531915	37	-0.829787
6	-0.297872	38	-0.563830
7	-1.627659	39	-0.563830
8	-1.882978	40	**********
9	-2.893617	41	**********
10	-0.893617	42	-0.510638
11	-0.212766	43	-0.414894
12	-1.404255	44	-0.468085
13	-1.457446	45	-0.468085
14	-1.808510	46	-0.563830
15	-2.382978	47	-0.489362
16	-1.138297	48	0.276596
17	-0.180851	49	0.255319
18	-0.978723	50	0.223404
19	-1.010638	51	0.159574
20	-1.117021	52	0.170213
21	-1.276595	53	0.202128
22	-1.808510	54	0.180851
23	-1.212766	55	0.085106
24	-0.159574	56	0.255319
25	-0.882979	57	0.202128
26	-0.734043	58	0.202128
27	-0.797872	59	0.159574
28	-0.893617	60	0.085106
29	-1.148935	61	0.095745
30	-1.095744	62	0.063830
31	-0.404255	63	0.074468
32	-0.861702	64	0.085106

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.617021
2	-4.223404	34	-0.702128
3	-0.606383	35	-0.734043
4	-2.734042	36	-0.797872
5	-4.031915	37	-0.861702
6	-0.436170	38	-0.797872
7	-1.968084	39	-0.478723
8	-2.234042	40	**********
9	-3.989361	41	**********
10	-1.542553	42	-0.478723
11	-0.372340	43	-0.489362
12	-1.510638	44	-0.510638
13	-1.617021	45	-0.553191
14	-1.808510	46	-0.670213
15	-2.276595	47	-0.659574
16	-1.968084	48	0.361702
17	-0.712766	49	0.351064
18	-1.063829	50	0.297872
19	-1.138297	51	0.244681
20	-1.223404	52	0.244681
21	-1.340425	53	0.255319
22	-1.521276	54	0.244681
23	-1.531915	55	0.127660
24	-1.000000	56	0.319149
25	-0.819149	57	0.255319
26	-0.861702	58	0.255319
27	-0.946808	59	0.202128
28	-1.000000	60	-0.159574
29	-1.095744	61	0.095745
30	-1.148935	62	0.085106
31	-0.946808	63	0.095745
32	-0.595745	64	0.106383

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.732394
2	-5.352112	34	-0.732394
3	-0.830986	35	-0.760563
4	-3.140844	36	-0.788732
5	-4.816901	37	-0.845070
6	-0.788732	38	-0.845070
7	-1.985915	39	-0.732394
8	-2.154929	40	**********
9	-2.563380	41	**********
10	-2.394365	42	-0.676056
11	-1.549295	43	-0.605634
12	-1.408450	44	-0.619718
13	-1.492957	45	-0.647887
14	-1.605634	46	-0.704225
15	-1.676056	47	-0.718310
16	-1.690141	48	0.436620
17	-1.478872	49	0.422535
18	-1.042253	50	0.366197
19	-1.098591	51	0.309859
20	-1.140844	52	0.295775
21	-1.183098	53	0.295775
22	-1.239436	54	0.295775
23	-1.281690	55	0.126761
24	-1.225351	56	0.380282
25	-0.830986	57	0.309859
26	-0.859155	58	0.309859
27	-0.901408	59	0.253521
28	-0.929577	60	-0.225352
29	-0.971831	61	0.084507
30	-1.028169	62	0.084507
31	-1.014084	63	0.112676
32	-0.718310	64	0.126761

Note: This run was made at q = 30 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.840425
2	-2.851064	34	-0.829787
3	-2.574468	35	-0.840425
4	-1.840425	36	-0.861702
5	-1.989361	37	-0.904255
6	-1.968084	38	-0.914894
7	-1.361702	39	-0.755319
8	-1.393617	40	**********
9	-1.446808	41	**********
10	-1.468084	42	-0.755319
11	-1.457446	43	-0.691489
12	-1.180851	44	-0.712766
13	-1.191489	45	-0.744681
14	-1.212766	46	-0.808511
15	-1.234042	47	-0.808511
16	-1.265957	48	0.510638
17	-1.265957	49	0.489362
18	-1.053191	50	0.414894
19	-1.063829	51	0.382979
20	-1.074468	52	0.361702
21	-1.085106	53	0.361702
22	-1.095744	54	0.361702
23	-1.127659	55	0.180851
24	-1.127659	56	0.478723
25	-0.936170	57	0.393617
26	-0.946808	58	0.382979
27	-0.957447	59	0.308511
28	-0.968085	60	-0.191489
29	-0.989362	61	0.095745
30	-1.010638	62	0.095745
31	-1.031915	63	0.138298
32	-0.829787	64	0.148936

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.819149
2	-1.212766	34	-0.840425
3	-1.202127	35	-0.872340
4	-1.202127	36	-0.914894
5	-1.202127	37	-0.978723
6	-1.202127	38	-1.000000
7	-1.180851	39	-0.734043
8	-1.180851	40	**********
9	-1.191489	41	**********
10	-1.191489	42	-0.744681
11	-1.202127	43	-0.734043
12	-1.148935	44	-0.765957
13	-1.159574	45	-0.829787
14	-1.159574	46	-0.946808
15	-1.170213	47	-0.946808
16	-1.170213	48	0.531915
17	-1.180851	49	0.510638
18	-1.095744	50	0.436170
19	-1.106382	51	0.436170
20	-1.106382	52	0.393617
21	-1.095744	53	0.382979
22	-1.106382	54	0.382979
23	-1.117021	55	0.159574
24	-1.138297	56	0.553191
25	-0.957447	57	0.457447
26	-0.968085	58	0.446808
27	-0.978723	59	0.351064
28	-1.000000	60	-0.170213
29	-1.031915	61	0.117021
30	-1.063829	62	0.117021
31	-1.085106	63	0.148936
32	-0.808511	64	0.170213

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.734043
2	~~0.0~~	34	-0.723404
3	-0.851064	35	-0.744681
4	-3.042553	36	-0.776596
5	~~0.0~~	37	-0.840425
6	-0.819149	38	-0.840425
7	-1.946808	39	-0.734043
8	-2.106382	40	**********
9	-2.468084	41	**********
10	-2.340425	42	-0.691489
11	-1.617021	43	-0.606383
12	-1.372340	44	-0.617021
13	-1.457446	45	-0.638298
14	-1.553191	46	-0.691489
15	-1.627659	47	-0.702128
16	-1.648935	48	0.457447
17	-1.478723	49	0.436170
18	-1.021276	50	0.372340
19	-1.074468	51	0.319149
20	-1.117021	52	0.308511
21	-1.159574	53	0.308511
22	-1.212766	54	0.308511
23	-1.265957	55	0.159574
24	-1.212766	56	0.393617
25	-0.819149	57	0.319149
26	-0.840425	58	0.319149
27	-0.882979	59	0.265957
28	-0.904255	60	-0.202128
29	-0.957447	61	0.095745
30	-1.021276	62	0.085106
31	-1.000000	63	0.117021
32	-0.723404	64	0.138298

Note: Tube #2,5 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.136842
2	0.0	34	-0.073684
3	-0.063158	35	-0.063158
4	-0.052632	36	-0.052632
5	-0.021053	37	-0.042105
6	-0.073684	38	-0.042105
7	-0.073684	39	0.136842
8	-0.063158	40	**********
9	-0.084211	41	**********
10	-0.042105	42	-0.157895
11	-0.031579	43	-0.094737
12	0.0	44	-0.073684
13	-0.136842	45	-0.063158
14	-0.105263	46	-0.042105
15	-0.063158	47	-0.052632
16	-0.031579	48	-0.010526
17	-0.021053	49	-0.010526
18	0.105263	50	-0.010526
19	-0.178947	51	-0.073684
20	-0.147368	52	-0.042105
21	-0.052632	53	-0.031579
22	-0.052632	54	-0.031579
23	-0.042105	55	-0.031579
24	-0.042105	56	0.0
25	0.115789	57	-0.010526
26	-0.147368	58	-0.010526
27	-0.189474	59	-0.021053
28	-0.063158	60	-0.147368
29	-0.052632	61	-0.031579
30	-0.042105	62	-0.042105
31	-0.031579	63	-0.042105
32	0.147368	64	-0.010526

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.884210
2	-0.315789	34	-0.357895
3	-0.210526	35	-0.242105
4	-0.568421	36	-0.200000
5	-0.242105	37	-0.147368
6	-0.221053	38	-0.105263
7	-0.747368	39	-0.378947
8	-0.452632	40	**********
9	-0.336842	41	**********
10	-0.231579	42	-0.757895
11	-0.200000	43	-0.273684
12	-0.715789	44	-0.178947
13	-0.642105	45	-0.136842
14	-0.357895	46	-0.105263
15	-0.305263	47	-0.094737
16	-0.231579	48	0.105263
17	-0.157895	49	0.094737
18	-0.705263	50	0.084211
19	-0.905263	51	0.031579
20	-0.505263	52	0.042105
21	-0.357895	53	0.063158
22	-0.273684	54	0.052632
23	-0.210526	55	0.052632
24	-0.147368	56	0.094737
25	-0.694737	57	0.073684
26	-0.905263	58	0.063158
27	-0.431579	59	0.052632
28	-0.305263	60	-0.105263
29	-0.252632	61	0.010526
30	-0.168421	62	-0.010526
31	-0.147368	63	0.0
32	-0.547368	64	0.010526

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.621053
2	-2.263158	34	-0.715789
3	-0.505263	35	-0.778947
4	-2.010526	36	-0.947368
5	-1.957894	37	-0.863158
6	-0.368421	38	-0.305263
7	-1.652631	39	-0.326316
8	-1.957894	40	**********
9	-2.905263	41	**********
10	-0.526316	42	-0.347368
11	-0.284211	43	-0.442105
12	-1.421052	44	-0.515789
13	-1.515789	45	-0.621053
14	-2.115789	46	-0.663158
15	-2.726315	47	-0.357895
16	-0.557895	48	0.284211
17	-0.221053	49	0.273684
18	-1.063157	50	0.231579
19	-1.094736	51	0.200000
20	-1.231579	52	0.189474
21	-1.410526	53	0.200000
22	-2.252631	54	0.178947
23	-0.631579	55	0.157895
24	-0.178947	56	0.242105
25	-0.831579	57	0.189474
26	-0.852632	58	0.189474
27	-0.915789	59	0.157895
28	-0.978947	60	-0.021053
29	-1.442104	61	0.063158
30	-0.894737	62	0.052632
31	-0.221053	63	0.063158
32	-0.610526	64	0.073684

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.673684
2	-4.021052	34	-0.778947
3	-0.578947	35	-0.831579
4	-2.768420	36	-0.905263
5	-3.589473	37	-0.915789
6	-0.505263	38	-0.715789
7	-2.094736	39	-0.421053
8	-2.368421	40	**********
9	-4.147367	41	**********
10	-0.978947	42	-0.442105
11	-0.378947	43	-0.547368
12	-1.568420	44	-0.578947
13	-1.673684	45	-0.642105
14	-2.010526	46	-0.715789
15	-2.610526	47	-0.610526
16	-1.452631	48	0.378947
17	-0.484210	49	0.368421
18	-1.126315	50	0.305263
19	-1.210526	51	0.284211
20	-1.273684	52	0.263158
21	-1.431579	53	0.273684
22	-1.589473	54	0.242105
23	-1.484210	55	0.200000
24	-0.642105	56	0.315789
25	-0.852632	57	0.263158
26	-0.915789	58	0.252632
27	-1.010526	59	0.210526
28	-1.105263	60	0.0
29	-1.221052	61	0.094737
30	-1.189473	62	0.084211
31	-0.747368	63	0.094737
32	-0.631579	64	0.105263

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.702381
2	-4.857142	34	-0.726190
3	-0.821429	35	-0.761905
4	-3.285714	36	-0.797619
5	-4.428571	37	-0.833333
6	-0.702381	38	-0.797619
7	-1.583333	39	-0.654762
8	-2.142857	40	**********
9	-2.571428	41	**********
10	-2.154761	42	-0.642857
11	-1.178571	43	-0.607143
12	-1.404761	44	-0.619048
13	-1.476190	45	-0.654762
14	-1.607142	46	-0.702381
15	-1.654761	47	-0.678571
16	-1.595238	48	0.464286
17	-1.261905	49	0.452381
18	-1.035714	50	0.380952
19	-1.095238	51	0.357143
20	-1.130952	52	0.333333
21	-1.190475	53	0.321429
22	-1.250000	54	0.309524
23	-1.250000	55	0.238095
24	-1.119047	56	0.369048
25	-0.821429	57	0.309524
26	-0.857143	58	0.309524
27	-0.880952	59	0.250000
28	-0.928571	60	-0.023810
29	-0.976190	61	0.083333
30	-1.011905	62	0.095238
31	-0.940476	63	0.119048
32	-0.690476	64	0.142857

Note: This run was made at q = 35 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.842105
2	-1.610526	34	-0.863158
3	-1.578947	35	-0.905263
4	-1.484210	36	-0.957895
5	-1.505262	37	-1.000000
6	-1.494737	38	-0.978947
7	-1.347368	39	-0.736842
8	-1.357894	40	**********
9	-1.368421	41	**********
10	-1.378947	42	-0.736842
11	-1.378947	43	-0.726316
12	-1.242105	44	-0.789474
13	-1.252631	45	-0.852632
14	-1.273684	46	-0.936842
15	-1.284210	47	-0.873684
16	-1.305263	48	0.505263
17	-1.294736	49	0.494737
18	-1.136842	50	0.410526
19	-1.147367	51	0.421053
20	-1.157894	52	0.378947
21	-1.178946	53	0.368421
22	-1.189473	54	0.357895
23	-1.221052	55	0.273684
24	-1.221052	56	0.452632
25	-0.989474	57	0.389474
26	-1.010526	58	0.378947
27	-1.021052	59	0.315789
28	-1.052631	60	-0.021053
29	-1.073684	61	0.105263
30	-1.115789	62	0.115789
31	-1.115789	63	0.157895
32	-0.831579	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.884210
2	-1.252631	34	-0.915789
3	-1.252631	35	-0.968421
4	-1.252631	36	-1.042105
5	-1.252631	37	-1.094736
6	-1.252631	38	-1.052631
7	-1.242105	39	-0.779947
8	-1.242105	40	**********
9	-1.252631	41	**********
10	-1.252631	42	-0.789474
11	-1.252631	43	-0.810526
12	-1.221052	44	-0.884210
13	-1.221052	45	-0.968421
14	-1.231579	46	-1.073684
15	-1.231579	47	-1.000000
16	-1.242105	48	0.578947
17	-1.242105	49	0.557895
18	-1.147367	50	0.463158
19	-1.157894	51	0.484210
20	-1.168421	52	0.431579
21	-1.178946	53	0.421053
22	-1.189473	54	0.400000
23	-1.210526	55	0.284211
24	-1.221052	56	0.536842
25	-1.000000	57	0.452632
26	-1.010526	58	0.442105
27	-1.042105	59	0.357895
28	-1.073684	60	0.0
29	-1.105263	61	0.126316
30	-1.157894	62	0.147368
31	-1.157894	63	0.178947
32	-0.873684	64	0.200000

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.715789
2	~~0.0~~	34	-0.726316
3	-0.852632	35	-0.757895
4	-3.252631	36	-0.800000
5	-4.431579	37	-0.831579
6	-0.778947	38	-0.810526
7	-1.936842	39	-0.673684
8	-2.126315	40	**********
9	-2.505262	41	**********
10	-2.178946	42	-0.652632
11	-1.242105	43	-0.610526
12	-1.389473	44	-0.631579
13	-1.473683	45	-0.663158
14	-1.578947	46	-0.705263
15	-1.631578	47	-0.684210
16	-1.589473	48	0.473684
17	-1.294736	49	0.463158
18	-1.042105	50	0.378947
19	-1.094736	51	0.357895
20	-1.126315	52	0.326316
21	-1.178946	53	0.326316
22	-1.221052	54	0.305263
23	-1.231579	55	0.242105
24	-1.126315	56	0.378947
25	-0.821053	57	0.315789
26	-0.852632	58	0.315789
27	-0.894737	59	0.263158
28	-0.926316	60	-0.021053
29	-0.968421	61	0.073684
30	-1.000000	62	0.084211
31	-0.947368	63	0.115789
32	-0.705263	64	0.136842

Note: Tube # 2 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.084211
2	0.021053	34	-0.042105
3	-0.010526	35	-0.042105
4	-0.010526	36	-0.031579
5	-0.010526	37	-0.021053
6	-0.042105	38	-0.021053
7	-0.042105	39	0.115789
8	-0.031579	40	**********
9	-0.063158	41	**********
10	-0.021053	42	-0.126316
11	-0.010526	43	-0.084211
12	0.021053	44	-0.063158
13	-0.094737	45	-0.052632
14	-0.063158	46	-0.052632
15	-0.031579	47	-0.042105
16	-0.021053	48	-0.010526
17	-0.021053	49	-0.021053
18	0.084211	50	-0.021053
19	-0.126316	51	-0.031579
20	-0.105263	52	-0.031579
21	-0.031579	53	-0.031579
22	-0.021053	54	-0.031579
23	-0.021053	55	-0.021053
24	-0.010526	56	-0.010526
25	0.105263	57	-0.021053
26	-0.094737	58	-0.021053
27	-0.126316	59	-0.031579
28	-0.042105	60	-0.063158
29	-0.031579	61	-0.052632
30	-0.021053	62	-0.063158
31	-0.021053	63	-0.052632
32	0.126316	64	-0.031579

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.747368
2	-0.400000	34	-0.315789
3	-0.178947	35	-0.305263
4	-0.684210	36	-0.294737
5	-0.200000	37	-0.105263
6	-0.210526	38	-0.115789
7	-0.663158	39	-0.400000
8	-0.578947	40	**********
9	-0.263158	41	**********
10	-0.231579	42	-0.652632
11	-0.147368	43	-0.221053
12	-0.557895	44	-0.221053
13	-0.484210	45	-0.231579
14	-0.410526	46	-0.084211
15	-0.421053	47	-0.094737
16	-0.168421	48	0.105263
17	-0.157895	49	0.105263
18	-0.610526	50	0.084211
19	-0.673684	51	0.073684
20	-0.452632	52	0.063158
21	-0.347368	53	0.063158
22	-0.263158	54	0.052632
23	-0.221053	55	0.073684
24	-0.126316	56	0.084211
25	-0.621053	57	0.063158
26	-0.726316	58	0.063158
27	-0.389474	59	0.042105
28	-0.357895	60	-0.021053
29	-0.315789	61	-0.010526
30	-0.189474	62	-0.021053
31	-0.105263	63	-0.010526
32	-0.536842	64	0.010526

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.621053
2	-2.242105	34	-0.705263
3	-0.463158	35	-0.757895
4	-1.978947	36	-1.147367
5	-1.842105	37	-0.568421
6	-0.410526	38	-0.178947
7	-1.631578	39	-0.347368
8	-1.957894	40	**********
9	-2.515789	41	**********
10	-0.431579	42	-0.368421
11	-0.336842	43	-0.484210
12	-1.410526	44	-0.557895
13	-1.536841	45	-0.747368
14	-2.357894	46	-0.610526
15	-2.368421	47	-0.200000
16	-0.410526	48	0.294737
17	-0.284211	49	0.284211
18	-1.136842	50	0.231579
19	-1.168421	51	0.231579
20	-1.263158	52	0.210526
21	-1.747368	53	0.210526
22	-2.200000	54	0.178947
23	-0.400000	55	0.210526
24	-0.210526	56	0.221053
25	-0.842105	57	0.189474
26	-0.852632	58	0.178947
27	-0.915789	59	0.147368
28	-1.021052	60	0.052632
29	-1.747368	61	0.052632
30	-0.431579	62	0.042105
31	-0.157895	63	0.052632
32	-0.610526	64	0.063158

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.726316
2	-3.368421	34	-0.831579
3	-0.663158	35	-0.926316
4	-2.810526	36	-1.010526
5	-3.031578	37	-0.905263
6	-0.589474	38	-0.484210
7	-2.200000	39	-0.400000
8	-2.515789	40	**********
9	-3.652631	41	**********
10	-1.378947	42	-0.463158
11	-0.442105	43	-0.600000
12	-1.599999	44	-0.673684
13	-1.726315	45	-0.757895
14	-2.557895	46	-0.747368
15	-2.989473	47	-0.473684
16	-0.810526	48	0.389474
17	-0.368421	49	0.378947
18	-1.210526	50	0.315789
19	-1.294736	51	0.326316
20	-1.336842	52	0.284211
21	-1.684210	53	0.284211
22	-1.957894	54	0.252632
23	-1.084210	55	0.273684
24	-0.431579	56	0.305263
25	-0.926316	57	0.263158
26	-0.989474	58	0.252632
27	-1.063157	59	0.200000
28	-1.210526	60	0.084211
29	-1.378947	61	0.094737
30	-1.084210	62	0.073684
31	-0.463158	63	0.094737
32	-0.673684	64	0.105263

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.726316
2	-4.494737	34	-0.768421
3	-0.873684	35	-0.821053
4	-3.526316	36	-0.863158
5	-3.947368	37	-0.863158
6	-0.757895	38	-0.757895
7	-2.052631	39	-0.589474
8	-2.284210	40	**********
9	-2.947368	41	**********
10	-1.842105	42	-0.600000
11	-0.831579	43	-0.621053
12	-1.494737	44	-0.663158
13	-1.589473	45	-0.705263
14	-1.778947	46	-0.736842
15	-1.821053	47	-0.652632
16	-1.599999	48	0.536842
17	-0.968421	49	0.526316
18	-1.126315	50	0.389474
19	-1.210526	51	0.400000
20	-1.263158	52	0.368421
21	-1.315789	53	0.357895
22	-1.347368	54	0.315789
23	-1.273684	55	0.315789
24	-0.968421	56	0.378947
25	-0.884210	57	0.326316
26	-0.926316	58	0.315789
27	-0.978947	59	0.263158
28	-1.031578	60	0.073684
29	-1.063157	61	0.094737
30	-1.042105	62	0.105263
31	-0.873684	63	0.126316
32	-0.694737	64	0.147368

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.873684
2	-2.115789	34	-0.915789
3	-1.747368	35	-0.978947
4	-1.715789	36	-1.031578
5	-1.757895	37	-1.052631
6	-1.642105	38	-0.968421
7	-1.452631	39	-0.726316
8	-1.484210	40	**********
9	-1.505262	41	**********
10	-1.494737	42	-0.736842
11	-1.452631	43	-0.768421
12	-1.315789	44	-0.831579
13	-1.336842	45	-0.905263
14	-1.368421	46	-0.968421
15	-1.378947	47	-0.842105
16	-1.368421	48	0.557895
17	-1.336842	49	0.547368
18	-1.189473	50	0.452632
19	-1.210526	51	0.484210
20	-1.221052	52	0.431579
21	-1.252631	53	0.410526
22	-1.273684	54	0.378947
23	-1.284210	55	0.378947
24	-1.252631	56	0.463158
25	-1.031578	57	0.400000
26	-1.042105	58	0.400000
27	-1.084210	59	0.326316
28	-1.115789	60	0.105263
29	-1.147367	61	0.136842
30	-1.168421	62	0.157895
31	-1.115789	63	0.178947
32	-0.863158	64	0.189474

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-15 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.010638
2	-1.553191	34	-1.063829
3	-1.542553	35	-1.170213
4	-1.553191	36	-1.265957
5	-1.553191	37	-1.276595
6	-1.553191	38	-1.127659
7	-1.510638	39	-0.829787
8	-1.521276	40	**********
9	-1.531915	41	**********
10	-1.531915	42	-0.840425
11	-1.521276	43	-0.914894
12	-1.468084	44	-1.021276
13	-1.478723	45	-1.127659
14	-1.489361	46	-1.223404
15	-1.500000	47	-1.021276
16	-1.510638	48	0.638298
17	-1.500000	49	0.617021
18	-1.329786	50	0.510638
19	-1.340425	51	0.563830
20	-1.372340	52	0.500000
21	-1.404255	53	0.489362
22	-1.436170	54	0.436170
23	-1.457446	55	0.425532
24	-1.446808	56	0.563830
25	-1.127659	57	0.489362
26	-1.148935	58	0.478723
27	-1.202127	59	0.404255
28	-1.276595	60	0.170213
29	-1.329786	61	0.212766
30	-1.340425	62	0.223404
31	-1.255319	63	0.244681
32	-1.000000	64	0.255319

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.053191
2	0.031915	34	-0.031915
3	0.010638	35	-0.021277
4	0.010638	36	-0.021277
5	0.010638	37	-0.010638
6	-0.021277	38	-0.010638
7	-0.021277	39	0.074468
8	-0.010638	40	**********
9	-0.031915	41	**********
10	-0.010638	42	-0.085106
11	0.0	43	-0.053191
12	0.021277	44	-0.053191
13	-0.053191	45	-0.042553
14	-0.031915	46	-0.042553
15	-0.010638	47	-0.031915
16	-0.010638	48	0.010638
17	0.0	49	0.0
18	0.063830	50	0.0
19	-0.074468	51	0.021277
20	-0.063830	52	0.0
21	-0.021277	53	-0.010638
22	-0.010638	54	-0.021277
23	0.0	55	-0.010638
24	0.0	56	-0.010638
25	0.085106	57	-0.010638
26	-0.063830	58	-0.021277
27	-0.063830	59	-0.053191
28	-0.021277	60	-0.042553
29	-0.010638	61	-0.042553
30	-0.010638	62	-0.042553
31	-0.010638	63	-0.053191
32	0.095745	64	-0.053191

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.431579
2	-0.157895	34	-0.252632
3	-0.147368	35	-0.326316
4	-0.652632	36	-0.431579
5	-0.136842	37	-0.052632
6	-0.157895	38	-0.063158
7	-0.589474	39	-0.336842
8	-0.673684	40	**********
9	-0.515789	41	**********
10	-0.115789	42	-0.452632
11	-0.126316	43	-0.210526
12	-0.610526	44	-0.189474
13	-0.505263	45	-0.326316
14	-0.642105	46	-0.063158
15	-0.421053	47	-0.063158
16	-0.105263	48	0.136842
17	-0.115789	49	0.126316
18	-0.515789	50	0.105263
19	-0.484210	51	0.126316
20	-0.505263	52	0.105263
21	-0.557895	53	0.094737
22	-0.389474	54	0.084211
23	-0.084211	55	0.084211
24	-0.105263	56	0.084211
25	-0.357895	57	0.073684
26	-0.368421	58	0.073684
27	-0.389474	59	0.063158
28	-0.526316	60	-0.010526
29	-0.400000	61	-0.010526
30	-0.084211	62	-0.021053
31	-0.084211	63	-0.010526
32	-0.368421	64	0.0

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.734043
2	-1.787233	34	-0.819149
3	-0.468085	35	-1.234042
4	-1.882978	36	-1.436170
5	-1.446808	37	-0.265957
6	-0.457447	38	-0.148936
7	-1.574468	39	-0.372340
8	-1.808510	40	**********
9	-2.021276	41	**********
10	-0.457447	42	-0.393617
11	-0.372340	43	-0.468085
12	-1.372340	44	-0.542553
13	-1.489361	45	-1.095744
14	-2.244680	46	-0.255319
15	-1.861702	47	-0.106383
16	-0.404255	48	0.319149
17	-0.319149	49	0.308511
18	-1.117021	50	0.265957
19	-1.202127	51	0.287234
20	-1.276595	52	0.244681
21	-2.148935	53	0.234043
22	-1.723404	54	0.212766
23	-0.340425	55	0.234043
24	-0.265957	56	0.234043
25	-0.946808	57	0.212766
26	-0.957447	58	0.202128
27	-1.063829	59	0.170213
28	-1.765957	60	0.074468
29	-1.606382	61	0.053191
30	-0.308511	62	0.042553
31	-0.212766	63	0.053191
32	-0.723404	64	0.074468

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.800000
2	-2.778947	34	-0.863158
3	-0.694737	35	-1.231579
4	-2.684210	36	-1.378947
5	-2.326315	37	-0.610526
6	-0.642105	38	-0.273684
7	-2.200000	39	-0.442105
8	-2.431579	40	**********
9	-2.894736	41	**********
10	-0.831579	42	-0.473684
11	-0.515789	43	-0.578947
12	-1.821053	44	-0.736842
13	-1.926315	45	-1.000000
14	-2.978947	46	-0.621053
15	-2.642105	47	-0.210526
16	-0.705263	48	0.421053
17	-0.410526	49	0.410526
18	-0.273684	50	0.336842
19	-1.431579	51	0.368421
20	-1.547368	52	0.326316
21	-2.621052	53	0.315789
22	-2.326315	54	0.284211
23	-0.589474	55	0.315789
24	-0.326316	56	0.305263
25	-1.000000	57	0.284211
26	-1.052631	58	0.273684
27	-1.084210	59	0.231579
28	-1.789474	60	0.115789
29	-1.810526	61	0.094737
30	-0.557895	62	0.084211
31	-0.284211	63	0.094737
32	-0.768421	64	0.115789

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.852632
2	-3.789474	34	-0.947368
3	-0.947368	35	-1.000000
4	-3.484210	36	-1.021052
5	-3.178946	37	-0.884210
6	-0.831579	38	-0.526316
7	-2.494737	39	-0.536842
8	-2.799999	40	**********
9	-3.578947	41	**********
10	-1.178946	42	-0.621053
11	-0.610526	43	-0.705263
12	-1.715789	44	-0.778947
13	-1.778947	45	-0.821053
14	-2.431579	46	-0.757895
15	-2.357894	47	-0.463158
16	-1.252631	48	0.515789
17	-0.631579	49	0.505263
18	-1.315789	50	0.421053
19	-1.378947	51	0.452632
20	-1.715789	52	0.400000
21	-1.673684	53	0.389474
22	-1.673684	54	0.347368
23	-1.221052	55	0.378947
24	-0.600000	56	0.389474
25	-1.021052	57	0.347368
26	-1.084210	58	0.336842
27	-1.200000	59	0.284211
28	-1.273684	60	0.157895
29	-1.284210	61	0.147368
30	-1.063157	62	0.136842
31	-0.578947	63	0.147368
32	-0.789474	64	0.157895

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.855422
2	-4.710843	34	-0.915663
3	-1.108434	35	-0.951807
4	-3.072289	36	-0.975904
5	-3.313252	37	-0.927711
6	-1.132529	38	-0.771084
7	-1.891565	39	-0.698795
8	-2.036144	40	**********
9	-2.096385	41	**********
10	-1.795180	42	-0.722892
11	-1.180722	43	-0.771084
12	-1.421686	44	-0.831325
13	-1.506023	45	-0.867470
14	-1.566264	46	-0.843373
15	-1.566264	47	-0.650602
16	-1.445783	48	0.602410
17	-1.132529	49	0.590361
18	-1.156626	50	0.481928
19	-1.192771	51	0.530120
20	-1.240963	52	0.481928
21	-1.277108	53	0.457831
22	-1.289156	54	0.397590
23	-1.216867	55	0.445783
24	-1.012048	56	0.457831
25	-0.975904	57	0.421687
26	-1.000000	58	0.397590
27	-1.048192	59	0.337349
28	-1.084337	60	0.144578
29	-1.108434	61	0.144578
30	-1.072289	62	0.144578
31	-0.903614	63	0.168675
32	-0.855422	64	0.192771

Note: This run was made at q = 35 psf to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.021052
2	-2.515789	34	-1.157894
3	-2.042105	35	-1.263158
4	-2.157894	36	-1.294736
5	-2.168421	37	-1.168421
6	-1.894736	38	-0.831579
7	-1.842105	39	-0.789474
8	-1.894736	40	**********
9	-1.915789	41	**********
10	-1.852632	42	-0.821053
11	-1.705263	43	-0.957895
12	-1.631578	44	-1.126315
13	-1.684210	45	-1.221052
14	-1.736841	46	-1.126315
15	-1.747368	47	-0.673684
16	-1.694736	48	0.663158
17	-1.515789	49	0.642105
18	-1.452631	50	0.526316
19	-1.473683	51	0.610526
20	-1.547368	52	0.536842
21	-1.578947	53	0.515789
22	-1.599999	54	0.452632
23	-1.557895	55	0.515789
24	-1.347368	56	0.557895
25	-1.231579	57	0.505263
26	-1.252631	58	0.494737
27	-1.336842	59	0.410526
28	-1.389473	60	0.252632
29	-1.410526	61	0.263158
30	-1.389473	62	0.242105
31	-1.168421	63	0.263158
32	-1.000000	64	0.263158

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=-10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.863158
2	~~0.0~~	34	-0.915789
3	-1.115789	35	-0.957895
4	-3.000000	36	-0.978947
5	-3.136842	37	-0.936842
6	-1.147367	38	-0.789474
7	-1.863157	39	-0.705263
8	-1.989473	40	**********
9	-2.042105	41	**********
10	-1.757895	42	-0.726316
11	-1.210526	43	-0.778947
12	-1.400000	44	-0.831579
13	-1.484210	45	-0.873684
14	-1.547368	46	-0.863158
15	-1.536841	47	-0.652632
16	-1.421052	48	0.610526
17	-1.136842	49	0.589474
18	-1.147367	50	0.484210
19	-1.189473	51	0.526316
20	-1.252631	52	0.473684
21	-1.273684	53	0.452632
22	-1.284210	54	0.400000
23	-1.210526	55	0.442105
24	-1.021052	56	0.463158
25	-0.989474	57	0.421053
26	-1.000000	58	0.400000
27	-1.052631	59	0.336842
28	-1.094736	60	0.147368
29	-1.105263	61	0.157895
30	-1.073684	62	0.147368
31	-0.926315	63	0.168421
32	-0.842105	64	0.178947

Note: Tube # 2 was not metered during this run to avoid exceeding manometer limits.

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.031579
2	0.010526	34	-0.021053
3	0.010526	35	-0.021053
4	-0.021053	36	-0.021053
5	-0.021053	37	-0.021053
6	-0.021053	38	-0.021053
7	-0.021053	39	0.0
8	-0.021053	40	**********
9	-0.021053	41	**********
10	-0.021053	42	-0.052632
11	-0.021053	43	-0.052632
12	-0.021053	44	-0.052632
13	-0.042105	45	-0.052632
14	-0.042105	46	-0.052632
15	-0.021053	47	-0.052632
16	-0.021053	48	0.010526
17	-0.021053	49	0.0
18	0.0	50	0.0
19	-0.042105	51	0.126316
20	-0.042105	52	0.052632
21	-0.021053	53	0.010526
22	-0.021053	54	-0.084211
23	-0.021053	55	-0.021053
24	-0.021053	56	-0.010526
25	0.010526	57	-0.010526
26	-0.031579	58	-0.157895
27	-0.021053	59	-0.126316
28	-0.021053	60	-0.052632
29	-0.021053	61	-0.042105
30	-0.021053	62	-0.021053
31	-0.021053	63	-0.189474
32	0.010526	64	-0.094737

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.326316
2	-0.136842	34	-0.452632
3	-0.126316	35	-0.368421
4	-0.589474	36	-0.115789
5	-0.136842	37	-0.094737
6	-0.157895	38	-0.094737
7	-0.494737	39	-0.221053
8	-0.694737	40	**********
9	-0.147368	41	**********
10	-0.126316	42	-0.231579
11	-0.126316	43	-0.368421
12	-0.452632	44	-0.368421
13	-0.600000	45	-0.105263
14	-0.326316	46	-0.084211
15	-0.126316	47	-0.073684
16	-0.126316	48	0.157895
17	-0.126316	49	0.147368
18	-0.400000	50	0.147368
19	-0.442105	51	0.221053
20	-0.684210	52	0.157895
21	-0.284211	53	0.147368
22	-0.168421	54	0.147368
23	-0.168421	55	0.084211
24	-0.168421	56	0.094737
25	-0.357895	57	0.105263
26	-0.357895	58	0.115789
27	-0.547368	59	0.115789
28	-0.357895	60	-0.031579
29	-0.136842	61	-0.021053
30	-0.105263	62	-0.021053
31	-0.105263	63	0.010526
32	-0.315789	64	0.021053

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.670213
2	-1.021276	34	-0.957447
3	-0.478723	35	-1.074468
4	-1.436170	36	-0.648936
5	-0.829787	37	-0.223404
6	-0.521277	38	-0.180851
7	-1.468084	39	-0.329787
8	-1.382978	40	**********
9	-1.021276	41	**********
10	-0.457447	42	-0.372340
11	-0.404255	43	-0.585106
12	-1.191489	44	-0.787234
13	-1.255319	45	0.351064
14	-1.361702	46	-0.170213
15	-0.925532	47	-0.127660
16	-0.414894	48	0.361702
17	-0.361702	49	0.351064
18	-0.957447	50	0.319149
19	-0.978723	51	0.361702
20	-1.265957	52	0.319149
21	-1.340425	53	0.308511
22	-0.861702	54	0.276596
23	-0.361702	55	0.234043
24	-0.297872	56	0.244681
25	-0.787234	57	0.244681
26	-0.819149	58	0.244681
27	-1.212766	59	0.234043
28	-1.265957	60	0.042553
29	-0.765957	61	0.031915
30	-0.297872	62	0.021277
31	-0.234043	63	0.053191
32	-0.595745	64	0.085106

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.808511
2	-1.712766	34	-1.159574
3	-0.734043	35	-1.319148
4	-2.063829	36	-0.904255
5	-1.382978	37	-0.340425
6	-0.691489	38	-0.244681
7	-2.021276	39	-0.382979
8	-1.957446	40	**********
9	-1.606382	41	**********
10	-0.712766	42	-0.393617
11	-0.563830	43	-0.648936
12	-1.542553	44	-0.882979
13	-1.734042	45	-0.670213
14	-2.106382	46	-0.223404
15	-1.468084	47	-0.138298
16	-0.627660	48	0.478723
17	-0.500000	49	0.468085
18	-1.297872	50	0.404255
19	-1.308510	51	0.468085
20	-1.946808	52	0.414894
21	-1.914893	53	0.393617
22	-1.255319	54	0.361702
23	-0.510638	55	0.340425
24	-0.404255	56	0.340425
25	-1.042553	57	0.340425
26	-1.106382	58	0.340425
27	-1.574468	59	0.308511
28	-1.627659	60	0.095745
29	-1.085106	61	0.085106
30	-0.436170	62	0.074468
31	-0.329787	63	0.106383
32	-0.765957	64	0.127660

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.905263
2	-2.494737	34	-1.336842
3	-1.010526	35	-1.536841
4	-2.789474	36	-1.157894
5	-2.000000	37	-0.442105
6	-0.936842	38	-0.294737
7	-2.568420	39	-0.442105
8	-2.673684	40	**********
9	-2.242105	41	**********
10	-0.989474	42	-0.452632
11	-0.747368	43	-0.694737
12	-1.968421	44	-0.978947
13	-2.305263	45	-0.800000
14	-2.821053	46	-0.284211
15	-1.989473	47	-0.147368
16	-0.831579	48	0.578947
17	-0.621053	49	0.568421
18	-1.621052	50	0.484210
19	-1.599999	51	0.557895
20	-2.494737	52	0.505263
21	-2.378947	53	0.473684
22	-1.621052	54	0.421053
23	-0.663158	55	0.431579
24	-0.494737	56	0.431579
25	-1.315789	57	0.421053
26	-1.326315	58	0.410526
27	-1.873684	59	0.357895
28	-1.957894	60	0.157895
29	-1.400000	61	0.136842
30	-0.578947	62	0.115789
31	-0.400000	63	0.147368
32	-0.884210	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.884210
2	-1.400000	34	-1.315789
3	0.600000	35	-1.484210
4	-1.603157	36	-1.189473
5	-0.736842	37	-0.515789
6	0.726316	38	-0.347368
7	-1.147367	39	-0.526316
8	-1.684210	40	**********
9	-1.021052	41	**********
10	0.652632	42	-0.547368
11	1.000000	43	-0.736842
12	-0.347368	44	-0.957895
13	-0.978947	45	-0.831579
14	-1.473683	46	-0.347368
15	-0.473684	47	-0.189474
16	0.905263	48	0.663158
17	1.200000	49	0.663158
18	0.126316	50	0.547368
19	0.126316	51	0.652632
20	-0.831579	52	0.589474
21	-2.610526	53	0.547368
22	-1.536841	54	0.494737
23	-0.789474	55	0.526316
24	-0.536842	56	0.526316
25	-1.315789	57	0.505263
26	-1.294736	58	0.484210
27	-1.852632	59	0.431579
28	-1.936842	60	0.221053
29	-1.463158	61	0.200000
30	-0.631579	62	0.178947
31	-0.421053	63	0.189474
32	-0.884210	64	0.210526

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA= 0 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-1.010526
2	-3.936842	34	-1.221052
3	-1.484210	35	-1.210526
4	-4.073684	36	-1.052631
5	-3.052631	37	-0.600000
6	-1.263158	38	-0.410526
7	-2.684210	39	-0.663158
8	-3.599999	40	**********
9	-2.884210	41	**********
10	-1.263158	42	-0.684210
11	-0.873684	43	-0.884210
12	-1.842105	44	-0.926316
13	-2.431579	45	-0.821053
14	-2.578947	46	-0.442105
15	-2.021052	47	-0.252632
16	-1.031578	48	0.747368
17	-0.757895	49	0.747368
18	-1.547368	50	0.610526
19	-1.599999	51	0.736842
20	-2.021052	52	0.673684
21	-1.915789	53	0.631579
22	-1.589473	54	0.568421
23	-0.863158	55	0.600000
24	-0.631579	56	0.589474
25	-1.284210	57	0.568421
26	-1.273684	58	0.547368
27	-1.536841	59	0.494737
28	-1.515789	60	0.252632
29	-1.294736	61	0.231579
30	-0.736842	62	0.210526
31	-0.515789	63	0.231579
32	-1.010526	64	0.252632

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.021053
2	-0.010526	34	-0.021053
3	-0.010526	35	-0.021053
4	-0.010526	36	-0.021053
5	-0.010526	37	-0.021053
6	-0.042105	38	-0.021053
7	-0.021053	39	-0.031579
8	-0.021053	40	**********
9	-0.021053	41	**********
10	-0.021053	42	-0.052632
11	-0.021053	43	-0.063158
12	-0.031579	44	-0.063158
13	-0.031579	45	-0.063158
14	-0.031579	46	-0.063158
15	-0.021053	47	-0.063158
16	-0.021053	48	0.021053
17	-0.021053	49	0.0
18	-0.021053	50	-0.105263
19	-0.021053	51	0.210526
20	-0.021053	52	0.115789
21	-0.021053	53	-0.178947
22	-0.021053	54	-0.136842
23	-0.021053	55	0.0
24	-0.021053	56	0.010526
25	-0.021053	57	0.052632
26	-0.021053	58	-0.305263
27	-0.021053	59	-0.210526
28	-0.021053	60	-0.052632
29	-0.021053	61	-0.021053
30	-0.021053	62	-0.147368
31	-0.021053	63	-0.273684
32	-0.021053	64	-0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.223404
2	-0.138298	34	-0.191489
3	-0.138298	35	-0.117021
4	-0.287234	36	-0.095745
5	-0.148936	37	-0.085106
6	-0.159574	38	-0.085106
7	-0.361702	39	-0.180851
8	-0.255319	40	**********
9	-0.148936	41	**********
10	-0.127660	42	-0.510638
11	-0.127660	43	-0.510638
12	-0.287234	44	-0.436170
13	-0.382979	45	-0.414894
14	-0.159574	46	-0.404255
15	-0.138298	47	-0.393617
16	-0.127660	48	-0.138298
17	-0.127660	49	-0.159574
18	-0.265957	50	-0.127660
19	-0.361702	51	-0.010638
20	-0.244681	52	-0.042553
21	-0.148936	53	-0.042553
22	-0.117021	54	-0.042553
23	-0.106383	55	-0.212766
24	-0.106383	56	-0.202128
25	-0.244681	57	-0.180851
26	-0.255319	58	-0.148936
27	-0.212766	59	-0.148936
28	-0.138298	60	-0.351064
29	-0.117021	61	-0.340425
30	-0.095745	62	-0.319149
31	-0.095745	63	-0.255319
32	-0.223404	64	-0.308511

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.431579
2	-0.705263	34	-0.526316
3	-0.452632	35	-0.400000
4	-1.010526	36	-0.294737
5	-0.610526	37	-0.189474
6	-0.442105	38	-0.147368
7	-0.905263	39	-0.273684
8	-0.947368	40	**********
9	-0.610526	41	**********
10	-0.431579	42	-0.263158
11	-0.368421	43	-0.378947
12	-0.726316	44	-0.294737
13	-0.947368	45	-0.210526
14	-0.684210	46	-0.136842
15	-0.526316	47	-0.094737
16	-0.368421	48	0.421053
17	-0.315789	49	0.400000
18	-0.642105	50	0.410526
19	-0.726316	51	0.463158
20	-0.800000	52	0.410526
21	-0.589474	53	0.400000
22	-0.484210	54	0.389474
23	-0.315789	55	0.263158
24	-0.263158	56	0.284211
25	-0.557895	57	0.305263
26	-0.547368	58	0.326316
27	-0.663158	59	0.326316
28	-0.494737	60	0.021053
29	-0.368421	61	0.021053
30	-0.252632	62	0.052632
31	-0.200000	63	0.105263
32	-0.452632	64	0.126316

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.515789
2	-1.105263	34	-0.642105
3	-0.673684	35	-0.505263
4	-1.442104	36	-0.378947
5	-0.926316	37	-0.263158
6	-0.631579	38	-0.294737
7	-1.231579	39	-0.315789
8	-1.284210	40	**********
9	-0.894737	41	**********
10	-0.589474	42	-0.305263
11	-0.505263	43	-0.442105
12	-0.936842	44	-0.347368
13	-1.231579	45	-0.263158
14	-0.957895	46	-0.189474
15	-0.726316	47	-0.252632
16	-0.484210	48	0.526316
17	-0.410526	49	0.505263
18	-0.810526	50	0.494737
19	-0.936842	51	0.547368
20	-1.031578	52	0.505263
21	-0.778947	53	0.494737
22	-0.589474	54	0.463158
23	-0.389474	55	0.347368
24	-0.315789	56	0.357895
25	-0.684210	57	0.378947
26	-0.673684	58	0.389474
27	-0.821053	59	0.389474
28	-0.652632	60	0.021053
29	-0.494737	61	0.031579
30	-0.336842	62	0.073684
31	-0.315789	63	0.126316
32	-0.536842	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.621053
2	-1.526316	34	-0.757895
3	-0.915789	35	-0.589474
4	-1.884210	36	-0.452632
5	-1.231579	37	-0.336842
6	-0.821053	38	-0.568421
7	-1.473683	39	-0.347368
8	-1.547368	40	**********
9	-1.126315	41	**********
10	-0.726316	42	-0.336842
11	-0.610526	43	-0.484210
12	-1.147367	44	-0.378947
13	-1.473683	45	-0.284211
14	-1.168421	46	-0.242105
15	-0.915789	47	-0.484210
16	-0.631579	48	0.642105
17	-0.642105	49	0.621053
18	-0.957895	50	0.578947
19	-1.178946	51	0.631579
20	-1.210526	52	0.600000
21	-0.947368	53	0.578947
22	-0.726316	54	0.536842
23	-0.505263	55	0.431579
24	-0.621053	56	0.442105
25	-0.821053	57	0.452632
26	-0.842105	58	0.463158
27	-0.978947	59	0.452632
28	-0.768421	60	0.021053
29	-0.589474	61	0.042105
30	-0.421053	62	0.084211
31	-0.610526	63	0.136842
32	-0.642105	64	0.178947

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.744681
2	-1.723404	34	-0.819149
3	-1.063829	35	-0.638298
4	-1.978723	36	-0.521277
5	-1.329786	37	-0.563830
6	-1.117021	38	-0.819149
7	-1.648935	39	-0.382979
8	-1.638297	40	**********
9	-1.138297	41	**********
10	-0.861702	42	-0.425532
11	-1.191489	43	-0.510638
12	-1.308510	44	-0.382979
13	-1.606382	45	-0.297872
14	-1.180851	46	-0.382979
15	-0.925532	47	-0.670213
16	-0.819149	48	0.744681
17	-1.148935	49	0.734043
18	-1.095744	50	0.680851
19	-1.372340	51	0.712766
20	-1.276595	52	0.659574
21	-0.989362	53	0.648936
22	-0.797872	54	0.617021
23	-0.776596	55	0.500000
24	-1.042553	56	0.510638
25	-0.914894	57	0.521277
26	-1.031915	58	0.521277
27	-1.053191	59	0.500000
28	-0.829787	60	0.010638
29	-0.680851	61	0.042553
30	-0.702128	62	0.095745
31	-0.957447	63	0.138298
32	-0.680851	64	0.191489

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+10 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.882979
2	-1.840425	34	-1.000000
3	-2.021276	35	-0.702128
4	-2.287233	36	-0.478723
5	-1.638297	37	-0.457447
6	-1.914893	38	-0.861702
7	-2.372340	39	-0.414894
8	-2.063829	40	**********
9	-1.457446	41	**********
10	-1.382978	42	-0.436170
11	-1.723404	43	-0.563830
12	-1.776595	44	-0.361702
13	-2.202127	45	-0.223404
14	-1.500000	46	-0.234043
15	-1.180851	47	-0.691489
16	-1.159574	48	0.840425
17	-1.542553	49	0.819149
18	-1.457446	50	0.765957
19	-1.978723	51	0.797872
20	-1.712766	52	0.755319
21	-1.265957	53	0.723404
22	-0.989362	54	0.670213
23	-0.989362	55	0.606383
24	-1.393617	56	0.617021
25	-1.170213	57	0.617021
26	-1.404255	58	0.606383
27	-1.382978	59	0.574468
28	-1.010638	60	0.085106
29	-0.755319	61	0.106383
30	-0.797872	62	0.148936
31	-1.212766	63	0.202128
32	-0.797872	64	0.244681

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+15 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.010526
2	0.0	34	-0.010526
3	-0.021053	35	-0.010526
4	0.0	36	-0.010526
5	-0.010526	37	-0.010526
6	-0.042105	38	-0.010526
7	-0.010526	39	-0.031579
8	0.0	40	**********
9	0.0	41	**********
10	0.0	42	-0.031579
11	-0.010526	43	-0.031579
12	-0.010526	44	-0.042105
13	-0.010526	45	-0.042105
14	-0.010526	46	-0.042105
15	-0.010526	47	-0.031579
16	-0.010526	48	0.052632
17	-0.010526	49	0.021053
18	-0.010526	50	-0.136842
19	-0.010526	51	0.263158
20	-0.010526	52	0.178947
21	-0.010526	53	-0.200000
22	-0.010526	54	-0.157895
23	-0.010526	55	0.063158
24	-0.010526	56	0.063158
25	-0.010526	57	0.105263
26	-0.010526	58	-0.315789
27	-0.010526	59	-0.231579
28	-0.010526	60	-0.010526
29	-0.010526	61	0.031579
30	-0.010526	62	-0.263158
31	-0.010526	63	-0.273684
32	-0.010526	64	-0.178947

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+15 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.180851
2	-0.148936	34	-0.117021
3	-0.180851	35	-0.095745
4	-0.202128	36	-0.085106
5	-0.159574	37	-0.085106
6	-0.191489	38	-0.085106
7	-0.287234	39	-0.117021
8	-0.180851	40	**********
9	-0.138298	41	**********
10	-0.127660	42	-0.138298
11	-0.159574	43	-0.106383
12	-0.234043	44	-0.095745
13	-0.223404	45	-0.085106
14	-0.138298	46	-0.085106
15	-0.138298	47	-0.085106
16	-0.138298	48	0.212766
17	-0.138298	49	0.191489
18	-0.191489	50	0.255319
19	-0.255319	51	0.361702
20	-0.159574	52	0.276596
21	-0.127660	53	0.297872
22	-0.117021	54	0.297872
23	-0.117021	55	0.159574
24	-0.148936	56	0.170213
25	-0.170213	57	0.180851
26	-0.212766	58	0.234043
27	-0.138298	59	0.234043
28	-0.117021	60	-0.010638
29	-0.106383	61	0.010638
30	-0.095745	62	0.042553
31	-0.127660	63	0.106383
32	-0.148936	64	0.063830

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=±15 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.326316
2	-0.600000	34	-0.336842
3	-0.410526	35	-0.263158
4	-0.747368	36	-0.231579
5	-0.526316	37	-0.178947
6	-0.389474	38	-0.168421
7	-0.715789	39	-0.200000
8	-0.642105	40	**********
9	-0.494737	41	**********
10	-0.389474	42	-0.210526
11	-0.315789	43	-0.242105
12	-0.547368	44	-0.200000
13	-0.652632	45	-0.178947
14	-0.484210	46	-0.157895
15	-0.410526	47	-0.210526
16	-0.315789	48	0.442105
17	-0.252632	49	0.421053
18	-0.452632	50	0.452632
19	-0.568421	51	0.494737
20	-0.494737	52	0.452632
21	-0.400000	53	0.452632
22	-0.326316	54	0.452632
23	-0.252632	55	0.284211
24	-0.200000	56	0.305263
25	-0.368421	57	0.336842
26	-0.431579	58	0.368421
27	-0.410526	59	0.378947
28	-0.336842	60	-0.010526
29	-0.273684	61	0.010526
30	-0.210526	62	0.073684
31	-0.157895	63	0.126316
32	-0.305263	64	0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+15 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.400000
2	-0.926316	34	-0.421053
3	-0.610526	35	-0.336842
4	-1.094736	36	-0.284211
5	-0.778947	37	-0.242105
6	-0.568421	38	-0.494737
7	-0.978947	39	-0.231579
8	-0.905263	40	**********
9	-0.694737	41	**********
10	-0.505263	42	-0.147368
11	-0.431579	43	-0.294737
12	-0.715789	44	-0.136842
13	-0.863158	45	-0.094737
14	-0.663158	46	-0.105263
15	-0.557895	47	-0.484210
16	-0.421053	48	0.557895
17	-0.357895	49	0.536842
18	-0.589474	50	0.547368
19	-0.726316	51	0.589474
20	-0.663158	52	0.547368
21	-0.547368	53	0.547368
22	-0.463158	54	0.536842
23	-0.378947	55	0.368421
24	-0.431579	56	0.378947
25	-0.494737	57	0.410526
26	-0.547368	58	0.442105
27	-0.536842	59	0.442105
28	-0.442105	60	0.0
29	-0.368421	61	0.021053
30	-0.315789	62	0.084211
31	-0.463158	63	0.147368
32	-0.378947	64	0.189474

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+15 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.452632
2	-1.210526	34	-0.421053
3	-0.842105	35	-0.347368
4	-1.336842	36	-0.326316
5	-0.947368	37	-0.505263
6	-0.705263	38	-0.757895
7	-1.126315	39	-0.221053
8	-1.063157	40	**********
9	-0.831579	41	**********
10	-0.663158	42	-0.252632
11	-0.778947	43	-0.273684
12	-0.852632	44	-0.231579
13	-0.978947	45	-0.242105
14	-0.757895	46	-0.442105
15	-0.642105	47	-0.652632
16	-0.557895	48	0.684210
17	-0.936842	49	0.663158
18	-0.694737	50	0.652632
19	-0.863158	51	0.663158
20	-0.736842	52	0.631579
21	-0.589474	53	0.621053
22	-0.505263	54	0.610526
23	-0.536842	55	0.442105
24	-0.947368	56	0.463158
25	-0.547368	57	0.484210
26	-0.631579	58	0.505263
27	-0.568421	59	0.505263
28	-0.473684	60	0.0
29	-0.410526	61	0.031579
30	-0.536842	62	0.105263
31	-0.863158	63	0.168421
32	-0.410526	64	0.210526

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+15 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.705263
2	-1.315789	34	-0.494737
3	-1.757895	35	-0.389474
4	-1.357894	36	-0.421053
5	-1.231579	37	-0.736842
6	-1.684210	38	-0.968421
7	-1.442104	39	-0.284211
8	-1.147367	40	**********
9	-1.042105	41	**********
10	-1.305263	42	-0.400000
11	-1.484210	43	-0.284211
12	-1.178946	44	-0.221053
13	-1.178946	45	-0.263158
14	-0.894737	46	-0.578947
15	-0.915789	47	-0.852632
16	-1.200000	48	0.768421
17	-1.347368	49	0.747368
18	-0.947368	50	0.736842
19	-1.168421	51	0.736842
20	-0.894737	52	0.705263
21	-0.757895	53	0.684210
22	-0.800000	54	0.663158
23	-1.094736	55	0.515789
24	-1.242105	56	0.536842
25	-0.757895	57	0.557895
26	-0.947368	58	0.557895
27	-0.705263	59	0.557895
28	-0.589474	60	0.0
29	-0.610526	61	0.052632
30	-0.936842	62	0.126316
31	-1.115789	63	0.189474
32	-0.536842	64	0.242105

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+15 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.800000
2	-1.526316	34	-0.547368
3	-1.526316	35	-0.452632
4	-1.473683	36	-0.505263
5	-1.505262	37	-0.852632
6	-1.526316	38	-1.105263
7	-1.536841	39	-0.294737
8	-1.389473	40	**********
9	-1.410526	41	**********
10	-1.484210	42	-0.442105
11	-1.505262	43	-0.273684
12	-1.368421	44	-0.231579
13	-1.326315	45	-0.357895
14	-1.231579	46	-0.663158
15	-1.294736	47	-1.000000
16	-1.431579	48	0.852632
17	-1.484210	49	0.821053
18	-1.136842	50	0.800000
19	-1.273684	51	0.800000
20	-1.042105	52	0.768421
21	-1.010526	53	0.747368
22	-1.105263	54	0.715789
23	-1.347368	55	0.600000
24	-1.442104	56	0.610526
25	-0.936842	57	0.631579
26	-1.073684	58	0.631579
27	-0.778947	59	0.610526
28	-0.694737	60	0.042105
29	-0.757895	61	0.094737
30	-1.063157	62	0.221053
31	-1.252631	63	0.231579
32	-0.589474	64	0.284211

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.031579
2	-0.042105	34	-0.031579
3	-0.063158	35	-0.031579
4	-0.042105	36	-0.031579
5	-0.042105	37	-0.031579
6	-0.073684	38	-0.031579
7	-0.031579	39	-0.031579
8	-0.031579	40	**********
9	-0.031579	41	**********
10	-0.031579	42	-0.042105
11	-0.031579	43	-0.042105
12	-0.042105	44	-0.042105
13	-0.042105	45	-0.042105
14	-0.042105	46	-0.052632
15	-0.031579	47	-0.042105
16	-0.031579	48	0.094737
17	-0.031579	49	0.021053
18	-0.031579	50	-0.178947
19	-0.042105	51	0.305263
20	-0.031579	52	0.189474
21	-0.031579	53	-0.210526
22	-0.031579	54	-0.168421
23	-0.031579	55	0.105263
24	-0.031579	56	0.115789
25	-0.031579	57	0.073684
26	-0.031579	58	-0.336842
27	-0.031579	59	-0.242105
28	-0.031579	60	0.031579
29	-0.031579	61	0.084211
30	-0.031579	62	-0.347368
31	-0.031579	63	-0.273684
32	-0.031579	64	-0.168421

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.115789
2	-0.157895	34	-0.094737
3	-0.221053	35	-0.084211
4	-0.157895	36	-0.084211
5	-0.157895	37	-0.084211
6	-0.231579	38	-0.094737
7	-0.189474	39	-0.084211
8	-0.147368	40	**********
9	-0.147368	41	**********
10	-0.157895	42	-0.105263
11	-0.178947	43	-0.094737
12	-0.168421	44	-0.084211
13	-0.157895	45	-0.084211
14	-0.136842	46	-0.094737
15	-0.136842	47	-0.094737
16	-0.147368	48	0.221053
17	-0.168421	49	0.189474
18	-0.147368	50	0.284211
19	-0.157895	51	0.400000
20	-0.136842	52	0.315789
21	-0.115789	53	0.347368
22	-0.115789	54	0.336842
23	-0.126316	55	0.200000
24	-0.136842	56	0.200000
25	-0.115789	57	0.221053
26	-0.126316	58	0.284211
27	-0.105263	59	0.273684
28	-0.105263	60	0.021053
29	-0.105263	61	0.031579
30	-0.105263	62	0.063158
31	-0.126316	63	0.136842
32	-0.105263	64	0.052632

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.263158
2	-0.515789	34	-0.231579
3	-0.305263	35	-0.210526
4	-0.547368	36	-0.189474
5	-0.452632	37	-0.157895
6	-0.336842	38	-0.305263
7	-0.536842	39	-0.147368
8	-0.473684	40	**********
9	-0.410526	41	**********
10	-0.336842	42	-0.178947
11	-0.273684	43	-0.178947
12	-0.421053	44	-0.157895
13	-0.442105	45	-0.136842
14	-0.357895	46	-0.136842
15	-0.336842	47	-0.357895
16	-0.273684	48	0.463158
17	-0.210526	49	0.431579
18	-0.326316	50	0.505263
19	-0.410526	51	0.526316
20	-0.336842	52	0.494737
21	-0.305263	53	0.515789
22	-0.273684	54	0.515789
23	-0.221053	55	0.326316
24	-0.157895	56	0.336842
25	-0.284211	57	0.368421
26	-0.336842	58	0.421053
27	-0.294737	59	0.421053
28	-0.263158	60	0.0
29	-0.242105	61	0.021053
30	-0.200000	62	0.105263
31	-0.200000	63	0.189474
32	-0.231579	64	0.189474

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.315789
2	-0.757895	34	-0.284211
3	-0.536842	35	-0.252632
4	-0.800000	36	-0.231579
5	-0.642105	37	-0.326316
6	-0.473684	38	-0.726316
7	-0.726316	39	-0.168421
8	-0.642105	40	**********
9	-0.547368	41	**********
10	-0.431579	42	-0.210526
11	-0.357895	43	-0.200000
12	-0.536842	44	-0.189474
13	-0.536842	45	-0.178947
14	-0.494737	46	-0.347368
15	-0.452632	47	-0.621053
16	-0.389474	48	0.589474
17	-0.442105	49	0.557895
18	-0.431579	50	0.600000
19	-0.526316	51	0.610526
20	-0.452632	52	0.578947
21	-0.410526	53	0.600000
22	-0.368421	54	0.589474
23	-0.336842	55	0.400000
24	-0.610526	56	0.410526
25	-0.357895	57	0.442105
26	-0.421053	58	0.484210
27	-0.368421	59	0.494737
28	-0.336842	60	0.0
29	-0.305263	61	0.031579
30	-0.315789	62	0.115789
31	-0.526316	63	0.189474
32	-0.273684	64	0.221053

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.361702
2	-0.989362	34	-0.308511
3	-0.787234	35	-0.351064
4	-0.989362	36	-0.446808
5	-0.787234	37	-0.691489
6	-0.659574	38	-0.829787
7	-0.872340	39	-0.180851
8	-0.765957	40	**********
9	-0.659574	41	**********
10	-0.627660	42	-0.223404
11	-1.127659	43	-0.223404
12	-0.659574	44	-0.244681
13	-0.680851	45	-0.393617
14	-0.574468	46	-0.606383
15	-0.553191	47	-0.702128
16	-0.702128	48	0.712766
17	-1.276595	49	0.680851
18	-0.521277	50	0.702128
19	-0.595745	51	0.691489
20	-0.500000	52	0.670213
21	-0.468085	53	0.670213
22	-0.489362	54	0.659574
23	-0.776596	55	0.468085
24	-1.138297	56	0.478723
25	-0.425532	57	0.510638
26	-0.468085	58	0.542553
27	-0.404255	59	0.553191
28	-0.414894	60	0.010638
29	-0.478723	61	0.042553
30	-0.765957	62	0.138298
31	-0.968085	63	0.202128
32	-0.319149	64	0.244681

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.446808
2	-1.382978	34	-0.393617
3	-1.787233	35	-0.521277
4	-1.159574	36	-0.680851
5	-1.382978	37	-0.893617
6	-1.595744	38	-0.989362
7	-1.042553	39	-0.212766
8	-1.010638	40	**********
9	-1.223404	41	**********
10	-1.372340	42	-0.265957
11	-1.414893	43	-0.223404
12	-0.882979	44	-0.329787
13	-0.851064	45	-0.478723
14	-0.989362	46	-0.734043
15	-1.117021	47	-0.882979
16	-1.255319	48	0.787234
17	-1.297872	49	0.755319
18	-0.744681	50	0.776596
19	-0.755319	51	0.765957
20	-0.755319	52	0.734043
21	-0.882979	53	0.734043
22	-1.010638	54	0.723404
23	-1.159574	55	0.542553
24	-1.212766	56	0.553191
25	-0.595745	57	0.585106
26	-0.606383	58	0.617021
27	-0.585106	59	0.617021
28	-0.723404	60	0.021277
29	-0.872340	61	0.074468
30	-1.063829	62	0.159574
31	-1.117021	63	0.244681
32	-0.404255	64	0.287234

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+20 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.547368
2	-1.273684	34	-0.568421
3	-1.273684	35	-0.684210
4	-1.252631	36	-0.800000
5	-1.273684	37	-0.978947
6	-1.273684	38	-1.084210
7	-1.210526	39	-0.273684
8	-1.231579	40	**********
9	-1.252631	41	**********
10	-1.263158	42	-0.315789
11	-1.273684	43	-0.326316
12	-1.126315	44	-0.400000
13	-1.147367	45	-0.578947
14	-1.210526	46	-0.831579
15	-1.231579	47	-1.021052
16	-1.252631	48	0.852632
17	-1.263158	49	0.821053
18	-0.968421	50	0.842105
19	-1.021052	51	0.842105
20	-1.073684	52	0.800000
21	-1.147367	53	0.789474
22	-1.200000	54	0.768421
23	-1.252631	55	0.621053
24	-1.263158	56	0.631579
25	-0.747368	57	0.652632
26	-0.778947	58	0.673684
27	-0.831579	59	0.663158
28	-0.936842	60	0.052632
29	-1.031578	61	0.115789
30	-1.136842	62	0.210526
31	-1.189473	63	0.284211
32	-0.515789	64	0.336842

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 0

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.052632
2	-0.052632	34	-0.042105
3	-0.105263	35	-0.042105
4	-0.042105	36	-0.031579
5	-0.052632	37	-0.031579
6	-0.105263	38	-0.031579
7	-0.063158	39	-0.031579
8	-0.042105	40	**********
9	-0.042105	41	**********
10	-0.042105	42	-0.052632
11	-0.042105	43	-0.052632
12	-0.052632	44	-0.052632
13	-0.063158	45	-0.052632
14	-0.052632	46	-0.063158
15	-0.042105	47	-0.052632
16	-0.031579	48	0.126316
17	-0.031579	49	0.052632
18	-0.042105	50	-0.168421
19	-0.073684	51	0.347368
20	-0.052632	52	0.157895
21	-0.031579	53	-0.221053
22	-0.031579	54	-0.178947
23	-0.031579	55	0.168421
24	-0.031579	56	0.178947
25	-0.031579	57	-0.031579
26	-0.052632	58	-0.336842
27	-0.052632	59	-0.252632
28	-0.031579	60	0.073684
29	-0.031579	61	0.147368
30	-0.031579	62	-0.368421
31	-0.031579	63	-0.273684
32	-0.031579	64	-0.189474

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 10

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.094737
2	-0.178947	34	-0.084211
3	-0.273684	35	-0.084211
4	-0.157895	36	-0.084211
5	-0.178947	37	-0.094737
6	-0.273684	38	-0.105263
7	-0.157895	39	-0.073684
8	-0.147368	40	**********
9	-0.157895	41	**********
10	-0.168421	42	-0.084211
11	-0.200000	43	-0.084211
12	-0.147368	44	-0.073684
13	-0.147368	45	-0.073684
14	-0.147368	46	-0.094737
15	-0.147368	47	-0.094737
16	-0.157895	48	0.252632
17	-0.178947	49	0.210526
18	-0.126316	50	0.326316
19	-0.136842	51	0.442105
20	-0.126316	52	0.347368
21	-0.115789	53	0.410526
22	-0.115789	54	0.410526
23	-0.126316	55	0.263158
24	-0.157895	56	0.242105
25	-0.105263	57	0.263158
26	-0.105263	58	0.347368
27	-0.105263	59	0.136842
28	-0.105263	60	0.063158
29	-0.105263	61	0.063158
30	-0.115789	62	0.105263
31	-0.136842	63	0.178947
32	-0.084211	64	0.105263

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 20

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.200000
2	-0.452632	34	-0.168421
3	-0.294737	35	-0.147368
4	-0.442105	36	-0.126316
5	-0.400000	37	-0.126316
6	-0.294737	38	-0.536842
7	-0.421053	39	-0.105263
8	-0.378947	40	**********
9	-0.347368	41	**********
10	-0.284211	42	-0.147368
11	-0.221053	43	-0.136842
12	-0.336842	44	-0.115789
13	-0.347368	45	-0.105263
14	-0.294737	46	-0.200000
15	-0.284211	47	-0.515789
16	-0.221053	48	0.494737
17	-0.157895	49	0.452632
18	-0.263158	50	0.547368
19	-0.315789	51	0.557895
20	-0.273684	52	0.526316
21	-0.242105	53	0.568421
22	-0.221053	54	0.578947
23	-0.168421	55	0.368421
24	-0.147368	56	0.368421
25	-0.210526	57	0.410526
26	-0.252632	58	0.473684
27	-0.221053	59	0.484210
28	-0.200000	60	0.021053
29	-0.178947	61	0.052632
30	-0.147368	62	0.147368
31	-0.347368	63	0.231579
32	-0.168421	64	0.231579

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 25

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.242105
2	-0.663158	34	-0.200000
3	-0.463158	35	-0.200000
4	-0.631579	36	-0.221053
5	-0.547368	37	-0.505263
6	-0.389474	38	-0.800000
7	-0.568421	39	-0.126316
8	-0.515789	40	**********
9	-0.463158	41	**********
10	-0.368421	42	-0.157895
11	-0.347368	43	-0.147368
12	-0.442105	44	-0.157895
13	-0.452632	45	-0.231579
14	-0.400000	46	-0.494737
15	-0.378947	47	-0.652632
16	-0.347368	48	0.621053
17	-0.652632	49	0.589474
18	-0.347368	50	0.663158
19	-0.400000	51	0.652632
20	-0.357895	52	0.621053
21	-0.315789	53	0.652632
22	-0.294737	54	0.652632
23	-0.347368	55	0.442105
24	-0.957895	56	0.452632
25	-0.273684	57	0.494737
26	-0.305263	58	0.547368
27	-0.273684	59	0.557895
28	-0.252632	60	0.042105
29	-0.252632	61	0.073684
30	-0.442105	62	0.178947
31	-0.947368	63	0.252632
32	-0.210526	64	0.284211

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 30

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.276596
2	-0.840425	34	-0.319149
3	-0.755319	35	-0.436170
4	-0.797872	36	-0.574468
5	-0.680851	37	-0.776596
6	-0.648936	38	-0.861702
7	-0.702128	39	-0.159574
8	-0.627660	40	**********
9	-0.585106	41	**********
10	-0.670213	42	-0.191489
11	-1.510638	43	-0.265957
12	-0.542553	44	-0.393617
13	-0.542553	45	-0.510638
14	-0.500000	46	-0.670213
15	-0.542553	47	-0.723404
16	-0.925532	48	0.734043
17	-1.489361	49	0.691489
18	-0.436170	50	0.744681
19	-0.457447	51	0.712766
20	-0.425532	52	0.702128
21	-0.457447	53	0.723404
22	-0.574468	54	0.723404
23	-0.978723	55	0.510638
24	-1.234042	56	0.510638
25	-0.361702	57	0.542553
26	-0.372340	58	0.595745
27	-0.372340	59	0.606383
28	-0.468085	60	0.042553
29	-0.606383	61	0.074468
30	-0.904255	62	0.180851
31	-1.021276	63	0.265957
32	-0.265957	64	0.308511

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 35

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.404255
2	-1.021276	34	-0.617021
3	-2.531915	35	-0.734043
4	-0.914894	36	-0.819149
5	-1.244680	37	-0.914894
6	-2.276595	38	-0.936170
7	-0.776596	39	-0.180851
8	-0.882979	40	**********
9	-1.234042	41	**********
10	-1.478723	42	-0.223404
11	-1.595744	43	-0.436170
12	-0.670213	44	-0.553191
13	-0.787234	45	-0.648936
14	-1.031915	46	-0.787234
15	-1.148935	47	-0.819149
16	-1.276595	48	0.829787
17	-1.329786	49	0.776596
18	-0.606383	50	0.829787
19	-0.702128	51	0.776596
20	-0.861702	52	0.765957
21	-0.968085	53	0.776596
22	-1.042553	54	0.776596
23	-1.127659	55	0.574468
24	-1.159574	56	0.585106
25	-0.500000	57	0.617021
26	-0.574468	58	0.659574
27	-0.765957	59	0.670213
28	-0.882979	60	0.074468
29	-0.957447	61	0.117021
30	-1.031915	62	0.223404
31	-1.042553	63	0.308511
32	-0.340425	64	0.361702

COEFFICIENT OF PRESSURE DATA

MODEL 743 BETA=+25 ALPHA= 40

TAP NO.	CP	TAP NO.	CP
1	**********	33	-0.494737
2	-1.263158	34	-0.694737
3	-1.284210	35	-0.789474
4	-1.242105	36	-0.863158
5	-1.252631	37	-0.968421
6	-1.273684	38	-1.021052
7	-1.168421	39	-0.231579
8	-1.200000	40	**********
9	-1.242105	41	**********
10	-1.242105	42	-0.305263
11	-1.252631	43	-0.505263
12	-1.031578	44	-0.610526
13	-1.126315	45	-0.705263
14	-1.178946	46	-0.800000
15	-1.200000	47	-0.957895
16	-1.210526	48	0.852632
17	-1.221052	49	0.821053
18	-0.863158	50	0.873684
19	-1.010526	51	0.821053
20	-1.094736	52	0.821053
21	-1.126315	53	0.831579
22	-1.157894	54	0.821053
23	-1.178946	55	0.642105
24	-1.178946	56	0.652632
25	-0.621053	57	0.684210
26	-0.757895	58	0.715789
27	-0.915789	59	0.715789
28	-1.000000	60	0.094737
29	-1.052631	61	0.157895
30	-1.115789	62	0.263158
31	-1.126315	63	0.347368
32	-0.400000	64	0.389474