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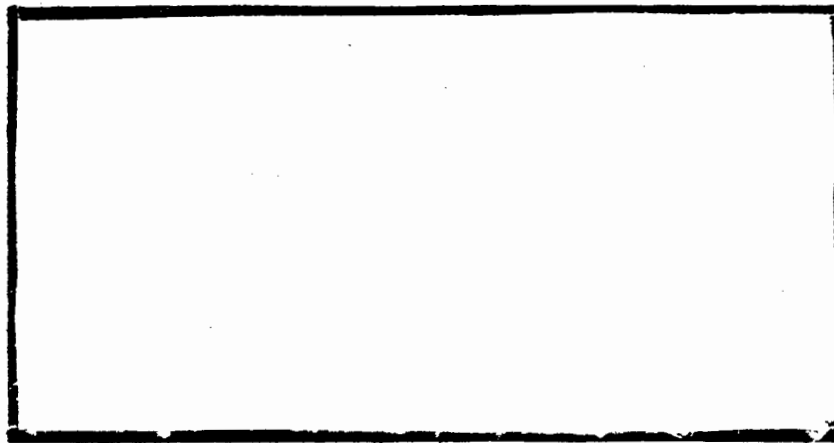
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**EFFECTS OF BASE CAVITY DEPTH
ON A FREE SPINNING
WRAP-AROUND FIN MISSILE CONFIGURATION**

THESIS

**Jon A. Struck, 2Lt, USAF
AFIT/GAE/ENY/95D-22**

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AFIT/GAE/ENY/95D-22

EFFECTS OF BASE CAVITY DEPTH ON A
FREE SPINNING WRAP-AROUND FIN
MISSILE CONFIGURATION

THESIS

Presented to the Faculty of the Graduate School of Engineering
of the Air Force Institute of Technology
Air University
In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Aeronautical Engineering

Jon A. Struck, B.S.

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December 1995

Approved for public release; distribution unlimited

Acknowledgments

When I first started looking for a thesis topic I choose the experimental route. I was excited about getting some “hands on” experience with something other than the usual homework assignments. That “hands on” experience I so much desired turned into headache after headache. Things worked out eventually, but I if I hadn’t gotten extensive help the headaches would still be going on.

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I would like to thank everyone at the AFIT model shop for building me a superb model and putting up with my incessant pestering about when it would be done. I would like to thank my family and friends for tolerating my whining over the past 18 months. Unfortunately, the whining was a personality trait and won’t end when my sojourn at AFIT does. Finally, I would like to give an honorable mention to PepsiCo Inc. for creating the best-tasting, most-caffinated beverage on the market, Mountain Dew. I couldn’t have made it through the last 18 months without it.

Table of Contents

	Page
ACKNOWLEDGMENTS.....	ii
LIST OF FIGURES	vi
LIST OF TABLES	viii
LIST OF SYMBOLS	ix
ABSTRACT	xi
I. INTRODUCTION.....	1-1
II. THEORY	2-1
2.1 Magnus Force.....	2-1
2.2 Magnus Moment.....	2-3
2.3 Magnus Effects in 3-D.....	2-3
2.4 Finned Body of Revolution	2-5
2.5 Canted Fin Magnus Effects.....	2-8
2.6 Base Cavity Effects.....	2-9
III. TEST MODEL AND INSTRUMENTATION	3-1
3.1 Test Model.....	3-1
3.1.1 Front Section	3-1
3.1.2 Mid Section	3-1
3.1.3 Rear Section	3-2
3.1.4 Mounting.....	3-3
3.2 Instrumentation and Facilities	3-4
3.2.1 Force Balance.....	3-4
3.2.2 Wind Tunnel.....	3-5
3.2.3 Acquisition Software	3-7

3.2.4 Calibration	3-8
3.2.5 Data Acquisition.....	3-8
3.2.6 Data Reduction	3-8
IV. TEST SET-UP AND PROCEDURES.....	4-1
4.1 Calibration.....	4-1
4.2 Procedures.....	4-3
4.2.1 Cavity Depth Sweep	4-3
4.2.2 Angle of Attack Sweep	4-4
V. RESULTS AND DISCUSSION	5-1
5.1 Comparison With STRIX	5-1
5.1.1 Thrust Force Comparison.....	5-1
5.1.2 Side Force Comparison	5-4
5.1.3 Yaw Moment Comparison	5-4
5.2 Cavity Depth Sweeps for Spinning Configuration	5-5
5.2.1 Spinning Configuration Thrust Force	5-6
5.2.2 Spinning Configuration Normal Force	5-6
5.2.3 Spinning Configuration Pitching Moment	5-6
5.3 Non-Spinning Configuration.....	5-11
5.3.1 Non-Spinning Thrust Force	5-11
5.3.2 Non-Spinning Normal Force and Pitching Moment	5-14
5.4 Oil Flow Visualizations	5-19
VI. CONCLUSIONS.....	6-1
VII. RECOMMENDATIONS	7-1
APPENDIX A	A-1
A.1 Error Analysis.....	A-1
A.2 Operator Errors.....	A-2
A.3 Error Tabulation.....	A-3

APPENDIX B: LabVIEW®	B-1
APPENDIX C	C-1
C.1 Data Plots	C-1
C.2 Data Files.....	C-8
BIBLIOGRAPHY.....	BIB-1
VITA.....	VITA-1

List of Figures

Figure	Page
2.1 Magnus Force.....	2-1
2.2 Rotating Cylinder at Angle of Attack.....	2-2
2.3 Magnus Moment.....	2-3
2.4 Three Dimensional Magnus Effects.....	2-4
2.5 High Angle of Attack Magnus Effects.....	2-5
2.6 Uncanted Body Fin Interference at Angle of Attack.....	2-6
2.7 Canted Body fin Interference at Angle of Attack	2-7
2.8 Canted Fin Magnus Effects	2-8
2.9 Co-axial Flowing Stream.....	2-10
2.10 Base Cavity Effect on Drag Coefficient (Morel and Compton)	2-11
3.1 Model Schematic	3-3
3.2 Model Mounting.....	3-4
3.3 Orientation of Model Forces and Moments.....	3-5
3.4 AFIT 12" Wind Tunnel.....	3-6
3.5 Model in Test Section.....	3-7
4.1 Positive Calibration Curves.....	4-2
4.2 Negative Calibration Curves	4-2
5.1 Thrust Force Comparison at Angle of Attack.....	5-2
5.2 Comparison of Spinning Thrust Coefficient vs. L/D	5-3
5.3 Side Force Comparison at Angle of Attack.....	5-4
5.4 Yaw Moment Comparison at Angle of Attack	5-5
5.5 Spinning Thrust Force Cavity Depth Sweep.....	5-8

5.6	Spinning Normal Force Cavity Depth Sweep.....	5-9
5.7	Spinning Pitching Moment Cavity Depth Sweep.....	5-10
5.8	Non-Spinning Thrust Coefficient Comparison at Angle of Attack	5-12
5.9	Comparison of Spinning and Non-Spinning Cavity Depth Sweeps	5-13
5.10	Non-Spinning Comparison with Morel.....	5-13
5.11	Non-Spinning Thrust Force Cavity Depth Sweep.....	5-16
5.12	Non-Spinning Normal Force Cavity Depth Sweep	5-17
5.13	Non-Spinning Pitching Moment Cavity Depth Sweep.....	5-18
5.14	Model Bottom Oil Flow Patterns	5-19
5.15	Zero Angle of Attack Cavity Flow	5-20
5.16	Cavity Flow at -9° Angle of Attack.....	5-20
5.17	Cavity Flow at 7° Angle of Attack.....	5-21

List of Tables

Table	Page
4.1 Balance Gage Correlation	42
4.2 Cavity Depth Sweep Test Matrix	44
4.3 Angle of Attack Sweep Test Matrix	44

List of Symbols

c	Fin Chord (m)
C_c	Side Force Coefficient
C_d	Drag Force Coefficient
C_L	Lift Coefficient
$C_{L\alpha}$	Lift Coefficient Derivative
C_n	Normal Force Coefficient
$C_{n\alpha}$	Normal Force Coefficient Derivative
C_t	Thrust Force Coefficient
C_y	Yaw Moment Coefficient
d	Model Diameter (m)
dC_t	Change in Thrust Force Coefficient
dL	Change in Lift Coefficient
F	Force (N)
L	Lift (N)
L/D	Cavity Depth/Cavity Diameter
l	Cylinder Length (m)
M	Moment (N-m)
p	Rate of Rotation (rev/s)
q	Dynamic Pressure (N/m ²)
r	Radius (m)
U	Freestream Velocity (m/s)
V	Freestream Velocity (m/s)

x	distance to the Center of Gravity (m)
y	Radial Distance from Body Centerline to Fin Cross Section (m)
α	Angle of Attack (deg.)
α_B	Body Angle of Attack
δ	Fin Cant Angle (deg.)
ρ	Density (kg/m^3)
(2)	Denotes Repeated Points

Abstract

This study investigated the role base cavity depth plays in altering the overall subsonic aerodynamic forces on a free spinning axisymmetric body with wrap-around fins. Wind tunnel usage allowed the forces to be monitored for varying base cavity depths and angles of attack. A base cavity depth analysis was also performed on a non-spinning axisymmetric body for comparison. Oil visualizations were conducted on the non-spinning configuration to further describe airflow patterns around the body and within the cavity. Results revealed that the aerodynamic forces, mostly drag, changed with increasing cavity depth but not to the extent previously believed. The force results, in conjunction with the flow visualizations, suggested that base cavities have very similar effects on spinning and non-spinning configurations.

EFFECTS OF BASE CAVITY DEPTH ON A FREE SPINNING WRAP- AROUND FIN MISSILE CONFIGURATION

I. Introduction

Wrap-around fins have been employed on missile configurations quite extensively for some time. Constraints imposed by packaging requirements often degrade the missile's performance capability. Wrap-around fins, which unfold after the missile is clear of the dispenser, provide a unique solution to the packaging problem. Current missile systems which possess wrap-around fin designs are the Army's Multiple Launch Rocket System (MLRS) and the Hard Target Ordinance Penetrator (HTOP), currently being developed at Wright Laboratory's Armament Directorate (1).

Wrap-around fins are not without their drawbacks. It is well known that wrap-around fins generate aerodynamic anomalies in the form of a roll moment at zero angle of attack, a side force/moment at angle of attack and a roll reversal through Mach 1. Wrap-around fin configurations have been analyzed extensively over the years in an attempt to alleviate their associated anomalies. Most research has centered around cause and effect relations for various aspects of the fins (i.e. fin geometry, fin attachment methods, fin angle, etc.) but few studies have been conducted to foster a better understanding of the causes of the associated aerodynamic irregularities (2).

Of particular importance to projectile designers is the side force/moment inherent to wrap-around fin configurations. During flight, the side force at angle of attack causes the projectile to fly in a spiraling motion. Many experiments have been conducted to find ways to reduce the spiral motion associated with wrap-around fin configurations. Certain projectile tests led to the identification that some aerodynamic forces, mostly drag and side

force/moment, could be lessened by the addition of a cavity in the base of the shell (1). Base cavities have been shown to alter side and drag forces to similar extends in both the subsonic and supersonic regime (6). However, speculation still exists as to just how influential base cavities are in affecting aerodynamic forces and even greater uncertainty exists in how base cavities alter flow over axisymmetric bodies. Although primarily interest in wrap-around fin configurations remains guided by supersonic applications, there is substantial base cavity effect correlation between supersonic and subsonic flow (6). Accordingly, base cavity effects, as determined by a low speed study, can prove applicable to high speed cases.

One study which claimed advantageous force changes due to base cavities was the STRIX report (18). During the late 1980's, Swedish Ordnance and SAAB Missiles AB jointly developed a terminally guided mortar projectile called STRIX. STRIX possessed wrap-around fins with a 2 deg. cant angle to provide the projectile with aerodynamic stability. Wind tunnel tests showed the projectile to have sufficient static stability but actual flight tests revealed higher than anticipated drag and a spiral motion about the trajectory path. The spiraling motion was bad enough to make STRIX unsuitable in its anticipated role. The spiraling motion was presumed to result from a non-linear cross moment created by the wrap-around fins. By implementing a base cavity, the STRIX study claimed a substantial reduction of the projectile drag, as well as, a reduced side force/moment leading to a stable projectile flight path (18).

However, several important details were absent from the STRIX report. Specifically, no documentation was present pertaining to the cavity aerodynamics. Additionally, the study neglected to explain its set-up and procedures. Testing focused only on furnishing the projectile with a stable configuration and did not establish the reasons behind the force changes. Nonetheless, the promising trends exhibited by the STRIX motivated the present investigation.

The purpose of this experiment was to expand upon and provide greater insight into the effect of base cavities on a wrap-around fin configurations than previous studies. This study examined a greater number of cavity depths than the STRIX report or other tests conducted on non-spinning axisymmetric bodies. Also, this investigation compared the effects of cavity depth on spinning and non-spinning bodies. Of particular importance was the flow structure associated with wrap-around fin configurations and base cavities. Oil flow visualizations were performed to identify the flow structure in, and around, the base cavity. It was hoped that by piecing together base cavity results from free spinning and non-spinning wrap-around fin projectiles, a better understanding of the aerodynamic forces acting on the projectiles could be attained.

II. Theory

The aerodynamics associated with spinning axisymmetric bodies possessing a base cavity are complex and little understood. Some investigations have been conducted on non-rotating axisymmetric bodies but only a handful have been performed for rotating bodies. Even the experiments on non-spinning configurations have yielded somewhat ambiguous results.

In an attempt to piece together the aerodynamics concerning this experiment, the theory behind individual aspects of the configuration are described. The theory can be broken up into the Magnus effects, finned body effects, canted fin Magnus effects, and base cavity effects.

2.1 Magnus Force

A rotating cylinder with spin rate, p (rev/sec), in a perpendicular uniform air flow, V (m/sec), will experience a side force known as a Magnus force, as shown in Figure (2.1) (12).

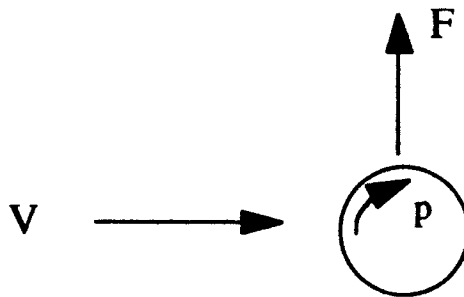


Figure 2.1: Magnus Force

In this situation, the cylinder of radius, r , rotating at a rate of p , generates a force of:

$$F = \rho V(4\pi^2 pr^2) \quad \text{per unit length} \quad (2.1)$$

For a spinning cylinder not perpendicular to the free stream velocity, V , the equation must be modified (12).

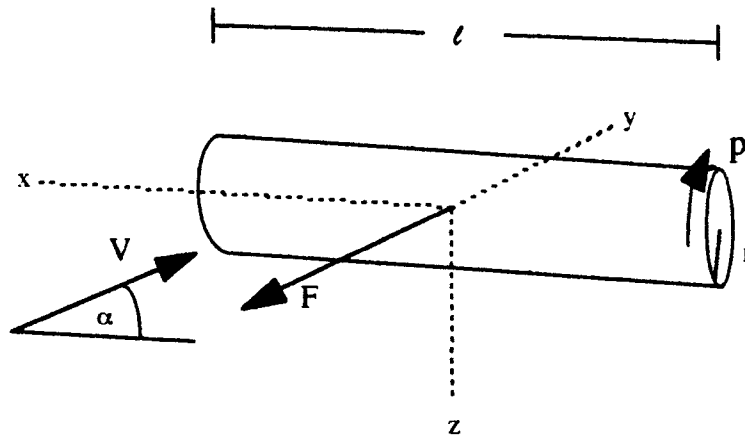


Figure 2.2: Rotating Cylinder at Angle of Attack

As depicted in Figure (2.2), for a airspeed, V , at an angle of attack, α , with respect to the x -axis, a spinning cylinder of length, l , has the side force:

$$F = \rho V \sin \alpha (-4\pi^2 pr^2) \quad (2.2)$$

With a clockwise rotation, as viewed from the rear, F acts in the positive y -axis direction (12).

2.2 Magnus Moment

The Magnus moment is simply the Magnus force multiplied by the distance from the body center-of-gravity to the Magnus force center-of-pressure as described in Figure (2.3).

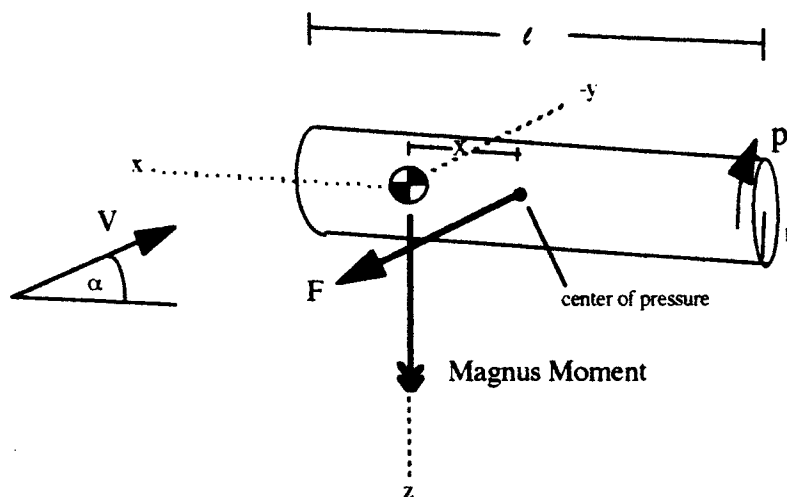


Figure 2.3: Magnus Moment

The Magnus force center-of-pressure is usually assumed to be in front of the center-of-gravity for rotating cylinders. Since only the rear half of the model is spinning for this experiment, the center-of-pressure will be behind the center-of-gravity. Since this corresponds to a point with a negative x value, a positive Magnus moment acts in the positive z -axis direction (12) in the defined coordinate system of Figure (2.3). Taking the cross product of the distance between the two, denoted by x along the negative x -axis, and the Magnus force, F , the Magnus moment becomes:

$$\text{Magnus moment} = Fx \quad (2.3)$$

2.3 Magnus Effects in 3-D

The previous equations were based on 2-D flow theory. In reality, the Magnus effects on a non-finned, rotating, body of revolution are influenced by the viscous

properties of the surrounding boundary layer. Changes in the boundary layer and vortex patterns and their magnitude control the Magnus effects (12). At angle of attack, the spin alters the boundary layer thickness distribution such that the effective aerodynamic shape is changed.

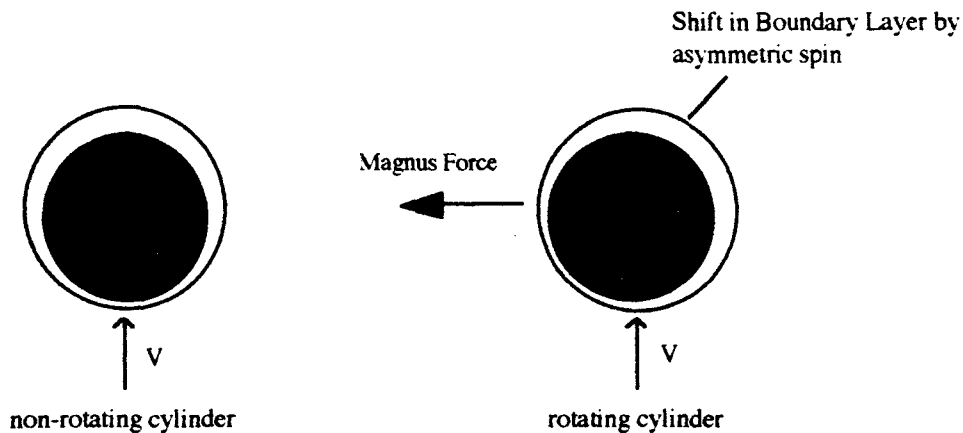


Figure 2.4: Three dimensional Magnus Effects

Figure (2.4) shows how the boundary layer shifts to one side for a spinning cylinder. The alteration of the boundary layer properties due to spin create a force acting perpendicular to the angle of attack plane. At low angle of attack and in laminar flow, the vortices stay within the boundary layer causing the boundary layer to thicken. At high angles of attack the laminar flow over a body of revolution separates into two symmetric vortices. For a spinning body of revolution the vortices shift in the direction of spin, also generating a force in the positive y -direction as shown in Figure (2.5) (12,3).

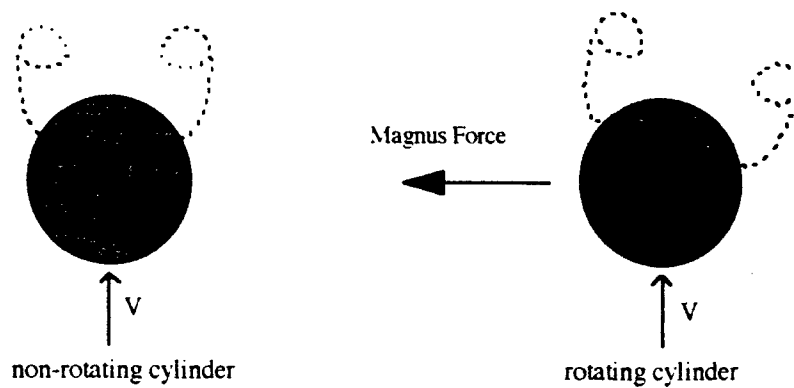


Figure 2.5: High Angle of Attack Magnus Effects

2.4 Finned Body of Revolution

The Magnus force for a spinning finned body has an additional force caused by the rotating fins, known as the Magnus fin force. For a flat, rectangular plate traveling with a free stream velocity, V , and rotating at a rate, p (rev/sec), about a line parallel to one of its sides, the generated lift force coefficient can be approximated by:

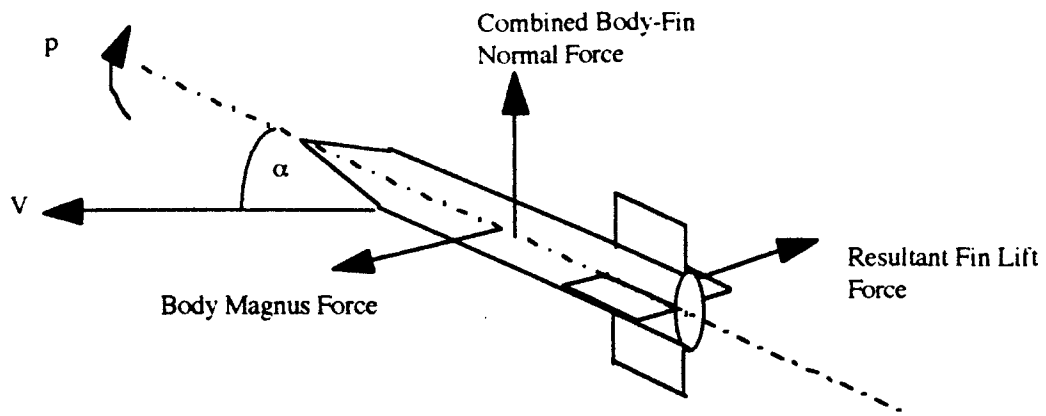
$$C_l = 2\pi\alpha \quad (2.4)$$

for subsonic flow, and:

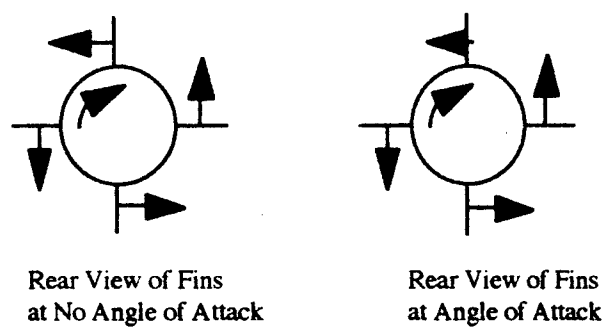
$$C_l = \frac{4\alpha}{(Mach^2 - 1)^{1/2}} \quad (2.5)$$

for supersonic flow (14), where Mach is the free stream Mach number and α is the angle of attack created by the rotation of the flat plate. Alpha varies uniformly along the plate span and reaches a maximum value of $\alpha = pr/V$ at the tip (14).

For a series of flat plates aligned as fins around a body, the combined lift force contributes toward a torque about the body axis. Figure (2.6b) depicts the direction of the lift forces. At angle of attack, the lift force on the top fin is less than the three other fin lift forces. In the vertical plane, the two lift forces cancel but the reduced force on top fails to balance the force on the bottom fin. The resultant force acts perpendicular to the angle of attack plane as shown in Figure (2.6a).



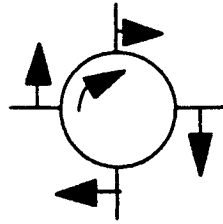
(a)



(b)

Figure 2.6: Uncanted Body Fin Interference at Angle of Attack

The situation becomes more complex for a body with canted fins (14). The cant creates a lift force on the fin that tends to rotate the body as shown in Figure (2.7).



Rear View of Canted Fins
at Angle of Attack

Figure 2.7: Canted Body Fin Interference at Angle of Attack

The resulting fin lift force will be in the opposite direction from the force in Figure (2.6). At zero angle of attack and ignoring fin tip effects, the combined lift distribution on each fin is:

$$dL = C_{L_a} \alpha q c dr = C_{L_a} [(\frac{pr}{V}) - \delta] q c dr \quad (2.6)$$

For a free spinning fin,

$$\int r dL = 0 = C_{L_a} q c \int_{r_1}^{r_2} (\frac{pr}{V} - \delta) r dr \quad (2.7)$$

where δ is the fin cant angle and r_1 and r_2 are the root and tip radii respectively. Setting $k = r_1/r_2$ and neglecting k^2 and k^3 , the preceding equation can be integrated to yield:

$$\frac{p}{V} = \frac{3}{2} + \frac{\delta}{r_2} \quad (2.8)$$

Substituting this into equation (2.6) gives:

$$dL = C_{L_a} q c \delta [(\frac{3}{2} + \frac{r}{r_2}) - 1] dr \quad (2.9)$$

The lift distribution direction switches at $r = 2r_2/3$. Therefore, the canted fin tends to increase the spin near the root while retard the spin near the tip. A free spinning body of revolution has zero rolling moment at all angles of attack. However, the spin rate changes as a result of body-fin interference. At positive and negative angle of attack, the lift near the root of the leeward fin drops so that the total torque about the axis of symmetry decreases. This leads to a drop in the spin rate.

Integrating equation (2.9) gives the resulting canted fin lift.

$$L = C_{L_s} q c \delta \left(\frac{c}{4} \right) (4k - 1) \quad (2.10)$$

The body-fin interference force for a canted fin acts in the same direction as the body Magnus force (14).

2.5 Canted Fin Magnus Effects

A Magnus moment can also be created on differentially canted fins when the body is at angle of attack. The differing fin normal force components produce a couple at the rear of the body.

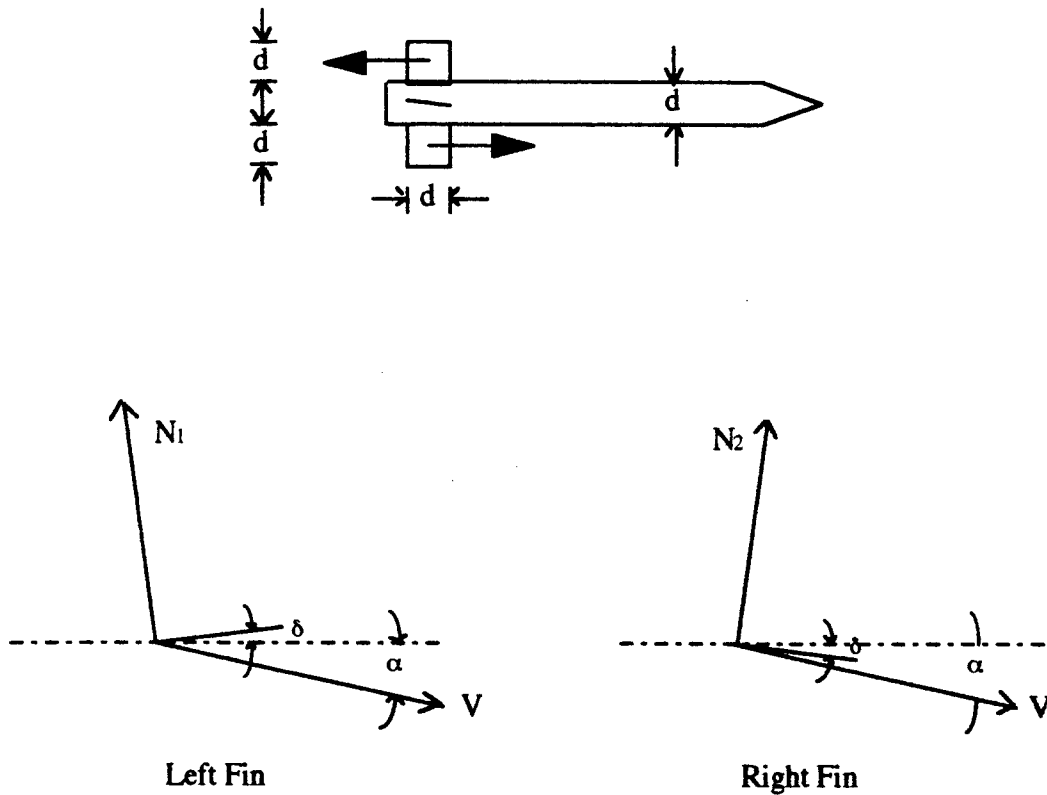


Figure 2.8: Canted Fin Magnus Effects

Using Figure (2.8) the moment can be found from:

$$M = -(L_1 y_1 + L_2 y_2) \delta \quad (2.11)$$

where L corresponds to the lift and the subscripts $()_1$ and $()_2$ correspond to the left and right fin respectively.

$$L_{1,y_1} = \int_{\frac{c}{2}}^{\frac{3c}{2}} q C_{N_\alpha} \left(\alpha_\beta - \delta + \frac{\omega y}{V} \right) d(y) dy \quad (2.12)$$

$$L_{2,y_2} = \int_{\frac{c}{2}}^{\frac{3c}{2}} q C_{N_\alpha} \left(\alpha_\beta + \delta - \frac{\omega y}{V} \right) d(y) dy \quad (2.13)$$

C_{N_α} is the normal force coefficient derivative of the fin. Plugging these two equations into equation (2.11) yields:

$$M = -2q C_{N_\alpha} \alpha_\beta d^3 \delta \quad (2.14)$$

The canted fin Magnus force is directly proportional to angle of attack and is a function of fin cant angle. Its value is negative for a clockwise rotation, as seen from the rear, and the spin rate has no effect on this Magnus moment. In many cases this particular Magnus moment is much larger than the body-fin interference moment (14).

2.6 Base Cavity Effects

Base cavities are known to reduce the drag of two-dimensional objects and, to a lesser extent, three-dimensional bodies (10). However, the cavity effect on axisymmetric bodies has not been studied to any great extent and the cavity effect on rotating axisymmetric bodies has only been examined superficially. The base cavity effects have been noted but the causes have not.

The base drag reduction approach relies on influencing the near wake flow with changes in base geometry, thereby raising the base pressure. The cause of this base pressure rise is the subject of some discussion. In two-dimensional flow, Nash et al. proposed that base cavities provide an "improvement of the wake stability resulting in a decrease in the strength of the vortex street" (11). However, this theory breaks down for axisymmetric bodies which still experience base cavity drag reduction at supersonic speeds

(6). The vortex street is a subsonic characteristic, and so cannot be held accountable for drag reduction on three-dimensional bodies.

A different phenomenon is thought to govern axisymmetric base flow. The vortex shedding is known to be much weaker for axisymmetric bodies than for 2-D plate flow. Noting this fact, Compton hypothesized that the drag decrease is due to the turning of the recirculating flow along the cavity walls into the direction of the external flow as shown in Figure (2.9) (6). This produces a co-flowing stream, parallel to the external flow, which reduces the mixing rate along the streamline. This theory assumes that the mixing rate is directly responsible for raising the base pressure.

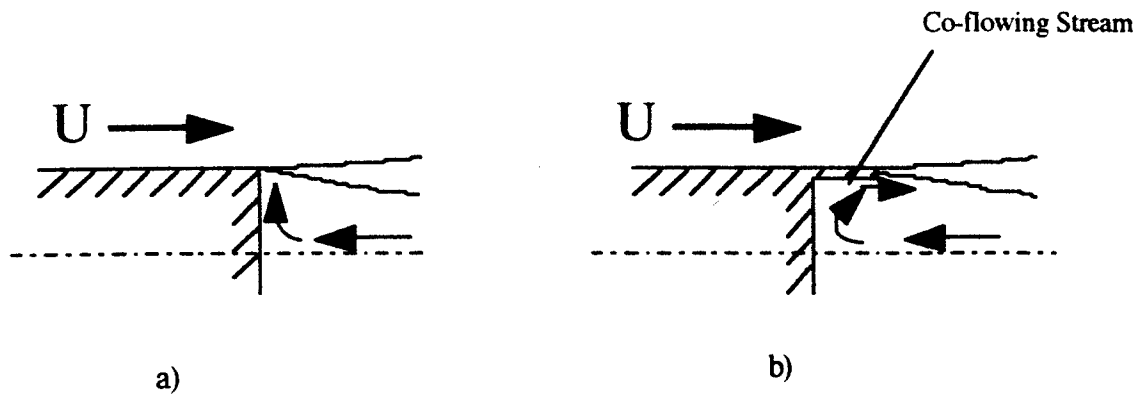


Figure 2.9: Co-axial Flowing Stream

Though limited tests have been performed, some common agreement exists on the drag reducing potential of base cavities. The studies performed indicated that base drag initially decreased with increasing cavity depth but increased after a certain base cavity depth/cavity diameter, (L/D), was reached. After this maximum drag reduction depth was attained the drag increased but remained lower than the zero cavity base drag. Figure (2.10) shows the results obtained by Morel (11) and Compton (6).

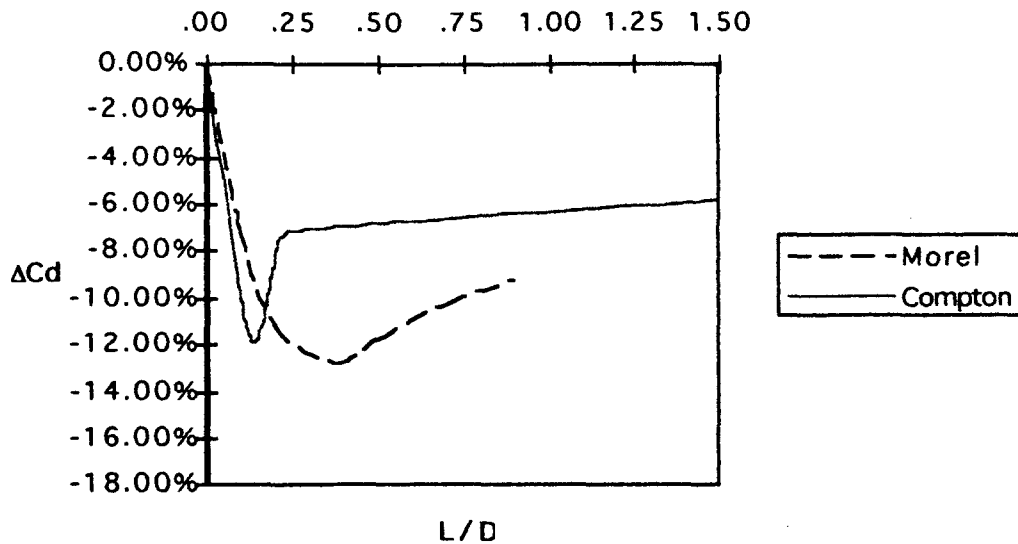


Figure 2.10: Base Cavity Effect on Drag Coefficient (Morel and Compton)

The “optimal” drag reduction value for L/D (cavity depth/cavity diameter) is an open issue. The Compton study placed this optimal L/D somewhere between 0.125 and 0.25 (6). Tanner obtained the “best” L/D near .35, as did Morel (19, 11). Conversely, the STRIX report found a drag decrease through $L/D = 0.47$ (17). The amount of drag reduction also differed between experiments from nearly 13% for STRIX, 12% for Morel, and 11.6% for Compton, to essentially no reduction for Abate and Hathaway (2). Morel’s and Compton’s analyses were conducted on non-rotating, axisymmetric bodies while the STRIX and Abate/Hathaway studies were on spinning, axisymmetric configurations.

As well as reducing drag, the STRIX report claimed that base cavities also reduced the Magnus moment characteristic of free spinning, canted-fin projectiles (17). Apparently, no studies have been done to discover the reason behind the base cavity’s ability to reduce Magnus moments on rotating axisymmetric bodies.

III. Test Model and Instrumentation

3.1 Test Model

The test model was a 0.31 scale model of the STRIX projectile giving it a diameter of 3.68 cm and a length of 25.65 cm. For ease of fabrication the nose was rounded into a hemisphere instead of copying STRIX's more ogive shape. The base cavity diameter to model outside diameter ratio was increased slightly in hopes of amplifying the base cavity effect. The model is shown in Figure (3.1) with all dimensions in centimeters, and was constructed in three main parts; a front, mid, and rear section.

3.1.1 Front Section

The front half of the model consisted of an aluminum shaft with a rounded front. The aluminum sting attached perpendicularly to the shaft center-line at the back of the front piece. The sting was aerodynamically faired and hollow to allow for insertion of the balance. The balance protruded slightly into the front half of the model but the bearing assembly prevented the balance from lying closer to the center of gravity. All moments are taken about the electrical center of the balance. The balance electrical center lied 11.77 cm behind the front of the model and 4.66 cm below the model centerline. The sting height was 10.8 cm from the bottom of the shaft. Its length in the streamwise direction was 3.81 cm and the maximum width was 1.52 cm.

3.1.2 Mid Section

The mid-section embodied two INA/Andrews® GT-1 ball thrust bearings, a hollow aluminum shaft, and a bolt. The mid section shaft was 2.6 cm long and retained the same outside diameter as the front shaft. A small lip protruded around the inside of the hollow shaft. One bearing was seated on each side of the lip. A 3.8 cm bolt went through the 1.3

cm inner diameter of the bearings. The end of the bolt screwed into the front shaft and firmly attached the bearings and mid-section to the front piece.

3.1.3 Rear Section

The rear section comprised a single free-spinning hollow shaft. The rear shaft was 8.9 cm long and kept the 3.68 cm diameter of the front section. To attain free-spin in the airflow, four wrap-around type fins were attached at equal distances around the shaft near the back. The fins were curved with an inside radius equal to the outside radius of the shaft. The fins had a curved height of 2.7 cm and a chord of 2.79 cm. The fins possessed a cant of 2 deg. to provide a spin rate of approximately 180 rpm. The rear section was attached to the front by a bearing assembly. The rear section, as well as the portion of the model surrounding the bearings, were able to spin.

The cavity of the rear half had a diameter of 3.1 cm. During the tests the cavity could be completely or partially filled with a wood plug. The plug allowed the cavity depth to be infinitely varied from zero to a maximum of 10.1 cm, providing a L/D range of 0 to 1.80. The 1.2 cm plug was held in place by friction within the rear shaft cavity. As with the front piece, the rear half was also constructed of aluminum.

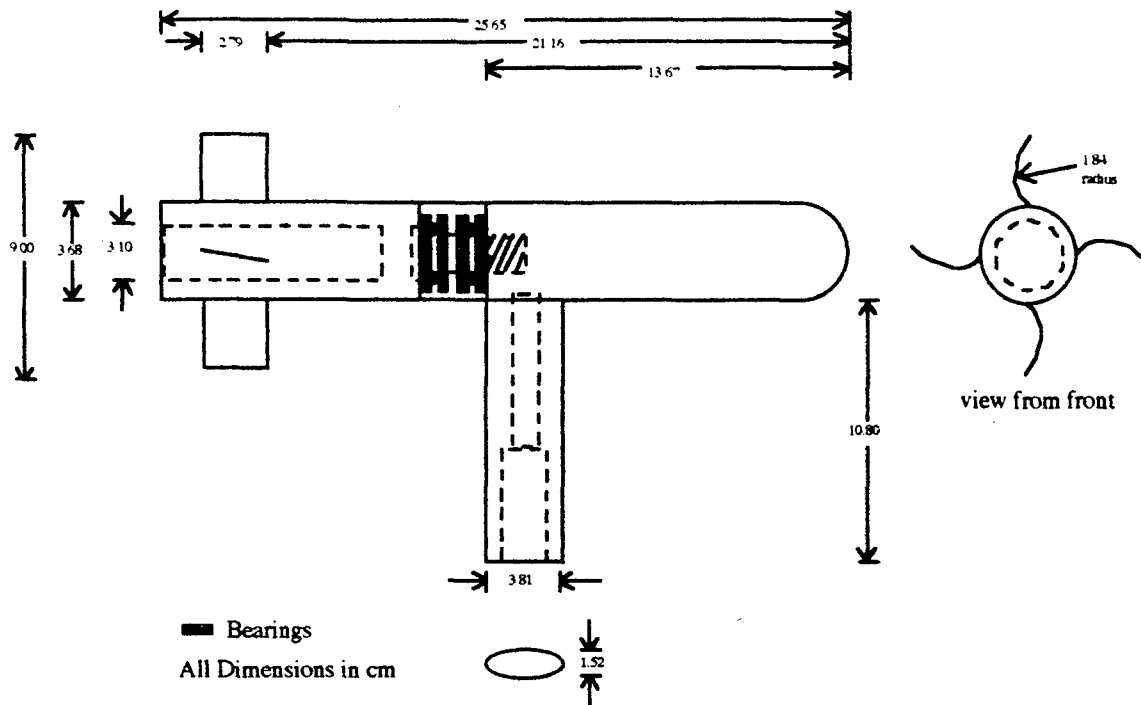
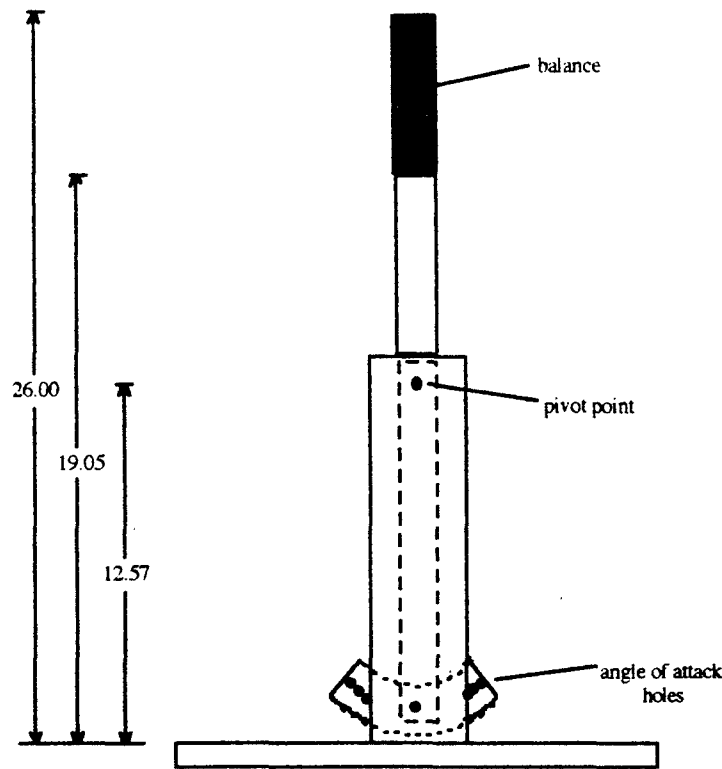


Figure 3.1: Model Schematic

3.1.4 Mounting

The balance was placed on top of a hollow aluminum receiver shaft. With the model in place, the mounting apparatus did not protrude above the bottom of the wind tunnel floor. The receiver was able to pivot just below the tunnel floor. This pivot was used to control the angle-of-attack of the model. The allowable range was -9 deg. to +11 deg. relative to the wind tunnel floor with a resolution of 1 deg. The mounting assembly with balance is shown in Figure (3.2).



All Dimensions in cm

Figure 3.2: Model Mounting

3.2 Instrumentation and Facilities

3.2.1 Force Balance

The balance used in this experiment was a 1.27 cm Mark VI, six-component strain-gage balance made by the ABLE CORPORATION. Two normal gages, 5.3 cm apart, measured normal force and pitching moment. The maximum allowed normal force was 178 N and 565 N-cm for pitching moment. Two side gages, also 5.3 cm apart, measured side force and yaw moment. The maximum side force and side moment allowed were 67 N and 226 N-cm, respectively. The axial force gage possessed a maximum load of 156 N and roll moment maximum was 169 N-cm. Accuracy of each gage was listed at $\pm 0.5\%$ of the applied load (4).

As a result of the unusual vertical balance orientation, the forces needed to be transposed into the model coordinate system. Thus, the balance normal forces corresponded to the model axial force. The balance axial force became the model normal force and the balance roll moment the model side moment. Pitching moment and yaw moment were the same in both coordinate systems. The direction of forces and moments used for this experiment are shown in Figure (3.3).

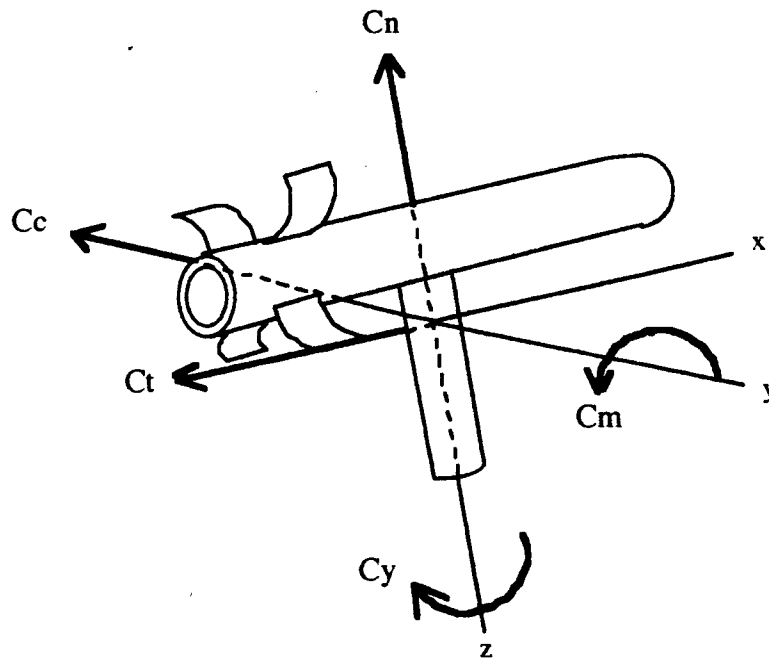


Figure 3.3: Orientation of Model Forces and Moments

3.2.2 Wind Tunnel

All tests were completed in the AFIT 12 inch wind tunnel. The Aerolab Educational Tunnel was an open circuit wind tunnel with a 30 cm x 30 cm test section as shown in Figure (3.4). The tunnel possessed a contraction ratio of 9.5:1 and airspeed varied from 0-65 m/s through a 7.5 kilowatt drive operated by a variable frequency system.

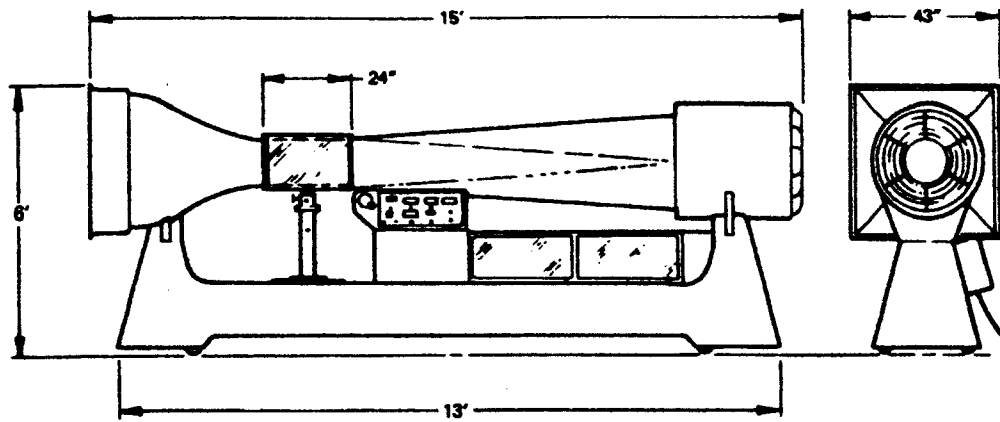


Figure 3.4: AFIT 12" Wind Tunnel

An orifice ring around the upstream end of the test section provided the average static pressure of the undisturbed flow. Static pressure was used as the throat Venturi pressure in calculating airspeed. The maximum test section blockage was 4.8% when the model was at +11 deg. angle of attack. The model is shown in the test section in Figure (3.5).

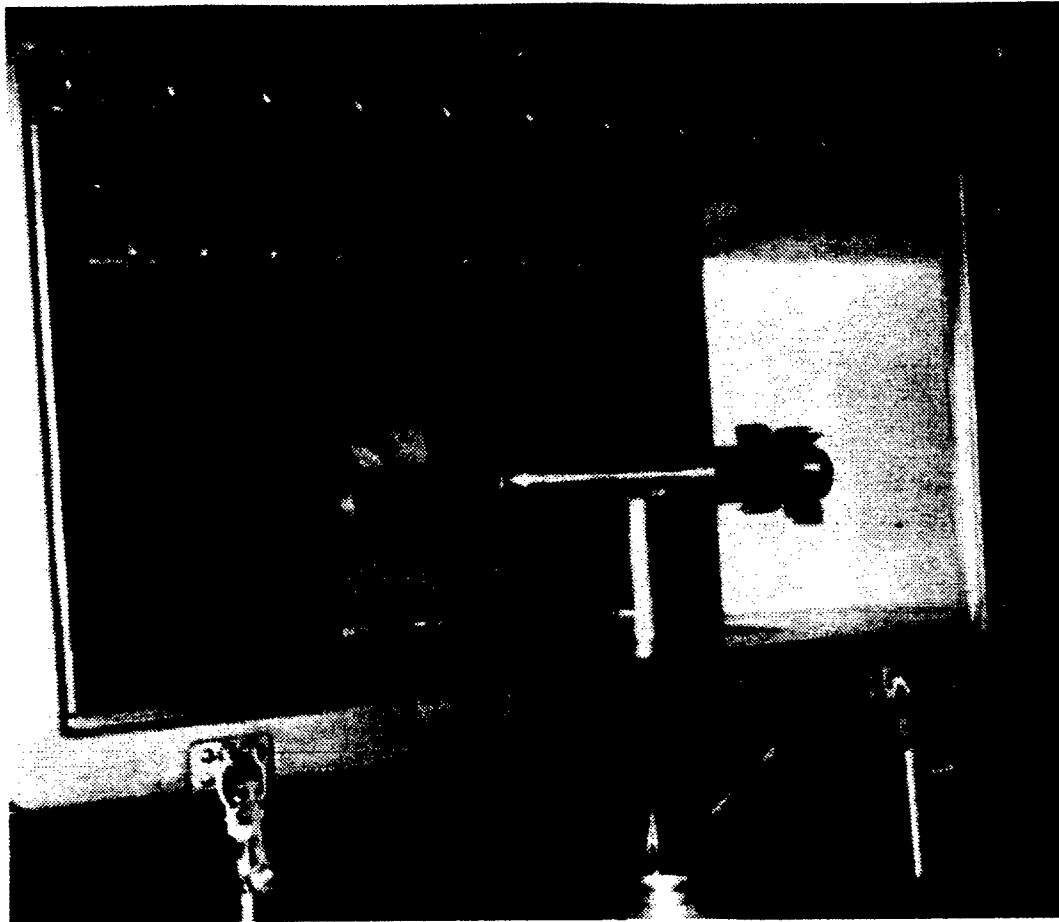


Figure 3.5: Model in Test Section

3.2.3 Acquisition Software

The acquisition software consisted of several LabVIEW® virtual instrument programs integrated to perform all necessary aspects of calibration, data collection, and reduction. The details surrounding the design of these LabVIEW® programs are contained in reference (7). The code was derived from a previous PASCAL-coded wind tunnel data acquisition system and needed relatively few modifications (7). The system was composed of three distinct areas; calibration, data acquisition, and data reduction.

3.2.4 Calibration

The balance calibration software consisted of two programs. The first, Balcal, collected the balance calibration data and built the calibration slopes for each gage in the negative and positive directions. The program recorded the voltage and the corresponding weight of the balance loading and unloading procedure and wrote the information to a data file.

The second program, Calslop, read the Balcal produced data file and determined the slopes, intercepts, and linear correlation for each gage. Calslop then wrote the positive and negative slope matrix to another data file to be accessed by the main program (7).

3.2.5 Data Acquisition

The main program read the raw voltage values from the balance and the pressure readings from the wind tunnel. The voltage readings were averaged over a variable time length defined by the operator. The program had the option of reading and saving a zero point to provide a reference point for the instrumentation and setup. The program subtracted out the zero reading for each run and wrote the raw voltages to a file for analysis.

3.2.6 Data Reduction

The data reduction section of the program made up the majority of the LabVIEW® system. The reduction section converted the raw voltages to forces using the calibration slope matrices created by Calslop and the pressure voltages were converted directly into tunnel airspeed. The balance forces were converted to model forces based on tare data which was compiled before the data acquisition begins. Tares could be applied to each gage to subtract out the wind-off forces on the model and, thus, leave only the aerodynamic forces. Tare curve fits allowed for the model center of gravity to be determined and permitted the forces on the model to be deduced.

The reduction section then converted the forces into aerodynamic coefficients in the model coordinate system. The program wrote the balance forces and the aerodynamic

coefficients to separate data files. Airspeed and atmospheric conditions were recorded along with the aerodynamic quantities.

IV. Test Set-Up and Procedures

This section outlines the experimental process and the instrumentation set-up. This section consists mainly of the balance calibration and the procedures describing how the experimental test runs were conducted, as well as the motivation behind the testing method.

4.1 Calibration

Balance calibration ensures the accuracy of the balance and provides the necessary voltage vs. force slopes to convert the balance voltages into aerodynamic forces. The slopes are determined for negative and positive loads for each gage and combined into a calibration matrix.

The calibration procedure entailed mounting a balance horizontally on a calibration framework. A calibration body with attached hanging rod and load pan were placed on the balance for the application of the iron weights. Each time a weight was placed on the load pan the balance needed to be leveled out. Normally, the corresponding balance deviation for each weight was measured and recorded, but for this sting configuration the deviations were on the order of 1-3 minutes and deemed negligible.

Starting with an unloaded pan, weights were placed on the load pan in equal increments and the weight and corresponding voltages recorded for each gage. 0.23 kg increments were used for the axial gage calibration and 0.113 kg increments for the other gages. From these points, the force vs. voltage curves and each gage's linear correlation were computed. The positive and negative calibration curves are shown in Figures (4.1) and (4.2), respectively, and the correlation in Table (4.1).

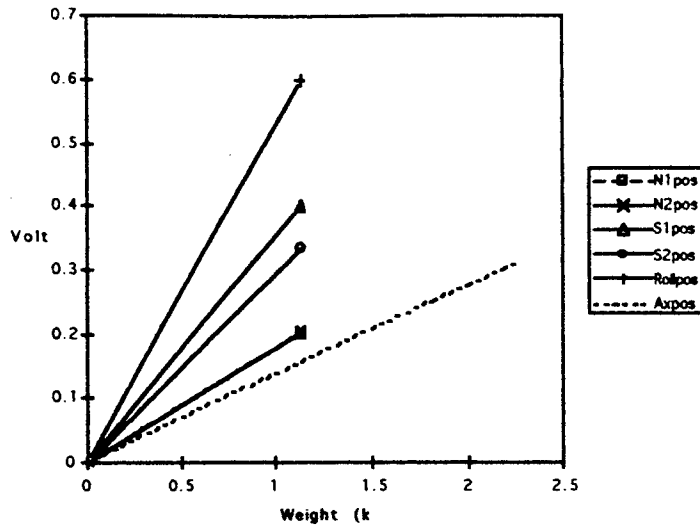


Figure 4.1: Positive Calibration Curves

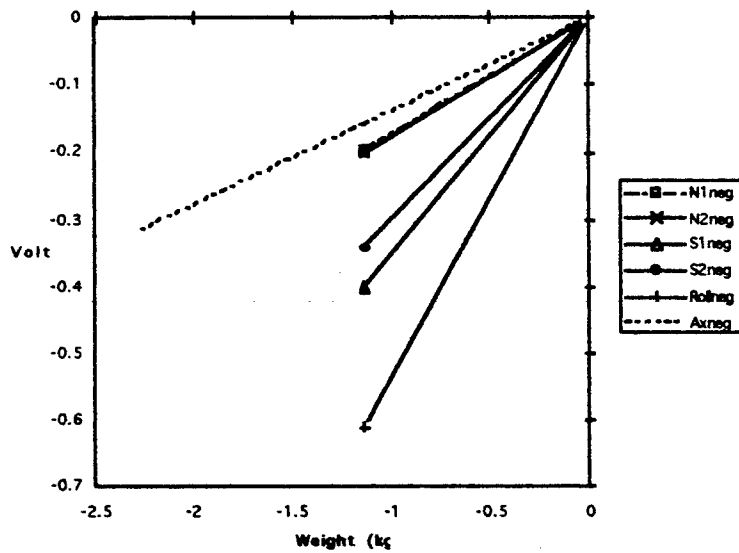


Figure 4.2: Negative Calibration Curves

	N1	N2	S1	S2	RollMom	Ax
Positive	.99998	.99988	.99992	.99999	1.0	1.0
Negative	.99998	.99989	.99995	.99999	1.0	.99999

Table 4.1: Balance Gage Correlation

4.2 Procedures

As a result of the small forces involved in the experiment (less than 4 N), a high airspeed was necessary to allow for more readable forces. The tunnel has a maximum test section airspeed of 65 m/s but at this velocity the spinning model experienced excessive vibration. A dynamic pressure of 2205 N/m² (60 m/s) was selected for testing as it produced the largest forces without significant model vibration. A tare program was produced but not used for the experimental runs. The slow balance drift made taking a wind-off readings and using tare data less accurate than taking a zero before each run. The balance drift is described in more detail in Appendix A.

4.2.1 Cavity Depth Sweep

The following describes the testing procedure. For a selected angle of attack, the non-spinning configuration was attached to the model. The airspeed was turned up and the sting mounting pivoted until the LabVIEW® program indicated a yaw moment coefficient in between ± 0.003 . This alignment ensured the model possessed a yaw angle of near zero. Even when the yaw moment was essentially zero, a small non-zero side force was present and varied slightly with angle of attack, suggesting small inaccuracies in the model and sting manufacture. This small side force coefficient was near .055 for zero yaw moment and most angles of attack. With the model aligned correctly in the tunnel the non-rotating back end could be then be exchanged with the rotating end.

The room temperature and barometric pressure were recorded and manually entered into the LabVIEW® program. A wind-off zero reading was taken and recorded and the tunnel then turned on to a dynamic pressure of ≈ 2205 N/m². The program averaged 2000 data points taken at a scan rate of 2400 Hz. Approximately 20 of these averaged points were recorded to minimize the effect of scatter described in Appendix A. For the wind-off zero reading, 20000 data points were averaged into a single reading. Once the accepted number of points were recorded for later averaging, the wind was turned off, the cavity

depth increased, and a new zero point recorded. The test matrix shown in Table (4.2) was performed for both the spinning and non-spinning configurations.

		Cavity Depth (L/D)													
Alpha (deg)	-9	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80
	-5	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80
	-2	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80
	0	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80
	2	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80
	5	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80
	9	0	.820	.164	.246	.328	.410	.492	.576	.656	.820	.984	1.15	1.48	1.80

Table 4.2: Cavity Depth Sweep Test Matrix

4.2.2 Angle of Attack Sweep

For the angle of attack sweep, a cavity depth was selected and the angle of attack set. The non-spinning piece was attached and the sting/model aligned in the tunnel to read a near zero yaw moment. A zero reading was recorded, followed by a test run for the non-spinning case and then a test run for the spinning configuration. With the wind off, the angle of attack was changed and the model again realigned in the tunnel with the non-spinning configuration. Once an entire angle of attack sweep was made the base cavity depth was changed. The angle of attack sweep test matrix is shown in Table (4.3). The tests were conducted on both the spinning and non-spinning cases at a dynamic pressure of $2205 \text{ N/m}^2 \pm 49$.

		Angle of Attack (deg.)				
L/D	0	-5	-2	0	2	5
	.410	-5	-2	0	2	5
	.574	-5	-2	0	2	5
	.820	-5	-2	0	2	5

Table 4.3: Angle of Attack Sweep Test Matrix

V. Results and Discussions

Experimental runs were conducted for seven angles of attack, -9, -5, -2, 0, 2, 5, and 9 degrees and for a spinning and non-spinning configuration. At ± 9 degrees the data scatter for the spinning and non-spinning cases resulted in inconclusive results. Data obtained at ± 5 deg. were also often difficult to fully analyze. Five force coefficients, thrust, normal, pitching moment, side force, and yaw moment, were examined for their change with base cavity depth and angle of attack.

As a basis for comparison, results were to be analyzed with existing base cavity results. The spinning configuration data was first compared with the STRIX projectile results. The angle of attack sweep data, described in Chapter III, was presented in a manner similar to that presented in the STRIX report (18). The cavity depth sweeps were conducted to provide more comprehensive information concerning the effect of cavity depth than previous experiments and they provided a good overall picture on the trends involved.

One of the prime objectives of the experiment was to investigate the effects of spin on base cavity effects. To accomplish this a series of non-spinning runs were made. This afforded not only the opportunity to compare with spinning results, but also provided a platform that facilitated flow visualization studies.

5.1 Comparison With STRIX

5.1.1 Thrust Force Comparison

Since the model design was based heavily upon the STRIX projectile, a series of comparisons were made to data obtained for the STRIX projectile (17). Figure (5.1) shows the percent change in thrust coefficient for four cavity depths for the STRIX and the current experiment. The STRIX experiment tested cavity depths up to a L/D of 0.471 and

its results showed a nearly uniform C_t decrease at all angles of attack for increasing cavity depth up through 0.471.

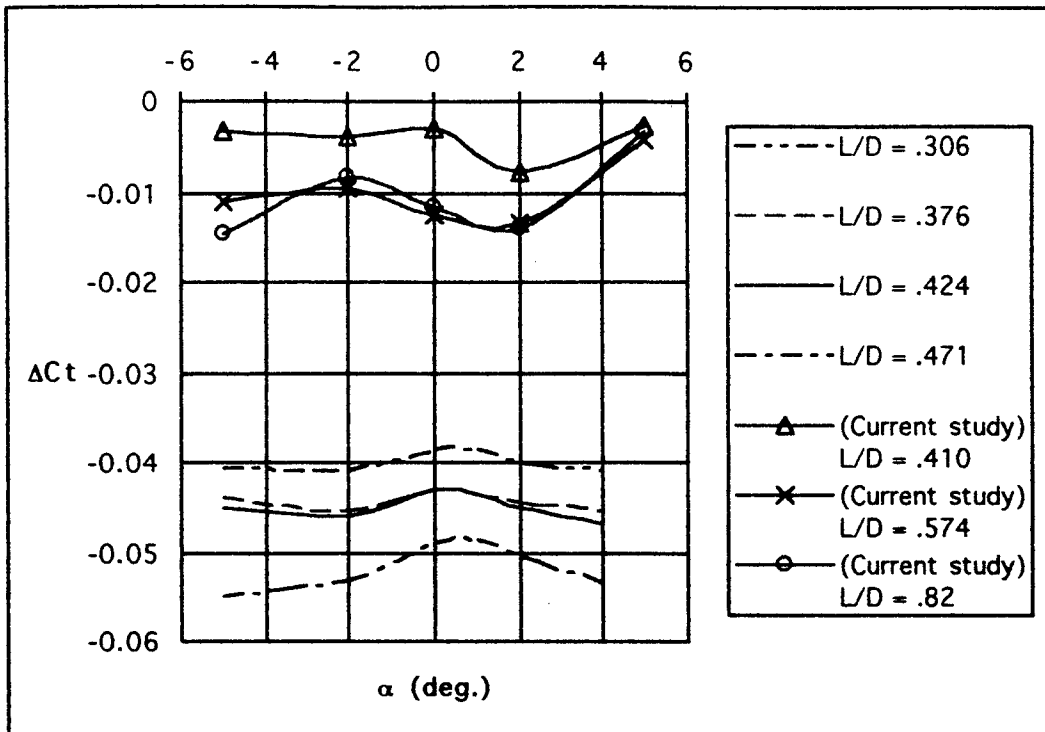


Figure 5.1: Thrust Force Comparison at Angle of Attack

The current experiment, which considered deeper cavity depths, implied that ΔC_t “bottomed out” between $L/D = 0.410$ and $L/D = 0.820$, whereas, the STRIX report found a decrease in C_t throughout the range of its study.

The magnitude of ΔC_t differed considerably between the STRIX and current experiment. The STRIX report claimed a maximum thrust coefficient decrease of at least 0.05 (13.2%) over all angles of attack while the current experiment obtained maximum decreases from 0.009 to 0.014 (3.5% to 5.5%). In both plots, for a fixed L/D , ΔC_t varied no more than .005 across the angle of attack range. At these modest angle variations the

flow structure evidently remained fairly constant. Figure (5.1) shows little change in ΔC_t for the current study at +5 deg. angle of attack.

Figure (5.2) shows the full cavity depth sweep for the current study next to the STRIX results. The points given the subscript, (2), represent repeated run points.

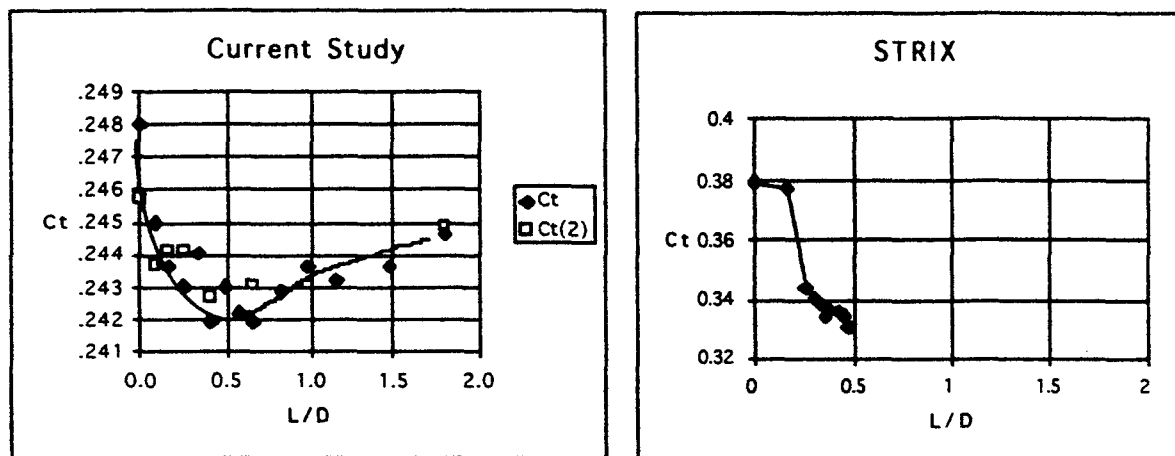


Figure 5.2: Comparison of Spinning Thrust Coefficient vs. L/D

The thrust coefficient trend obtained in the current study was consistent with the experiments of Morel (11) and Compton (6) which concluded that drag will decrease with increasing cavity depth up to a specific L/D . After that cavity depth is reached the drag will increase but always remain lower than the zero cavity depth value. Compton (6) predicted this “transition” L/D value to be between 0.125 and 0.25 while Morel (11) stated it to be at 0.35. Based on the results of the plots in Figure (5.2), the transition L/D value was apparently not reached in the STRIX experiments. The current experiment, which resembled the STRIX study, suggested the transition L/D for this configuration was in the vicinity of $L/D = 0.5$. Only the current experiment and the STRIX study were performed on spinning configurations. This suggested a comparison between the spinning and non-spinning configurations to determine the effect of spin on the base cavity effects. This comparison is addressed in a later section.

5.1.2 Side Force Comparison

Reductions in side force and yaw moment were the major motivators in base cavity experiments on wrap-around fin configurations. Figure (5.3) displays the spin-induced side force and its alterations with cavity depth for the current and the STRIX studies.

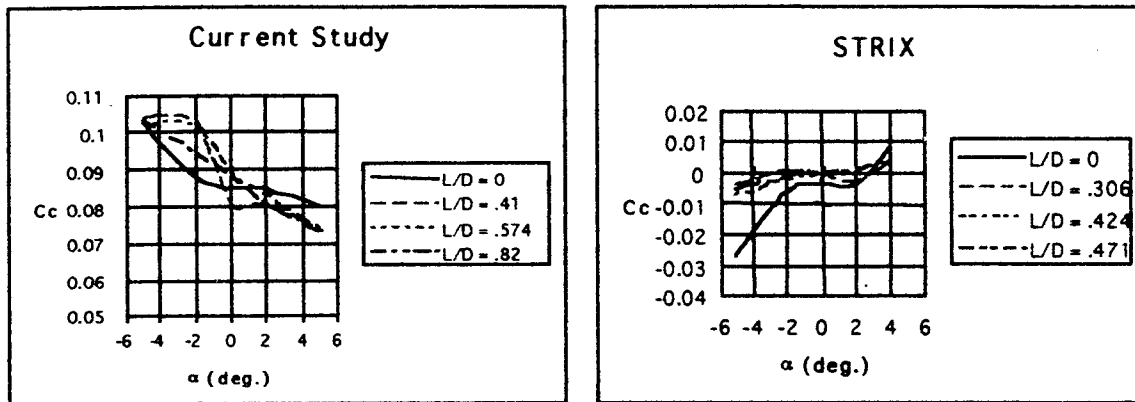


Figure 5.3: Side Force Comparison at Angle of Attack

For negative angles of attack, the current study side force increased for $L/D = .410$ and then decreased slightly for greater cavity depths. The overall effect of cavity depth, as interpreted from Figure (5.3), was in “smoothing” out the L/D curves. Except for at $+5$ deg., increasing L/D raised C_c for the STRIX projectile but the overall effect was to move the side force closer to zero. The STRIX tests showed an increase in projectile stability at angle of attack while the current study did not. The positive side forces at all angles of attack for the current study may result from inaccuracies in the model fabrication.

Otherwise, based on theory, the side force should be negative at negative angles of attack.

5.1.3 Yaw Moment Comparison

In close conjunction with side force, another claimed outcome of base cavity effects was to move the yaw moment close to zero for angles of attack between ± 5 deg. The experimental results for yaw moment appear in Figure (5.4) for the current study and the STRIX study.

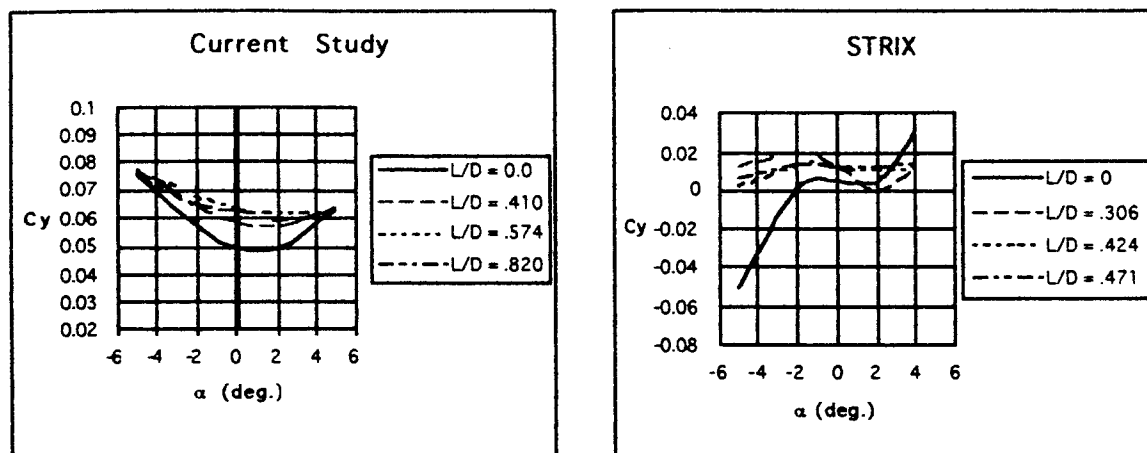


Figure 5.4: Yaw Moment Comparison at Angle of Attack

As with side force, cavity depth raised C_y and smoothed out the curve for the current study. At ± 5 deg. the change in C_y was nearly non-existent while at zero angle of attack ΔC_y was $+0.013$. The STRIX report claimed that increasing L/D shifted the yaw moment curve, as well as, the magnitude of C_y at higher angles of attack closer to zero, thereby severely reducing the spiral trajectory associated with wrap-around fin configurations. The current study did not find such a reduction in C_y or C_c . Possible reasons for the discrepancy were the slightly different model configurations. A comparison with the non-spinning case shed more light on the variation.

5.2 Cavity Depth Sweeps for Spinning Configuration

To gain a clearer understanding of the force changes occurring as base cavity depth was increased, runs were made for several fixed angles of attack with L/D increased from 0 to 1.8. Test runs were made at fourteen cavity depths with selected depths re-examined during a repeat sweep [denoted by (2) on the plots]. The current study L/D sweeps

covered more and larger cavity depths than any other known base cavity experiments. Through these test runs, cavity depth trends could be defined more concretely.

5.2.1 Spinning Configuration Thrust Force

The thrust coefficient L/D sweep results are displayed in Figure (5.5) for five angles of attack. All five plots portrayed the trend described in Chapter II. The thrust coefficient decreased with growing cavity depth up to a point and then increased. While the exact transition L/D value could not be determined, the plots strongly suggested it to be near $L/D = 0.5$. The percent change in thrust coefficient from no cavity to the transition cavity depth ranged from 2.4% at zero degrees to 3.4% at -5 deg., agreeing well with the ΔC_t values obtained in the angle of attack sweep described at the beginning of this chapter.

5.2.2 Spinning Configuration Normal Force

The normal force coefficient versus L/D is displayed in Figure (5.8) for five angles of attack. Although the forces involved were very small and difficult to interpret, base cavity depth did appear to have some influence on the model normal force. The normal force coefficient emulated an inverted C_t trend for increasing L/D . C_n increased to the transition L/D and then dropped, but always remained higher than C_n for no base cavity. The overall increase for the normal force coefficient was small for each angle of attack; approximately +.002.

5.2.3 Spinning Configuration Pitching Moment

As displayed in Figure (5.7), the pitching moment coefficient followed the same trend as the thrust coefficient from -2 deg. to +5 deg. In conjunction with the C_t and C_n plots, the transition L/D appeared to be near $L/D = 0.5$. As in the case with the normal force, base cavity effects on pitching moment are small. The changes in C_m from no cavity to the transition point range from -.0016 to +.0013.

The angle of attack sweep data matched fairly well with the cavity sweep results, and the trends matched with previous experiments. However, there existed large discrepancies between these results and the STRIX results. The magnitude of the thrust

coefficient reduction remains the most obvious difference. The STRIX report suggested a 13% C_t reduction with a base cavity L/D of 0.471 compared to this experiment's 2% to 5% reduction at an L/D of near 0.50. The present experimental error, as described in Appendix A, amounted to a standard deviation of approximately 1% (and possibly as high as 3%) of the original force coefficient values. The errors associated with the STRIX test were not reported. The STRIX data used for comparison was read off a curve-fitted plot. The only documented inaccuracies in the STRIX report were obtained from an examination of the fluctuations on the plots. The average variations amounted to approximately ± 0.020 , ± 0.005 , and ± 0.004 for C_n , C_c , and C_t , respectively.

The discrepancy did suggest that base cavity effects could be very configuration dependent. An unknown number of model shape and size factors could all have an effect on the results. Although the model used in this experiment was based on the STRIX, changes to the nose region may have contributed to some of the observed differences. More likely were the differences between experimental set-ups but little more could be concluded without further information on the STRIX test procedure. The model configuration and experimental set-up could have much to do with base cavity developments and could explain the inconsistency in magnitudes between experiments. However, one common feature between the current study and the earlier STRIX tests were the strong possibility of a transition L/D near 0.5.

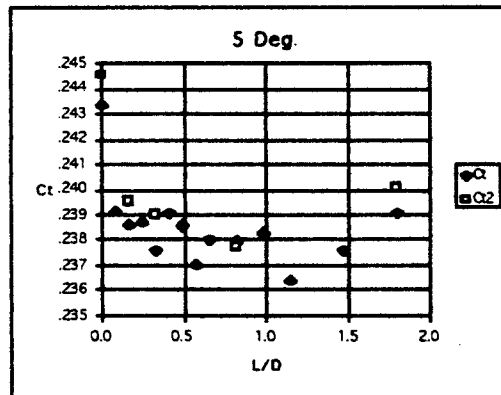
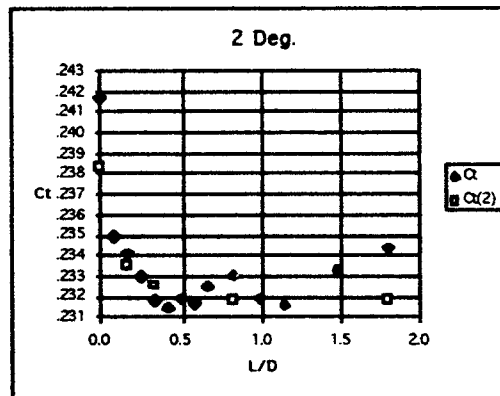
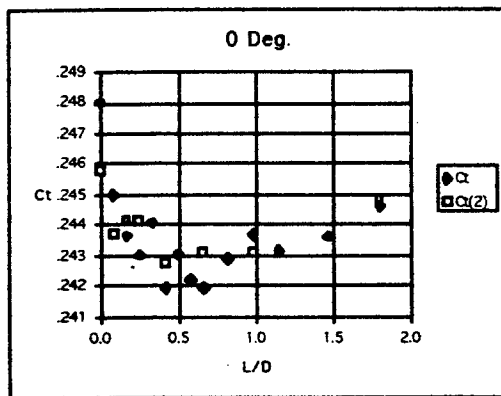
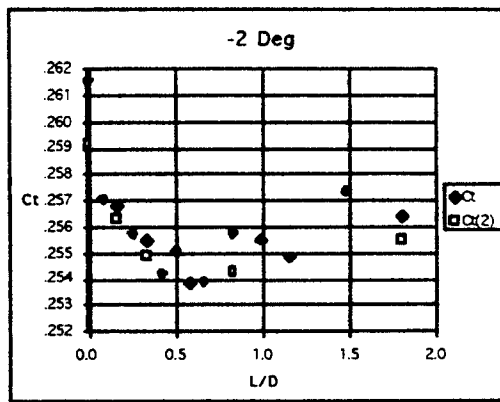
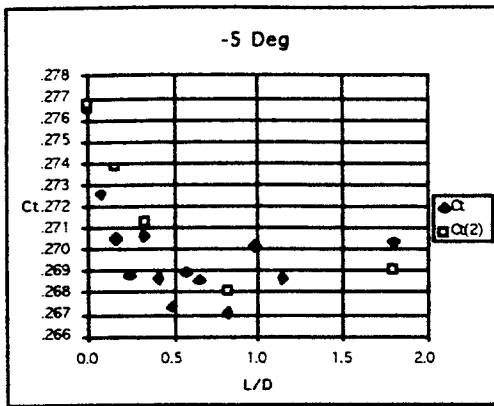


Figure 5.5: Spinning Thrust Force Cavity Depth Sweep

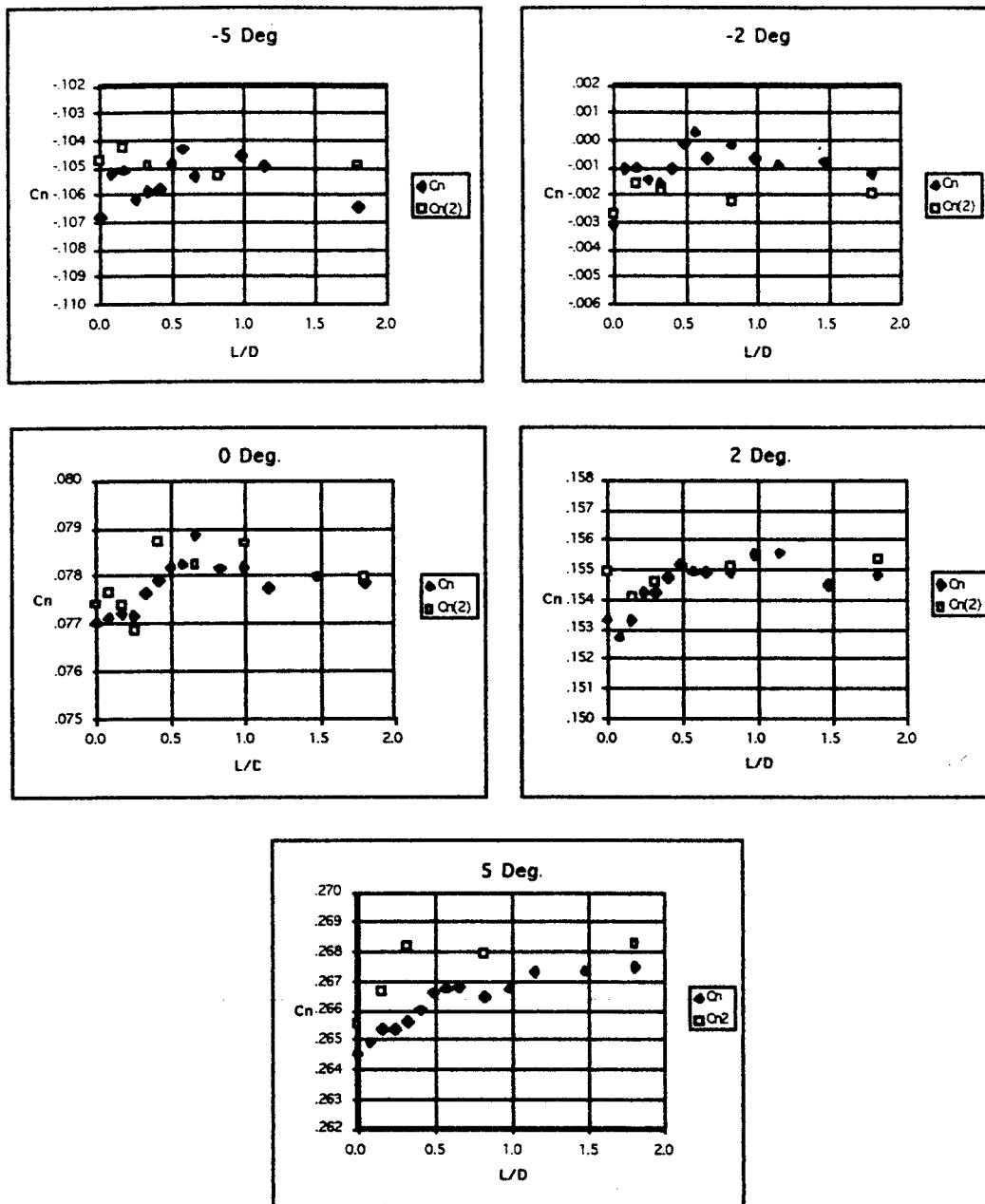


Figure 5.6: Spinning Normal Force Cavity Depth Sweep

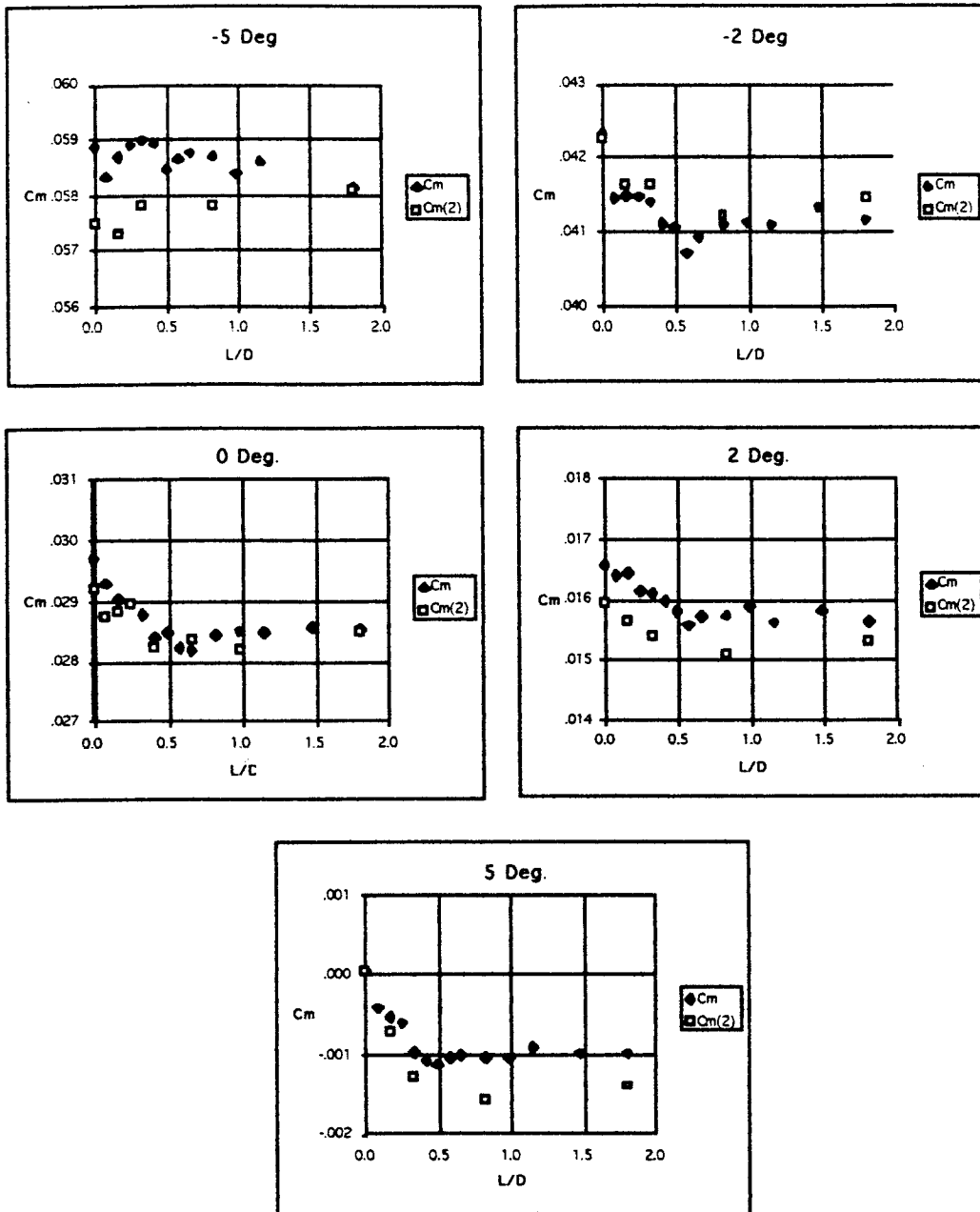


Figure 5.7: Spinning Pitching Moment Cavity Depth Sweep

5.3 Non-spinning configuration

The drag reduction trends displayed for the spinning configuration agreed with the non-spinning trends observed by Compton (6) and Morel (11). The main differences were smaller drag reduction and an increase in the transition L/D seen in the present study.

Additionally, although the magnitude of the drag was much lower, the trends seen in the current study also agreed qualitatively with the earlier STRIX report. Therefore, to gain a better understanding of the aerodynamic properties of a free-spinning projectile, a non-spinning case was investigated at several angles of attack for comparative purposes. The non-spinning case offers the chance to examine the effect of spinning on base cavity effects by comparing the results to the rotating configuration. The non-spinning case can also be compared to the results of Compton and Morel. Finally, flow visualizations can be performed much more easily on the non-spinning body than the free-spinning model.

The data for side force and yaw moment were not presented for the non-spinning configuration. Both quantities were small for the non-spinning case and showed no discernible trends for changing base cavity depth (pages C-1,C-2).

5.3.1 Non-spinning Thrust Force

The thrust coefficient angle of attack sweep for the non-spinning configuration is plotted in Figure (5.8).

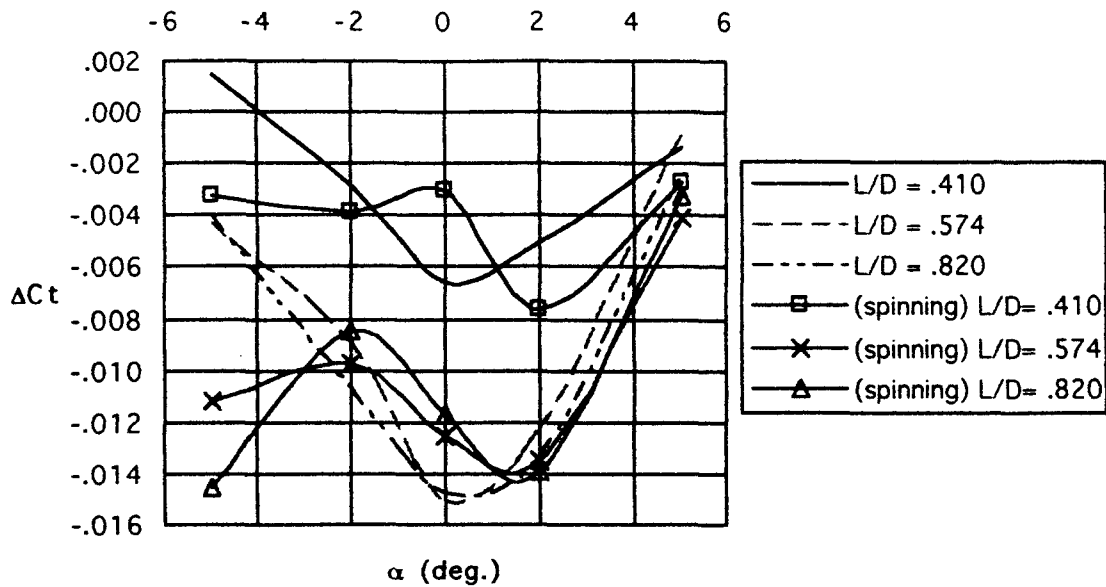


Figure 5.8: Non-Spinning Thrust Coefficient Comparison at Angle of Attack

The magnitude of the change in thrust coefficient also closely matched that for the spinning case. This was particularly true at +5 deg. where there the sting probably influenced the flow over the back of the model. For the non-spinning configuration, ΔC_t ranged from -0.002 (1.3% decrease) to -0.015 (5.9% decrease). The spinning case achieved a similar decrease of 3.3% to 5.5%. The error for both sets of curves was approximately ± 0.002 -0.003. Within the error, the change in C_t was similar for the spinning and non-spinning cases. When compared to the large force reductions proposed by other experiments, there was little noticeable difference of base cavity effects between spinning and non-spinning bodies.

The non-spinning thrust coefficient versus L/D is compared to the spinning results in Figure (5.9). Both test were performed at zero angle of attack.

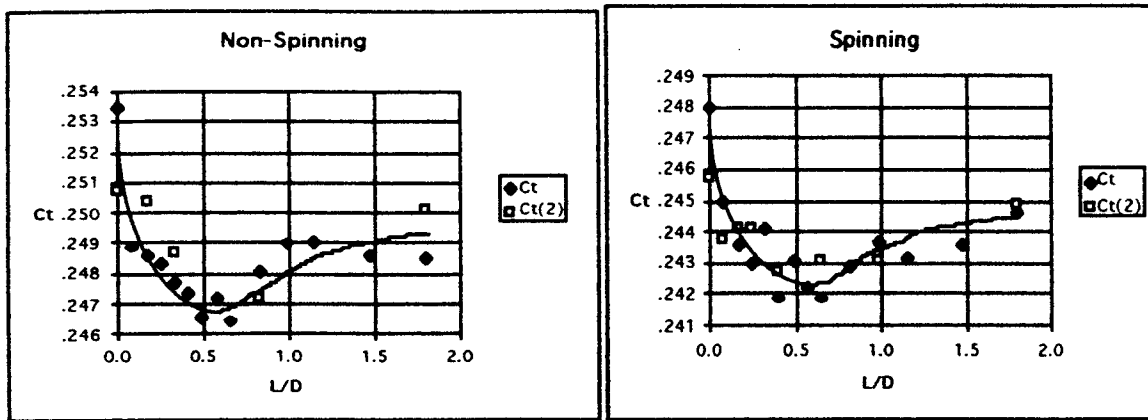


Figure 5.9: Comparison of Spinning and Non-Spinning Cavity Depth Sweeps

The curves show extremely similar results. The decrease in thrust coefficient was approximately 3% for both cases. The transition L/D also appeared to be near 0.5 for both configurations. These results supported the previous conclusion that the base cavity drag reduction is similar for spinning and non-spinning configurations.

The non-spinning model allowed base cavity comparisons to be made with other axisymmetric bodies. Figure (5.10) compares the same non-spinning curve of Figure (5.9) with the base cavity results of Morel (11).

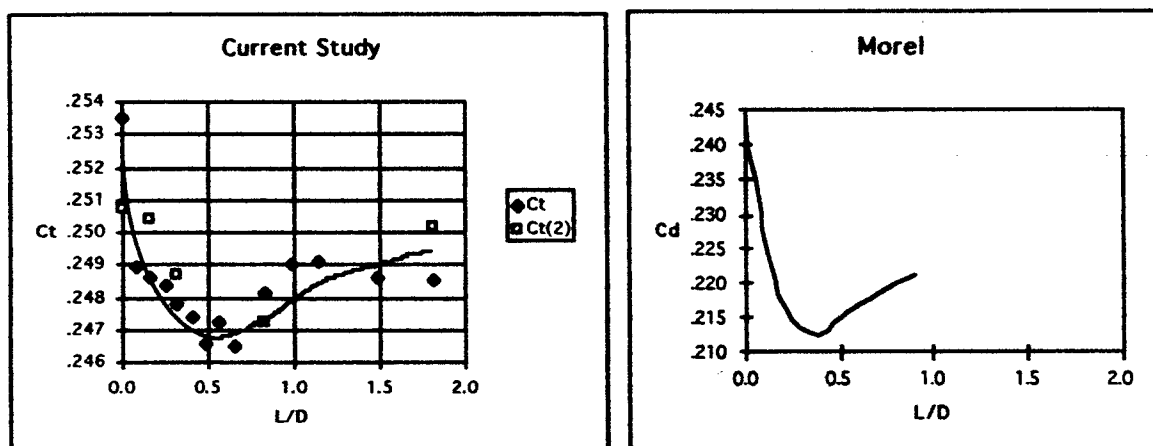


Figure 5.10: Non-Spinning Comparison with Morel

The magnitudes were substantially different between the two studies. The current investigation found a thrust coefficient decrease of 4% while Morel claimed a decrease of 13%. As with the spinning case, Morel's transition L/D was a less than what the current study obtained, possibly a result of different configurations. The current study's model resembled the Morel model with the notable exception of a larger sting and a larger base cavity/outer-body diameter ratio. This ratio was 0.84 for the current model, 0.95 for the Morel model (11), 0.71 for the STRIX (18), and approximately 1.0 for Compton's model (6). Compton performed base cavity studies with different boat tail angles and found some drag dependence on the rear configurations (6). A larger cavity/outer diameter ratio could increase the transition L/D but nothing definite could be determined with the present data.

The non-spinning thrust coefficient versus L/D is shown for five angles of attack in Figure (5.11). Although the transition L/D was less clear for the negative angles, the thrust force versus cavity depth tendencies agreed very well with those for the spinning case. $L/D = 0.5$ still appeared to be the closest estimation of the transition point based on the data. The thrust percent decrease over these five angles of attack varied from 1.5% to 3.3%. Given the 1%-2% experimental error, as described in Appendix A, the thrust decrease appeared to be essentially constant over the angle of attack range tested. A similar conclusion was made with the spinning configuration.

5.3.2 Non-Spinning Normal Force and Pitching Moment

As shown in Figure (5.12), the normal force coefficient increased with rising L/D just as it did for the free-spinning case. Although the C_n values were small, the similarities with the spinning configuration were clear. C_n increased as L/D increased and then dropped off.

The pitching moment was the most repeatable force coefficient for the non-spinning case. As presented in Figure (5.13), for zero and positive angles of attack, C_m followed nearly the same trend as the thrust coefficient. The transition L/D , again, appeared to be in

the vicinity of 0.5 for the non-spinning configuration. The change in C_m ranged from -.0016 to +.0014 which was nearly identical to the spinning configuration C_m range of -.0016 to +.0013.

The non-spinning results closely paralleled the previous results of the free-spinning case. The force variations induced by changing cavity depth followed previous base cavity tests. Rotating the body also appeared to have no effect on the transition L/D . The most basic conclusion to be drawn was that base cavity effects have similar consequences whether on spinning or non-spinning axisymmetric bodies. These results would seem to suggest that base cavity effects could be studied on a non-spinning axisymmetric body and the results applied to a geometrically similar spinning body.

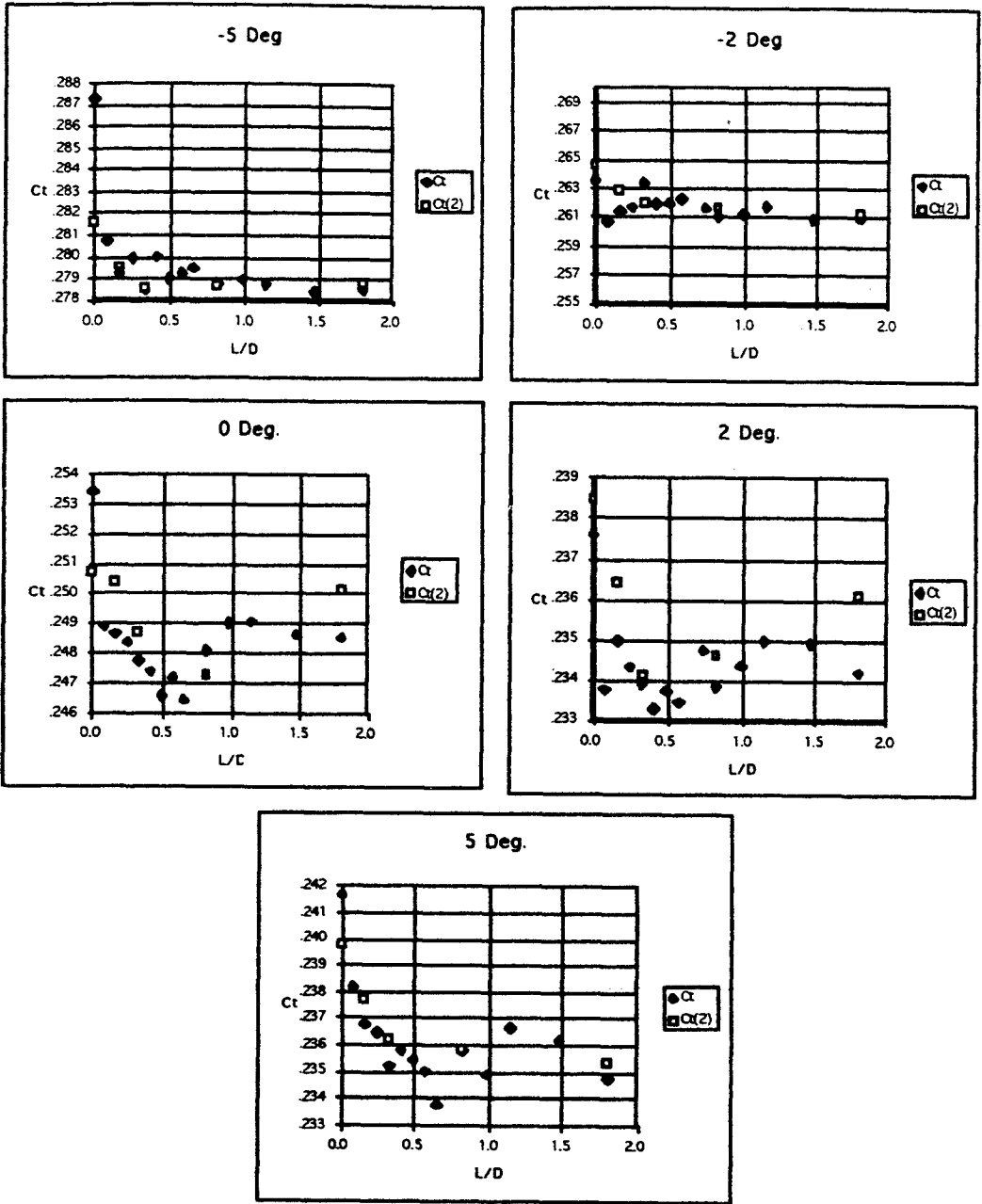


Figure 5.11: Non-Spinning Thrust Force Cavity Depth Sweep

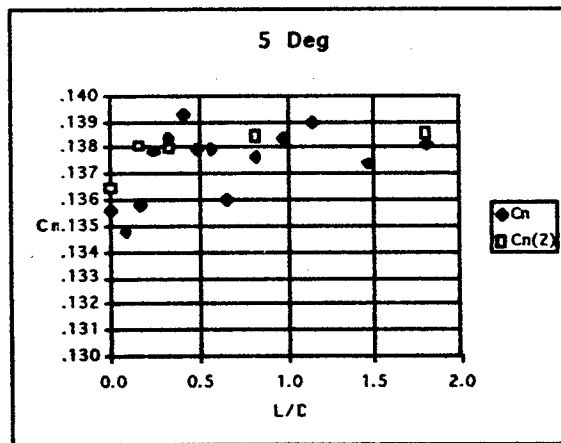
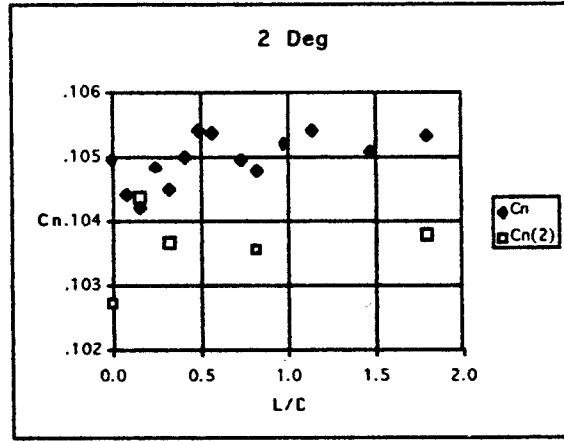
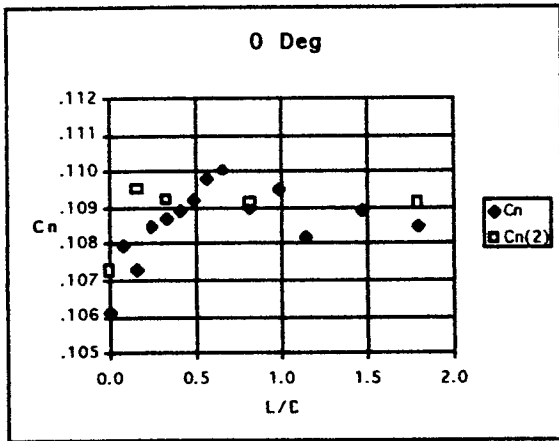
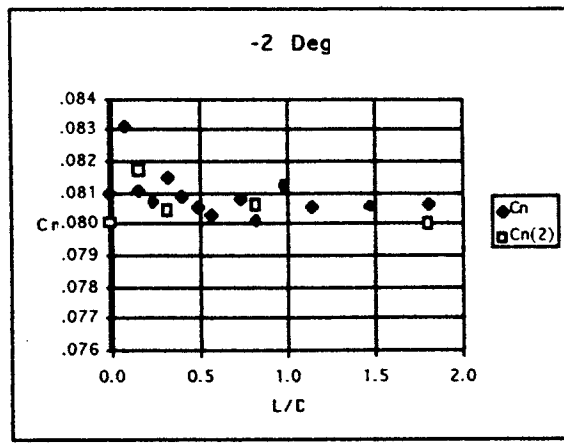
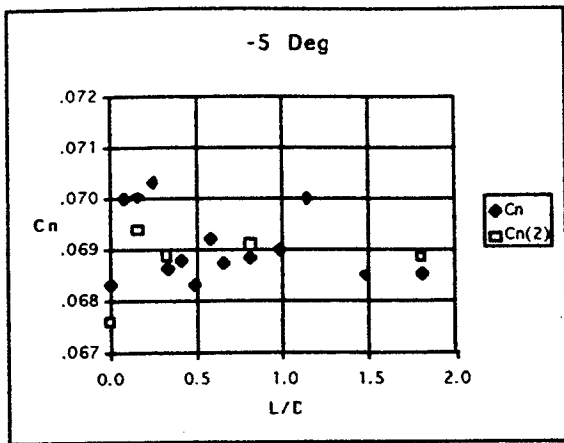


Figure 5.12: Non-Spinning Normal Force Cavity Depth Sweep

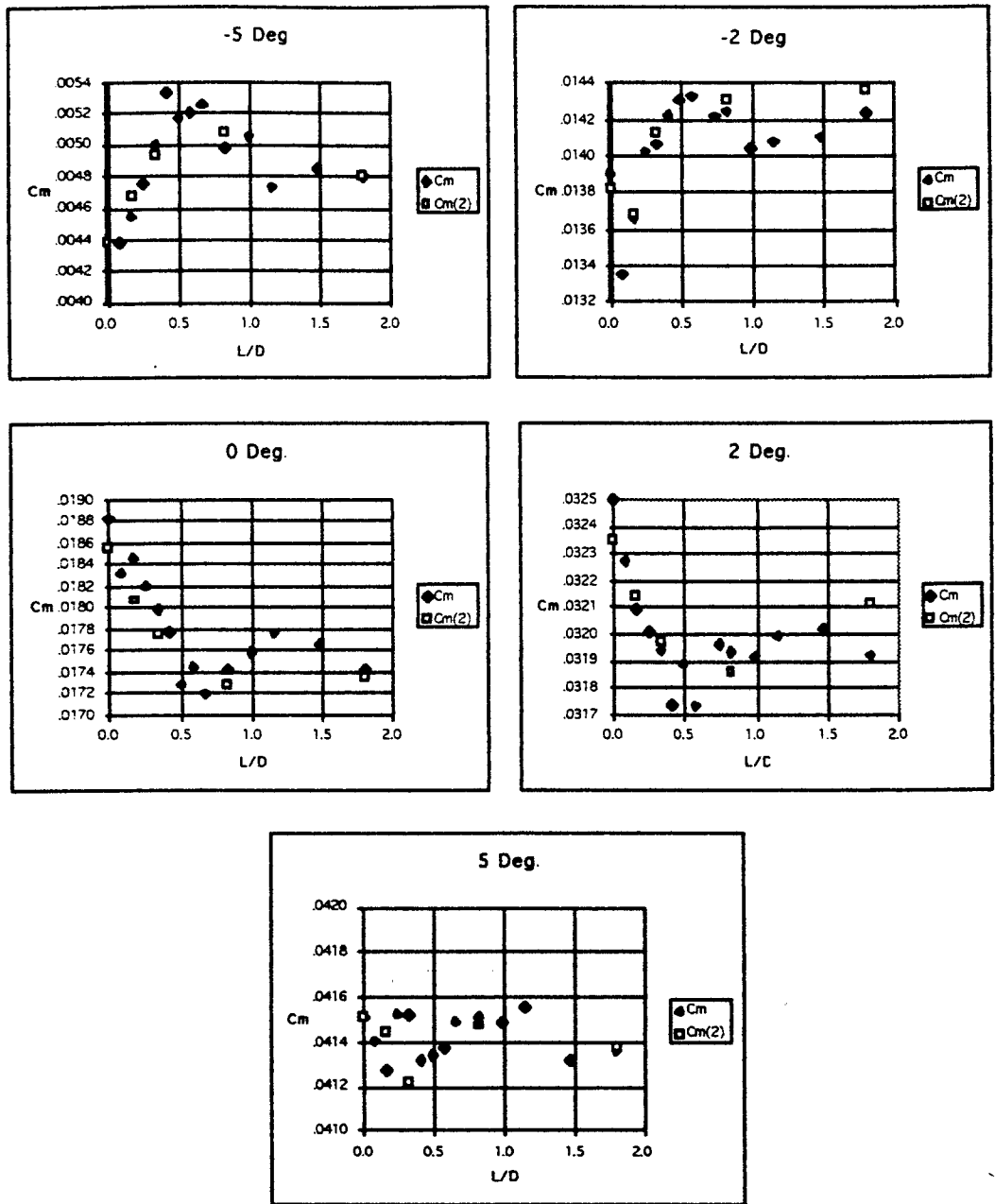


Figure 5.13: Non-Spinning Pitching Moment Cavity Depth Sweep

5.4 Oil Flow Visualizations

To gain better insight to the effect of a base cavity on the flow patterns over the model, some test runs were conducted with surface oil flow visualizations. The flow visualizations had three goals: to discover the flow patterns inside the base cavity, to see if the cavity depth affected flow around the outside of the model, and to determine the effect of the sting on the flow over the model.

The flow visualizations did reveal interesting trends. Even at ± 9 deg. angle of attack, no clear vortex separation over the body appeared in the oil flow, as was hypothesized in Chapter III. The sting did have a substantial effect on the flow over the bottom of the model. The flow was uniform around the rear of the body except directly behind the sting. The flow completely separated behind the sting and increased in velocity and strength. Figure (5.14) depicts the oil flow patterns behind the sting.

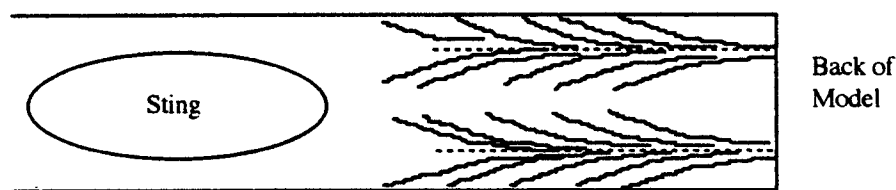


Figure 5.14: Model Bottom Oil Flow Patterns

Behind the sting, and roughly at the width of the sting, was where the model flow was fastest and the most stable.

The flow patterns for the inside of the cavity were difficult to interpret. Flow patterns remained unrecognizable until L/D reached roughly 0.5 and did not become really clear until a cavity depth of over 1.0. Despite the large L/D , the oil flow was most visible up to half-way into the cavity (near $L/D = 0.5$). Deeper into the cavity the flow motion lessened. For zero angle of attack the cavity flow appeared to make a large clockwise

motion as shown in Figure (5.15). Only one circulation pattern appeared to be present. The dots show the points where oil was placed and the arrows show the path of travel.

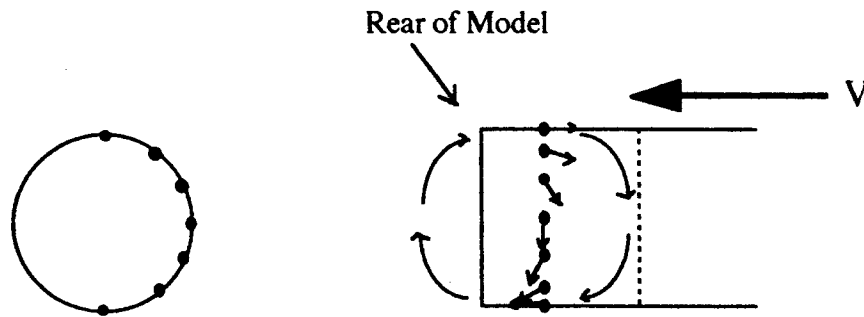


Figure 5.15: Zero Angle of Attack Cavity Flow

At -9° the oil at the top and bottom of the cavity remained stationary while the flow in between moved into the cavity and downward. This flow is shown below in Figure (5.16).

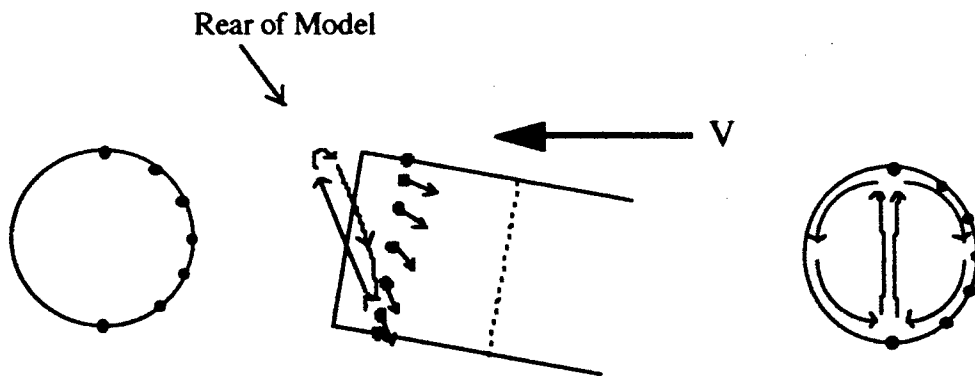


Figure 5.16: Cavity Flow at -9° Angle of Attack

This flow appeared to have two circulation patterns. The flow traveled forward and down around the sides of the cavity and flowed up and back from the bottom to the top.

The flow pattern at $+7^\circ$ angle of attack showed inconclusive results. The oil flow pattern is drawn below in Figure (5.17).

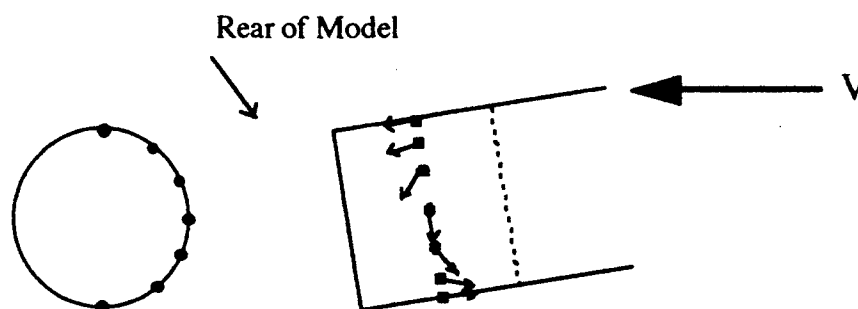


Figure 5.17: Cavity Flow at 7° Angle of Attack

The oil flow at 9 deg. was too turbulent to get any results so the flow might have also been very turbulent at 7 degrees. The oil flow visualizations were rather awkward for this configuration since the rear of the model had to be removed to apply the oil and view the oil streaklines. A water tunnel study with a clear non-spinning rear section would facilitate the flow visualization process.

Flow visualizations were conducted on the outside of the rear section for several cavity depths and angles of attack. In all of the test runs no noticeable differences occurred in the outside flow for varying cavity depths. This tended to suggest that base cavities only affect the near wake flow and do not influence the flow on the body sides. This agreed with Compton's conclusion (6) that the force changes were due to mixing rate variations caused by circulating airflow in, and just behind, the base cavity. Based on the similarity with base cavity effects on spinning and non-spinning bodies, as indicated by the aerodynamic data, it could be assumed that the base cavity has no effect on the flow around a spinning configuration either. All changes in the aerodynamic forces resulted from the airflow patterns directly behind the body.

Some discrepancy in the flow patterns and those described by Compton might have resulted from the weak airflow over the body. The airflow might have been too stagnant to produce the co-flowing streams Compton pictured. The flow was strongest on the bottom directly behind the sting. The strong bottom flow may have forced the airflow patterns shown in the figure above to form when a co-flowing stream might have been produced if the flow was more uniform around the body. If this was true, it could explain the magnitude differences in the force changes. This model configuration only produced a reduced mixing rate on the bottom, as opposed to Compton's premise that the mixing rate could be reduced all around the body by a co-flowing stream. Compton's model (6) possessed a long sting (approximately half the body length) but thinner than the current model (18% of the body diameter as opposed to 41%).

VI. Conclusions

Through a comprehensive investigation of the effects of cavity depth on a spinning and non-spinning body, some general conclusions could be drawn.

The experiment measured maximum drag reductions of 1-5 percent. The thrust coefficient followed the patterns of most previous experiments, in that increasing the base cavity decreased drag up to a certain cavity depth. However, this model did not come close to producing the thrust reductions of 11-13 percent achieved by Morel , Compton, and the STRIX study.

Increased base cavity depth did not effect the side force or yaw moment to any noticeable degree at modest angles of attack. The main motivation behind applying base cavities to wrap-around fin missiles was to reduce the side force/moment associated with the configuration. The base cavity did appear to have a measurable effect on side force/moment but the direction of change was not always advantageous to the projectile's stability.

Base cavity trends seem to be similar for spinning and non-spinning configurations. A correlation existed between the spinning and non-spinning force plots. Base cavity effects appeared to result from the changes in the near wake flow. As a consequence, the finned and spinning configurations produced base cavity effects similar to the non-spinning, non-finned configuration. The analogous trends between the two bodies suggest that tests may be performed on non-spinning cases with the results applicable to spinning configurations. This would facilitate a more detailed mapping of the cavity flowfield through the use of pressure taps in the cavity, or a pressure rake in the near wake flow.

The transition L/D for this configuration and set-up appeared to be in the vicinity of 0.5. This agreed with the STRIX results but not with the others, suggesting that the

transition L/D value is configuration dependent. As can best be determined, angle of attack had little or no influence on the transition L/D value for up to ± 5 deg. angle of attack. Presumably then, projectiles could be optimized for low drag by employing a cavity depth equal to the transition L/D and not be penalized at off-design angles of attack.

The flow visualizations did not reveal a flow pattern similar to that Compton had surmised (6). No co-flowing stream was observed. On the contrary, at zero angle of attack, one large circulatory pattern was witnessed and, at negative angle of attack, two circulatory patterns were seen. The flow visualizations implied that the mixing rate would only be decreased along the lower portion of the body. Although it was difficult to determine if the weak flow over the body inhibited a co-axial stream from forming, this would seem to represent a possible source of the disparity.

Configuration differences may account for a measure of the discrepancy between this experiment and the others conducted. The sting was shown to speed up the flow under the body in two streamlines directly behind it. The accelerated flow underneath, combined with possible weak flow around the rest of the body, could have caused the observed circulatory patterns to form. Previous axisymmetric base cavity experiments also employed side mounted stings but no documentation regarding the sting effect were provided. Compton's sting was over half the length of the body but the width was about 18% of the body diameter and the STRIX report makes no mention of its sting size (6).

It is possible that base cavity effects are extremely configuration dependent. Many factors, such as, outside flow characteristics, spin rate, surface roughness, cavity to outside diameter ratio could all play a part in affecting the body forces. If base cavity effects are easily reduced by certain body configurations, its practicality to widespread could be rather limited.

VII Recommendations

Although trends in this experiment have been documented, the exact nature of base cavity flow is still a subject of theory. Several things could help future base cavity investigations.

1. A major problem with the experiment was that the forces were much lower than anticipated and the maximum error involved turned out to be near the same order of magnitude as the base cavity-induced change in forces. A larger model, and correspondingly larger forces, would greatly ease the interpretation of the data and would probably allow the transition L/D values to be more accurately identified. In this experiment, the size of the sting was determined by the balance size. The same size balance on a larger model could reduce the non-uniform flow witnessed behind the sting.
2. A clear axisymmetric non-spinning body through which to observe the flow rotation in the cavity would greatly aid in the characterization of the cavity flow.
3. To help discover base cavity effects on rotating bodies, a pressure rake could be employed behind the body to better analyze the flow structure.
4. A non-spinning body could be instrumented with pressure taps to quantify the pressure rise associated with base cavity effects in and around the base of the body.
5. Base cavity effects appear to be very dependent on the body configuration. Another possible study could be the effect of base cavity depth with different cavity to outside-body

diameter ratios. As stated previously, the base cavity effect appears to be dependent on the near wake flow. Since the cavity depth affects body side force, the rotation rate of the cavity flow may alter the mixing rate in the near wake and subtract from the body Magnus force. With the Magnus force dependent on the rate of rotation, the body spin rate is another parameter to consider while investigating base cavity effects.

Appendix

A.1 Error Analysis

With all experiments there are errors occurring during every aspect of the process. While every error cannot be accounted for and negated, it is important to make a tabulation of the tangible errors to determine the credibility of the results. To determine the most probable error of the combined system, the individual sensitivities must be accounted for and added together as shown in reference (9).

$$Error = \sqrt{\left[\frac{\partial(e)}{\partial x_1}\right]^2 + \left[\frac{\partial(e)}{\partial x_2}\right]^2 + \left[\frac{\partial(e)}{\partial x_3}\right]^2 + \dots} \quad A.1$$

Most errors associated with the system are random, however, the nature of this experiment permits possible biased errors caused by the operator.

The atmospheric pressure was read off a mercury barometer. The error related with it is one-half of the smallest gauge increment or ± 0.0013 meters mercury. Similarly, a digital temperature gauge possesses an error of $\pm 0.5^\circ$. The cavity depth was measured with a small ruler with an estimated error of ± 0.076 cm.

The ABLE CORPORATION determined the balance's error to be no more than 0.5% of the applied load (4). During the balance calibration several unmeasurable errors can add to the initial error of the balance, such as, room temperature fluctuations, swaying load pans, as well as instrumentation inaccuracies. The calibration accuracy was checked for each gage by placing weights on the load pan. The highest error of ± 0.044 N occurred in the N2 gage for a 1.11 N force.

The wind tunnel manual fails to list any associated errors with the test section static pressure readings. However, the test section pressure calibration, the voltages were crudely read off the tunnel's velocity digital indicator for different pressures induced by a

pressure transducer and vacuum measurement system. The error for the system is given at $\pm 1\text{mV}$.

Digitization errors result from the conversion of data for storage and processing. The multifunction I/O board possesses a precision of 4.88 mV for an input of range of -10 to +10 volts, resulting in an error of $\pm 2.4\text{ mV}$. When in operation the system was noticed to drift over long periods of time. On occasion, the drift was up to $\pm 1\text{ mV}$ for a 333 gain after approximately 15 minutes. The inherent drift was minimized by limiting runs to under two minutes and taking wind-off zeroes before each run.

The model mounting has drilled holes corresponding to individual angles of attack. The maximum angle of attack error is approximately ± 10 minutes. Zero yaw angle was attained for the test runs by centering out the model in coordination with the yaw moment coefficient indicator. The accuracy of the zero yaw angle is difficult to assess since all previous errors are carried through to the yaw moment coefficient. With the system setup exact zero yaw angle could never be produced and the yaw moment coefficient usually varied from -0.002 to 0.002. A similar situation occurs with the wind off zero readings. For zero readings 20000 data points were sampled at a scan rate of 2400 Hz. This scan selection produced acceptable results in a couple minutes time, but the zeroes were not perfect and could vary by as much as $\pm 1\text{ mV}$ for any gage.

A.2 Operator Errors

The experimental setup required a constant hands-on interaction with the model. The base cavity depth had to be manually increased after each run by pushing in the cavity plug. It became inevitable that the yaw angle would be altered slightly during a cavity sweep. Since no clear indication exists to the extent of operator-inflicted error it must always be considered a possible factor, particularly with the side force and yaw moment data.

A.3 Error Tabulation

The errors listed above have a combined effect on all data reduction. To determine the overall effect on the system's accuracy the errors are summed up for a set of run values. The run values chosen are on the low end of possible so that the errors will be of the highest percentage. The run values chosen are a

Force - 1.112 N
Temperature - 18.3 °C
Pressure - 711 mm mercury
Velocity - 59.1 m/s

For a load of 1.112 N the voltage for the N2 gage would be 0.02015 with an error of ± 0.0025 volts by adding the initial balance and digitization error. Assuming the N1 gage has the same error as the N2 gage the combined error would be ± 0.005 volts or converted into forces ± 0.276 N.

In calculating the dynamic pressure the barometric pressure and room temperature are entered into the calculations and converted into correct units.

$$\rho = \frac{\text{pressure}}{287 * (\text{temperature})} = \frac{(711 \pm 0.0013) * 133.3}{287 * (291.3 \pm 0.5)} \quad (\text{A.2})$$

The error for pressure and temperature uncertainties are $\pm 0.00389 \text{ kg/m}^3 \pm 1.196 \times 10^{-5} \text{ K}$, respectively. This combined error is ± 0.0039 for a density of 1.13 kg/m^3 .

The velocity carries with it an error of ± 0.046 m/s from the pressure system error. For a velocity of 59.1 m/s:

$$q = \frac{1}{2} \rho V^2 = (0.5)(1.13 \pm 0.0039)(59.1 \pm 0.046)^2 \quad (\text{A.3})$$

The density and velocity errors combine to produce an error of ± 37.1 for a dynamic pressure of 1963.1 N/m^2 . The gage error comes back into play when the force coefficient is calculated.

$$C_n = \frac{\text{Force}}{q * \text{area}} = \frac{1.112 \pm 0.276}{(1963.1 \pm 37.1) * 0.0043} \quad (\text{A.4})$$

The combined error for this analysis comes out to be $\pm 3.5\%$.

The above analysis is a worst case scenario and is assumed to be high. Many of the error will undoubtedly cancel each other out. The actual fluctuations in force coefficients witnessed during the test runs were mostly under 3.0% for the maximum deviation and around 1.0% for the standard deviation. These fluctuations take into account all unmeasurable uncertainties, such as tunnel turbulence and model vibration.

Front Panel

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zero read filename <input type="text"/>	zero read path <input type="text"/>	Adds headings for aero data columns <input type="radio"/> OFF			

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subtract zero voltage <input type="radio"/> OFF	save zero? (avg) <input type="radio"/> OFF
raw voltage filename <input type="text"/>	raw voltage path <input type="text"/>
save data? (avg.) <input type="radio"/> OFF	append? <input type="radio"/> OFF

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chan limits 1 high 10.00 low -10.00	chan limits 2 high 10.00 low -10.00

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Alpha (deg.) 0.00	Model Weight (lbs) 0.00
Temp (F) 0.00	Area (ft^2) 0.0000
Press. (lb/ft-ft) 0.00	

Forces (minus zero pt.) 0	Forces (lb) 0
N1	N2
S1	S2
Roll	Ax

N1 (Volts) 0.00000	Roll Mom (Volts) 0.00000
N2 (Volts) 0.00000	Axial (Volts) 0.00000
Y1 (Volts) 0.00000	Excitation (Volts) 0.00000
Y2 (Volts) 0.00000	velocity volts 0.0000
Axial force	
Normal Force	
Side Force	
Pitch Moment	
Roll Moment	
Yaw Moment	

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	Axial
	Side
	Pitch
	Yaw
	Roll

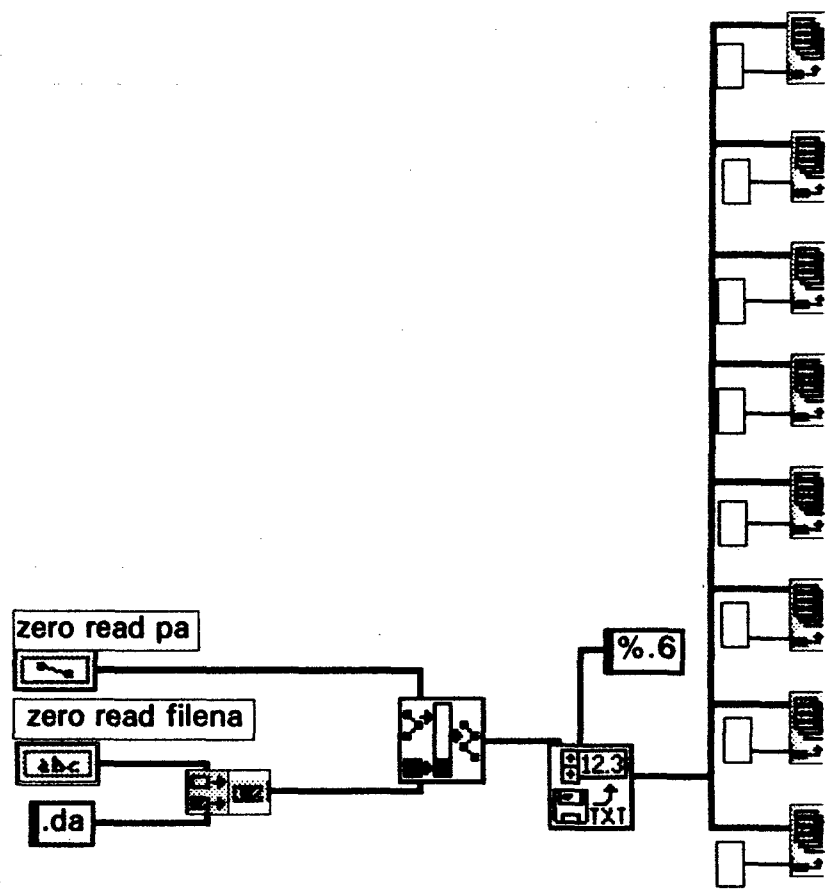
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	Pitch
	Yaw
	Roll
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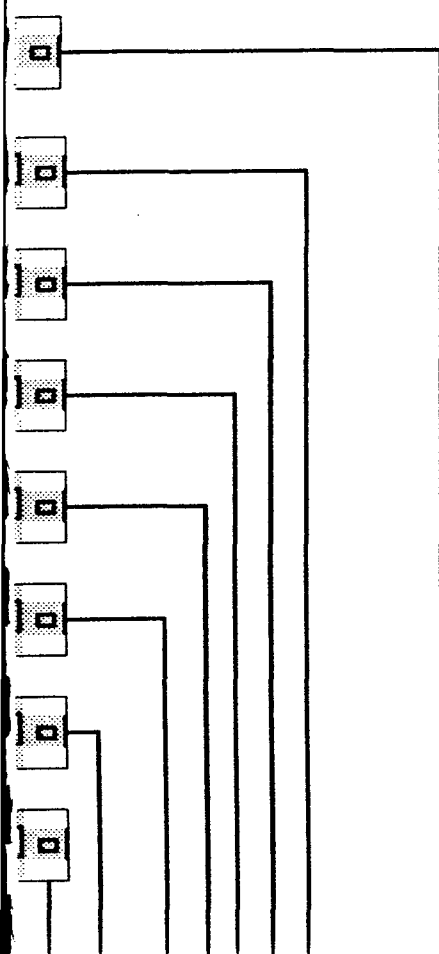
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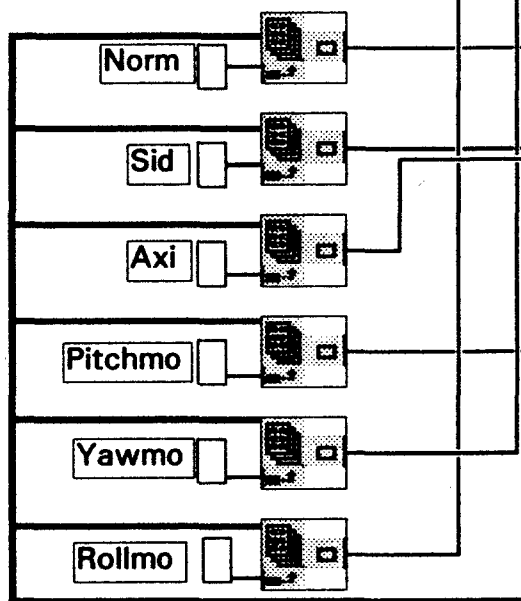
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B-2

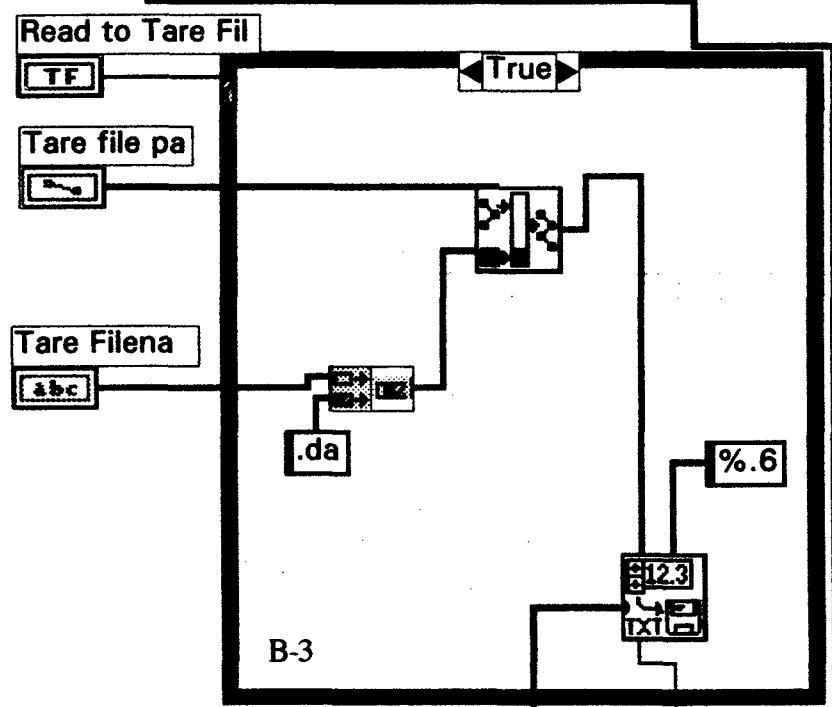


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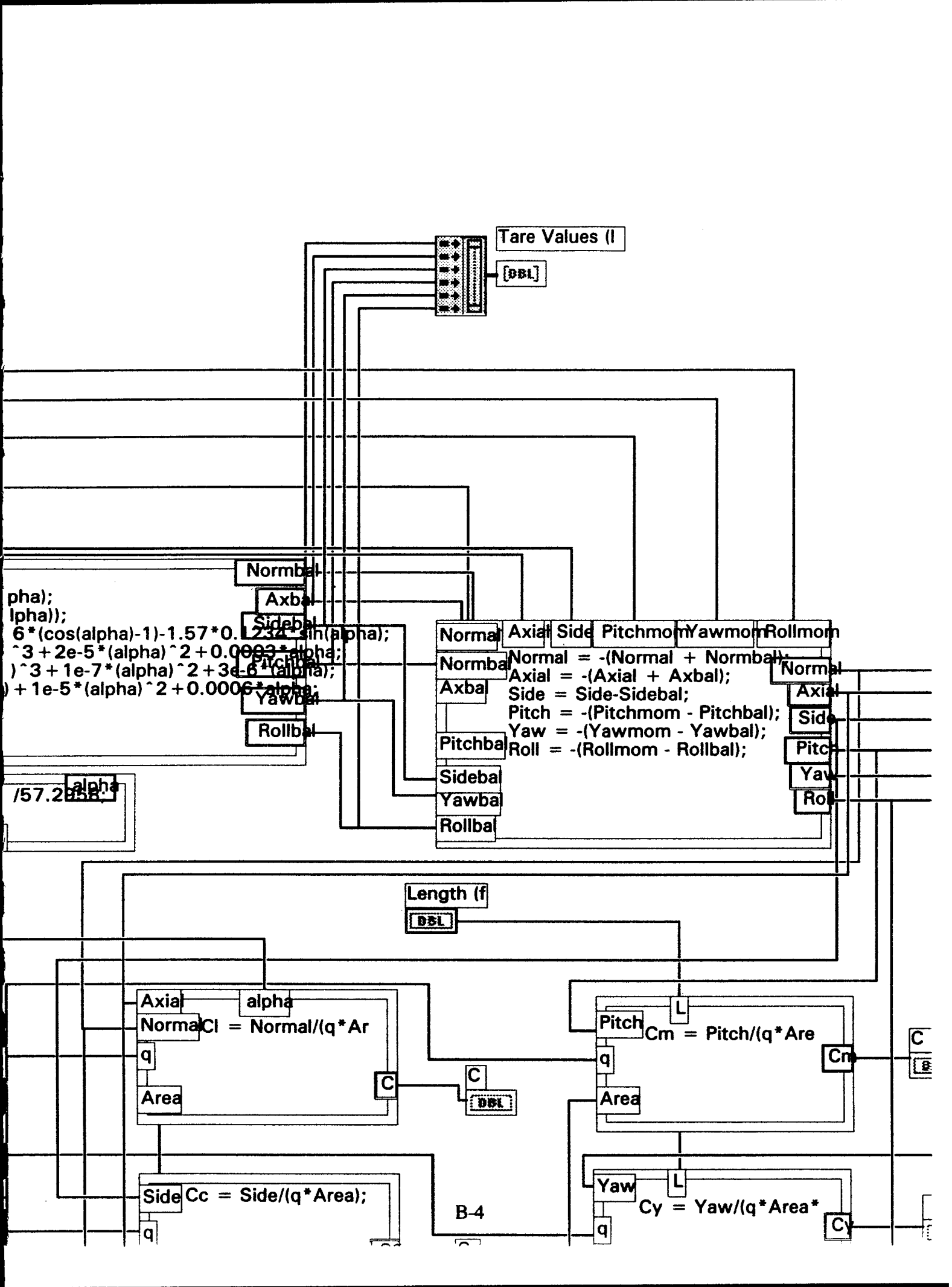
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 Axbal = 1.57*(1-cos(a))
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 Rollbal = -3e-6*(alpha)

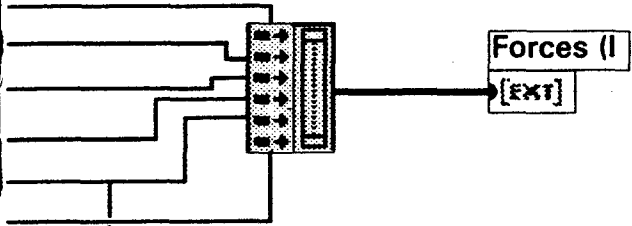
alpha
 alpha = alph



lpha (deg.)

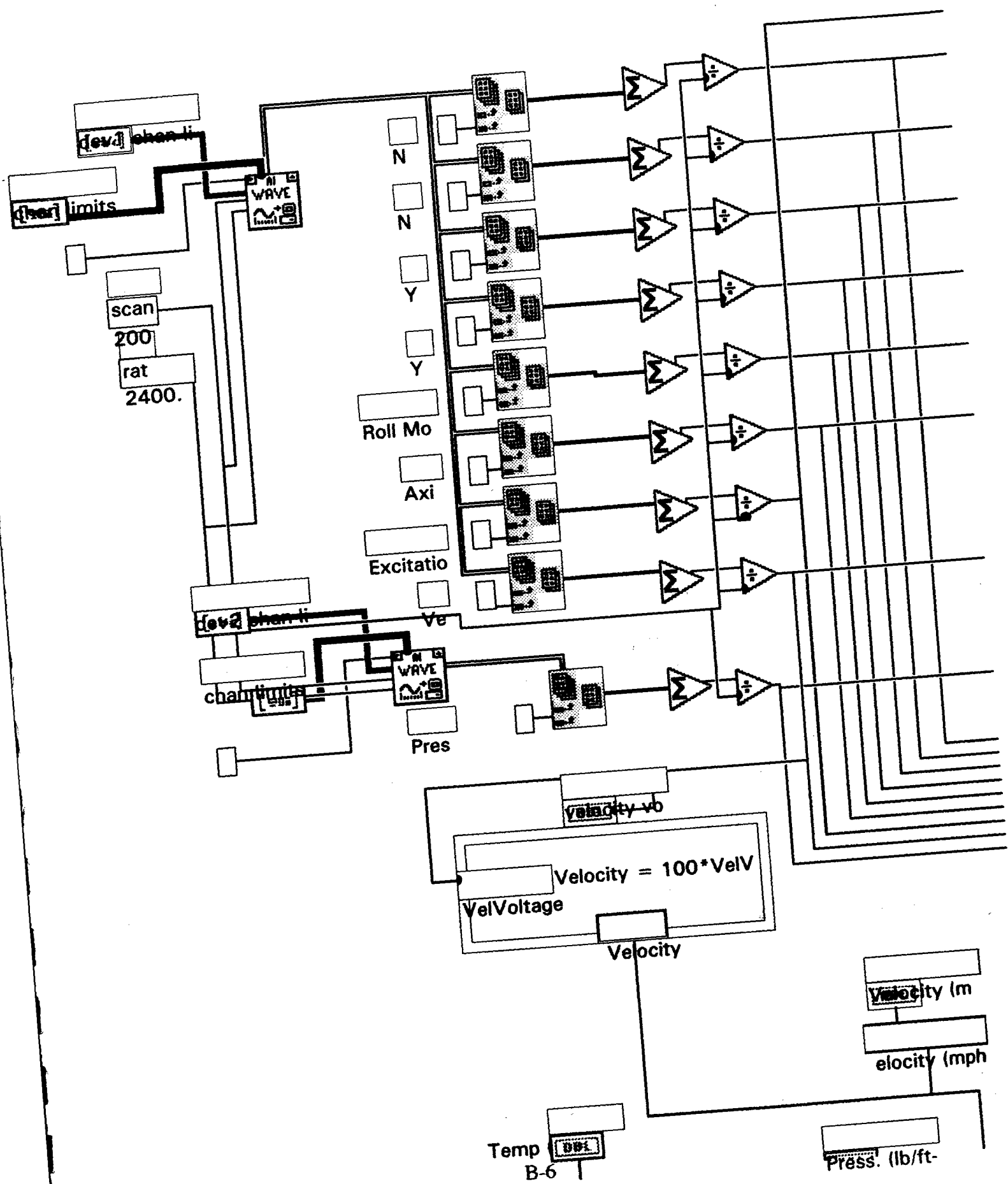
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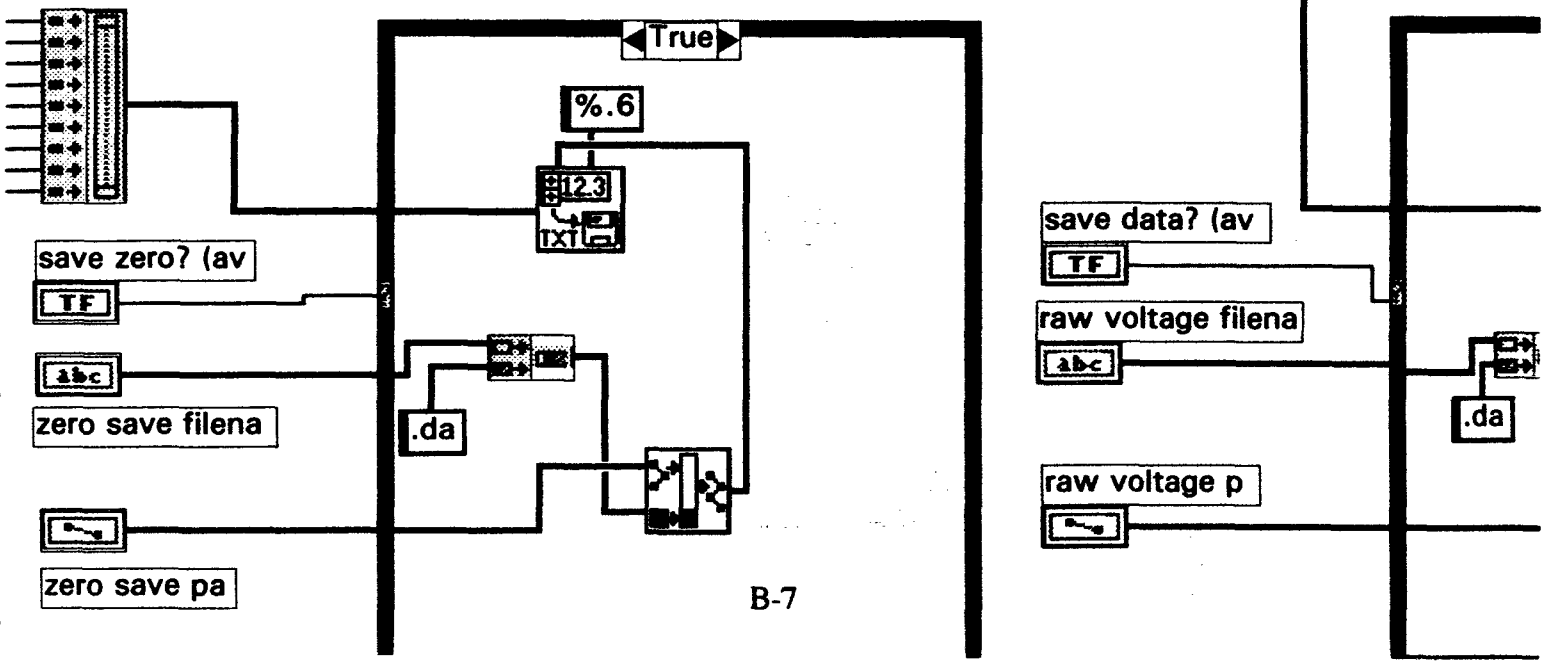
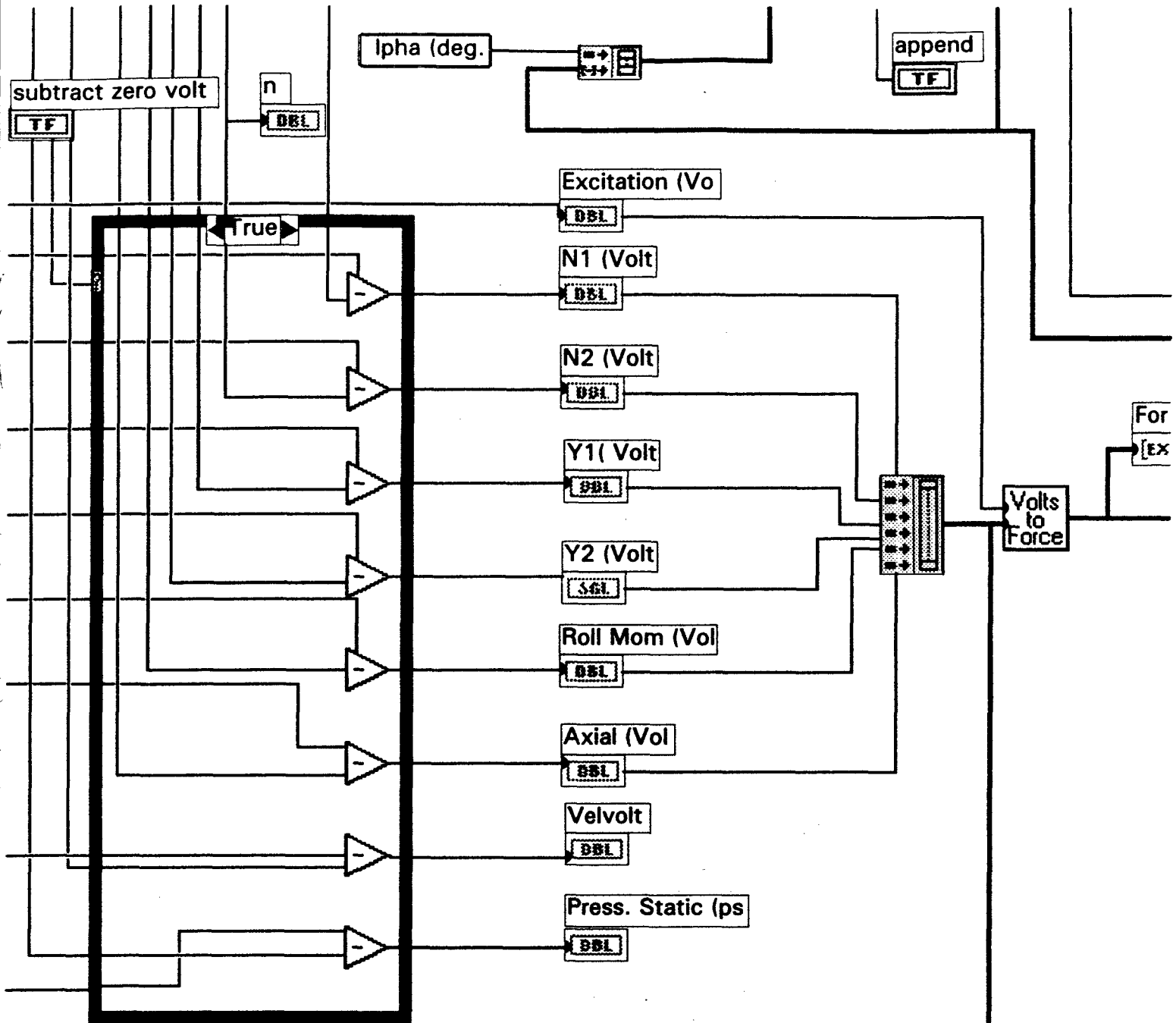


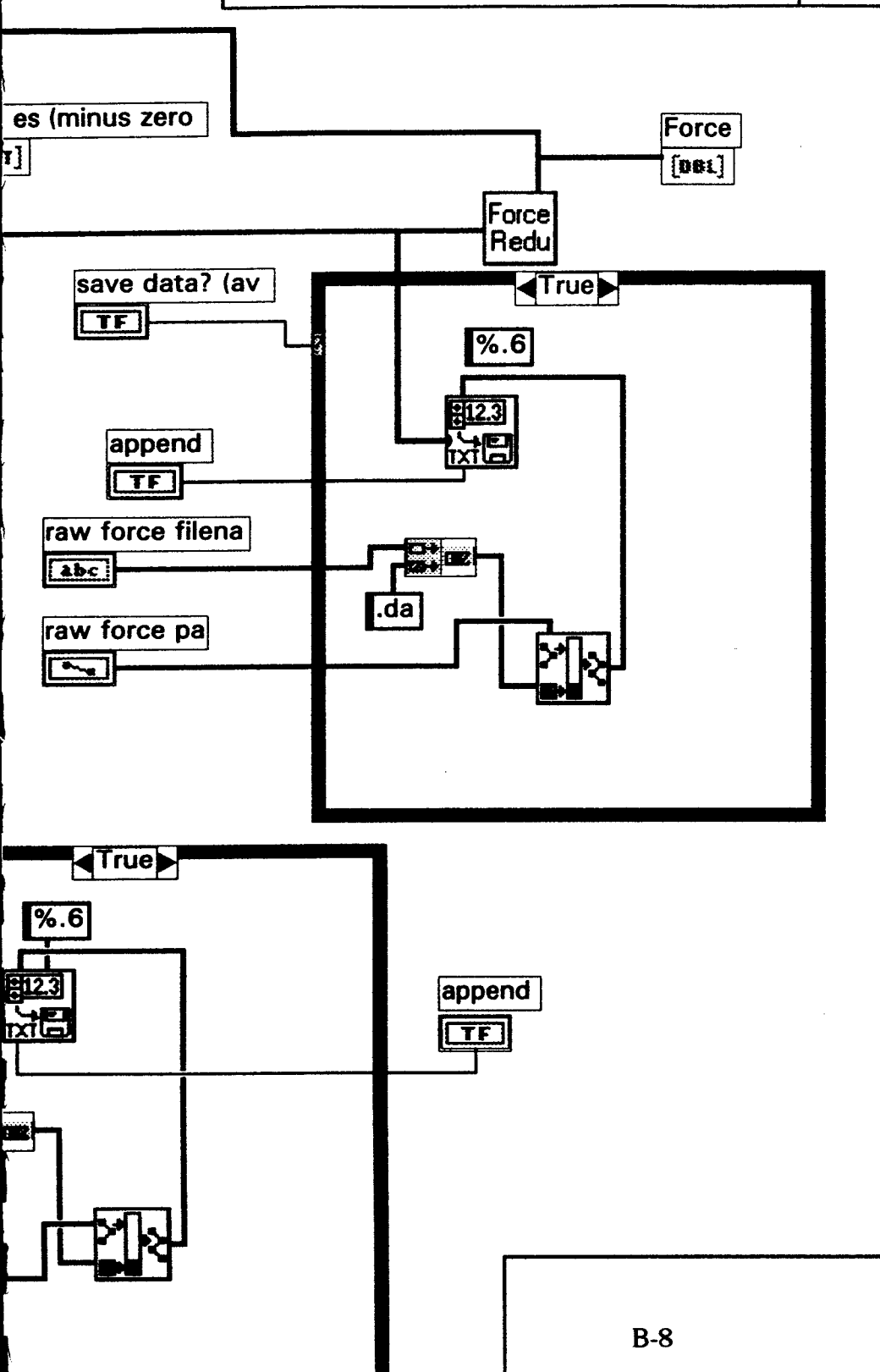
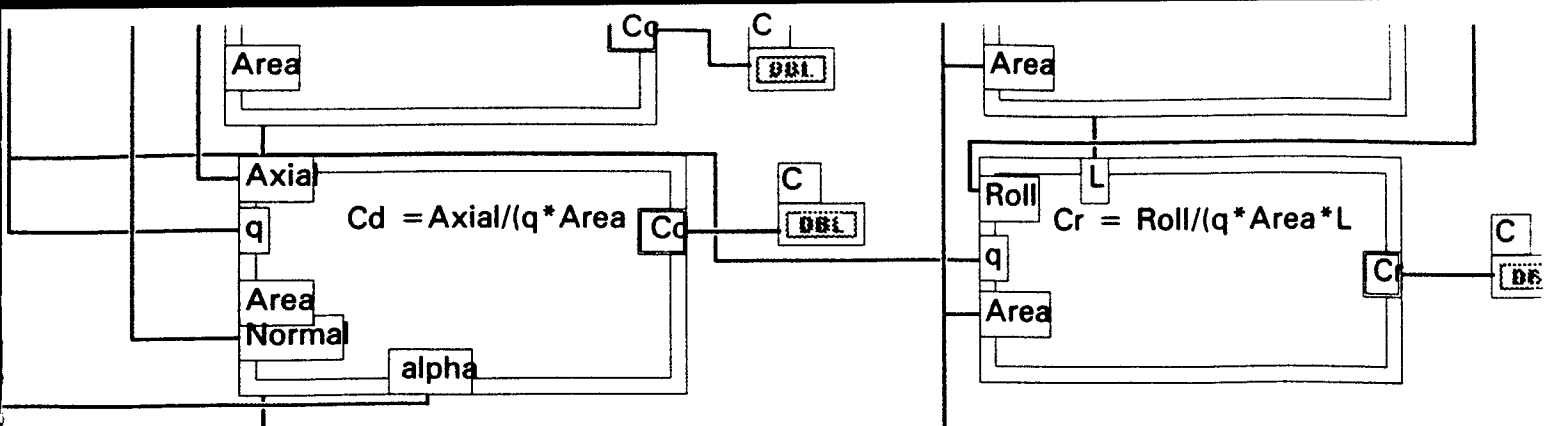


BL

DBL







- N1 (volt)
- N2 (volt)
- Y1 (volt)
- Y2 (volt)
- RM (volt)
- Axial (vol)
- Excitation (vol)
- Static Press. (
- Vel. (mp)
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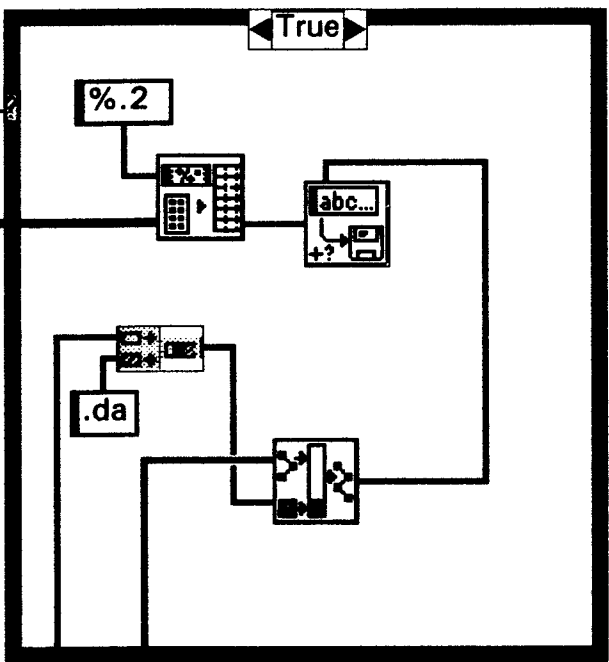
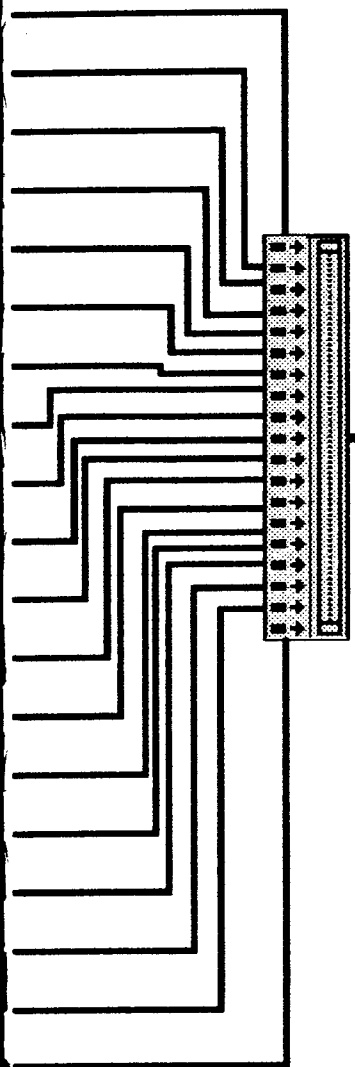
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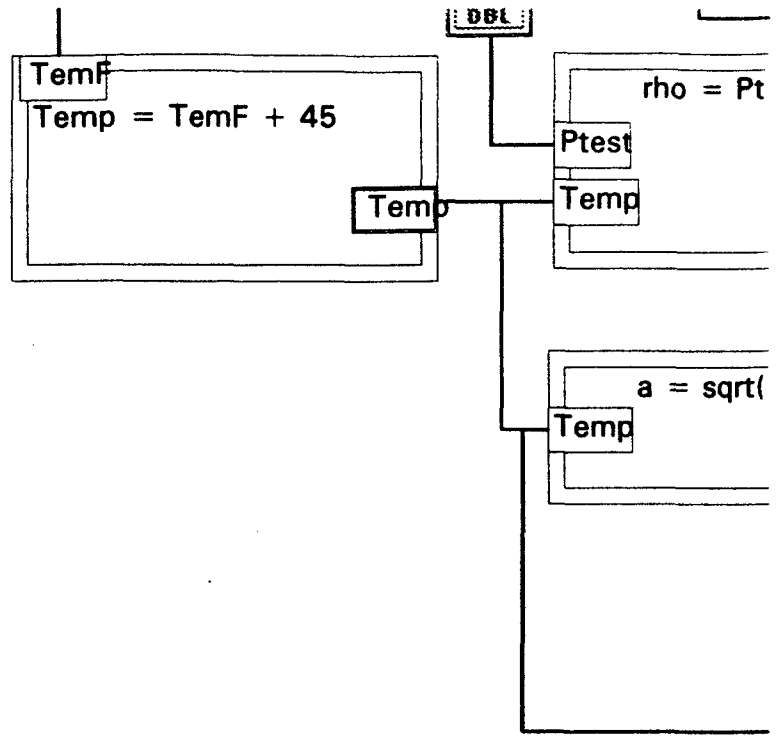
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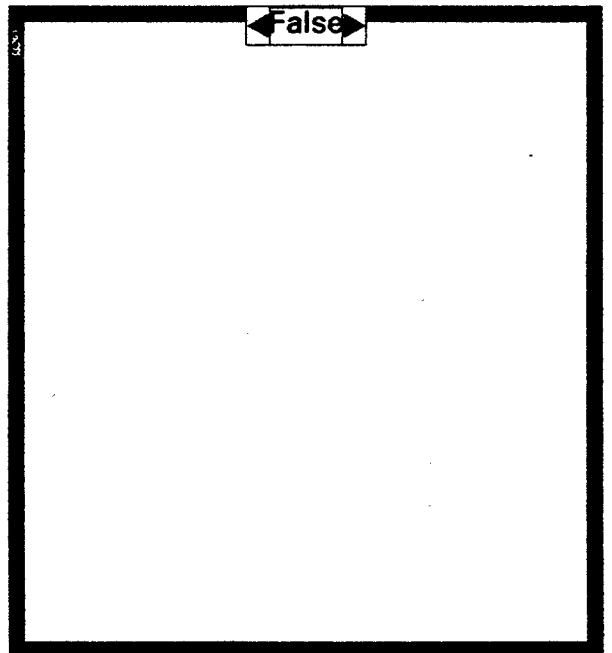
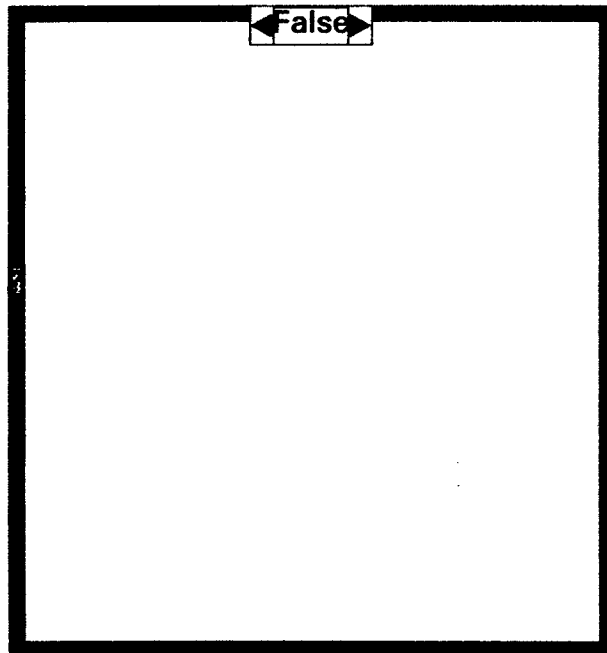
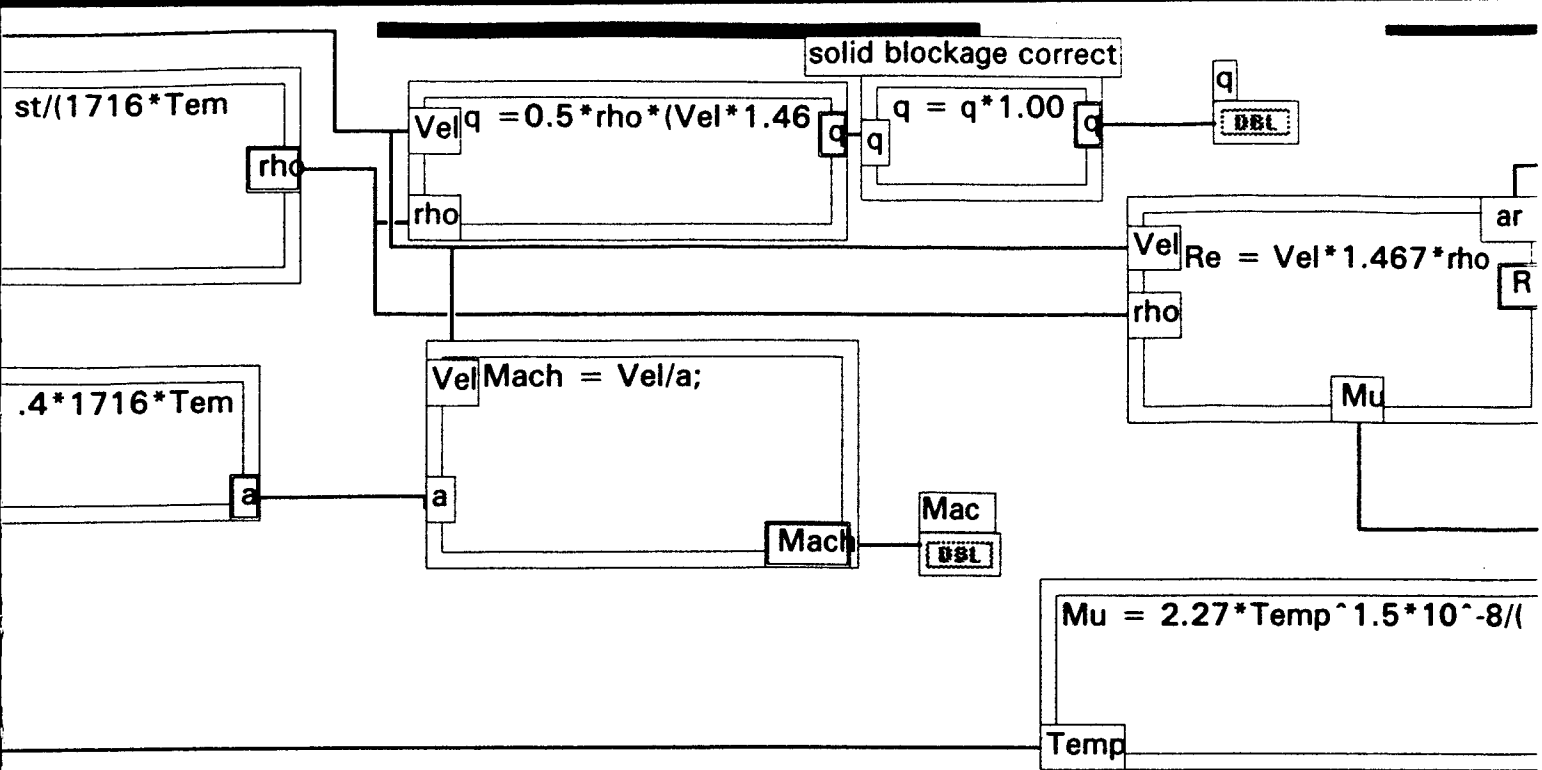
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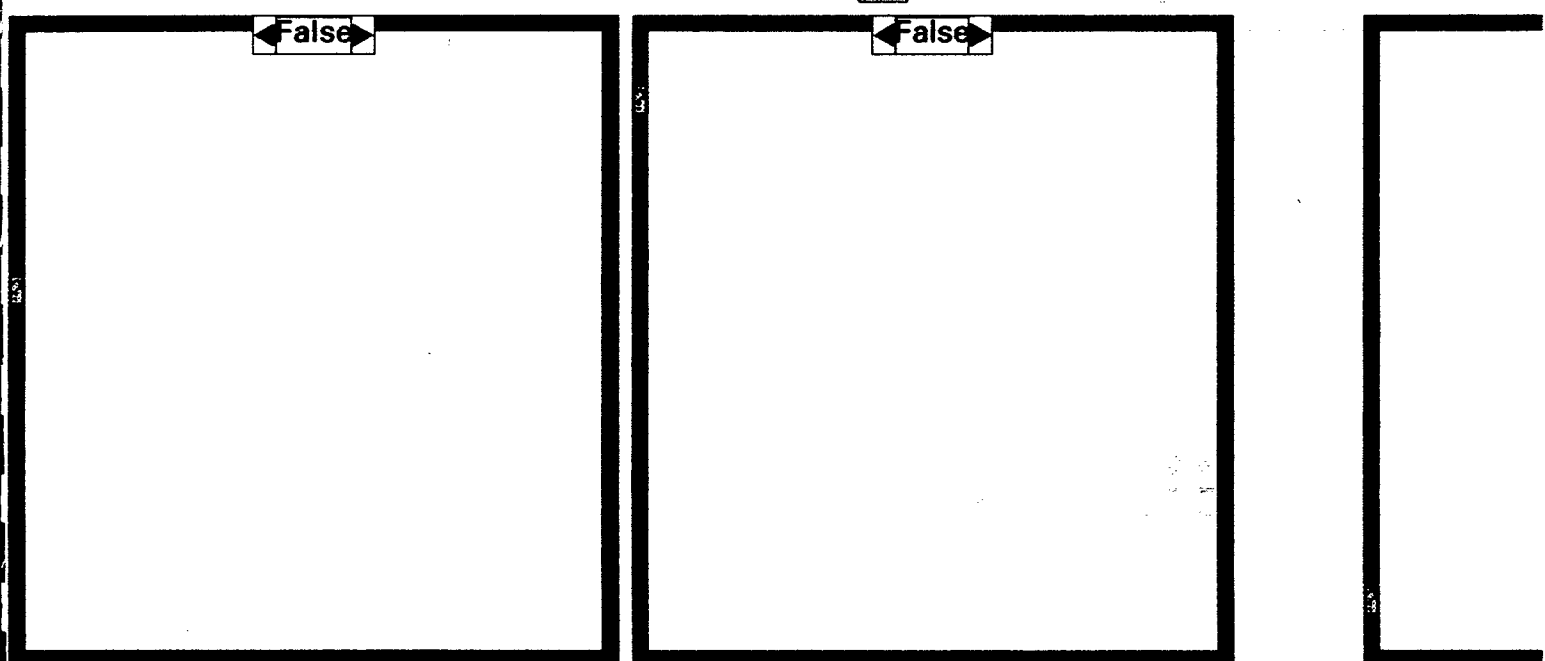
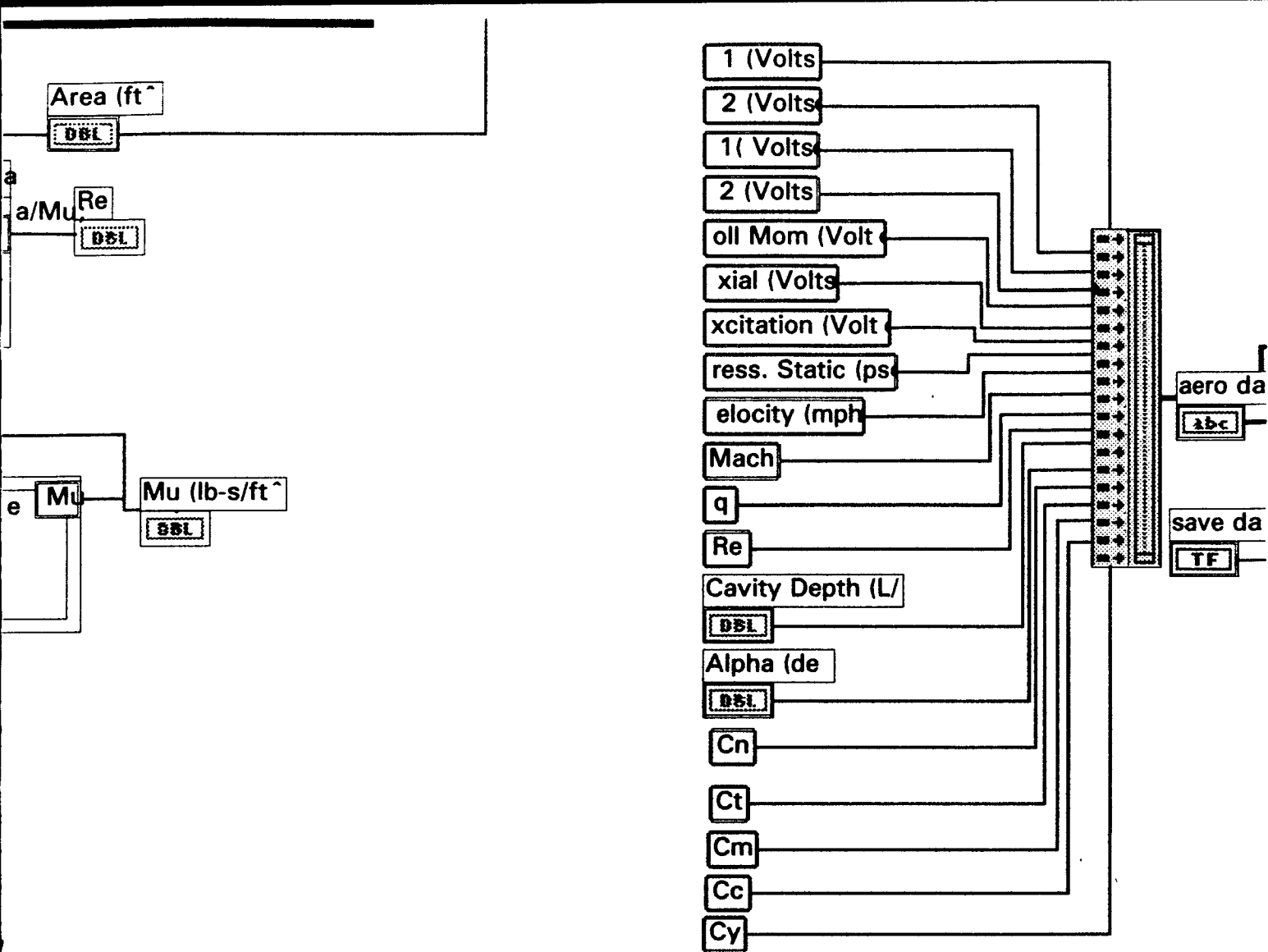
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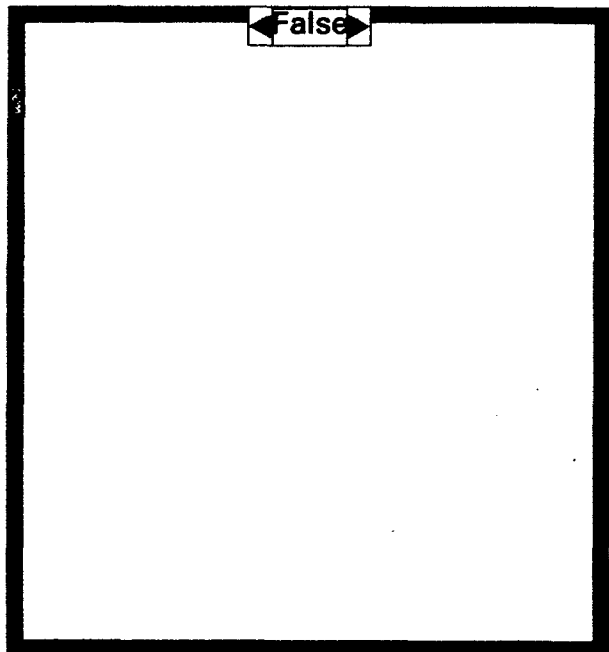
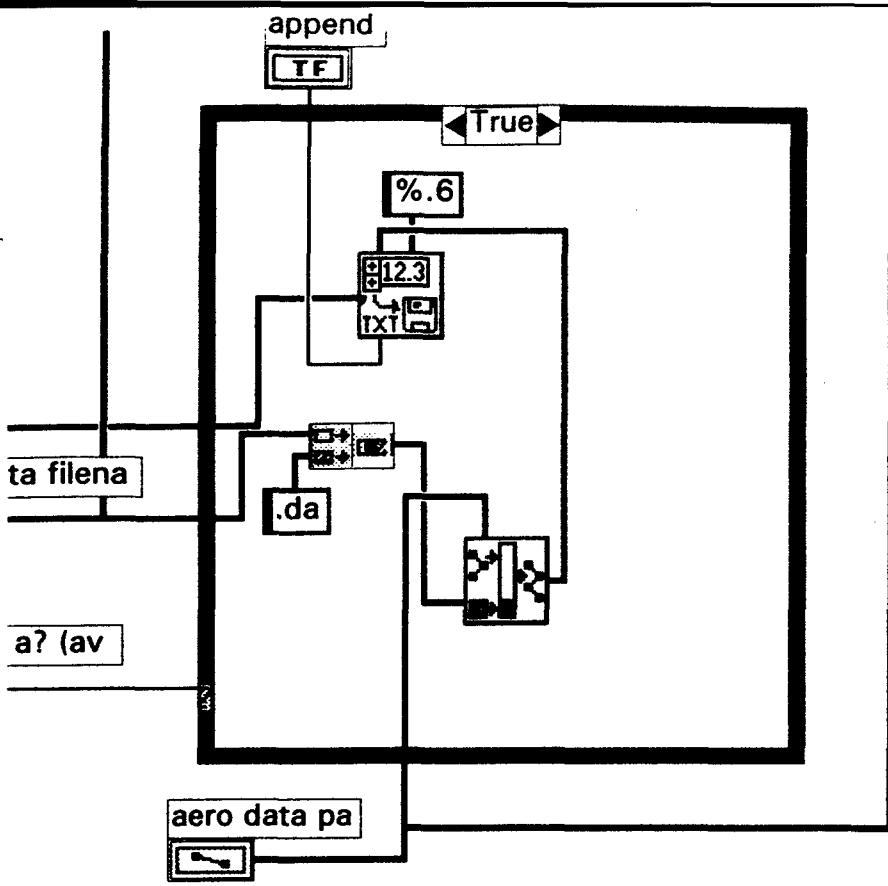
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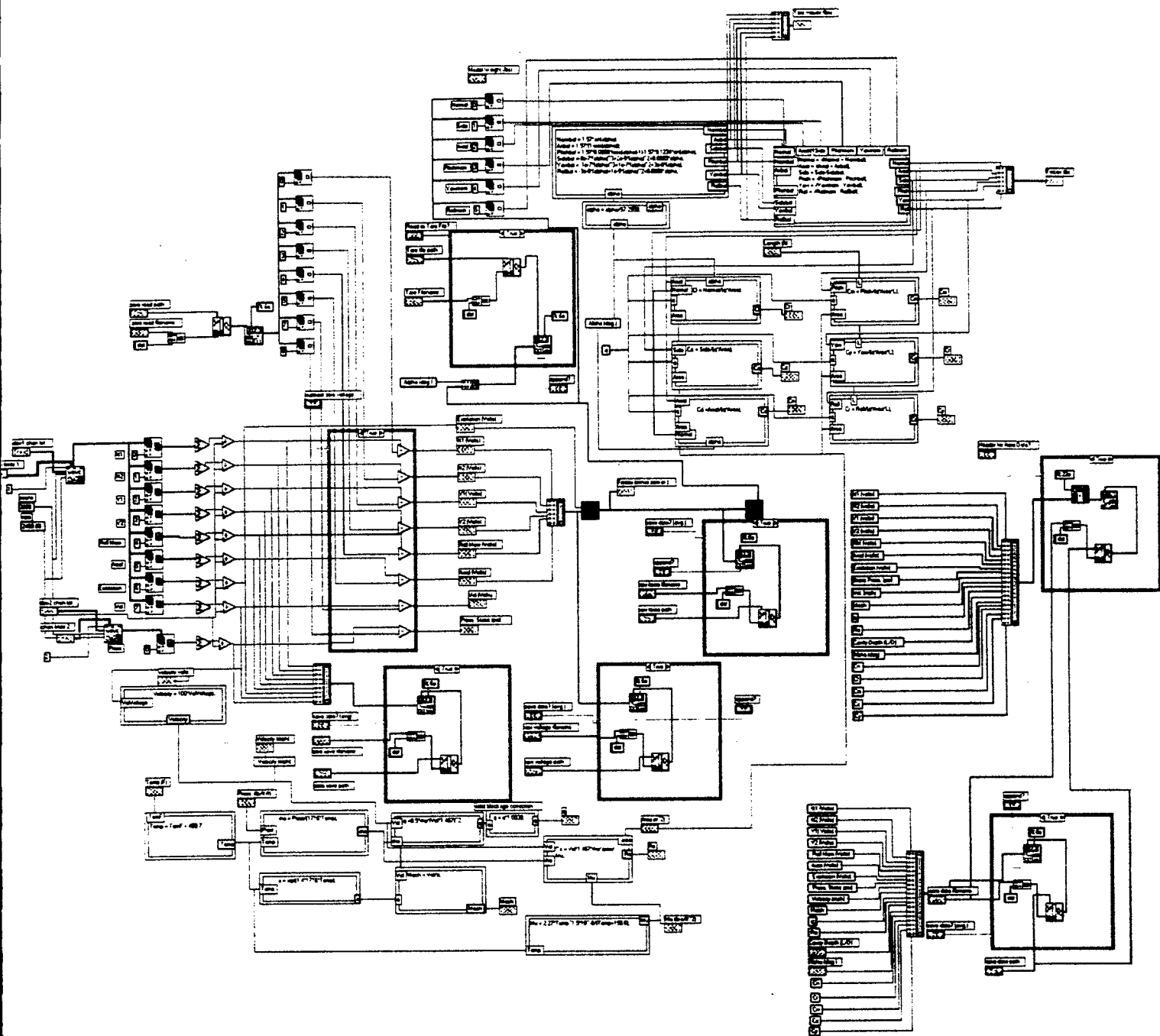




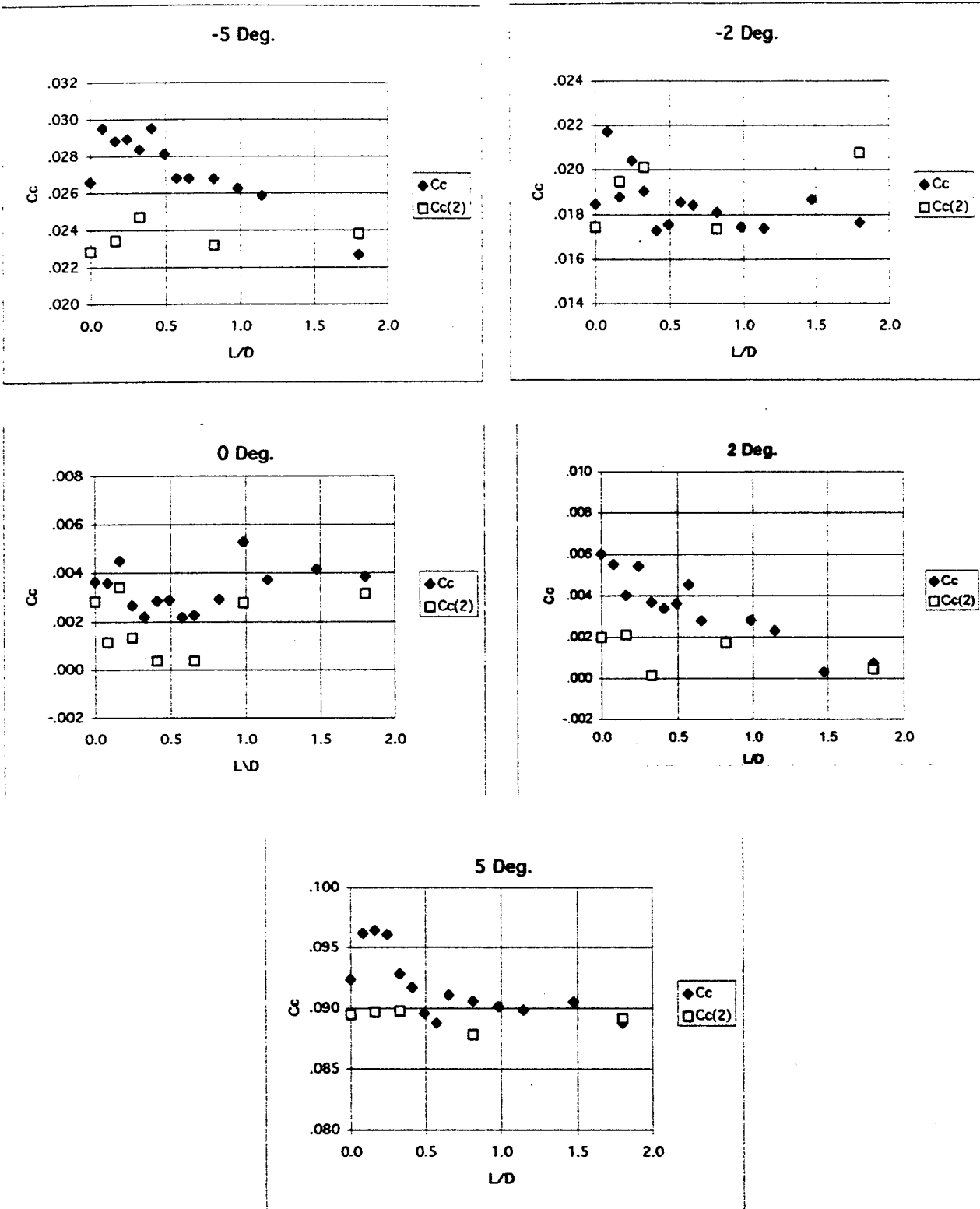




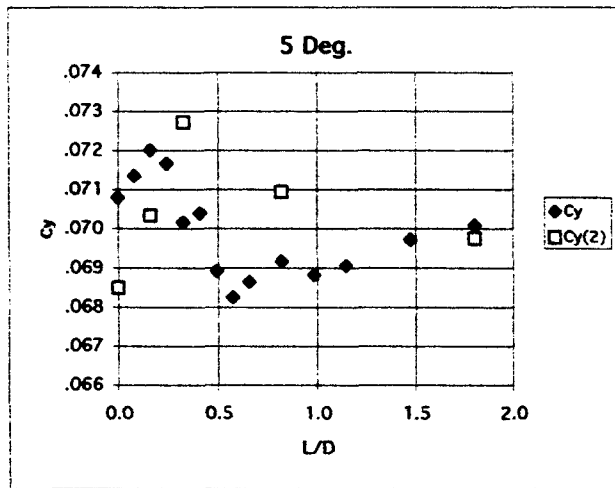
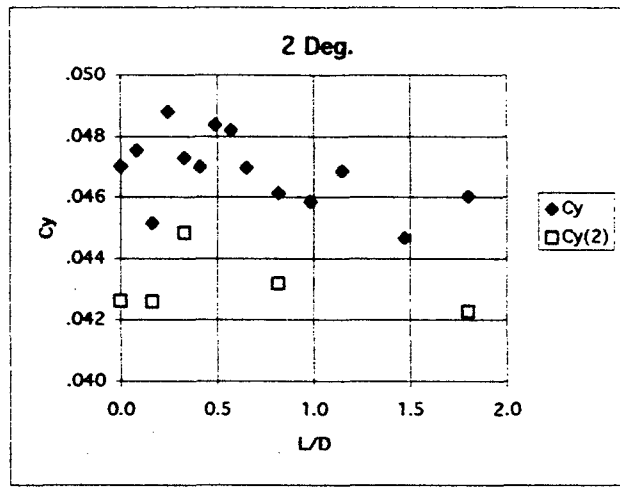
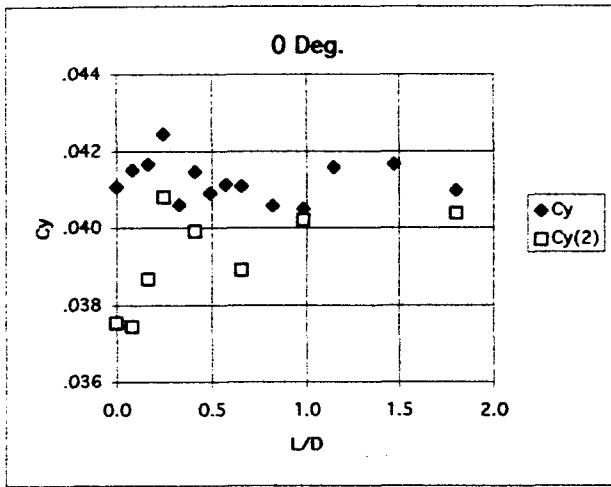
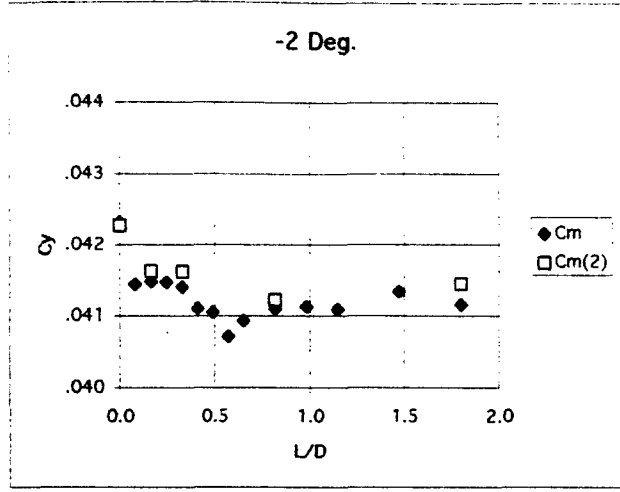
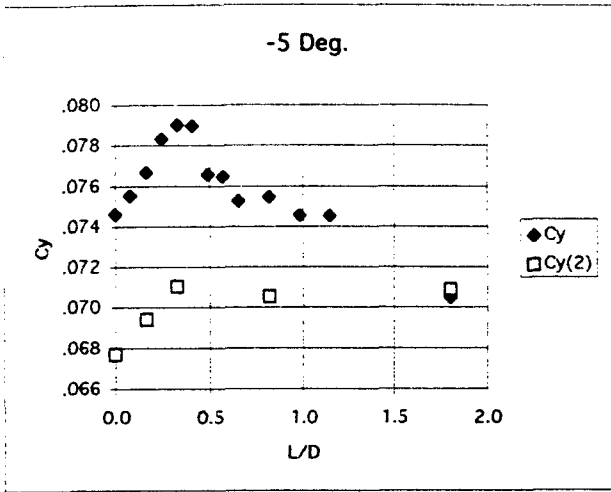
Block Diagram



Spinning Side Force Coefficient

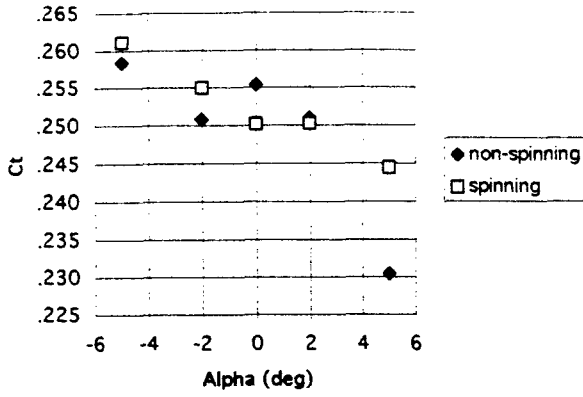


Spinning Yaw Moment Coefficient

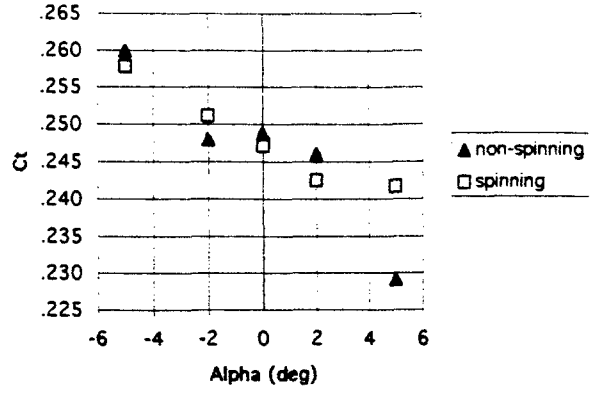


Thrust Force
Angle of Attack Sweep

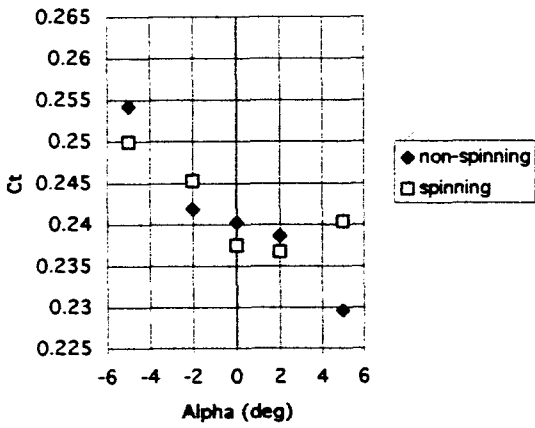
Thrust (L/D = 0.0)



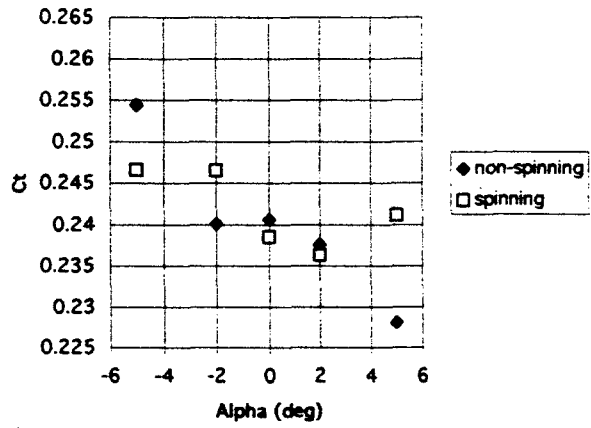
Thrust (L/D = .410)



Thrust (L/D = .574)

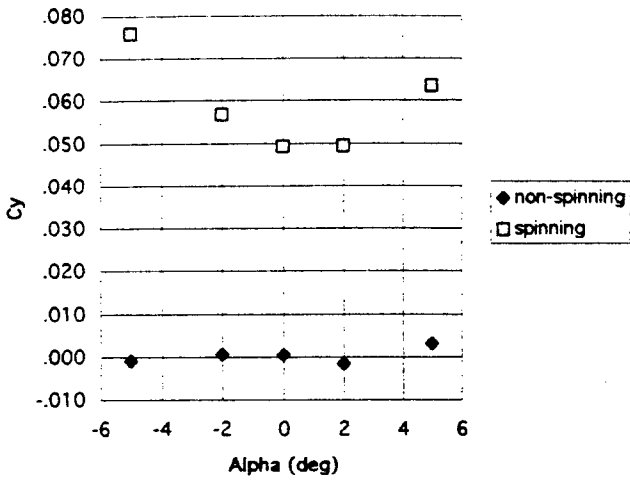


Thrust (L/D = .82)

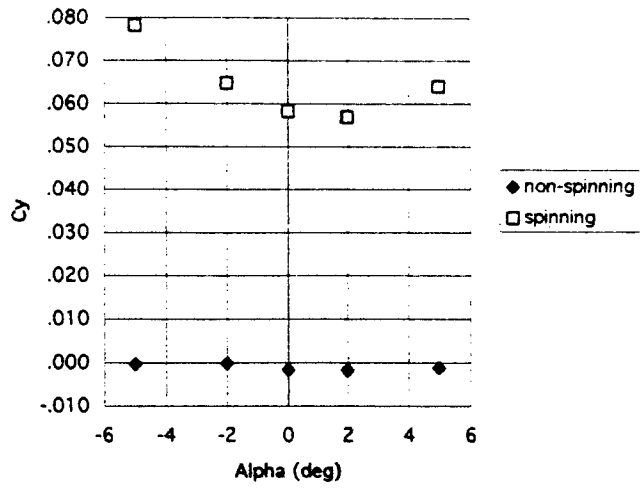


Yaw Moment
Angle of Attack Sweep

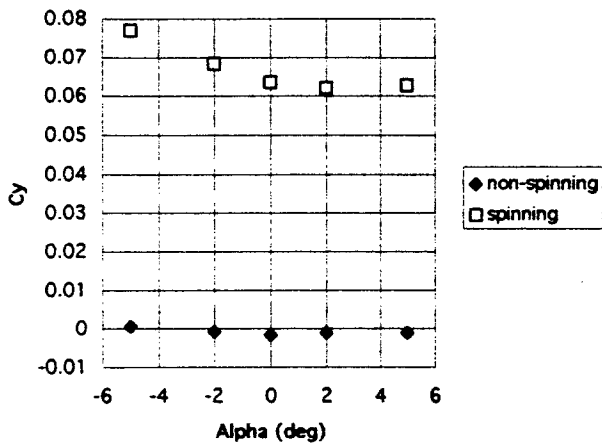
Yaw Moment (L/D = 0.0)



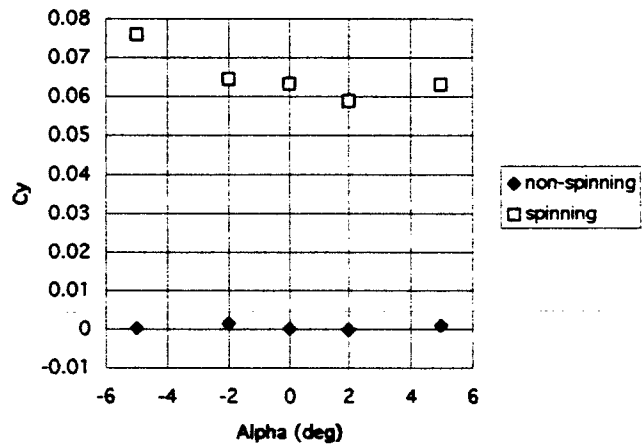
Yaw Moment (L/D = .410)



Yaw Moment (L/D = .574)

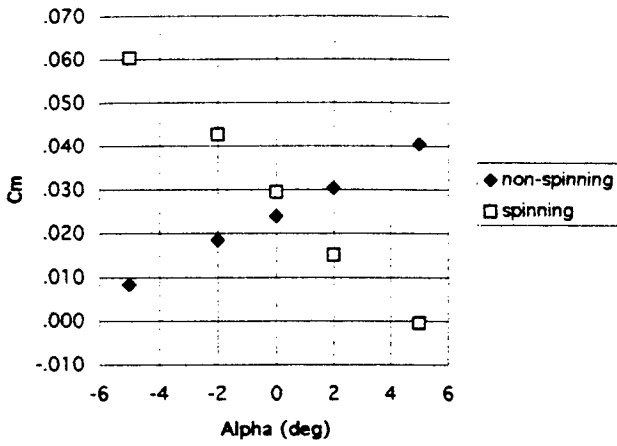


Yaw Moment (L/D = .82)

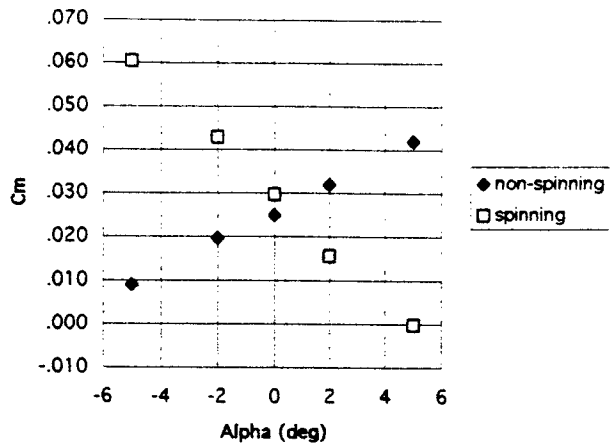


Pitching Moment
Angle of Attack Sweep

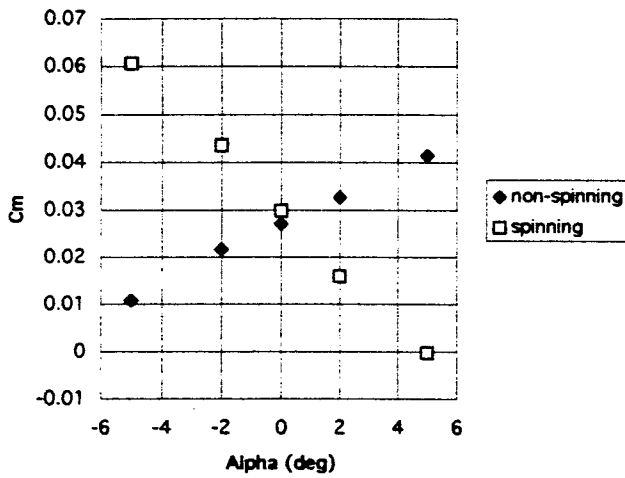
Pitching Moment ($L/D = 0.0$)



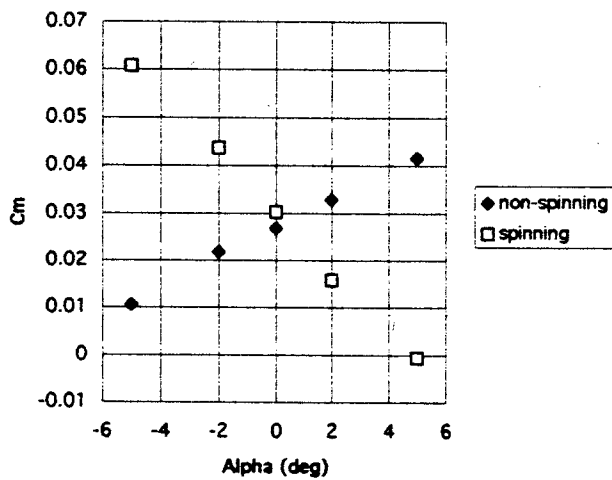
Pitching Moment ($L/D = .410$)



Pitching Moment ($L/D = .574$)

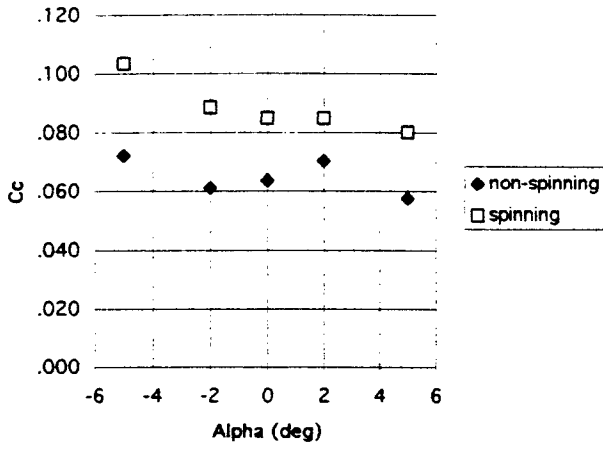


Pitching Moment ($L/D = .82$)

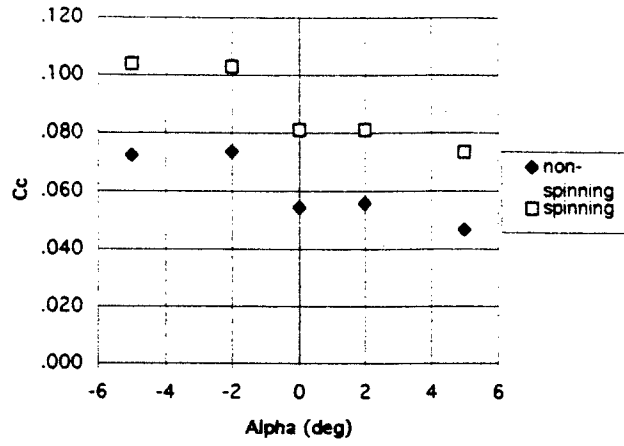


Side Force
Angle of Attack Sweep

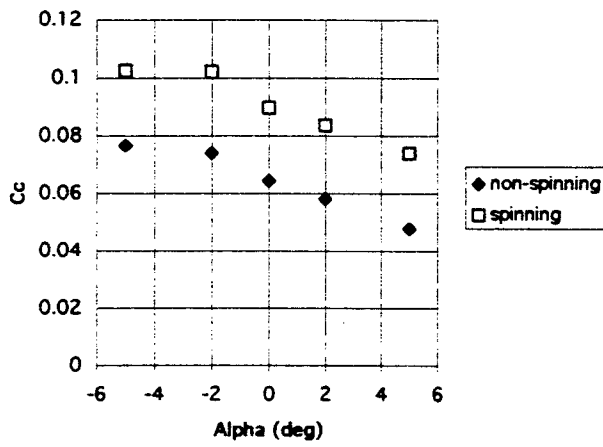
Side Force (L/D = 0.0)



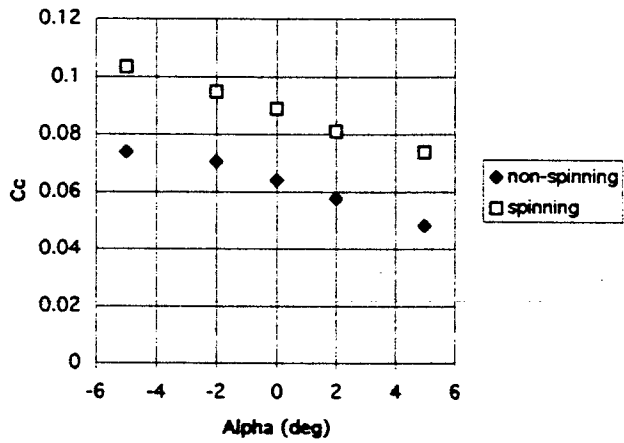
Side Force (L/D = .410)



Side Force (L/D = .574)

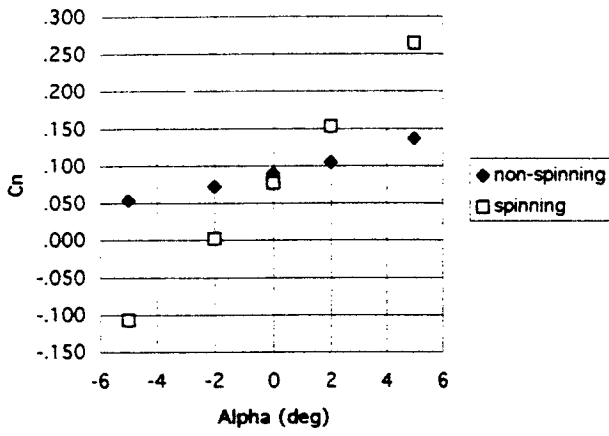


Side Force (L/D = .82)

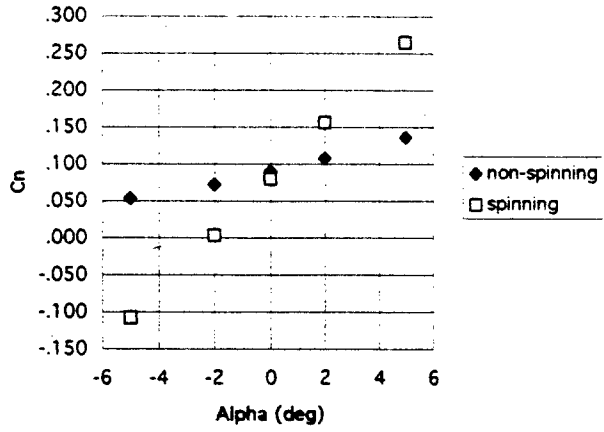


Normal Force
Angle of Attack Sweep

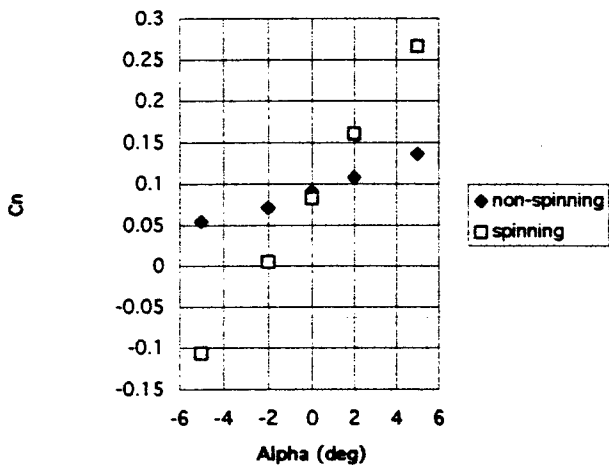
Normal (L/D = 0.0)



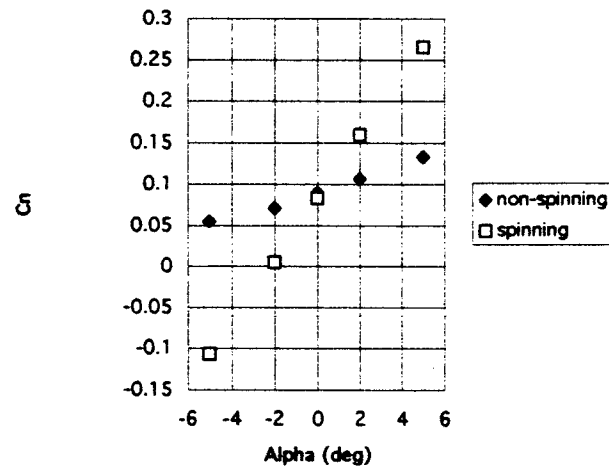
Normal (L/D = .410)



Normal (L/D = .82)



Normal (L/D = .574)



N1 (volts)	N2 (volts)	V1 (volts)	V2 (volts)	RM (volts)	Adm. (volts)	Excitation (volts)	Static Prem. (psi)	Vel. (mph)	Mach	q	Re	Cavity Depth (L/D)	Alpha (deg)	Cn	Ct	Cm	Cc	Cy	
-2.31E-02	-2.40E-02	1.94E-02	-1.11E-02	-8.90E-03	-6.22E+00	-4.44E-05	1.38E+02	1.37E+02	1.22E-01	4.59E-01	5.49E+04	0.00E+00	0.00E+00	0.00E+00	7.04E-02	2.89E-01	3.66E-03	2.14E-02	1.85E-03
-2.30E-02	-2.40E-02	1.94E-02	-1.11E-02	-8.90E-03	6.22E+00	-1.43E-05	1.37E+02	1.37E+02	1.21E-01	4.54E-01	5.43E+04	0.00E+00	0.00E+00	6.82E-02	2.82E-01	3.47E-03	2.27E-02	2.01E-03	
-2.28E-02	-2.35E-02	1.80E-02	-9.62E-03	-8.85E-03	6.22E+00	-9.08E-05	1.36E+02	1.36E+02	1.20E-01	4.55E-01	5.38E+04	0.00E+00	0.00E+00	6.74E-02	2.81E-01	3.60E-03	2.21E-02	2.10E-03	
-2.23E-02	-2.35E-02	1.82E-02	-1.04E-02	-8.70E-03	6.22E+00	-2.73E-05	1.36E+02	1.36E+02	1.20E-01	4.50E-01	5.40E+04	0.00E+00	0.00E+00	6.92E-02	2.89E-01	4.05E-03	2.00E-02	2.43E-03	
-2.29E-02	-2.38E-02	1.83E-02	-1.02E-02	-8.85E-03	6.22E+00	-4.93E-05	1.37E+02	1.37E+02	1.21E-01	4.55E-01	5.44E+04	0.00E+00	0.00E+00	6.96E-02	2.86E-01	3.64E-03	2.09E-02	1.53E-03	
-2.35E-02	-2.38E-02	1.84E-02	-9.05E-03	-8.76E-03	6.22E+00	-4.69E-05	1.37E+02	1.37E+02	1.21E-01	4.52E-01	5.42E+04	0.00E+00	0.00E+00	6.81E-02	2.85E-01	3.97E-03	2.53E-02	2.32E-03	
-2.34E-02	-2.38E-02	1.81E-02	-9.33E-03	-8.85E-03	6.22E+00	4.83E-05	1.36E+02	1.36E+02	1.21E-01	4.51E-01	5.41E+04	0.00E+00	0.00E+00	6.76E-02	2.87E-01	4.00E-03	2.34E-02	1.59E-03	
-2.38E-02	-2.39E-02	1.85E-02	-9.10E-03	-8.79E-03	6.22E+00	-1.51E-05	1.37E+02	1.37E+02	1.21E-01	4.53E-01	5.42E+04	0.00E+00	0.00E+00	6.76E-02	2.85E-01	3.78E-03	2.44E-02	1.90E-03	
-2.35E-02	-2.36E-02	1.91E-02	-1.10E-02	-8.73E-03	6.22E+00	-5.37E-06	1.36E+02	1.36E+02	1.20E-01	4.50E-01	5.41E+04	0.00E+00	0.00E+00	6.82E-02	2.86E-01	4.05E-03	2.08E-02	1.72E-03	
-2.31E-02	-2.37E-02	1.88E-02	-9.57E-03	-8.64E-03	6.22E+00	-7.86E-05	1.36E+02	1.36E+02	1.21E-01	4.52E-01	5.42E+04	0.00E+00	0.00E+00	6.80E-02	2.86E-01	3.69E-03	2.49E-02	2.33E-03	
-2.42E-02	-2.38E-02	1.86E-02	-1.01E-02	-8.80E-03	6.22E+00	-7.81E-06	1.37E+02	1.37E+02	1.21E-01	4.57E-01	5.45E+04	0.00E+00	0.00E+00	6.89E-02	2.92E-01	4.41E-03	2.23E-02	1.75E-03	
-2.29E-02	-2.39E-02	1.99E-02	-1.11E-02	-8.74E-03	6.22E+00	9.28E-06	1.36E+02	1.36E+02	1.21E-01	4.51E-01	5.41E+04	0.00E+00	0.00E+00	6.80E-02	2.89E-01	3.48E-03	2.21E-02	1.92E-03	
-2.35E-02	-2.39E-02	1.94E-02	-1.12E-02	-8.84E-03	6.22E+00	1.95E-06	1.37E+02	1.37E+02	1.21E-01	4.54E-01	5.43E+04	0.00E+00	0.00E+00	6.95E-02	2.89E-01	3.94E-03	2.08E-02	1.82E-03	
-2.34E-02	-2.38E-02	1.93E-02	-9.23E-03	-8.69E-03	6.22E+00	-3.47E-05	1.37E+02	1.37E+02	1.21E-01	4.57E-01	5.45E+04	0.00E+00	0.00E+00	6.77E-02	2.88E-01	3.80E-03	2.13E-02	1.62E-03	
-2.34E-02	-2.38E-02	1.84E-02	-8.24E-03	-8.74E-03	6.22E+00	-3.22E-05	1.37E+02	1.37E+02	1.21E-01	4.53E-01	5.43E+04	0.00E+00	0.00E+00	6.72E-02	2.86E-01	3.74E-03	2.27E-02	1.77E-03	
-2.35E-02	-2.39E-02	1.67E-02	-8.24E-03	-8.74E-03	6.22E+00	-1.03E-05	1.37E+02	1.37E+02	1.21E-01	4.57E-01	5.45E+04	0.00E+00	0.00E+00	6.79E-02	2.88E-01	3.83E-03	2.16E-02	1.27E-03	
-2.37E-02	-2.39E-02	1.72E-02	-9.01E-03	-8.72E-03	6.22E+00	-1.03E-05	1.37E+02	1.37E+02	1.21E-01	4.57E-01	5.45E+04	0.00E+00	0.00E+00	6.79E-02	2.88E-01	3.83E-03	2.16E-02	1.27E-03	
-2.34E-02	-2.40E-02	1.78E-02	-1.01E-02	-8.85E-03	6.22E+00	-4.20E-05	1.37E+02	1.37E+02	1.21E-01	4.54E-01	5.43E+04	0.00E+00	0.00E+00	6.70E-02	2.84E-01	3.81E-03	1.95E-02	2.06E-03	
-2.31E-02	-2.35E-02	1.83E-02	-9.51E-03	-8.75E-03	6.22E+00	-3.96E-05	1.36E+02	1.36E+02	1.20E-01	4.50E-01	5.41E+04	0.00E+00	0.00E+00	6.75E-02	2.84E-01	4.02E-03	2.33E-02	1.01E-03	
-2.35E-02	-2.39E-02	1.92E-02	-1.05E-02	-8.71E-03	6.22E+00	-1.76E-05	1.36E+02	1.36E+02	1.21E-01	4.51E-01	5.41E+04	0.00E+00	0.00E+00	6.85E-02	2.90E-01	3.85E-03	2.35E-02	1.80E-03	
-2.36E-02	-2.38E-02	1.88E-02	-9.60E-03	-8.79E-03	6.22E+00	-4.20E-05	1.37E+02	1.37E+02	1.21E-01	4.52E-01	5.42E+04	0.00E+00	0.00E+00	6.90E-02	2.89E-01	3.90E-03	2.24E-02	2.06E-03	
-2.36E-02	-2.40E-02	1.94E-02	-9.72E-03	-8.74E-03	6.22E+00	-2.25E-05	1.37E+02	1.37E+02	1.21E-01	4.54E-01	5.43E+04	0.00E+00	0.00E+00	6.84E-02	2.89E-01	3.88E-03	2.61E-02	1.73E-03	
-2.36E-02	-2.39E-02	1.88E-02	-9.60E-03	-8.87E-03	6.22E+00	9.28E-06	1.36E+02	1.36E+02	1.21E-01	4.51E-01	5.41E+04	0.00E+00	0.00E+00	6.90E-02	2.89E-01	3.96E-03	2.39E-02	1.30E-03	
-2.31E-02	-2.35E-02	1.74E-02	-8.98E-03	-8.50E-03	6.22E+00	-2.49E-05	1.35E+02	1.35E+02	1.19E-01	4.49E-01	5.39E+04	0.00E+00	0.00E+00	6.86E-02	2.84E-01	3.74E-03	1.93E-02	1.50E-03	
-2.37E-02	-2.38E-02	1.69E-02	-8.16E-03	-8.62E-03	6.22E+00	-9.08E-05	1.36E+02	1.36E+02	1.20E-01	4.47E-01	5.39E+04	0.00E+00	0.00E+00	6.88E-02	2.89E-01	3.65E-03	2.42E-02	1.40E-03	
-2.38E-02	-2.38E-02	1.83E-02	-9.79E-03	-8.70E-03	6.22E+00	-5.42E-05	1.37E+02	1.37E+02	1.21E-01	4.53E-01	5.42E+04	0.00E+00	0.00E+00	6.89E-02	2.93E-01	4.16E-03	2.27E-02	1.59E-03	
-2.34E-02	-2.38E-02	1.82E-02	-9.92E-03	-8.73E-03	6.22E+00	-1.27E-05	1.36E+02	1.36E+02	1.20E-01	4.51E-01	5.41E+04	0.00E+00	0.00E+00	6.82E-02	2.88E-01	3.78E-03	2.14E-02	1.32E-03	
-2.27E-02	-2.25E-02	1.61E-02	-8.10E-03	-8.91E-03	6.22E+00	3.42E-05	1.36E+02	1.36E+02	1.20E-01	4.49E-01	5.40E+04	0.00E+00	0.00E+00	6.99E-02	2.82E-01	4.27E-03	2.89E-02	7.38E-04	
-2.32E-02	-2.28E-02	1.78E-02	-9.05E-03	-8.87E-03	6.22E+00	9.28E-05	1.37E+02	1.37E+02	1.21E-01	4.50E-01	5.40E+04	0.00E+00	0.00E+00	6.97E-02	2.82E-01	4.43E-03	2.39E-02	9.27E-04	
-2.33E-02	-2.28E-02	1.82E-02	-8.83E-03	-9.04E-03	6.22E+00	3.66E-05	1.37E+02	1.37E+02	1.21E-01	4.53E-01	5.43E+04	0.00E+00	0.00E+00	7.10E-02	2.83E-01	4.57E-03	2.58E-02	1.38E-03	
-2.32E-02	-2.28E-02	1.77E-02	-7.40E-03	-9.05E-03	6.22E+00	3.66E-05	1.37E+02	1.37E+02	1.21E-01	4.54E-01	5.43E+04	0.00E+00	0.00E+00	7.04E-02	2.79E-01	4.49E-03	2.92E-02	5.85E-04	
-2.35E-02	-2.29E-02	1.86E-02	-7.68E-03	-9.16E-03	6.22E+00	6.10E-05	1.36E+02	1.36E+02	1.21E-01	4.56E-01	5.44E+04	0.00E+00	0.00E+00	7.12E-02	2.81E-01	4.60E-03	3.09E-02	5.55E-04	
-2.30E-02	-2.27E-02	1.82E-02	-9.23E-03	-8.90E-03	6.22E+00	4.88E-06	1.36E+02	1.36E+02	1.20E-01	4.49E-01	5.40E+04	0.00E+00	0.00E+00	6.90E-02	2.81E-01	4.46E-03	2.35E-02	1.72E-03	
-2.28E-02	-2.29E-02	1.65E-02	-8.11E-03	-8.78E-03	6.22E+00	6.84E-05	1.36E+02	1.36E+02	1.20E-01	4.49E-01	5.40E+04	0.00E+00	0.00E+00	6.89E-02	2.80E-01	4.04E-03	2.29E-02	1.89E-03	
-2.36E-02	-2.30E-02	1.72E-02	-8.91E-03	-8.87E-03	6.22E+00	-1.46E-05	1.37E+02	1.37E+02	1.21E-01	4.52E-01	5.42E+04	0.00E+00	0.00E+00	6.95E-02	2.78E-01	4.11E-03	2.21E-02	1.27E-03	
-2.32E-02	-2.29E-02	1.72E-02	-8.83E-03	-8.96E-03	6.22E+00	3.66E-05	1.36E+02	1.36E+02	1.20E-01	4.49E-01	5.40E+04	0.00E+00	0.00E+00	6.82E-02	2.81E-01	4.36E-03	2.00E-02	1.17E-03	
-2.36E-02	-2.32E-02	1.74E-02	-8.83E-03	-8.96E-03	6.22E+00	3.66E-05	1.37E+02	1.37E+02	1.21E-01	4.52E-01	5.42E+04	0.00E+00	0.00E+00	6.82E-02	2.81E-01	4.46E-03	2.33E-02	2.01E-03	
-2.27E-02	-2.29E-02	1.78E-02	-8.78E-03	-8.82E-03	6.22E+00	2.44E-06	1.36E+02	1.36E+02	1.20E-01	4.49E-01	5.40E+04	0.00E+00	0.00E+00	7.02E-02	2.80E-01	4.10E-03	2.46E-02	1.08E-03	
-2.29E-02	-2.24E-02	1.78E-02	-7.94E-03	-8.99E-03	6.22E+00	2.44E-06	1.36E+02	1.36E+02	1.20E-01	4.50E-01	5.41E+04	0.00E+00	0.00E+00	7.17E-02	2.82E-01	4.58E-03	2.80E-02	1.60E-03	
-2.31E-02	-2.25E-02	1.74E-02	-7.84E-03	-8.96E-03	6.22E+00	1.46E-05	1.36E+02	1.36E+02	1.20E-01	4.45E-01	5.38E+04	0.00E+00	0.00E+00	6.92E-02	2.74E-01	3.96E-03	2.59E-02	1.53E-03	
-2.34E-02	-2.25E-02	1.74E-02	-7.84E-03	-8.96E-03	6.22E+00	3.17E-05	1.36E+02	1.36E+02	1.20E-01	4.47E-01	5.39E+04	0.00E+00	0.00E+00	7.10E-02	2.80E-01	4.84E-03	2.38E-02	8.95E-04	
-2.35E-02	-2.23E-02	1.73E-02	-9.58E-03	-9.07E-03	6.22E+00	4.64E-05	1.37E+02	1.37E+02	1.21E-01	4.55E-01	5.44E+04	0.00E+00	0.00E+00	7.15E-02	2.80E-01	4.86E-03	2.69E-02	1.43E-03	
-2.26E-02	-2.25E-02	1.81E-02	-9.58E-03	-8.93E-03	6.22E+00	4.88E-05	1.35E+02	1.35E+02	1.20E-01	4.44E-01	5.37E+04	0.00E+00	0.00E+00	6.95E-02	2.74E-01	4.28E-03	2.27E-02	1.70E-03	
-2.33E-02	-2.26E-02	1.87E-02	-9.23E-03	-8.94E-03	6.22E+00	-4.39E-05	1.37E+02	1.37E+02	1.21E-01	4.54E-01	5.42E+04	0.00E+00	0.00E+00	7.12E-02	2.85E-01	4.61E-03	2.23E-02	1.79E-03	
-2.28E-02	-2.24E-02	1.79E-02	-1.00E-02	-8.84E-03	6.22E+00	3.													

-2.33E-02	-2.25E-02	1.69E-02	-8.69E-03	4.77E-03	-8.98E-03	6.22E+00	-9.03E-06	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	7.11E-02	2.79E-02	4.41E-03	2.23E-02	1.99E-03
-2.33E-02	-2.25E-02	1.69E-02	-8.69E-03	4.77E-03	-8.98E-03	6.22E+00	4.47E-05	1.37E+02	1.21E-01	4.45E+01	5.44E+04	2.46E-01	0.00E+00	7.12E-02	2.82E-02	4.70E-03	2.79E-02	1.80E-03
-2.34E-02	-2.24E-02	1.75E-02	-8.89E-03	4.65E-03	-9.02E-03	6.22E+00	3.10E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	7.00E-02	2.77E-02	4.73E-03	2.21E-02	1.86E-03
-2.34E-02	-2.24E-02	1.75E-02	-8.89E-03	4.65E-03	-9.02E-03	6.22E+00	-6.52E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	2.46E-01	0.00E+00	6.96E+02	2.78E-02	4.96E-03	2.37E-02	1.78E-03
-2.27E-02	-2.24E-02	1.75E-02	-8.95E-03	4.99E-03	-8.92E-03	6.22E+00	-2.61E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	0.00E+00	7.08E-02	2.79E-02	4.48E-03	2.12E-02	1.50E-03
-2.33E-02	-2.24E-02	1.85E-02	-8.95E-03	5.22E-03	-9.00E-03	6.22E+00	-2.37E-05	1.36E+02	1.21E-01	4.51E+01	5.42E+04	2.46E-01	0.00E+00	7.02E-02	2.82E-02	4.93E-03	2.42E-02	1.15E-03
-2.34E-02	-2.25E-02	1.71E-02	-8.30E-03	4.79E-03	-8.76E-03	6.22E+00	5.30E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	6.88E-02	2.81E-02	4.69E-03	2.43E-02	2.03E-03
-2.39E-02	-2.26E-02	1.74E-02	-8.54E-03	5.34E-03	-9.13E-03	6.22E+00	6.67E-05	1.37E+02	1.21E-01	4.58E+01	5.45E+04	2.46E-01	0.00E+00	7.16E-02	2.85E-02	5.14E-03	2.44E-02	8.33E-04
-2.34E-02	-2.26E-02	1.74E-02	-8.97E-03	5.22E-03	-9.05E-03	6.22E+00	-7.50E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	6.90E-02	2.77E-02	4.62E-03	2.02E-02	1.00E-03
-2.33E-02	-2.26E-02	1.68E-02	-8.60E-03	5.12E-03	-8.94E-03	6.22E+00	-1.39E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	2.46E-01	0.00E+00	6.98E-02	2.81E-02	4.72E-03	2.22E-02	1.23E-03
-2.35E-02	-2.25E-02	1.87E-02	-8.64E-03	4.90E-03	-8.95E-03	6.22E+00	-9.03E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	6.99E-02	2.79E-02	4.82E-03	2.42E-02	1.96E-03
-2.35E-02	-2.25E-02	1.68E-02	-8.88E-03	4.86E-03	-8.86E-03	6.22E+00	8.06E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	6.93E-02	2.81E-02	4.82E-03	2.11E-02	1.74E-03
-2.36E-02	-2.18E-02	1.78E-02	-9.03E-03	4.97E-03	-8.76E-03	6.22E+00	1.12E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	7.15E-02	2.89E-02	5.43E-03	2.48E-02	1.49E-03
-2.32E-02	-2.28E-02	1.95E-02	-1.07E-02	4.89E-03	-8.75E-03	6.22E+00	-4.98E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.28E-01	0.00E+00	6.98E-02	2.77E-02	4.73E-03	2.31E-02	1.96E-03
-2.29E-02	-2.18E-02	1.78E-02	-9.02E-03	4.50E-03	-8.62E-03	6.22E+00	-5.22E-05	1.35E+02	1.19E-01	4.42E+01	5.36E+04	3.28E-01	0.00E+00	6.73E-02	2.72E-02	4.72E-03	2.36E-02	2.44E-03
-2.33E-02	-2.18E-02	1.81E-02	-8.68E-03	4.77E-03	-8.55E-03	6.22E+00	-4.74E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	3.28E-01	0.00E+00	6.85E-02	2.82E-02	5.08E-03	2.29E-02	1.92E-03
-2.34E-02	-2.22E-02	1.92E-02	-9.61E-03	4.78E-03	-8.93E-03	6.22E+00	-2.59E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	7.04E-02	2.83E-02	5.05E-03	2.64E-02	2.24E-03
-2.38E-02	-2.22E-02	1.85E-02	-8.63E-03	4.66E-03	-8.68E-03	6.22E+00	-4.74E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	6.90E-02	2.81E-02	5.09E-03	2.38E-02	2.38E-03
-2.37E-02	-2.22E-02	1.89E-02	-9.34E-03	4.99E-03	-8.80E-03	6.22E+00	-3.42E-06	1.37E+02	1.21E-01	4.56E+01	5.44E+04	3.28E-01	0.00E+00	6.89E-02	2.80E-02	5.06E-03	2.61E-02	1.72E-03
-2.32E-02	-2.18E-02	1.74E-02	-9.54E-03	4.52E-03	-8.77E-03	6.22E+00	3.76E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	6.80E-02	2.73E-02	4.95E-03	2.04E-02	2.31E-03
-2.37E-02	-2.20E-02	1.88E-02	-8.78E-03	4.81E-03	-8.78E-03	6.22E+00	3.81E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	6.95E-02	2.81E-02	5.26E-03	2.82E-02	2.10E-03
-2.39E-02	-2.22E-02	1.73E-02	-9.61E-03	4.86E-03	-8.75E-03	6.22E+00	-7.42E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	6.85E-02	2.81E-02	5.18E-03	2.01E-02	1.66E-03
-2.38E-02	-2.24E-02	1.90E-02	-8.93E-03	4.73E-03	-8.63E-03	6.22E+00	1.12E-05	1.37E+02	1.21E-01	4.56E+01	5.44E+04	3.28E-01	0.00E+00	6.91E-02	2.81E-02	5.01E-03	2.78E-02	2.46E-03
-2.31E-02	-2.20E-02	1.72E-02	-8.04E-03	4.72E-03	-8.76E-03	6.22E+00	-7.18E-05	1.36E+02	1.20E-01	4.45E+01	5.39E+04	3.28E-01	0.00E+00	6.79E-02	2.73E-02	4.75E-03	2.62E-02	2.06E-03
-2.37E-02	-2.16E-02	1.75E-02	-8.32E-03	4.72E-03	-8.83E-03	6.22E+00	-1.51E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	4.10E-01	0.00E+00	6.88E-02	2.81E-02	5.43E-03	2.54E-02	1.93E-03
-2.41E-02	-2.21E-02	1.91E-02	-8.80E-03	4.99E-03	-8.83E-03	6.22E+00	-3.47E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	4.10E-01	0.00E+00	6.89E-02	2.81E-02	5.36E-03	2.85E-02	1.78E-03
-2.36E-02	-2.18E-02	1.84E-02	-8.70E-03	4.97E-03	-8.68E-03	6.22E+00	6.54E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.10E-01	0.00E+00	6.75E-02	2.75E-02	5.15E-03	2.54E-02	1.53E-03
-2.41E-02	-2.22E-02	1.90E-02	-9.15E-03	5.08E-03	-8.72E-03	6.22E+00	-2.15E-05	1.37E+02	1.21E-01	4.55E+01	5.44E+04	4.10E-01	0.00E+00	6.91E-02	2.81E-02	5.37E-03	2.84E-02	1.95E-03
-2.41E-02	-2.18E-02	1.68E-02	-8.75E-03	4.82E-03	-8.76E-03	6.22E+00	7.28E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	6.88E-02	2.83E-02	5.47E-03	2.07E-02	1.09E-03
-2.37E-02	-2.22E-02	1.84E-02	-8.73E-03	4.82E-03	-8.76E-03	6.22E+00	-1.51E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.10E-01	0.00E+00	6.90E-02	2.82E-02	5.10E-03	2.68E-02	2.08E-03
-2.39E-02	-2.18E-02	1.70E-02	-8.04E-03	4.90E-03	-8.82E-03	6.22E+00	-5.37E-06	1.37E+02	1.21E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	6.93E-02	2.80E-02	5.48E-03	3.13E-02	1.75E-03
-2.39E-02	-2.18E-02	1.70E-02	-8.32E-03	4.86E-03	-8.83E-03	6.22E+00	-3.42E-06	1.37E+02	1.21E-01	4.54E+01	5.43E+04	4.10E-01	0.00E+00	6.87E-02	2.79E-02	5.24E-03	2.17E-02	1.64E-03
-2.40E-02	-2.20E-02	1.87E-02	-9.25E-03	4.87E-03	-8.75E-03	6.22E+00	-5.42E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	4.10E-01	0.00E+00	6.93E-02	2.83E-02	5.43E-03	2.60E-02	2.36E-03
-2.38E-02	-2.21E-02	1.82E-02	-8.99E-03	4.94E-03	-8.78E-03	6.22E+00	-3.71E-04	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	6.94E-02	2.79E-02	5.22E-03	2.32E-02	1.60E-03
-2.32E-02	-2.17E-02	1.57E-02	-8.00E-03	4.54E-03	-8.86E-03	6.22E+00	-2.22E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.92E-01	0.00E+00	7.00E-02	2.78E-02	5.14E-03	2.14E-02	2.09E-03
-2.34E-02	-2.20E-02	1.82E-02	-9.27E-03	4.96E-03	-8.64E-03	6.22E+00	7.54E-05	1.37E+02	1.21E-01	4.57E+01	5.39E+04	4.92E-01	0.00E+00	6.80E-02	2.77E-02	5.04E-03	2.45E-02	1.49E-03
-2.37E-02	-2.22E-02	1.74E-02	-8.50E-03	4.83E-03	-8.77E-03	6.22E+00	6.32E-05	1.37E+02	1.21E-01	4.53E+01	5.41E+04	4.92E-01	0.00E+00	6.92E-02	2.82E-02	5.17E-03	2.80E-02	1.19E-03
-2.36E-02	-2.22E-02	1.74E-02	-8.50E-03	4.83E-03	-8.79E-03	6.22E+00	7.54E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	6.85E-02	2.78E-02	4.98E-03	2.43E-02	2.29E-03
-2.33E-02	-2.20E-02	1.89E-02	-9.58E-03	4.86E-03	-8.75E-03	6.22E+00	-6.62E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	6.87E-02	2.77E-02	4.97E-03	2.45E-02	2.32E-03
-2.41E-02	-2.23E-02	1.83E-02	-8.48E-03	5.03E-03	-8.80E-03	6.22E+00	3.64E-05	1.37E+02	1.21E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	6.93E-02	2.85E-02	5.26E-03	2.75E-02	1.60E-03
-2.33E-02	-2.20E-02	1.80E-02	-8.83E-03	4.75E-03	-8.85E-03	6.22E+00	4.86E-05	1.36E+02	1.21E-01	4.50E+01	5.41E+04	4.92E-01	0.00E+00	6.70E-02	2.73E-02	4.84E-03	2.47E-02	2.00E-03
-2.36E-02	-2.21E-02	1.70E-02	-9.03E-03	4.89E-03	-8.82E-03	6.22E+00	-2.42E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	6.76E-02	2.79E-02	5.03E-03	2.13E-02	1.49E-03
-2.36E-02	-2.16E-02	1.64E-02	-8.98E-03	4.74E-03	-8.83E-03	6.22E+00	-5.13E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	6.71E-02	2.77E-02	5.28E-03	2.15E-02	1.65E-03
-2.37E-02	-2.19E-02	1.73E-02	-7.78E-03	4.97E-03	-8.82E-03	6.22E+00	2.42E-05	1.37E+02	1.21E-01	4.56E+01	5.44E+04	4.92E-01	0.00E+00	6.96E-02	2.82E-02	5.31E-03	2.70E-02	1.49E-03
-2.36E-02	-2.18E-02	1.79E-02	-8.38E-03	5.01E-03	-8.54E-03	6.22E+00	3.95E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	6.62E-02	2.75E-02	5.07E-03	2.59E-02	1.36E-03
-2.37E-02	-2.17E-02	1.73E-02	-8.99E-03	4.35E-03	-8.51E-03	6.22E+00	2.91E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	4.92E-01	0.00E+00	6.73E-02	2.80E-02	5.30E-03	2.24E-02	2.71E-03
-2.38E-02	-2.18E-02	1.71E-02	-8.48E-03	5.08E-03	-8.69E-03	6.22E+00	5.59E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.92E-01	0.00E+00	6.89E-02	2.82E-02	5.38E-03	2.38E-02	1.08E-03
-2.39E-02	-2.17E-02	1.78E-02	-9.90E-03	4.81E-03	-8.97E-03	6.22E+00	-1.25E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	6.82E-02	2.80E-02	5.45E-03	2.07E-02	1.68E-03
-2.37E-02	-2.20E-02	1.80E-02	-1.04E-02	5.08E-03	-8.75E-03	6.22E+00	-1.52E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	6.91E-02	2.82E-02	5.22E-03	1.96E-02	1.15E-03
-2.38E-0																		

-2.41E-02	-2.21E-02	1.98E-02	-1.06E-02	4.72E-03	-6.90E-03	6.22E+00	6.18E-05	1.37E+02	1.21E-01	4.58E+01	5.45E+04	6.56E-01	0.00E+00	6.96E-02	2.81E-01	5.43E-03	2.44E-02	2.42E-03
-2.35E-02	-2.18E-02	1.92E-02	-9.82E-03	4.59E-03	-8.74E-03	6.22E+00	-5.30E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	6.56E-01	0.00E+00	6.76E-02	2.79E-01	5.14E-03	2.49E-02	2.47E-03
-2.26E-02	-2.20E-02	1.89E-02	-9.57E-03	4.94E-03	-8.69E-03	6.22E+00	6.06E-06	1.37E+02	1.20E-01	4.53E+01	5.42E+04	6.56E-01	0.00E+00	7.00E-02	2.79E-01	4.96E-03	2.54E-02	1.74E-03
-2.32E-02	-2.19E-02	1.87E-02	-1.04E-02	5.05E-03	-8.77E-03	6.22E+00	-5.79E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	6.56E-01	0.00E+00	6.85E-02	2.74E-01	5.20E-03	2.15E-02	1.29E-03
-2.41E-02	-2.20E-02	1.87E-02	-9.23E-03	4.92E-03	-8.82E-03	6.22E+00	5.62E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	6.56E-01	0.00E+00	6.93E-02	2.82E-01	5.50E-03	2.60E-02	1.79E-03
-2.36E-02	-2.19E-02	1.73E-02	-8.50E-03	5.04E-03	-8.76E-03	6.22E+00	7.32E-07	1.36E+02	1.20E-01	4.50E+01	5.41E+04	6.56E-01	0.00E+00	6.84E-02	2.79E-01	5.31E-03	2.40E-02	1.22E-03
-2.39E-02	-2.18E-02	1.83E-02	-8.53E-03	4.92E-03	-8.71E-03	6.22E+00	-4.15E-06	1.36E+02	1.20E-01	4.51E+01	5.41E+04	6.56E-01	0.00E+00	6.95E-02	2.80E-01	5.39E-03	2.72E-02	1.68E-03
-2.36E-02	-2.21E-02	1.75E-02	-7.62E-03	5.10E-03	-8.74E-03	6.22E+00	-1.15E-05	1.37E+02	1.21E-01	4.48E+01	5.39E+04	6.56E-01	0.00E+00	6.85E-02	2.78E-01	5.25E-03	2.80E-02	1.17E-03
-2.36E-02	-2.20E-02	1.80E-02	-1.09E-02	4.43E-03	-8.74E-03	6.22E+00	3.74E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	6.56E-01	0.00E+00	6.91E-02	2.81E-01	5.18E-03	2.42E-02	1.07E-03
-2.37E-02	-2.20E-02	1.70E-02	-8.23E-03	5.10E-03	-8.72E-03	6.22E+00	-5.79E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	6.56E-01	0.00E+00	6.86E-02	2.79E-01	5.03E-03	2.55E-02	1.73E-03
-2.34E-02	-2.19E-02	1.81E-02	-8.80E-03	4.87E-03	-8.56E-03	6.22E+00	-1.04E-04	1.35E+02	1.20E-01	4.43E+01	5.36E+04	6.56E-01	0.00E+00	6.96E-02	2.85E-01	5.24E-03	2.66E-02	1.71E-03
-2.33E-02	-2.20E-02	1.80E-02	-9.71E-03	4.64E-03	-8.90E-03	6.22E+00	2.66E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	6.20E-01	0.00E+00	7.05E-02	2.80E-01	5.08E-03	2.23E-02	2.27E-03
-2.34E-02	-2.18E-02	1.72E-02	-8.07E-03	4.91E-03	-8.70E-03	6.22E+00	-1.00E-05	1.35E+02	1.20E-01	4.45E+01	5.37E+04	6.20E-01	0.00E+00	6.80E-02	2.76E-01	5.08E-03	2.62E-02	1.50E-03
-2.29E-02	-2.16E-02	1.60E-02	-7.81E-03	5.15E-03	-8.69E-03	6.22E+00	-3.20E-05	1.35E+02	1.19E-01	4.40E+01	5.35E+04	6.20E-01	0.00E+00	6.89E-02	2.76E-01	4.94E-03	1.83E-02	5.27E-04
-2.33E-02	-2.21E-02	1.77E-02	-8.15E-03	5.17E-03	-8.89E-03	6.22E+00	4.13E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	6.20E-01	0.00E+00	7.13E-02	2.84E-01	5.04E-03	2.71E-02	1.12E-03
-2.32E-02	-2.23E-02	1.78E-02	-9.57E-03	4.70E-03	-8.74E-03	6.22E+00	1.68E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	6.80E-02	2.77E-01	4.60E-03	2.09E-02	2.12E-03
-2.32E-02	-2.24E-02	1.72E-02	-8.64E-03	4.89E-03	-8.74E-03	6.22E+00	3.15E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	6.20E-01	0.00E+00	6.84E-02	2.79E-01	4.93E-03	1.83E-02	1.68E-03
-2.33E-02	-2.20E-02	1.78E-02	-1.04E-02	4.79E-03	-8.56E-03	6.22E+00	-2.95E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	6.20E-01	0.00E+00	6.96E-02	2.79E-01	4.92E-03	2.44E-02	1.73E-03
-2.32E-02	-2.20E-02	1.70E-02	-8.24E-03	4.83E-03	-8.74E-03	6.22E+00	-1.98E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	6.20E-01	0.00E+00	6.82E-02	2.76E-01	4.93E-03	2.50E-02	4.44E-04
-2.32E-02	-2.18E-02	1.70E-02	-7.81E-03	5.35E-03	-8.69E-03	6.22E+00	-1.73E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	6.20E-01	0.00E+00	6.82E-02	2.77E-01	5.03E-03	2.23E-02	2.52E-03
-2.32E-02	-2.18E-02	1.78E-02	-9.32E-03	4.47E-03	-8.68E-03	6.22E+00	2.20E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	6.20E-01	0.00E+00	6.86E-02	2.77E-01	5.03E-03	2.23E-02	2.52E-03
-2.41E-02	-2.24E-02	1.73E-02	-9.32E-03	5.17E-03	-8.85E-03	6.22E+00	-5.15E-05	1.37E+02	1.22E-01	4.58E+01	5.45E+04	6.20E-01	0.00E+00	7.00E-02	2.87E-01	5.32E-03	2.21E-02	1.11E-03
-2.38E-02	-2.25E-02	1.72E-02	-8.97E-03	5.08E-03	-8.86E-03	6.22E+00	-2.47E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	6.20E-01	0.00E+00	6.93E-02	2.79E-01	4.91E-03	2.17E-02	1.30E-03
-2.35E-02	-2.19E-02	1.80E-02	-8.95E-03	5.23E-03	-8.66E-03	6.22E+00	-2.69E-06	1.36E+02	1.20E-01	4.48E+01	5.39E+04	6.20E-01	0.00E+00	6.74E-02	2.75E-01	5.03E-03	2.43E-02	7.87E-04
-2.34E-02	-2.20E-02	1.85E-02	-9.97E-03	4.80E-03	-8.70E-03	6.22E+00	-1.49E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	6.20E-01	0.00E+00	6.87E-02	2.79E-01	4.99E-03	2.29E-02	1.96E-03
-2.32E-02	-2.20E-02	1.67E-02	-8.35E-03	4.93E-03	-8.72E-03	6.22E+00	6.08E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	6.20E-01	0.00E+00	6.86E-02	2.77E-01	4.96E-03	2.30E-02	1.37E-03
-2.37E-02	-2.21E-02	1.76E-02	-8.13E-03	5.02E-03	-8.77E-03	6.22E+00	-2.95E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	6.20E-01	0.00E+00	6.82E-02	2.76E-01	5.15E-03	2.65E-02	1.45E-03
-2.33E-02	-2.18E-02	1.73E-02	-8.70E-03	5.15E-03	-8.95E-03	6.22E+00	-7.32E-07	1.37E+02	1.21E-01	4.53E+01	5.42E+04	6.20E-01	0.00E+00	7.33E-02	2.88E-01	4.95E-03	2.52E-02	9.93E-04
-2.33E-02	-2.24E-02	1.84E-02	-9.37E-03	4.96E-03	-8.88E-03	6.22E+00	-2.51E-05	1.37E+02	1.21E-01	4.55E+01	5.44E+04	6.20E-01	0.00E+00	6.93E-02	2.79E-01	4.85E-03	2.44E-02	1.75E-03
-2.36E-02	-2.20E-02	1.68E-02	-8.74E-03	4.87E-03	-8.84E-03	6.22E+00	-1.05E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	6.85E-02	2.76E-01	5.09E-03	2.15E-02	1.53E-03
-2.39E-02	-2.20E-02	1.78E-02	-8.12E-03	5.31E-03	-8.86E-03	6.22E+00	-3.49E-05	1.37E+02	1.21E-01	4.55E+01	5.43E+04	6.20E-01	0.00E+00	7.00E-02	2.80E-01	5.35E-03	2.55E-02	7.04E-04
-2.39E-02	-2.20E-02	1.84E-02	-9.27E-03	5.03E-03	-8.89E-03	6.22E+00	-1.05E-05	1.37E+02	1.21E-01	4.53E+01	5.44E+04	6.20E-01	0.00E+00	6.92E-02	2.78E-01	5.32E-03	2.47E-02	1.47E-03
-2.37E-02	-2.24E-02	1.79E-02	-9.59E-03	4.54E-03	-8.82E-03	6.22E+00	-3.17E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	6.20E-01	0.00E+00	6.85E-02	2.79E-01	4.94E-03	2.18E-02	2.37E-03
-2.39E-02	-2.23E-02	1.79E-02	-8.28E-03	4.66E-03	-8.59E-03	6.22E+00	-1.78E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	6.20E-01	0.00E+00	6.70E-02	2.81E-01	5.01E-03	2.66E-02	2.57E-03
-2.36E-02	-2.21E-02	1.77E-02	-7.88E-03	5.10E-03	-8.79E-03	6.22E+00	1.77E-06	1.37E+02	1.21E-01	4.53E+01	5.42E+04	6.20E-01	0.00E+00	6.85E-02	2.78E-01	5.05E-03	2.73E-02	1.27E-03
-2.37E-02	-2.21E-02	1.71E-02	-9.10E-03	5.27E-03	-8.72E-03	6.22E+00	-1.03E-04	1.36E+02	1.20E-01	4.50E+01	5.40E+04	6.20E-01	0.00E+00	6.84E-02	2.79E-01	5.05E-03	2.27E-02	1.58E-03
-2.37E-02	-2.22E-02	1.74E-02	-8.63E-03	4.86E-03	-8.67E-03	6.22E+00	-7.32E-07	1.36E+02	1.22E-01	4.58E+01	5.46E+04	6.20E-01	0.00E+00	7.03E-02	2.81E-01	5.11E-03	2.41E-02	1.76E-03
-2.34E-02	-2.21E-02	1.90E-02	-1.07E-02	4.92E-03	-8.94E-03	6.22E+00	-5.62E-06	1.36E+02	1.20E-01	4.50E+01	5.40E+04	6.20E-01	0.00E+00	6.90E-02	2.74E-01	4.99E-03	2.12E-02	1.72E-03
-2.34E-02	-2.21E-02	1.84E-02	-9.88E-03	4.95E-03	-8.87E-03	6.22E+00	5.79E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	6.20E-01	0.00E+00	6.97E-02	2.79E-01	4.99E-03	2.29E-02	1.64E-03
-2.35E-02	-2.25E-02	1.94E-02	-9.67E-03	5.12E-03	-8.90E-03	6.22E+00	4.08E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	6.20E-01	0.00E+00	6.92E-02	2.81E-01	4.79E-03	2.29E-02	1.58E-03
-2.35E-02	-2.24E-02	1.85E-02	-1.01E-02	5.39E-03	-8.65E-03	6.22E+00	3.10E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	6.20E-01	0.00E+00	6.91E-02	2.80E-01	4.87E-03	2.20E-02	6.90E-04
-2.35E-02	-2.24E-02	1.85E-02	-1.01E-02	5.39E-03	-8.65E-03	6.22E+00	3.10E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	6.20E-01	0.00E+00	6.86E-02	2.79E-01	4.86E-03	1.76E-02	2.06E-03
-2.36E-02	-2.23E-02	1.85E-02	-1.14E-02	4.74E-03	-8.77E-03	6.22E+00	9.03E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	7.04E-02	2.80E-01	5.08E-03	1.90E-02	1.04E-03
-2.36E-02	-2.23E-02	1.85E-02	-1.10E-02	5.20E-03	-8.99E-03	6.22E+00	1.64E-05	1.37E+02	1.21E-01	4.55E+01	5.44E+04	6.20E-01	0.00E+00	6.90E-02	2.79E-01	5.21E-03	2.56E-02	1.44E-03
-2.33E-02	-2.22E-02	1.68E-02	-7.38E-03	4.97E-03	-8.91E-03	6.22E+00	2.61E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	6.20E-01	0.00E+00	6.90E-02	2.79E-01	5.21E-03	2.56E-02	1.44E-03
-2.33E-02	-2.19E-02	1.84E-02	-7.38E-03	4.86E-03	-9.03E-03	6.22E+00	-1.29E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	6.92E-02	2.79E-01	5.44E-03	2.73E-02	1.71E-03
-2.30E-02	-2.20E-02	1.82E-02	-9.39E-03	4.88E-03	-8.94E-03	6.22E+00	5.44E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	6.20E-01	0.00E+00	7.00E-02	2.74E-01	4.85E-03	2.36E-02	1.71E-03
-2.31E-02	-2.25E-02	1.87E-02	-1.08E-02	5.25E-03	-8.96E-03	6.22E+00	-6.91E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	7.10E-02	2.82E-01	4.84E-03	2.03E-02	1.06E-03
-2.31E-02	-2.24E-02	1.86E-02	-9.71E-03	5.06E-03	-8.97E-03	6.22E+00	-1.05E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	7.03E-02	2.77E-01</			

-2.34E-02	-2.23E-02	1.78E-02	-1.01E-02	4.77E-03	-8.88E-03	6.22E+00	-2.03E-05	1.36E+02	1.21E-01	4.51E-01	5.41E+04	1.15E+00	0.00E+00	6.88E-02	2.76E-01	4.86E-03	1.90E-02	1.91E-02
-2.29E-02	-2.27E-02	1.88E-02	-1.03E-02	4.97E-03	-8.86E-03	6.22E+00	-3.49E-05	1.36E+02	1.21E-01	4.52E-01	5.42E+04	1.15E+00	0.00E+00	6.95E-02	2.79E-01	4.83E-03	2.25E-02	1.84E-03
-2.35E-02	-2.25E-02	1.70E-02	-9.58E-03	4.43E-03	-9.66E-03	6.22E+00	-5.44E-05	1.37E+02	1.21E-01	4.54E-01	5.43E+04	1.15E+00	0.00E+00	7.01E-02	2.81E-01	4.80E-03	1.94E-02	2.76E-03
-2.30E-02	-2.22E-02	1.70E-02	-8.84E-03	4.63E-03	-9.86E-03	6.22E+00	-8.13E-05	1.36E+02	1.20E-01	4.48E-01	5.40E+04	1.15E+00	0.00E+00	6.89E-02	2.74E-01	4.68E-03	2.26E-02	2.22E-03
-2.32E-02	-2.26E-02	1.82E-02	-1.01E-02	4.82E-03	-8.90E-03	6.22E+00	-2.51E-05	1.37E+02	1.21E-01	4.53E-01	5.42E+04	1.15E+00	0.00E+00	7.02E-02	2.81E-01	4.64E-03	2.12E-02	2.04E-03
-2.34E-02	-2.25E-02	1.79E-02	-9.20E-03	4.69E-03	-9.66E-03	6.22E+00	-2.27E-05	1.37E+02	1.21E-01	4.53E-01	5.42E+04	1.15E+00	0.00E+00	6.99E-02	2.80E-01	4.76E-03	2.35E-02	2.37E-03
-2.33E-02	-2.23E-02	1.83E-02	-9.27E-03	4.86E-03	-9.94E-03	6.22E+00	-2.03E-05	1.36E+02	1.20E-01	4.50E-01	5.41E+04	1.15E+00	0.00E+00	6.98E-02	2.78E-01	4.80E-03	2.43E-02	1.94E-03
-2.27E-02	-2.21E-02	1.79E-02	-9.98E-03	5.01E-03	-8.86E-03	6.22E+00	2.86E-05	1.35E+02	1.20E-01	4.45E-01	5.37E+04	1.15E+00	0.00E+00	6.96E-02	2.80E-01	4.57E-03	2.05E-02	1.33E-03
-2.31E-02	-2.16E-02	1.68E-02	-7.32E-03	4.52E-03	-9.90E-03	6.22E+00	-6.54E-06	1.36E+02	1.21E-01	4.51E-01	5.41E+04	1.15E+00	0.00E+00	7.05E-02	2.80E-01	4.87E-03	2.17E-02	2.50E-03
-2.37E-02	-2.17E-02	1.71E-02	-8.96E-03	4.41E-03	-8.57E-03	6.22E+00	-8.71E-05	1.35E+02	1.19E-01	4.41E-01	5.35E+04	1.14E+00	0.00E+00	6.71E-02	2.74E-01	4.87E-03	2.17E-02	2.50E-03
-2.30E-02	-2.21E-02	1.89E-02	-1.05E-02	5.00E-03	-8.89E-03	6.22E+00	-8.71E-05	1.36E+02	1.20E-01	4.47E-01	5.39E+04	1.14E+00	0.00E+00	6.93E-02	2.77E-01	4.72E-03	2.85E-02	1.82E-03
-2.30E-02	-2.20E-02	1.89E-02	-9.57E-03	4.88E-03	-8.70E-03	6.22E+00	-8.54E-06	1.36E+02	1.20E-01	4.45E-01	5.38E+04	1.14E+00	0.00E+00	6.84E-02	2.77E-01	4.72E-03	2.36E-02	1.36E-03
-2.33E-02	-2.18E-02	1.83E-02	-9.45E-03	4.61E-03	-8.54E-03	6.22E+00	-1.22E-06	1.35E+02	1.19E-01	4.42E-01	5.36E+04	1.14E+00	0.00E+00	6.78E-02	2.77E-01	4.56E-03	2.64E-02	2.35E-03
-2.32E-02	-2.22E-02	1.80E-02	-8.34E-03	4.18E-03	-8.90E-03	6.22E+00	-2.81E-05	1.37E+02	1.21E-01	4.54E-01	5.43E+04	1.14E+00	0.00E+00	7.11E-02	2.84E-01	4.91E-03	2.73E-02	1.21E-03
-2.32E-02	-2.19E-02	1.82E-02	-8.75E-03	4.70E-03	-8.73E-03	6.22E+00	-9.40E-05	1.36E+02	1.20E-01	4.47E-01	5.39E+04	1.14E+00	0.00E+00	6.80E-02	2.74E-01	4.87E-03	2.58E-02	2.15E-03
-2.30E-02	-2.22E-02	1.72E-02	-9.67E-03	4.64E-03	-8.87E-03	6.22E+00	-3.78E-05	1.36E+02	1.21E-01	4.51E-01	5.41E+04	1.14E+00	0.00E+00	6.85E-02	2.79E-01	4.65E-03	1.91E-02	1.44E-03
-2.29E-02	-2.24E-02	1.82E-02	-8.73E-03	4.91E-03	-8.73E-03	6.22E+00	-1.11E-04	1.37E+02	1.21E-01	4.52E-01	5.42E+04	1.14E+00	0.00E+00	6.84E-02	2.81E-01	4.85E-03	2.61E-02	1.88E-03
-2.33E-02	-2.20E-02	1.88E-02	-9.61E-03	4.65E-03	-8.82E-03	6.22E+00	-5.49E-05	1.35E+02	1.21E-01	4.51E-01	5.41E+04	1.14E+00	0.00E+00	6.76E-02	2.74E-01	4.59E-03	2.36E-02	2.15E-03
-2.34E-02	-2.21E-02	1.78E-02	-9.19E-03	5.05E-03	-8.89E-03	6.22E+00	-4.76E-05	1.36E+02	1.20E-01	4.46E-01	5.38E+04	1.14E+00	0.00E+00	6.80E-02	2.77E-01	4.88E-03	2.46E-02	1.89E-03
-2.35E-02	-2.17E-02	1.82E-02	-1.01E-02	4.80E-03	-8.64E-03	6.22E+00	-5.49E-05	1.35E+02	1.21E-01	4.51E-01	5.41E+04	1.14E+00	0.00E+00	6.80E-02	2.82E-01	5.01E-03	2.33E-02	1.33E-03
-2.33E-02	-2.20E-02	1.82E-02	-9.28E-03	4.80E-03	-8.89E-03	6.22E+00	-4.03E-05	1.35E+02	1.21E-01	4.41E-01	5.35E+04	1.14E+00	0.00E+00	6.78E-02	2.74E-01	4.96E-03	2.09E-02	1.73E-03
-2.33E-02	-2.20E-02	1.78E-02	-9.28E-03	5.25E-03	-8.72E-03	6.22E+00	6.47E-05	1.36E+02	1.20E-01	4.47E-01	5.39E+04	1.14E+00	0.00E+00	6.98E-02	2.83E-01	5.01E-03	2.27E-02	7.83E-04
-2.25E-02	-2.18E-02	1.76E-02	-8.54E-03	4.81E-03	-8.37E-03	6.22E+00	-5.00E-05	1.35E+02	1.19E-01	4.40E-01	5.34E+04	1.14E+00	0.00E+00	6.78E-02	2.73E-01	4.50E-03	2.49E-02	1.73E-03
-2.32E-02	-2.23E-02	1.81E-02	-1.03E-02	4.78E-03	-8.73E-03	6.22E+00	-6.71E-05	1.36E+02	1.20E-01	4.48E-01	5.40E+04	1.14E+00	0.00E+00	7.02E-02	2.85E-01	4.81E-03	2.07E-02	2.01E-03
-2.32E-02	-2.17E-02	1.64E-02	-8.13E-03	4.45E-03	-8.53E-03	6.22E+00	-7.69E-05	1.35E+02	1.20E-01	4.45E-01	5.38E+04	1.14E+00	0.00E+00	6.72E-02	2.76E-01	4.96E-03	2.27E-02	2.35E-03
-2.32E-02	-2.20E-02	1.64E-02	-9.08E-03	4.69E-03	-8.53E-03	6.22E+00	-3.54E-05	1.36E+02	1.20E-01	4.48E-01	5.39E+04	1.14E+00	0.00E+00	6.77E-02	2.80E-01	4.86E-03	1.94E-02	1.36E-03
-2.36E-02	-2.25E-02	1.73E-02	-8.64E-03	4.78E-03	-8.67E-03	6.22E+00	-3.05E-05	1.38E+02	1.22E-01	4.58E-01	5.46E+04	1.14E+00	0.00E+00	6.99E-02	2.84E-01	4.88E-03	2.38E-02	2.08E-03
-2.37E-02	-2.25E-02	1.62E-02	-8.05E-03	4.52E-03	-8.60E-03	6.22E+00	-6.23E-05	1.37E+02	1.21E-01	4.57E-01	5.45E+04	1.14E+00	0.00E+00	6.62E-02	2.78E-01	4.71E-03	2.19E-02	2.46E-03
-2.33E-02	-2.22E-02	1.68E-02	-8.03E-03	4.69E-03	-8.58E-03	6.22E+00	-2.32E-05	1.36E+02	1.20E-01	4.48E-01	5.39E+04	1.14E+00	0.00E+00	6.64E-02	2.75E-01	4.67E-03	2.34E-02	2.02E-03
-2.32E-02	-2.20E-02	1.70E-02	-8.38E-03	4.80E-03	-8.79E-03	6.22E+00	-2.22E-05	1.36E+02	1.21E-01	4.50E-01	5.41E+04	1.14E+00	0.00E+00	6.71E-02	2.80E-01	5.08E-03	2.46E-02	1.82E-03
-2.32E-02	-2.21E-02	1.88E-02	-9.94E-03	4.82E-03	-8.88E-03	6.22E+00	2.42E-05	1.37E+02	1.21E-01	4.53E-01	5.42E+04	1.14E+00	0.00E+00	6.94E-02	2.70E-01	4.47E-03	1.79E-02	1.99E-03
-2.26E-02	-2.19E-02	1.89E-02	-1.06E-02	4.87E-03	-8.81E-03	6.22E+00	6.32E-05	1.37E+02	1.21E-01	4.52E-01	5.42E+04	1.14E+00	0.00E+00	7.03E-02	2.82E-01	4.84E-03	2.17E-02	1.63E-03
-2.21E-02	-2.22E-02	1.81E-02	-1.03E-02	4.93E-03	-8.61E-03	6.22E+00	-1.49E-05	1.35E+02	1.19E-01	4.40E-01	5.35E+04	1.14E+00	0.00E+00	6.70E-02	2.69E-01	4.05E-03	1.97E-02	2.38E-03
-2.35E-02	-2.23E-02	1.80E-02	-9.2E-03	4.55E-03	-8.61E-03	6.22E+00	-1.49E-05	1.35E+02	1.19E-01	4.40E-01	5.35E+04	1.14E+00	0.00E+00	6.75E-02	2.69E-01	5.03E-03	2.25E-02	1.58E-03
-2.35E-02	-2.23E-02	1.73E-02	-9.06E-03	4.94E-03	-8.79E-03	6.22E+00	3.88E-05	1.37E+02	1.21E-01	4.55E-01	5.44E+04	1.14E+00	0.00E+00	6.90E-02	2.74E-01	4.75E-03	2.37E-02	1.46E-03
-2.32E-02	-2.21E-02	1.79E-02	-8.94E-03	4.99E-03	-8.76E-03	6.22E+00	7.08E-06	1.36E+02	1.20E-01	4.49E-01	5.40E-04	1.14E+00	0.00E+00	6.88E-02	2.78E-01	4.75E-03	2.15E-02	1.93E-03
-2.32E-02	-2.22E-02	1.78E-02	-8.74E-03	4.92E-03	-8.74E-03	6.22E+00	-1.44E-05	1.36E+02	1.20E-01	4.50E-01	5.41E+04	1.14E+00	0.00E+00	6.82E-02	2.81E-01	4.95E-03	2.18E-02	1.50E-03
-2.36E-02	-2.23E-02	1.68E-02	-8.57E-03	4.92E-03	-8.70E-03	6.22E+00	-7.59E-05	1.37E+02	1.21E-01	4.54E-01	5.43E+04	1.14E+00	0.00E+00	6.82E-02	2.77E-01	4.64E-03	2.15E-02	1.69E-03
-2.33E-02	-2.24E-02	1.80E-02	-9.74E-03	4.93E-03	-8.79E-03	6.22E+00	-4.66E-05	1.37E+02	1.21E-01	4.55E-01	5.44E+04	1.14E+00	0.00E+00	6.84E-02	2.77E-01	4.64E-03	2.15E-02	1.69E-03
-2.31E-02	-2.24E-02	1.83E-02	-1.01E-02	4.85E-03	-8.70E-03	6.22E+00	2.66E-05	1.36E+02	1.20E-01	4.49E-01	5.40E+04	1.14E+00	0.00E+00	6.76E-02	2.75E-01	4.45E-03	2.14E-02	2.37E-03
-2.29E-02	-2.26E-02	1.83E-02	-9.78E-03	5.05E-03	-8.76E-03	6.22E+00	3.64E-05	1.37E+02	1.21E-01	4.54E-01	5.43E+04	1.14E+00	0.00E+00	6.90E-02	2.79E-01	4.34E-03	2.32E-02	1.57E-03
-2.32E-02	-2.23E-02	1.70E-02	-8.70E-03	4.77E-03	-8.89E-03	6.22E+00	3.15E-05	1.36E+02	1.20E-01	4.48E-01	5.40E+04	1.14E+00	0.00E+00	6.77E-02	2.77E-01	4.63E-03	2.24E-02	1.91E-03
-2.37E-02	-2.23E-02	1.75E-02	-9.96E-03	4.87E-03	-8.66E-03	6.22E+00	-7.57E-06	1.36E+02	1.21E-01	4.50E-01	5.41E+04	1.14E+00	0.00E+00	6.83E-02	2.83E-01	4.96E-03	1.96E-02	2.18E-03
-2.40E-02	-2.23E-02	1.62E-02	-7.53E-03	4.72E-03	-8.70E-03	6.22E+00	-7.59E-05	1.37E+02	1.21E-01	4.57E-01	5.45E+04	1.14E+00	0.00E+00	6.82E-02	2.84E-01	5.16E-03	2.43E-02	2.02E-03
-2.39E-02	-2.23E-02	1.78E-02	-7.61E-03	4.71E-03	-8.84E-03	6.22E+00	-5.13E-06	1.38E+02	1.22E-01	4.59E-01	5.46E+04	1.14E+00	0.00E+00	6.83E-02	2.79E-01	5.02E-03	2.30E-02	2.29E-03
-2.35E-02	-2.20E-02	1.74E-02	-8.73E-03	4.71E-03	-8.66E-03	6.22E+00	2.66E-05	1.36E+02	1.20E-01	4.50E-01	5.41E+04	1.14E+00	0.00E+00	6.67E-02	2.73E-01	4.92E-03	2.33E-02	2.01E-03
-2.35E-02	-2.17E-02	1.62E-02	-8.68E-03	5.09E-03	-8.65E-03	6.22E+00	-2.44E-07	1.36E+02	1.21E-01	4.51E-01	5.41E+04	1.14E+00	0.00E+00	6.77E-02	2.73E-01	5.00E-03	2.67E-02	9.47E-04
-2.34E-02	-2.24E-02	1.80E-02	-1.01E-02	4.69E-03	-8.78E-03	6.22E+00	-5.64E-05	1.37E+02	1.21E-01	4.54E-01	5.43E+04	1.14E+00	0.00E+00	6.88E-02	2.80E-01	4.76E-03	2.06E-02	2.24E-03
-2.36E-02	-2.22E-02	1.72E-02	-9.69E-03	5.23E-03	-8.75E-03	6.22E+00	3.06E-05	1.37E+02	1.21E-01	4.55E-01	5.44E+04	1.14E+00	0.00E+00	6.80E-02	2.79E-01	4.76E-03	2.06E-02	2.24E-03
-2.27E-02																		

-2.30E-02	-2.30E-02	1.90E-02	-1.07E-02	4.54E-03	-6.58E-03	6.22E+00	4.32E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	0.00E+00	0.00E+00	6.82E-02	2.84E-01	4.12E-03	2.17E-02	2.94E-03
-2.33E-02	-2.29E-02	1.85E-02	-9.31E-03	5.10E-03	-6.63E-03	6.22E+00	-3.00E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	6.81E-02	2.84E-01	4.35E-03	2.45E-02	1.59E-03
-2.36E-02	-2.26E-02	1.80E-02	-9.22E-03	5.18E-03	-6.60E-03	6.22E+00	1.15E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	0.00E+00	0.00E+00	6.79E-02	2.84E-01	4.59E-03	2.53E-02	1.41E-03
-2.34E-02	-2.25E-02	1.87E-02	-9.48E-03	5.09E-03	-6.54E-03	6.22E+00	5.79E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	0.00E+00	0.00E+00	6.69E-02	2.79E-01	4.50E-03	2.50E-02	1.52E-03
-2.33E-02	-2.27E-02	1.72E-02	-9.97E-03	4.95E-03	-6.61E-03	6.22E+00	4.57E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	0.00E+00	0.00E+00	6.81E-02	2.84E-01	4.43E-03	1.86E-02	1.60E-03
-2.26E-02	-2.25E-02	1.91E-02	-1.10E-02	5.32E-03	-6.37E-03	6.22E+00	3.49E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	0.00E+00	0.00E+00	6.63E-02	2.77E-01	4.06E-03	2.08E-02	6.74E-04
-2.35E-02	-2.29E-02	1.92E-02	-9.99E-03	5.59E-03	-6.76E-03	6.22E+00	6.03E-05	1.37E+02	1.21E-01	4.55E+01	5.43E+04	0.00E+00	0.00E+00	6.98E-02	2.87E-01	4.60E-03	2.48E-02	5.79E-04
-2.43E-02	-2.27E-02	1.78E-02	-6.65E-03	5.68E-03	-6.79E-03	6.22E+00	8.23E-05	1.37E+02	1.21E-01	4.58E+01	5.45E+04	0.00E+00	0.00E+00	6.82E-02	2.85E-01	5.07E-03	2.42E-02	1.38E-04
-2.38E-02	-2.28E-02	1.92E-02	-1.09E-02	5.50E-03	-6.66E-03	6.22E+00	8.23E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	0.00E+00	0.00E+00	6.70E-02	2.81E-01	4.61E-03	2.10E-02	4.82E-04
-2.32E-02	-2.29E-02	1.78E-02	-9.43E-03	5.08E-03	-6.64E-03	6.22E+00	1.31E-04	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	6.73E-02	2.80E-01	4.22E-03	2.21E-02	1.51E-03
-2.34E-02	-2.23E-02	1.75E-02	-9.20E-03	5.18E-03	-6.55E-03	6.22E+00	6.76E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	0.00E+00	0.00E+00	6.70E-02	2.83E-01	4.36E-03	2.21E-02	1.22E-03
-2.40E-02	-2.28E-02	1.98E-02	-1.07E-02	5.25E-03	-6.81E-03	6.22E+00	5.30E-05	1.37E+02	1.21E-01	4.57E+01	5.45E+04	0.00E+00	0.00E+00	6.90E-02	2.83E-01	4.86E-03	2.39E-02	1.43E-03
-2.34E-02	-2.33E-02	1.93E-02	-1.09E-02	5.40E-03	-6.71E-03	6.22E+00	1.29E-05	1.37E+02	1.21E-01	4.58E+01	5.45E+04	0.00E+00	0.00E+00	6.74E-02	2.83E-01	4.12E-03	2.39E-02	1.15E-03
-2.30E-02	-2.28E-02	1.81E-02	-1.05E-02	5.25E-03	-6.53E-03	6.22E+00	2.51E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	0.00E+00	0.00E+00	6.59E-02	2.76E-01	4.08E-03	1.90E-02	9.99E-04
-2.33E-02	-2.24E-02	1.69E-02	-9.02E-03	5.22E-03	-6.45E-03	6.22E+00	3.63E-05	1.35E+02	1.20E-01	4.45E+01	5.38E+04	0.00E+00	0.00E+00	6.69E-02	2.82E-01	4.63E-03	2.11E-02	1.28E-04
-2.33E-02	-2.32E-02	1.96E-02	-1.05E-02	5.23E-03	-6.67E-03	6.22E+00	3.25E-05	1.37E+02	1.21E-01	4.53E+01	5.39E+04	0.00E+00	0.00E+00	6.90E-02	2.88E-01	4.18E-03	2.45E-02	1.85E-03
-2.26E-02	-2.18E-02	1.75E-02	-9.08E-03	4.78E-03	-6.86E-03	6.22E+00	-4.13E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.46E-01	1.46E-01	7.08E-02	2.75E-01	4.68E-03	2.30E-02	1.90E-03
-2.38E-02	-2.24E-02	1.83E-02	-8.90E-03	4.72E-03	-6.99E-03	6.22E+00	5.88E-05	1.37E+02	1.21E-01	4.57E+01	5.45E+04	1.46E-01	1.46E-01	7.06E-02	2.84E-01	5.03E-03	2.37E-02	2.38E-03
-2.33E-02	-2.24E-02	1.78E-02	-9.00E-03	4.84E-03	-6.89E-03	6.22E+00	1.00E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	1.46E-01	1.46E-01	6.94E-02	2.79E-01	4.52E-03	2.10E-02	2.03E-03
-2.32E-02	-2.27E-02	1.98E-02	-1.15E-02	4.89E-03	-6.94E-03	6.22E+00	-4.64E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	1.46E-01	1.46E-01	6.99E-02	2.79E-01	4.25E-03	2.12E-02	2.73E-03
-2.30E-02	-2.24E-02	1.88E-02	-9.53E-03	4.79E-03	-6.84E-03	6.22E+00	1.68E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.46E-01	1.46E-01	6.75E-02	2.76E-01	4.48E-03	2.48E-02	2.15E-03
-2.33E-02	-2.23E-02	1.88E-02	-1.03E-02	4.35E-03	-6.82E-03	6.22E+00	-1.68E-05	1.37E+02	1.20E-01	4.47E+01	5.39E+04	1.46E-01	1.46E-01	6.99E-02	2.86E-01	4.63E-03	2.18E-02	2.16E-03
-2.35E-02	-2.27E-02	1.88E-02	-1.07E-02	4.86E-03	-6.83E-03	6.22E+00	8.08E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	1.46E-01	1.46E-01	6.99E-02	2.85E-01	4.71E-03	2.11E-02	2.09E-03
-2.29E-02	-2.17E-02	1.73E-02	-1.00E-02	4.42E-03	-6.82E-03	6.22E+00	1.98E-05	1.35E+02	1.19E-01	4.49E+01	5.34E+04	1.46E-01	1.46E-01	6.61E-02	2.73E-01	4.72E-03	1.86E-02	2.41E-03
-2.35E-02	-2.23E-02	1.77E-02	-1.03E-02	4.94E-03	-6.87E-03	6.22E+00	-5.10E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.46E-01	1.46E-01	7.14E-02	2.87E-01	5.03E-03	1.97E-02	1.60E-03
-2.28E-02	-2.24E-02	1.98E-02	-1.09E-02	4.61E-03	-6.88E-03	6.22E+00	5.13E-06	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.46E-01	1.46E-01	7.02E-02	2.78E-01	4.53E-03	2.35E-02	2.73E-03
-2.32E-02	-2.24E-02	1.82E-02	-6.78E-03	4.96E-03	-6.90E-03	6.22E+00	-5.10E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	1.46E-01	1.46E-01	7.05E-02	2.81E-01	4.75E-03	2.63E-02	1.77E-03
-2.27E-02	-2.25E-02	1.87E-02	-1.04E-02	5.02E-03	-6.71E-03	6.22E+00	2.47E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.46E-01	1.46E-01	6.83E-02	2.76E-01	4.25E-03	2.15E-02	1.55E-03
-2.32E-02	-2.27E-02	1.82E-02	-9.52E-03	4.87E-03	-6.76E-03	6.22E+00	8.81E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.46E-01	1.46E-01	6.95E-02	2.84E-01	4.58E-03	2.24E-02	2.45E-03
-2.32E-02	-2.27E-02	1.82E-02	-1.02E-02	4.68E-03	-6.82E-03	6.22E+00	3.44E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.46E-01	1.46E-01	6.92E-02	2.80E-01	4.50E-03	2.07E-02	2.39E-03
-2.30E-02	-2.21E-02	1.74E-02	-9.40E-03	4.54E-03	-6.89E-03	6.22E+00	3.69E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.46E-01	1.46E-01	6.81E-02	2.76E-01	4.65E-03	2.12E-02	2.40E-03
-2.34E-02	-2.26E-02	1.81E-02	-1.01E-02	4.92E-03	-6.91E-03	6.22E+00	2.22E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.46E-01	1.46E-01	7.05E-02	2.82E-01	4.62E-03	2.12E-02	1.80E-03
-2.34E-02	-2.23E-02	1.89E-02	-1.03E-02	5.10E-03	-6.84E-03	6.22E+00	-3.39E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.46E-01	1.46E-01	6.94E-02	2.79E-01	4.91E-03	2.24E-02	1.38E-03
-2.32E-02	-2.24E-02	1.85E-02	-8.79E-03	4.89E-03	-6.74E-03	6.22E+00	-6.57E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.46E-01	1.46E-01	6.89E-02	2.80E-01	4.60E-03	2.63E-02	1.97E-03
-2.33E-02	-2.16E-02	1.74E-02	-8.78E-03	4.89E-03	-6.72E-03	6.22E+00	-3.91E-05	1.35E+02	1.20E-01	4.46E+01	5.38E+04	3.28E-01	3.28E-01	6.89E-02	2.77E-01	5.18E-03	2.37E-02	1.46E-03
-2.36E-02	-2.17E-02	1.68E-02	-8.15E-03	4.94E-03	-6.74E-03	6.22E+00	-4.88E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.28E-01	3.28E-01	6.92E-02	2.80E-01	5.34E-03	2.35E-02	1.28E-03
-2.30E-02	-2.21E-02	1.83E-02	-9.62E-03	4.99E-03	-6.84E-03	6.22E+00	-4.39E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	3.28E-01	3.28E-01	6.96E-02	2.78E-01	4.83E-03	2.32E-02	1.53E-03
-2.29E-02	-2.19E-02	1.78E-02	-1.01E-02	4.76E-03	-6.72E-03	6.22E+00	-4.39E-05	1.35E+02	1.20E-01	4.43E+01	5.38E+04	3.28E-01	3.28E-01	6.83E-02	2.75E-01	4.81E-03	1.99E-02	1.81E-03
-2.34E-02	-2.20E-02	1.70E-02	-8.03E-03	4.87E-03	-6.65E-03	6.22E+00	4.88E-06	1.35E+02	1.20E-01	4.45E+01	5.39E+04	3.28E-01	3.28E-01	6.99E-02	2.80E-01	4.69E-03	2.52E-02	1.65E-03
-2.36E-02	-2.18E-02	1.71E-02	-8.74E-03	4.93E-03	-6.55E-03	6.22E+00	-4.15E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	3.28E-01	3.28E-01	6.81E-02	2.80E-01	5.24E-03	2.31E-02	1.07E-03
-2.32E-02	-2.18E-02	1.86E-02	-8.63E-03	5.11E-03	-6.81E-03	6.22E+00	1.71E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.28E-01	3.28E-01	6.99E-02	2.80E-01	5.27E-03	2.79E-02	1.29E-03
-2.32E-02	-2.20E-02	1.76E-02	-9.20E-03	5.08E-03	-6.82E-03	6.22E+00	1.71E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.28E-01	3.28E-01	6.77E-02	2.77E-01	4.79E-03	2.26E-02	1.17E-03
-2.34E-02	-2.23E-02	1.89E-02	-8.94E-03	5.03E-03	-6.90E-03	6.22E+00	-2.93E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	3.28E-01	6.95E-02	2.81E-01	4.85E-03	2.76E-02	1.70E-03
-2.33E-02	-2.23E-02	1.95E-02	-1.05E-02	4.81E-03	-6.87E-03	6.22E+00	-7.82E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	3.28E-01	6.94E-02	2.79E-01	4.66E-03	2.22E-02	2.09E-03
-2.33E-02	-2.25E-02	1.95E-02	-9.58E-03	5.05E-03	-6.79E-03	6.22E+00	1.22E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.28E-01	3.28E-01	6.88E-02	2.79E-01	4.66E-03	2.68E-02	1.77E-03
-2.38E-02	-2.24E-02	1.95E-02	-1.03E-02	5.05E-03	-6.90E-03	6.22E+00	2.44E-05	1.37E+02	1.21E-01	4.57E+01	5.45E+04	3.28E-01	3.28E-01	6.96E-02	2.81E-01	5.07E-03	2.43E-02	1.68E-03
-2.27E-02	-2.21E-02	1.74E-02	-9.27E-03	4.70E-03	-6.76E-03	6.22E+00	1.95E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	3.28E-01	3.28E-01	6.77E-02	2.70E-01	4.43E-03	2.14E-02	2.01E-03
-2.33E-02	-2.22E-02	1.73E-02	-9.28E-03	4.80E-03	-6.74E-03	6.22E+00	4.88E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	3.28E-01	6.96E-02	2.82E-01	4.87E-03	2.24E-02	1.89E-03
-2.34E-02	-2.15E-02	1.69E-02	-9.04E-03	4.77E-03	-6.87E-03	6.22E+00	-3.76E-05	1.36E+02	1.20E-01	4.45E+01	5.37E+04	3.28E-01	3.28E-01	7.00E-02	2.77E-01			

-2.31E-02	-2.20E-02	1.83E-02	-9.84E-03	4.94E-03	-8.75E-03	6.22E+00	4.79E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	6.90E-02	2.77E-01	4.87E-03	2.24E-02	1.55E-03
-2.34E-02	-2.24E-02	1.85E-02	-9.35E-03	5.06E-03	-8.88E-03	6.22E+00	-4.00E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	7.03E-02	2.82E-01	4.87E-03	2.49E-02	1.53E-03
-2.32E-02	-2.21E-02	1.78E-02	-8.93E-03	5.33E-03	-8.71E-03	6.22E+00	1.46E-06	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.80E+00	6.82E-02	2.77E-01	4.77E-03	2.35E-02	6.39E-04
-2.30E-02	-2.21E-02	1.78E-02	-9.33E-03	5.30E-03	-8.74E-03	6.22E+00	6.01E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	6.89E-02	2.77E-01	4.71E-03	2.21E-02	6.57E-04
-2.34E-02	-2.26E-02	1.82E-02	-9.22E-03	5.01E-03	-8.85E-03	6.22E+00	3.81E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	6.95E-02	2.82E-01	4.72E-03	2.43E-02	1.68E-03
-2.33E-02	-2.22E-02	1.78E-02	-9.70E-03	4.61E-03	-8.56E-03	6.22E+00	1.37E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	6.71E-02	2.78E-01	4.71E-03	2.13E-02	2.32E-03
-2.32E-02	-2.21E-02	1.81E-02	-9.70E-03	4.96E-03	-8.84E-03	6.22E+00	-1.07E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.80E+00	6.96E-02	2.78E-01	4.89E-03	2.24E-02	1.54E-03
-2.34E-02	-2.22E-02	1.74E-02	-9.69E-03	4.81E-03	-8.62E-03	6.22E+00	1.37E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.80E+00	6.74E-02	2.78E-01	4.81E-03	2.02E-02	1.77E-03
-2.38E-02	-2.22E-02	1.69E-02	-9.47E-03	4.77E-03	-8.75E-03	6.22E+00	-8.13E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	6.90E-02	2.83E-01	5.13E-03	2.33E-02	1.93E-03
-2.29E-02	-2.23E-02	1.90E-02	-1.08E-02	4.87E-03	-8.80E-03	6.22E+00	-8.30E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	6.91E-02	2.76E-01	4.59E-03	2.10E-02	1.88E-03
-2.39E-02	-2.26E-02	1.76E-02	-7.51E-03	5.17E-03	-8.78E-03	6.22E+00	6.45E-05	1.37E+02	1.21E-01	4.57E+01	5.45E+04	1.80E+00	6.89E-02	2.85E-01	4.96E-03	2.85E-02	1.33E-03
-2.30E-02	-2.23E-02	1.70E-02	-7.54E-03	5.13E-03	-8.79E-03	6.22E+00	-4.98E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	6.78E-02	2.73E-01	4.46E-03	2.60E-02	1.14E-03
-2.35E-02	-2.25E-02	1.73E-02	-9.80E-03	4.60E-03	-8.86E-03	6.22E+00	-3.76E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	6.98E-02	2.83E-01	4.88E-03	2.03E-02	2.43E-03

Table with columns: MI (volts), I12 (volts), V1 (volts), V2 (volts), P11 (volts), Axial (volts), E (volts), Static Press (psi), Vel (mph), I1 (volts), I2 (volts), Alpha (psi), I3 (volts), I4 (volts), I5 (volts), I6 (volts).

284E-02	-143E-02	765E-03	232E-03	374E-03	-104E-02	6.22E+00	-171E-05	1.26E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	5.22E-02	2.07E-01	1.74E-02	7.49E-02	9.11E-04
284E-02	-136E-02	9.16E-03	6.15E-04	4.35E-03	1.04E-02	6.22E+00	2.41E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.28E-01	0.00E+00	8.15E-02	2.01E-01	1.74E-02	7.51E-02	7.49E-04
284E-02	-130E-02	8.56E-03	1.59E-03	3.93E-03	-1.03E-02	6.22E+00	-1.71E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.28E-01	0.00E+00	7.94E-02	2.02E-01	1.74E-02	7.32E-02	7.49E-04
284E-02	-140E-02	9.29E-03	1.23E-03	3.84E-03	-1.03E-02	6.22E+00	-5.37E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	3.28E-01	0.00E+00	8.02E-02	2.02E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-130E-02	8.88E-03	1.17E-03	4.76E-03	-1.04E-02	6.22E+00	2.20E-05	1.36E+02	1.20E-01	4.47E+01	5.38E+04	3.28E-01	0.00E+00	8.01E-02	2.04E-01	1.74E-02	7.51E-02	7.49E-04
284E-02	-137E-02	8.29E-03	1.89E-03	4.29E-03	-1.03E-02	6.22E+00	-7.32E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	8.15E-02	2.04E-01	1.74E-02	7.51E-02	7.49E-04
284E-02	-130E-02	8.73E-03	2.78E-03	4.04E-03	-1.03E-02	6.22E+00	-1.46E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	3.28E-01	0.00E+00	8.09E-02	2.03E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-130E-02	8.19E-03	3.05E-03	4.19E-03	-1.06E-02	6.22E+00	1.95E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.28E-01	0.00E+00	8.11E-02	2.03E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-132E-02	8.16E-03	1.75E-03	3.51E-03	-1.05E-02	6.22E+00	-8.89E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.10E-01	0.00E+00	8.12E-02	2.01E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-134E-02	1.17E-02	3.15E-03	3.26E-03	-1.04E-02	6.22E+00	2.83E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.10E-01	0.00E+00	8.12E-02	2.01E-01	1.74E-02	7.52E-02	7.49E-04
284E-02	-134E-02	8.11E-03	1.59E-03	3.60E-03	-1.04E-02	6.22E+00	-2.54E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.10E-01	0.00E+00	8.07E-02	2.00E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-130E-02	8.61E-03	1.08E-03	3.77E-03	-1.04E-02	6.22E+00	-4.98E-05	1.36E+02	1.21E-01	4.51E+01	5.42E+04	4.10E-01	0.00E+00	8.11E-02	2.05E-01	1.74E-02	7.50E-02	7.49E-04
284E-02	-140E-02	9.16E-03	1.31E-03	3.78E-03	-1.07E-02	6.22E+00	5.64E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	4.10E-01	0.00E+00	8.27E-02	2.05E-01	1.74E-02	7.54E-02	7.49E-04
284E-02	-137E-02	7.96E-03	1.10E-03	3.29E-03	-1.03E-02	6.22E+00	4.05E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	7.92E-02	2.00E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-133E-02	8.29E-03	3.22E-03	3.55E-03	-1.03E-02	6.22E+00	-5.23E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	8.01E-02	2.00E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-134E-02	8.55E-03	6.88E-04	3.35E-03	-1.03E-02	6.22E+00	3.91E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.10E-01	0.00E+00	8.19E-02	2.03E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-136E-02	1.01E-02	-7.60E-04	3.74E-03	-1.06E-02	6.22E+00	3.32E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	7.90E-02	2.03E-01	1.74E-02	7.51E-02	7.49E-04
284E-02	-135E-02	7.54E-03	3.20E-03	3.79E-03	-1.03E-02	6.22E+00	3.32E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	8.14E-02	2.00E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-137E-02	8.90E-03	1.00E-03	3.54E-03	-1.05E-02	6.22E+00	-8.30E-06	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.10E-01	0.00E+00	8.14E-02	2.00E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-137E-02	7.98E-03	3.84E-03	3.88E-03	-1.05E-02	6.22E+00	-3.52E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.10E-01	0.00E+00	8.12E-02	2.05E-01	1.74E-02	7.50E-02	7.49E-04
284E-02	-136E-02	9.54E-03	1.15E-03	3.53E-03	-1.04E-02	6.22E+00	5.63E-11	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.10E-01	0.00E+00	8.05E-02	2.01E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-130E-02	9.70E-03	-6.50E-04	3.63E-03	-1.02E-02	6.22E+00	-6.35E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	8.05E-02	2.01E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-133E-02	8.29E-03	2.27E-03	3.92E-03	-1.03E-02	6.22E+00	-8.79E-05	1.36E+02	1.20E-01	4.46E+01	5.36E+04	4.92E-01	0.00E+00	8.01E-02	2.00E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-131E-02	1.01E-02	-2.01E-03	3.22E-03	-1.03E-02	6.22E+00	4.84E-05	1.36E+02	1.21E-01	4.50E+01	5.41E+04	4.92E-01	0.00E+00	8.08E-02	2.05E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-134E-02	8.59E-03	1.83E-03	3.80E-03	-1.04E-02	6.22E+00	4.89E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.92E-01	0.00E+00	8.02E-02	2.00E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-137E-02	8.31E-03	3.70E-03	3.70E-03	-1.04E-02	6.22E+00	4.89E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.92E-01	0.00E+00	8.02E-02	2.00E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-133E-02	7.72E-03	2.97E-03	3.46E-03	-1.03E-02	6.22E+00	-4.15E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.92E-01	0.00E+00	7.94E-02	2.01E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-133E-02	8.37E-03	2.95E-03	4.06E-03	-1.04E-02	6.22E+00	-4.64E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	8.04E-02	2.01E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-135E-02	8.68E-03	1.91E-03	4.15E-03	-1.04E-02	6.22E+00	-3.68E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.92E-01	0.00E+00	8.06E-02	2.03E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-136E-02	7.70E-03	1.66E-03	3.46E-03	-1.03E-02	6.22E+00	-7.09E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.92E-01	0.00E+00	8.00E-02	2.00E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-134E-02	8.74E-03	2.74E-03	3.25E-03	-1.03E-02	6.22E+00	-2.81E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	4.92E-01	0.00E+00	8.00E-02	2.07E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-137E-02	8.53E-03	2.27E-03	3.92E-03	-1.04E-02	6.22E+00	-4.39E-05	1.37E+02	1.21E-01	4.56E+01	5.44E+04	4.92E-01	0.00E+00	8.01E-02	2.04E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-136E-02	9.00E-03	5.52E-04	3.37E-03	-1.04E-02	6.22E+00	2.44E-04	1.36E+02	1.21E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	7.94E-02	2.02E-01	1.74E-02	7.28E-02	7.49E-04
284E-02	-135E-02	8.95E-03	9.65E-04	3.37E-03	-1.06E-02	6.22E+00	-2.44E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	4.92E-01	0.00E+00	8.22E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-140E-02	8.91E-03	1.52E-03	3.31E-03	-1.06E-02	6.22E+00	-3.66E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	4.92E-01	0.00E+00	8.22E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-138E-02	8.75E-03	2.63E-03	3.51E-03	-1.06E-02	6.22E+00	-4.64E-05	1.37E+02	1.20E-01	4.50E+01	5.40E+04	4.92E-01	0.00E+00	8.11E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-139E-02	8.56E-03	1.55E-03	3.38E-03	-1.06E-02	6.22E+00	-4.64E-05	1.37E+02	1.20E-01	4.50E+01	5.40E+04	4.92E-01	0.00E+00	8.07E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-142E-02	7.91E-03	2.08E-03	3.33E-03	-1.03E-02	6.22E+00	-2.37E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	5.74E-01	0.00E+00	8.12E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-135E-02	8.07E-03	3.74E-03	3.74E-03	-1.06E-02	6.22E+00	3.00E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	5.74E-01	0.00E+00	8.07E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-135E-02	9.20E-03	2.54E-03	3.72E-03	-1.06E-02	6.22E+00	-9.94E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	5.74E-01	0.00E+00	8.07E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-135E-02	8.69E-03	1.44E-03	3.30E-03	-1.04E-02	6.22E+00	2.03E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	5.74E-01	0.00E+00	8.04E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-139E-02	8.59E-03	2.54E-03	3.47E-03	-1.04E-02	6.22E+00	3.25E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	5.74E-01	0.00E+00	8.05E-02	2.02E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-137E-02	8.24E-03	1.98E-03	3.56E-03	-1.05E-02	6.22E+00	7.40E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	5.74E-01	0.00E+00	8.09E-02	2.04E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-137E-02	8.33E-03	6.00E-04	3.46E-03	-1.05E-02	6.22E+00	5.93E-05	1.37E+02	1.21E-01	4.51E+01	5.41E+04	5.74E-01	0.00E+00	8.06E-02	2.04E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-138E-02	7.70E-03	1.93E-03	3.23E-03	-1.05E-02	6.22E+00	-4.93E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	5.74E-01	0.00E+00	7.90E-02	2.05E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-130E-02	7.96E-03	2.94E-03	3.70E-03	-1.04E-02	6.22E+00	-2.37E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	5.74E-01	0.00E+00	7.90E-02	2.05E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-135E-02	8.16E-03	1.83E-03	3.79E-03	-1.04E-02	6.22E+00	7.64E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	5.74E-01	0.00E+00	7.90E-02	2.05E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-140E-02	8.58E-03	6.78E-04	3.56E-03	-1.06E-02	6.22E+00	-2.86E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	5.74E-01	0.00E+00	7.90E-02	2.05E-01	1.74E-02	7.41E-02	7.49E-04
284E-02	-139E-02	8.52E-03	1.38E-03	3.59E-03	-1.04E-02	6.22E+00	3.34E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	5.74						

-285E-02	-132E-02	858E-03	230E-03	39E-05	-103E-02	622E+00	46E-06	120E+02	44E+01	540E+04	148E+00	100E+00	799E-02	291E-01	140E-01	724E-02	209E-01
-286E-02	-135E-02	811E+03	341E+03	407E-03	-105E-02	622E+00	-46E-05	137E+02	45E+01	543E+04	148E+00	100E+00	811E-02	291E-01	140E-01	724E-02	209E-01
-288E-02	-135E-02	772E-03	27E-03	407E-03	-105E-02	622E+00	-22E-05	136E+02	45E+01	541E+04	148E+00	100E+00	772E-02	291E-01	140E-01	724E-02	209E-01
-288E-02	-135E-02	896E-03	109E-03	392E-05	-104E-02	622E+00	-102E-04	136E+02	45E+01	541E+04	148E+00	100E+00	896E-02	291E-01	140E-01	724E-02	209E-01
-289E-02	-136E-02	971E-03	992E-04	408E-03	-106E-02	622E+00	-75E-05	137E+02	45E+01	541E+04	148E+00	100E+00	971E-02	291E-01	140E-01	724E-02	209E-01
-285E-02	-136E-02	944E-03	324E-04	391E-03	-105E-02	622E+00	-54E-05	136E+02	45E+01	541E+04	148E+00	100E+00	944E-02	291E-01	140E-01	724E-02	209E-01
-291E-02	-136E-02	858E-03	171E-03	407E-03	-105E-02	622E+00	-36E-05	137E+02	45E+01	541E+04	148E+00	100E+00	858E-02	291E-01	140E-01	724E-02	209E-01
-286E-02	-135E-02	746E-03	260E-03	386E-03	-104E-02	622E+00	-46E-05	136E+02	45E+01	541E+04	148E+00	100E+00	746E-02	291E-01	140E-01	724E-02	209E-01
-281E-02	-136E-02	908E-03	398E-03	398E-03	-104E-02	622E+00	-19E-05	136E+02	447E+01	539E+04	148E+00	100E+00	908E-02	290E-01	139E-01	723E-02	208E-01
-282E-02	-142E-02	826E-03	103E-03	367E-03	-105E-02	622E+00	-637E-05	136E+02	45E+01	540E+04	148E+00	100E+00	826E-02	290E-01	139E-01	723E-02	208E-01
-289E-02	-135E-02	804E-03	216E-03	368E-03	-103E-02	622E+00	24E-05	136E+02	45E+01	541E+04	148E+00	100E+00	804E-02	290E-01	139E-01	723E-02	208E-01
-290E-02	-129E-02	840E-03	159E-03	379E-03	-104E-02	622E+00	-215E-05	136E+02	447E+01	539E+04	148E+00	100E+00	840E-02	290E-01	139E-01	723E-02	208E-01
-290E-02	-133E-02	859E-03	246E-03	368E-03	-105E-02	622E+00	781E-06	137E+02	45E+01	543E+04	148E+00	100E+00	859E-02	291E-01	140E-01	724E-02	209E-01
-289E-02	-136E-02	817E-03	190E-03	362E-03	-104E-02	622E+00	537E-06	137E+02	45E+01	543E+04	148E+00	100E+00	817E-02	291E-01	140E-01	724E-02	209E-01
-287E-02	-135E-02	793E-03	411E-03	411E-03	-104E-02	622E+00	537E-06	137E+02	45E+01	543E+04	148E+00	100E+00	793E-02	291E-01	140E-01	724E-02	209E-01
-283E-02	-136E-02	901E-03	103E-04	404E-03	-104E-02	622E+00	-361E-05	137E+02	45E+01	542E+04	148E+00	100E+00	901E-02	291E-01	140E-01	724E-02	209E-01
-287E-02	-135E-02	903E-03	872E-04	414E-03	-104E-02	622E+00	518E-05	136E+02	449E+01	540E+04	148E+00	100E+00	903E-02	290E-01	139E-01	723E-02	208E-01
-287E-02	-138E-02	102E-02	715E-05	398E-03	-105E-02	622E+00	-459E-06	137E+02	45E+01	544E+04	148E+00	100E+00	102E-02	294E-01	143E-01	727E-02	212E-01
-284E-02	-139E-02	880E-03	980E-04	390E-03	-105E-02	622E+00	-459E-06	136E+02	45E+01	544E+04	148E+00	100E+00	880E-02	294E-01	143E-01	727E-02	212E-01
-288E-02	-137E-02	934E-03	247E-04	415E-03	-104E-02	622E+00	-508E-05	136E+02	45E+01	541E+04	148E+00	100E+00	934E-02	294E-01	143E-01	727E-02	212E-01
-290E-02	-136E-02	888E-03	423E-03	412E-03	-105E-02	622E+00	-20E-05	136E+02	450E+01	540E+04	148E+00	100E+00	888E-02	294E-01	143E-01	727E-02	212E-01
-287E-02	-137E-02	820E-03	297E-03	406E-03	-106E-02	622E+00	-337E-05	136E+02	451E+01	541E+04	148E+00	100E+00	820E-02	294E-01	143E-01	727E-02	212E-01
-294E-02	-134E-02	879E-03	159E-03	405E-03	-105E-02	622E+00	-215E-05	137E+02	45E+01	545E+04	148E+00	100E+00	879E-02	295E-01	144E-01	728E-02	213E-01
-287E-02	-137E-02	808E-03	286E-03	430E-03	-105E-02	622E+00	981E-05	137E+02	45E+01	542E+04	148E+00	100E+00	808E-02	295E-01	144E-01	728E-02	213E-01
-286E-02	-134E-02	951E-03	146E-04	421E-03	-104E-02	622E+00	151E-05	136E+02	449E+01	540E+04	148E+00	100E+00	951E-02	295E-01	144E-01	728E-02	213E-01
-288E-02	-134E-02	871E-03	453E-03	401E-03	-106E-02	622E+00	-493E-05	136E+02	450E+01	541E+04	148E+00	100E+00	871E-02	295E-01	144E-01	728E-02	213E-01
-288E-02	-137E-02	889E-03	274E-03	432E-03	-105E-02	622E+00	-54E-05	136E+02	451E+01	541E+04	148E+00	100E+00	889E-02	295E-01	144E-01	728E-02	213E-01
-285E-02	-143E-02	892E-03	109E-03	382E-03	-105E-02	622E+00	439E-06	136E+02	450E+01	540E+04	148E+00	100E+00	892E-02	295E-01	144E-01	728E-02	213E-01
-286E-02	-143E-02	793E-03	402E-03	420E-03	-104E-02	622E+00	-664E-05	136E+02	448E+01	540E+04	148E+00	100E+00	793E-02	295E-01	144E-01	728E-02	213E-01
-288E-02	-137E-02	735E-03	354E-03	369E-03	-103E-02	622E+00	679E-05	136E+02	448E+01	539E+04	148E+00	100E+00	735E-02	295E-01	144E-01	728E-02	213E-01
-284E-02	-140E-02	814E-03	238E-03	393E-03	-104E-02	622E+00	386E-05	137E+02	447E+01	539E+04	148E+00	100E+00	814E-02	295E-01	144E-01	728E-02	213E-01
-283E-02	-140E-02	790E-03	318E-03	411E-03	-105E-02	622E+00	-292E-06	136E+02	448E+01	530E+04	148E+00	100E+00	790E-02	295E-01	144E-01	728E-02	213E-01
-281E-02	-148E-02	796E-03	178E-03	421E-03	-105E-02	622E+00	57E-05	136E+02	451E+01	541E+04	148E+00	100E+00	796E-02	295E-01	144E-01	728E-02	213E-01
-283E-02	-145E-02	901E-03	147E-03	422E-03	-104E-02	622E+00	-444E-05	136E+02	449E+01	540E+04	148E+00	100E+00	901E-02	295E-01	144E-01	728E-02	213E-01
-289E-02	-140E-02	943E-03	746E-04	381E-03	-103E-02	622E+00	630E-05	137E+02	452E+01	542E+04	148E+00	100E+00	943E-02	295E-01	144E-01	728E-02	213E-01
-289E-02	-141E-02	896E-03	108E-03	405E-03	-103E-02	622E+00	-518E-05	136E+02	448E+01	540E+04	148E+00	100E+00	896E-02	295E-01	144E-01	728E-02	213E-01
-292E-02	-137E-02	846E-03	246E-03	429E-03	-102E-02	622E+00	435E-05	136E+02	455E+01	544E+04	148E+00	100E+00	846E-02	297E-01	144E-01	728E-02	213E-01
-286E-02	-142E-02	972E-03	797E-04	428E-03	-103E-02	622E+00	190E-05	137E+02	455E+01	544E+04	148E+00	100E+00	972E-02	296E-01	144E-01	728E-02	213E-01
-289E-02	-143E-02	789E-03	293E-03	411E-03	-103E-02	622E+00	-127E-05	136E+02	451E+01	541E+04	148E+00	100E+00	789E-02	296E-01	144E-01	728E-02	213E-01
-295E-02	-138E-02	687E-03	495E-03	435E-03	-102E-02	622E+00	190E-05	135E+02	448E+01	539E+04	148E+00	100E+00	687E-02	296E-01	144E-01	728E-02	213E-01
-280E-02	-143E-02	942E-03	900E-04	417E-03	-102E-02	622E+00	-493E-05	137E+02	452E+01	542E+04	148E+00	100E+00	942E-02	296E-01	144E-01	728E-02	213E-01
-284E-02	-146E-02	978E-03	289E-04	428E-03	-102E-02	622E+00	166E-05	137E+02	453E+01	543E+04	148E+00	100E+00	978E-02	296E-01	144E-01	728E-02	213E-01
-294E-02	-129E-02	745E-03	267E-03	395E-03	-106E-02	622E+00	-420E-05	135E+02	453E+01	542E+04	148E+00	100E+00	745E-02	296E-01	144E-01	728E-02	213E-01
-283E-02	-142E-02	109E-02	271E-03	379E-03	-107E-02	622E+00	295E-05	136E+02	451E+01	541E+04	148E+00	100E+00	109E-02	296E-01	144E-01	728E-02	213E-01
-280E-02	-141E-02	903E-03	367E-03	397E-03	-107E-02	622E+00	491E-05	136E+02	448E+01	540E+04	148E+00	100E+00	903E-02	296E-01	144E-01	728E-02	213E-01
-281E-02	-140E-02	633E-03	584E-04	397E-03	-106E-02	622E+00	-144E-05	135E+02	451E+01	541E+04	148E+00	100E+00	633E-02	296E-01	144E-01	728E-02	213E-01
-285E-02	-139E-02	851E-03	696E-04	374E-03	-104E-02	622E+00	320E-05	136E+02	448E+01	539E+04	148E+00	100E+00	851E-02	296E-01	144E-01	728E-02	213E-01
-286E-02	-143E-02	679E-03	172E-03	416E-03	-106E-02	622E+00	593E-05	137E+02	451E+01	543E+04	148E+00	100E+00	679E-02	296E-01	144E-01	728E-02	213E-01
-284E-02	-147E-02	807E-03	170E-03	396E-03	-105E-02	622E+00	51E-06	137E+02	453E+01	543E+04	148E+00	100E+00	807E-02	296E-01	144E-01	728E-02	213E-01
-287E-02	-137E-02	817E-03	391E-03	391E-03	-104E-02	622E+00	22E-05	136E+02	451E+01	541E+04	148E+00	100E+00	817E-02	296E-01	144E-01	728E-02	213E-01
-286E-02	-143E-02	818E-03	153E-03	418E-03	-106E-02	622E+00	-46E-06	137E+02	452E+01	543E+04	148E+00	100E+00	818E-02	296E-01	144E-01	728E-02	213E-01
-287E-02	-142E-02	802E-03	205E-03	385E-03	-105E-02	622E+00	68E-06	136E+02	451E+01	541E+04	148E+00	100E+00	802E-02	296E-01	144E-01	728E-02	213E-01

-284E-02	-141E-02	872E-03	207E-03	409E-03	-104E-02	622E+00	759E-05	136E+02	120E-01	449E+01	540E+04	164E-01	000E+00	848E-02	26E-01	174E-01	204E-02	134E-01	
-284E-02	-137E-02	796E-03	242E-03	329E-03	-104E-02	622E+00	813E-05	137E+02	121E-01	453E+01	543E+04	329E-01	000E+00	918E-02	26E-01	174E-01	204E-02	134E-01	
-284E-02	-138E-02	939E-03	869E-04	344E-03	-105E-02	622E+00	54E-05	137E+02	121E-01	452E+01	541E+04	329E-01	000E+00	811E-02	26E-01	174E-01	204E-02	134E-01	
-291E-02	-131E-02	879E-03	749E-04	351E-03	-103E-02	622E+00	809E-06	136E+02	120E-01	455E+01	541E+04	329E-01	000E+00	106E-02	26E-01	174E-01	204E-02	134E-01	
-291E-02	-133E-02	940E-03	107E-03	351E-03	-105E-02	622E+00	593E-05	137E+02	121E-01	450E+01	541E+04	329E-01	000E+00	106E-02	26E-01	174E-01	204E-02	134E-01	
-286E-02	-136E-02	868E-03	969E-04	372E-03	-105E-02	622E+00	203E-05	136E+02	120E-01	448E+01	539E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-287E-02	-138E-02	920E-03	943E-04	358E-03	-104E-02	622E+00	112E-05	136E+02	120E-01	449E+01	540E+04	329E-01	000E+00	811E-02	26E-01	174E-01	204E-02	134E-01	
-280E-02	-140E-02	878E-03	110E-03	351E-03	-106E-02	622E+00	164E-05	136E+02	120E-01	447E+01	539E+04	329E-01	000E+00	811E-02	26E-01	174E-01	204E-02	134E-01	
-283E-02	-135E-02	808E-03	268E-03	391E-03	-103E-02	622E+00	799E-05	136E+02	120E-01	449E+01	541E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-287E-02	-136E-02	967E-03	774E-03	368E-03	-103E-02	622E+00	203E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-282E-02	-140E-02	101E-02	220E-04	393E-03	-104E-02	622E+00	122E-05	136E+02	120E-01	448E+01	539E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-291E-02	-137E-02	101E-02	255E-04	371E-03	-103E-02	622E+00	903E-06	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-283E-02	-134E-02	779E-03	118E-03	367E-03	-104E-02	622E+00	349E-05	135E+02	120E-01	450E+01	541E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-285E-02	-137E-02	855E-03	390E-04	381E-03	-102E-02	622E+00	432E-05	136E+02	120E-01	448E+01	539E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-286E-02	-135E-02	899E-03	947E-04	387E-03	-105E-02	622E+00	310E-05	136E+02	120E-01	446E+01	539E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-284E-02	-138E-02	826E-03	226E-03	379E-03	-104E-02	622E+00	791E-05	136E+02	120E-01	447E+01	539E+04	329E-01	000E+00	810E-02	26E-01	174E-01	204E-02	134E-01	
-288E-02	-139E-02	975E-03	387E-04	381E-03	-104E-02	622E+00	520E-05	136E+02	120E-01	445E+01	541E+04	329E-01	000E+00	809E-02	26E-01	174E-01	204E-02	134E-01	
-283E-02	-141E-02	856E-03	969E-04	395E-03	-105E-02	622E+00	935E-05	136E+02	120E-01	450E+01	541E+04	329E-01	000E+00	809E-02	26E-01	174E-01	204E-02	134E-01	
-287E-02	-137E-02	791E-03	207E-03	379E-03	-104E-02	622E+00	935E-05	136E+02	120E-01	450E+01	541E+04	329E-01	000E+00	809E-02	26E-01	174E-01	204E-02	134E-01	
-294E-02	-132E-02	720E-03	319E-03	355E-03	-103E-02	622E+00	188E-05	137E+02	121E-01	452E+01	543E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-291E-02	-134E-02	918E-03	412E-03	342E-03	-104E-02	622E+00	911E-05	137E+02	121E-01	453E+01	543E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-289E-02	-135E-02	847E-03	140E-03	365E-03	-103E-02	622E+00	667E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-291E-02	-132E-02	788E-03	235E-03	379E-03	-103E-02	622E+00	300E-05	137E+02	121E-01	452E+01	543E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-286E-02	-137E-02	834E-03	182E-03	381E-03	-103E-02	622E+00	808E-06	136E+02	120E-01	446E+01	539E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-285E-02	-136E-02	872E-03	160E-03	371E-03	-102E-02	622E+00	310E-05	136E+02	120E-01	449E+01	540E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-292E-02	-139E-02	916E-03	120E-03	380E-03	-103E-02	622E+00	111E-04	136E+02	120E-01	450E+01	540E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-292E-02	-126E-02	786E-03	276E-03	318E-03	-102E-02	622E+00	105E-05	136E+02	120E-01	448E+01	539E+04	329E-01	000E+00	800E-02	26E-01	174E-01	204E-02	134E-01	
-286E-02	-132E-02	856E-03	212E-03	355E-03	-102E-02	622E+00	481E-05	136E+02	120E-01	449E+01	540E+04	329E-01	000E+00	800E+00	79E-02	26E-01	174E-01	204E-02	134E-01
-285E-02	-135E-02	933E-03	85E-04	336E-03	-104E-02	622E+00	129E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-285E-02	-137E-02	955E-03	260E-04	341E-03	-103E-02	622E+00	589E-05	136E+02	120E-01	449E+01	540E+04	329E-01	000E+00	800E+00	79E-02	26E-01	174E-01	204E-02	134E-01
-290E-02	-134E-02	831E-03	122E-03	349E-03	-105E-02	622E+00	415E-06	136E+02	121E-01	450E+01	541E+04	329E-01	000E+00	800E+00	79E-02	26E-01	174E-01	204E-02	134E-01
-285E-02	-135E-02	959E-03	187E-03	361E-03	-105E-02	622E+00	569E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	809E-02	26E-01	174E-01	204E-02	134E-01	
-287E-02	-137E-02	942E-03	740E-03	322E-03	-104E-02	622E+00	171E-06	136E+02	120E-01	450E+01	541E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-288E-02	-136E-02	102E-02	154E-03	300E-03	-105E-02	622E+00	886E-05	136E+02	120E-01	448E+01	540E+04	329E-01	000E+00	816E-02	26E-01	174E-01	204E-02	134E-01	
-288E-02	-136E-02	866E-03	270E-04	328E-03	-103E-02	622E+00	105E-05	136E+02	120E-01	448E+01	540E+04	329E-01	000E+00	803E-02	26E-01	174E-01	204E-02	134E-01	
-289E-02	-134E-02	100E-02	312E-04	339E-03	-105E-02	622E+00	361E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	808E-02	26E-01	174E-01	204E-02	134E-01	
-291E-02	-133E-02	925E-03	195E-04	347E-03	-105E-02	622E+00	154E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	808E-02	26E-01	174E-01	204E-02	134E-01	
-283E-02	-134E-02	838E-03	129E-03	356E-03	-104E-02	622E+00	562E-06	136E+02	120E-01	445E+01	542E+04	329E-01	000E+00	808E-02	26E-01	174E-01	204E-02	134E-01	
-287E-02	-134E-02	849E-03	235E-03	377E-03	-103E-02	622E+00	286E-05	136E+02	121E-01	451E+01	541E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-283E-02	-140E-02	925E-03	335E-04	368E-03	-105E-02	622E+00	281E-05	136E+02	120E-01	449E+01	540E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-286E-02	-135E-02	810E-03	161E-03	353E-03	-103E-02	622E+00	754E-05	136E+02	120E-01	448E+01	540E+04	329E-01	000E+00	800E+00	79E-02	26E-01	174E-01	204E-02	134E-01
-288E-02	-134E-02	851E-03	808E-04	369E-03	-102E-02	622E+00	452E-05	136E+02	120E-01	450E+01	541E+04	329E-01	000E+00	805E-02	26E-01	174E-01	204E-02	134E-01	
-294E-02	-133E-02	932E-03	158E-03	374E-03	-104E-02	622E+00	354E-05	137E+02	121E-01	451E+01	541E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-287E-02	-135E-02	938E-03	998E-04	349E-03	-101E-02	622E+00	745E-05	136E+02	120E-01	446E+01	539E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-286E-02	-134E-02	100E-02	983E-04	358E-03	-104E-02	622E+00	427E-05	136E+02	120E-01	449E+01	540E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-284E-02	-134E-02	831E-03	773E-04	381E-03	-102E-02	622E+00	619E-06	136E+02	120E-01	444E+01	537E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-285E-02	-135E-02	101E-02	197E-03	371E-03	-103E-02	622E+00	654E-06	136E+02	120E-01	446E+01	538E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-290E-02	-129E-02	828E-03	822E-04	387E-03	-103E-02	622E+00	378E-05	136E+02	120E-01	448E+01	539E+04	329E-01	000E+00	804E-02	26E-01	174E-01	204E-02	134E-01	
-293E-02	-132E-02	954E-03	459E-04	366E-03	-104E-02	622E+00	854E-06	137E+02	121E-01	454E+01	543E+04	329E-01	000E+00	811E-02	26E-01	174E-01	204E-02	134E-01	

M1 (Volts)	M2 (Volts)	V1 (Volts)	V2 (Volts)	PH (Volts)	Ampl (Volts)	Excitation (Volts)	Status	Press (psi)	Vel (Inch)	Temp	U	Pe	Crack Depth (ft)	Alphabetical	U	in	U	U	U
-3.96E-02	-7.09E-03	-2.56E-03	1.69E-02	1.09E-03	-1.09E-02	6.22E+00	-4.57E-05	1.35E+02	1.19E-01	4.48E+01	5.33E+04	2.20E+00	0.00E+00	8.35E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.74E-02	-6.92E-03	-3.27E-03	1.72E-02	1.45E-03	-1.06E-02	6.22E+00	-4.15E-06	1.36E+02	1.20E-01	4.50E+01	5.33E+04	2.20E+00	0.00E+00	8.14E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.81E-02	-6.59E-03	-2.22E-03	1.63E-02	1.49E-03	-1.08E-02	6.22E+00	8.06E-06	1.36E+02	1.20E-01	4.53E+01	5.33E+04	2.20E+00	0.00E+00	8.30E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.70E-02	-6.59E-03	-6.35E-04	1.29E-02	1.59E-03	-1.08E-02	6.22E+00	-4.15E-06	1.36E+02	1.20E-01	4.53E+01	5.33E+04	2.20E+00	0.00E+00	8.30E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.70E-02	-7.00E-03	-6.03E-04	1.27E-02	1.52E-03	-1.09E-02	6.22E+00	-3.34E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.20E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-6.81E-03	-1.15E-03	1.32E-02	6.77E-04	-1.08E-02	6.22E+00	-2.86E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.32E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.73E-02	-7.01E-03	-4.66E-04	1.34E-02	8.94E-04	-1.10E-02	6.22E+00	3.49E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.49E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-7.01E-03	6.27E-04	1.32E-02	1.36E-03	-1.11E-02	6.22E+00	-2.61E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.41E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.74E-02	-7.17E-03	-6.10E-04	1.17E-02	8.04E-04	-1.11E-02	6.22E+00	-4.15E-06	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.41E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-6.97E-03	-9.69E-04	1.34E-02	6.11E-03	-1.10E-02	6.22E+00	6.91E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.41E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.72E-02	-7.02E-03	-1.49E-03	1.34E-02	1.59E-03	-1.11E-02	6.22E+00	-2.59E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.20E+00	0.00E+00	8.35E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.72E-02	-5.18E-03	-3.28E-03	1.74E-02	8.13E-04	-1.03E-02	6.22E+00	-2.59E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	7.95E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-6.07E-03	-1.00E-03	1.44E-02	6.76E-04	-1.02E-02	6.22E+00	-2.59E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	7.95E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.72E-02	-5.60E-03	-1.83E-03	1.42E-02	8.08E-04	-1.01E-02	6.22E+00	-2.59E-05	1.36E+02	1.19E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	7.92E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.82E-02	-5.29E-03	-2.12E-03	1.42E-02	6.29E-04	-1.03E-02	6.22E+00	3.52E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	7.89E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-5.92E-03	-9.95E-04	1.26E-02	9.66E-04	-1.03E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	7.85E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-5.78E-03	-1.25E-03	1.19E-02	1.13E-03	-1.03E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	7.85E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-5.65E-03	-1.20E-03	1.31E-02	1.03E-03	-1.04E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.20E+00	0.00E+00	7.91E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.81E-02	-5.24E-03	-1.99E-03	1.41E-02	9.71E-04	-1.02E-02	6.22E+00	-7.96E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	2.20E+00	0.00E+00	7.91E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-5.58E-03	-2.37E-03	1.50E-02	9.71E-04	-1.03E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.52E+01	5.41E+04	2.20E+00	0.00E+00	7.89E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-5.82E-03	-1.46E-03	1.33E-02	7.25E-04	-1.02E-02	6.22E+00	-3.56E-05	1.36E+02	1.20E-01	4.51E+01	5.39E+04	2.20E+00	0.00E+00	7.80E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-5.81E-03	-8.39E-04	1.28E-02	1.41E-03	-1.02E-02	6.22E+00	-3.56E-05	1.36E+02	1.19E-01	4.48E+01	5.39E+04	2.20E+00	0.00E+00	7.90E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-5.85E-03	-1.02E-03	1.20E-02	1.18E-03	-1.03E-02	6.22E+00	-6.49E-05	1.36E+02	1.19E-01	4.48E+01	5.39E+04	2.20E+00	0.00E+00	7.90E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-5.89E-03	-6.09E-04	1.24E-02	1.38E-03	-1.02E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.52E+01	5.41E+04	2.20E+00	0.00E+00	7.80E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.82E-02	-5.72E-03	-2.15E-03	1.39E-02	1.17E-03	-1.02E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	7.80E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.82E-02	-5.51E-03	-1.53E-03	1.33E-02	1.28E-03	-1.02E-02	6.22E+00	-6.74E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	7.78E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-5.36E-03	-2.67E-03	1.50E-02	1.24E-03	-1.02E-02	6.22E+00	-5.27E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	7.74E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.78E-02	-6.53E-03	-2.83E-03	1.71E-02	5.80E-04	-1.10E-02	6.22E+00	7.81E-06	1.36E+02	1.20E-01	4.51E+01	5.39E+04	2.20E+00	0.00E+00	8.14E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.77E-02	-7.18E-03	-1.20E-03	1.36E-02	6.01E-04	-1.10E-02	6.22E+00	-3.13E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	2.20E+00	0.00E+00	8.14E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-6.80E-03	-1.64E-03	1.57E-02	4.25E-05	-1.09E-02	6.22E+00	-4.39E-06	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	8.20E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.77E-02	-6.94E-03	-4.37E-04	1.17E-02	2.36E-04	-1.07E-02	6.22E+00	2.93E-06	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.20E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.75E-02	-6.59E-03	-1.07E-04	1.09E-02	1.45E-04	-1.08E-02	6.22E+00	2.98E-05	1.36E+02	1.19E-01	4.48E+01	5.38E+04	2.20E+00	0.00E+00	8.20E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.71E-02	-6.98E-03	-5.69E-04	1.43E-02	4.31E-04	-1.08E-02	6.22E+00	-3.77E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.32E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.80E-02	-6.78E-03	-1.93E-03	1.43E-02	2.80E-04	-1.08E-02	6.22E+00	-1.66E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.35E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.74E-02	-7.07E-03	-1.25E-04	1.20E-02	2.58E-04	-1.10E-02	6.22E+00	2.00E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.20E+00	0.00E+00	8.41E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.75E-02	-7.08E-03	-7.45E-04	1.23E-02	1.81E-05	-1.07E-02	6.22E+00	4.69E-05	1.36E+02	1.19E-01	4.48E+01	5.39E+04	2.20E+00	0.00E+00	8.24E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-7.05E-03	-8.59E-04	1.24E-02	7.96E-05	-1.08E-02	6.22E+00	1.27E-05	1.36E+02	1.20E-01	4.52E+01	5.41E+04	2.20E+00	0.00E+00	8.24E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-7.04E-03	-1.10E-03	1.47E-02	4.07E-04	-1.08E-02	6.22E+00	-4.35E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.27E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-7.28E-03	-1.10E-03	1.34E-02	3.58E-04	-1.08E-02	6.22E+00	-1.95E-06	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	8.27E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-7.10E-03	-3.32E-03	1.36E-02	2.50E-04	-1.07E-02	6.22E+00	-6.79E-06	1.36E+02	1.20E-01	4.52E+01	5.41E+04	2.20E+00	0.00E+00	8.20E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.79E-02	-7.10E-03	-1.01E-03	1.36E-02	2.50E-04	-1.07E-02	6.22E+00	-6.79E-06	1.36E+02	1.20E-01	4.52E+01	5.41E+04	2.20E+00	0.00E+00	8.20E-02	7.9E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.77E-02	-6.97E-03	-8.03E-04	1.08E-02	6.92E-04	-1.06E-02	6.22E+00	-4.83E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	2.20E+00	0.00E+00	8.14E-02	7.7E-01	3.4E-06	5.64E-02	5.64E-02	5.64E-02
-3.75E-02	-5.92E-03	-2.84E-03	1.91E-02	7.76E-04	-1.04E-02	6.22E+00	-6.62E-05	1.36E+02	1.20E-01										

Iron - Springing Grades

-374E-02	-638E-03	-890E-04	1 24E-02	1 41E-04	-105E-02	6 22E+00	4 20E-05	1 36E+02	1 20E-01	4 54E+01	5 43E+04	3 26E-01	0 00E+00	8 08E-02	7 34E-01	-41E-01	4 56E-02
-372E-02	-619E-03	-1 15E-03	1 30E-02	2 90E-04	-103E-02	6 22E+00	1 03E-05	1 36E+02	1 20E-01	4 50E+01	5 39E+04	3 28E-01	0 00E+00	7 86E-02	7 60E-01	-3 96E-02	4 67E-02
-372E-02	-655E-03	-9 01E-04	1 32E-02	3 41E-04	-105E-02	6 22E+00	-4 59E-05	1 37E+02	1 20E-01	4 56E+01	5 43E+04	3 26E-01	0 00E+00	8 00E-02	7 27E-01	-7 30E-01	4 64E-02
-372E-02	-617E-03	3 17E-05	1 19E-02	8 44E-04	-104E-02	6 22E+00	9 81E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	7 89E-02	7 50E-01	-2 91E-01	4 54E-02
-372E-02	-6 31E-03	-2 37E-04	1 19E-02	6 53E-04	-104E-02	6 22E+00	2 00E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	8 01E-02	7 24E-01	-4 11E-01	4 54E-02
-372E-02	6 11E-03	-6 25E-04	1 23E-02	2 29E-04	-104E-02	6 22E+00	-6 84E-06	1 36E+02	1 19E-01	4 48E+01	5 39E+04	3 28E-01	0 00E+00	7 97E-02	7 20E-01	-4 11E-01	4 54E-02
-370E-02	-6 30E-03	-5 78E-04	1 19E-02	3 63E-04	-105E-02	6 22E+00	2 98E-06	1 36E+02	1 20E-01	4 52E+01	5 40E+04	3 28E-01	0 00E+00	8 03E-02	7 24E-01	-4 11E-01	4 54E-02
-371E-02	-6 23E-03	-4 66E-04	1 24E-02	6 02E-04	-104E-02	6 22E+00	-1 42E-05	1 36E+02	1 20E-01	4 50E+01	5 39E+04	3 28E-01	0 00E+00	8 04E-02	7 27E-01	-4 11E-01	4 54E-02
-371E-02	-6 20E-03	3 66E-05	1 22E-02	9 35E-04	-104E-02	6 22E+00	-3 86E-05	1 36E+02	1 20E-01	4 52E+01	5 40E+04	3 28E-01	0 00E+00	8 06E-02	7 28E-01	-4 11E-01	4 54E-02
-371E-02	-6 27E-03	-9 86E-04	1 22E-02	3 31E-04	-104E-02	6 22E+00	-3 71E-05	1 35E+02	1 19E-01	4 47E+01	5 37E+04	3 28E-01	0 00E+00	7 93E-02	7 37E-01	-4 11E-01	4 54E-02
-372E-02	-6 18E-03	1 99E-04	1 00E-02	4 58E-04	-103E-02	6 22E+00	-4 39E-06	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 97E-02	7 20E-01	-4 11E-01	4 54E-02
-371E-02	-6 41E-03	1 27E-03	1 01E-02	8 27E-04	-105E-02	6 22E+00	-1 70E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	8 03E-02	7 27E-01	-4 11E-01	4 54E-02
-375E-02	-6 41E-03	2 22E-04	1 06E-02	3 65E-04	-105E-02	6 22E+00	-7 03E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	8 06E-02	7 27E-01	-4 11E-01	4 54E-02
-364E-02	-6 43E-03	-9 20E-04	1 34E-02	1 19E-03	-104E-02	6 22E+00	5 66E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 94E-02	7 20E-01	-4 11E-01	4 54E-02
-372E-02	-6 65E-03	5 27E-04	1 34E-02	1 19E-03	-103E-02	6 22E+00	2 25E-05	1 36E+02	1 20E-01	4 50E+01	5 39E+04	3 28E-01	0 00E+00	7 98E-02	7 24E-01	-4 11E-01	4 54E-02
-372E-02	-6 47E-03	-1 48E-03	1 37E-02	8 49E-04	-104E-02	6 22E+00	-3 86E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	7 99E-02	7 24E-01	-4 11E-01	4 54E-02
-366E-02	-6 20E-03	-7 69E-04	1 20E-02	6 63E-04	-103E-02	6 22E+00	-5 73E-06	1 36E+02	1 19E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 93E-02	7 20E-01	-4 11E-01	4 54E-02
-368E-02	-6 16E-03	-5 42E-04	1 08E-02	6 20E-04	-102E-02	6 22E+00	-9 28E-06	1 35E+02	1 19E-01	4 46E+01	5 37E+04	3 28E-01	0 00E+00	7 89E-02	7 20E-01	-4 11E-01	4 54E-02
-376E-02	-5 97E-03	-1 68E-03	1 32E-02	7 60E-04	-102E-02	6 22E+00	1 81E-05	1 35E+02	1 19E-01	4 46E+01	5 37E+04	3 28E-01	0 00E+00	8 11E-02	7 27E-01	-4 11E-01	4 54E-02
-376E-02	-6 30E-03	-2 69E-04	1 14E-02	1 06E-03	-105E-02	6 22E+00	-6 30E-06	1 36E+02	1 20E-01	4 52E+01	5 40E+04	3 28E-01	0 00E+00	8 10E-02	7 27E-01	-4 11E-01	4 54E-02
-372E-02	-6 30E-03	-2 42E-04	1 16E-02	8 43E-04	-104E-02	6 22E+00	-1 46E-06	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 94E-02	7 21E-01	-4 11E-01	4 54E-02
-370E-02	-6 42E-03	-9 04E-04	1 15E-02	6 91E-04	-103E-02	6 22E+00	-1 61E-05	1 36E+02	1 20E-01	4 50E+01	5 39E+04	3 28E-01	0 00E+00	7 98E-02	7 21E-01	-4 11E-01	4 54E-02
-371E-02	-6 18E-03	4 87E-04	1 19E-02	6 91E-04	-104E-02	6 22E+00	4 98E-05	1 36E+02	1 20E-01	4 52E+01	5 40E+04	3 28E-01	0 00E+00	7 94E-02	7 21E-01	-4 11E-01	4 54E-02
-371E-02	-6 37E-03	2 68E-04	1 08E-02	6 08E-04	-104E-02	6 22E+00	-6 25E-05	1 36E+02	1 20E-01	4 50E+01	5 39E+04	3 28E-01	0 00E+00	7 94E-02	7 20E-01	-4 11E-01	4 54E-02
-374E-02	-6 42E-03	1 93E-04	1 01E-02	8 45E-04	-105E-02	6 22E+00	3 27E-05	1 37E+02	1 20E-01	4 55E+01	5 42E+04	3 28E-01	0 00E+00	8 05E-02	7 27E-01	-4 11E-01	4 54E-02
-372E-02	-6 41E-03	-9 67E-04	1 26E-02	1 19E-03	-105E-02	6 22E+00	4 49E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	7 99E-02	7 20E-01	-4 11E-01	4 54E-02
-374E-02	-6 28E-03	-5 91E-04	1 2E-02	9 31E-04	-106E-02	6 22E+00	5 47E-05	1 37E+02	1 20E-01	4 55E+01	5 42E+04	3 28E-01	0 00E+00	8 11E-02	7 27E-01	-4 11E-01	4 54E-02
-371E-02	-6 22E-03	5 59E-05	1 10E-02	6 87E-04	-104E-02	6 22E+00	6 59E-05	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	7 94E-02	7 27E-01	-4 11E-01	4 54E-02
-367E-02	-6 17E-03	2 51E-04	1 01E-02	9 04E-04	-104E-02	6 22E+00	-1 12E-05	1 35E+02	1 19E-01	4 47E+01	5 38E+04	3 28E-01	0 00E+00	7 96E-02	7 21E-01	-4 11E-01	4 54E-02
-368E-02	-6 21E-03	-9 28E-04	1 16E-02	9 04E-04	-103E-02	6 22E+00	-1 12E-05	1 35E+02	1 19E-01	4 47E+01	5 38E+04	3 28E-01	0 00E+00	7 96E-02	7 21E-01	-4 11E-01	4 54E-02
-374E-02	-5 97E-03	4 71E-04	9 35E-03	1 06E-03	-102E-02	6 22E+00	2 29E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 94E-02	7 27E-01	-4 11E-01	4 54E-02
-373E-02	-6 06E-03	2 68E-04	9 99E-03	9 28E-04	-105E-02	6 22E+00	1 32E-05	1 36E+02	1 20E-01	4 47E+01	5 38E+04	3 28E-01	0 00E+00	7 94E-02	7 27E-01	-4 11E-01	4 54E-02
-371E-02	-6 31E-03	-1 03E-03	1 19E-02	6 55E-04	-103E-02	6 22E+00	5 47E-05	1 35E+02	1 19E-01	4 47E+01	5 38E+04	3 28E-01	0 00E+00	7 94E-02	7 27E-01	-4 11E-01	4 54E-02
-374E-02	-6 44E-03	-1 36E-03	1 27E-02	7 08E-04	-104E-02	6 22E+00	7 67E-05	1 36E+02	1 19E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	8 11E-02	7 27E-01	-4 11E-01	4 54E-02
-374E-02	-6 35E-03	-9 39E-05	1 12E-02	9 14E-04	-104E-02	6 22E+00	-1 86E-06	1 36E+02	1 20E-01	4 51E+01	5 40E+04	3 28E-01	0 00E+00	8 11E-02	7 27E-01	-4 11E-01	4 54E-02
-364E-02	-6 40E-03	4 86E-04	9 84E-03	6 23E-04	-103E-02	6 22E+00	2 78E-05	1 35E+02	1 19E-01	4 47E+01	5 38E+04	3 28E-01	0 00E+00	7 93E-02	7 26E-01	-4 11E-01	4 54E-02
-362E-02	-6 26E-03	-1 94E-03	1 54E-02	8 15E-04	-103E-02	6 22E+00	4 42E-05	1 35E+02	1 19E-01	4 45E+01	5 38E+04	3 28E-01	0 00E+00	8 09E-02	7 21E-01	-4 11E-01	4 54E-02
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-370E-02	-6 80E-03	-3 80E-04	1 16E-02	7 57E-04	-100E-02	6 22E+00	4 66E-05	1 36E+02	1 20E-01	4 52E+01	5 40E+04	3 28E-01	0 00E+00	8 19E-02	7 25E-01	-4 11E-01	4 54E-02
-368E-02	-6 50E-03	5 20E-05	1 05E-02	7 47E-04	-103E-02	6 22E+00	1 73E-05	1 35E+02	1 19E-01	4 47E+01	5 38E+04	3 28E-01	0 00E+00	7 88E-02	7 69E-01	-4 11E-01	4 54E-02
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-368E-02	-6 42E-03	-1 14E-04	1 35E-02	8 89E-04	-103E-02	6 22E+00	3 20E-05	1 36E+02	1 19E-01	4 48E+01	5 38E+04	3 28E-01	0 00E+00	7 94E-02	7 27E-01	-4 11E-01	4 54E-02
-370E-02	-6 19E-03	3 65E-04	1 34E-02	4 37E-04	-103E-02	6 22E+00	2 71E-05	1 36E+02	1 20E-01	4 50E+01	5 39E+04	3 28E-01	0 00E+00	7 94E-02	7 27E-01	-4 11E-01	4 54E-02
-374E-02	-6 01E-03	-6 58E-04	1 24E-02	7 64E-04	-102E-02	6 22E+00	-4 64E-06	1 36E+02	1 20E-01	4 52E+01	5 40E+04	3 28E-01	0 00E+00	7 97E-02	7 27E-01	-4 11E-01	4 54E-02
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-364E-02	-6 50E-03	-5 41E-04	1 17E-02	9 79E-04	-103E-02	6 22E+00	2 22E-05	1 36E+02	1 19E-01	4 49E+01	5 38E+04	3 28E-01	0 00E+00	7 84E-02	7 67E-01	-4 11E-01	4 54E-02
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-365E-02	-6 31E-03	-1 56E-03	1 50E-02	6 61E-04	-104E-02	6 22E+00	1 00E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 99E-02	7 69E-01	-4 11E-01	4 54E-02
-365E-02	-6 31E-03	-1 56E-03	1 50E-02	6 61E-04	-104E-02	6 22E+00	1 00E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 99E-02	7 69E-01	-4 11E-01	4 54E-02
-365E-02	-6 31E-03	-1 56E-03	1 50E-02	6 61E-04	-104E-02	6 22E+00	1 00E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 99E-02	7 69E-01	-4 11E-01	4 54E-02
-365E-02	-6 31E-03	-1 56E-03	1 50E-02	6 61E-04	-104E-02	6 22E+00	1 00E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01	0 00E+00	7 99E-02	7 69E-01	-4 11E-01	4 54E-02
-365E-02	-6 31E-03	-1 56E-03	1 50E-02	6 61E-04	-104E-02	6 22E+00	1 00E-05	1 36E+02	1 20E-01	4 49E+01	5 39E+04	3 28E-01</					

-3.7E-02	-6.4E-03	-1.56E-03	1.41E-02	5.23E-04	-1.05E-02	6.22E+00	-3.24E-06	1.36E+02	1.20E-01	4.52E+01	5.41E+04	5.74E-01	0.00E+00	8.05E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
3.66E-02	-6.71E-03	-2.10E-04	1.02E-02	4.43E-04	-1.04E-02	6.22E+00	-2.42E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	5.74E-01	0.00E+00	7.96E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
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-3.7E-02	-6.43E-03	-2.16E-03	1.45E-02	7.33E-04	-1.06E-02	6.22E+00	-9.68E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	5.74E-01	0.00E+00	8.06E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.7E-02	-6.45E-03	-2.01E-04	1.13E-02	3.50E-04	-1.06E-02	6.22E+00	-1.66E-05	1.36E+02	1.20E-01	4.54E+01	5.42E+04	5.74E-01	0.00E+00	8.06E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.70E-02	-6.44E-03	9.64E-05	1.06E-02	3.69E-04	-1.04E-02	6.22E+00	-3.03E-05	1.36E+02	1.20E-01	4.52E+01	5.39E+04	5.74E-01	0.00E+00	8.06E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.40E-03	-4.38E-04	1.13E-02	6.62E-04	-1.05E-02	6.22E+00	-1.24E-05	1.36E+02	1.20E-01	4.52E+01	5.41E+04	5.74E-01	0.00E+00	8.06E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.70E-02	-6.35E-03	-2.99E-04	1.22E-02	7.36E-04	-1.04E-02	6.22E+00	-1.12E-05	1.36E+02	1.20E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.70E-02	-6.26E-03	-1.81E-03	1.38E-02	3.79E-04	-1.05E-02	6.22E+00	-7.18E-05	1.36E+02	1.20E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.47E-03	-6.68E-04	1.04E-02	3.79E-04	-1.04E-02	6.22E+00	-6.69E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.05E-03	3.65E-06	1.12E-02	7.55E-04	-1.05E-02	6.22E+00	2.81E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.69E-02	-6.09E-03	-2.31E-03	1.47E-02	2.63E-04	-1.05E-02	6.22E+00	-5.74E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.70E-02	-6.26E-03	-8.37E-04	1.11E-02	5.35E-04	-1.03E-02	6.22E+00	1.22E-06	1.36E+02	1.20E-01	4.51E+01	5.40E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.70E-02	-6.50E-03	-1.12E-04	9.66E-03	2.46E-04	-1.03E-02	6.22E+00	-8.55E-06	1.35E+02	1.19E-01	4.47E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.70E-02	-6.50E-03	-8.37E-04	1.11E-02	5.35E-04	-1.03E-02	6.22E+00	-1.22E-06	1.36E+02	1.20E-01	4.51E+01	5.40E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.74E-02	-6.41E-03	-2.61E-04	9.70E-03	1.76E-05	-1.05E-02	6.22E+00	-6.10E-06	1.36E+02	1.20E-01	4.50E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.06E-03	-9.09E-05	1.07E-02	7.04E-04	-1.03E-02	6.22E+00	-1.01E-04	1.36E+02	1.20E-01	4.50E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.69E-02	-6.06E-03	-8.77E-05	9.32E-03	3.40E-04	-1.03E-02	6.22E+00	8.55E-06	1.35E+02	1.19E-01	4.47E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.50E-03	-6.17E-04	1.03E-02	1.36E-03	-1.02E-02	6.22E+00	8.55E-06	1.35E+02	1.19E-01	4.47E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.18E-03	-1.39E-04	9.01E-03	3.54E-04	-1.02E-02	6.22E+00	-3.78E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
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-3.72E-02	-6.62E-03	-4.07E-04	1.20E-02	4.59E-05	-1.03E-02	6.22E+00	-4.52E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.65E-02	-6.61E-03	-1.46E-03	1.34E-02	1.15E-04	-1.04E-02	6.22E+00	-1.51E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.34E-03	-3.65E-04	1.04E-02	5.49E-04	-1.04E-02	6.22E+00	-1.66E-05	1.36E+02	1.20E-01	4.52E+01	5.41E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.46E-03	-9.68E-04	1.21E-02	7.57E-04	-1.02E-02	6.22E+00	4.59E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.40E-03	-4.94E-04	1.02E-02	2.93E-04	-1.03E-02	6.22E+00	7.72E-05	1.36E+02	1.20E-01	4.47E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.50E-03	1.21E-04	9.38E-03	1.64E-04	-1.03E-02	6.22E+00	-3.47E-05	1.35E+02	1.19E-01	4.47E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.05E-03	-2.28E-03	1.20E-02	4.52E-04	-1.04E-02	6.22E+00	3.12E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.61E-02	-6.45E-03	-7.70E-04	1.15E-02	1.08E-03	-1.04E-02	6.22E+00	1.92E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.30E-03	5.02E-04	8.94E-03	5.71E-04	-1.02E-02	6.22E+00	1.2E-06	1.36E+02	1.20E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.46E-03	-9.41E-04	1.07E-02	9.11E-04	-1.03E-02	6.22E+00	1.92E-06	1.36E+02	1.20E-01	4.52E+01	5.41E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.72E-02	-6.10E-03	-2.50E-03	1.42E-02	5.22E-04	-1.04E-02	6.22E+00	-7.13E-05	1.35E+02	1.20E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.67E-02	-6.27E-03	-1.05E-03	1.07E-02	7.03E-04	-1.04E-02	6.22E+00	-2.72E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.74E-02	-6.56E-03	-1.27E-03	1.09E-02	2.59E-04	-1.04E-02	6.22E+00	-5.18E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.65E-02	-6.54E-03	-1.39E-03	1.16E-02	6.35E-04	-1.04E-02	6.22E+00	-2.98E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.68E-02	-6.60E-03	-1.81E-03	1.17E-02	6.69E-04	-1.04E-02	6.22E+00	-2.35E-05	1.36E+02	1.19E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.68E-02	-6.27E-03	-1.81E-03	1.13E-02	1.76E-04	-1.03E-02	6.22E+00	4.38E-06	1.36E+02	1.20E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01	4.6E-02	5.5E-03	6.3E-02	6.3E-02	4.0E-02	4.5E-02	4.3E-02	4.5E-02
-3.71E-02	-6.47E-03	-1.01E-03	1.03E-02	5.52E-04	-1.02E-02	6.22E+00	2.81E-05	1.36E+02	1.19E-01	4.48E+01	5.38E+04	5.74E-01	0.00E+00	8.01E-02	2.7E-01</								

374E-02	-597E-03	134E-02	-476E-04	-103E-02	6.22E+00	156E-05	136E+02	120E-01	450E+01	539E+04	984E-01	0.00E+00	7.9E-02	271E-01	4.1E-02	4.7E-02
371E-02	-652E-03	135E-02	-906E-05	-103E-02	6.22E+00	230E-05	136E+02	120E-01	450E+01	539E+04	115E+00	0.00E+00	8.19E-02	289E-01	4.0E-02	4.7E-02
368E-02	-621E-03	117E-02	8.1E-05	-101E-02	6.22E+00	5.62E-05	136E+02	120E-01	452E+01	541E+04	115E+00	0.00E+00	7.7E-02	277E-01	4.1E-02	4.7E-02
375E-01	-630E-03	8.63E-04	3.98E-04	-103E-02	6.22E+00	-6.62E-05	136E+02	120E-01	453E+01	541E+04	115E+00	0.00E+00	7.84E-02	278E-01	4.0E-02	4.5E-02
376E-02	-654E-03	2.87E-04	8.81E-05	-103E-02	6.22E+00	7.81E-05	136E+02	120E-01	453E+01	541E+04	115E+00	0.00E+00	7.89E-02	278E-01	4.0E-02	4.5E-02
378E-02	-627E-03	136E-04	9.47E-03	-102E-02	6.22E+00	-1.05E-04	137E+02	120E-01	455E+01	544E+04	115E+00	0.00E+00	7.81E-02	274E-01	4.1E-02	4.7E-02
373E-02	-614E-03	8.07E-04	1.15E-02	-102E-02	6.22E+00	-4.44E-05	136E+02	119E-01	449E+01	539E+04	115E+00	0.00E+00	7.7E-02	279E-01	4.1E-02	4.7E-02
376E-02	-616E-03	1.91E-03	4.93E-04	-102E-02	6.22E+00	-3.66E-05	136E+02	120E-01	450E+01	540E+04	115E+00	0.00E+00	7.84E-02	274E-01	4.1E-02	4.7E-02
373E-02	-623E-03	1.2E-02	2.83E-04	-102E-02	6.22E+00	3.66E-05	136E+02	120E-01	449E+01	539E+04	115E+00	0.00E+00	7.83E-02	274E-01	4.1E-02	4.7E-02
374E-02	-639E-03	3.76E-04	8.96E-03	-101E-02	6.22E+00	3.66E-05	136E+02	120E-01	449E+01	539E+04	115E+00	0.00E+00	7.83E-02	274E-01	4.1E-02	4.7E-02
373E-02	-634E-03	1.07E-03	1.27E-02	-102E-02	6.22E+00	1.22E-05	136E+02	120E-01	449E+01	539E+04	115E+00	0.00E+00	7.84E-02	277E-01	4.1E-02	4.7E-02
373E-02	-653E-03	1.43E-03	1.15E-02	-102E-02	6.22E+00	3.17E-05	136E+02	120E-01	450E+01	539E+04	115E+00	0.00E+00	7.84E-02	274E-01	4.1E-02	4.7E-02
371E-02	-652E-03	1.25E-03	1.00E-02	-101E-02	6.22E+00	4.88E-05	136E+02	119E-01	448E+01	538E+04	115E+00	0.00E+00	7.84E-02	272E-01	4.1E-02	4.7E-02
369E-02	-640E-03	1.65E-04	6.4E-04	-102E-02	6.22E+00	-2.44E-06	136E+02	119E-01	448E+01	538E+04	115E+00	0.00E+00	7.84E-02	272E-01	4.1E-02	4.7E-02
372E-02	-634E-03	5.63E-04	9.90E-03	-999E-03	6.22E+00	1.03E-04	136E+02	119E-01	448E+01	538E+04	115E+00	0.00E+00	7.73E-02	273E-01	4.1E-02	4.7E-02
367E-02	-659E-03	1.36E-03	1.08E-02	-101E-02	6.22E+00	6.35E-05	135E+02	119E-01	447E+01	537E+04	115E+00	0.00E+00	7.84E-02	273E-01	4.1E-02	4.7E-02
373E-02	-625E-03	9.79E-04	3.20E-04	-101E-02	6.22E+00	4.88E-06	136E+02	119E-01	448E+01	538E+04	115E+00	0.00E+00	7.81E-02	274E-01	4.1E-02	4.7E-02
377E-02	-613E-03	2.04E-03	1.24E-02	-101E-02	6.22E+00	-6.84E-05	136E+02	119E-01	448E+01	538E+04	115E+00	0.00E+00	7.85E-02	275E-01	4.1E-02	4.7E-02
364E-02	-643E-03	1.57E-03	1.31E-02	-102E-02	6.22E+00	-4.88E-05	136E+02	120E-01	449E+01	538E+04	115E+00	0.00E+00	8.00E-02	274E-01	4.1E-02	4.7E-02
369E-02	-651E-03	1.62E-03	1.22E-02	-102E-02	6.22E+00	-6.64E-05	136E+02	119E-01	449E+01	538E+04	115E+00	0.00E+00	8.00E-02	274E-01	4.1E-02	4.7E-02
379E-02	-613E-03	2.14E-03	1.4E-02	-101E-02	6.22E+00	1.90E-05	136E+02	120E-01	450E+01	540E+04	115E+00	0.00E+00	7.94E-02	276E-01	4.1E-02	4.7E-02
375E-02	-626E-03	3.39E-04	8.95E-03	-102E-02	6.22E+00	-4.92E-05	136E+02	120E-01	450E+01	539E+04	115E+00	0.00E+00	7.88E-02	273E-01	4.1E-02	4.7E-02
372E-02	-625E-03	1.72E-03	3.47E-04	-102E-02	6.22E+00	-2.25E-05	136E+02	119E-01	449E+01	539E+04	115E+00	0.00E+00	7.85E-02	273E-01	4.1E-02	4.7E-02
379E-02	-616E-03	1.12E-03	1.08E-02	-102E-02	6.22E+00	-8.64E-05	135E+02	120E-01	447E+01	541E+04	115E+00	0.00E+00	7.85E-02	273E-01	4.1E-02	4.7E-02
378E-02	-625E-03	6.98E-04	1.09E-02	-101E-02	6.22E+00	-5.66E-05	136E+02	120E-01	451E+01	540E+04	115E+00	0.00E+00	7.75E-02	274E-01	4.1E-02	4.7E-02
379E-02	-616E-03	2.29E-03	1.19E-02	-102E-02	6.22E+00	3.22E-05	136E+02	120E-01	451E+01	540E+04	115E+00	0.00E+00	7.89E-02	274E-01	4.1E-02	4.7E-02
374E-02	-600E-03	2.04E-03	1.19E-02	-102E-02	6.22E+00	-2.49E-05	136E+02	120E-01	450E+01	539E+04	115E+00	0.00E+00	7.93E-02	274E-01	4.1E-02	4.7E-02
376E-02	-617E-03	1.59E-03	9.83E-03	-103E-02	6.22E+00	2.88E-05	135E+02	120E-01	451E+01	540E+04	115E+00	0.00E+00	7.91E-02	274E-01	4.1E-02	4.7E-02
376E-02	-644E-03	1.34E-03	1.01E-02	-103E-02	6.22E+00	-4.69E-05	136E+02	120E-01	451E+01	540E+04	115E+00	0.00E+00	7.89E-02	275E-01	4.1E-02	4.7E-02
374E-02	-636E-03	7.76E-04	8.90E-03	-103E-02	6.22E+00	-7.81E-06	136E+02	119E-01	448E+01	538E+04	115E+00	0.00E+00	7.87E-02	273E-01	4.1E-02	4.7E-02
378E-02	-620E-03	1.57E-03	9.62E-03	-103E-02	6.22E+00	-3.47E-05	136E+02	120E-01	451E+01	541E+04	115E+00	0.00E+00	7.94E-02	277E-01	4.1E-02	4.7E-02
375E-02	-641E-03	1.32E-03	1.15E-02	-102E-02	6.22E+00	1.93E-05	136E+02	120E-01	452E+01	540E+04	148E+00	0.00E+00	7.87E-02	275E-01	4.1E-02	4.7E-02
375E-02	-639E-03	1.61E-03	1.09E-02	-102E-02	6.22E+00	9.25E-05	136E+02	120E-01	452E+01	540E+04	148E+00	0.00E+00	7.91E-02	276E-01	4.1E-02	4.7E-02
375E-02	-655E-03	2.02E-03	1.20E-02	-103E-02	6.22E+00	3.15E-05	136E+02	120E-01	451E+01	540E+04	148E+00	0.00E+00	7.94E-02	274E-01	4.1E-02	4.7E-02
377E-02	-678E-03	1.14E-03	1.02E-02	-103E-02	6.22E+00	2.20E-06	136E+02	120E-01	450E+01	540E+04	148E+00	0.00E+00	7.94E-02	275E-01	4.1E-02	4.7E-02
375E-02	-656E-03	1.98E-03	1.24E-02	-103E-02	6.22E+00	1.68E-05	136E+02	120E-01	450E+01	540E+04	148E+00	0.00E+00	7.94E-02	275E-01	4.1E-02	4.7E-02
375E-02	-670E-03	1.56E-03	1.15E-02	-103E-02	6.22E+00	-2.95E-05	136E+02	120E-01	450E+01	540E+04	148E+00	0.00E+00	7.94E-02	275E-01	4.1E-02	4.7E-02
381E-02	-635E-03	1.22E-03	1.03E-02	-103E-02	6.22E+00	-8.08E-05	136E+02	120E-01	453E+01	541E+04	148E+00	0.00E+00	7.94E-02	278E-01	4.1E-02	4.7E-02
380E-02	-682E-03	1.64E-03	1.28E-02	-105E-02	6.22E+00	7.30E-05	135E+02	120E-01	452E+01	541E+04	148E+00	0.00E+00	7.96E-02	278E-01	4.1E-02	4.7E-02
374E-02	-665E-03	2.89E-03	1.34E-02	-103E-02	6.22E+00	-4.42E-05	136E+02	120E-01	450E+01	539E+04	148E+00	0.00E+00	7.87E-02	274E-01	4.1E-02	4.7E-02
377E-02	-618E-03	1.34E-03	1.1E-02	-101E-02	6.22E+00	-2.95E-05	136E+02	120E-01	450E+01	539E+04	148E+00	0.00E+00	7.82E-02	275E-01	4.1E-02	4.7E-02
375E-02	-669E-03	3.41E-03	1.37E-02	-102E-02	6.22E+00	2.20E-06	136E+02	120E-01	450E+01	539E+04	148E+00	0.00E+00	7.87E-02	276E-01	4.1E-02	4.7E-02
372E-02	-696E-03	1.72E-03	1.04E-02	-104E-02	6.22E+00	4.57E-05	136E+02	120E-01	450E+01	539E+04	148E+00	0.00E+00	7.91E-02	276E-01	4.1E-02	4.7E-02
379E-02	-640E-03	1.97E-03	1.22E-02	-103E-02	6.22E+00	-4.42E-05	136E+02	120E-01	451E+01	540E+04	148E+00	0.00E+00	7.89E-02	277E-01	4.1E-02	4.7E-02
376E-02	-674E-03	3.28E-04	9.21E-03	-103E-02	6.22E+00	3.39E-05	136E+02	120E-01	451E+01	540E+04	148E+00	0.00E+00	7.84E-02	274E-01	4.1E-02	4.7E-02
373E-02	-646E-03	1.55E-03	1.09E-02	-101E-02	6.22E+00	5.44E-05	135E+02	119E-01	448E+01	538E+04	156E+00	0.00E+00	7.82E-02	274E-01	4.1E-02	4.7E-02
373E-02	-655E-03	9.71E-04	9.47E-03	-102E-02	6.22E+00	1.39E-05	136E+02	119E-01	448E+01	538E+04	156E+00	0.00E+00	7.86E-02	274E-01	4.1E-02	4.7E-02
379E-02	-671E-03	7.81E-04	1.22E-02	-102E-02	6.22E+00	3.9E-05	136E+02	119E-01	448E+01	538E+04	156E+00	0.00E+00	7.86E-02	274E-01	4.1E-02	4.7E-02
370E-02	-629E-03	1.06E-03	1.01E-02	-102E-02	6.22E+00	1.15E-05	135E+02	119E-01	446E+01	537E+04	156E+00	0.00E+00	7.83E-02	270E-01	4.1E-02	4.7E-02
372E-02	-649E-03	1.06E-03	1.01E-02	-104E-02	6.22E+00	-4.47E-05	136E+02	120E-01	451E+01	540E+04	156E+00	0.00E+00	7.94E-02	274E-01	4.1E-02	4.7E-02
369E-02	-642E-03	1.21E-03	1.1E-02	-104E-02	6.22E+00	-3.74E-05	135E+02	119E-01	446E+01	537E+04	156E+00	0.00E+00	7.94E-02	274E-01	4.1E-02	4.7E-02
374E-02	-674E-03	9.15E-04	1.09E-02	-104E-02	6.22E+00	7.40E-05	136E+02	120E-01	451E+01	540E+04	156E+00	0.00E+00	8.09E-02	276E-01	4.1E-02	4.7E-02
372E-02	-644E-03	5.12E-04	8.82E-03	-102E-02	6.22E+00	-5.69E-05	136E+02	120E-01	450E+01	539E+04	156E+00	0.00E+00	7.94E-02	274E-01	4.1E-02	4.7E-02
377E-02	-652E-03	5.28E-04	7.49E-03	-104E-02	6.22E+00	-5.51E-05	136E+02	120E-01	454E+01	544E+04	156E+00	0.00E+00	7.99E-02	276E-01	4.1E-02	4.7E-02

377E-02	-6.36E-03	-4.35E-05	8.29E-03	-5.44E-04	-1.03E-02	6.22E+00	1.05E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.74E-03	-9.44E-04	1.07E-02	2.00E-04	-1.04E-02	6.22E+00	-4.15E-06	1.36E+02	1.20E-01	4.54E+01	5.43E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.04E-03	-1.46E-03	1.07E-02	-3.56E-04	-1.02E-02	6.22E+00	3.27E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.59E-03	-1.85E-04	7.09E-03	-3.97E-04	-1.03E-02	6.22E+00	3.25E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.49E-03	-2.34E-03	1.22E-02	-5.99E-04	-1.02E-02	6.22E+00	6.59E-06	1.36E+02	1.20E-01	4.53E+01	5.41E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.46E-03	-1.42E-03	1.02E-02	-6.05E-05	-1.03E-02	6.22E+00	-1.78E-05	1.36E+02	1.19E-01	4.49E+01	5.39E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.27E-03	-2.61E-03	1.25E-02	2.86E-04	-1.03E-02	6.22E+00	-7.15E-05	1.36E+02	1.19E-01	4.49E+01	5.39E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-6.51E-03	-9.84E-04	1.01E-02	-8.50E-05	-1.03E-02	6.22E+00	3.59E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	1.50E+00	0.00E+00	7.97E-02	7.97E-02	4.4E-02	7.97E-02
377E-02	-7.14E-03	-9.52E-04	1.06E-02	-3.53E-04	-1.09E-02	6.22E+00	-3.08E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.21E-02	8.21E-02	4.4E-02	7.97E-02
377E-02	-7.14E-03	-9.52E-04	9.90E-03	5.57E-04	-1.07E-02	6.22E+00	-5.52E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.21E-02	8.21E-02	4.4E-02	7.97E-02
377E-02	-7.08E-03	-2.17E-03	1.35E-02	1.13E-03	-1.04E-02	6.22E+00	-1.11E-04	1.36E+02	1.20E-01	4.50E+01	5.39E+04	2.20E+00	0.00E+00	8.20E-02	8.20E-02	4.4E-02	7.97E-02
377E-02	-7.44E-03	-1.14E-03	1.14E-02	4.16E-04	-1.08E-02	6.22E+00	5.86E-06	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	8.15E-02	8.15E-02	4.4E-02	7.97E-02
377E-02	-7.27E-03	-5.23E-04	9.57E-03	6.33E-04	-1.07E-02	6.22E+00	-1.12E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.15E-02	8.15E-02	4.4E-02	7.97E-02
377E-02	-7.54E-03	-8.36E-04	9.07E-03	3.21E-04	-1.06E-02	6.22E+00	-3.54E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.14E-02	8.14E-02	4.4E-02	7.97E-02
377E-02	-7.46E-03	-1.30E-03	1.02E-02	1.94E-04	-1.07E-02	6.22E+00	1.32E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.20E-02	8.20E-02	4.4E-02	7.97E-02
377E-02	-7.17E-03	-1.28E-03	1.15E-02	6.67E-04	-1.06E-02	6.22E+00	-9.18E-05	1.36E+02	1.19E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.20E-02	8.20E-02	4.4E-02	7.97E-02
377E-02	-7.12E-03	-7.77E-04	8.90E-03	1.79E-04	-1.06E-02	6.22E+00	1.56E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	2.20E+00	0.00E+00	8.21E-02	8.21E-02	4.4E-02	7.97E-02
377E-02	-7.12E-03	-1.19E-03	1.02E-02	1.32E-03	-1.03E-02	6.22E+00	-6.74E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.21E-02	8.21E-02	4.4E-02	7.97E-02
377E-02	-5.94E-03	-1.91E-03	1.32E-02	2.92E-04	-1.02E-02	6.22E+00	-2.44E-07	1.36E+02	1.19E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.21E-02	8.21E-02	4.4E-02	7.97E-02
377E-02	-6.29E-03	-8.71E-04	1.07E-02	1.02E-03	-1.03E-02	6.22E+00	2.66E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.21E-02	8.21E-02	4.4E-02	7.97E-02
377E-02	-6.05E-03	-8.88E-04	1.14E-02	3.85E-04	-1.02E-02	6.22E+00	4.37E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.91E-03	-1.91E-03	1.29E-02	1.04E-03	-1.03E-02	6.22E+00	-2.47E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.24E-03	-5.51E-04	1.32E-02	1.32E-03	-1.02E-02	6.22E+00	1.20E-05	1.36E+02	1.19E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.86E-03	-1.19E-03	1.15E-02	6.53E-04	-1.03E-02	6.22E+00	-7.84E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.98E-03	-6.02E-04	1.10E-02	8.36E-04	-1.02E-02	6.22E+00	-3.64E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.21E-03	-1.05E-03	1.25E-02	1.39E-03	-1.02E-02	6.22E+00	-5.40E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.35E-03	-1.04E-03	1.22E-02	7.39E-04	-1.03E-02	6.22E+00	-1.98E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.07E-03	-1.07E-03	1.14E-02	7.83E-04	-1.02E-02	6.22E+00	-2.22E-05	1.36E+02	1.19E-01	4.47E+01	5.37E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.76E-03	-8.66E-04	1.06E-02	8.80E-04	-1.03E-02	6.22E+00	-6.37E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.91E-03	-6.24E-04	1.00E-02	5.17E-04	-1.02E-02	6.22E+00	-5.15E-05	1.36E+02	1.20E-01	4.47E+01	5.38E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.07E-03	-1.07E-03	1.13E-02	6.61E-04	-1.02E-02	6.22E+00	-7.84E-05	1.36E+02	1.19E-01	4.49E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.90E-03	-1.08E-03	1.15E-02	6.09E-04	-1.04E-02	6.22E+00	2.20E-06	1.36E+02	1.20E-01	4.50E+01	5.39E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-5.94E-03	-1.20E-03	1.07E-02	9.00E-04	-1.03E-02	6.22E+00	-2.44E-07	1.36E+02	1.20E-01	4.53E+01	5.41E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.19E-03	-5.59E-04	9.52E-03	1.33E-03	-1.02E-02	6.22E+00	-1.05E-04	1.37E+02	1.20E-01	4.52E+01	5.42E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.53E-03	-7.58E-04	1.03E-02	8.19E-04	-1.03E-02	6.22E+00	5.88E-05	1.36E+02	1.20E-01	4.52E+01	5.40E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.23E-03	-1.88E-03	1.13E-02	5.73E-04	-1.03E-02	6.22E+00	1.44E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	2.20E+00	0.00E+00	8.23E-02	8.23E-02	4.4E-02	7.97E-02
377E-02	-6.17E-03	-2.30E-03	1.56E-02	6.35E-06	-1.04E-02	6.22E+00	-8.91E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.14E-03	-2.79E-04	1.08E-02	3.63E-04	-1.02E-02	6.22E+00	-5.74E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.28E-03	-1.12E-03	1.20E-02	4.58E-04	-1.02E-02	6.22E+00	-1.83E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.27E-03	-1.76E-03	1.24E-02	8.69E-04	-1.02E-02	6.22E+00	-6.47E-05	1.36E+02	1.19E-01	4.47E+01	5.38E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.24E-03	-2.03E-03	1.30E-02	2.55E-04	-1.03E-02	6.22E+00	-9.40E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.29E-03	-2.67E-03	1.34E-02	4.19E-04	-1.02E-02	6.22E+00	-5.66E-05	1.36E+02	1.19E-01	4.48E+01	5.37E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.19E-03	-1.52E-03	1.10E-02	1.63E-04	-1.02E-02	6.22E+00	-7.20E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.30E-03	-9.87E-04	1.06E-02	1.69E-04	-1.01E-02	6.22E+00	-1.09E-04	1.35E+02	1.19E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-5.88E-03	-8.75E-04	1.06E-02	1.87E-04	-1.01E-02	6.22E+00	-5.25E-05	1.35E+02	1.19E-01	4.48E+01	5.38E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.53E-03	-8.43E-04	9.51E-03	2.58E-04	-1.03E-02	6.22E+00	5.74E-05	1.36E+02	1.20E-01	4.43E+01	5.41E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.19E-03	-1.89E-04	9.99E-03	1.89E-04	-1.03E-02	6.22E+00	-4.03E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.27E-03	-1.00E-03	1.16E-02	4.60E-04	-1.02E-02	6.22E+00	-2.32E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.22E-03	-7.99E-04	9.95E-03	3.07E-04	-1.03E-02	6.22E+00	-6.71E-05	1.36E+02	1.19E-01	4.48E+01	5.38E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.27E-03	-1.40E-03	1.18E-02	4.04E-04	-1.02E-02	6.22E+00	-4.76E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.21E-03	-1.55E-03	1.17E-02	2.46E-04	-1.03E-02	6.22E+00	-6.71E-05	1.36E+02	1.19E-01	4.49E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	7.97E-02
377E-02	-6.15E-03	-5.05E-05	9.13E-03	4.54E-05	-1.02E-02	6.22E+00	-1.22E-06	1.36E+02	1.19E-01	4.49E+01	5.39E+04	3.28E-01	0.00E+00	8.09E-02	8.09E-02	4.4E-02	

-3.73E-02	-6.25E-03	-3.94E-05	9.62E-03	9.34E-04	-1.03E-02	6.22E+00	1.59E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	7.20E-01	0.00E+00	7.96E-02	2.72E-01	2.41E-02	7.82E-02	4.03E-03
-3.66E-02	-6.25E-03	-1.90E-03	1.29E-02	2.17E-04	-1.04E-02	6.22E+00	-5.37E-06	1.36E+02	1.19E-01	4.48E+01	5.33E+04	8.20E-01	0.00E+00	7.94E-02	2.69E-01	2.37E-02	4.43E-02	6.82E-03
-3.75E-02	-6.22E-03	-2.23E-03	1.52E-02	3.58E-04	-1.03E-02	6.22E+00	-7.81E-06	1.36E+02	1.20E-01	4.50E+01	5.39E+04	8.20E-01	0.00E+00	7.96E-02	2.73E-01	2.42E-02	5.17E-02	7.04E-03
-3.76E-02	-6.20E-03	-1.70E-03	1.22E-02	1.20E-03	-1.03E-02	6.22E+00	9.96E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	8.20E-01	0.00E+00	7.89E-02	2.74E-01	2.42E-02	4.22E-02	4.72E-03
-3.68E-02	-6.61E-03	-4.49E-04	1.03E-02	6.37E-04	-1.04E-02	6.22E+00	7.28E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	8.20E-01	0.00E+00	7.99E-02	2.71E-01	2.35E-02	3.91E-02	5.00E-03
-3.66E-02	-6.93E-03	-2.03E-03	1.24E-02	5.46E-04	-1.04E-02	6.22E+00	1.90E-05	1.36E+02	1.20E-01	4.51E+01	5.40E+04	8.20E-01	0.00E+00	7.99E-02	2.72E-01	2.35E-02	4.22E-02	5.00E-03
-3.72E-02	-6.29E-03	-1.88E-03	1.30E-02	8.54E-04	-1.03E-02	6.22E+00	4.83E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	8.20E-01	0.00E+00	7.92E-02	2.71E-01	2.35E-02	4.47E-02	5.76E-03
-3.75E-02	-6.43E-03	-2.23E-03	1.21E-02	8.81E-04	-1.04E-02	6.22E+00	6.05E-05	1.36E+02	1.20E-01	4.53E+01	5.41E+04	8.20E-01	0.00E+00	7.97E-02	2.73E-01	2.42E-02	4.04E-02	5.32E-03
-3.66E-02	-6.43E-03	-1.56E-03	1.09E-02	2.97E-04	-1.01E-02	6.22E+00	9.28E-06	1.35E+02	1.19E-01	4.43E+01	5.35E+04	8.20E-01	0.00E+00	7.73E-02	2.62E-01	2.32E-02	3.77E-02	6.17E-03
-3.74E-02	-6.34E-03	-4.00E-04	9.74E-03	7.88E-04	-1.02E-02	6.22E+00	2.35E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	8.20E-01	0.00E+00	7.95E-02	2.78E-01	2.44E-02	3.81E-02	4.66E-03
-3.73E-02	-6.26E-03	-4.56E-04	9.47E-03	4.39E-04	-1.02E-02	6.22E+00	-4.88E-07	1.36E+02	1.20E-01	4.51E+01	5.40E+04	8.20E-01	0.00E+00	7.85E-02	2.73E-01	2.40E-02	3.64E-02	5.35E-03
-3.72E-02	-6.61E-03	-9.93E-04	1.11E-02	6.95E-04	-1.00E-02	6.22E+00	-5.37E-06	1.35E+02	1.19E-01	4.47E+01	5.37E+04	8.20E-01	0.00E+00	7.69E-02	2.72E-01	2.36E-02	4.02E-02	6.32E-03
-3.74E-02	-6.44E-03	-7.00E-04	9.26E-03	1.20E-03	-1.02E-02	6.22E+00	8.74E-05	1.36E+02	1.19E-01	4.49E+01	5.38E+04	8.20E-01	0.00E+00	7.85E-02	2.76E-01	2.41E-02	3.51E-02	3.61E-03
-3.71E-02	-6.56E-03	-1.83E-03	1.18E-02	4.17E-04	-1.03E-02	6.22E+00	9.28E-06	1.36E+02	1.20E-01	4.52E+01	5.41E+04	8.20E-01	0.00E+00	7.91E-02	2.74E-01	2.39E-02	4.02E-02	6.32E-03
-3.69E-02	-6.57E-03	-2.51E-03	1.24E-02	3.58E-04	-1.01E-02	6.22E+00	1.17E-05	1.36E+02	1.19E-01	4.48E+01	5.38E+04	8.20E-01	0.00E+00	7.74E-02	2.70E-01	2.34E-02	3.62E-02	6.74E-03
-3.71E-02	-6.42E-03	-2.34E-03	1.26E-02	1.08E-03	-1.02E-02	6.22E+00	1.90E-05	1.36E+02	1.20E-01	4.50E+01	5.39E+04	8.20E-01	0.00E+00	7.88E-02	2.73E-01	2.39E-02	4.13E-02	4.02E-03

N1 (volts)	H2 (volts)	V1 (volts)	V2 (volts)	PH (volts)	Axial (volts)	Ecc (volts)	Static Press (psi)	Vel (mph)	Fltch	q	Fe	Cavity Depth (L/D)	Alpha (deg)	Cn	U	W	Z
-4.07E-02	2.45E-03	1.45E-02	-1.74E-02	7.44E-04	-1.34E-02	6.22E+00	1.03E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	0.00E+00	0.00E+00	1.04E-01	2.36E-01	1.34E-02	7.95E-02
-3.99E-02	2.40E-03	1.37E-02	-1.74E-02	6.58E-04	-1.35E-02	6.22E+00	6.15E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	1.05E-01	2.35E-01	1.35E-02	7.94E-02
-3.95E-02	1.92E-03	1.34E-02	-1.68E-02	8.58E-04	-1.34E-02	6.22E+00	1.76E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	0.00E+00	0.00E+00	1.06E-01	2.34E-01	1.35E-02	7.93E-02
-3.98E-02	1.90E-03	1.33E-02	-1.76E-02	1.04E-03	-1.34E-02	6.22E+00	-6.05E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	0.00E+00	0.00E+00	1.06E-01	2.34E-01	1.35E-02	7.93E-02
-3.98E-02	1.73E-03	1.30E-02	-1.63E-02	1.46E-03	-1.35E-02	6.22E+00	-4.39E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	0.00E+00	0.00E+00	1.06E-01	2.34E-01	1.35E-02	7.93E-02
-4.00E-02	1.49E-03	1.24E-02	-1.54E-02	8.14E-04	-1.36E-02	6.22E+00	2.90E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	0.00E+00	0.00E+00	1.06E-01	2.34E-01	1.35E-02	7.93E-02
-4.01E-02	1.85E-03	1.30E-02	-1.57E-02	1.06E-03	-1.36E-02	6.22E+00	-3.88E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	1.06E-01	2.34E-01	1.35E-02	7.93E-02
-3.98E-02	2.04E-03	1.26E-02	-1.62E-02	7.22E-04	-1.36E-02	6.22E+00	4.44E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	0.00E+00	0.00E+00	1.06E-01	2.34E-01	1.35E-02	7.93E-02
-4.01E-02	1.72E-03	1.15E-02	-1.37E-02	1.37E-03	-1.38E-02	6.22E+00	-4.20E-05	1.37E+02	1.21E-01	4.55E+01	5.42E+04	0.00E+00	0.00E+00	1.07E-01	2.41E-01	1.37E-02	7.94E-02
-3.99E-02	1.84E-03	1.14E-02	-1.32E-02	9.19E-04	-1.38E-02	6.22E+00	-3.30E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	0.00E+00	0.00E+00	1.06E-01	2.36E-01	1.37E-02	7.94E-02
-3.98E-02	1.80E-03	1.32E-02	-1.65E-02	9.05E-04	-1.38E-02	6.22E+00	2.93E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	0.00E+00	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-4.02E-02	1.91E-03	1.25E-02	-1.67E-02	1.21E-03	-1.36E-02	6.22E+00	-3.37E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	0.00E+00	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-4.03E-02	2.22E-03	1.30E-02	-1.64E-02	6.26E-04	-1.34E-02	6.22E+00	-5.33E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	0.00E+00	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-4.01E-02	2.06E-03	1.31E-02	-1.75E-02	8.02E-04	-1.34E-02	6.22E+00	1.76E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.99E-02	1.50E-03	1.28E-02	-1.46E-02	1.55E-03	-1.36E-02	6.22E+00	-3.13E-05	1.36E+02	1.21E-01	4.49E+01	5.41E+04	0.00E+00	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.99E-02	2.57E-03	1.28E-02	-1.75E-02	-1.17E-04	-1.36E-02	6.22E+00	1.46E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	8.20E-02	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.94E-02	1.97E-03	1.28E-02	-1.64E-02	1.67E-04	-1.34E-02	6.22E+00	2.78E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.98E-02	2.39E-03	1.26E-02	-1.69E-02	6.08E-04	-1.34E-02	6.22E+00	-2.05E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.92E-02	1.90E-03	1.27E-02	-1.58E-02	1.93E-04	-1.34E-02	6.22E+00	-2.10E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.92E-02	2.14E-03	1.23E-02	-1.67E-02	4.44E-05	-1.36E-02	6.22E+00	4.25E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.93E-02	2.24E-03	1.22E-02	-1.60E-02	9.57E-05	-1.33E-02	6.22E+00	4.00E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-02	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.95E-02	2.20E-03	1.30E-02	-1.66E-02	-1.63E-04	-1.33E-02	6.22E+00	1.07E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.96E-02	1.46E-03	1.34E-02	-1.68E-02	3.37E-04	-1.34E-02	6.22E+00	-4.70E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.92E-02	1.73E-03	1.23E-02	-1.65E-02	3.57E-04	-1.34E-02	6.22E+00	-2.10E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-02	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.98E-02	2.23E-03	1.24E-02	-1.64E-02	-2.02E-04	-1.32E-02	6.22E+00	1.04E-04	1.36E+02	1.20E-01	4.50E+01	5.40E+04	8.20E-02	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.93E-02	2.07E-03	1.17E-02	-1.55E-02	-1.17E-05	-1.34E-02	6.22E+00	4.49E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.94E-02	1.96E-03	1.18E-02	-1.58E-02	-4.59E-05	-1.33E-02	6.22E+00	2.29E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	8.20E-02	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.95E-02	2.14E-03	1.19E-02	-1.56E-02	4.19E-04	-1.36E-02	6.22E+00	7.33E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	1.64E-01	0.00E+00	1.06E-01	2.43E-01	1.37E-02	7.94E-02
-3.93E-02	2.17E-03	1.39E-02	-1.78E-02	8.67E-05	-1.31E-02	6.22E+00	5.86E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.64E-01	0.00E+00	1.06E-01	2.30E-01	1.37E-02	7.94E-02
-3.94E-02	2.21E-03	1.42E-02	-1.84E-02	8.66E-05	-1.31E-02	6.22E+00	2.93E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.64E-01	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.98E-02	1.89E-03	1.23E-02	-1.59E-02	1.38E-04	-1.34E-02	6.22E+00	-2.93E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	1.64E-01	0.00E+00	1.05E-01	2.29E-01	1.37E-02	7.94E-02
-3.96E-02	1.47E-03	1.33E-02	-1.68E-02	4.36E-04	-1.34E-02	6.22E+00	5.37E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.64E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.96E-02	2.02E-03	1.21E-02	-1.71E-02	1.28E-04	-1.33E-02	6.22E+00	3.66E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.64E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.92E-02	2.05E-03	1.38E-02	-1.86E-02	3.09E-04	-1.34E-02	6.22E+00	1.71E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.64E-01	0.00E+00	1.06E-01	2.33E-01	1.37E-02	7.94E-02
-3.95E-02	2.17E-03	1.14E-02	-1.54E-02	6.12E-04	-1.33E-02	6.22E+00	4.64E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.64E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.98E-02	2.08E-03	1.18E-02	-1.54E-02	7.12E-04	-1.34E-02	6.22E+00	3.17E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.64E-01	0.00E+00	1.06E-01	2.36E-01	1.37E-02	7.94E-02
-3.94E-02	1.59E-03	1.38E-02	-1.83E-02	4.68E-04	-1.36E-02	6.22E+00	4.80E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	1.64E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.98E-02	2.04E-03	1.35E-02	-1.70E-02	3.62E-04	-1.35E-02	6.22E+00	5.13E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.64E-01	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.96E-02	1.79E-03	1.45E-02	-1.92E-02	1.97E-04	-1.33E-02	6.22E+00	2.44E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.64E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.97E-02	1.72E-03	1.39E-02	-1.92E-02	5.26E-04	-1.34E-02	6.22E+00	4.80E-06	1.36E+02	1.20E-01	4.48E+01	5.41E+04	1.64E-01	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.96E-02	1.66E-03	1.29E-02	-1.61E-02	3.65E-04	-1.33E-02	6.22E+00	5.13E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.64E-01	0.00E+00	1.06E-01	2.37E-01	1.37E-02	7.94E-02
-3.99E-02	2.00E-03	1.24E-02	-1.65E-02	2.21E-04	-1.33E-02	6.22E+00	5.82E-11	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.64E-01	0.00E+00	1.06E-01	2.37E-01	1.37E-02	7.94E-02
-3.95E-02	1.92E-03	1.47E-02	-1.94E-02	8.44E-04	-1.34E-02	6.22E+00	-1.71E-05	1.37E+02	1.20E-01	4.50E+01	5.41E+04	1.64E-01	0.00E+00	1.06E-01	2.37E-01	1.37E-02	7.94E-02
-3.99E-02	1.74E-03	1.35E-02	-1.71E-02	3.45E-04	-1.36E-02	6.22E+00	-2.93E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	1.64E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.96E-02	1.91E-03	1.36E-02	-1.83E-02	3.50E-04	-1.36E-02	6.22E+00	1.46E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.64E-01	0.00E+00	1.06E-01	2.37E-01	1.37E-02	7.94E-02
-3.91E-02	1.50E-03	1.22E-02	-1.63E-02	1.99E-04	-1.34E-02	6.22E+00	6.54E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.64E-01	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.90E-02	1.58E-03	1.36E-02	-1.90E-02	9.40E-05	-1.33E-02	6.22E+00	-1.71E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.64E-01	0.00E+00	1.06E-01	2.34E-01	1.37E-02	7.94E-02
-3.88E-02	1.40E-03	1.26E-02	-1.64E-02	4.90E-05	-1.36E-02	6.22E+00	-9.52E-06	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.07E-01	2.36E-01	1.37E-02	7.94E-02
-3.85E-02	1.49E-03	1.19E-02	-1.75E-02	2.21E-04	-1.34E-02	6.22E+00	-1.93E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	2.46E-01	0.00E+00	1.06E-01	2.36E-01	1.37E-02	7.94E-02
-3.90E-02	1.77E-03	1.11E-02	-1.67E-02	3.75E-04	-1.35E-02	6.22E+00	-1.20E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.06E-01	2.35E-01	1.37E-02	7.94E-02
-3.92E-02	1.91E-03	1.15E-02	-1.64E-02	-1.05E-05	-1.33E-02	6.22E+00	2.95E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E				

-393E-02	1.97E-03	1.33E-02	-1.74E-02	9.07E-04	-1.35E-02	6.22E+00	-5.35E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.24E-01	1.04E-02	1.04E-02
-394E-02	2.23E-03	1.31E-02	-1.71E-02	3.85E-04	-1.35E-02	6.22E+00	2.71E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.24E-01	1.04E-02	1.04E-02
-388E-02	1.71E-03	1.29E-02	-1.77E-02	3.02E-04	-1.33E-02	6.22E+00	-3.88E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.21E-01	3.15E-01	1.03E-02	1.03E-02
-391E-02	1.51E-03	1.40E-02	-1.96E-02	2.29E-04	-1.34E-02	6.22E+00	-2.42E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.19E-01	1.03E-02	1.03E-02
-394E-02	2.00E-03	1.36E-02	-1.93E-02	1.51E-04	-1.33E-02	6.22E+00	7.10E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.24E-01	3.11E-01	1.03E-02	1.03E-02
-396E-02	2.15E-03	1.17E-02	-1.57E-02	7.22E-04	-1.34E-02	6.22E+00	1.73E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.14E-01	1.04E-02	1.04E-02
-394E-02	2.40E-03	1.07E-02	-1.23E-02	8.15E-04	-1.32E-02	6.22E+00	-3.49E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.04E-01	2.25E-01	3.27E-01	1.04E-02	1.04E-02
-387E-02	1.52E-03	1.26E-02	-1.55E-02	1.18E-03	-1.33E-02	6.22E+00	3.99E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.21E-01	3.19E-01	1.04E-02	1.04E-02
-389E-02	1.80E-03	1.11E-02	-1.59E-02	4.68E-04	-1.34E-02	6.22E+00	7.01E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.23E-01	3.18E-01	1.03E-02	1.03E-02
-391E-02	2.00E-03	1.25E-02	-1.62E-02	4.46E-04	-1.30E-02	6.22E+00	-6.18E-05	1.36E+02	1.20E-01	4.48E+01	5.38E+04	2.46E-01	0.00E+00	1.05E-01	2.23E-01	3.18E-01	1.03E-02	1.03E-02
-392E-02	1.90E-03	1.21E-02	-1.58E-02	6.73E-04	-1.34E-02	6.22E+00	-3.17E-06	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.24E-01	1.04E-02	1.04E-02
-397E-02	1.89E-03	1.19E-02	-1.44E-02	3.17E-04	-1.35E-02	6.22E+00	-8.06E-06	1.37E+02	1.21E-01	4.54E+01	5.43E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.25E-01	1.03E-02	1.03E-02
-385E-02	1.26E-03	1.25E-02	-1.63E-02	3.02E-04	-1.34E-02	6.22E+00	5.94E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.25E-01	3.09E-01	1.03E-02	1.03E-02
-394E-02	1.81E-03	1.29E-02	-1.67E-02	7.59E-04	-1.37E-02	6.22E+00	-2.03E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.06E-01	2.24E-01	3.21E-01	1.03E-02	1.03E-02
-391E-02	1.41E-03	1.33E-02	-1.69E-02	6.32E-04	-1.35E-02	6.22E+00	1.71E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.25E-01	3.15E-01	1.04E-02	1.04E-02
-391E-02	1.86E-03	1.46E-02	-1.90E-02	1.97E-04	-1.35E-02	6.22E+00	-3.17E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	0.00E+00	1.04E-01	2.25E-01	3.19E-01	1.05E-02	1.05E-02
-388E-02	1.66E-03	1.35E-02	-1.71E-02	7.12E-04	-1.36E-02	6.22E+00	2.61E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	0.00E+00	1.04E-01	2.24E-01	3.19E-01	1.05E-02	1.05E-02
-392E-02	1.64E-03	1.25E-02	-1.60E-02	4.05E-04	-1.35E-02	6.22E+00	3.10E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.19E-01	1.03E-02	1.03E-02
-392E-02	1.45E-03	1.35E-02	-1.77E-02	3.61E-04	-1.34E-02	6.22E+00	4.81E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.17E-01	1.03E-02	1.03E-02
-392E-02	2.16E-03	1.43E-02	-1.89E-02	6.44E-04	-1.33E-02	6.22E+00	3.34E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.04E-01	2.24E-01	3.24E-01	1.03E-02	1.03E-02
-395E-02	1.94E-03	1.34E-02	-1.69E-02	4.27E-04	-1.36E-02	6.22E+00	-2.51E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.06E-01	2.25E-01	3.26E-01	1.04E-02	1.04E-02
-394E-02	2.07E-03	1.24E-02	-1.68E-02	4.59E-04	-1.36E-02	6.22E+00	-8.62E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.21E-01	1.04E-02	1.04E-02
-389E-02	1.95E-03	1.21E-02	-1.45E-02	1.08E-03	-1.34E-02	6.22E+00	1.64E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.21E-01	3.18E-01	1.03E-02	1.03E-02
-388E-02	1.80E-03	1.37E-02	-1.83E-02	1.13E-03	-1.32E-02	6.22E+00	2.61E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	0.00E+00	1.03E-01	2.23E-01	3.17E-01	1.03E-02	1.03E-02
-393E-02	1.69E-03	1.30E-02	-1.84E-02	3.95E-04	-1.32E-02	6.22E+00	-2.76E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.26E-01	3.21E-01	1.03E-02	1.03E-02
-395E-02	1.95E-03	1.27E-02	-1.78E-02	7.00E-04	-1.34E-02	6.22E+00	-2.27E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.25E-01	3.25E-01	1.03E-02	1.03E-02
-388E-02	1.95E-03	1.35E-02	-1.82E-02	5.24E-04	-1.35E-02	6.22E+00	1.16E-04	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	0.00E+00	1.05E-01	2.25E-01	3.17E-01	1.03E-02	1.03E-02
-386E-02	1.23E-03	1.36E-02	-1.86E-02	2.56E-04	-1.34E-02	6.22E+00	-5.86E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.25E-01	3.25E-01	1.04E-02	1.04E-02
-389E-02	1.36E-03	1.49E-02	-1.90E-02	3.97E-04	-1.36E-02	6.22E+00	-2.29E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.06E-01	2.24E-01	3.15E-01	1.03E-02	1.03E-02
-396E-02	1.65E-03	1.25E-02	-1.77E-02	2.12E-04	-1.35E-02	6.22E+00	2.83E-05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.06E-01	2.23E-01	3.16E-01	1.03E-02	1.03E-02
-391E-02	1.73E-03	1.31E-02	-1.83E-02	7.93E-04	-1.35E-02	6.22E+00	4.79E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	2.46E-01	0.00E+00	1.06E-01	2.23E-01	3.19E-01	1.03E-02	1.03E-02
-391E-02	1.64E-03	1.33E-02	-1.83E-02	8.76E-04	-1.35E-02	6.22E+00	2.59E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.04E-01	2.22E-01	3.15E-01	1.03E-02	1.03E-02
-386E-02	1.55E-03	1.40E-02	-1.78E-02	7.83E-04	-1.35E-02	6.22E+00	-7.67E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.23E-01	3.14E-01	1.03E-02	1.03E-02
-392E-02	1.87E-03	1.32E-02	-1.74E-02	7.93E-04	-1.34E-02	6.22E+00	8.20E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.04E-01	2.24E-01	3.20E-01	1.02E-02	1.02E-02
-391E-02	1.67E-03	1.36E-02	-1.76E-02	5.00E-04	-1.35E-02	6.22E+00	-5.47E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.20E-01	1.03E-02	1.03E-02
-391E-02	2.30E-03	1.37E-02	-1.86E-02	4.76E-04	-1.33E-02	6.22E+00	6.25E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.04E-01	2.23E-01	3.23E-01	1.03E-02	1.03E-02
-392E-02	1.45E-03	1.21E-02	-1.47E-02	8.65E-04	-1.35E-02	6.22E+00	-4.49E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.04E-01	2.26E-01	3.17E-01	1.03E-02	1.03E-02
-396E-02	1.37E-03	1.27E-02	-1.68E-02	9.96E-04	-1.35E-02	6.22E+00	3.32E-05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.14E-01	1.04E-02	1.04E-02
-392E-02	1.74E-03	1.35E-02	-1.69E-02	8.34E-04	-1.35E-02	6.22E+00	7.71E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.19E-01	1.03E-02	1.03E-02
-387E-02	1.37E-03	1.27E-02	-1.69E-02	7.59E-04	-1.35E-02	6.22E+00	6.91E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.23E-01	3.19E-01	1.03E-02	1.03E-02
-391E-02	1.68E-03	1.35E-02	-1.83E-02	7.66E-04	-1.33E-02	6.22E+00	1.12E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.24E-01	3.18E-01	1.03E-02	1.03E-02
-387E-02	1.54E-03	1.43E-02	-1.90E-02	1.39E-03	-1.36E-02	6.22E+00	5.86E-06	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.23E-01	3.14E-01	1.03E-02	1.03E-02
-392E-02	1.53E-03	1.19E-02	-1.44E-02	9.98E-04	-1.36E-02	6.22E+00	1.49E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.04E-01	2.27E-01	3.20E-01	1.03E-02	1.03E-02
-396E-02	1.83E-03	1.22E-02	-1.73E-02	7.29E-04	-1.36E-02	6.22E+00	2.20E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	0.00E+00	1.05E-01	2.27E-01	3.17E-01	1.03E-02	1.03E-02
-396E-02	1.79E-03	1.28E-02	-1.73E-02	7.78E-04	-1.34E-02	6.22E+00	7.08E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.05E-01	2.24E-01	3.20E-01	1.02E-02	1.02E-02
-394E-02	1.89E-03	1.20E-02	-1.95E-02	1.04E-03	-1.36E-02	6.22E+00	-1.71E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.04E-01	2.24E-01	3.20E-01	1.03E-02	1.03E-02
-389E-02	1.69E-03	1.24E-02	-1.67E-02	8.29E-04	-1.35E-02	6.22E+00	-4.89E-06	1.37E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.05E-01	2.26E-01	3.24E-01	1.04E-02	1.04E-02
-397E-02	1.97E-03	1.29E-02	-1.77E-02	9.95E-04	-1.34E-02	6.22E+00	5.63E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	2.46E-01	0.00E+00	1.07E-01	2.25E-01	3.24E-01	1.04E-02	1.04E-02
-395E-02	2.14E-03	1.37E-02	-1.78E-02	7.34E-04	-1.35E-02	6.22E+00	5.63E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.04E-01	2.25E-01	3.21E-01	1.03E-02	1.03E-02
-390E-02	2.06E-03	1.30E-02	-1.76E-02	8.73E														

385E-02	159E-03	132E-02	178E-02	798E-04	622E+00	144E-05	136E+02	120E-01	448E+01	530E+04	492E-01	000E+00	106E-01	230E-01	213E-01	129E-01
391E-02	163E-03	131E-02	186E-02	103E-03	622E+00	-488E-06	136E+02	121E-01	451E+01	541E+04	492E-01	000E+00	106E-01	235E-01	208E-01	129E-01
396E-02	147E-03	134E-02	179E-02	901E-04	622E+00	-630E-05	137E+02	121E-01	452E+01	542E+04	492E-01	000E+00	106E-01	240E-01	214E-01	130E-01
397E-02	169E-03	127E-02	171E-02	798E-04	622E+00	430E-05	136E+02	120E-01	449E+01	540E+04	492E-01	000E+00	106E-01	237E-01	211E-01	129E-01
398E-02	182E-03	123E-02	155E-02	101E-03	622E+00	-306E-05	136E+02	121E-01	451E+01	541E+04	492E-01	000E+00	106E-01	242E-01	216E-01	131E-01
397E-02	169E-03	130E-02	169E-02	524E-04	622E+00	562E-05	137E+02	121E-01	453E+01	543E+04	492E-01	000E+00	106E-01	247E-01	222E-01	137E-01
398E-02	174E-03	135E-02	166E-02	127E-03	622E+00	-586E-05	137E+02	121E-01	455E+01	544E+04	492E-01	000E+00	106E-01	250E-01	226E-01	141E-01
394E-02	173E-03	124E-02	174E-02	118E-03	622E+00	-317E-05	137E+02	121E-01	454E+01	543E+04	492E-01	000E+00	106E-01	238E-01	218E-01	132E-01
391E-02	177E-03	147E-02	209E-02	468E-04	622E+00	-488E-06	136E+02	120E-01	448E+01	539E+04	492E-01	000E+00	106E-01	232E-01	215E-01	130E-01
385E-02	153E-03	122E-02	171E-02	899E-04	622E+00	244E-05	136E+02	120E-01	449E+01	540E+04	492E-01	000E+00	106E-01	235E-01	217E-01	131E-01
386E-02	166E-03	127E-02	183E-02	689E-04	622E+00	-452E-05	136E+02	120E-01	450E+01	541E+04	492E-01	000E+00	106E-01	234E-01	216E-01	130E-01
389E-02	168E-03	135E-02	166E-02	119E-03	622E+00	-195E-05	136E+02	120E-01	450E+01	541E+04	492E-01	000E+00	106E-01	234E-01	216E-01	130E-01
394E-02	188E-03	130E-02	175E-02	101E-03	622E+00	122E-05	136E+02	121E-01	451E+01	541E+04	492E-01	000E+00	106E-01	234E-01	216E-01	130E-01
390E-02	171E-03	137E-02	187E-02	911E-04	622E+00	708E-05	136E+02	120E-01	449E+01	540E+04	492E-01	000E+00	106E-01	232E-01	215E-01	129E-01
389E-02	188E-03	128E-02	168E-02	118E-03	622E+00	244E-05	136E+02	120E-01	446E+01	538E+04	492E-01	000E+00	106E-01	232E-01	215E-01	129E-01
388E-02	134E-03	128E-02	163E-02	122E-03	622E+00	-220E-05	136E+02	120E-01	442E+01	540E+04	492E-01	000E+00	106E-01	236E-01	217E-01	131E-01
388E-02	148E-03	130E-02	160E-02	151E-03	622E+00	972E-06	137E+02	121E-01	443E+01	542E+04	492E-01	000E+00	106E-01	234E-01	217E-01	131E-01
388E-02	131E-03	136E-02	198E-02	982E-04	622E+00	610E-05	136E+02	120E-01	450E+01	540E+04	492E-01	000E+00	106E-01	233E-01	216E-01	130E-01
391E-02	159E-03	134E-02	187E-02	614E-04	622E+00	-171E-05	137E+02	121E-01	452E+01	542E+04	492E-01	000E+00	106E-01	235E-01	217E-01	131E-01
393E-02	173E-03	137E-02	184E-02	625E-04	622E+00	-684E-05	137E+02	121E-01	452E+01	542E+04	492E-01	000E+00	106E-01	236E-01	218E-01	132E-01
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-397E-02	1 87E-03	1 29E-02	-1 77E-02	5 74E-04	-1 34E-02	6 22E+00	-2 12E-05	1 36E+02	1 21E-01	4 52E+01	5 42E+04	8 20E-01	0 00E+00	1 04E-01	2 54E-01	3 13E-02	1 91E-02
-394E-02	1 78E-03	1 29E-02	-1 66E-02	1 05E-03	-1 37E-02	6 22E+00	-9 03E-06	1 36E+02	1 20E-01	4 49E+01	5 40E+04	8 20E-01	0 00E+00	1 07E-01	2 54E-01	3 13E-02	1 91E-02
-390E-02	1 46E-03	1 32E-02	-1 70E-02	1 15E-03	-1 37E-02	6 22E+00	-4 74E-05	1 36E+02	1 21E-01	4 51E+01	5 41E+04	8 20E-01	0 00E+00	1 05E-01	2 54E-01	3 13E-02	1 91E-02
-401E-02	2 06E-03	1 31E-02	-1 66E-02	2 84E-04	-1 34E-02	6 22E+00	-1 90E-05	1 36E+02	1 20E-01	4 46E+01	5 38E+04	8 20E-01	0 00E+00	1 04E-01	2 54E-01	3 13E-02	1 91E-02
-386E-02	1 41E-03	1 18E-02	-1 59E-02	7 67E-04	-1 34E-02	6 22E+00	-1 88E-05	1 36E+02	1 21E-01	4 50E+01	5 41E+04	8 20E-01	0 00E+00	1 06E-01	2 54E-01	3 13E-02	1 91E-02
-392E-02	1 32E-03	1 28E-02	-1 68E-02	7 48E-04	-1 35E-02	6 22E+00	-4 71E-05	1 36E+02	1 20E-01	4 49E+01	5 40E+04	8 20E-01	0 00E+00	1 06E-01	2 54E-01	3 13E-02	1 91E-02
-388E-02	1 63E-03	1 21E-02	-1 60E-02	5 40E-04	-1 36E-02	6 22E+00	-3 74E-05	1 36E+02	1 20E-01	4 47E+01	5 39E+04	8 20E-01	0 00E+00	1 06E-01	2 54E-01	3 13E-02	1 91E-02
-394E-02	1 77E-03	1 30E-02	-1 78E-02	5 27E-04	-1 35E-02	6 22E+00	-6 06E-06	1 36E+02	1 20E-01	4 50E+01	5 41E+04	8 20E-01	0 00E+00	1 06E-01	2 54E-01	3 13E-02	1 91E-02
-396E-02	1 57E-03	1 21E-02	-1 60E-02	8 40E-04	-1 36E-02	6 22E+00	-4 81E-05	1 37E+02	1 21E-01	4 52E+01	5 42E+04	8					

-399E-02	1.69E-03	1.40E-02	1.90E-02	5.76E-04	-1.35E-02	6.22E+00	-1.15E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	1.48E+00	0.00E+00	1.04E-01	2.34E-01	5.19E-02	2.03E-02
-399E-02	1.74E-03	1.32E-02	-1.83E-02	8.33E-04	-1.35E-02	6.22E+00	4.96E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.05E-01	2.35E-01	5.19E-02	1.98E-02
-399E-02	6.2E-03	1.46E-02	-1.75E-02	1.02E-03	-1.34E-02	6.22E+00	-3.59E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.48E+00	0.00E+00	1.04E-01	2.35E-01	5.19E-02	1.90E-02
-399E-02	1.71E-03	1.21E-02	-1.51E-02	9.69E-04	-1.36E-02	6.22E+00	4.70E-05	1.37E+02	1.21E-01	4.54E+01	5.41E+04	1.48E+00	0.00E+00	1.04E-01	2.29E-01	5.19E-02	1.90E-02
-399E-02	6.2E-03	1.36E-02	-1.93E-02	6.59E-04	-1.35E-02	6.22E+00	-2.12E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	0.00E+00	1.05E-01	2.36E-01	5.19E-02	2.21E-02
-399E-02	1.90E-03	1.21E-02	-1.53E-02	6.18E-04	-1.34E-02	6.22E+00	-2.12E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.48E+00	0.00E+00	1.05E-01	2.36E-01	5.19E-02	2.21E-02
-399E-02	2.16E-03	1.21E-02	-1.61E-02	2.29E-04	-1.34E-02	6.22E+00	-3.10E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	1.04E-01	2.33E-01	5.19E-02	1.98E-02
-399E-02	1.93E-03	1.26E-02	-1.69E-02	6.49E-04	-1.36E-02	6.22E+00	1.54E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.48E+00	0.00E+00	1.05E-01	2.34E-01	5.19E-02	1.93E-02
-399E-02	1.61E-03	1.28E-02	-1.66E-02	6.59E-04	-1.34E-02	6.22E+00	2.02E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.04E-01	2.35E-01	5.19E-02	1.90E-02
-399E-02	1.93E-03	1.19E-02	-1.52E-02	8.94E-04	-1.35E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.05E-01	2.34E-01	5.19E-02	1.90E-02
-399E-02	1.60E-03	1.19E-02	-1.58E-02	8.94E-04	-1.35E-02	6.22E+00	-2.34E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	1.05E-01	2.34E-01	5.19E-02	1.90E-02
-399E-02	2.10E-03	1.26E-02	-1.73E-02	7.69E-04	-1.33E-02	6.22E+00	1.78E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.04E-01	2.35E-01	5.19E-02	1.96E-02
-399E-02	1.85E-03	1.27E-02	-1.65E-02	8.45E-04	-1.34E-02	6.22E+00	5.56E-06	1.36E+02	1.21E-01	4.53E+01	5.41E+04	1.48E+00	0.00E+00	1.04E-01	2.34E-01	5.19E-02	1.96E-02
-399E-02	2.33E-03	1.34E-02	-1.76E-02	4.36E-04	-1.36E-02	6.22E+00	-4.88E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.30E+00	0.00E+00	1.04E-01	2.29E-01	5.19E-02	1.74E-02
-399E-02	1.62E-03	1.43E-02	-1.95E-02	3.74E-04	-1.36E-02	6.22E+00	-4.86E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00	0.00E+00	1.04E-01	2.29E-01	5.19E-02	1.74E-02
-399E-02	1.61E-03	1.50E-02	-2.01E-02	9.20E-05	-1.35E-02	6.22E+00	1.47E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.30E+00	0.00E+00	1.04E-01	2.29E-01	5.19E-02	1.74E-02
-399E-02	1.71E-03	1.34E-02	-1.71E-02	3.94E-04	-1.35E-02	6.22E+00	-2.17E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	1.30E+00	0.00E+00	1.05E-01	2.37E-01	5.19E-02	1.90E-02
-399E-02	1.84E-03	1.34E-02	-1.64E-02	4.99E-04	-1.34E-02	6.22E+00	1.73E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.30E+00	0.00E+00	1.05E-01	2.33E-01	5.19E-02	1.90E-02
-399E-02	1.38E-03	1.48E-02	-2.12E-02	-2.39E-04	-1.35E-02	6.22E+00	-4.61E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.30E+00	0.00E+00	1.05E-01	2.35E-01	5.19E-02	1.90E-02
-399E-02	1.83E-03	1.32E-02	-1.72E-02	1.30E-04	-1.34E-02	6.22E+00	-2.69E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.30E+00	0.00E+00	1.05E-01	2.33E-01	5.19E-02	1.97E-02
-399E-02	1.82E-03	1.47E-02	-1.95E-02	4.21E-04	-1.34E-02	6.22E+00	-5.35E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.05E-01	2.35E-01	5.19E-02	1.97E-02
-399E-02	1.55E-03	1.16E-02	-1.53E-02	9.39E-04	-1.38E-02	6.22E+00	-3.39E-05	1.36E+02	1.21E-01	4.51E+01	5.42E+04	1.30E+00	0.00E+00	1.05E-01	2.35E-01	5.19E-02	1.97E-02
-399E-02	1.46E-03	1.29E-02	-1.75E-02	3.43E-04	-1.35E-02	6.22E+00	2.44E-07	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.06E-01	2.36E-01	5.19E-02	1.97E-02
-399E-02	1.51E-03	1.31E-02	-1.59E-02	1.09E-03	-1.37E-02	6.22E+00	-6.09E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.30E+00	0.00E+00	1.05E-01	2.35E-01	5.19E-02	1.96E-02
-399E-02	1.64E-03	1.36E-02	-1.82E-02	3.16E-04	-1.37E-02	6.22E+00	-6.09E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.30E+00	0.00E+00	1.04E-01	2.35E-01	5.19E-02	1.97E-02
-399E-02	1.96E-03	1.41E-02	-1.95E-02	4.57E-04	-1.33E-02	6.22E+00	7.57E-06	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.30E+00	0.00E+00	1.04E-01	2.35E-01	5.19E-02	1.97E-02
-399E-02	1.81E-03	1.24E-02	-1.50E-02	8.25E-04	-1.35E-02	6.22E+00	-2.93E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00	0.00E+00	1.06E-01	2.39E-01	5.19E-02	1.96E-02
-403E-02	2.13E-03	1.21E-02	-1.61E-02	7.47E-04	-1.33E-02	6.22E+00	5.13E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.03E-01	2.32E-01	5.19E-02	1.94E-02
-403E-02	2.19E-03	1.28E-02	-1.63E-02	7.94E-04	-1.30E-02	6.22E+00	2.69E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00	0.00E+00	1.01E-01	2.28E-01	5.19E-02	1.41E-02
-399E-02	1.78E-03	1.24E-02	-1.70E-02	2.13E-04	-1.32E-02	6.22E+00	-8.79E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.30E+00	0.00E+00	1.03E-01	2.35E-01	5.19E-02	1.82E-02
-408E-02	2.08E-03	1.24E-02	-1.49E-02	6.50E-04	-1.33E-02	6.22E+00	-2.93E-05	1.37E+02	1.21E-01	4.56E+01	5.44E+04	1.30E+00	0.00E+00	1.04E-01	2.34E-01	5.19E-02	1.95E-02
-400E-02	1.65E-03	1.31E-02	-1.79E-02	7.57E-04	-1.31E-02	6.22E+00	2.69E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.30E+00	0.00E+00	1.01E-01	2.26E-01	5.19E-02	1.86E-02
-396E-02	1.78E-03	1.23E-02	-1.66E-02	7.60E-04	-1.34E-02	6.22E+00	-9.71E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00	0.00E+00	1.05E-01	2.38E-01	5.19E-02	1.96E-02
-400E-02	1.91E-03	1.34E-02	-1.74E-02	1.03E-03	-1.33E-02	6.22E+00	-5.13E-05	1.36E+02	1.21E-01	4.50E+01	5.41E+04	1.30E+00	0.00E+00	1.04E-01	2.37E-01	5.19E-02	1.96E-02
-405E-02	2.31E-03	1.32E-02	-1.81E-02	1.05E-03	-1.31E-02	6.22E+00	-2.44E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.02E-01	2.30E-01	5.19E-02	1.94E-02
-407E-02	1.97E-03	1.28E-02	-1.66E-02	7.99E-04	-1.34E-02	6.22E+00	-3.91E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00	0.00E+00	1.04E-01	2.38E-01	5.19E-02	1.93E-02
-402E-02	2.03E-03	1.33E-02	-1.87E-02	1.02E-03	-1.35E-02	6.22E+00	-3.42E-05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.03E-01	2.41E-01	5.19E-02	1.93E-02
-402E-02	1.68E-03	1.43E-02	-1.89E-02	1.02E-03	-1.35E-02	6.22E+00	-3.42E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.30E+00	0.00E+00	1.04E-01	2.41E-01	5.19E-02	1.94E-02
-399E-02	1.48E-03	1.28E-02	-1.78E-02	9.35E-04	-1.34E-02	6.22E+00	-1.22E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.30E+00	0.00E+00	1.03E-01	2.40E-01	5.19E-02	1.96E-02
-401E-02	1.95E-03	1.33E-02	-1.76E-02	5.62E-04	-1.29E-02	6.22E+00	5.37E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.30E+00	0.00E+00	1.01E-01	2.40E-01	5.19E-02	1.96E-02
-402E-02	2.05E-03	1.33E-02	-1.75E-02	7.13E-04	-1.30E-02	6.22E+00	5.82E-11	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.01E-01	2.40E-01	5.19E-02	1.97E-02
-399E-02	1.74E-03	1.19E-02	-1.59E-02	1.09E-03	-1.30E-02	6.22E+00	-6.64E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.30E+00	0.00E+00	1.03E-01	2.31E-01	5.19E-02	1.93E-02
-399E-02	2.05E-03	1.25E-02	-1.77E-02	-1.95E-06	-1.33E-02	6.22E+00	-2.83E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00	0.00E+00	1.02E-01	2.31E-01	5.19E-02	1.93E-02
-399E-02	1.74E-03	1.19E-02	-1.49E-02	3.91E-04	-1.32E-02	6.22E+00	1.81E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.30E+00	0.00E+00	1.04E-01	2.35E-01	5.19E-02	1.93E-02
-399E-02	1.53E-03	1.19E-02	-1.49E-02	8.84E-04	-1.35E-02	6.22E+00	4.25E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.04E-01	2.39E-01	5.19E-02	1.94E-02
-399E-02	1.98E-03	1.43E-02	-1.86E-02	3.26E-04	-1.34E-02	6.22E+00	-1.61E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.30E+00	0.00E+00	1.04E-01	2.39E-01	5.19E-02	1.94E-02
-400E-02	1.61E-03	1.37E-02	-1.81E-02	4.59E-04	-1.36E-02	6.22E+00	1.07E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	1.30E+00	0.00E+00	1.05E-01	2.39E-01	5.19E-02	1.94E-02
-396E-02	2.03E-03	1.25E-02	-1.75E-02	1.09E-04	-1.35E-02	6.22E+00	-4.00E-05	1.36E+02	1.20E-01	4.50E+01	5.42E+04	1.30E+00	0.00E+00	1.05E-01	2.36E-01	5.19E-02	1.94E-02
-399E-02	1.79E-03	1.31E-02	-1.69E-02	3.18E-04	-1.34E-02	6.22E+00	-8.79E-06	1.36E+02	1.20E-01	4.50E+01	5.42E+04	1.30E+00	0.00E+00	1.04E-01	2.36E-01	5.19E-02	1.94E-02
-403E-02	2.30E-03	1.31E-02	-1.80E-02	7.06E-04	-1.33E-02	6.22E+00	3.76E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	1.30E+00	0.00E+00	1.04E-01	2.36E-01	5.19E-02	1.94E-02
-395E-02	1.50E-03	1.34E-02	-1.75E-02	6.28E-04	-1.36E-02	6.22E+00	3.76E-05	1.36E+02	1.20E-01	4.53E+01	5.42E+04	1.30E+00	0.00E+00	1.04E-01	2.36E-01	5.19E-02	1.94E-02
-404E-02	1.95E-03	1.29E-02	-1.56E-02	4.69E-04	-1.36E-02	6.22E+00	8.30E-06	1.37E+02	1.21E-01	4.51E+01	5.41E+04	1.30E+00					

-390E-02	162E-03	150E-02	-210E-02	420E-04	-134E-02	622E+00	767E-05	136E+02	21E-01	451E+01	541E+04	164E-01	000E+00	105E-01	274E-01	324E-01	274E-01
-397E-02	165E-03	110E-02	-150E-02	335E-04	-137E-02	622E+00	-479E-05	137E+02	21E-01	453E+01	542E+04	164E-01	000E+00	106E-01	274E-01	324E-01	274E-01
-400E-02	181E-03	20E-02	-170E-02	-227E-04	-133E-02	622E+00	254E-05	136E+02	21E-01	451E+01	541E+04	164E-01	000E+00	103E-01	272E-01	323E-01	272E-01
-398E-02	155E-03	130E-02	-197E-02	242E-04	-133E-02	622E+00	400E-05	136E+02	21E-01	449E+01	540E+04	164E-01	000E+00	103E-01	270E-01	320E-01	270E-01
-394E-02	146E-03	132E-02	-181E-02	250E-04	-136E-02	622E+00	353E-05	137E+02	21E-01	452E+01	542E+04	164E-01	000E+00	106E-01	272E-01	319E-01	272E-01
-404E-02	199E-03	126E-02	-179E-02	235E-04	-136E-02	622E+00	-114E-05	137E+02	21E-01	453E+01	542E+04	164E-01	000E+00	105E-01	270E-01	327E-01	270E-01
-393E-02	149E-03	29E-02	-173E-02	162E-04	-136E-02	622E+00	-869E-05	137E+02	21E-01	452E+01	542E+04	164E-01	000E+00	105E-01	270E-01	327E-01	270E-01
-385E-02	234E-03	122E-02	-158E-02	620E-04	-134E-02	622E+00	-146E-05	136E+02	21E-01	446E+01	538E+04	328E-01	000E+00	103E-01	276E-01	319E-01	276E-01
-390E-02	178E-03	137E-02	-185E-02	830E-04	-132E-02	622E+00	830E-05	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	104E-01	276E-01	320E-01	276E-01
-398E-02	165E-03	114E-02	-149E-02	113E-04	-132E-02	622E+00	415E-05	136E+02	21E-01	446E+01	538E+04	328E-01	000E+00	104E-01	274E-01	317E-01	274E-01
-392E-02	208E-03	131E-02	-179E-02	610E-04	-132E-02	622E+00	694E-05	137E+02	21E-01	450E+01	541E+04	328E-01	000E+00	104E-01	274E-01	320E-01	274E-01
-391E-02	185E-03	29E-02	-162E-02	879E-04	-135E-02	622E+00	494E-05	137E+02	21E-01	453E+01	542E+04	328E-01	000E+00	105E-01	273E-01	314E-01	273E-01
-390E-02	166E-03	141E-02	-171E-02	107E-03	-135E-02	622E+00	488E-06	136E+02	21E-01	446E+01	538E+04	328E-01	000E+00	104E-01	273E-01	319E-01	273E-01
-391E-02	177E-03	134E-02	-164E-02	825E-04	-132E-02	622E+00	-391E-05	136E+02	21E-01	447E+01	538E+04	328E-01	000E+00	104E-01	274E-01	319E-01	274E-01
-389E-02	191E-03	27E-02	-184E-02	676E-04	-131E-02	622E+00	293E-05	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	104E-01	274E-01	317E-01	274E-01
-388E-02	182E-03	116E-02	-161E-02	830E-04	-132E-02	622E+00	-220E-05	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	104E-01	274E-01	315E-01	274E-01
-386E-02	160E-03	125E-02	-167E-02	106E-03	-132E-02	622E+00	830E-05	136E+02	21E-01	445E+01	537E+04	328E-01	000E+00	104E-01	273E-01	315E-01	273E-01
-393E-02	176E-03	47E-02	-187E-02	127E-03	-134E-02	622E+00	-537E-05	136E+02	21E-01	450E+01	541E+04	328E-01	000E+00	106E-01	272E-01	323E-01	272E-01
-389E-02	155E-03	119E-02	-154E-02	118E-03	-133E-02	622E+00	-342E-05	136E+02	21E-01	449E+01	540E+04	328E-01	000E+00	104E-01	274E-01	315E-01	274E-01
-392E-02	200E-03	139E-02	-177E-02	125E-03	-132E-02	622E+00	-171E-05	136E+02	21E-01	449E+01	540E+04	328E-01	000E+00	104E-01	274E-01	319E-01	274E-01
-399E-02	175E-03	29E-02	-168E-02	957E-04	-135E-02	622E+00	977E-06	137E+02	21E-01	453E+01	542E+04	328E-01	000E+00	105E-01	276E-01	324E-01	276E-01
-390E-02	153E-03	27E-02	-172E-02	878E-04	-131E-02	622E+00	-103E-04	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	104E-01	274E-01	317E-01	274E-01
-395E-02	184E-03	103E-02	-134E-02	871E-04	-134E-02	622E+00	000E-05	136E+02	21E-01	450E+01	541E+04	328E-01	000E+00	104E-01	273E-01	321E-01	273E-01
-397E-02	232E-03	103E-02	-134E-02	871E-04	-134E-02	622E+00	-928E-05	136E+02	21E-01	448E+01	539E+04	328E-01	000E+00	104E-01	273E-01	321E-01	273E-01
-393E-02	207E-03	42E-02	-200E-02	93E-04	-131E-02	622E+00	-928E-05	136E+02	21E-01	448E+01	539E+04	328E-01	000E+00	104E-01	273E-01	321E-01	273E-01
-396E-02	250E-03	126E-02	-169E-02	715E-04	-135E-02	622E+00	-115E-05	137E+02	21E-01	454E+01	543E+04	328E-01	000E+00	105E-01	273E-01	327E-01	273E-01
-396E-02	196E-03	126E-02	-165E-02	972E-04	-132E-02	622E+00	642E-05	137E+02	21E-01	453E+01	542E+04	328E-01	000E+00	102E-01	274E-01	319E-01	274E-01
-398E-02	176E-03	129E-02	-157E-02	136E-03	-134E-02	622E+00	471E-05	136E+02	21E-01	451E+01	541E+04	328E-01	000E+00	103E-01	276E-01	320E-01	276E-01
-388E-02	189E-03	134E-02	-175E-02	581E-04	-129E-02	622E+00	806E-06	136E+02	21E-01	445E+01	538E+04	328E-01	000E+00	101E-01	270E-01	315E-01	270E-01
-392E-02	163E-03	135E-02	-169E-02	115E-03	-133E-02	622E+00	227E-05	136E+02	21E-01	451E+01	541E+04	328E-01	000E+00	104E-01	276E-01	320E-01	276E-01
-390E-02	177E-03	15E-02	-151E-02	920E-04	-132E-02	622E+00	667E-05	136E+02	21E-01	448E+01	539E+04	328E-01	000E+00	103E-01	276E-01	318E-01	276E-01
-395E-02	152E-03	139E-02	-173E-02	118E-03	-133E-02	622E+00	374E-05	136E+02	21E-01	449E+01	540E+04	328E-01	000E+00	104E-01	276E-01	318E-01	276E-01
-390E-02	168E-03	19E-02	-164E-02	102E-03	-132E-02	622E+00	-659E-06	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	104E-01	276E-01	317E-01	276E-01
-397E-02	143E-03	143E-02	-197E-02	101E-03	-132E-02	622E+00	-171E-06	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	103E-01	272E-01	317E-01	272E-01
-389E-02	165E-03	134E-02	-190E-02	637E-04	-132E-02	622E+00	496E-05	137E+02	21E-01	457E+01	545E+04	328E-01	000E+00	108E-01	274E-01	324E-01	274E-01
-397E-02	189E-03	126E-02	-158E-02	920E-04	-137E-02	622E+00	105E-05	137E+02	21E-01	454E+01	543E+04	328E-01	000E+00	108E-01	274E-01	314E-01	274E-01
-394E-02	134E-03	133E-02	-178E-02	759E-04	-137E-02	622E+00	732E-07	137E+02	21E-01	455E+01	543E+04	328E-01	000E+00	103E-01	275E-01	321E-01	275E-01
-399E-02	200E-03	122E-02	-162E-02	150E-03	-133E-02	622E+00	-627E-05	137E+02	21E-01	456E+01	544E+04	328E-01	000E+00	105E-01	276E-01	319E-01	276E-01
-395E-02	161E-03	119E-02	-155E-02	112E-03	-136E-02	622E+00	203E-05	137E+02	21E-01	453E+01	542E+04	328E-01	000E+00	105E-01	276E-01	317E-01	276E-01
-397E-02	169E-03	131E-02	-172E-02	708E-04	-132E-02	622E+00	-164E-05	137E+02	21E-01	456E+01	544E+04	328E-01	000E+00	105E-01	276E-01	317E-01	276E-01
-394E-02	149E-03	135E-02	-172E-02	119E-03	-136E-02	622E+00	-171E-06	137E+02	21E-01	454E+01	543E+04	328E-01	000E+00	102E-01	273E-01	315E-01	273E-01
-392E-02	177E-03	142E-02	-180E-02	107E-03	-132E-02	622E+00	-415E-06	136E+02	21E-01	451E+01	541E+04	328E-01	000E+00	103E-01	273E-01	315E-01	273E-01
-398E-02	185E-03	137E-02	-188E-02	945E-04	-132E-02	622E+00	227E-05	137E+02	21E-01	452E+01	542E+04	328E-01	000E+00	103E-01	276E-01	314E-01	276E-01
-397E-02	241E-03	119E-02	-181E-02	836E-04	-134E-02	622E+00	-415E-06	136E+02	21E-01	449E+01	540E+04	328E-01	000E+00	105E-01	274E-01	322E-01	274E-01
-393E-02	210E-03	122E-02	-168E-02	619E-04	-134E-02	622E+00	154E-05	137E+02	21E-01	453E+01	542E+04	328E-01	000E+00	105E-01	274E-01	320E-01	274E-01
-394E-02	184E-03	29E-02	-167E-02	677E-04	-133E-02	622E+00	276E-05	136E+02	21E-01	450E+01	541E+04	328E-01	000E+00	103E-01	272E-01	318E-01	272E-01
-392E-02	162E-03	131E-02	-170E-02	895E-04	-133E-02	622E+00	-652E-05	136E+02	21E-01	447E+01	539E+04	328E-01	000E+00	103E-01	272E-01	317E-01	272E-01
-397E-02	203E-03	125E-02	-163E-02	116E-03	-133E-02	622E+00	496E-05	137E+02	21E-01	453E+01	542E+04	328E-01	000E+00	104E-01	272E-01	315E-01	272E-01
-391E-02	146E-03	134E-02	-182E-02	731E-04	-133E-02	622E+00	-505E-05	135E+02	21E-01	444E+01	537E+04	328E-01	000E+00	103E-01	274E-01	314E-01	274E-01
-392E-02	208E-03	124E-02	-177E-02	590E-04	-133E-02	622E+00	642E-05	136E+02	21E-01	452E+01	540E+04	328E-01	000E+00	105E-01	276E-01	315E-01	276E-01
-397E-02	191E-03	121E-02	-158E-02	639E-04	-133E-02	622E+00	317E-06	136E+02	21E-01	450E+01	540E+04	328E-01	000E+00	103E-01	276E-01	315E-01	276E-01
-395E-02	211E-03	122E-02	-175E-02	692E-04	-130E-02	622E+00	447E-05	136E+02	21E-01	448E+01	540E+04	328E-01	000E+00	103E-01	274E-01	322E-01	274E-01
-396E-02	157E-03	131E-02	-171E-02	110E-03	-133E-02	622E+00	-310E-05	136E+02	21E-01	448E+01	540E+04	328E-01	000E+00	104E-01	274E-01	321E-01	274E-01
-400E-02	168E-03	136E-02	-179E-02	587E-04	-133E-02	622E+00	447E-05	137E+02	21E-01	452E+01	542E+04	328E-01	000E+00	104E-01	274E-01	321E-01	274E-01
-389E-02	144E-03	130E-02	-180E-02	756E-04	-131E-02	622E+00	496E-05	137E+02	21E-01	446E+01	538E+04	328E-01	000E+00	101E-01	273E-01	324E-01	273E-01
-392E-02	150E-03	127E-02	-172E-02	966E-04	-133E-02	622E+00	667E-05	136E+02	21E-01	448E+01	540E+04	328E-01	000E+00	105E-01	274E-01	320E-01	274E-01

Non-spinning, deg

-3.91E-02	1.77E-03	1.40E-02	-1.96E-02	1.03E-03	-1.32E-02	6.22E+00	2.27E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.03E-01	2.74E-01	2.34E-02	2.27E-01	2.50E-01
-3.99E-02	1.07E-03	1.34E-02	-1.93E-02	5.58E-04	-1.33E-02	6.22E+00	-3.59E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.03E-01	2.74E-01	2.34E-02	2.27E-01	2.50E-01

-455E-02	7.78E-03	2.08E-03	9.86E-02	3.07E-03	-1.76E-02	6.22E+00	3.76E+05	1.20E-01	4.49E+01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-455E-02	7.65E-03	2.01E-03	8.32E-03	2.69E-03	-1.75E-02	6.22E+00	-4.09E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-456E-02	7.75E-03	9.46E-04	1.07E-02	3.33E-03	-1.75E-02	6.22E+00	-1.15E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-456E-02	8.25E-03	2.27E-03	1.02E-02	3.17E-03	-1.82E-02	6.22E+00	-2.52E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.40E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-456E-02	7.72E-03	2.22E-03	7.97E-03	2.99E-03	-1.76E-02	6.22E+00	-2.05E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-456E-02	7.72E-03	3.40E-03	6.45E-03	3.17E-03	-1.77E-02	6.22E+00	-1.07E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-461E-02	7.89E-03	2.01E-03	9.95E-03	2.71E-03	-1.79E-02	6.22E+00	-1.07E-05	1.37E+02	1.21E-01	5.44E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-459E-02	7.80E-03	2.59E-03	6.46E-03	3.13E-03	-1.76E-02	6.22E+00	-5.47E-06	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-459E-02	8.55E-03	9.44E-04	1.05E-02	3.34E-03	-1.77E-02	6.22E+00	-3.32E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-462E-02	8.00E-03	3.09E-03	5.43E-03	3.27E-03	-1.75E-02	6.22E+00	-1.07E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-452E-02	7.39E-03	2.42E-03	7.92E-03	3.00E-03	-1.72E-02	6.22E+00	2.34E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-455E-02	7.82E-03	2.69E-03	6.04E-03	3.58E-03	-1.76E-02	6.22E+00	8.79E-06	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-460E-02	7.48E-03	4.04E-03	5.51E-03	3.30E-03	-1.79E-02	6.22E+00	2.34E-05	1.37E+02	1.21E-01	5.45E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-464E-02	7.70E-03	2.96E-03	7.45E-03	3.87E-03	-1.80E-02	6.22E+00	-2.78E-05	1.37E+02	1.21E-01	5.45E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-464E-02	7.95E-03	2.52E-03	7.90E-03	3.15E-03	-1.79E-02	6.22E+00	-5.22E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-464E-02	7.92E-03	3.82E-03	5.55E-03	3.47E-03	-1.75E-02	6.22E+00	-4.98E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-462E-02	8.16E-03	2.77E-03	7.39E-03	3.55E-03	-1.75E-02	6.22E+00	-1.07E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-459E-02	7.55E-03	4.00E-03	4.43E-03	3.41E-03	-1.77E-02	6.22E+00	4.30E-05	1.36E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-463E-02	7.75E-03	1.43E-03	9.34E-03	3.14E-03	-1.78E-02	6.22E+00	-1.07E-05	1.37E+02	1.21E-01	5.43E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-461E-02	7.71E-03	3.05E-03	6.82E-03	3.49E-03	-1.75E-02	6.22E+00	-8.30E-06	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-459E-02	7.33E-03	2.45E-03	5.95E-03	3.73E-03	-1.74E-02	6.22E+00	5.94E-05	1.36E+02	1.20E-01	5.39E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-462E-02	7.77E-03	2.50E-03	7.89E-03	3.46E-03	-1.75E-02	6.22E+00	4.30E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-459E-02	7.81E-03	2.56E-03	8.26E-03	3.81E-03	-1.74E-02	6.22E+00	3.03E-05	1.36E+02	1.20E-01	5.39E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-452E-02	8.33E-03	3.69E-04	1.20E-02	3.03E-03	-1.77E-02	6.22E+00	-1.76E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-457E-02	8.39E-03	7.06E-04	1.24E-02	3.03E-03	-1.75E-02	6.22E+00	2.89E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-454E-02	8.26E-03	4.57E-04	1.05E-02	2.56E-03	-1.76E-02	6.22E+00	-1.51E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-455E-02	8.00E-03	1.93E-03	9.54E-03	2.64E-03	-1.76E-02	6.22E+00	6.94E-06	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-453E-02	7.90E-03	1.50E-03	9.93E-03	3.47E-03	-1.75E-02	6.22E+00	4.39E-06	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-454E-02	8.05E-03	1.67E-03	9.85E-03	3.69E-03	-1.74E-02	6.22E+00	5.08E-06	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-456E-02	7.93E-03	2.69E-03	8.66E-03	3.36E-03	-1.74E-02	6.22E+00	-6.68E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-452E-02	7.49E-03	3.15E-03	7.44E-03	3.52E-03	-1.76E-02	6.22E+00	-1.51E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-460E-02	8.21E-03	2.39E-03	9.37E-03	2.92E-03	-1.76E-02	6.22E+00	1.42E-05	1.37E+02	1.20E-01	5.43E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-460E-02	8.06E-03	1.42E-03	9.76E-03	3.59E-03	-1.75E-02	6.22E+00	4.83E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-456E-02	7.75E-03	1.81E-03	9.55E-03	3.74E-03	-1.77E-02	6.22E+00	1.66E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-451E-02	7.85E-03	8.33E-04	1.03E-02	3.30E-03	-1.74E-02	6.22E+00	-8.35E-05	1.36E+02	1.20E-01	5.39E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-448E-02	8.13E-03	1.46E-03	9.37E-03	2.92E-03	-1.78E-02	6.22E+00	7.28E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-453E-02	8.04E-03	1.84E-03	9.03E-03	3.24E-03	-1.78E-02	6.22E+00	2.25E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-455E-02	7.97E-03	2.88E-03	9.93E-03	3.20E-03	-1.78E-02	6.22E+00	-3.22E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-451E-02	7.65E-03	3.40E-03	7.65E-03	2.76E-03	-1.78E-02	6.22E+00	2.15E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-452E-02	7.90E-03	1.52E-03	8.99E-03	3.68E-03	-1.77E-02	6.22E+00	-3.22E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-454E-02	7.80E-03	1.07E-03	9.96E-03	3.14E-03	-1.74E-02	6.22E+00	-6.15E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-446E-02	7.67E-03	3.51E-03	6.63E-03	2.50E-03	-1.75E-02	6.22E+00	-5.18E-05	1.36E+02	1.20E-01	5.39E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-451E-02	8.05E-03	1.81E-03	9.74E-03	3.55E-03	-1.75E-02	6.22E+00	2.64E-05	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-453E-02	8.02E-03	1.58E-03	1.04E-02	3.27E-03	-1.78E-02	6.22E+00	-4.69E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-458E-02	8.05E-03	1.47E-03	1.01E-02	3.24E-03	-1.79E-02	6.22E+00	-5.18E-05	1.37E+02	1.21E-01	5.43E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-455E-02	8.01E-03	1.61E-03	1.03E-02	3.39E-03	-1.78E-02	6.22E+00	-5.71E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-452E-02	8.08E-03	1.78E-03	9.61E-03	3.30E-03	-1.78E-02	6.22E+00	-1.27E-05	1.36E+02	1.21E-01	5.41E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-455E-02	8.14E-03	1.07E-03	1.08E-02	3.35E-03	-1.76E-02	6.22E+00	-5.37E-06	1.36E+02	1.20E-01	5.40E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-449E-02	8.36E-03	2.25E-03	7.17E-03	2.55E-03	-1.80E-02	6.22E+00	5.08E-05	1.36E+02	1.20E-01	5.39E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-449E-02	8.11E-03	1.06E-03	1.08E-02	2.87E-03	-1.79E-02	6.22E+00	7.70E-05	1.37E+02	1.21E-01	5.42E+04	1.64E-01	0.00E+00	1.37E-01	2.46E-01	4.17E-01	4.17E-01	7.94E-02
-448E-02	7.93E-03	1.22E-03	9.79E-03	3.11E-03	-1.79E-02	6.22E+00	-3.71E-05	1.36E+02	1.20E-01	5.42E+04	1.64E-01	0.00E+00	1.36E-01	2.41E-01	4.15E-01	4.15E-01	7.94E-02
-452E-02	8.30E-03	1.50E-03	7.52E-03	3.23E-03	-1.77E-02	6.22E+00	4.59E-05	1.36E+02	1.20E-01	5.41E+04	1.64E-01	0.00E+00</					

-458E-02	8.35E-03	1.30E-03	1.00E-02	3.33E-03	-1.79E-02	6.22E+00	7.98E+05	1.37E+02	1.21E-01	4.54E+01	5.47E+04	2.46E-01	0.00E+00	1.37E-01	2.79E-01	4.99E-01	4.56E-01	7.95E-01
-454E-02	8.19E-03	6.50E-04	1.04E-02	2.75E-03	-1.81E-02	6.22E+00	-1.03E+05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.36E-01	2.78E-01	4.98E-01	4.55E-01	7.94E-01
-452E-02	8.15E-03	5.32E-04	1.11E-02	3.13E-03	-1.80E-02	6.22E+00	-1.03E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.36E-01	2.78E-01	4.98E-01	4.55E-01	7.94E-01
-452E-02	7.90E-03	1.74E-03	8.50E-03	3.04E-03	-1.79E-02	6.22E+00	2.94E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.36E-01	2.78E-01	4.98E-01	4.55E-01	7.94E-01
-452E-02	7.63E-03	2.16E-03	9.15E-03	3.80E-03	-1.80E-02	6.22E+00	-2.93E+06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.36E-01	2.78E-01	4.98E-01	4.55E-01	7.94E-01
-454E-02	8.50E-03	1.16E-03	9.19E-03	3.47E-03	-1.78E-02	6.22E+00	1.66E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.37E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-450E-02	7.78E-03	8.66E-04	1.02E-02	2.82E-03	-1.79E-02	6.22E+00	1.51E+05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.36E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-454E-02	8.25E-03	2.99E-04	1.09E-02	3.44E-03	-1.81E-02	6.22E+00	3.37E+05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.40E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-454E-02	8.75E-03	5.00E-04	9.94E-03	2.60E-03	-1.80E-02	6.22E+00	3.37E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.40E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-453E-02	8.28E-03	6.25E-04	1.08E-02	3.42E-03	-1.78E-02	6.22E+00	-2.34E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.37E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-444E-02	7.84E-03	2.23E-03	8.48E-03	3.07E-03	-1.79E-02	6.22E+00	-8.79E+06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-453E-02	7.98E-03	2.90E-03	7.31E-03	3.43E-03	-1.78E-02	6.22E+00	-6.75E+06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-453E-02	8.35E-03	4.44E-04	9.87E-03	3.30E-03	-1.79E-02	6.22E+00	-6.74E+05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	0.00E+00	1.37E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-452E-02	8.21E-03	1.79E-03	9.47E-03	3.17E-03	-1.79E-02	6.22E+00	-3.81E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-451E-02	8.17E-03	1.20E-03	9.06E-03	3.18E-03	-1.80E-02	6.22E+00	-8.20E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-448E-02	8.16E-03	1.50E-03	9.83E-03	2.87E-03	-1.79E-02	6.22E+00	-1.37E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.37E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-448E-02	8.09E-03	1.65E-03	9.57E-03	3.03E-03	-1.80E-02	6.22E+00	3.27E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-451E-02	7.98E-03	2.02E-03	8.57E-03	3.41E-03	-1.80E-02	6.22E+00	-1.12E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-449E-02	8.11E-03	4.22E-04	1.02E-02	2.91E-03	-1.81E-02	6.22E+00	-5.27E+05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-454E-02	8.17E-03	2.20E-03	9.30E-03	3.12E-03	-1.80E-02	6.22E+00	2.05E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-449E-02	8.14E-03	1.90E-03	9.80E-03	3.67E-03	-1.78E-02	6.22E+00	-1.86E+05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	2.46E-01	0.00E+00	1.37E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-454E-02	8.22E-03	1.62E-03	9.34E-03	3.37E-03	-1.80E-02	6.22E+00	4.00E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	1.40E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-454E-02	8.14E-03	1.51E-03	1.05E-02	3.11E-03	-1.81E-02	6.22E+00	-1.32E+05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-454E-02	8.22E-03	1.62E-03	9.34E-03	3.37E-03	-1.80E-02	6.22E+00	-4.54E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-445E-02	8.14E-03	2.35E-03	7.97E-03	2.74E-03	-1.80E-02	6.22E+00	-1.39E+05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	1.38E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-449E-02	7.98E-03	3.85E-04	9.95E-03	3.30E-03	-1.81E-02	6.22E+00	-4.08E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.40E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-459E-02	6.30E-03	1.94E-04	1.22E-02	3.18E-03	-1.83E-02	6.22E+00	-9.03E+06	1.37E+02	1.21E-01	4.54E+01	5.43E+04	4.10E-01	0.00E+00	1.41E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-445E-02	7.54E-03	1.21E-03	8.34E-03	3.15E-03	-1.80E-02	6.22E+00	-5.30E+05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	1.39E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-452E-02	8.08E-03	1.30E-03	9.42E-03	2.81E-03	-1.81E-02	6.22E+00	1.54E+05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.10E-01	0.00E+00	1.41E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-450E-02	7.94E-03	3.06E-04	1.16E-02	3.33E-03	-1.81E-02	6.22E+00	4.22E+05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	4.10E-01	0.00E+00	1.39E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
-442E-02	7.83E-03	1.94E-03	7.51E-03	2.74E-03	-1.82E-02	6.22E+00	3.17E+06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	1.40E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
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-450E-02	7.96E-03	2.17E-03	7.77E-03	3.10E-03	-1.80E-02	6.22E+00	-2.86E+05	1.36E+02	1.20E-01	4.49E+01	5.38E+04	4.10E-01	0.00E+00	1.39E-01	2.78E-01	4.98E-01	4.54E-01	7.94E-01
-454E-02	8.15E-03	1.24E-03	9.36E-03	2.94E-03	-1.82E-02	6.22E+00	-6.59E+06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	4.10E-01	0.00E+00	1.41E-01	2.79E-01	4.99E-01	4.54E-01	7.94E-01
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-448E-02	8 35E-03	2 38E-03	7 70E-03	2 92E-03	-1 76E-02	6 22E+00	3 17E-05	1 36E+02	1 20E-01	4 47E+01	5 39E+04	5 74E-01	0 00E+00	1 34E-01	2 33E-01	1 14E-02	4 05E-04	7 36E-02
-460E-02	8 30E-03	1 98E-03	8 80E-03	3 32E-03	-1 81E-02	6 22E+00	3 42E-05	1 37E+02	1 21E-01	4 52E+01	5 42E+04	5 74E-01	0 00E+00	1 40E-01	2 39E-01	1 19E-02	4 10E-04	7 40E-02
-453E-02	7 98E-03	2 87E-03	6 96E-03	3 23E-03	-1 80E-02	6 22E+00	5 62E-05	1 36E+02	1 21E-01	4 51E+01	5 41E+04	5 74E-01	0 00E+00	1 37E-01	2 36E-01	1 17E-02	4 08E-04	7 39E-02
-453E-02	8 14E-03	1 70E-03	9 47E-03	2 62E-03	-1 78E-02	6 22E+00	7 08E-05	1 36E+02	1 20E-01	4 50E+01	5 41E+04	5 74E-01	0 00E+00	1 37E-01	2 36E-01	1 17E-02	4 08E-04	7 39E-02
-456E-02	8 03E-03	1 05E-03	1 05E-02	3 66E-03	-1 78E-02	6 22E+00	3 42E-05	1 37E+02	1 21E-01	4 52E+01	5 42E+04	5 74E-01	0 00E+00	1 38E-01	2 37E-01	1 18E-02	4 09E-04	7 40E-02
-44																		

-449E-02	839E-03	107E-03	944E-03	249E-03	-179E-02	622E+00	300E+05	136E+02	120E-01	447E+01	539E+04	984E+01	000E+00	139E-01	274E+01	417E-02	431E-02	809E-02
-449E-02	811E-03	220E-03	864E-03	312E-03	-180E-02	622E+00	422E+05	136E+02	120E-01	449E+01	540E+04	984E+01	000E+00	139E-01	275E+01	417E-02	431E-02	809E-02
-453E-02	837E-03	209E-03	861E-03	301E-03	-180E-02	622E+00	-544E+05	136E+02	120E-01	450E+01	540E+04	984E+01	000E+00	139E-01	276E+01	417E-02	431E-02	809E-02
-456E-02	792E-03	125E-03	958E-03	331E-03	-180E-02	622E+00	-154E+05	137E+02	121E-01	455E+01	542E+04	984E+01	000E+00	139E-01	279E+01	417E-02	431E-02	809E-02
-450E-02	822E-03	140E-03	968E-03	325E-03	-179E-02	622E+00	-349E+05	136E+02	120E-01	449E+01	539E+04	984E+01	000E+00	137E-01	274E+01	415E-02	419E-02	798E-02
-451E-02	809E-03	183E-03	837E-03	232E-03	-178E-02	622E+00	415E+06	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	139E-01	276E+01	415E-02	419E-02	798E-02
-448E-02	805E-03	692E-03	865E-03	303E-03	-180E-02	622E+00	-676E+05	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	139E-01	276E+01	415E-02	419E-02	798E-02
-448E-02	805E-03	692E-03	865E-03	303E-03	-180E-02	622E+00	-959E+05	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	139E-01	276E+01	415E-02	419E-02	798E-02
-449E-02	799E-03	128E-03	910E-03	346E-03	-180E-02	622E+00	903E+06	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	139E-01	276E+01	415E-02	419E-02	798E-02
-456E-02	811E-03	275E-03	727E-03	278E-03	-179E-02	622E+00	129E+05	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	137E-01	276E+01	417E-02	419E-02	798E-02
-452E-02	841E-03	317E-03	722E-03	231E-03	-177E-02	622E+00	-544E+05	136E+02	120E-01	447E+01	540E+04	984E+01	000E+00	137E-01	275E+01	417E-02	419E-02	798E-02
-444E-02	802E-03	274E-03	661E-03	312E-03	-178E-02	622E+00	-113E+04	136E+02	120E-01	447E+01	540E+04	984E+01	000E+00	137E-01	275E+01	417E-02	419E-02	798E-02
-454E-02	843E-03	114E-03	773E-03	350E-03	-181E-02	622E+00	-317E+06	137E+02	121E-01	452E+01	542E+04	984E+01	000E+00	140E-01	277E+01	421E-02	421E-02	800E-02
-449E-02	791E-03	247E-03	874E-03	383E-03	-178E-02	622E+00	164E+05	136E+02	120E-01	447E+01	539E+04	984E+01	000E+00	136E-01	274E+01	419E-02	419E-02	798E-02
-445E-02	834E-03	591E-04	110E-02	253E-03	-180E-02	622E+00	122E+05	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	144E-01	279E+01	419E-02	419E-02	798E-02
-449E-02	797E-03	259E-04	780E-03	284E-03	-178E-02	622E+00	-103E+04	136E+02	120E-01	447E+01	539E+04	984E+01	000E+00	136E-01	274E+01	415E-02	419E-02	798E-02
-449E-02	773E-03	267E-03	814E-03	260E-03	-180E-02	622E+00	-107E+04	136E+02	120E-01	450E+01	541E+04	984E+01	000E+00	140E-01	276E+01	417E-02	419E-02	798E-02
-451E-02	794E-03	167E-03	911E-03	227E-03	-180E-02	622E+00	342E+05	136E+02	120E-01	450E+01	540E+04	984E+01	000E+00	138E-01	276E+01	417E-02	419E-02	798E-02
-448E-02	829E-03	181E-03	101E-02	266E-03	-179E-02	622E+00	391E+05	136E+02	120E-01	447E+01	539E+04	984E+01	000E+00	138E-01	275E+01	417E-02	419E-02	798E-02
-449E-02	801E-03	219E-03	856E-03	260E-03	-179E-02	622E+00	244E+06	136E+02	120E-01	449E+01	539E+04	984E+01	000E+00	139E-01	279E+01	415E-02	419E-02	798E-02
-449E-02	825E-03	266E-03	698E-03	284E-03	-179E-02	622E+00	732E+05	136E+02	120E-01	447E+01	539E+04	984E+01	000E+00	139E-01	274E+01	415E-02	419E-02	798E-02
-448E-02	798E-03	183E-03	928E-03	296E-03	-179E-02	622E+00	-513E+05	136E+02	120E-01	450E+01	541E+04	984E+01	000E+00	139E-01	279E+01	415E-02	419E-02	798E-02
-448E-02	798E-03	183E-03	928E-03	296E-03	-179E-02	622E+00	-269E+05	136E+02	120E-01	445E+01	538E+04	984E+01	000E+00	140E-01	275E+01	415E-02	419E-02	798E-02
-450E-02	793E-03	207E-03	624E-03	218E-03	-179E-02	622E+00	-952E+05	136E+02	120E-01	448E+01	540E+04	984E+01	000E+00	140E-01	276E+01	417E-02	419E-02	798E-02
-450E-02	793E-03	207E-03	624E-03	218E-03	-179E-02	622E+00	-244E+05	136E+02	120E-01	449E+01	540E+04	984E+01	000E+00	138E-01	276E+01	417E-02	419E-02	798E-02
-450E-02	809E-03	236E-03	761E-03	275E-03	-178E-02	622E+00	618E+05	137E+02	120E-01	448E+01	539E+04	984E+01	000E+00	137E-01	275E+01	417E-02	419E-02	798E-02
-457E-02	805E-03	275E-03	823E-03	283E-03	-182E-02	622E+00	-888E+06	137E+02	121E-01	454E+01	543E+04	984E+01	000E+00	141E-01	281E+01	421E-02	419E-02	798E-02
-451E-02	807E-03	242E-03	746E-03	303E-03	-182E-02	622E+00	-732E+06	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	139E-01	274E+01	419E-02	419E-02	798E-02
-459E-02	844E-03	186E-03	952E-03	288E-03	-183E-02	622E+00	220E+05	137E+02	121E-01	455E+01	543E+04	984E+01	000E+00	140E-01	277E+01	421E-02	419E-02	798E-02
-457E-02	836E-03	252E-03	764E-03	271E-03	-180E-02	622E+00	244E+06	136E+02	120E-01	450E+01	540E+04	984E+01	000E+00	137E-01	277E+01	416E-02	419E-02	798E-02
-456E-02	820E-03	144E-03	922E-03	313E-03	-182E-02	622E+00	-562E+05	137E+02	121E-01	453E+01	542E+04	984E+01	000E+00	140E-01	278E+01	419E-02	419E-02	798E-02
-462E-02	812E-03	131E-03	936E-03	290E-03	-181E-02	622E+00	-513E+05	137E+02	121E-01	455E+01	544E+04	984E+01	000E+00	138E-01	279E+01	419E-02	419E-02	798E-02
-453E-02	812E-03	233E-03	883E-03	288E-03	-180E-02	622E+00	-439E+05	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	136E-01	273E+01	415E-02	419E-02	798E-02
-451E-02	821E-03	246E-03	119E-02	288E-03	-177E-02	622E+00	-273E+05	136E+02	120E-01	450E+01	541E+04	984E+01	000E+00	136E-01	273E+01	415E-02	419E-02	798E-02
-441E-02	769E-03	246E-03	736E-03	267E-03	-179E-02	622E+00	-225E+05	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	138E-01	271E+01	415E-02	419E-02	798E-02
-449E-02	810E-03	276E-03	717E-03	279E-03	-179E-02	622E+00	-664E+05	136E+02	120E-01	447E+01	539E+04	984E+01	000E+00	136E-01	273E+01	415E-02	419E-02	798E-02
-449E-02	815E-03	220E-03	743E-03	308E-03	-177E-02	622E+00	-518E+05	136E+02	120E-01	445E+01	538E+04	984E+01	000E+00	137E-01	274E+01	415E-02	419E-02	798E-02
-449E-02	815E-03	220E-03	743E-03	308E-03	-177E-02	622E+00	-518E+05	136E+02	120E-01	445E+01	538E+04	984E+01	000E+00	137E-01	274E+01	415E-02	419E-02	798E-02
-444E-02	795E-03	743E-03	120E-02	342E-03	-178E-02	622E+00	-69E+05	136E+02	120E-01	448E+01	539E+04	984E+01	000E+00	139E-01	278E+01	416E-02	419E-02	798E-02
-456E-02	840E-03	265E-03	780E-03	275E-03	-179E-02	622E+00	-875E+05	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	138E-01	277E+01	417E-02	419E-02	798E-02
-456E-02	840E-03	265E-03	780E-03	275E-03	-179E-02	622E+00	-396E+05	137E+02	121E-01	452E+01	542E+04	984E+01	000E+00	138E-01	278E+01	417E-02	419E-02	798E-02
-449E-02	796E-03	281E-03	897E-03	334E-03	-180E-02	622E+00	117E+05	137E+02	120E-01	446E+01	538E+04	984E+01	000E+00	135E-01	274E+01	416E-02	419E-02	798E-02
-453E-02	808E-03	271E-03	753E-03	264E-03	-176E-02	622E+00	-664E+05	136E+02	120E-01	449E+01	540E+04	984E+01	000E+00	137E-01	274E+01	416E-02	419E-02	798E-02
-441E-02	767E-03	167E-03	688E-03	265E-03	-181E-02	622E+00	-240E+05	136E+02	121E-01	453E+01	542E+04	984E+01	000E+00	140E-01	277E+01	419E-02	419E-02	798E-02
-449E-02	775E-03	254E-03	824E-03	214E-03	-179E-02	622E+00	928E+06	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	137E-01	275E+01	419E-02	419E-02	798E-02
-456E-02	799E-03	214E-03	916E-03	308E-03	-181E-02	622E+00	-298E+05	137E+02	121E-01	454E+01	543E+04	984E+01	000E+00	139E-01	278E+01	419E-02	419E-02	798E-02
-456E-02	799E-03	214E-03	916E-03	308E-03	-181E-02	622E+00	-884E+05	136E+02	120E-01	450E+01	541E+04	984E+01	000E+00	138E-01	277E+01	417E-02	419E-02	798E-02
-456E-02	799E-03	214E-03	916E-03	308E-03	-181E-02	622E+00	-781E+06	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	138E-01	278E+01	417E-02	419E-02	798E-02
-449E-02	775E-03	233E-03	715E-03	291E-03	-179E-02	622E+00	195E+06	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	137E-01	278E+01	417E-02	419E-02	798E-02
-453E-02	794E-03	153E-03	729E-03	337E-03	-180E-02	622E+00	928E+06	136E+02	121E-01	451E+01	541E+04	984E+01	000E+00	137E-01	278E+01	417E-02	419E-02	798E-02
-454E-02	784E-03	105E-03	876E-03	296E-03	-182E-02	622E+00	-396E+05	137E+02	121E-01	454E+01	543E+04	984E+01	000E+00	136E-01	278E+01	419E-02	419E-02	798E-02
-451E-02	749E-03	327E-03	565E-03	294E-03	-178E-02	622E+00	-396E+05	136E+02	120E-01	448E+01	540E+04	984E+01	000E+00	136E-01	278E+01	419E-02	419E-02	798E-02
-448E-02	851E-03	-737E-04	124E-02	262E-03	-184E-02	622E+00	-461E+05	136E+02	120E-01	450E+01	541E+04	984E+01	000E+00	140E-01	279E+01			

-455E-02	8 07E-03	1 40E-03	9 10E-03	2 59E-03	-1 81E-02	6 22E+00	-2 46E-05	1 37E+02	1 21E-01	4 56E+01	1 80E+00	0 00E+00	1 40E-01	2 98E-01	4 17E-02	4 66E-02	6 22E+00
-452E-02	8 51E-03	1 44E-04	1 21E-02	3 48E-03	-1 82E-02	6 22E+00	2 22E-05	1 37E+02	1 21E-01	4 57E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 17E-02	4 69E-02	6 22E+00
-449E-02	7 90E-03	1 05E-02	2 92E-02	2 92E-03	-1 82E-02	6 22E+00	3 15E-05	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 10E-02	4 58E-02	6 22E+00
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-454E-02	8 29E-03	8 50E-04	1 35E-02	2 97E-03	-1 78E-02	6 22E+00	-4 64E-06	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 17E-02	4 62E-02	6 22E+00
-449E-02	8 05E-03	2 52E-03	7 25E-03	3 21E-03	-1 78E-02	6 22E+00	3 44E-05	1 36E+02	1 20E-01	4 47E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 17E-02	4 62E-02	6 22E+00
-448E-02	8 10E-03	7 86E-04	1 08E-02	2 90E-03	-1 79E-02	6 22E+00	-4 61E-05	1 36E+02	1 20E-01	4 49E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 14E-02	4 61E-02	6 22E+00
-452E-02	7 81E-03	1 59E-03	9 92E-03	2 87E-03	-1 78E-02	6 22E+00	-9 52E-06	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 15E-02	4 61E-02	6 22E+00
-445E-02	7 81E-03	2 04E-03	8 64E-03	3 37E-03	-1 81E-02	6 22E+00	6 13E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 17E-02	4 71E-02	6 22E+00
-448E-02	7 98E-03	2 03E-03	8 53E-03	2 67E-03	-1 79E-02	6 22E+00	7 57E-06	1 36E+02	1 20E-01	4 48E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 10E-02	4 71E-02	6 22E+00
-457E-02	8 12E-03	2 78E-03	7 32E-03	3 33E-03	-1 80E-02	6 22E+00	-1 07E-04	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 20E-02	4 65E-02	6 22E+00
-446E-02	8 00E-03	9 65E-04	8 63E-03	3 04E-03	-1 80E-02	6 22E+00	-2 42E-05	1 36E+02	1 20E-01	4 47E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 19E-02	4 69E-02	6 22E+00
-457E-02	8 20E-03	1 26E-03	9 26E-03	2 88E-03	-1 79E-02	6 22E+00	2 42E-05	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 19E-02	4 69E-02	6 22E+00
-453E-02	8 49E-03	5 44E-05	1 25E-02	2 93E-03	-1 80E-02	6 22E+00	3 93E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 40E-01	2 98E-01	4 21E-02	4 71E-02	6 22E+00
-454E-02	7 76E-03	1 17E-03	9 87E-03	2 57E-03	-1 78E-02	6 22E+00	-9 90E-05	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 24E-02	4 45E-02	6 22E+00
-461E-02	8 24E-03	5 82E-04	1 21E-02	1 99E-03	-1 80E-02	6 22E+00	5 13E-06	1 37E+02	1 21E-01	4 54E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 19E-02	4 45E-02	6 22E+00
-454E-02	8 25E-03	2 06E-03	1 16E-02	2 84E-03	-1 79E-02	6 22E+00	-4 64E-06	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 15E-02	4 50E-02	6 22E+00
-457E-02	8 06E-03	1 40E-03	9 24E-03	2 29E-03	-1 77E-02	6 22E+00	-7 54E-05	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 15E-02	4 41E-02	6 22E+00
-459E-02	8 19E-03	6 62E-03	1 03E-02	2 13E-03	-1 81E-02	6 22E+00	1 98E-05	1 37E+02	1 21E-01	4 55E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 15E-02	4 41E-02	6 22E+00
-451E-02	7 84E-03	1 65E-03	9 16E-03	2 15E-03	-1 73E-02	6 22E+00	-4 61E-05	1 36E+02	1 20E-01	4 47E+01	1 80E+00	0 00E+00	1 35E-01	2 98E-01	4 16E-02	4 41E-02	6 22E+00
-453E-02	7 50E-03	3 09E-03	6 33E-03	2 33E-03	-1 74E-02	6 22E+00	-1 22E-04	1 37E+02	1 20E-01	4 45E+01	1 80E+00	0 00E+00	1 35E-01	2 98E-01	4 16E-02	4 41E-02	6 22E+00
-455E-02	8 02E-03	1 35E-03	1 05E-02	2 83E-03	-1 77E-02	6 22E+00	3 93E-05	1 37E+02	1 21E-01	4 45E+01	1 80E+00	0 00E+00	1 35E-01	2 98E-01	4 16E-02	4 41E-02	6 22E+00
-454E-02	8 09E-03	2 29E-03	9 68E-03	2 60E-03	-1 76E-02	6 22E+00	-4 64E-06	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 35E-01	2 98E-01	4 14E-02	4 40E-02	6 22E+00
-458E-02	8 16E-03	1 70E-03	1 11E-02	2 28E-03	-1 77E-02	6 22E+00	4 66E-05	1 37E+02	1 21E-01	4 53E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 17E-02	4 40E-02	6 22E+00
-450E-02	8 15E-03	2 46E-03	9 06E-03	2 62E-03	-1 72E-02	6 22E+00	3 93E-05	1 36E+02	1 20E-01	4 46E+01	1 80E+00	0 00E+00	1 32E-01	2 98E-01	4 10E-02	4 35E-02	6 22E+00
-455E-02	7 91E-03	3 10E-03	2 17E-02	1 76E-02	-1 76E-02	6 22E+00	-4 64E-06	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 11E-02	4 35E-02	6 22E+00
-454E-02	7 72E-03	1 83E-03	1 12E-02	2 29E-03	-1 78E-02	6 22E+00	-1 07E-04	1 37E+02	1 21E-01	4 53E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 15E-02	4 34E-02	6 22E+00
-461E-02	8 07E-03	2 59E-03	8 99E-03	2 59E-03	-1 77E-02	6 22E+00	2 22E-05	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 35E-01	2 98E-01	4 15E-02	4 34E-02	6 22E+00
-453E-02	7 66E-03	2 14E-03	9 31E-03	2 06E-03	-1 77E-02	6 22E+00	3 44E-05	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 10E-02	4 34E-02	6 22E+00
-463E-02	8 00E-03	1 12E-03	1 16E-02	2 76E-03	-1 81E-02	6 22E+00	1 73E-05	1 37E+02	1 21E-01	4 56E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 24E-02	4 30E-02	6 22E+00
-457E-02	7 90E-03	1 75E-03	8 42E-03	2 68E-03	-1 75E-02	6 22E+00	-4 64E-06	1 36E+02	1 20E-01	4 48E+01	1 80E+00	0 00E+00	1 33E-01	2 98E-01	4 10E-02	4 30E-02	6 22E+00
-457E-02	7 90E-03	1 08E-03	1 23E-02	2 72E-03	-1 79E-02	6 22E+00	-8 28E-05	1 37E+02	1 21E-01	4 53E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 24E-02	4 30E-02	6 22E+00
-456E-02	7 50E-03	3 37E-03	7 33E-03	1 85E-03	-1 76E-02	6 22E+00	2 71E-05	1 36E+02	1 20E-01	4 49E+01	1 80E+00	0 00E+00	1 34E-01	2 98E-01	4 09E-02	4 30E-02	6 22E+00
-449E-02	7 29E-03	1 59E-03	9 12E-03	2 48E-03	-1 77E-02	6 22E+00	1 25E-05	1 36E+02	1 20E-01	4 46E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 29E-02	4 30E-02	6 22E+00
-457E-02	7 65E-03	2 93E-03	8 21E-03	2 64E-03	-1 77E-02	6 22E+00	-9 52E-06	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 38E-01	2 98E-01	4 19E-02	4 30E-02	6 22E+00
-460E-02	7 83E-03	1 40E-03	1 00E-02	2 18E-03	-1 80E-02	6 22E+00	-5 59E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 35E-01	2 98E-01	4 15E-02	4 30E-02	6 22E+00
-461E-02	7 99E-03	1 50E-03	8 56E-03	2 58E-03	-1 77E-02	6 22E+00	4 52E-05	1 37E+02	1 21E-01	4 53E+01	1 80E+00	0 00E+00	1 40E-01	2 98E-01	4 17E-02	4 30E-02	6 22E+00
-456E-02	8 13E-03	5 06E-03	7 59E-03	2 44E-03	-1 82E-02	6 22E+00	9 64E-05	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 27E-02	4 30E-02	6 22E+00
-455E-02	7 83E-03	2 36E-03	8 27E-03	2 64E-03	-1 79E-02	6 22E+00	-1 34E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 17E-02	4 30E-02	6 22E+00
-455E-02	8 20E-03	1 50E-03	8 96E-03	2 10E-03	-1 79E-02	6 22E+00	-9 64E-05	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 40E-01	2 98E-01	4 15E-02	4 30E-02	6 22E+00
-455E-02	7 93E-03	1 78E-03	1 03E-02	1 92E-03	-1 82E-02	6 22E+00	2 08E-05	1 37E+02	1 21E-01	4 53E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 10E-02	4 30E-02	6 22E+00
-448E-02	7 84E-03	1 82E-03	1 03E-02	2 51E-03	-1 83E-02	6 22E+00	-2 32E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 17E-02	4 30E-02	6 22E+00
-456E-02	7 97E-03	1 47E-03	9 23E-03	2 33E-03	-1 79E-02	6 22E+00	-2 56E-05	1 36E+02	1 21E-01	4 54E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 16E-02	4 30E-02	6 22E+00
-456E-02	8 39E-03	4 86E-04	1 20E-02	2 89E-03	-1 82E-02	6 22E+00	-1 83E-05	1 37E+02	1 21E-01	4 52E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 17E-02	4 30E-02	6 22E+00
-459E-02	8 39E-03	2 72E-03	7 72E-03	2 47E-03	-1 79E-02	6 22E+00	2 81E-05	1 36E+02	1 21E-01	4 50E+01	1 80E+00	0 00E+00	1 38E-01	2 98E-01	4 15E-02	4 30E-02	6 22E+00
-455E-02	7 81E-03	3 39E-04	1 17E-02	2 45E-03	-1 81E-02	6 22E+00	1 83E-05	1 36E+02	1 20E-01	4 50E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 15E-02	4 30E-02	6 22E+00
-457E-02	8 14E-03	2 51E-03	9 40E-03	2 60E-03	-1 80E-02	6 22E+00	4 03E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 19E-02	4 30E-02	6 22E+00
-457E-02	7 2E-03	1 43E-03	8 66E-03	2 79E-03	-1 78E-02	6 22E+00	1 83E-05	1 36E+02	1 20E-01	4 48E+01	1 80E+00	0 00E+00	1 37E-01	2 98E-01	4 12E-02	4 30E-02	6 22E+00
-455E-02	7 83E-03	1 61E-04	1 20E-02	3 08E-03	-1 80E-02	6 22E+00	-5 00E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 16E-02	4 30E-02	6 22E+00
-456E-02	7 80E-03	1 23E-03	1 18E-02	3 18E-03	-1 79E-02	6 22E+00	-5 49E-05	1 37E+02	1 21E-01	4 53E+01	1 80E+00	0 00E+00	1 39E-01	2 98E-01	4 15E-02	4 30E-02	6 22E+00
-454E-02	7 95E-03	9 86E-04	1 08E-02	2 65E-03	-1 78E-02	6 22E+00	-1 34E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1 36E-01	2 98E-01	4 17E-02	4 30E-02	6 22E+00
-457E-02	8 01E-03	2 24E-03	7 76E-03	2 60E-03	-1 79E-02	6 22E+00	5 49E-05	1 36E+02	1 21E-01	4 51E+01	1 80E+00	0 00E+00	1				

-450E-02	799E-03	107E-03	107E-02	328E-03	-178E-02	622E+00	557E-05	136E+02	121E-01	451E+01	541E+04	328E-01	000E+00	140E-01	271-01	411E-01	425E-01	250E-01
-45E-02	791E-03	647E-04	112E-02	357E-03	-182E-02	622E+00	142E-05	137E+02	121E-01	455E+01	544E+04	328E-01	000E+00	140E-01	271-01	411E-01	426E-01	250E-01
-447E-02	775E-03	122E-03	908E-03	282E-03	-178E-02	622E+00	298E-05	136E+02	120E-01	449E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	418E-01	243E-01
-453E-02	800E-03	174E-03	895E-03	269E-03	-176E-02	622E+00	117E-05	136E+02	120E-01	448E+01	539E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-453E-02	808E-03	635E-04	105E-02	294E-03	-178E-02	622E+00	928E-06	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-451E-02	795E-03	270E-03	747E-03	309E-03	-172E-02	622E+00	117E-05	136E+02	120E-01	448E+01	539E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-454E-02	769E-03	128E-03	651E-03	275E-03	-179E-02	622E+00	684E-06	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-45E-02	794E-03	128E-03	926E-03	301E-03	-180E-02	622E+00	-298E-05	136E+02	121E-01	451E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-449E-02	765E-03	938E-04	877E-03	282E-03	-180E-02	622E+00	-176E-05	136E+02	121E-01	451E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-447E-02	751E-03	289E-03	670E-03	258E-03	-180E-02	622E+00	-781E-06	136E+02	120E-01	449E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-458E-02	813E-03	224E-03	891E-03	274E-03	-178E-02	622E+00	-103E-05	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-455E-02	766E-03	294E-03	693E-03	279E-03	-180E-02	622E+00	508E-05	137E+02	121E-01	453E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-446E-02	750E-03	204E-03	748E-03	262E-03	-181E-02	622E+00	778E-05	136E+02	120E-01	447E+01	539E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-453E-02	783E-03	124E-03	894E-03	335E-03	-181E-02	622E+00	684E-06	136E+02	121E-01	453E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-446E-02	745E-03	173E-03	656E-03	338E-03	-179E-02	622E+00	-151E-05	136E+02	120E-01	449E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-450E-02	876E-03	-446E-04	120E-02	261E-03	-182E-02	622E+00	522E-05	136E+02	121E-01	451E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-455E-02	805E-03	160E-03	939E-03	254E-03	-181E-02	622E+00	498E-05	137E+02	121E-01	452E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-452E-02	833E-03	464E-04	117E-02	266E-03	-179E-02	622E+00	-186E-05	136E+02	120E-01	449E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
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-451E-02	836E-03	125E-03	927E-03	310E-03	-178E-02	622E+00	830E-06	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-449E-02	769E-03	906E-04	874E-03	251E-03	-178E-02	622E+00	205E-05	136E+02	120E-01	448E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-451E-02	807E-03	652E-04	107E-02	247E-03	-179E-02	622E+00	-391E-06	136E+02	120E-01	449E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
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-452E-02	844E-03	-362E-04	115E-02	250E-03	-182E-02	622E+00	-101E-04	137E+02	121E-01	453E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-450E-02	810E-03	105E-03	912E-03	282E-03	-180E-02	622E+00	452E-05	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-453E-02	823E-03	205E-03	878E-03	267E-03	-178E-02	622E+00	159E-05	136E+02	120E-01	450E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-454E-02	817E-03	639E-04	100E-02	295E-03	-180E-02	622E+00	-305E-05	136E+02	121E-01	451E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-458E-02	825E-03	156E-03	836E-03	255E-03	-182E-02	622E+00	-647E-05	137E+02	121E-01	450E+01	544E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-452E-02	792E-03	143E-03	849E-03	298E-03	-182E-02	622E+00	-366E-06	137E+02	121E-01	453E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-453E-02	795E-03	215E-03	917E-03	209E-03	-181E-02	622E+00	-427E-05	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-452E-02	799E-03	113E-03	973E-03	272E-03	-181E-02	622E+00	598E-05	136E+02	120E-01	450E+01	541E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-448E-02	792E-03	192E-03	749E-03	261E-03	-178E-02	622E+00	-354E-05	136E+02	120E-01	449E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-447E-02	768E-03	210E-03	808E-03	330E-03	-180E-02	622E+00	-654E-06	136E+02	120E-01	450E+01	540E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-453E-02	780E-03	113E-03	103E-02	290E-03	-181E-02	622E+00	-159E-05	137E+02	121E-01	453E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-450E-02	797E-03	805E-04	839E-03	295E-03	-179E-02	622E+00	-183E-05	136E+02	120E-01	447E+01	539E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01
-453E-02	792E-03	123E-03	840E-03	290E-03	-182E-02	622E+00	-618E-05	137E+02	121E-01	452E+01	542E+04	328E-01	000E+00	139E-01	271-01	410E-01	419E-01	243E-01

NI (volts)	A2 (volts)	V1 (volts)	V2 (volts)	RH (volts)	Amell (volts)	Excitation (volts)	Static Press. (psi)	Vel (mph)	ftach	g	ra	Depth (ft)	Alpha (deg)	Omega	Gamma
-7.21E-02	3.03E-02	3.12E-02	-2.17E-02	-2.34E-02	1.42E-02	6.22E+00	-5.37E-06	1.36E+02	1.20E-01	4.46E+01	5.40E+04	0.00E+00	0.00E+00	1.03E-01	5.74E-02
-7.15E-02	3.01E-02	3.07E-02	-2.15E-02	-2.35E-02	1.44E-02	6.22E+00	1.90E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	0.00E+00	0.00E+00	1.00E-01	6.06E-02
-7.25E-02	3.11E-02	3.04E-02	-2.08E-02	-2.35E-02	1.47E-02	6.22E+00	5.52E-05	1.36E+02	1.21E-01	4.52E+01	5.43E+04	0.00E+00	0.00E+00	1.00E-01	5.94E-02
-7.24E-02	3.07E-02	3.19E-02	-2.21E-02	-2.28E-02	1.46E-02	6.22E+00	-1.03E-04	1.35E+02	1.20E-01	4.45E+01	5.39E+04	0.00E+00	0.00E+00	1.05E-01	6.00E-02
-7.33E-02	3.08E-02	3.29E-02	-2.34E-02	-2.28E-02	1.46E-02	6.22E+00	-5.66E-05	1.36E+02	1.20E-01	4.50E+01	5.42E+04	0.00E+00	0.00E+00	1.00E-01	5.92E-02
-7.36E-02	3.09E-02	3.05E-02	-2.12E-02	-2.32E-02	1.48E-02	6.22E+00	-2.49E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	0.00E+00	0.00E+00	1.07E-01	5.90E-02
-7.40E-02	3.12E-02	3.17E-02	-2.19E-02	-2.31E-02	1.48E-02	6.22E+00	-6.64E-05	1.37E+02	1.21E-01	4.53E+01	5.38E+04	0.00E+00	0.00E+00	1.09E-01	5.89E-02
-7.25E-02	3.06E-02	3.08E-02	-2.23E-02	-2.33E-02	1.46E-02	6.22E+00	6.94E-06	1.35E+02	1.20E-01	4.44E+01	5.37E+04	0.00E+00	0.00E+00	1.07E-01	5.90E-02
-7.23E-02	3.09E-02	3.10E-02	-2.08E-02	-2.30E-02	1.45E-02	6.22E+00	-9.33E-05	1.35E+02	1.20E-01	4.44E+01	5.38E+04	0.00E+00	0.00E+00	1.07E-01	5.89E-02
-7.23E-02	3.01E-02	3.01E-02	-2.09E-02	-2.23E-02	1.44E-02	6.22E+00	3.12E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	0.00E+00	0.00E+00	1.06E-01	5.87E-02
-7.29E-02	3.04E-02	2.98E-02	-2.18E-02	-2.23E-02	1.45E-02	6.22E+00	-9.33E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	0.00E+00	0.00E+00	1.09E-01	5.91E-02
-7.22E-02	3.03E-02	3.03E-02	-2.14E-02	-2.20E-02	1.45E-02	6.22E+00	-4.44E-05	1.35E+02	1.19E-01	4.42E+01	5.37E+04	0.00E+00	0.00E+00	1.07E-01	5.87E-02
-7.25E-02	3.07E-02	2.96E-02	-2.20E-02	-2.16E-02	1.47E-02	6.22E+00	-7.37E-05	1.35E+02	1.20E-01	4.43E+01	5.36E+04	0.00E+00	0.00E+00	1.09E-01	5.94E-02
-7.15E-02	2.98E-02	3.10E-02	-2.19E-02	-2.17E-02	1.45E-02	6.22E+00	-6.64E-05	1.35E+02	1.19E-01	4.41E+01	5.36E+04	0.00E+00	0.00E+00	1.06E-01	5.82E-02
-7.34E-02	3.10E-02	3.15E-02	-2.19E-02	-2.34E-02	1.47E-02	6.22E+00	-3.71E-05	1.36E+02	1.21E-01	4.52E+01	5.43E+04	0.00E+00	0.00E+00	1.09E-01	5.94E-02
-7.30E-02	3.06E-02	3.02E-02	-2.10E-02	-2.30E-02	1.47E-02	6.22E+00	-7.13E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	0.00E+00	0.00E+00	1.07E-01	5.82E-02
-7.40E-02	3.09E-02	3.00E-02	-2.22E-02	-2.28E-02	1.47E-02	6.22E+00	-2.00E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	0.00E+00	0.00E+00	1.08E-01	5.96E-02
-7.44E-02	3.15E-02	3.19E-02	-2.22E-02	-2.43E-02	1.49E-02	6.22E+00	-5.42E-05	1.37E+02	1.21E-01	4.58E+01	5.47E+04	0.00E+00	0.00E+00	1.08E-01	5.96E-02
-7.33E-02	3.07E-02	3.07E-02	-2.17E-02	-2.34E-02	1.47E-02	6.22E+00	-5.42E-05	1.36E+02	1.20E-01	4.50E+01	5.42E+04	0.00E+00	0.00E+00	1.05E-01	5.82E-02
-7.14E-02	3.05E-02	3.17E-02	-2.29E-02	-2.31E-02	1.45E-02	6.22E+00	-5.20E-05	1.36E+02	1.20E-01	4.47E+01	5.40E+04	0.00E+00	0.00E+00	1.06E-01	5.89E-02
-7.22E-02	3.06E-02	3.13E-02	-2.10E-02	-2.39E-02	1.45E-02	6.22E+00	6.59E-06	1.35E+02	1.20E-01	4.50E+01	5.39E+04	0.00E+00	0.00E+00	1.05E-01	5.83E-02
-7.08E-02	2.98E-02	3.03E-02	-2.02E-02	-2.27E-02	1.41E-02	6.22E+00	-3.25E-05	1.35E+02	1.20E-01	4.49E+01	5.37E+04	0.00E+00	0.00E+00	1.03E-01	5.70E-02
-7.21E-02	3.03E-02	3.18E-02	-2.18E-02	-2.42E-02	1.44E-02	6.22E+00	-2.51E-05	1.36E+02	1.20E-01	4.47E+01	5.40E+04	0.00E+00	0.00E+00	1.06E-01	5.83E-02
-7.18E-02	3.03E-02	3.28E-02	-2.17E-02	-2.37E-02	1.44E-02	6.22E+00	-3.00E-05	1.36E+02	1.20E-01	4.46E+01	5.40E+04	0.00E+00	0.00E+00	1.05E-01	5.83E-02
-7.05E-02	2.96E-02	3.20E-02	-2.18E-02	-2.30E-02	1.41E-02	6.22E+00	-1.05E-05	1.35E+02	1.19E-01	4.40E+01	5.36E+04	0.00E+00	0.00E+00	1.09E-01	5.72E-02
-7.20E-02	3.06E-02	3.02E-02	-2.01E-02	-2.33E-02	1.46E-02	6.22E+00	7.01E-05	1.35E+02	1.20E-01	4.45E+01	5.39E+04	0.00E+00	0.00E+00	1.09E-01	5.81E-02
-7.19E-02	3.01E-02	3.23E-02	-2.12E-02	-2.40E-02	1.45E-02	6.22E+00	4.57E-05	1.36E+02	1.20E-01	4.49E+01	5.41E+04	0.00E+00	0.00E+00	1.05E-01	5.84E-02
-7.09E-02	2.96E-02	3.09E-02	-2.14E-02	-2.21E-02	1.42E-02	6.22E+00	2.61E-05	1.35E+02	1.19E-01	4.42E+01	5.37E+04	0.00E+00	0.00E+00	1.06E-01	5.72E-02
-7.11E-02	2.99E-02	3.20E-02	-2.19E-02	-2.32E-02	1.46E-02	6.22E+00	-1.79E-05	1.37E+02	1.21E-01	4.55E+01	5.39E+04	0.00E+00	0.00E+00	1.08E-01	5.72E-02
-7.21E-02	3.03E-02	3.13E-02	-2.17E-02	-2.25E-02	1.44E-02	6.22E+00	-4.47E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	0.00E+00	0.00E+00	1.05E-01	5.85E-02
-7.31E-02	3.19E-02	3.19E-02	-2.12E-02	-2.43E-02	1.44E-02	6.22E+00	-1.29E-05	1.37E+02	1.21E-01	4.51E+01	5.43E+04	0.00E+00	0.00E+00	1.08E-01	5.72E-02
-7.15E-02	3.00E-02	3.22E-02	-2.21E-02	-2.33E-02	1.41E-02	6.22E+00	1.39E-05	1.37E+02	1.21E-01	4.45E+01	5.39E+04	0.00E+00	0.00E+00	1.09E-01	5.77E-02
-7.13E-02	2.98E-02	3.22E-02	-2.30E-02	-2.38E-02	1.41E-02	6.22E+00	-4.47E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	0.00E+00	0.00E+00	1.07E-01	5.83E-02
-7.16E-02	3.02E-02	2.93E-02	-2.03E-02	-2.20E-02	1.42E-02	6.22E+00	-7.32E-07	1.35E+02	1.20E-01	4.45E+01	5.39E+04	0.00E+00	0.00E+00	1.06E-01	5.75E-02
-7.20E-02	3.09E-02	3.11E-02	-2.05E-02	-2.35E-02	1.45E-02	6.22E+00	3.59E-05	1.36E+02	1.21E-01	4.52E+01	5.43E+04	0.00E+00	0.00E+00	1.09E-01	5.86E-02
-7.28E-02	3.09E-02	3.11E-02	-2.19E-02	-2.36E-02	1.44E-02	6.22E+00	1.59E-05	1.35E+02	1.20E-01	4.45E+01	5.39E+04	0.00E+00	0.00E+00	1.04E-01	5.72E-02
-7.26E-02	3.08E-02	3.23E-02	-2.37E-02	-2.44E-02	1.44E-02	6.22E+00	3.10E-05	1.37E+02	1.21E-01	4.52E+01	5.43E+04	0.00E+00	0.00E+00	1.06E-01	5.84E-02
-7.01E-02	2.97E-02	2.98E-02	-2.10E-02	-2.14E-02	1.40E-02	6.22E+00	-7.64E-05	1.34E+02	1.18E-01	4.34E+01	5.32E+04	0.00E+00	0.00E+00	1.02E-01	5.62E-02
-7.24E-02	3.08E-02	3.14E-02	-2.08E-02	-2.31E-02	1.47E-02	6.22E+00	-2.03E-05	1.36E+02	1.20E-01	4.50E+01	5.42E+04	0.00E+00	0.00E+00	1.09E-01	5.84E-02
-7.28E-02	3.09E-02	3.10E-02	-2.18E-02	-2.36E-02	1.46E-02	6.22E+00	5.79E-05	1.36E+02	1.20E-01	4.49E+01	5.41E+04	0.00E+00	0.00E+00	1.09E-01	5.84E-02
-7.21E-02	3.11E-02	3.24E-02	-2.28E-02	-2.43E-02	1.45E-02	6.22E+00	3.69E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	0.00E+00	0.00E+00	1.04E-01	5.72E-02
-7.25E-02	3.11E-02	3.24E-02	-2.28E-02	-2.43E-02	1.45E-02	6.22E+00	1.25E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	1.07E-01	5.89E-02
-7.21E-02	3.06E-02	3.21E-02	-2.19E-02	-2.37E-02	1.44E-02	6.22E+00	-5.35E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	0.00E+00	0.00E+00	1.05E-01	5.81E-02
-7.20E-02	3.09E-02	3.18E-02	-2.24E-02	-2.40E-02	1.44E-02	6.22E+00	2.69E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	0.00E+00	0.00E+00	1.05E-01	5.89E-02
-7.31E-02	3.15E-02	3.08E-02	-2.06E-02	-2.39E-02	1.45E-02	6.22E+00	3.20E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	0.00E+00	0.00E+00	1.09E-01	5.94E-02
-7.27E-02	3.12E-02	3.10E-02	-2.20E-02	-2.45E-02	1.44E-02	6.22E+00	2.64E-06	1.37E+02	1.21E-01	4.52E+01	5.43E+04	0.00E+00	0.00E+00	1.04E-01	5.84E-02
-7.18E-02	3.06E-02	3.09E-02	-2.15E-02	-2.35E-02	1.42E-02	6.22E+00	4.11E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	0.00E+00	0.00E+00	1.03E-01	5.79E-02
-7.12E-02	3.03E-02	3.12E-02	-2.13E-02	-2.34E-02	1.42E-02	6.22E+00	-2.20E-06	1.35E+02	1.20E-01	4.43E+01	5.37E+04	0.00E+00	0.00E+00	1.04E-01	5.79E-02
-7.24E-02	3.10E-02	3.26E-02	-2.41E-02	-2.36E-02	1.43E-02	6.22E+00	6.62E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	0.00E+00	0.00E+00	1.09E-01	5.95E-02
-7.28E-02	3.12E-02	3.28E-02	-2.32E-02	-2.40E-02	1.43E-02	6.22E+00	1.49E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	0.00E+00	0.00E+00	1.09E-01	5.95E-02
-7.27E-02	3.12E-02	3.18E-02	-2.20E-02	-2.31E-02	1.46E-02	6.22E+00	3.69E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	0.00E+00	0.00E+00	1.09E-01	5.94E-02

717E-02	311E-02	325E-02	-208E-02	-254E-02	144E-02	622E+00	396E-05	136E+02	120E-01	440E+01	538E+04	000E+00	104E-01	264E-01	696E-02	752E-02
717E-02	310E-02	308E-02	-206E-02	-238E-02	144E-02	622E+00	-200E-05	136E+02	120E-01	445E+01	538E+04	000E+00	-106E-01	264E-01	696E-02	752E-02
722E-02	310E-02	321E-02	-202E-02	-249E-02	145E-02	622E+00	-127E-05	136E+02	120E-01	440E+01	538E+04	000E+00	-106E-01	271E-01	696E-02	752E-02
720E-02	310E-02	324E-02	-218E-02	-250E-02	145E-02	622E+00	-204E-05	136E+02	120E-01	450E+01	540E+04	000E+00	104E-01	270E-01	696E-02	752E-02
724E-02	315E-02	306E-02	-215E-02	-249E-02	145E-02	622E+00	-103E-05	136E+02	121E-01	441E+01	541E+04	000E+00	-105E-01	269E-01	696E-02	752E-02
724E-02	314E-02	305E-02	-220E-02	-239E-02	146E-02	622E+00	117E-05	136E+02	120E-01	448E+01	540E+04	000E+00	-105E-01	263E-01	696E-02	752E-02
727E-02	314E-02	305E-02	-209E-02	-241E-02	144E-02	622E+00	313E-05	136E+02	121E-01	451E+01	541E+04	000E+00	105E-01	264E-01	696E-02	752E-02
724E-02	314E-02	305E-02	-231E-02	-242E-02	145E-02	622E+00	684E-06	136E+02	120E-01	447E+01	539E+04	000E+00	-105E-01	269E-01	696E-02	752E-02
725E-02	311E-02	317E-02	-225E-02	-244E-02	145E-02	622E+00	493E-05	136E+02	120E-01	447E+01	539E+04	000E+00	106E-01	272E-01	696E-02	752E-02
724E-02	314E-02	305E-02	-229E-02	-252E-02	147E-02	622E+00	928E-06	136E+02	120E-01	449E+01	540E+04	000E+00	107E-01	263E-01	696E-02	752E-02
720E-02	308E-02	307E-02	-215E-02	-248E-02	147E-02	622E+00	-200E-05	136E+02	120E-01	446E+01	538E+04	000E+00	-107E-01	262E-01	696E-02	752E-02
721E-02	313E-02	310E-02	-202E-02	-242E-02	145E-02	622E+00	928E-06	136E+02	120E-01	443E+01	537E+04	000E+00	106E-01	271E-01	696E-02	752E-02
721E-02	317E-02	304E-02	-200E-02	-250E-02	146E-02	622E+00	-127E-05	136E+02	120E-01	445E+01	538E+04	000E+00	-107E-01	271E-01	696E-02	752E-02
711E-02	308E-02	294E-02	-195E-02	-232E-02	142E-02	622E+00	415E-06	136E+02	120E-01	446E+01	538E+04	000E+00	104E-01	262E-01	696E-02	752E-02
716E-02	307E-02	298E-02	-209E-02	-228E-02	143E-02	622E+00	-203E-05	136E+02	120E-01	444E+01	537E+04	000E+00	-105E-01	268E-01	696E-02	752E-02
716E-02	307E-02	304E-02	-210E-02	-235E-02	143E-02	622E+00	652E-05	136E+02	120E-01	447E+01	539E+04	000E+00	-105E-01	270E-01	696E-02	752E-02
721E-02	315E-02	303E-02	-202E-02	-236E-02	146E-02	622E+00	432E-05	136E+02	120E-01	450E+01	541E+04	000E+00	107E-01	267E-01	696E-02	752E-02
714E-02	308E-02	303E-02	-208E-02	-228E-02	144E-02	622E+00	139E-05	136E+02	120E-01	444E+01	537E+04	000E+00	-105E-01	265E-01	696E-02	752E-02
697E-02	300E-02	297E-02	-193E-02	-232E-02	140E-02	622E+00	-349E-05	136E+02	120E-01	445E+01	538E+04	000E+00	-106E-01	269E-01	696E-02	752E-02
709E-02	305E-02	311E-02	-227E-02	-235E-02	141E-02	622E+00	310E-05	136E+02	119E-01	438E+01	535E+04	000E+00	-105E-01	262E-01	696E-02	752E-02
709E-02	304E-02	315E-02	-225E-02	-233E-02	142E-02	622E+00	-105E-05	136E+02	120E-01	445E+01	537E+04	000E+00	-105E-01	270E-01	696E-02	752E-02
709E-02	307E-02	314E-02	-218E-02	-237E-02	143E-02	622E+00	-667E-05	136E+02	120E-01	444E+01	537E+04	000E+00	-105E-01	266E-01	696E-02	752E-02
728E-02	316E-02	306E-02	-216E-02	-235E-02	148E-02	622E+00	-276E-05	136E+02	121E-01	452E+01	542E+04	000E+00	-109E-01	272E-01	696E-02	752E-02
717E-02	311E-02	310E-02	-204E-02	-246E-02	144E-02	622E+00	-582E-06	136E+02	120E-01	448E+01	539E+04	000E+00	104E-01	264E-01	696E-02	752E-02
716E-02	309E-02	320E-02	-232E-02	-243E-02	144E-02	622E+00	-806E-06	136E+02	121E-01	450E+01	541E+04	000E+00	-105E-01	267E-01	696E-02	752E-02
720E-02	313E-02	315E-02	-230E-02	-231E-02	144E-02	622E+00	359E-05	136E+02	120E-01	448E+01	540E+04	000E+00	104E-01	267E-01	696E-02	752E-02
713E-02	307E-02	317E-02	-214E-02	-244E-02	142E-02	622E+00	300E-05	136E+02	120E-01	446E+01	538E+04	000E+00	104E-01	266E-01	696E-02	752E-02
715E-02	306E-02	321E-02	-216E-02	-247E-02	142E-02	622E+00	115E-05	136E+02	120E-01	445E+01	538E+04	000E+00	-104E-01	268E-01	696E-02	752E-02
725E-02	312E-02	304E-02	-210E-02	-233E-02	144E-02	622E+00	-300E-05	136E+02	120E-01	450E+01	541E+04	000E+00	-106E-01	272E-01	696E-02	752E-02
712E-02	308E-02	309E-02	-221E-02	-240E-02	143E-02	622E+00	-388E-05	136E+02	120E-01	448E+01	539E+04	000E+00	104E-01	263E-01	696E-02	752E-02
724E-02	313E-02	303E-02	-212E-02	-236E-02	145E-02	622E+00	-691E-05	136E+02	121E-01	451E+01	541E+04	000E+00	-106E-01	268E-01	696E-02	752E-02
724E-02	313E-02	303E-02	-218E-02	-250E-02	143E-02	622E+00	139E-05	136E+02	120E-01	450E+01	541E+04	000E+00	-104E-01	264E-01	696E-02	752E-02
716E-02	305E-02	314E-02	-223E-02	-236E-02	143E-02	622E+00	-251E-05	136E+02	120E-01	447E+01	539E+04	000E+00	104E-01	268E-01	696E-02	752E-02
727E-02	316E-02	296E-02	-210E-02	-233E-02	146E-02	622E+00	415E-06	136E+02	121E-01	452E+01	542E+04	000E+00	-107E-01	270E-01	696E-02	752E-02
716E-02	306E-02	305E-02	-203E-02	-241E-02	142E-02	622E+00	750E-05	136E+02	120E-01	449E+01	540E+04	000E+00	-105E-01	266E-01	696E-02	752E-02
715E-02	305E-02	323E-02	-211E-02	-253E-02	143E-02	622E+00	627E-05	136E+02	120E-01	449E+01	540E+04	000E+00	105E-01	267E-01	696E-02	752E-02
722E-02	311E-02	296E-02	-209E-02	-238E-02	143E-02	622E+00	181E-05	136E+02	121E-01	453E+01	542E+04	000E+00	-104E-01	264E-01	696E-02	752E-02
736E-02	319E-02	310E-02	-200E-02	-249E-02	147E-02	622E+00	-879E-06	136E+02	121E-01	457E+01	545E+04	000E+00	-106E-01	270E-01	696E-02	752E-02
725E-02	312E-02	310E-02	-218E-02	-241E-02	144E-02	622E+00	449E-05	136E+02	121E-01	451E+01	541E+04	000E+00	107E-01	264E-01	696E-02	752E-02
725E-02	312E-02	287E-02	-202E-02	-227E-02	143E-02	622E+00	156E-05	136E+02	120E-01	449E+01	540E+04	000E+00	-104E-01	264E-01	696E-02	752E-02
729E-02	316E-02	321E-02	-215E-02	-251E-02	146E-02	622E+00	-161E-05	136E+02	121E-01	455E+01	543E+04	000E+00	-106E-01	271E-01	696E-02	752E-02
723E-02	310E-02	325E-02	-237E-02	-243E-02	143E-02	622E+00	181E-05	136E+02	121E-01	451E+01	541E+04	000E+00	-107E-01	264E-01	696E-02	752E-02
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712E-02	303E-02	307E-02	-220E-02	-228E-02	141E-02	622E+00	400E-05	136E+02	120E-01	445E+01	537E+04	000E+00	-104E-01	264E-01	696E-02	752E-02
720E-02	309E-02	309E-02	-217E-02	-236E-02	144E-02	622E+00	181E-05	136E+02	120E-01	450E+01	541E+04	000E+00	-106E-01	271E-01	696E-02	752E-02
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727E-02	312E-02	316E-02	-235E-02	-238E-02	144E-02	622E+00	977E-07	136E+02	121E-01	453E+01	543E+04	000E+00	-103E-01	267E-01	696E-02	752E-02
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736E-02	319E-02	288E-02	-213E-02	-238E-02	146E-02	622E+00	229E-05	136E+02	121E-01	453E+01	543E+04	000E+00	106E-01	272E-01	696E-02	752E-02
718E-02	310E-02	297E-02	-201E-02	-227E-02	143E-02	622E+00	251E-05	136E+02	120E-01	449E+01	540E+04	000E+00	-104E-01	268E-01	696E-02	752E-02

-729E-02	315E-02	312E-02	145E-02	6.22E+00	-115E-05	1.37E+02	2.1E-01	4.53E+01	5.43E+04	6.50E-01	0.00E+00	1.05E-01	2.65E-01	5.94E-02	7.5E-01
-722E-02	312E-02	305E-02	144E-02	6.22E+00	-4.08E-05	1.36E+02	2.0E-01	4.50E+01	5.41E+04	6.56E-01	0.00E+00	-1.04E-01	2.65E-01	5.94E-02	7.4E-01
-713E-02	305E-02	303E-02	142E-02	6.22E+00	-1.15E-05	1.35E+02	2.0E-01	4.45E+01	5.38E+04	6.56E-01	0.00E+00	-1.04E-01	2.64E-01	5.94E-02	7.6E-01
-729E-02	314E-02	309E-02	147E-02	6.22E+00	5.62E-06	1.36E+02	2.1E-01	4.51E+01	5.41E+04	6.56E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-729E-02	315E-02	310E-02	147E-02	6.22E+00	3.74E-05	1.36E+02	2.1E-01	4.51E+01	5.41E+04	6.56E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-729E-02	314E-02	310E-02	146E-02	6.22E+00	1.54E-05	1.37E+02	2.1E-01	4.52E+01	5.42E+04	6.56E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-729E-02	313E-02	296E-02	146E-02	6.22E+00	-3.34E-05	1.36E+02	2.1E-01	4.51E+01	5.41E+04	6.50E-01	0.00E+00	-1.04E-01	2.70E-01	5.94E-02	7.4E-01
-741E-02	322E-02	300E-02	147E-02	6.22E+00	5.62E-06	1.38E+02	2.2E-01	4.59E+01	5.46E+04	6.56E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-729E-02	314E-02	307E-02	146E-02	6.22E+00	-1.88E-05	1.37E+02	2.1E-01	4.52E+01	5.42E+04	6.56E-01	0.00E+00	-1.04E-01	2.66E-01	5.94E-02	7.4E-01
-716E-02	305E-02	310E-02	143E-02	6.22E+00	2.02E-05	1.36E+02	2.0E-01	4.47E+01	5.39E+04	6.56E-01	0.00E+00	-1.04E-01	2.71E-01	5.94E-02	7.4E-01
-722E-02	310E-02	310E-02	144E-02	6.22E+00	-4.32E-05	1.36E+02	2.0E-01	4.50E+01	5.41E+04	6.56E-01	0.00E+00	-1.04E-01	2.71E-01	5.94E-02	7.4E-01
-718E-02	311E-02	285E-02	142E-02	6.22E+00	2.49E-05	1.36E+02	2.0E-01	4.50E+01	5.41E+04	6.20E-01	0.00E+00	-1.04E-01	2.66E-01	5.94E-02	7.4E-01
-710E-02	308E-02	321E-02	142E-02	6.22E+00	1.51E-05	1.36E+02	2.0E-01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-720E-02	308E-02	318E-02	142E-02	6.22E+00	-1.66E-05	1.36E+02	2.0E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-720E-02	308E-02	318E-02	142E-02	6.22E+00	6.64E-05	1.36E+02	2.0E-01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-719E-02	311E-02	303E-02	145E-02	6.22E+00	3.37E-05	1.36E+02	2.0E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	-1.04E-01	2.66E-01	5.94E-02	7.4E-01
-721E-02	311E-02	303E-02	145E-02	6.22E+00	1.03E-05	1.36E+02	2.0E-01	4.46E+01	5.38E+04	8.20E-01	0.00E+00	-1.04E-01	2.67E-01	5.94E-02	7.4E-01
-721E-02	316E-02	290E-02	145E-02	6.22E+00	-1.17E-05	1.36E+02	2.0E-01	4.48E+01	5.39E+04	8.20E-01	0.00E+00	-1.04E-01	2.67E-01	5.94E-02	7.4E-01
-724E-02	315E-02	307E-02	144E-02	6.22E+00	4.35E-05	1.36E+02	2.0E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	-1.04E-01	2.67E-01	5.94E-02	7.4E-01
-721E-02	311E-02	308E-02	145E-02	6.22E+00	3.22E-05	1.36E+02	2.0E-01	4.48E+01	5.39E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-719E-02	308E-02	307E-02	143E-02	6.22E+00	-9.28E-06	1.36E+02	2.1E-01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-719E-02	309E-02	301E-02	143E-02	6.22E+00	-1.42E-05	1.36E+02	2.0E-01	4.45E+01	5.38E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-719E-02	309E-02	301E-02	143E-02	6.22E+00	-6.05E-05	1.36E+02	2.0E-01	4.48E+01	5.39E+04	8.20E-01	0.00E+00	-1.04E-01	2.70E-01	5.94E-02	7.4E-01
-733E-02	323E-02	304E-02	148E-02	6.22E+00	2.00E-05	1.37E+02	2.1E-01	4.55E+01	5.43E+04	8.20E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-720E-02	314E-02	305E-02	144E-02	6.22E+00	3.47E-05	1.36E+02	2.0E-01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	-1.04E-01	2.67E-01	5.94E-02	7.4E-01
-736E-02	322E-02	317E-02	147E-02	6.22E+00	-8.50E-05	1.37E+02	2.1E-01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	-1.04E-01	2.67E-01	5.94E-02	7.4E-01
-718E-02	318E-02	318E-02	146E-02	6.22E+00	5.37E-06	1.36E+02	2.1E-01	4.51E+01	5.41E+04	6.20E-01	0.00E+00	-1.04E-01	2.64E-01	5.94E-02	7.4E-01
-725E-02	313E-02	318E-02	149E-02	6.22E+00	-3.89E-05	1.37E+02	2.1E-01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	-1.04E-01	2.67E-01	5.94E-02	7.4E-01
-715E-02	308E-02	298E-02	140E-02	6.22E+00	6.35E-06	1.36E+02	2.0E-01	4.49E+01	5.40E+04	8.84E-01	0.00E+00	-1.04E-01	2.70E-01	5.94E-02	7.4E-01
-721E-02	309E-02	310E-02	141E-02	6.22E+00	8.79E-06	1.36E+02	2.0E-01	4.49E+01	5.40E+04	8.84E-01	0.00E+00	-1.04E-01	2.70E-01	5.94E-02	7.4E-01
-731E-02	315E-02	328E-02	145E-02	6.22E+00	-4.98E-05	1.36E+02	2.1E-01	4.49E+01	5.40E+04	8.84E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-729E-02	312E-02	304E-02	145E-02	6.22E+00	4.79E-05	1.37E+02	2.1E-01	4.54E+01	5.43E+04	8.84E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-726E-02	310E-02	309E-02	145E-02	6.22E+00	2.59E-05	1.36E+02	2.0E-01	4.49E+01	5.40E+04	8.84E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-710E-02	306E-02	289E-02	144E-02	6.22E+00	-1.25E-04	1.36E+02	2.0E-01	4.50E+01	5.41E+04	8.84E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-726E-02	310E-02	303E-02	146E-02	6.22E+00	5.88E-06	1.35E+02	1.9E-01	4.42E+01	5.36E+04	8.84E-01	0.00E+00	-1.04E-01	2.64E-01	5.94E-02	7.4E-01
-716E-02	304E-02	309E-02	142E-02	6.22E+00	-4.98E-05	1.36E+02	2.1E-01	4.51E+01	5.41E+04	8.84E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-708E-02	299E-02	309E-02	142E-02	6.22E+00	-1.32E-05	1.37E+02	2.1E-01	4.54E+01	5.43E+04	8.84E-01	0.00E+00	-1.04E-01	2.73E-01	5.94E-02	7.4E-01
-721E-02	309E-02	310E-02	141E-02	6.22E+00	-5.4E-05	1.36E+02	2.0E-01	4.48E+01	5.39E+04	8.84E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-720E-02	304E-02	322E-02	142E-02	6.22E+00	-3.76E-05	1.35E+02	2.0E-01	4.42E+01	5.36E+04	8.84E-01	0.00E+00	-1.04E-01	2.69E-01	5.94E-02	7.4E-01
-720E-02	304E-02	322E-02	142E-02	6.22E+00	3.76E-05	1.36E+02	2.1E-01	4.50E+01	5.41E+04	8.84E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-716E-02	302E-02	310E-02	141E-02	6.22E+00	4.30E-05	1.36E+02	2.0E-01	4.49E+01	5.40E+04	8.84E-01	0.00E+00	-1.04E-01	2.70E-01	5.94E-02	7.4E-01
-710E-02	302E-02	300E-02	140E-02	6.22E+00	1.86E-05	1.35E+02	2.0E-01	4.42E+01	5.37E+04	8.84E-01	0.00E+00	-1.04E-01	2.70E-01	5.94E-02	7.4E-01
-714E-02	303E-02	311E-02	142E-02	6.22E+00	-2.05E-05	1.36E+02	2.0E-01	4.46E+01	5.41E+04	8.84E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-725E-02	308E-02	298E-02	144E-02	6.22E+00	3.42E-06	1.36E+02	2.0E-01	4.50E+01	5.41E+04	8.84E-01	0.00E+00	-1.04E-01	2.74E-01	5.94E-02	7.4E-01
-719E-02	310E-02	294E-02	143E-02	6.22E+00	1.50E-05	1.37E+02	2.1E-01	4.52E+01	5.42E+04	11.5E+00	0.00E+00	1.08E-01	2.75E-01	6.03E-02	7.4E-01
-724E-02	315E-02	306E-02	145E-02	6.22E+00	6.92E-05	1.37E+02	2.1E-01	4.53E+01	5.42E+04	11.5E+00	0.00E+00	1.05E-01	2.65E-01	5.94E-02	7.4E-01
-723E-02	310E-02	308E-02	145E-02	6.22E+00	-2.81E-05	1.36E+02	2.0E-01	4.49E+01	5.40E+04	11.5E+00	0.00E+00	1.05E-01	2.65E-01	5.94E-02	7.4E-01
-721E-02	308E-02	315E-02	145E-02	6.22E+00	5.22E-05	1.36E+02	2.1E-01	4.51E+01	5.41E+04	11.5E+00	0.00E+00	1.05E-01	2.65E-01	5.94E-02	7.4E-01
-715E-02	307E-02	296E-02	143E-02	6.22E+00	2.34E-05	1.36E+02	2.0E-01	4.49E+01	5.40E+04	11.5E+00	0.00E+00	1.04E-01	2.66E-01	5.94E-02	7.4E-01
-713E-02	306E-02	317E-02	143E-02	6.22E+00	-1.37E-05	1.36E+02	2.0E-01	4.47E+01	5.39E+04	11.5E+00	0.00E+00	1.04E-01	2.66E-01	5.94E-02	7.4E-01
-733E-02	316E-02	308E-02	146E-02	6.22E+00	-1.61E-05	1.37E+02	2.1E-01	4.57E+01	5.45E+04	11.5E+00	0.00E+00	1.07E-01	2.74E-01	5.94E-02	7.4E-01
-723E-02	310E-02	293E-02	144E-02	6.22E+00	-2.54E-05	1.37E+02	2.1E-01	4.53E+01	5.43E+04	11.5E+00	0.00E+00	1.07E-01	2.65E-01	5.94E-02	7.4E-01

-713E-02	3.02E-02	2.90E-02	1.97E-02	-1.97E-02	2.13E-02	1.43E-02	6.22E+00	3.05E-05	1.36E+02	1.20E-01	4.40E+01	5.38E+04	3.29E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-707E-02	2.99E-02	2.84E-02	-1.95E-02	-2.18E-02	1.43E-02	6.22E+00	6.22E+00	3.66E-06	1.36E+02	1.20E-01	4.40E+01	5.38E+04	3.29E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-719E-02	3.04E-02	3.02E-02	-2.24E-02	-2.18E-02	1.43E-02	6.22E+00	6.22E+00	-4.76E-01	1.36E+02	1.20E-01	4.40E+01	5.40E+04	3.29E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-699E-02	2.93E-02	2.93E-02	-2.11E-02	-2.18E-02	1.41E-02	6.22E+00	6.22E+00	3.66E-06	1.35E+02	1.19E-01	4.39E+01	5.34E+04	3.29E-01	0.00E+00	-1.04E-01	2.69E-01	5.73E-02	1.17E-01
-719E-02	3.03E-02	2.97E-02	-2.22E-02	-2.22E-02	1.44E-02	6.22E+00	6.22E+00	8.55E-06	1.36E+02	1.20E-01	4.50E+01	5.40E+04	3.29E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-724E-02	3.03E-02	3.06E-02	-2.14E-02	-2.29E-02	1.45E-02	6.22E+00	6.22E+00	-8.54E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.29E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-714E-02	3.00E-02	3.00E-02	-2.10E-02	-2.17E-02	1.44E-02	6.22E+00	6.22E+00	2.35E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-716E-02	3.03E-02	3.07E-02	-2.20E-02	-2.17E-02	1.44E-02	6.22E+00	6.22E+00	-1.83E-05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-724E-02	3.08E-02	2.83E-02	-2.00E-02	-2.24E-02	1.45E-02	6.22E+00	6.22E+00	-6.10E-06	1.37E+02	1.21E-01	4.54E+01	5.43E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-723E-02	2.99E-02	3.04E-02	-2.08E-02	-2.20E-02	1.44E-02	6.22E+00	6.22E+00	1.34E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.28E-01	0.00E+00	-1.05E-01	2.71E-01	5.74E-02	1.18E-01
-725E-02	3.03E-02	2.90E-02	-1.90E-02	-2.24E-02	1.45E-02	6.22E+00	6.22E+00	1.10E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.74E-02	1.18E-01
-726E-02	3.09E-02	2.83E-02	-1.99E-02	-2.16E-02	1.47E-02	6.22E+00	6.22E+00	1.22E-06	1.37E+02	1.21E-01	4.54E+01	5.43E+04	3.28E-01	0.00E+00	-1.05E-01	2.71E-01	5.75E-02	1.18E-01
-714E-02	3.08E-02	2.72E-02	-1.95E-02	-2.10E-02	1.44E-02	6.22E+00	6.22E+00	7.84E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	3.28E-01	0.00E+00	-1.05E-01	2.71E-01	5.75E-02	1.18E-01
-717E-02	3.03E-02	2.93E-02	-2.16E-02	-2.09E-02	1.45E-02	6.22E+00	6.22E+00	6.62E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.75E-02	1.18E-01
-716E-02	3.08E-02	3.16E-02	-2.33E-02	-2.28E-02	1.47E-02	6.22E+00	6.22E+00	7.35E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.75E-02	1.18E-01
-711E-02	3.04E-02	2.85E-02	-2.04E-02	-2.14E-02	1.44E-02	6.22E+00	6.22E+00	1.75E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-723E-02	3.09E-02	2.82E-02	-2.08E-02	-2.11E-02	1.44E-02	6.22E+00	6.22E+00	-5.53E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-725E-02	3.02E-02	2.82E-02	-2.11E-02	-2.25E-02	1.45E-02	6.22E+00	6.22E+00	1.83E-05	1.37E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-716E-02	3.02E-02	2.83E-02	-2.10E-02	-2.17E-02	1.43E-02	6.22E+00	6.22E+00	-3.39E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.28E-01	0.00E+00	-1.03E-01	2.71E-01	5.74E-02	1.18E-01
-708E-02	3.01E-02	2.85E-02	-2.01E-02	-2.11E-02	1.43E-02	6.22E+00	6.22E+00	8.08E-05	1.35E+02	1.19E-01	4.43E+01	5.37E+04	3.28E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-726E-02	3.12E-02	2.80E-02	-2.03E-02	-2.17E-02	1.47E-02	6.22E+00	6.22E+00	-7.08E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-718E-02	3.04E-02	2.80E-02	-2.03E-02	-2.20E-02	1.45E-02	6.22E+00	6.22E+00	8.81E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.28E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-715E-02	3.06E-02	2.84E-02	-2.00E-02	-2.17E-02	1.45E-02	6.22E+00	6.22E+00	3.15E-05	1.37E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.75E-02	1.18E-01
-726E-02	3.09E-02	2.74E-02	-2.00E-02	-2.15E-02	1.46E-02	6.22E+00	6.22E+00	6.86E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.75E-02	1.18E-01
-711E-02	2.97E-02	2.92E-02	-2.04E-02	-2.10E-02	1.42E-02	6.22E+00	6.22E+00	6.62E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.75E-02	1.18E-01
-711E-02	3.02E-02	2.77E-02	-2.01E-02	-2.17E-02	1.42E-02	6.22E+00	6.22E+00	-1.37E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-709E-02	3.03E-02	2.77E-02	-1.95E-02	-2.03E-02	1.41E-02	6.22E+00	6.22E+00	-5.52E-05	1.36E+02	1.20E-01	4.48E+01	5.38E+04	3.28E-01	0.00E+00	-1.02E-01	2.69E-01	5.73E-02	1.17E-01
-708E-02	3.08E-02	3.08E-02	-2.18E-02	-2.27E-02	1.43E-02	6.22E+00	6.22E+00	3.56E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	-1.05E-01	2.69E-01	5.73E-02	1.17E-01
-713E-02	3.05E-02	2.89E-02	-2.24E-02	-2.07E-02	1.43E-02	6.22E+00	6.22E+00	-2.83E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.28E-01	0.00E+00	-1.05E-01	2.69E-01	5.73E-02	1.17E-01
-720E-02	3.07E-02	2.74E-02	-1.93E-02	-2.22E-02	1.45E-02	6.22E+00	6.22E+00	5.86E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	-1.06E-01	2.70E-01	5.74E-02	1.18E-01
-725E-02	3.13E-02	2.84E-02	-2.00E-02	-2.15E-02	1.46E-02	6.22E+00	6.22E+00	-2.34E-05	1.37E+02	1.21E-01	4.55E+01	5.44E+04	3.28E-01	0.00E+00	-1.06E-01	2.70E-01	5.74E-02	1.18E-01
-716E-02	3.08E-02	2.91E-02	-2.07E-02	-2.17E-02	1.42E-02	6.22E+00	6.22E+00	1.37E-05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	-1.06E-01	2.70E-01	5.74E-02	1.18E-01
-724E-02	3.08E-02	2.89E-02	-2.08E-02	-2.16E-02	1.44E-02	6.22E+00	6.22E+00	4.74E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	3.28E-01	0.00E+00	-1.05E-01	2.70E-01	5.74E-02	1.18E-01
-714E-02	3.03E-02	2.95E-02	-2.19E-02	-2.11E-02	1.44E-02	6.22E+00	6.22E+00	4.00E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	3.28E-01	0.00E+00	-1.04E-01	2.69E-01	5.73E-02	1.17E-01
-721E-02	3.06E-02	2.93E-02	-2.20E-02	-2.23E-02	1.44E-02	6.22E+00	6.22E+00	9.77E-07	1.35E+02	1.20E-01	4.44E+01	5.37E+04	3.28E-01	0.00E+00	-1.04E-01	2.69E-01	5.73E-02	1.17E-01
-704E-02	2.96E-02	2.93E-02	-2.05E-02	-2.17E-02	1.42E-02	6.22E+00	6.22E+00	-1.46E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	-1.03E-01	2.70E-01	5.74E-02	1.18E-01
-721E-02	3.08E-02	2.97E-02	-2.11E-02	-2.28E-02	1.44E-02	6.22E+00	6.22E+00	2.29E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	-1.05E-01	2.69E-01	5.73E-02	1.17E-01
-719E-02	3.05E-02	2.78E-02	-2.03E-02	-2.17E-02	1.43E-02	6.22E+00	6.22E+00	-7.71E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.28E-01	0.00E+00	-1.05E-01	2.69E-01	5.73E-02	1.17E-01
-715E-02	3.08E-02	2.96E-02	-2.13E-02	-2.15E-02	1.41E-02	6.22E+00	6.22E+00	8.30E-06	1.35E+02	1.20E-01	4.44E+01	5.37E+04	3.28E-01	0.00E+00	-1.04E-01	2.69E-01	5.73E-02	1.17E-01
-708E-02	3.04E-02	2.97E-02	-2.10E-02	-2.21E-02	1.44E-02	6.22E+00	6.22E+00	5.22E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.28E-01	0.00E+00	-1.07E-01	2.70E-01	5.74E-02	1.18E-01
-732E-02	3.14E-02	3.04E-02	-2.10E-02	-2.22E-02	1.46E-02	6.22E+00	6.22E+00	-9.18E-05	1.37E+02	1.21E-01	4.57E+01	5.45E+04	3.28E-01	0.00E+00	-1.07E-01	2.71E-01	5.74E-02	1.18E-01
-726E-02	3.10E-02	2.89E-02	-2.08E-02	-2.20E-02	1.45E-02	6.22E+00	6.22E+00	-4.79E-05	1.37E+02	1.21E-01	4.55E+01	5.44E+04	3.28E-01	0.00E+00	-1.05E-01	2.69E-01	5.73E-02	1.17E-01
-721E-02	3.07E-02	2.97E-02	-2.22E-02	-2.22E-02	1.45E-02	6.22E+00	6.22E+00	8.30E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.28E-01	0.00E+00	-1.04E-01	2.69E-01	5.73E-02	1.17E-01
-721E-02	3.07E-02	2.97E-02	-2.04E-02	-2.21E-02	1.42E-02	6.22E+00	6.22E+00	-1.37E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-713E-02	3.02E-02	3.17E-02	-2.28E-02	-2.21E-02	1.44E-02	6.22E+00	6.22E+00	-4.30E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.28E-01	0.00E+00	-1.04E-01	2.70E-01	5.74E-02	1.18E-01
-729E-02	3.13E-02	2.83E-02	-2.17E-02	-2.07E-02	1.46E-02	6.22E+00	6.22E+00	5.86E-06	1.37E+02	1.21E-01	4.53E+01	5.43E+04	3.28E-01	0.00E+00	-1.06E-01	2.70E-01	5.74E-02	1.18E-01

-5.37E-02	1.30E-02	2.21E-02	1.04E-02	-2.12E-02	7.67E-04	6.22E+00	7.52E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	-2.74E-04	2.57E-01	4.15E-02	1.67E-02	6.11E-02
-5.27E-02	1.27E-02	2.14E-02	-1.51E-02	-2.03E-02	8.47E-04	6.22E+00	4.10E-05	1.36E+02	2.0E-01	4.47E+01	5.30E+04	2.46E-01	6.00E+00	-1.70E-03	2.54E-01	4.04E-02	1.90E-02	5.90E-02
-5.34E-02	1.32E-02	2.10E-02	-1.41E-02	-2.07E-02	8.91E-04	6.22E+00	3.47E-05	1.36E+02	1.20E-01	4.48E+01	5.30E+04	2.46E-01	6.00E+00	2.07E-03	2.57E-01	4.13E-02	1.68E-02	6.05E-02
-5.33E-02	1.31E-02	2.13E-02	-1.54E-02	-2.04E-02	7.50E-04	6.22E+00	-2.92E-06	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	-9.19E-04	2.57E-01	4.14E-02	1.74E-02	6.02E-02
-5.26E-02	1.29E-02	2.14E-02	-1.53E-02	-2.05E-02	8.28E-04	6.22E+00	-4.92E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	6.04E-03	2.54E-01	4.15E-02	1.75E-02	6.00E-02
-5.39E-02	1.34E-02	2.02E-02	-1.32E-02	-2.01E-02	9.52E-04	6.22E+00	4.30E-05	1.37E+02	1.20E-01	4.52E+01	5.42E+04	2.46E-01	6.00E+00	2.64E-03	2.54E-01	4.15E-02	1.76E-02	6.00E-02
-5.31E-02	1.30E-02	2.11E-02	-1.42E-02	-2.06E-02	9.77E-04	6.22E+00	4.49E-07	1.37E+02	1.20E-01	4.53E+01	5.43E+04	2.46E-01	6.00E+00	2.67E-03	2.54E-01	4.15E-02	1.76E-02	6.00E-02
-5.27E-02	1.26E-02	2.19E-02	-1.60E-02	-2.16E-02	7.94E-04	6.22E+00	7.37E-05	1.37E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	6.00E+00	2.29E-03	2.54E-01	4.14E-02	1.84E-02	6.00E-02
-5.41E-02	1.32E-02	2.09E-02	-1.21E-02	-2.11E-02	1.04E-03	6.22E+00	6.40E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	1.67E-03	2.57E-01	4.17E-02	1.78E-02	6.00E-02
-5.33E-02	1.28E-02	2.13E-02	-1.25E-02	-2.13E-02	8.55E-04	6.22E+00	2.29E-05	1.35E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	1.54E-03	2.57E-01	4.17E-02	1.81E-02	6.00E-02
-5.36E-02	1.33E-02	2.00E-02	-1.31E-02	-2.03E-02	8.11E-04	6.22E+00	5.81E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	1.74E-03	2.54E-01	4.16E-02	1.90E-02	6.00E-02
-5.24E-02	1.26E-02	2.04E-02	-1.61E-02	-2.14E-02	5.00E-04	6.22E+00	2.47E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	6.00E+00	1.39E-03	2.54E-01	4.16E-02	1.90E-02	6.00E-02
-5.27E-02	1.28E-02	2.11E-02	-1.40E-02	-2.07E-02	8.10E-04	6.22E+00	1.49E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	2.46E-01	6.00E+00	2.72E-03	2.54E-01	4.17E-02	1.78E-02	6.00E-02
-5.34E-02	1.33E-02	2.13E-02	-1.40E-02	-2.07E-02	8.10E-04	6.22E+00	-5.10E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	2.72E-03	2.54E-01	4.17E-02	1.78E-02	6.00E-02
-5.33E-02	1.30E-02	2.15E-02	-1.57E-02	-2.08E-02	8.98E-04	6.22E+00	-2.21E-06	1.37E+02	1.20E-01	4.52E+01	5.42E+04	2.46E-01	6.00E+00	1.99E-03	2.55E-01	4.18E-02	1.74E-02	6.00E-02
-5.32E-02	1.30E-02	2.20E-02	-1.59E-02	-2.06E-02	8.03E-04	6.22E+00	3.20E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	6.00E+00	1.89E-03	2.54E-01	4.18E-02	1.72E-02	6.00E-02
-5.36E-02	1.31E-02	2.04E-02	-1.31E-02	-2.06E-02	8.03E-04	6.22E+00	-2.42E-05	1.37E+02	1.20E-01	4.53E+01	5.42E+04	2.46E-01	6.00E+00	4.12E-03	2.52E-01	4.19E-02	1.75E-02	6.00E-02
-5.32E-02	1.29E-02	2.30E-02	-1.71E-02	-2.12E-02	8.79E-04	6.22E+00	-2.91E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	4.12E-03	2.54E-01	4.19E-02	1.70E-02	6.00E-02
-5.33E-02	1.29E-02	2.20E-02	-1.45E-02	-2.13E-02	8.04E-04	6.22E+00	-6.81E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	6.00E+00	1.65E-03	2.54E-01	4.19E-02	1.70E-02	6.00E-02
-5.31E-02	1.31E-02	2.06E-02	-1.57E-02	-2.13E-02	1.02E-03	6.22E+00	1.49E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	6.00E+00	2.12E-03	2.54E-01	4.19E-02	1.84E-02	6.00E-02
-5.30E-02	1.30E-02	2.04E-02	-1.37E-02	-2.18E-02	7.73E-04	6.22E+00	3.64E-05	1.37E+02	1.20E-01	4.52E+01	5.42E+04	2.46E-01	6.00E+00	1.83E-03	2.56E-01	4.19E-02	1.94E-02	6.00E-02
-5.35E-02	1.33E-02	2.25E-02	-1.50E-02	-2.17E-02	8.44E-04	6.22E+00	5.15E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	2.46E-01	6.00E+00	2.15E-03	2.55E-01	4.19E-02	1.96E-02	6.00E-02
-5.24E-02	1.26E-02	2.08E-02	-1.30E-02	-2.14E-02	7.94E-04	6.22E+00	5.40E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	2.46E-01	6.00E+00	2.28E-03	2.54E-01	4.19E-02	1.94E-02	6.00E-02
-5.24E-02	1.25E-02	2.31E-02	-1.75E-02	-2.15E-02	6.64E-04	6.22E+00	3.20E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	6.00E+00	1.61E-03	2.57E-01	4.19E-02	1.81E-02	6.00E-02
-5.30E-02	1.29E-02	2.23E-02	-1.65E-02	-2.20E-02	7.22E-04	6.22E+00	-2.17E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	5.90E-04	2.57E-01	4.19E-02	1.71E-02	6.00E-02
-5.31E-02	1.31E-02	2.15E-02	-1.27E-02	-2.17E-02	8.76E-04	6.22E+00	4.61E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	1.77E-03	2.55E-01	4.19E-02	1.81E-02	6.00E-02
-5.28E-02	1.28E-02	2.27E-02	-1.74E-02	-2.24E-02	6.07E-04	6.22E+00	5.88E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	2.00E-03	2.54E-01	4.19E-02	1.94E-02	6.00E-02
-5.35E-02	1.32E-02	2.00E-02	-1.27E-02	-2.20E-02	8.91E-04	6.22E+00	-5.35E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	6.00E+00	3.17E-04	2.54E-01	4.19E-02	1.97E-02	6.00E-02
-5.33E-02	1.30E-02	2.05E-02	-1.21E-02	-2.20E-02	8.91E-04	6.22E+00	-2.91E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	1.19E-03	2.57E-01	4.19E-02	1.94E-02	6.00E-02
-5.22E-02	1.25E-02	2.19E-02	-1.19E-02	-2.19E-02	3.05E-04	6.22E+00	4.76E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	2.72E-03	2.56E-01	4.19E-02	1.93E-02	6.00E-02
-5.28E-02	1.32E-02	2.16E-02	-1.70E-02	-2.20E-02	9.04E-04	6.22E+00	1.22E-06	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	6.00E+00	1.83E-04	2.57E-01	4.19E-02	1.94E-02	6.00E-02
-5.23E-02	1.28E-02	2.20E-02	-1.61E-02	-2.10E-02	6.72E-04	6.22E+00	3.05E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	6.00E+00	6.55E-04	2.55E-01	4.19E-02	1.77E-02	6.00E-02
-5.32E-02	1.30E-02	2.36E-02	-1.85E-02	-2.29E-02	7.55E-04	6.22E+00	1.10E-05	1.37E+02	1.20E-01	4.57E+01	5.45E+04	2.46E-01	6.00E+00	6.55E-04	2.55E-01	4.19E-02	1.77E-02	6.00E-02
-5.29E-02	1.30E-02	2.02E-02	-1.44E-02	-2.20E-02	6.40E-04	6.22E+00	-6.10E-06	1.37E+02	1.20E-01	4.54E+01	5.43E+04	2.46E-01	6.00E+00	2.21E-04	2.59E-01	4.19E-02	1.82E-02	6.00E-02
-5.33E-02	1.33E-02	2.16E-02	-1.71E-02	-2.20E-02	1.07E-03	6.22E+00	2.32E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	7.33E-03	2.53E-01	4.19E-02	1.93E-02	6.00E-02
-5.31E-02	1.31E-02	2.08E-02	-1.51E-02	-2.16E-02	8.72E-04	6.22E+00	3.05E-05	1.37E+02	1.20E-01	4.53E+01	5.42E+04	2.46E-01	6.00E+00	1.76E-03	2.54E-01	4.19E-02	1.93E-02	6.00E-02
-5.32E-02	1.29E-02	2.13E-02	-1.57E-02	-2.11E-02	8.01E-04	6.22E+00	-6.27E-05	1.37E+02	1.20E-01	4.52E+01	5.42E+04	2.46E-01	6.00E+00	2.23E-03	2.54E-01	4.19E-02	1.93E-02	6.00E-02
-5.40E-02	1.35E-02	2.08E-02	-1.45E-02	-2.10E-02	8.91E-04	6.22E+00	-6.94E-05	1.37E+02	1.20E-01	4.50E+01	5.44E+04	2.46E-01	6.00E+00	3.79E-03	2.56E-01	4.19E-02	1.94E-02	6.00E-02
-5.30E-02	1.31E-02	2.15E-02	-1.59E-02	-2.18E-02	9.36E-04	6.22E+00	-2.81E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	1.77E-03	2.56E-01	4.19E-02	1.93E-02	6.00E-02
-5.36E-02	1.31E-02	2.17E-02	-1.52E-02	-2.18E-02	9.36E-04	6.22E+00	8.54E-06	1.37E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	6.00E+00	2.10E-03	2.54E-01	4.19E-02	1.93E-02	6.00E-02
-5.31E-02	1.29E-02	2.14E-02	-1.45E-02	-2.20E-02	7.16E-04	6.22E+00	-1.50E-05	1.37E+02	1.20E-01	4.55E+01	5.44E+04	2.46E-01	6.00E+00	2.17E-04	2.59E-01	4.19E-02	1.93E-02	6.00E-02
-5.29E-02	1.26E-02	2.32E-02	-1.65E-02	-2.27E-02	7.16E-04	6.22E+00	2.81E-05	1.37E+02	1.20E-01	4.53E+01	5.42E+04	2.46E-01	6.00E+00	5.59E-04	2.59E-01	4.19E-02	1.93E-02	6.00E-02
-5.27E-02	1.26E-02	2.32E-02	-1.97E-02	-2.17E-02	7.20E-04	6.22E+00	-4.52E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	6.00E+00	5.59E-04	2.59E-01	4.19E-02	1.93E-02	6.00E-02
-5.20E-02	1.23E-02	2.22E-02	-1.71E-02	-2.19E-02	5.40E-04	6.22E+00	-2.56E-05	1.37E+02	1.20E-01	4.54E+01	5.43E+04	2.46E-01	6.00E+00	5.59E-04	2.59E-01	4.19E-02	1.93E-02	6.00E-02
-5.30E-02	1.25E-02	2.11E-02	-1.32E-02	-2.15E-02	5.74E-04	6.22E+00	-1.87E-05	1.37E+02	1.20E-01	4.55E+01	5.44E+04	2.46E-01	6.00E+00	5.01E-04	2.59E-01	4.19E-02	1.93E-02	6.00E-02
-5.28E-02	1.26E-02	2.29E-02	-1.82E-02	-2.20E-02	8.94E-04	6.22E+00	-4.76E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	2.46E-01	6.00E+00	1.82E-03	2.52E-01	4.19E-02	1.93E-02	6.00E-02
-5.25E-02	1.27E-02	2.14E-02	-1.54E-02	-2.20E-02	7.25E-04	6.22E+00	-3.86E-06	1.36E+02	1.20E-01	4.50E+01	5.40E+04	2.46E-01	6.00E+00	7.03E-04	2.54E-01	4.19E-02	1.93E-02	6.00E-02
-5.34E-02	1.27E-02	2.14E-02	-1.54E-02	-2.20E-02	6.66E-04	6.22E+00	4.03E-05	1.37E+02	1.20E-01	4.53E+01	5.42E+04	2.46E-01	6.00E+00	2.08E-03	2.54E-01	4.19E-02	1.93E-02	6.00E-02
-5.31E-02	1.30E-02	2.08E-02	-1.47E-02	-2.10E-02	9.04E-04	6.22E+00	1.83E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	2.46E-01	6.00E+00	2.08E-03	2.54E-01	4.1		

Table with 22 columns and 2000 rows of numerical data. Columns include values like 1.29E-02, 2.04E-02, 1.49E-02, etc.

5.30E-02	2.9E-02	1.90E-02	-1.25E-02	-1.08E-02	5.75E-04	6.23E+00	7.29E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.94E-01	1.00E+00	1.17E-04	1.00E+00	4.12E-01	1.7E-02	0.00
5.29E-02	2.9E-02	2.26E-02	-1.65E-02	-2.05E-02	4.53E-04	6.22E+00	3.22E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	9.94E-01	1.00E+00	1.50E-03	1.00E+00	4.09E-01	1.7E-02	0.00
5.29E-02	2.9E-02	2.26E-02	-1.65E-02	-2.05E-02	4.53E-04	6.22E+00	3.22E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	9.94E-01	1.00E+00	1.07E-04	1.00E+00	4.09E-01	1.7E-02	0.00
5.18E-02	2.2E-02	2.06E-02	-1.44E-02	-2.05E-02	6.44E-04	6.23E+00	4.98E-07	1.36E+02	1.20E-01	4.49E+01	5.42E+04	9.94E-01	1.00E+00	1.31E-04	1.00E+00	4.07E-01	1.7E-02	0.00
5.25E-02	1.4E-02	2.16E-02	-1.69E-02	-1.98E-02	8.68E-04	6.22E+00	3.71E-05	1.36E+02	1.20E-01	4.47E+01	5.376E+04	9.94E-01	1.00E+00	1.89E-04	1.00E+00	4.07E-01	1.7E-02	0.00
5.35E-02	3.1E-02	2.22E-02	-1.63E-02	-2.03E-02	9.41E-04	6.22E+00	-6.84E-06	1.36E+02	1.21E-01	4.50E+01	5.41E+04	9.94E-01	1.00E+00	2.34E-04	1.00E+00	4.11E-01	1.7E-02	0.00
5.35E-02	2.6E-02	2.18E-02	-1.56E-02	-2.15E-02	7.17E-04	6.22E+00	-2.49E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.94E-01	1.00E+00	1.97E-07	1.00E+00	4.11E-01	1.7E-02	0.00
5.28E-02	1.9E-02	1.97E-02	-1.45E-02	-2.01E-02	9.07E-04	6.22E+00	-6.84E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.94E-01	1.00E+00	1.10E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.30E-02	2.7E-02	2.18E-02	-1.64E-02	-2.05E-02	8.23E-04	6.22E+00	-6.05E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	9.94E-01	1.00E+00	2.73E-04	1.00E+00	4.11E-01	1.7E-02	0.00
5.36E-02	1.2E-02	2.12E-02	-1.43E-02	-2.05E-02	7.24E-04	6.22E+00	-9.28E-06	1.37E+02	1.21E-01	4.55E+01	5.44E+04	9.94E-01	1.00E+00	2.73E-04	1.00E+00	4.15E-01	1.7E-02	0.00
5.23E-02	2.4E-02	2.11E-02	-1.41E-02	-2.15E-02	7.53E-04	6.22E+00	-3.92E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.94E-01	1.00E+00	2.65E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.25E-02	1.2E-02	2.20E-02	-1.71E-02	-2.00E-02	6.56E-04	6.22E+00	-4.11E-05	1.36E+02	1.20E-01	4.47E+01	5.379E+04	9.94E-01	1.00E+00	1.63E-04	1.00E+00	4.09E-01	1.7E-02	0.00
5.40E-02	1.31E-02	2.25E-02	-1.75E-02	-2.12E-02	6.88E-04	6.22E+00	-2.94E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	9.94E-01	1.00E+00	1.63E-04	1.00E+00	4.14E-01	1.7E-02	0.00
5.19E-02	2.4E-02	2.18E-02	-1.67E-02	-2.00E-02	6.63E-04	6.22E+00	-3.42E-05	1.35E+02	1.20E-01	4.48E+01	5.39E+04	1.15E+00	1.00E+00	9.75E-04	1.00E+00	4.07E-01	1.7E-02	0.00
5.37E-02	1.30E-02	2.24E-02	-1.71E-02	-2.14E-02	7.80E-04	6.22E+00	-6.59E-05	1.36E+02	1.20E-01	4.46E+01	5.36E+04	1.15E+00	1.00E+00	2.40E-04	1.00E+00	4.07E-01	1.7E-02	0.00
5.33E-02	1.32E-02	2.14E-02	-1.53E-02	-2.08E-02	8.63E-04	6.22E+00	-7.32E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.15E+00	1.00E+00	1.72E-03	1.00E+00	4.11E-01	1.7E-02	0.00
5.27E-02	2.7E-02	2.24E-02	-1.60E-02	-2.10E-02	7.21E-04	6.22E+00	-2.67E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	1.15E+00	1.00E+00	5.42E-04	1.00E+00	4.09E-01	1.7E-02	0.00
5.36E-02	1.30E-02	2.19E-02	-1.52E-02	-2.12E-02	8.36E-04	6.22E+00	-7.81E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.15E+00	1.00E+00	4.94E-04	1.00E+00	4.07E-01	1.7E-02	0.00
5.28E-02	1.28E-02	2.03E-02	-1.41E-02	-2.06E-02	7.17E-04	6.22E+00	-4.89E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.15E+00	1.00E+00	2.19E-03	1.00E+00	4.11E-01	1.7E-02	0.00
5.37E-02	1.28E-02	2.09E-02	-1.59E-02	-2.03E-02	7.9E-04	6.22E+00	-1.71E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.15E+00	1.00E+00	2.5E-03	1.00E+00	4.12E-01	1.7E-02	0.00
5.37E-02	1.31E-02	2.13E-02	-1.48E-02	-2.08E-02	9.27E-04	6.22E+00	-7.32E-06	1.37E+02	1.21E-01	4.55E+01	5.44E+04	1.15E+00	1.00E+00	2.5E-03	1.00E+00	4.12E-01	1.7E-02	0.00
5.31E-02	3.0E-02	2.19E-02	-1.73E-02	-2.04E-02	9.02E-04	6.22E+00	-9.77E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.15E+00	1.00E+00	1.99E-03	1.00E+00	4.09E-01	1.7E-02	0.00
5.23E-02	1.24E-02	2.12E-02	-1.50E-02	-2.06E-02	6.31E-04	6.22E+00	-7.32E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.15E+00	1.00E+00	1.99E-03	1.00E+00	4.09E-01	1.7E-02	0.00
5.28E-02	1.25E-02	2.19E-02	-1.67E-02	-1.99E-02	6.82E-04	6.22E+00	-6.59E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.15E+00	1.00E+00	3.95E-04	1.00E+00	4.11E-01	1.7E-02	0.00
5.22E-02	2.2E-02	2.04E-02	-1.52E-02	-1.86E-02	3.94E-04	6.22E+00	-1.20E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	1.00E+00	6.85E-04	1.00E+00	4.12E-01	1.7E-02	0.00
5.31E-02	1.25E-02	2.17E-02	-1.75E-02	-1.92E-02	7.09E-04	6.22E+00	-2.20E-06	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.48E+00	1.00E+00	2.00E-04	1.00E+00	4.13E-01	1.7E-02	0.00
5.35E-02	1.25E-02	2.13E-02	-1.52E-02	-2.08E-02	8.43E-04	6.22E+00	-1.44E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	1.00E+00	2.00E-04	1.00E+00	4.13E-01	1.7E-02	0.00
5.27E-02	1.28E-02	2.11E-02	-1.59E-02	-1.98E-02	7.68E-04	6.22E+00	-2.69E-06	1.36E+02	1.21E-01	4.47E+01	5.39E+04	1.48E+00	1.00E+00	1.14E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.34E-02	1.33E-02	2.02E-02	-1.49E-02	-2.03E-02	1.00E-03	6.22E+00	-4.4E-07	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.48E+00	1.00E+00	2.9E-03	1.00E+00	4.12E-01	1.7E-02	0.00
5.28E-02	1.27E-02	2.10E-02	-1.71E-02	-1.99E-02	7.48E-04	6.22E+00	-3.59E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.48E+00	1.00E+00	9.78E-04	1.00E+00	4.12E-01	1.7E-02	0.00
5.32E-02	1.29E-02	2.12E-02	-1.44E-02	-2.16E-02	5.46E-04	6.22E+00	-2.42E-05	1.35E+02	1.21E-01	4.43E+01	5.38E+04	1.48E+00	1.00E+00	9.78E-04	1.00E+00	4.12E-01	1.7E-02	0.00
5.22E-02	1.21E-02	2.12E-02	-1.54E-02	-2.02E-02	6.24E-04	6.22E+00	-2.42E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	1.48E+00	1.00E+00	6.09E-06	1.00E+00	4.10E-01	1.7E-02	0.00
5.36E-02	1.29E-02	2.01E-02	-1.33E-02	-1.92E-02	7.82E-04	6.22E+00	-2.20E-06	1.36E+02	1.21E-01	4.50E+01	5.41E+04	1.48E+00	1.00E+00	1.47E-03	1.00E+00	4.12E-01	1.7E-02	0.00
5.29E-02	1.22E-02	2.29E-02	-1.64E-02	-2.16E-02	4.90E-04	6.22E+00	-5.15E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	1.00E+00	1.29E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.41E-02	1.34E-02	2.10E-02	-1.52E-02	-2.07E-02	6.35E-04	6.22E+00	-1.25E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.48E+00	1.00E+00	1.19E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.30E-02	1.25E-02	2.10E-02	-1.58E-02	-1.99E-02	8.10E-04	6.22E+00	-5.98E-05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	1.00E+00	2.19E-02	1.00E+00	4.10E-01	1.7E-02	0.00
5.28E-02	1.26E-02	2.10E-02	-1.53E-02	-1.95E-02	9.02E-04	6.22E+00	-2.42E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	1.00E+00	2.26E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.33E-02	1.25E-02	2.10E-02	-1.58E-02	-2.00E-02	8.55E-04	6.22E+00	-2.24E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.48E+00	1.00E+00	1.87E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.31E-02	1.25E-02	1.99E-02	-1.17E-02	-2.12E-02	7.24E-04	6.22E+00	-5.64E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	1.00E+00	2.17E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.31E-02	1.28E-02	2.18E-02	-1.43E-02	-2.16E-02	6.77E-04	6.22E+00	-1.00E-05	1.36E+02	1.20E-01	4.47E+01	5.41E+04	1.48E+00	1.00E+00	2.17E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.33E-02	1.21E-02	2.16E-02	-1.54E-02	-2.07E-02	5.92E-04	6.22E+00	-2.69E-06	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.48E+00	1.00E+00	2.56E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.20E-02	1.27E-02	2.04E-02	-1.42E-02	-1.96E-02	3.22E-04	6.22E+00	-1.54E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.48E+00	1.00E+00	1.63E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.27E-02	1.25E-02	2.22E-02	-1.57E-02	-2.04E-02	6.74E-04	6.22E+00	-4.98E-05	1.35E+02	1.20E-01	4.43E+01	5.37E+04	1.48E+00	1.00E+00	1.63E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.20E-02	1.24E-02	2.16E-02	-1.62E-02	-2.01E-02	8.37E-04	6.22E+00	-8.13E-05	1.35E+02	1.19E-01	4.41E+01	5.35E+04	1.48E+00	1.00E+00	1.63E-03	1.00E+00	4.10E-01	1.7E-02	0.00
5.26E-02	1.25E-02	2.10E-02	-1.35E-02	-2.13E-02	6.52E-04	6.22E+00	-1.15E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	1.00E+00	1.63E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.27E-02	1.23E-02	2.08E-02	-1.51E-02	-1.99E-02	5.47E-04	6.22E+00	-2.27E-05	1.35E+02	1.20E-01	4.45E+01	5.37E+04	1.48E+00	1.00E+00	2.26E-04	1.00E+00	4.10E-01	1.7E-02	0.00
5.28E-02	1.24E-02	2.17E-02	-1.74E-02	-2.03E-02	8.76E-04	6.22E+00	-3.10E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.48E+00	1.00E+00	2.91E-02	1.00E+00	4.10E-01	1.7E-02	0.00
5.24E-02	1.27E-02	2.18E-02	-1.85E-02	-1.95E-02	9.03E-04	6.22E+00	-1.15E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.48E+00	1.00E+00	2.91E-02	1.00E+00	4.10E-01	1.7E-02	0.00
5.35E-02	1.29E-02	2.08E-02	-1.50E-02	-2.07E-02	8.30E-04	6.22E+00	-6.59E-06	1.36E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	1.00E+00	1.73E-02	1.00E+00	4.11E-01	1.7E-02	0.00
5.28E-02	1.25E-02	2.12E-02	-1.37E-02	-2.08E-02	7.62E-04	6.22E+00	-3.10E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	1.00E+00	1.01E-03	1.00E+00	4.06E-01		

-530E-02	125E-02	208E-02	-143E-02	-200E-02	708E-04	6.22E+00	-659E-06	136E+02	120E-01	450E+01	541E+04	180E+00	0.00E+00	7.17E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-536E-02	132E-02	188E-02	-137E-02	-182E-02	478E-04	6.22E+00	2.60E-06	136E+02	20E-01	448E+01	539E+04	0.00E+00	0.00E+00	7.17E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-537E-02	130E-02	220E-02	-152E-02	-197E-02	583E-04	6.22E+00	-6.92E-06	37E+02	21E-01	452E+01	543E+04	0.00E+00	0.00E+00	7.17E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-537E-02	131E-02	223E-02	-162E-02	-189E-02	576E-04	6.22E+00	-1.98E-05	136E+02	20E-01	450E+01	541E+04	0.00E+00	0.00E+00	7.17E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-543E-02	135E-02	218E-02	-159E-02	-193E-02	750E-04	6.22E+00	4.12E-05	137E+02	21E-01	453E+01	543E+04	0.00E+00	0.00E+00	9.99E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-539E-02	130E-02	208E-02	-161E-02	-183E-02	491E-04	6.22E+00	-2.60E-06	136E+02	20E-01	448E+01	540E+04	0.00E+00	0.00E+00	7.04E-04	5.7E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-540E-02	137E-02	214E-02	-156E-02	-185E-02	801E-04	6.22E+00	4.69E-06	136E+02	20E-01	447E+01	539E+04	0.00E+00	0.00E+00	1.54E-04	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-545E-02	137E-02	205E-02	-155E-02	-185E-02	101E-03	6.22E+00	-6.12E-05	136E+02	22E-01	451E+01	541E+04	0.00E+00	0.00E+00	5.17E-02	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-541E-02	134E-02	201E-02	-150E-02	-185E-02	112E-03	6.22E+00	4.64E-06	136E+02	20E-01	449E+01	540E+04	0.00E+00	0.00E+00	4.06E-04	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-539E-02	132E-02	196E-02	-136E-02	-182E-02	857E-04	6.22E+00	-6.62E-05	136E+02	20E-01	445E+01	538E+04	0.00E+00	0.00E+00	3.72E-02	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-536E-02	135E-02	201E-02	-143E-02	-186E-02	103E-03	6.22E+00	-2.22E-05	136E+02	20E-01	445E+01	540E+04	0.00E+00	0.00E+00	3.4E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-545E-02	135E-02	197E-02	-149E-02	-187E-02	113E-03	6.22E+00	-7.75E-06	136E+02	21E-01	451E+01	541E+04	0.00E+00	0.00E+00	4.93E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-549E-02	138E-02	191E-02	-135E-02	-186E-02	122E-03	6.22E+00	4.37E-05	136E+02	20E-01	447E+01	539E+04	0.00E+00	0.00E+00	3.79E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-535E-02	132E-02	207E-02	-148E-02	-192E-02	110E-03	6.22E+00	4.37E-05	136E+02	20E-01	447E+01	541E+04	0.00E+00	0.00E+00	6.77E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-546E-02	138E-02	194E-02	-137E-02	-191E-02	141E-03	6.22E+00	4.13E-05	137E+02	21E-01	452E+01	542E+04	0.00E+00	0.00E+00	5.73E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-546E-02	138E-02	214E-02	-151E-02	-191E-02	102E-03	6.22E+00	7.08E-06	137E+02	21E-01	454E+01	543E+04	0.00E+00	0.00E+00	7.03E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-542E-02	135E-02	186E-02	-136E-02	-184E-02	119E-03	6.22E+00	-3.20E-05	136E+02	20E-01	449E+01	540E+04	0.00E+00	0.00E+00	4.69E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-546E-02	139E-02	207E-02	-148E-02	-184E-02	126E-03	6.22E+00	1.15E-04	136E+02	21E-01	451E+01	541E+04	0.00E+00	0.00E+00	5.13E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-529E-02	128E-02	192E-02	-142E-02	-182E-02	547E-04	6.22E+00	5.83E-05	136E+02	21E-01	451E+01	541E+04	1.89E-01	0.00E+00	7.74E-04	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-542E-02	128E-02	225E-02	-194E-02	-205E-02	730E-04	6.22E+00	4.12E-05	136E+02	20E-01	447E+01	539E+04	1.64E-01	0.00E+00	6.48E-04	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-527E-02	128E-02	227E-02	-178E-02	-209E-02	835E-04	6.22E+00	-1.25E-05	136E+02	20E-01	447E+01	539E+04	1.64E-01	0.00E+00	1.22E-02	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-531E-02	131E-02	227E-02	-178E-02	-209E-02	967E-04	6.22E+00	1.44E-05	136E+02	20E-01	447E+01	541E+04	1.64E-01	0.00E+00	1.36E-02	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-535E-02	130E-02	209E-02	-159E-02	-205E-02	739E-04	6.22E+00	-4.66E-05	136E+02	20E-01	449E+01	540E+04	1.64E-01	0.00E+00	2.65E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-534E-02	130E-02	210E-02	-155E-02	-189E-02	818E-04	6.22E+00	-6.13E-05	136E+02	20E-01	448E+01	538E+04	1.64E-01	0.00E+00	1.65E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-531E-02	130E-02	223E-02	-154E-02	-202E-02	884E-04	6.22E+00	3.88E-05	136E+02	20E-01	449E+01	540E+04	1.64E-01	0.00E+00	1.65E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-537E-02	129E-02	220E-02	-177E-02	-199E-02	759E-04	6.22E+00	4.13E-05	135E+02	20E-01	444E+01	537E+04	1.64E-01	0.00E+00	2.87E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-533E-02	132E-02	210E-02	-139E-02	-206E-02	994E-04	6.22E+00	-2.44E-07	136E+02	20E-01	449E+01	540E+04	1.64E-01	0.00E+00	2.87E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-537E-02	134E-02	216E-02	-146E-02	-207E-02	108E-03	6.22E+00	-2.44E-07	136E+02	20E-01	448E+01	539E+04	1.64E-01	0.00E+00	3.75E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-522E-02	129E-02	227E-02	-150E-02	-203E-02	666E-04	6.22E+00	-6.05E-05	136E+02	20E-01	447E+01	537E+04	3.28E-01	0.00E+00	1.74E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-521E-02	129E-02	222E-02	-165E-02	-205E-02	868E-04	6.22E+00	-2.88E-05	136E+02	20E-01	445E+01	538E+04	3.28E-01	0.00E+00	2.62E-03	5.4E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-536E-02	136E-02	199E-02	-147E-02	-200E-02	123E-03	6.22E+00	-8.98E-05	136E+02	20E-01	449E+01	540E+04	3.28E-01	0.00E+00	4.85E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-533E-02	137E-02	216E-02	-143E-02	-219E-02	123E-03	6.22E+00	-4.59E-05	136E+02	20E-01	450E+01	540E+04	3.28E-01	0.00E+00	4.48E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-537E-02	135E-02	200E-02	-122E-02	-212E-02	604E-04	6.22E+00	-1.90E-05	137E+02	21E-01	456E+01	544E+04	3.28E-01	0.00E+00	1.43E-04	5.7E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-525E-02	130E-02	214E-02	-145E-02	-213E-02	805E-04	6.22E+00	3.47E-05	136E+02	20E-01	447E+01	539E+04	3.28E-01	0.00E+00	1.23E-03	5.4E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-530E-02	133E-02	208E-02	-142E-02	-204E-02	961E-04	6.22E+00	-1.66E-05	136E+02	20E-01	445E+01	538E+04	3.28E-01	0.00E+00	2.62E-03	5.4E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-523E-02	127E-02	210E-02	-145E-02	-196E-02	868E-04	6.22E+00	-8.98E-05	135E+02	20E-01	445E+01	537E+04	3.28E-01	0.00E+00	1.35E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-527E-02	128E-02	208E-02	-138E-02	-207E-02	795E-04	6.22E+00	-1.09E-04	136E+02	20E-01	445E+01	538E+04	3.28E-01	0.00E+00	1.40E-03	5.7E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-528E-02	130E-02	211E-02	-157E-02	-205E-02	607E-04	6.22E+00	-1.99E-04	136E+02	20E-01	449E+01	540E+04	3.28E-01	0.00E+00	1.53E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-527E-02	127E-02	216E-02	-156E-02	-202E-02	817E-04	6.22E+00	-1.95E-06	136E+02	20E-01	448E+01	539E+04	3.28E-01	0.00E+00	2.09E-04	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-534E-02	135E-02	197E-02	-122E-02	-207E-02	100E-03	6.22E+00	-2.88E-05	137E+02	20E-01	449E+01	540E+04	3.28E-01	0.00E+00	1.45E-03	5.4E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-533E-02	133E-02	219E-02	-146E-02	-219E-02	839E-04	6.22E+00	-2.88E-05	137E+02	21E-01	453E+01	542E+04	3.28E-01	0.00E+00	1.79E-03	5.5E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-535E-02	127E-02	203E-02	-133E-02	-202E-02	762E-04	6.22E+00	2.66E-05	136E+02	20E-01	449E+01	540E+04	3.28E-01	0.00E+00	1.79E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-525E-02	124E-02	235E-02	-184E-02	-207E-02	755E-04	6.22E+00	4.13E-05	136E+02	21E-01	451E+01	541E+04	3.28E-01	0.00E+00	3.16E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-534E-02	133E-02	217E-02	-161E-02	-212E-02	101E-03	6.22E+00	7.08E-06	136E+02	20E-01	445E+01	539E+04	3.28E-01	0.00E+00	2.83E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-525E-02	130E-02	217E-02	-161E-02	-212E-02	101E-03	6.22E+00	7.08E-06	136E+02	20E-01	445E+01	541E+04	3.28E-01	0.00E+00	2.83E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-533E-02	129E-02	227E-02	-155E-02	-223E-02	855E-04	6.22E+00	5.59E-05	137E+02	21E-01	453E+01	542E+04	3.28E-01	0.00E+00	7.08E-04	5.4E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-535E-02	128E-02	199E-02	-155E-02	-187E-02	863E-04	6.22E+00	6.08E-05	136E+02	20E-01	445E+01	538E+04	3.28E-01	0.00E+00	3.16E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-527E-02	129E-02	218E-02	-156E-02	-208E-02	948E-04	6.22E+00	8.03E-05	136E+02	20E-01	445E+01	540E+04	3.28E-01	0.00E+00	3.96E-03	5.6E-01	1.00E-02	1.00E-02	1.00E-02	1.00E-02
-529E-02																			

-531E-02	1.27E-02	2.30E-02	-1.78E-02	-2.13E-02	6.80E-04	6.22E+00	1.90E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	0.00E+00	-9.85E-05	2.56E-01	4.13E-02	1.96E-02	6.14E-01
-528E-02	1.29E-02	2.19E-02	-1.46E-02	-2.13E-02	7.77E-04	6.22E+00	-2.49E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	-9.20E-04	2.52E-01	4.13E-02	1.96E-02	6.14E-01
-534E-02	1.31E-02	2.09E-02	-1.53E-02	-2.07E-02	1.09E-03	6.22E+00	5.22E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	-3.58E-05	2.56E-01	4.13E-02	1.96E-02	6.04E-01
-534E-02	1.31E-02	1.90E-02	-1.14E-02	-2.04E-02	6.21E-04	6.22E+00	-5.91E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	1.80E+00	0.00E+00	-1.87E-04	2.56E-01	4.17E-02	2.48E-02	5.98E-01
-539E-02	1.32E-02	2.23E-02	-1.51E-02	-2.17E-02	1.02E-03	6.22E+00	-1.27E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	1.80E+00	0.00E+00	-2.76E-03	2.56E-01	4.16E-02	2.19E-02	6.23E-01
-533E-02	1.31E-02	2.14E-02	-1.43E-02	-2.07E-02	9.09E-04	6.22E+00	-1.76E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.80E+00	0.00E+00	-2.10E-03	2.52E-01	4.12E-02	2.16E-02	6.27E-01
-530E-02	1.28E-02	2.13E-02	-1.43E-02	-2.11E-02	8.46E-04	6.22E+00	3.61E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	-1.60E-03	2.56E-01	4.13E-02	2.17E-02	6.08E-01

M1	M2	Y1	Y2	RM	Axial	E	Static Press	Vel	Mach	q	R _w	Cavity Depth	Alpha	r ₀	r ₁	C ₁₀	V
-4.01E-02	4.34E-04	1.98E-02	-1.77E-02	-1.43E-02	-9.46E-03	6.22E+00	-1.12E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	7.67E-02	7.67E-02	2.48E-01	4.20E-02
-3.96E-02	1.19E-04	2.00E-02	-1.80E-02	-1.42E-02	-9.37E-03	6.22E+00	-1.89E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	0.00E+00	0.00E+00	7.55E-02	7.55E-02	2.45E-01	4.12E-02
3.96E-02	2.22E-04	1.86E-02	-1.69E-02	-1.31E-02	-9.48E-03	6.22E+00	-3.91E-05	1.35E+02	1.21E-01	4.45E+01	5.37E+04	0.00E+00	0.00E+00	7.70E-02	7.70E-02	2.47E-01	3.98E-02
4.00E-02	2.10E-04	2.04E-02	-1.72E-02	-1.51E-02	-9.68E-03	6.22E+00	-2.59E-05	1.37E+02	1.20E-01	4.43E+01	5.43E+04	0.00E+00	0.00E+00	7.93E-02	7.93E-02	2.52E-01	4.43E-02
3.99E-02	2.71E-04	1.91E-02	-1.64E-02	-1.44E-02	-9.52E-03	6.22E+00	-3.01E-05	1.36E+02	1.20E-01	4.48E+01	5.35E+04	0.00E+00	0.00E+00	7.63E-02	7.63E-02	2.46E-01	4.16E-02
3.97E-02	1.49E-04	1.77E-02	-1.54E-02	-1.36E-02	-9.53E-03	6.22E+00	-1.32E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	0.00E+00	0.00E+00	7.71E-02	7.71E-02	2.49E-01	4.00E-02
-3.95E-02	-1.35E-04	2.00E-02	-1.63E-02	-1.57E-02	-9.71E-03	6.22E+00	-6.25E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	7.81E-02	7.81E-02	2.48E-01	4.27E-02
-3.97E-02	1.56E-04	1.89E-02	-1.67E-02	-1.42E-02	-9.54E-03	6.22E+00	-1.86E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	0.00E+00	0.00E+00	7.69E-02	7.69E-02	2.47E-01	4.11E-02
4.00E-02	1.16E-04	2.12E-02	-1.79E-02	-1.57E-02	-9.50E-03	6.22E+00	-3.81E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	7.75E-02	7.75E-02	2.50E-01	4.55E-02
3.97E-02	-4.17E-05	2.00E-02	-1.78E-02	-1.46E-02	-9.43E-03	6.22E+00	-4.79E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	0.00E+00	0.00E+00	7.60E-02	7.60E-02	2.47E-01	3.94E-02
-4.04E-02	1.68E-04	1.96E-02	-1.73E-02	-1.52E-02	-9.47E-03	6.22E+00	-1.77E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	0.00E+00	0.00E+00	7.72E-02	7.72E-02	2.53E-01	4.41E-02
3.97E-02	2.68E-04	2.03E-02	-1.85E-02	-1.41E-02	-9.63E-03	6.22E+00	-4.79E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	0.00E+00	0.00E+00	7.73E-02	7.73E-02	2.47E-01	3.97E-02
3.94E-02	-1.30E-04	2.08E-02	-1.88E-02	-1.47E-02	-9.57E-03	6.22E+00	-9.77E-07	1.35E+02	1.20E-01	4.45E+01	5.38E+04	0.00E+00	0.00E+00	7.76E-02	7.76E-02	2.47E-01	4.02E-02
3.98E-02	1.93E-05	1.89E-02	-1.71E-02	-1.37E-02	-9.61E-03	6.22E+00	-2.54E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	0.00E+00	0.00E+00	7.84E-02	7.84E-02	2.51E-01	4.06E-02
3.96E-02	-4.66E-05	2.03E-02	-1.86E-02	-1.42E-02	-9.57E-03	6.22E+00	-3.27E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	0.00E+00	0.00E+00	7.73E-02	7.73E-02	2.48E-01	3.95E-02
-3.94E-02	1.90E-04	2.05E-02	-2.08E-02	-1.42E-02	-9.26E-03	6.22E+00	-1.12E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	0.00E+00	0.00E+00	7.53E-02	7.53E-02	2.45E-01	4.14E-02
3.91E-02	-1.91E-04	2.13E-02	-1.90E-02	-1.51E-02	-9.59E-03	6.22E+00	-3.03E-05	1.35E+02	1.19E-01	4.42E+01	5.36E+04	0.00E+00	0.00E+00	7.66E-02	7.66E-02	2.42E-01	4.04E-02
-4.01E-02	4.34E-04	1.93E-02	-1.83E-02	-1.36E-02	-9.35E-03	6.22E+00	-6.01E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	0.00E+00	0.00E+00	7.68E-02	7.68E-02	2.42E-01	4.06E-02
4.01E-02	2.34E-04	1.86E-02	-1.77E-02	-1.35E-02	-9.45E-03	6.22E+00	-1.32E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	0.00E+00	0.00E+00	7.66E-02	7.66E-02	2.42E-01	4.02E-02
-3.86E-02	-3.52E-04	1.88E-02	-1.52E-02	-1.41E-02	-9.71E-03	6.22E+00	-5.96E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-02	0.00E+00	7.84E-02	7.84E-02	2.44E-01	3.97E-02
-3.89E-02	9.20E-05	2.13E-02	-2.08E-02	-1.43E-02	-9.40E-03	6.22E+00	-5.93E-05	1.36E+02	1.20E-01	4.47E+01	5.40E+04	8.20E-02	0.00E+00	7.83E-02	7.83E-02	2.43E-01	4.13E-02
3.92E-02	2.68E-04	1.99E-02	-1.70E-02	-1.57E-02	-9.52E-03	6.22E+00	-4.30E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-02	0.00E+00	7.76E-02	7.76E-02	2.45E-01	4.54E-02
-3.94E-02	-2.51E-05	2.09E-02	-1.86E-02	-1.51E-02	-9.48E-03	6.22E+00	-9.76E-07	1.35E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-02	0.00E+00	7.72E-02	7.72E-02	2.47E-01	4.10E-02
3.92E-02	1.87E-04	2.05E-02	-2.12E-02	-1.38E-02	-9.30E-03	6.22E+00	-5.86E-06	1.36E+02	1.20E-01	4.45E+01	5.38E+04	8.20E-02	0.00E+00	7.49E-02	7.49E-02	2.44E-01	4.05E-02
3.93E-02	1.73E-04	1.81E-02	-1.49E-02	-1.41E-02	-9.77E-03	6.22E+00	-2.29E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	8.20E-02	0.00E+00	7.90E-02	7.90E-02	2.47E-01	4.15E-02
3.90E-02	1.07E-04	1.98E-02	-1.68E-02	-1.49E-02	-9.54E-03	6.22E+00	-1.01E-04	1.36E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-02	0.00E+00	7.65E-02	7.65E-02	2.41E-01	4.26E-02
3.94E-02	-1.42E-04	2.16E-02	-1.99E-02	-1.50E-02	-9.61E-03	6.22E+00	-8.89E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-02	0.00E+00	7.75E-02	7.75E-02	2.45E-01	4.06E-02
-3.90E-02	-8.06E-06	2.06E-02	-2.02E-02	-1.46E-02	-9.41E-03	6.22E+00	-6.45E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	8.20E-02	0.00E+00	7.80E-02	7.80E-02	2.46E-01	4.09E-02
-3.93E-02	1.71E-06	2.18E-02	-2.03E-02	-1.48E-02	-9.38E-03	6.22E+00	-7.42E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-02	0.00E+00	7.74E-02	7.74E-02	2.44E-01	4.17E-02
3.93E-02	1.73E-04	1.81E-02	-1.49E-02	-1.41E-02	-9.77E-03	6.22E+00	-2.29E-05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	8.20E-02	0.00E+00	7.90E-02	7.90E-02	2.47E-01	4.15E-02
3.91E-02	-1.59E-04	1.92E-02	-1.57E-02	-1.44E-02	-9.65E-03	6.22E+00	-3.27E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-02	0.00E+00	7.83E-02	7.83E-02	2.47E-01	3.95E-02
3.90E-02	-1.20E-04	1.89E-02	-1.71E-02	-1.38E-02	-9.34E-03	6.22E+00	-5.71E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	8.20E-02	0.00E+00	7.49E-02	7.49E-02	2.44E-01	3.76E-02
3.92E-02	1.58E-04	1.96E-02	-1.79E-02	-1.58E-02	-9.34E-03	6.22E+00	-1.16E-04	1.38E+02	1.21E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	7.59E-02	7.59E-02	2.47E-01	4.56E-02
3.92E-02	2.61E-05	2.04E-02	-1.87E-02	-1.42E-02	-9.44E-03	6.22E+00	-5.71E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	8.20E-02	0.00E+00	7.80E-02	7.80E-02	2.46E-01	4.17E-02
-3.88E-02	-4.82E-04	2.11E-02	-2.04E-02	-1.45E-02	-9.49E-03	6.22E+00	-1.46E-06	1.35E+02	1.19E-01	4.42E+01	5.36E+04	8.20E-02	0.00E+00	7.71E-02	7.71E-02	2.43E-01	3.99E-02
-3.91E-02	2.17E-04	2.14E-02	-1.98E-02	-1.53E-02	-9.63E-03	6.22E+00	-8.30E-06	1.36E+02	1.21E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	7.95E-02	7.95E-02	2.47E-01	4.50E-02
3.95E-02	1.70E-04	1.93E-02	-1.78E-02	-1.39E-02	-9.48E-03	6.22E+00	-3.27E-05	1.36E+02	1.20E-01	4.43E+01	5.40E+04	8.20E-02	0.00E+00	7.64E-02	7.64E-02	2.45E-01	3.97E-02
3.94E-02	3.80E-04	1.91E-02	-1.68E-02	-1.46E-02	-9.40E-03	6.22E+00	-3.91E-06	1.36E+02	1.20E-01	4.50E+01	5.40E+04	8.20E-02	0.00E+00	7.61E-02	7.61E-02	2.44E-01	4.24E-02
-3.95E-02	4.56E-05	2.05E-02	-1.82E-02	-1.51E-02	-9.50E-03	6.22E+00	-1.13E-04	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	7.70E-02	7.70E-02	2.46E-01	4.47E-02
3.88E-02	-4.30E-04	2.06E-02	-1.81E-02	-1.51E-02	-9.74E-03	6.22E+00	-2.05E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-02	0.00E+00	7.63E-02	7.63E-02	2.44E-01	4.10E-02
3.83E-02	3.84E-04	1.91E-02	-1.53E-02	-1.47E-02	-9.71E-03	6.22E+00	-2.49E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-02	0.00E+00	7.88E-02	7.88E-02	2.43E-01	4.10E-02
3.91E-02	1.44E-05	2.05E-02	-1.77E-02	-1.56E-02	-9.66E-03	6.22E+00	-6.54E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	8.20E-02	0.00E+00	7.82E-02	7.82E-02	2.44E-01	4.49E-02
3.91E-02	1.98E-04	2.09E-02	-1.96E-02	-1.47E-02	-9.44E-03	6.22E+00	-2.00E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-02	0.00E+00	7.69E-02	7.69E-02	2.43E-01	4.03E-02
-3.90E-02	-3.44E-05	2.07E-02	-2.02E-02	-1.50E-02	-9.52E-03	6.22E+00	-2.00E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-02	0.00E+00	7.79E-02	7.79E-02	2.45E-01	3.90E-02
3.93E-02	1.63E-04	1.81E-02	-1.41E-02	-1.48E-02	-9.64E-03	6.22E+00	-2.98E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	8.20E-02	0.00E+00	7.84E-02	7.84E-02	2.46E-01	4.30E-02
3.90E-02	5.10E-05	1.92E-02	-1.69E-02	-1.53E-02	-9.54E-03	6.22E+00	-7.62E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	8.20E-02	0.00E+00	7.68E-02	7.68E-02	2.45E-01	4.30E-02
3.88E-02	-1.37E-04	2.05E-02	-1.97E-02	-1.52E-02	-9.43E-03	6.22E+00	-1.66E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	8.20E-02	0.00E+00	7.83E-02	7.83E-02	2.43E-01	4.06E-02
-3.86E-02	-3.79E-04	1.93E-02	-1.77E-02	-1.56E-02	-9.51E-03	6.22E+00	-3.96E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	8.20E-02	0.00E+00	7.73E-02	7.73E-02	2.44E-01	4.27E-02
-3.82E-02	-4.10E-04	2.06E-02	-1.66E-02	-1.52E-02	-9.61E-03	6.22E+00	-5.18E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	8.20E-02	0.00E+00	7.84E-02	7.84E-02	2.43E-01	4.10E-02
3.87E-02	-1.25E-04	1.98E-02	-1.90E-02	-1.42E-02	-9.31E-03	6.22E+00	-5.18E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	8.20E-02	0.00E+00	7.55E-02	7.55E-02	2.43E-01	3.94E-02
-3.87E-02	-1.22E-04	2.08E-02	-1.66E-02	-1.54E-02	-9.47E-03	6.22E+00	-1.02E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	8.20E-02	0.00E+00	7.80E-			

Table with 20 columns and 100 rows of numerical data. The columns represent sequential values from -3.87E-02 to 3.84E-02. The rows represent sequential values from 7.41E-04 to 4.41E-02. Each cell contains a number in scientific notation.

-3.82E-02	4.45E-04	2.07E-02	-1.87E-02	-1.54E-02	-9.59E-03	6.22E+00	-1.29E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E+01	0.00E+00	7.72E-02	3.42E-01	2.81E-02	5.46E-02	4.17E-02
-3.76E-02	7.99E-04	2.21E-02	-2.07E-02	-1.60E-02	-9.65E-03	6.22E+00	-5.62E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.10E+01	0.00E+00	7.88E-02	2.41E-01	2.81E-02	5.46E-02	4.17E-02
-3.78E-02	-2.47E-04	1.95E-02	-1.85E-02	-1.48E-02	-9.49E-03	6.22E+00	-1.29E-05	1.35E+02	1.19E-01	4.43E+01	5.36E+04	4.10E+01	0.00E+00	7.63E-02	2.26E-01	2.81E-02	5.46E-02	4.17E-02
-3.91E-02	-2.20E-04	2.29E-02	-2.19E-02	-1.68E-02	-9.55E-03	6.22E+00	2.61E-05	1.37E+02	1.21E-01	4.50E+01	5.43E+04	4.10E+01	0.00E+00	7.89E-02	2.49E-01	2.86E-02	5.46E-02	4.17E-02
-3.88E-02	-1.84E-04	1.94E-02	-1.82E-02	-1.46E-02	-9.52E-03	6.22E+00	-3.49E-05	1.36E+02	1.21E-01	4.50E+01	5.41E+04	4.10E+01	0.00E+00	7.62E-02	2.41E-01	2.86E-02	5.46E-02	4.17E-02
-3.83E-02	-1.96E-04	1.89E-02	-1.84E-02	-1.34E-02	-9.35E-03	6.22E+00	5.30E-05	1.35E+02	1.19E-01	4.43E+01	5.36E+04	4.10E+01	0.00E+00	7.52E-02	2.40E-01	2.84E-02	5.46E-02	4.17E-02
-3.76E-02	-7.22E-04	2.06E-02	-1.81E-02	-1.53E-02	-9.84E-03	6.22E+00	-3.32E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	8.01E-02	2.41E-01	2.82E-02	5.46E-02	4.17E-02
-3.81E-02	-5.39E-04	1.92E-02	-1.62E-02	-1.43E-02	-9.49E-03	6.22E+00	1.48E-06	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.92E-01	0.00E+00	7.90E-02	2.41E-01	2.82E-02	5.46E-02	4.17E-02
-3.88E-02	-2.09E-04	1.94E-02	-1.62E-02	-1.49E-02	-9.71E-03	6.22E+00	4.00E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.90E-02	2.40E-01	2.82E-02	5.46E-02	4.17E-02
-3.88E-02	-4.95E-04	2.07E-02	-1.82E-02	-1.50E-02	-9.57E-03	6.22E+00	-2.10E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	7.77E-02	2.43E-01	2.85E-02	5.46E-02	4.17E-02
-3.83E-02	-4.44E-04	2.01E-02	-1.79E-02	-1.52E-02	-9.72E-03	6.22E+00	1.12E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.87E-02	2.42E-01	2.86E-02	5.46E-02	4.17E-02
-3.84E-02	-7.52E-05	1.88E-02	-1.65E-02	-1.42E-02	-9.69E-03	6.22E+00	3.08E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.92E-01	0.00E+00	7.77E-02	2.40E-01	2.86E-02	5.46E-02	4.17E-02
-3.81E-02	-4.29E-04	1.97E-02	-1.62E-02	-1.37E-02	-9.60E-03	6.22E+00	5.80E-06	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.92E-01	0.00E+00	7.73E-02	2.40E-01	2.85E-02	5.46E-02	4.17E-02
-3.83E-02	-3.29E-04	1.96E-02	-1.92E-02	-1.46E-02	-9.55E-03	6.22E+00	1.56E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	7.78E-02	2.43E-01	2.87E-02	5.46E-02	4.17E-02
-3.78E-02	-1.05E-03	2.10E-02	-2.12E-02	-1.49E-02	-9.52E-03	6.22E+00	-5.52E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	4.92E-01	0.00E+00	7.72E-02	2.42E-01	2.72E-02	5.46E-02	4.17E-02
-3.86E-02	-5.27E-04	2.22E-02	-2.10E-02	-1.58E-02	-9.63E-03	6.22E+00	2.78E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.92E-01	0.00E+00	7.91E-02	2.47E-01	2.90E-02	5.46E-02	4.17E-02
-3.86E-02	-7.37E-04	2.00E-02	-1.89E-02	-1.50E-02	-9.86E-03	6.22E+00	-3.56E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	4.92E-01	0.00E+00	7.97E-02	2.46E-01	2.86E-02	5.46E-02	4.17E-02
-3.79E-02	-7.86E-04	2.00E-02	-1.82E-02	-1.50E-02	-9.59E-03	6.22E+00	1.07E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	7.69E-02	2.40E-01	2.78E-02	5.46E-02	4.17E-02
-3.88E-02	-5.24E-04	2.05E-02	-1.73E-02	-1.56E-02	-9.72E-03	6.22E+00	6.20E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.91E-02	2.47E-01	2.90E-02	5.46E-02	4.17E-02
-3.79E-02	-7.42E-04	2.11E-02	-2.00E-02	-1.54E-02	-9.54E-03	6.22E+00	5.47E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.70E-02	2.40E-01	2.79E-02	5.46E-02	4.17E-02
-3.85E-02	-3.95E-04	2.05E-02	-1.72E-02	-1.63E-02	-9.44E-03	6.22E+00	-3.56E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.92E-01	0.00E+00	7.68E-02	2.44E-01	2.84E-02	5.46E-02	4.17E-02
-3.78E-02	-5.78E-04	1.94E-02	-1.75E-02	-1.49E-02	-9.75E-03	6.22E+00	-6.01E-05	1.35E+02	1.20E-01	4.43E+01	5.37E+04	4.92E-01	0.00E+00	7.43E-02	2.42E-01	2.86E-02	5.46E-02	4.17E-02
-3.81E-02	-1.78E-02	1.78E-02	-1.78E-02	-1.53E-02	-9.56E-03	6.22E+00	-8.69E-05	1.35E+02	1.20E-01	4.45E+01	5.37E+04	4.92E-01	0.00E+00	7.83E-02	2.44E-01	2.86E-02	5.46E-02	4.17E-02
-3.85E-02	-4.34E-04	1.95E-02	-1.78E-02	-1.50E-02	-9.65E-03	6.22E+00	-3.08E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	7.88E-02	2.46E-01	2.89E-02	5.46E-02	4.17E-02
-3.82E-02	-8.61E-04	1.96E-02	-1.77E-02	-1.49E-02	-9.59E-03	6.22E+00	-8.79E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.80E-02	2.45E-01	2.87E-02	5.46E-02	4.17E-02
-3.74E-02	-9.88E-04	1.78E-02	-1.57E-02	-1.37E-02	-9.79E-03	6.22E+00	-9.20E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.60E-02	2.41E-01	2.77E-02	5.46E-02	4.17E-02
-3.77E-02	-9.02E-04	2.10E-02	-1.83E-02	-1.57E-02	-9.73E-03	6.22E+00	2.51E-05	1.35E+02	1.20E-01	4.45E+01	5.38E+04	4.92E-01	0.00E+00	7.91E-02	2.41E-01	2.86E-02	5.46E-02	4.17E-02
-3.76E-02	-7.12E-04	2.03E-02	-1.69E-02	-1.58E-02	-9.63E-03	6.22E+00	3.49E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	7.88E-02	2.42E-01	2.82E-02	5.46E-02	4.17E-02
-3.84E-02	-3.36E-04	1.91E-02	-1.70E-02	-1.53E-02	-9.62E-03	6.22E+00	5.62E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	7.82E-02	2.39E-01	2.85E-02	5.46E-02	4.17E-02
-3.72E-02	-1.06E-03	2.08E-02	-1.91E-02	-1.54E-02	-9.64E-03	6.22E+00	7.32E-07	1.35E+02	1.20E-01	4.46E+01	5.37E+04	4.92E-01	0.00E+00	7.82E-02	2.39E-01	2.75E-02	5.46E-02	4.17E-02
-3.80E-02	-6.63E-04	2.03E-02	-1.87E-02	-1.49E-02	-9.65E-03	6.22E+00	-3.83E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.89E-02	2.44E-01	2.85E-02	5.46E-02	4.17E-02
-3.83E-02	-5.10E-04	2.11E-02	-1.91E-02	-1.57E-02	-9.62E-03	6.22E+00	4.47E-05	1.36E+02	1.21E-01	4.48E+01	5.41E+04	4.92E-01	0.00E+00	7.89E-02	2.44E-01	2.85E-02	5.46E-02	4.17E-02
-3.82E-02	-5.41E-04	2.04E-02	-1.80E-02	-1.49E-02	-9.58E-03	6.22E+00	3.98E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.82E-02	2.41E-01	2.85E-02	5.46E-02	4.17E-02
-3.83E-02	-5.95E-04	2.10E-02	-1.69E-02	-1.64E-02	-9.70E-03	6.22E+00	3.00E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.89E-02	2.44E-01	2.85E-02	5.46E-02	4.17E-02
-3.84E-02	-1.68E-04	2.06E-02	-1.74E-02	-1.54E-02	-9.51E-03	6.22E+00	2.03E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.82E-02	2.44E-01	2.85E-02	5.46E-02	4.17E-02
-3.78E-02	-6.92E-04	2.09E-02	-2.04E-02	-1.50E-02	-9.52E-03	6.22E+00	-2.37E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.92E-01	0.00E+00	7.89E-02	2.40E-01	2.85E-02	5.46E-02	4.17E-02
-3.79E-02	-7.03E-04	2.12E-02	-2.30E-02	-1.41E-02	-9.59E-03	6.22E+00	1.29E-05	1.35E+02	1.20E-01	4.45E+01	5.37E+04	4.92E-01	0.00E+00	7.79E-02	2.42E-01	2.84E-02	5.46E-02	4.17E-02
-3.85E-02	-3.02E-04	1.90E-02	-1.51E-02	-1.53E-02	-9.62E-03	6.22E+00	-2.86E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.85E-02	2.45E-01	2.89E-02	5.46E-02	4.17E-02
-3.82E-02	-5.51E-04	1.96E-02	-1.85E-02	-1.44E-02	-9.58E-03	6.22E+00	4.32E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.89E-02	2.41E-01	2.82E-02	5.46E-02	4.17E-02
-3.87E-02	-4.58E-04	1.99E-02	-1.72E-02	-1.50E-02	-9.54E-03	6.22E+00	5.62E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.74E-02	2.46E-01	2.86E-02	5.46E-02	4.17E-02
-3.85E-02	-7.49E-04	2.10E-02	-2.01E-02	-1.53E-02	-9.65E-03	6.22E+00	-1.15E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	7.79E-02	2.44E-01	2.83E-02	5.46E-02	4.17E-02
-3.81E-02	-7.98E-04	2.27E-02	-2.25E-02	-1.48E-02	-9.59E-03	6.22E+00	-1.64E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.92E-01	0.00E+00	7.82E-02	2.44E-01	2.83E-02	5.46E-02	4.17E-02
-3.78E-02	-9.27E-04	2.13E-02	-2.10E-02	-1.54E-02	-9.63E-03	6.22E+00	-6.52E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	4.92E-01	0.00E+00	7.86E-02	2.41E-01	2.79E-02	5.46E-02	4.17E-02
-3.80E-02	-1.03E-03	2.26E-02	-2.27E-02	-1.51E-02	-9.73E-03	6.22E+00	4.71E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	7.77E-02	2.45E-01	2.84E-02	5.46E-02	4.17E-02
-3.76E-02	-6.05E-04	2.00E-02	-1.99E-02	-1.39E-02	-9.81E-03	6.22E+00	5.62E-06	1.35E+02	1.20E-01	4.43E+01	5.37E+04	4.92E-01	0.00E+00	7.72E-02	2.29E-01	2.84E-02	5.46E-02	4.17E-02
-3.71E-02	-1.23E-03	2.00E-02	-1.80E-02	-1.50E-02	-9.83E-03	6.22E+00	3.98E-05	1.35E+02	1.20E-01	4.43E+01	5.37E+04	4.92E-01	0.00E+00	7.85E-02	2.45E-01	2.89E-02	5.46E-02	4.17E-02
-3.82E-02	-5.51E-04	1.96E-02	-1.85E-02	-1.44E-02	-9.58E-03	6.22E+00	4.32E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.92E-01	0.00E+00	7.89E-02	2.41E-01	2.82E-02	5.46E-02	4.17E-02
-3.87E-02	-4.58E-04	1.99E-02	-1.72E-02	-1.50E-02	-9.54E-03	6.22E+00	5.62E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	4.92E-01	0.00E+00	7.74E-02	2.46E-01	2.86E-02	5.46E-02	4.17E-02
-3.85E-02	-7.49E-04	2.10E-02	-2.01E-02	-1.53E-02	-9.65E-03	6.22E+00	-1.15E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.92E-01	0.00E+00	7.79E-02	2.44E-01	2		

3.84E-02	-4.09E-04	2.11E-02	-1.95E-02	-1.59E-02	-9.63E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	6.56E-01	0.00E+00	7.78E-02	2.41E-01	2.85E-02	1.54E-03	4.26E-02
3.75E-02	-9.41E-04	2.04E-02	-1.98E-02	-1.45E-02	-9.73E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	6.56E-01	0.00E+00	7.85E-02	2.39E-01	2.77E-02	1.61E-03	5.93E-02
3.80E-02	-6.02E-04	2.13E-02	-2.05E-02	-1.46E-02	-9.76E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	6.56E-01	0.00E+00	7.92E-02	2.42E-01	2.84E-02	1.60E-03	4.00E-02
3.74E-02	-1.35E-03	1.99E-02	-1.61E-02	-1.57E-02	-9.96E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.56E-01	0.00E+00	8.01E-02	2.41E-01	2.74E-02	1.64E-03	4.27E-02
3.77E-02	-1.03E-03	2.05E-02	-1.80E-02	-1.60E-02	-9.86E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	6.56E-01	0.00E+00	7.95E-02	2.41E-01	2.74E-02	1.59E-03	4.42E-02
3.81E-02	-8.24E-04	2.05E-02	-1.94E-02	-1.50E-02	-9.78E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.56E-01	0.00E+00	7.92E-02	2.42E-01	2.74E-02	1.61E-03	4.00E-02
3.76E-02	-6.42E-04	1.87E-02	-1.71E-02	-1.45E-02	-9.76E-03	6.22E+00	4.61E+05	1.35E+02	1.20E-01	4.45E+01	5.37E+04	8.20E-01	0.00E+00	7.98E-02	2.39E-01	2.80E-02	1.57E-03	3.94E-02
3.80E-02	-7.15E-04	2.18E-02	-2.38E-02	-1.39E-02	-9.62E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	8.20E-01	0.00E+00	7.87E-02	2.41E-01	2.85E-02	1.62E-03	3.64E-02
3.79E-02	-5.87E-04	2.05E-02	-2.04E-02	-1.47E-02	-9.60E-03	6.22E+00	4.61E+05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	8.20E-01	0.00E+00	7.82E-02	2.44E-01	2.83E-02	1.62E-03	4.00E-02
3.83E-02	-3.78E-04	2.11E-02	-1.83E-02	-1.57E-02	-9.70E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	7.95E-02	2.45E-01	2.83E-02	1.59E-03	4.00E-02
3.81E-02	-5.32E-04	1.88E-02	-1.72E-02	-1.35E-02	-9.67E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	8.20E-01	0.00E+00	7.77E-02	2.41E-01	2.84E-02	1.64E-03	4.11E-02
3.84E-02	-5.66E-04	2.03E-02	-1.78E-02	-1.51E-02	-9.66E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	7.83E-02	2.44E-01	2.85E-02	1.60E-03	4.11E-02
3.82E-02	-8.44E-04	1.93E-02	-1.86E-02	-1.45E-02	-9.70E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	7.82E-02	2.43E-01	2.82E-02	1.57E-03	4.00E-02
3.79E-02	-6.52E-04	2.11E-02	-1.93E-02	-1.49E-02	-9.66E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	7.87E-02	2.42E-01	2.84E-02	1.64E-03	4.00E-02
3.82E-02	-8.79E-04	1.96E-02	-1.66E-02	-1.49E-02	-9.79E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	7.78E-02	2.40E-01	2.76E-02	1.59E-03	4.00E-02
3.81E-02	-1.06E-03	2.01E-02	-1.79E-02	-1.52E-02	-9.84E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	7.89E-02	2.42E-01	2.76E-02	1.53E-03	4.11E-02
3.80E-02	-8.35E-04	2.03E-02	-1.75E-02	-1.51E-02	-9.80E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	7.89E-02	2.42E-01	2.80E-02	1.64E-03	4.11E-02
3.86E-02	-5.22E-04	2.02E-02	-1.71E-02	-1.57E-02	-9.70E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	7.85E-02	2.44E-01	2.87E-02	1.72E-03	4.21E-02
3.87E-02	-5.54E-04	2.11E-02	-1.78E-02	-1.56E-02	-9.68E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	7.81E-02	2.44E-01	2.86E-02	1.65E-03	4.25E-02
3.89E-02	-2.76E-04	2.08E-02	-1.69E-02	-1.48E-02	-9.58E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	7.73E-02	2.43E-01	2.86E-02	1.57E-03	4.00E-02
3.89E-02	-6.44E-04	2.10E-02	-1.94E-02	-1.51E-02	-9.79E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.53E+01	5.43E+04	8.20E-01	0.00E+00	7.90E-02	2.46E-01	2.88E-02	1.91E-03	4.10E-02
3.84E-02	-5.34E-04	1.85E-02	-1.72E-02	-1.46E-02	-9.67E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	7.77E-02	2.41E-01	2.85E-02	1.64E-03	4.00E-02
3.86E-02	-5.61E-04	1.91E-02	-1.73E-02	-1.48E-02	-9.64E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	7.77E-02	2.41E-01	2.85E-02	1.64E-03	4.00E-02
3.89E-02	-3.71E-04	2.02E-02	-1.78E-02	-1.62E-02	-9.41E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	8.20E-01	0.00E+00	7.76E-02	2.45E-01	2.86E-02	1.53E-03	4.54E-02
3.93E-02	1.32E-04	1.84E-02	-1.73E-02	-1.43E-02	-9.59E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	7.69E-02	2.43E-01	2.92E-02	1.40E-03	4.14E-02
3.75E-02	-8.33E-04	1.88E-02	-1.58E-02	-1.43E-02	-9.74E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	9.84E-01	0.00E+00	7.96E-02	2.43E-01	2.81E-02	8.09E-03	7.96E-02
3.83E-02	-7.74E-04	1.93E-02	-1.62E-02	-1.52E-02	-9.87E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.84E-01	0.00E+00	8.04E-02	2.47E-01	2.87E-02	8.20E-03	4.11E-02
3.84E-02	-6.25E-04	1.98E-02	-1.63E-02	-1.48E-02	-9.74E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.84E-01	0.00E+00	7.81E-02	2.42E-01	2.83E-02	9.16E-03	4.00E-02
3.83E-02	-5.59E-04	2.11E-02	-2.06E-02	-1.52E-02	-9.52E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	9.84E-01	0.00E+00	7.72E-02	2.42E-01	2.84E-02	3.36E-03	4.12E-02
3.73E-02	-7.64E-04	2.04E-02	-2.01E-02	-1.39E-02	-9.53E-03	6.22E+00	4.61E+05	1.35E+02	1.20E-01	4.43E+01	5.37E+04	9.84E-01	0.00E+00	7.75E-02	2.39E-01	2.78E-02	3.99E-03	6.64E-02
3.87E-02	-5.71E-04	1.94E-02	-1.71E-02	-1.45E-02	-9.73E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.84E-01	0.00E+00	7.96E-02	2.49E-01	2.91E-02	5.15E-03	4.00E-02
3.89E-02	-4.74E-04	1.82E-02	-1.51E-02	-1.41E-02	-9.74E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.52E+01	5.42E+04	9.84E-01	0.00E+00	7.79E-02	2.44E-01	2.86E-02	8.19E-03	3.63E-02
3.84E-02	-3.37E-04	1.83E-02	-1.74E-02	-1.38E-02	-9.61E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	9.84E-01	0.00E+00	7.70E-02	2.41E-01	2.84E-02	4.37E-04	7.74E-02
3.88E-02	-6.20E-04	1.95E-02	-1.71E-02	-1.49E-02	-9.68E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	9.84E-01	0.00E+00	7.86E-02	2.46E-01	2.87E-02	5.28E-03	4.00E-02
3.86E-02	-4.17E-04	1.98E-02	-1.70E-02	-1.49E-02	-9.71E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	9.84E-01	0.00E+00	7.81E-02	2.43E-01	2.86E-02	5.92E-03	4.04E-02
3.92E-02	-4.05E-04	1.99E-02	-1.75E-02	-1.55E-02	-9.63E-03	6.22E+00	4.61E+05	1.37E+02	1.20E-01	4.55E+01	5.43E+04	9.84E-01	0.00E+00	7.78E-02	2.47E-01	2.90E-02	4.00E-03	4.16E-02
3.90E-02	-2.03E-04	1.99E-02	-1.74E-02	-1.59E-02	-9.64E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	9.84E-01	0.00E+00	7.71E-02	2.42E-01	2.88E-02	5.73E-03	4.24E-02
3.87E-02	-6.49E-04	2.04E-02	-1.83E-02	-1.45E-02	-9.59E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	9.84E-01	0.00E+00	7.69E-02	2.44E-01	2.84E-02	6.76E-03	7.94E-02
3.87E-02	-4.22E-04	1.92E-02	-1.40E-02	-1.64E-02	-9.71E-03	6.22E+00	4.61E+05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.84E-01	0.00E+00	7.84E-02	2.45E-01	2.87E-02	1.58E-02	4.41E-02
3.83E-02	-7.91E-04	2.03E-02	-1.81E-02	-1.55E-02	-9.76E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.84E-01	0.00E+00	7.81E-02	2.45E-01	2.87E-02	4.39E-02	4.13E-02
3.77E-02	-7.14E-04	1.84E-02	-1.87E-02	-1.36E-02	-9.98E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.15E+00	0.00E+00	8.01E-02	2.40E-01	2.81E-02	6.21E-03	7.01E-02
3.79E-02	-6.04E-04	2.19E-02	-1.97E-02	-1.50E-02	-9.59E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.38E+04	1.15E+00	0.00E+00	7.80E-02	2.41E-01	2.81E-02	2.55E-03	4.10E-02
3.82E-02	-7.02E-04	2.16E-02	-1.92E-02	-1.61E-02	-9.59E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.48E+01	5.38E+04	1.15E+00	0.00E+00	7.85E-02	2.44E-01	2.86E-02	4.62E-03	4.40E-02
3.84E-02	-2.40E-04	2.07E-02	-1.92E-02	-1.50E-02	-9.47E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.15E+00	0.00E+00	7.69E-02	2.42E-01	2.87E-02	1.60E-03	4.00E-02
3.84E-02	-4.26E-04	2.01E-02	-1.58E-02	-1.59E-02	-9.48E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.15E+00	0.00E+00	7.66E-02	2.43E-01	2.92E-02	2.05E-03	4.54E-02
3.91E-02	-6.45E-05	2.22E-02	-2.12E-02	-1.65E-02	-9.42E-03	6.22E+00	4.61E+05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.15E+00	0.00E+00	7.65E-02	2.44E-01	2.91E-02	1.38E-04	4.31E-02
3.81E-02	-6.99E-04	1.95E-02	-1.84E-02	-1.43E-02	-9.65E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.15E+00	0.00E+00	7.66E-02	2.41E-01	2.81E-02	6.63E-04	7.94E-02
3.89E-02	-1.50E-04	2.06E-02	-1.91E-02	-1.42E-02	-9.51E-03	6.22E+00	4.61E+05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.15E+00	0.00E+00	7.69E-02	2.41E-01	2.90E-02	2.44E-03	4.24E-02
3.89E-02	-2.48E-04	1.96E-02	-1.48E-02	-1.48E-02	-9.59E-03	6.22E+00	4.61E+05	1.37E+02	1.20E-01	4.54E+01	5.43E+04	1.15E+00	0.00E+00	7.74E-02	2.44E-01	2.99E-02	2.22E-02	4.01E-02
3.88E-02</																		

-3.78E-02	-7.86E-04	1.97E-02	-1.64E-02	-1.54E-02	6.22E+00	5.71E-05	1.26E+02	1.20E-01	4.46E+01	5.38E+04	1.48E+00	0.00E+00	7.81E+02	7.41E-01	2.80E-02	3.70E-01	4.19E-02
-3.77E-02	-7.84E-04	2.01E-02	-1.77E-02	-1.60E-02	6.22E+00	8.30E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	8.00E+02	7.42E-01	2.82E-02	3.72E-01	4.20E-02
-3.84E-02	-5.30E-04	2.01E-02	-1.67E-02	-1.56E-02	6.22E+00	4.98E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	0.00E+00	7.93E+02	7.43E-01	2.80E-02	3.71E-01	4.24E-02
-3.85E-02	-8.25E-04	2.12E-02	-2.00E-02	-1.49E-02	6.22E+00	5.80E-06	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.48E+00	0.00E+00	7.83E+02	7.44E-01	2.82E-02	3.73E-01	4.04E-02
-3.87E-02	-7.62E-04	2.12E-02	-1.95E-02	-1.58E-02	6.22E+00	1.08E-04	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	0.00E+00	7.90E+02	7.45E-01	2.80E-02	3.72E-01	4.25E-02
-3.86E-02	-5.83E-04	2.10E-02	-2.00E-02	-1.50E-02	6.22E+00	1.81E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.48E+00	0.00E+00	7.70E+02	7.45E-01	2.84E-02	3.70E-01	4.31E-02
-3.84E-02	-4.05E-04	2.03E-02	-1.89E-02	-1.50E-02	6.22E+00	7.67E-05	1.36E+02	1.20E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	7.82E+02	7.45E-01	2.82E-02	3.72E-01	4.06E-02
-3.84E-02	-5.96E-04	2.01E-02	-1.92E-02	-1.45E-02	6.22E+00	1.56E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.48E+00	0.00E+00	7.71E+02	7.45E-01	2.83E-02	3.74E-01	3.92E-02
-3.83E-02	-4.79E-04	1.86E-02	-1.67E-02	-1.52E-02	6.22E+00	5.98E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	7.77E+02	7.45E-01	2.84E-02	3.74E-01	4.00E-02
-3.87E-02	-2.39E-04	1.88E-02	-1.62E-02	-1.46E-02	6.22E+00	5.47E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	0.00E+00	7.78E+02	7.45E-01	2.83E-02	3.74E-01	3.97E-02
-3.87E-02	-3.54E-04	2.22E-02	-2.02E-02	-1.55E-02	6.22E+00	3.78E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	1.48E+00	0.00E+00	7.73E+02	7.45E-01	2.80E-02	3.74E-01	4.24E-02
-3.87E-02	-4.94E-04	1.93E-02	-1.79E-02	-1.38E-02	6.22E+00	4.98E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	8.00E+02	7.45E-01	2.83E-02	3.74E-01	4.24E-02
-3.80E-02	-5.12E-04	1.90E-02	-1.79E-02	-1.44E-02	6.22E+00	3.08E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.80E+00	0.00E+00	7.78E+02	7.45E-01	2.84E-02	3.74E-01	3.91E-02
-3.91E-02	-2.73E-04	2.07E-02	-1.78E-02	-1.58E-02	6.22E+00	1.26E-04	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	7.68E+02	7.45E-01	2.82E-02	3.74E-01	4.30E-02
-3.94E-02	-6.20E-04	2.03E-02	-1.75E-02	-1.55E-02	6.22E+00	2.81E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	1.80E+00	0.00E+00	7.71E+02	7.45E-01	2.83E-02	3.74E-01	4.04E-02
-3.81E-02	-5.12E-04	1.74E-02	-1.50E-02	-1.49E-02	6.22E+00	7.23E-05	1.35E+02	1.20E-01	4.45E+01	5.38E+04	1.80E+00	0.00E+00	7.67E+02	7.45E-01	2.83E-02	3.74E-01	4.09E-02
-3.80E-02	-8.47E-04	1.95E-02	-1.81E-02	-1.46E-02	6.22E+00	1.07E-05	1.35E+02	1.20E-01	4.45E+01	5.37E+04	1.80E+00	0.00E+00	7.77E+02	7.45E-01	2.84E-02	3.74E-01	4.00E-02
-3.84E-02	-4.61E-04	1.90E-02	-1.79E-02	-1.40E-02	6.22E+00	1.58E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	7.79E+02	7.45E-01	2.83E-02	3.74E-01	4.38E-02
-3.89E-02	-6.34E-04	2.07E-02	-1.74E-02	-1.63E-02	6.22E+00	3.81E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.80E+00	0.00E+00	7.89E+02	7.45E-01	2.80E-02	3.74E-01	4.42E-02
-3.82E-02	-6.66E-04	2.06E-02	-1.83E-02	-1.52E-02	6.22E+00	1.07E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	7.76E+02	7.45E-01	2.85E-02	3.74E-01	4.14E-02
-3.86E-02	-3.61E-04	1.92E-02	-1.77E-02	-1.44E-02	6.22E+00	6.49E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.80E+00	0.00E+00	7.76E+02	7.45E-01	2.85E-02	3.74E-01	3.94E-02
-3.86E-02	-6.17E-04	2.11E-02	-1.83E-02	-1.59E-02	6.22E+00	5.03E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	7.84E+02	7.45E-01	2.84E-02	3.74E-01	4.34E-02
-3.86E-02	-8.44E-04	2.07E-02	-1.89E-02	-1.55E-02	6.22E+00	5.03E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	7.84E+02	7.45E-01	2.84E-02	3.74E-01	4.34E-02
-3.81E-02	-1.10E-03	2.03E-02	-1.86E-02	-1.49E-02	6.22E+00	1.46E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	7.89E+02	7.45E-01	2.80E-02	3.74E-01	4.07E-02
-3.87E-02	-6.83E-04	2.05E-02	-1.94E-02	-1.46E-02	6.22E+00	1.61E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.80E+00	0.00E+00	7.89E+02	7.45E-01	2.85E-02	3.74E-01	4.06E-02
-3.84E-02	-7.83E-04	1.91E-02	-1.74E-02	-1.46E-02	6.22E+00	2.54E-05	1.36E+02	1.20E-01	4.46E+01	5.39E+04	1.80E+00	0.00E+00	7.82E+02	7.45E-01	2.84E-02	3.74E-01	4.00E-02
-3.84E-02	-3.61E-04	2.08E-02	-1.83E-02	-1.60E-02	6.22E+00	8.79E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	7.84E+02	7.45E-01	2.85E-02	3.74E-01	4.26E-02
-3.91E-02	-1.75E-04	2.06E-02	-1.82E-02	-1.52E-02	6.22E+00	6.74E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	7.66E+02	7.45E-01	2.91E-02	3.74E-01	4.31E-02
-3.83E-02	-2.32E-04	1.71E-02	-1.50E-02	-1.32E-02	6.22E+00	5.08E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	0.00E+00	0.00E+00	7.92E+02	7.45E-01	2.90E-02	3.74E-01	3.96E-02
-3.86E-02	-2.06E-04	1.94E-02	-1.65E-02	-1.42E-02	6.22E+00	2.64E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	0.00E+00	0.00E+00	7.92E+02	7.45E-01	2.90E-02	3.74E-01	3.96E-02
-3.94E-02	-6.64E-05	2.16E-02	-1.91E-02	-1.45E-02	6.22E+00	4.83E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	0.00E+00	0.00E+00	7.76E+02	7.45E-01	2.94E-02	3.74E-01	4.90E-02
-3.89E-02	-3.81E-04	2.01E-02	-1.65E-02	-1.51E-02	6.22E+00	6.79E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	0.00E+00	0.00E+00	7.79E+02	7.45E-01	2.97E-02	3.74E-01	3.90E-02
-3.95E-02	1.78E-04	1.89E-02	-1.68E-02	-1.34E-02	6.22E+00	1.90E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	7.79E+02	7.45E-01	2.96E-02	3.74E-01	3.96E-02
-3.91E-02	-4.06E-04	2.01E-02	-2.09E-02	-1.29E-02	6.22E+00	2.25E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	0.00E+00	0.00E+00	7.67E+02	7.45E-01	2.88E-02	3.74E-01	3.95E-02
-3.95E-02	1.22E-04	1.84E-02	-1.71E-02	-1.25E-02	6.22E+00	5.37E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	0.00E+00	0.00E+00	7.67E+02	7.45E-01	2.96E-02	3.74E-01	3.97E-02
-3.91E-02	-2.14E-04	1.91E-02	-1.81E-02	-1.32E-02	6.22E+00	4.35E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	0.00E+00	0.00E+00	7.58E+02	7.45E-01	2.92E-02	3.74E-01	4.55E-04
-3.94E-02	-5.57E-04	2.07E-02	-1.95E-02	-1.34E-02	6.22E+00	3.88E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	0.00E+00	0.00E+00	7.99E+02	7.45E-01	3.04E-02	3.74E-01	4.33E-04
-3.93E-02	-1.51E-05	1.83E-02	-1.63E-02	-1.35E-02	6.22E+00	3.37E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	0.00E+00	0.00E+00	7.71E+02	7.45E-01	2.91E-02	3.74E-01	4.70E-02
-3.97E-02	-2.49E-05	1.87E-02	-1.73E-02	-1.34E-02	6.22E+00	5.37E-06	1.36E+02	1.20E-01	4.45E+01	5.38E+04	0.00E+00	0.00E+00	7.58E+02	7.45E-01	2.91E-02	3.74E-01	2.96E-02
-3.87E-02	-1.98E-04	1.87E-02	-1.72E-02	-1.27E-02	6.22E+00	1.42E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	0.00E+00	0.00E+00	7.74E+02	7.45E-01	2.91E-02	3.74E-01	3.56E-02
-3.87E-02	-2.95E-04	1.84E-02	-1.77E-02	-1.19E-02	6.22E+00	4.59E-05	1.35E+02	1.19E-01	4.42E+01	5.36E+04	0.00E+00	0.00E+00	7.71E+02	7.45E-01	2.90E-02	3.74E-01	3.84E-02
-3.94E-02	-3.20E-04	2.08E-02	-1.81E-02	-1.42E-02	6.22E+00	1.03E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	0.00E+00	0.00E+00	7.72E+02	7.45E-01	2.90E-02	3.74E-01	2.67E-02
-4.03E-02	1.14E-04	2.15E-02	-1.99E-02	-1.36E-02	6.22E+00	1.69E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	0.00E+00	0.00E+00	7.95E+02	7.45E-01	2.96E-02	3.74E-01	3.97E-02
-3.79E-02	-4.31E-04	1.70E-02	-1.50E-02	-1.30E-02	6.22E+00	5.66E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-02	0.00E+00	7.93E+02	7.45E-01	2.83E-02	3.74E-01	3.67E-02
-3.82E-02	-5.33E-04	2.04E-02	-2.11E-02	-1.33E-02	6.22E+00	4.20E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	8.20E-02	0.00E+00	7.72E+02	7.45E-01	2.92E-02	3.74E-01	3.54E-02
-3.89E-02	-1.04E-04	1.99E-02	-1.94E-02	-1.40E-02	6.22E+00	5.66E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	0.00E+00	0.00E+00	7.72E+02	7.45E-01	2.92E-02	3.74E-01	3.54E-02
-3.88E-02	-2.97E-04	1.84E-02	-1.74E-02	-1.38E-02	6.22E+00	1.90E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	0.00E+00	0.00E+00	7.67E+02	7.45E-01	2.86E-02	3.74E-01	3.74E-02
-3.86E-02	-1.89E-04	1.95E-02	-1.70E-02	-1.41E-02	6.22E+00	1.03E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	8.20E-02	0.00E+00	7.74E+02	7.45E-01	2.90E-02	3.74E-01	3.11E-02
-3.90E-02	-2.75E-04	2.05E-02	-1.86E-02	-1.43E-02	6.22E+00	2.39E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	8.20E-02	0.00E+00	7.74E+02	7.45E-01	2.90E-02	3.74E-01	3.11E-02
-3.83E-02	-6.95E-04	1.90E-02	-1.75E-02	-1.36E-02	6.22E+00	4.88E-07	1.36E+02	1.20E-01	4.46E+01	5.38E+04	8.20E-02	0.00E+00	7.71E+02	7.45E-01	2.91E-02	3.74E-01	2.90E-02
-3.87E-02	-4.77E-04	1.99E-02	-1.81E-02	-1.39E-02	6.22E+00	4.59E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	8.20E-02	0.00E+00	7.83E+02	7.45E-01	2.89E-02	3.74E-01	3.58E-02
-3.83E-02	-3.99E-04	1.86E-02	-1.74E-02	-1.38E-02	6.22E+00	7.37E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	8.20E-02	0.00E+00					

-3.92E-02	-3.92E-02	2.13E-02	2.09E-02	-1.46E-02	-9.50E-03	6.22E+00	3.48E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	1.04E-01	0.00E+00	7.70E-02	2.45E-01	2.93E-01	2.46E-01	3.95E-02
-3.85E-02	-3.56E-04	1.98E-02	-1.73E-02	-1.53E-02	-9.55E-03	6.22E+00	2.95E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.64E-01	0.00E+00	7.67E-02	2.41E-01	2.84E-01	2.79E-01	4.10E-02
-3.84E-02	-4.81E-05	1.97E-02	-1.83E-02	-1.41E-02	-9.44E-03	6.22E+00	1.52E-05	1.42E+02	1.20E-01	4.46E+01	5.38E+04	1.64E-01	0.00E+00	7.66E-02	2.41E-01	2.88E-01	1.92E-01	3.84E-02
-3.91E-02	-2.75E-05	2.08E-02	-1.99E-02	-1.41E-02	-9.33E-03	6.22E+00	3.19E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.64E-01	0.00E+00	7.61E-02	2.46E-01	2.93E-01	2.06E-01	3.87E-02
-3.94E-02	-2.13E-04	2.04E-02	-1.88E-02	-1.41E-02	-9.39E-03	6.22E+00	3.20E-05	1.36E+02	1.20E-01	4.47E+01	5.40E+04	1.64E-01	0.00E+00	7.65E-02	2.46E-01	2.98E-01	2.06E-01	4.14E-02
-3.89E-02	-3.41E-04	1.91E-02	-1.50E-02	-1.47E-02	-9.67E-03	6.22E+00	6.37E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.64E-01	0.00E+00	7.81E-02	2.46E-01	2.69E-01	1.18E-01	4.00E-02
-3.79E-02	-6.80E-04	2.01E-02	-1.80E-02	-1.38E-02	-9.57E-03	6.22E+00	2.23E-05	1.35E+02	1.20E-01	4.46E+01	5.38E+04	1.64E-01	0.00E+00	7.75E-02	2.45E-01	2.84E-01	2.30E-01	3.74E-02
-3.83E-02	-7.19E-04	2.09E-02	-1.96E-02	-1.39E-02	-9.53E-03	6.22E+00	2.91E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	1.64E-01	0.00E+00	7.79E-02	2.47E-01	2.86E-01	2.30E-01	3.85E-02
-3.85E-02	-5.68E-04	1.99E-02	-1.85E-02	-1.39E-02	-9.52E-03	6.22E+00	8.89E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	1.64E-01	0.00E+00	7.79E-02	2.47E-01	2.86E-01	1.63E-01	3.85E-02
-3.93E-02	-4.02E-04	1.87E-02	-1.81E-02	-1.35E-02	-9.60E-03	6.22E+00	3.93E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.64E-01	0.00E+00	7.81E-02	2.43E-01	2.97E-01	1.03E-01	3.71E-02
-3.92E-02	-3.14E-04	1.96E-02	-1.66E-02	-1.41E-02	-9.59E-03	6.22E+00	2.69E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.64E-01	0.00E+00	7.77E-02	2.43E-01	2.97E-01	1.03E-01	3.71E-02
-3.87E-02	-2.78E-04	1.95E-02	-1.68E-02	-1.44E-02	-9.38E-03	6.22E+00	2.98E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.64E-01	0.00E+00	7.75E-02	2.43E-01	2.96E-01	6.40E-01	3.90E-02
-3.86E-02	-2.04E-04	1.83E-02	-1.63E-02	-1.32E-02	-9.63E-03	6.22E+00	2.98E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.64E-01	0.00E+00	7.79E-02	2.44E-01	2.89E-01	4.57E-01	3.84E-02
-3.88E-02	-4.51E-04	2.04E-02	-1.82E-02	-1.42E-02	-9.59E-03	6.22E+00	3.86E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	1.64E-01	0.00E+00	7.77E-02	2.45E-01	2.88E-01	2.08E-01	3.98E-02
-3.83E-02	-2.45E-04	2.12E-02	-1.91E-02	-1.62E-02	-9.57E-03	6.22E+00	9.77E-07	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	7.77E-02	2.41E-01	2.85E-01	2.36E-01	4.32E-02
-3.89E-02	-5.26E-04	2.23E-02	-2.13E-02	-1.56E-02	-9.72E-03	6.22E+00	-8.30E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	2.46E-01	0.00E+00	7.90E-02	2.46E-01	2.89E-01	-3.29E-04	4.25E-02
-3.92E-02	-1.89E-04	2.14E-02	-2.03E-02	-1.62E-02	-9.46E-03	6.22E+00	1.36E-04	1.36E+02	1.21E-01	4.51E+01	5.42E+04	2.46E-01	0.00E+00	7.74E-02	2.45E-01	2.90E-01	1.27E-01	4.14E-02
-3.91E-02	8.20E-05	2.12E-02	-2.06E-02	-1.39E-02	-9.43E-03	6.22E+00	2.34E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	7.61E-02	2.45E-01	2.90E-01	2.02E-01	4.05E-02
-3.85E-02	-1.43E-04	2.01E-02	-1.89E-02	-1.51E-02	-9.57E-03	6.22E+00	7.71E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	2.46E-01	0.00E+00	7.77E-02	2.45E-01	2.84E-01	1.49E-01	4.06E-02
-3.91E-02	-4.26E-04	2.09E-02	-2.09E-02	-1.47E-02	-9.56E-03	6.22E+00	4.74E-05	1.36E+02	1.20E-01	4.48E+01	5.41E+04	2.46E-01	0.00E+00	7.77E-02	2.45E-01	2.84E-01	1.49E-01	4.06E-02
-3.88E-02	-3.82E-04	2.12E-02	-2.12E-02	-1.39E-02	-9.62E-03	6.22E+00	3.81E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	7.74E-02	2.45E-01	2.87E-01	2.94E-01	4.01E-02
-3.91E-02	5.76E-05	1.95E-02	-1.65E-02	-1.46E-02	-9.60E-03	6.22E+00	3.03E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	2.46E-01	0.00E+00	7.75E-02	2.44E-01	2.92E-01	2.87E-01	3.74E-02
-3.96E-02	7.47E-05	1.83E-02	-1.73E-02	-1.39E-02	-9.46E-03	6.22E+00	3.41E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	2.46E-01	0.00E+00	7.68E-02	2.45E-01	2.93E-01	9.93E-01	4.01E-02
-3.80E-02	-6.97E-04	1.96E-02	-1.88E-02	-1.36E-02	-9.66E-03	6.22E+00	4.54E-05	1.35E+02	1.20E-01	4.45E+01	5.38E+04	2.46E-01	0.00E+00	7.58E-02	2.49E-01	2.79E-01	5.30E-01	4.01E-02
-3.86E-02	-3.60E-04	2.18E-02	-1.97E-02	-1.57E-02	-9.60E-03	6.22E+00	7.71E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	2.46E-01	0.00E+00	7.91E-02	2.47E-01	2.91E-01	3.96E-01	4.21E-02
-3.85E-02	-5.72E-04	2.15E-02	-1.98E-02	-1.50E-02	-9.52E-03	6.22E+00	-8.30E-06	1.36E+02	1.20E-01	4.45E+01	5.38E+04	2.46E-01	0.00E+00	7.66E-02	2.45E-01	2.83E-01	1.23E-01	4.03E-02
-3.89E-02	-1.07E-05	1.84E-02	-1.63E-02	-1.41E-02	-9.61E-03	6.22E+00	-1.81E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	2.46E-01	0.00E+00	7.82E-02	2.45E-01	2.93E-01	4.30E-01	3.84E-02
-3.87E-02	7.23E-05	1.99E-02	-1.96E-02	-1.42E-02	-9.23E-03	6.22E+00	9.77E-07	1.36E+02	1.20E-01	4.46E+01	5.38E+04	2.46E-01	0.00E+00	7.49E-02	2.41E-01	2.89E-01	3.31E-01	4.13E-02
-3.95E-02	3.14E-04	1.96E-02	-1.86E-02	-1.40E-02	-9.26E-03	6.22E+00	8.79E-06	1.36E+02	1.20E-01	4.48E+01	5.39E+04	2.46E-01	0.00E+00	7.57E-02	2.47E-01	2.98E-01	1.05E-01	4.13E-02
-3.98E-02	6.74E-05	1.88E-02	-1.54E-02	-1.44E-02	-9.43E-03	6.22E+00	3.08E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	7.65E-02	2.49E-01	2.97E-01	5.47E-01	4.19E-02
-3.82E-02	-5.26E-04	1.98E-02	-1.76E-02	-1.50E-02	-9.30E-03	6.22E+00	6.35E-06	1.35E+02	1.20E-01	4.43E+01	5.36E+04	2.46E-01	0.00E+00	7.58E-02	2.44E-01	2.91E-01	1.92E-01	4.07E-02
-3.89E-02	-2.29E-05	1.96E-02	-1.82E-02	-1.50E-02	-9.63E-03	6.22E+00	6.35E-06	1.35E+02	1.20E-01	4.43E+01	5.36E+04	2.46E-01	0.00E+00	7.58E-02	2.44E-01	2.91E-01	1.92E-01	4.07E-02
-3.96E-02	3.07E-04	1.97E-02	-1.84E-02	-1.41E-02	-9.30E-03	6.22E+00	3.58E-05	1.36E+02	1.21E-01	4.50E+01	5.41E+04	2.46E-01	0.00E+00	7.64E-02	2.49E-01	3.01E-01	1.00E-01	4.17E-02
-3.87E-02	-3.13E-04	1.91E-02	-1.79E-02	-1.40E-02	-9.26E-03	6.22E+00	1.46E-06	1.36E+02	1.20E-01	4.46E+01	5.38E+04	2.46E-01	0.00E+00	7.48E-02	2.45E-01	2.85E-01	3.26E-01	4.10E-02
-3.74E-02	-1.08E-03	1.82E-02	-1.67E-02	-1.36E-02	-9.82E-03	6.22E+00	4.32E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	7.48E-02	2.45E-01	2.85E-01	1.74E-01	3.74E-02
-3.76E-02	-6.49E-04	1.96E-02	-1.82E-02	-1.40E-02	-9.72E-03	6.22E+00	-8.96E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.10E-01	0.00E+00	7.95E-02	2.41E-01	2.77E-01	2.74E-01	3.74E-02
-3.80E-02	-4.27E-04	1.95E-02	-1.72E-02	-1.50E-02	-9.55E-03	6.22E+00	4.57E-05	1.36E+02	1.20E-01	4.45E+01	5.38E+04	4.10E-01	0.00E+00	7.90E-02	2.41E-01	2.79E-01	2.20E-01	4.29E-02
-3.81E-02	-4.75E-04	1.93E-02	-1.75E-02	-1.42E-02	-9.67E-03	6.22E+00	-1.88E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.10E-01	0.00E+00	7.90E-02	2.40E-01	2.81E-01	1.50E-01	3.82E-02
-3.84E-02	-2.41E-04	1.91E-02	-1.87E-02	-1.43E-02	-9.26E-03	6.22E+00	2.76E-05	1.35E+02	1.20E-01	4.44E+01	5.37E+04	4.10E-01	0.00E+00	7.85E-02	2.42E-01	2.85E-01	3.07E-01	3.90E-02
-3.83E-02	-5.12E-04	1.98E-02	-2.03E-02	-1.41E-02	-9.57E-03	6.22E+00	-6.59E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	7.83E-02	2.45E-01	2.86E-01	1.80E-01	3.67E-02
-3.86E-02	-4.51E-04	1.80E-02	-1.67E-02	-1.40E-02	-9.65E-03	6.22E+00	3.49E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	7.81E-02	2.45E-01	2.85E-01	2.12E-01	3.83E-02
-3.79E-02	-7.32E-04	1.88E-02	-1.64E-02	-1.44E-02	-9.78E-03	6.22E+00	3.59E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	7.90E-02	2.41E-01	2.81E-01	5.49E-01	3.63E-02
-3.75E-02	-1.29E-03	2.22E-02	-2.04E-02	-1.54E-02	-9.89E-03	6.22E+00	3.25E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	8.02E-02	2.42E-01	2.76E-01	1.62E-01	4.24E-02
-3.76E-02	-1.40E-03	2.19E-02	-2.25E-02	-1.40E-02	-9.95E-03	6.22E+00	9.03E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	8.05E-02	2.42E-01	2.76E-01	6.60E-01	3.63E-02
-3.79E-02	-7.95E-04	1.94E-02	-1.96E-02	-1.39E-02	-9.70E-03	6.22E+00	7.98E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.10E-01	0.00E+00	7.88E-02	2.43E-01	2.81E-01	4.06E-01	3.08E-02
-3.85E-02	-8.20E-04	2.11E-02	-2.08E-02	-1.51E-02	-9.72E-03	6.22E+00	1.64E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	7.92E-02	2.42E-01	2.86E-01	2.63E-01	4.13E-02
-3.89E-02	-3.80E-04	2.03E-02	-1.81E-02	-1.51E-02	-9.75E-03	6.22E+00	7.74E-05	1.36E+02	1.21E-01	4.54E+01	5.43E+04	4.10E-01	0.00E+00	7.90E-02	2.46E-01	2.90E-01	4.47E-01	4.13E-02
-3.83E-02	-4.95E-04	1.88E-02	-1.73E-02	-1.45E-02	-9.65E-03	6.22E+00	3.59E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	4.10E-01	0.00E+00	7.70E-02	2.49E-01	2.91E-01	2.44E-01	4.09E-02
-3.81E-02	-1.04E-03	2.35E-02	-2.29E-02	-1.57E-02	-9.69E-03	6.22E+00	8.86E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	4.10E-01	0.00E+00	7.89E-02	2.44E-01	2		

-3.81E-02	-6.86E-04	2.14E-02	-2.27E-02	-1.48E-02	-9.68E-03	6.22E+00	7.76E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	6.56E-01	0.00E+00	7.77E-02	2.39E-01	2.00E-02	2.01E-04	4.00E-02
-3.82E-02	-6.23E-04	1.82E-02	-1.75E-02	-1.33E-02	-9.70E-03	6.22E+00	6.54E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	6.56E-01	0.00E+00	7.77E-02	2.42E-01	2.00E-02	2.01E-04	4.00E-02
-3.85E-02	-6.91E-04	1.98E-02	-1.75E-02	-1.46E-02	-9.72E-03	6.22E+00	1.39E-04	1.36E+02	1.20E-01	4.47E+01	5.41E+04	6.56E-01	0.00E+00	7.89E-02	2.46E-01	2.00E-02	2.00E-04	4.00E-02
-3.90E-02	-4.96E-04	1.92E-02	-1.90E-02	-1.31E-02	-9.54E-03	6.22E+00	3.12E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	6.56E-01	0.00E+00	7.67E-02	2.46E-01	2.00E-02	2.00E-04	4.00E-02
-3.75E-02	-1.31E-03	1.82E-02	-1.53E-02	-1.41E-02	-1.00E-02	6.22E+00	-5.74E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.84E-01	0.00E+00	7.96E-02	2.41E-01	2.00E-02	2.00E-04	4.00E-02
-3.65E-02	-1.06E-03	2.32E-02	-2.21E-02	-1.59E-02	-9.86E-03	6.22E+00	-5.25E-05	1.37E+02	1.21E-01	4.54E+01	5.43E+04	9.84E-01	0.00E+00	8.02E-02	2.40E-01	2.00E-02	2.00E-04	4.00E-02
-3.79E-02	-1.01E-03	2.15E-02	-2.27E-02	-1.48E-02	-9.88E-03	6.22E+00	2.81E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	9.84E-01	0.00E+00	7.75E-02	2.40E-01	2.00E-02	2.00E-04	4.00E-02
-3.88E-02	-2.67E-04	1.99E-02	-1.63E-02	-1.49E-02	-9.72E-03	6.22E+00	3.05E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	9.84E-01	0.00E+00	7.88E-02	2.45E-01	2.00E-02	2.00E-04	4.00E-02
-3.80E-02	-1.06E-03	2.03E-02	-1.83E-02	-1.53E-02	-9.77E-03	6.22E+00	6.10E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	9.84E-01	0.00E+00	7.85E-02	2.42E-01	2.00E-02	2.00E-04	4.00E-02
-3.77E-02	-1.02E-03	1.94E-02	-1.91E-02	-1.45E-02	-9.93E-03	6.22E+00	6.10E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	9.84E-01	0.00E+00	8.04E-02	2.42E-01	2.00E-02	2.00E-04	4.00E-02
-3.81E-02	-6.92E-04	1.85E-02	-1.70E-02	-1.42E-02	-9.75E-03	6.22E+00	-3.66E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	9.84E-01	0.00E+00	7.81E-02	2.41E-01	2.00E-02	2.00E-04	4.00E-02
-3.82E-02	-8.16E-04	1.91E-02	-1.70E-02	-1.40E-02	-9.70E-03	6.22E+00	-1.09E-04	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.84E-01	0.00E+00	7.87E-02	2.45E-01	2.00E-02	2.00E-04	4.00E-02
-3.82E-02	-5.70E-04	1.93E-02	-1.79E-02	-1.42E-02	-9.63E-03	6.22E+00	-3.05E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	9.84E-01	0.00E+00	7.83E-02	2.42E-01	2.00E-02	2.00E-04	4.00E-02
-3.86E-02	-4.60E-04	1.93E-02	-1.77E-02	-1.46E-02	-9.58E-03	6.22E+00	-1.22E-06	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.84E-01	0.00E+00	7.77E-02	2.45E-01	2.00E-02	2.00E-04	4.00E-02
-3.82E-02	-8.38E-04	1.86E-02	-1.61E-02	-1.49E-02	-9.78E-03	6.22E+00	-5.98E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	9.84E-01	0.00E+00	7.89E-02	2.44E-01	2.00E-02	2.00E-04	4.00E-02
-3.86E-02	-4.94E-04	2.04E-02	-1.77E-02	-1.59E-02	-9.65E-03	6.22E+00	2.08E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	9.84E-01	0.00E+00	7.79E-02	2.41E-01	2.00E-02	2.00E-04	4.00E-02
-3.79E-02	-1.02E-03	1.76E-02	-1.48E-02	-1.35E-02	-1.00E-02	6.22E+00	5.15E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	8.04E-02	2.43E-01	2.00E-02	2.00E-04	4.00E-02
-3.83E-02	-9.47E-04	2.16E-02	-2.07E-02	-1.51E-02	-9.65E-03	6.22E+00	1.49E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.80E+00	0.00E+00	7.82E-02	2.45E-01	2.00E-02	2.00E-04	4.00E-02
-3.82E-02	-9.03E-04	2.14E-02	-2.21E-02	-1.39E-02	-9.72E-03	6.22E+00	-6.32E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	7.93E-02	2.45E-01	2.00E-02	2.00E-04	4.00E-02
-3.84E-02	-6.54E-04	2.00E-02	-1.68E-02	-1.55E-02	-9.58E-03	6.22E+00	-3.15E-05	1.36E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	7.76E-02	2.44E-01	2.00E-02	2.00E-04	4.00E-02
-3.85E-02	-4.03E-04	2.03E-02	-1.84E-02	-1.54E-02	-9.56E-03	6.22E+00	4.17E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.80E+00	0.00E+00	7.78E-02	2.44E-01	2.00E-02	2.00E-04	4.00E-02
-3.87E-02	-6.47E-04	2.09E-02	-1.90E-02	-1.50E-02	-9.60E-03	6.22E+00	2.47E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	1.80E+00	0.00E+00	7.81E-02	2.47E-01	2.00E-02	2.00E-04	4.00E-02
-3.80E-02	-9.89E-04	2.07E-02	-1.95E-02	-1.48E-02	-9.60E-03	6.22E+00	-4.13E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	1.80E+00	0.00E+00	7.71E-02	2.41E-01	2.00E-02	2.00E-04	4.00E-02
-3.81E-02	-8.69E-04	1.96E-02	-1.82E-02	-1.37E-02	-9.60E-03	6.22E+00	2.22E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	1.80E+00	0.00E+00	7.77E-02	2.44E-01	2.00E-02	2.00E-04	4.00E-02
-3.90E-02	-4.03E-04	2.04E-02	-1.93E-02	-1.49E-02	-9.51E-03	6.22E+00	6.13E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	7.76E-02	2.47E-01	2.00E-02	2.00E-04	4.00E-02
-3.93E-02	-3.29E-04	2.06E-02	-1.74E-02	-1.52E-02	-9.46E-03	6.22E+00	3.44E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	0.00E+00	7.66E-02	2.47E-01	2.00E-02	2.00E-04	4.00E-02
-3.90E-02	-2.78E-04	2.05E-02	-1.68E-02	-1.57E-02	-9.59E-03	6.22E+00	-3.64E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	1.80E+00	0.00E+00	7.73E-02	2.44E-01	2.00E-02	2.00E-04	4.00E-02

-2.44E-02	-1.37E-02	2.35E-02	-1.99E-02	-1.67E-02	-1.94E-02	6.22E+00	6.22E+00	7.57E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.57E-01	2.3E-01	1.61E-02	7.7E-05	1.03E-01
-2.44E-02	-1.37E-02	2.35E-02	-1.99E-02	-1.67E-02	-1.94E-02	6.22E+00	6.22E+00	1.95E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.57E-01	2.3E-01	1.61E-02	9.24E-04	4.95E-01
-2.48E-02	-1.35E-02	2.30E-02	-1.96E-02	-1.64E-02	-1.91E-02	6.22E+00	6.22E+00	7.08E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.65E-02	4.24E-04	4.74E-01
-2.37E-02	-1.43E-02	2.25E-02	-1.92E-02	-1.58E-02	-1.97E-02	6.22E+00	6.22E+00	3.66E+05	1.36E+02	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.57E-02	6.90E-05	4.90E-01
-2.40E-02	-1.38E-02	2.30E-02	-1.97E-02	-1.50E-02	-1.92E-02	6.22E+00	6.22E+00	1.46E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	1.03E-05	4.99E-01
-2.46E-02	-1.35E-02	2.14E-02	-2.00E-02	-1.49E-02	-1.93E-02	6.22E+00	6.22E+00	2.44E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.4E-01	0.00E+00	1.57E-01	2.3E-01	1.64E-02	5.0E-01	4.90E-01
-2.46E-02	-1.34E-02	2.36E-02	-2.00E-02	-1.66E-02	-1.93E-02	6.22E+00	6.22E+00	2.20E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.57E-01	2.3E-01	1.63E-02	7.01E-05	5.00E-01
-2.45E-02	-1.33E-02	2.31E-02	-1.94E-02	-1.54E-02	-1.94E-02	6.22E+00	6.22E+00	7.4E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.63E-02	1.48E-05	4.90E-01
-2.37E-02	-1.36E-02	2.08E-02	-2.10E-02	-1.48E-02	-1.97E-02	6.22E+00	6.22E+00	4.54E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.54E-02	6.49E-05	4.99E-01
-2.36E-02	-1.37E-02	2.36E-02	-2.09E-02	-1.62E-02	-1.95E-02	6.22E+00	6.22E+00	2.34E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.61E-02	2.2E-05	4.99E-01
-2.42E-02	-1.35E-02	2.28E-02	-2.06E-02	-1.50E-02	-1.95E-02	6.22E+00	6.22E+00	6.74E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.61E-02	2.3E-05	4.99E-01
-2.41E-02	-1.35E-02	2.22E-02	-1.99E-02	-1.56E-02	-1.96E-02	6.22E+00	6.22E+00	1.46E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.63E-02	2.2E-05	4.99E-01
-2.45E-02	-1.33E-02	2.20E-02	-2.02E-02	-1.49E-02	-1.94E-02	6.22E+00	6.22E+00	3.56E+05	1.36E+02	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.61E-02	2.2E-05	4.99E-01
-2.43E-02	-1.36E-02	2.27E-02	-1.96E-02	-1.60E-02	-1.94E-02	6.22E+00	6.22E+00	8.79E+05	1.36E+02	1.36E+02	1.20E-01	4.50E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	2.2E-05	4.99E-01
-2.48E-02	-1.35E-02	2.26E-02	-2.09E-02	-1.58E-02	-1.96E-02	6.22E+00	6.22E+00	5.03E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.42E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.63E-02	2.4E-05	4.99E-01
-2.44E-02	-1.34E-02	2.28E-02	-2.08E-02	-1.56E-02	-1.95E-02	6.22E+00	6.22E+00	4.54E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.42E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.63E-02	5.40E-05	4.99E-01
-2.46E-02	-1.34E-02	2.28E-02	-2.15E-02	-1.50E-02	-1.94E-02	6.22E+00	6.22E+00	3.03E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.63E-02	4.4E-05	4.99E-01
-2.44E-02	-1.33E-02	2.29E-02	-2.15E-02	-1.50E-02	-1.94E-02	6.22E+00	6.22E+00	6.62E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.4E-01	0.00E+00	1.54E-01	2.3E-01	1.61E-02	1.1E-05	4.71E-01
-2.42E-02	-1.35E-02	2.19E-02	-1.98E-02	-1.48E-02	-1.98E-02	6.22E+00	6.22E+00	4.37E+05	1.36E+02	1.36E+02	1.20E-01	4.51E+01	5.41E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.61E-02	2.7E-05	4.96E-01
-2.46E-02	-1.35E-02	2.46E-02	-2.18E-02	-1.61E-02	-1.97E-02	6.22E+00	6.22E+00	1.100E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.42E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.61E-02	4.44E-05	4.96E-01
-2.47E-02	-1.35E-02	2.16E-02	-1.94E-02	-1.49E-02	-1.93E-02	6.22E+00	6.22E+00	1.155E+04	1.36E+02	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	1.51E-01	2.2E-01	1.64E-02	4.06E-05	4.95E-01
-2.40E-02	-1.35E-02	2.14E-02	-1.89E-02	-1.52E-02	-1.95E-02	6.22E+00	6.22E+00	3.93E+05	1.36E+02	1.36E+02	1.20E-01	4.47E+01	5.39E+04	4.10E-01	0.00E+00	1.55E-01	2.3E-01	1.64E-02	4.80E-05	4.71E-01
-2.45E-02	-1.33E-02	2.36E-02	-2.05E-02	-1.67E-02	-1.92E-02	6.22E+00	6.22E+00	1.20E+05	1.36E+02	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.10E-01	0.00E+00	1.55E-01	2.3E-01	1.64E-02	6.1E-05	5.04E-01
-2.49E-02	-1.31E-02	2.23E-02	-2.03E-02	-1.48E-02	-1.92E-02	6.22E+00	6.22E+00	2.47E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	2.0E-05	4.51E-01
-2.49E-02	-1.30E-02	2.24E-02	-1.99E-02	-1.50E-02	-1.97E-02	6.22E+00	6.22E+00	1.73E+05	1.36E+02	1.36E+02	1.20E-01	4.51E+01	5.41E+04	4.10E-01	0.00E+00	1.57E-01	2.3E-01	1.64E-02	4.11E-05	4.64E-01
-2.41E-02	-1.41E-02	2.18E-02	-1.97E-02	-1.49E-02	-1.97E-02	6.22E+00	6.22E+00	3.59E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.42E+04	4.10E-01	0.00E+00	1.56E-01	2.3E-01	1.57E-02	2.7E-05	4.66E-01
-2.36E-02	-1.41E-02	2.22E-02	-2.07E-02	-1.55E-02	-2.00E-02	6.22E+00	6.22E+00	2.17E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.43E+04	4.10E-01	0.00E+00	1.57E-01	2.3E-01	1.57E-02	7.24E-04	4.74E-01
-2.44E-02	-1.31E-02	2.12E-02	-1.96E-02	-1.43E-02	-1.94E-02	6.22E+00	6.22E+00	4.37E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	1.4E-05	4.41E-01
-2.37E-02	-1.39E-02	2.07E-02	-1.97E-02	-1.50E-02	-1.96E-02	6.22E+00	6.22E+00	2.66E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	5.80E-05	4.64E-01
-2.39E-02	-1.39E-02	2.37E-02	-2.14E-02	-1.51E-02	-1.95E-02	6.22E+00	6.22E+00	1.73E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	5.80E-05	4.64E-01
-2.41E-02	-1.37E-02	2.23E-02	-2.06E-02	-1.44E-02	-1.97E-02	6.22E+00	6.22E+00	1.93E+05	1.36E+02	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	1.0E-05	4.64E-01
-2.37E-02	-1.43E-02	2.09E-02	-1.91E-02	-1.40E-02	-1.98E-02	6.22E+00	6.22E+00	2.25E+05	1.36E+02	1.36E+02	1.20E-01	4.51E+01	5.41E+04	4.10E-01	0.00E+00	1.64E-01	2.2E-01	1.57E-02	1.3E-05	4.51E-01
-2.37E-02	-1.37E-02	2.31E-02	-2.07E-02	-1.55E-02	-1.95E-02	6.22E+00	6.22E+00	2.64E+05	1.36E+02	1.36E+02	1.20E-01	4.46E+01	5.38E+04	4.10E-01	0.00E+00	1.64E-01	2.2E-01	1.54E-02	5.6E-05	4.74E-01
-2.37E-02	-1.39E-02	2.45E-02	-2.16E-02	-1.68E-02	-1.96E-02	6.22E+00	6.22E+00	1.66E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.56E-02	4.60E-05	5.14E-01
-2.40E-02	-1.39E-02	2.35E-02	-1.96E-02	-1.58E-02	-1.96E-02	6.22E+00	6.22E+00	3.12E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.42E+04	4.10E-01	0.00E+00	1.57E-01	2.3E-01	1.57E-02	8.9E-05	4.83E-01
-2.47E-02	-1.36E-02	2.52E-02	-1.97E-02	-1.64E-02	-1.95E-02	6.22E+00	6.22E+00	9.29E+05	1.36E+02	1.36E+02	1.20E-01	4.50E+01	5.41E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	2.4E-05	4.64E-01
-2.40E-02	-1.35E-02	2.52E-02	-2.07E-02	-1.54E-02	-1.95E-02	6.22E+00	6.22E+00	5.81E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	1.0E-05	4.64E-01
-2.41E-02	-1.36E-02	2.22E-02	-1.94E-02	-1.53E-02	-1.96E-02	6.22E+00	6.22E+00	3.47E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.41E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	5.1E-05	4.64E-01
-2.41E-02	-1.36E-02	2.22E-02	-1.94E-02	-1.53E-02	-1.96E-02	6.22E+00	6.22E+00	1.90E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	5.93E-05	4.71E-01
-2.39E-02	-1.39E-02	2.46E-02	-2.31E-02	-1.69E-02	-1.97E-02	6.22E+00	6.22E+00	1.07E+04	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.39E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.59E-02	2.1E-05	4.71E-01
-2.39E-02	-1.40E-02	2.41E-02	-2.20E-02	-1.54E-02	-1.97E-02	6.22E+00	6.22E+00	4.59E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	6.90E-05	4.90E-01
-2.36E-02	-1.41E-02	2.30E-02	-1.99E-02	-1.58E-02	-1.97E-02	6.22E+00	6.22E+00	1.17E+05	1.36E+02	1.36E+02	1.20E-01	4.49E+01	5.40E+04	4.10E-01	0.00E+00	1.54E-01	2.3E-01	1.64E-02	1.03E-05	4.90E-01
-2.38E-02	-1.44E-02	2.34E-02	-2.16E-02	-1.65E-02	-1.98E-02	6.22E+00	6.22E+00	1.76E+05	1.36E+02	1.36E+02	1.20E-01	4.53E+01	5.43E+04	4.10E-01	0.00E+00	1.57E-01	2.3E-01	1.64E-02	1.03E-05	4.90E-01
-2.40E-02	-1.41E-02	2.55E-02	-2.21E-02	-1.53E-02	-2.00E-02	6.22E+00	6.22E+00	1.43E+05	1.36E+02	1.36E+02	1.20E-01	4.52E+01	5.43E+04	4.10E-01	0.00E+00	1.57E-01	2.3E-01	1.67E-02	1.04E-05	4.71E-01
-2.47E-02	-1.40E-02	2.26E-02	-2.04E-02	-1.57E-02	-1.97E-02	6.22E+00	6.22E+00	2.67E+05	1.36E+02	1.36E+02	1.20E-01									

241E-02	142E-02	241E-02	-223E-02	-157E-02	-200E-02	6.22E+00	-149E-05	1.27E+02	1.21E-01	4.55E+01	5.44E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	5.06E-04
247E-02	34E-02	216E-02	203E-02	-147E-02	-195E-02	6.22E+00	276E-05	26E+02	1.20E-01	4.48E+01	5.29E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	140E-02	240E-02	-226E-02	-155E-02	-192E-02	6.22E+00	-564E-06	37E+02	1.20E-01	4.54E+01	5.41E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
226E-02	130E-02	236E-02	-214E-02	-153E-02	-190E-02	6.22E+00	464E-06	36E+02	1.20E-01	4.50E+01	5.41E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
241E-02	43E-02	227E-02	217E-02	-161E-02	-198E-02	6.22E+00	244E-05	27E+02	1.21E-01	4.52E+01	5.43E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
226E-02	143E-02	230E-02	-217E-02	-152E-02	-194E-02	6.22E+00	193E-05	27E+02	1.21E-01	4.54E+01	5.44E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
244E-02	134E-02	241E-02	-202E-02	-151E-02	-193E-02	6.22E+00	-662E-05	36E+02	1.20E-01	4.48E+01	5.40E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
243E-02	136E-02	240E-02	-221E-02	-156E-02	-195E-02	6.22E+00	510E-05	26E+02	1.20E-01	4.49E+01	5.40E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	130E-02	228E-02	-198E-02	-147E-02	-190E-02	6.22E+00	-775E-05	36E+02	1.20E-01	4.47E+01	5.40E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	141E-02	216E-02	-202E-02	-144E-02	-192E-02	6.22E+00	-260E-06	36E+02	1.20E-01	4.47E+01	5.39E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
225E-02	143E-02	223E-02	-208E-02	-147E-02	-192E-02	6.22E+00	509E-05	36E+02	1.20E-01	4.48E+01	5.40E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
226E-02	142E-02	241E-02	-226E-02	-151E-02	-192E-02	6.22E+00	925E-05	36E+02	1.20E-01	4.49E+01	5.41E+04	1.55E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
226E-02	145E-02	205E-02	-181E-02	-136E-02	-190E-02	6.22E+00	-254E-05	36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
226E-02	139E-02	215E-02	-202E-02	-142E-02	-190E-02	6.22E+00	259E-05	36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
244E-02	130E-02	222E-02	-200E-02	-147E-02	-190E-02	6.22E+00	327E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
244E-02	140E-02	212E-02	-204E-02	-137E-02	-194E-02	6.22E+00	698E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
241E-02	140E-02	212E-02	-191E-02	-146E-02	-190E-02	6.22E+00	-645E-05	36E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
241E-02	139E-02	208E-02	-200E-02	-147E-02	-190E-02	6.22E+00	-229E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
241E-02	139E-02	219E-02	-204E-02	-149E-02	-195E-02	6.22E+00	112E-05	36E+02	1.20E-01	4.50E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
244E-02	137E-02	230E-02	-225E-02	-145E-02	-190E-02	6.22E+00	635E-06	36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
245E-02	140E-02	215E-02	-192E-02	-149E-02	-190E-02	6.22E+00	137E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
245E-02	136E-02	217E-02	-218E-02	-135E-02	-190E-02	6.22E+00	-352E-05	36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
247E-02	137E-02	213E-02	-196E-02	-140E-02	-190E-02	6.22E+00	137E-05	36E+02	1.20E-01	4.50E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
245E-02	141E-02	217E-02	-193E-02	-139E-02	-190E-02	6.22E+00	-205E-05	36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
230E-02	144E-02	194E-02	-193E-02	-126E-02	-190E-02	6.22E+00	527E-05	36E+02	1.20E-01	4.46E+01	5.39E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
244E-02	137E-02	221E-02	-211E-02	-148E-02	-195E-02	6.22E+00	674E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	142E-02	232E-02	-221E-02	-155E-02	-190E-02	6.22E+00	-381E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	137E-02	213E-02	-184E-02	-139E-02	-190E-02	6.22E+00	254E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	134E-02	217E-02	-205E-02	-139E-02	-194E-02	6.22E+00	645E-05	36E+02	1.20E-01	4.47E+01	5.39E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
242E-02	141E-02	201E-02	-187E-02	-143E-02	-195E-02	6.22E+00	342E-06	36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
244E-02	144E-02	208E-02	-172E-02	-144E-02	-190E-02	6.22E+00	-391E-06	37E+02	1.21E-01	4.53E+01	5.42E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
235E-02	145E-02	210E-02	-195E-02	-149E-02	-190E-02	6.22E+00	234E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	142E-02	222E-02	-211E-02	-148E-02	-192E-02	6.22E+00	-503E-05	36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
243E-02	142E-02	224E-02	-192E-02	-156E-02	-190E-02	6.22E+00	-698E-05	37E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
240E-02	142E-02	225E-02	-209E-02	-157E-02	-190E-02	6.22E+00	430E-05	37E+02	1.21E-01	4.54E+01	5.43E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
242E-02	143E-02	228E-02	-210E-02	-147E-02	-192E-02	6.22E+00	-869E-05	36E+02	1.20E-01	4.48E+01	5.39E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
249E-02	136E-02	207E-02	-196E-02	-129E-02	-193E-02	6.22E+00	659E-05	36E+02	1.20E-01	4.48E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
253E-02	136E-02	212E-02	-184E-02	-143E-02	-195E-02	6.22E+00	-122E-05	36E+02	1.20E-01	4.50E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
242E-02	145E-02	220E-02	-203E-02	-141E-02	-190E-02	6.22E+00	146E-05	37E+02	1.21E-01	4.55E+01	5.43E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
242E-02	145E-02	224E-02	-207E-02	-143E-02	-190E-02	6.22E+00	489E-05	37E+02	1.21E-01	4.54E+01	5.43E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	145E-02	212E-02	-193E-02	-135E-02	-192E-02	6.22E+00	-244E-05	37E+02	1.21E-01	4.52E+01	5.42E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
245E-02	145E-02	210E-02	-183E-02	-134E-02	-190E-02	6.22E+00	684E-05	37E+02	1.21E-01	4.53E+01	5.42E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
245E-02	147E-02	211E-02	-187E-02	-135E-02	-192E-02	6.22E+00	-171E-05	36E+02	1.20E-01	4.50E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	141E-02	187E-02	-170E-02	-126E-02	-192E-02	6.22E+00	-537E-05	36E+02	1.21E-01	4.55E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
250E-02	143E-02	216E-02	-194E-02	-143E-02	-190E-02	6.22E+00	537E-05	37E+02	1.21E-01	4.55E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	143E-02	202E-02	-191E-02	-124E-02	-192E-02	6.22E+00	-220E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
249E-02	140E-02	216E-02	-207E-02	-130E-02	-195E-02	6.22E+00	415E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
245E-02	142E-02	202E-02	-198E-02	-126E-02	-190E-02	6.22E+00	-220E-05	36E+02	1.20E-01	4.49E+01	5.40E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	146E-02	200E-02	-183E-02	-141E-02	-190E-02	6.22E+00	317E-05	36E+02	1.21E-01	4.51E+01	5.41E+04	1.48E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
231E-02	143E-02	202E-02	-183E-02	-137E-02	-190E-02	6.22E+00	449E-05	36E+02	1.20E-01	4.49E+01	5.39E+04	1.46E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	140E-02	197E-02	-187E-02	-143E-02	-190E-02	6.22E+00	-333E-06	36E+02	1.20E-01	4.50E+01	5.41E+04	1.46E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
248E-02	140E-02	197E-02	-187E-02	-143E-02	-190E-02	6.22E+00	630E-06	36E+02	1.20E-01	4.46E+01	5.38E+04	1.46E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
241E-02	143E-02	212E-02	-193E-02	-145E-02	-190E-02	6.22E+00	830E-06	37E+02	1.21E-01	4.54E+01	5.43E+04	1.46E+00	0.00E+00	1.57E-01	1.57E-02	6.72E-04	4.48E-04
225E-02	144E-02	219E-02	-171E-02	-155E-02	-192E-02	6.22E+00	-479E-05	37E+02	1.21E-01</								

2.41E-02	1.40E-02	1.97E-05	-1.64E-02	-1.77E-02	-1.96E-02	6.22E+00	6.20E-06	6.30E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	1.46E-01	0.00E+00	1.54E-01	7.4E-01	1.59E-02	1.47E-02	4.2E-01
2.40E-02	1.43E-02	2.12E-05	-1.95E-02	-1.75E-02	-1.95E-02	6.22E+00	6.22E+00	4.05E-05	1.76E+02	2.0E-01	4.49E+01	5.36E+04	1.46E-01	0.00E+00	1.54E-01	7.4E-01	1.57E-02	1.47E-02	4.2E-01
2.31E-02	1.48E-02	1.96E-02	-1.88E-02	-1.27E-02	-1.99E-02	6.22E+00	6.22E+00	5.08E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.31E-02	1.48E-02	2.22E-02	-2.07E-02	-1.49E-02	-1.97E-02	6.22E+00	6.22E+00	1.27E-05	1.37E+02	1.21E-01	4.49E+01	5.47E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.41E-02	2.29E-02	-2.16E-02	-1.52E-02	-1.96E-02	6.22E+00	6.22E+00	5.47E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.37E-02	1.40E-02	2.33E-02	-2.11E-02	-1.47E-02	-1.95E-02	6.22E+00	6.22E+00	6.01E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.42E-02	1.41E-02	2.18E-02	-2.07E-02	-1.46E-02	-1.94E-02	6.22E+00	6.22E+00	9.72E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.37E-02	1.42E-02	1.98E-02	-1.74E-02	-1.34E-02	-1.97E-02	6.22E+00	6.22E+00	1.95E-06	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.36E-02	1.41E-02	2.03E-02	-2.01E-02	-1.35E-02	-1.97E-02	6.22E+00	6.22E+00	5.81E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.42E-02	1.43E-02	2.17E-02	-1.95E-02	-1.53E-02	-1.94E-02	6.22E+00	6.22E+00	5.81E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.37E-02	1.44E-02	2.26E-02	-2.07E-02	-1.51E-02	-1.94E-02	6.22E+00	6.22E+00	5.86E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.44E-02	2.21E-02	-2.05E-02	-1.46E-02	-1.97E-02	6.22E+00	6.22E+00	5.08E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.36E-02	1.40E-02	2.23E-02	-2.09E-02	-1.50E-02	-1.95E-02	6.22E+00	6.22E+00	4.20E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.44E-02	1.39E-02	2.11E-02	-1.72E-02	-1.42E-02	-1.96E-02	6.22E+00	6.22E+00	2.89E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.36E-02	1.42E-02	2.14E-02	-2.06E-02	-1.35E-02	-1.95E-02	6.22E+00	6.22E+00	5.08E-05	1.35E+02	1.20E-01	4.49E+01	5.37E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.44E-02	1.39E-02	2.30E-02	-2.25E-02	-1.42E-02	-1.97E-02	6.22E+00	6.22E+00	7.03E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.27E-02	1.44E-02	2.12E-02	-1.92E-02	-1.42E-02	-1.96E-02	6.22E+00	6.22E+00	3.12E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.31E-02	1.44E-02	2.12E-02	-1.79E-02	-1.43E-02	-1.97E-02	6.22E+00	6.22E+00	2.83E-05	1.36E+02	1.20E-01	4.49E+01	5.38E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.41E-02	1.38E-02	2.09E-02	-2.06E-02	-1.32E-02	-1.95E-02	6.22E+00	6.22E+00	-7.71E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.40E-02	1.42E-02	2.05E-02	-1.80E-02	-1.41E-02	-1.96E-02	6.22E+00	6.22E+00	-5.03E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.43E-02	2.23E-02	-2.04E-02	-1.43E-02	-1.96E-02	6.22E+00	6.22E+00	3.91E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.44E-02	1.98E-02	-1.26E-02	-1.98E-02	-1.96E-02	6.22E+00	6.22E+00	2.54E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.39E-02	1.44E-02	1.98E-02	-1.75E-02	-1.33E-02	-1.98E-02	6.22E+00	6.22E+00	-8.79E-06	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.33E-02	1.46E-02	2.15E-02	-1.92E-02	-1.43E-02	-1.98E-02	6.22E+00	6.22E+00	1.81E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.30E-02	1.43E-02	2.15E-02	-1.92E-02	-1.43E-02	-1.98E-02	6.22E+00	6.22E+00	-3.81E-05	1.36E+02	1.20E-01	4.50E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.39E-02	1.41E-02	2.18E-02	-2.12E-02	-1.36E-02	-1.95E-02	6.22E+00	6.22E+00	4.00E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.33E-02	1.42E-02	2.00E-02	-1.88E-02	-1.28E-02	-1.94E-02	6.22E+00	6.22E+00	-5.76E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.46E-02	2.07E-02	-1.94E-02	-1.32E-02	-1.99E-02	6.22E+00	6.22E+00	2.54E-05	1.36E+02	1.20E-01	4.49E+01	5.38E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.46E-02	2.07E-02	-1.85E-02	-1.40E-02	-1.99E-02	6.22E+00	6.22E+00	-9.18E-05	1.36E+02	1.21E-01	4.51E+01	5.41E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.37E-02	1.42E-02	2.03E-02	-1.81E-02	-1.36E-02	-1.96E-02	6.22E+00	6.22E+00	-5.72E-05	1.37E+02	1.21E-01	4.53E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.30E-02	1.46E-02	2.18E-02	-2.01E-02	-1.33E-02	-1.99E-02	6.22E+00	6.22E+00	3.56E-05	1.36E+02	1.20E-01	4.49E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.46E-02	2.26E-02	-2.16E-02	-1.43E-02	-1.99E-02	6.22E+00	6.22E+00	-9.08E-05	1.36E+02	1.20E-01	4.49E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.32E-02	1.46E-02	2.32E-02	-2.29E-02	-1.33E-02	-1.99E-02	6.22E+00	6.22E+00	2.98E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.36E-02	1.40E-02	2.02E-02	-1.86E-02	-1.27E-02	-1.95E-02	6.22E+00	6.22E+00	-2.49E-05	1.37E+02	1.21E-01	4.52E+01	5.42E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.37E-02	1.37E-02	1.94E-02	-1.86E-02	-1.18E-02	-1.92E-02	6.22E+00	6.22E+00	3.12E-05	1.35E+02	1.19E-01	4.42E+01	5.36E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.42E-02	1.36E-02	1.91E-02	-1.75E-02	-1.29E-02	-1.94E-02	6.22E+00	6.22E+00	3.37E-05	1.36E+02	1.20E-01	4.46E+01	5.38E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.41E-02	1.99E-02	-1.79E-02	-1.26E-02	-1.97E-02	6.22E+00	6.22E+00	3.12E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.38E-02	1.41E-02	2.13E-02	-2.02E-02	-1.36E-02	-1.98E-02	6.22E+00	6.22E+00	7.55E-05	1.36E+02	1.20E-01	4.50E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.35E-02	1.45E-02	2.06E-02	-1.89E-02	-1.35E-02	-1.98E-02	6.22E+00	6.22E+00	1.64E-05	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.34E-02	1.43E-02	2.05E-02	-2.04E-02	-1.28E-02	-1.96E-02	6.22E+00	6.22E+00	7.81E-06	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.38E-02	1.40E-02	2.19E-02	-2.03E-02	-1.44E-02	-1.96E-02	6.22E+00	6.22E+00	-7.81E-06	1.36E+02	1.20E-01	4.48E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.38E-02	1.40E-02	2.09E-02	-1.93E-02	-1.30E-02	-1.95E-02	6.22E+00	6.22E+00	6.84E-06	1.36E+02	1.20E-01	4.47E+01	5.39E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01
2.43E-02	1.37E-02	2.05E-02	-1.86E-02	-1.34E-02	-1.93E-02	6.22E+00	6.22E+00	7.03E-05	1.36E+02	1.20E-01	4.48E+01	5.40E+04	3.29E-01	0.00E+00	1.54E-01	7.5E-01	1.54E-02	4.1E-02	4.2E-01

6.09E-03	-3.35E-02	1.34E-02	1.18E-02	-2.60E-02	-3.43E-02	6.22E+00	1.44E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.55E-01	2.77E-01	1.7E-02	8.94E-02	1.60E-03
6.06E-03	3.34E-02	1.47E-02	1.01E-02	-1.98E-02	-3.41E-02	6.22E+00	2.99E-06	1.36E+02	1.21E+01	4.51E+01	5.43E+04	8.20E-01	0.00E+00	2.55E-01	2.99E-01	1.0E-02	8.94E-02	1.78E-03
6.11E-03	3.37E-02	1.37E-02	1.22E-02	-2.05E-02	-3.42E-02	6.22E+00	5.98E-05	1.36E+02	1.20E+01	4.50E+01	5.40E+04	8.20E-01	0.00E+00	2.66E-01	3.7E-01	1.0E-02	8.94E-02	2.67E-03
6.09E-03	-3.34E-02	1.38E-02	1.29E-02	-2.05E-02	-3.42E-02	6.22E+00	-1.72E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.67E-01	2.7E-01	1.0E-02	8.94E-02	2.67E-03
6.11E-03	3.34E-02	1.38E-02	1.06E-02	-2.03E-02	-3.41E-02	6.22E+00	9.06E-05	1.36E+02	1.20E+01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	2.67E-01	2.7E-01	1.0E-02	8.94E-02	2.67E-03
6.02E-03	-3.31E-02	1.27E-02	1.34E-02	-1.95E-02	-3.43E-02	6.22E+00	2.69E-06	1.36E+02	1.20E+01	4.50E+01	5.40E+04	8.20E-01	0.00E+00	2.67E-01	2.9E-01	1.0E-02	8.94E-02	2.67E-03
-6.12E-03	3.34E-02	1.41E-02	1.17E-02	-2.07E-02	-3.43E-02	6.22E+00	1.68E-05	1.37E+02	1.21E+01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	2.67E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.11E-03	-3.33E-02	1.39E-02	1.17E-02	-1.93E-02	-3.43E-02	6.22E+00	2.68E-05	1.37E+02	1.21E+01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	2.67E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.59E-03	3.34E-02	1.28E-02	1.24E-02	-2.06E-02	-3.43E-02	6.22E+00	1.15E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.67E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.72E-03	-3.34E-02	1.52E-02	9.85E-03	-2.12E-02	-3.43E-02	6.22E+00	1.15E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.67E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.99E-03	3.35E-02	1.45E-02	1.08E-02	-2.00E-02	-3.44E-02	6.22E+00	-1.86E-05	1.36E+02	1.21E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.41E-03	-3.38E-02	1.49E-02	1.05E-02	-2.03E-02	-3.45E-02	6.22E+00	2.54E-05	1.37E+02	1.21E+01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.81E-03	3.33E-02	1.42E-02	1.16E-02	-2.11E-02	-3.43E-02	6.22E+00	1.36E-05	1.36E+02	1.20E+01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.07E-03	-3.31E-02	1.36E-02	1.19E-02	-1.99E-02	-3.42E-02	6.22E+00	5.07E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.02E-03	3.36E-02	1.53E-02	1.62E-02	-2.16E-02	-3.45E-02	6.22E+00	6.55E-06	1.36E+02	1.20E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.98E-03	-3.34E-02	1.31E-02	1.20E-02	-1.95E-02	-3.41E-02	6.22E+00	1.07E-05	1.36E+02	1.20E+01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.31E-03	3.34E-02	1.30E-02	1.17E-02	-1.86E-02	-3.42E-02	6.22E+00	5.96E-06	1.36E+02	1.20E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.05E-03	-3.35E-02	1.43E-02	1.16E-02	-2.10E-02	-3.42E-02	6.22E+00	-6.74E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.36E-03	3.31E-02	1.24E-02	1.32E-02	-1.99E-02	-3.41E-02	6.22E+00	-3.33E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.51E-03	-3.32E-02	1.35E-02	1.12E-02	-1.95E-02	-3.41E-02	6.22E+00	3.33E-05	1.36E+02	1.20E+01	4.48E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.63E-03	3.29E-02	1.41E-02	1.19E-02	-2.03E-02	-3.41E-02	6.22E+00	2.95E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.45E-03	-3.35E-02	1.57E-02	8.84E-03	-2.07E-02	-3.42E-02	6.22E+00	-2.10E-05	1.37E+02	1.21E+01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.29E-03	3.31E-02	1.36E-02	1.13E-02	-1.99E-02	-3.41E-02	6.22E+00	5.96E-06	1.36E+02	1.20E+01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.29E-03	-3.31E-02	1.32E-02	1.15E-02	-1.87E-02	-3.40E-02	6.22E+00	7.67E-05	1.36E+02	1.20E+01	4.48E+01	5.39E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.35E-03	3.33E-02	1.35E-02	1.18E-02	-2.01E-02	-3.41E-02	6.22E+00	3.42E-06	1.37E+02	1.21E+01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.84E-03	-3.35E-02	1.19E-02	1.41E-02	-2.05E-02	-3.45E-02	6.22E+00	-1.17E-05	1.36E+02	1.21E+01	4.52E+01	5.43E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.58E-03	3.35E-02	1.33E-02	1.19E-02	-2.06E-02	-3.46E-02	6.22E+00	3.37E-05	1.37E+02	1.21E+01	4.53E+01	5.43E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.94E-03	-3.33E-02	1.31E-02	9.29E-03	-2.11E-02	-3.44E-02	6.22E+00	1.20E-05	1.37E+02	1.21E+01	4.52E+01	5.42E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.48E-03	3.24E-02	1.36E-02	1.26E-02	-2.02E-02	-3.38E-02	6.22E+00	2.32E-06	1.36E+02	1.20E+01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.11E-03	-3.30E-02	1.42E-02	1.12E-02	-2.13E-02	-3.42E-02	6.22E+00	6.40E-05	1.36E+02	1.20E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.96E-03	3.31E-02	1.34E-02	1.09E-02	-1.95E-02	-3.42E-02	6.22E+00	-5.75E-05	1.36E+02	1.20E+01	4.50E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.25E-03	-3.28E-02	1.48E-02	1.23E-02	-2.00E-02	-3.41E-02	6.22E+00	4.69E-05	1.36E+02	1.20E+01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.28E-03	3.24E-02	1.45E-02	1.09E-03	-2.07E-02	-3.44E-02	6.22E+00	5.32E-05	1.36E+02	1.21E+01	4.51E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.02E-03	-3.29E-02	1.54E-02	1.09E-02	-2.07E-02	-3.42E-02	6.22E+00	8.35E-05	1.36E+02	1.20E+01	4.48E+01	5.39E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.16E-03	3.29E-02	1.29E-02	1.13E-02	-1.94E-02	-3.41E-02	6.22E+00	4.83E-05	1.36E+02	1.20E+01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.13E-03	-3.33E-02	1.31E-02	1.24E-02	-1.91E-02	-3.45E-02	6.22E+00	6.94E-05	1.37E+02	1.21E+01	4.51E+01	5.42E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.84E-03	3.33E-02	1.47E-02	7.84E-03	-1.92E-02	-3.44E-02	6.22E+00	7.81E-06	1.36E+02	1.21E+01	4.51E+01	5.42E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.90E-03	-3.31E-02	1.25E-02	1.32E-02	-2.04E-02	-3.42E-02	6.22E+00	3.47E-05	1.36E+02	1.20E+01	4.49E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.51E-03	3.29E-02	1.50E-02	1.35E-02	-2.04E-02	-3.43E-02	6.22E+00	3.96E-05	1.36E+02	1.21E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.24E-03	-3.27E-02	1.30E-02	1.35E-02	-2.04E-02	-3.43E-02	6.22E+00	4.59E-06	1.36E+02	1.20E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.31E-03	3.36E-02	1.24E-02	1.23E-02	-2.02E-02	-3.45E-02	6.22E+00	8.15E-05	1.36E+02	1.20E+01	4.48E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.54E-03	-3.32E-02	1.34E-02	1.34E-02	-2.02E-02	-3.40E-02	6.22E+00	-8.79E-06	1.36E+02	1.20E+01	4.50E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.31E-03	3.30E-02	1.45E-02	1.11E-02	-2.06E-02	-3.40E-02	6.22E+00	-1.86E-05	1.36E+02	1.20E+01	4.48E+01	5.40E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.44E-03	-3.29E-02	1.25E-02	1.15E-02	-1.88E-02	-3.39E-02	6.22E+00	4.95E-05	1.36E+02	1.20E+01	4.47E+01	5.39E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
5.64E-03	3.32E-02	1.38E-02	1.23E-02	-2.08E-02	-3.41E-02	6.22E+00	-7.96E-05	1.36E+02	1.20E+01	4.50E+01	5.41E+04	8.20E-01	0.00E+00	2.68E-01	2.9E-01	1.1E-02	8.94E-02	2.67E-03
6.22E-03	-3.34E-02	1.30E-02	1.11E-02	-1.96E-02	-3.42E-02	6.22E+00	8.7											

6.24E-03	3.36E-02	1.47E-02	8.21E-03	2.00E-02	3.44E-02	6.22E+00	1.07E-05	1.26E+02	1.20E-01	4.43E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.11E-01	1.00E-04	3.00E-02
6.90E-03	3.27E-02	1.36E-02	1.17E-02	2.09E-02	3.59E-02	6.22E+00	4.28E-05	1.26E+02	1.20E-01	4.43E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.06E-01	1.00E-04	3.00E-02
6.90E-03	3.28E-02	1.47E-02	9.55E-03	2.07E-02	3.44E-02	6.22E+00	2.78E-05	1.26E+02	1.20E-01	4.43E+01	5.38E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
6.90E-03	3.26E-02	1.46E-02	1.16E-02	2.14E-02	3.59E-02	6.22E+00	1.01E-05	1.26E+02	1.20E-01	4.43E+01	5.38E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
6.40E-03	3.36E-02	1.53E-02	9.98E-03	1.94E-02	3.51E-02	6.22E+00	1.37E-05	1.26E+02	1.20E-01	4.50E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
5.83E-03	3.34E-02	1.30E-02	1.02E-02	1.68E-02	3.41E-02	6.22E+00	5.47E-05	1.26E+02	1.20E-01	4.50E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	3.90E-01	1.00E-04	3.00E-02
6.59E-03	3.30E-02	1.29E-02	1.24E-02	2.03E-02	3.41E-02	6.22E+00	3.03E-05	1.26E+02	1.20E-01	4.50E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	3.90E-01	1.00E-04	3.00E-02
6.64E-03	3.32E-02	1.43E-02	1.17E-02	2.10E-02	3.41E-02	6.22E+00	2.54E-05	1.26E+02	1.20E-01	4.50E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
5.89E-03	3.30E-02	1.36E-02	1.07E-02	1.97E-02	3.39E-02	6.22E+00	1.59E-05	1.26E+02	1.20E-01	4.45E+01	5.38E+04	1.80E+00	0.00E+00	1.60E+01	3.90E-01	1.00E-04	3.00E-02
5.96E-03	3.35E-02	1.47E-02	1.06E-02	2.12E-02	3.44E-02	6.22E+00	6.79E-06	1.26E+02	1.20E-01	4.48E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	3.90E-01	1.00E-04	3.00E-02
6.24E-03	3.33E-02	1.35E-02	1.09E-02	2.02E-02	3.41E-02	6.22E+00	3.51E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	3.90E-01	1.00E-04	3.00E-02
6.24E-03	3.36E-02	1.45E-02	9.19E-03	2.04E-02	3.45E-02	6.22E+00	1.54E-05	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
6.27E-03	3.32E-02	1.35E-02	1.11E-02	2.08E-02	3.43E-02	6.22E+00	4.54E-05	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
6.44E-03	3.33E-02	1.40E-02	1.28E-02	2.09E-02	3.42E-02	6.22E+00	5.47E-05	1.26E+02	1.20E-01	4.49E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.00E-01	1.00E-04	3.00E-02
6.09E-03	3.39E-02	1.57E-02	7.98E-03	2.09E-02	3.45E-02	6.22E+00	1.07E-05	1.26E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.20E-01	1.00E-04	3.00E-02
5.89E-03	3.42E-02	1.61E-02	8.75E-03	2.13E-02	3.48E-02	6.22E+00	5.71E-05	1.26E+02	1.21E-01	4.54E+01	5.43E+04	1.80E+00	0.00E+00	1.60E+01	4.41E-01	1.00E-04	3.00E-02
6.40E-03	3.34E-02	1.33E-02	1.07E-02	1.97E-02	3.43E-02	6.22E+00	4.88E-05	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.20E-01	1.00E-04	3.00E-02
7.87E-03	3.32E-02	1.31E-02	1.19E-02	2.00E-02	3.38E-02	6.22E+00	2.44E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.20E-01	1.00E-04	3.00E-02
7.51E-03	3.36E-02	1.38E-02	1.38E-02	2.15E-02	3.40E-02	6.22E+00	4.88E-06	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.40E-01	1.00E-04	3.00E-02
7.34E-03	3.30E-02	1.36E-02	1.21E-02	2.00E-02	3.39E-02	6.22E+00	1.95E-05	1.26E+02	1.20E-01	4.50E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.20E-01	1.00E-04	3.00E-02
7.49E-03	3.30E-02	1.42E-02	1.08E-02	2.01E-02	3.41E-02	6.22E+00	1.22E-05	1.26E+02	1.21E-01	4.52E+01	5.42E+04	1.80E+00	0.00E+00	1.60E+01	4.40E-01	1.00E-04	3.00E-02
7.11E-03	3.28E-02	1.33E-02	1.19E-02	1.94E-02	3.40E-02	6.22E+00	9.77E-06	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.20E-01	1.00E-04	3.00E-02
7.37E-03	3.31E-02	1.40E-02	9.41E-03	1.94E-02	3.40E-02	6.22E+00	4.64E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.40E-01	1.00E-04	3.00E-02
7.56E-03	3.28E-02	1.42E-02	1.14E-02	2.07E-02	3.39E-02	6.22E+00	3.43E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.40E-01	1.00E-04	3.00E-02
7.31E-03	3.29E-02	1.44E-02	1.06E-02	2.06E-02	3.39E-02	6.22E+00	4.64E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.40E-01	1.00E-04	3.00E-02
7.66E-03	3.25E-02	1.32E-02	1.01E-02	1.90E-02	3.38E-02	6.22E+00	1.71E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.3E-01	1.00E-04	3.00E-02
8.04E-03	3.23E-02	1.39E-02	1.25E-02	2.09E-02	3.40E-02	6.22E+00	2.44E-05	1.26E+02	1.21E-01	4.51E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.50E-01	1.00E-04	3.00E-02
8.00E-03	3.27E-02	1.26E-02	1.20E-02	1.96E-02	3.41E-02	6.22E+00	1.95E-05	1.26E+02	1.20E-01	4.49E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.4E-01	1.00E-04	3.00E-02
7.77E-03	3.31E-02	1.41E-02	1.03E-02	2.04E-02	3.40E-02	6.22E+00	1.29E-04	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.5E-01	1.00E-04	3.00E-02
7.77E-03	3.31E-02	1.39E-02	1.06E-02	2.00E-02	3.40E-02	6.22E+00	2.69E-05	1.26E+02	1.20E-01	4.48E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.5E-01	1.00E-04	3.00E-02
8.04E-03	3.25E-02	1.38E-02	1.19E-02	1.99E-02	3.39E-02	6.22E+00	6.79E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.5E-01	1.00E-04	3.00E-02
7.92E-03	3.26E-02	1.39E-02	1.20E-02	2.02E-02	3.39E-02	6.22E+00	2.93E-05	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.7E-01	1.00E-04	3.00E-02
5.98E-03	3.32E-02	1.32E-02	1.20E-02	2.01E-02	3.41E-02	6.22E+00	1.17E-05	1.26E+02	1.20E-01	4.46E+01	5.38E+04	1.80E+00	0.00E+00	1.60E+01	4.78E-01	1.00E-04	3.00E-02
6.01E-03	3.31E-02	1.53E-02	1.07E-02	2.13E-02	3.41E-02	6.22E+00	1.51E-05	1.26E+02	1.20E-01	4.50E+01	5.41E+04	1.80E+00	0.00E+00	1.60E+01	4.78E-01	1.00E-04	3.00E-02
6.73E-03	3.28E-02	1.43E-02	1.03E-02	2.07E-02	3.40E-02	6.22E+00	1.90E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.7E-01	1.00E-04	3.00E-02
6.35E-03	3.28E-02	1.34E-02	1.21E-02	1.96E-02	3.40E-02	6.22E+00	1.90E-05	1.26E+02	1.20E-01	4.46E+01	5.38E+04	1.80E+00	0.00E+00	1.60E+01	4.7E-01	1.00E-04	3.00E-02
6.72E-03	3.26E-02	1.39E-02	1.23E-02	2.08E-02	3.39E-02	6.22E+00	1.95E-06	1.26E+02	1.20E-01	4.48E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.90E-01	1.00E-04	3.00E-02
6.85E-03	3.29E-02	1.37E-02	1.09E-02	1.95E-02	3.38E-02	6.22E+00	5.64E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.11E-01	1.00E-04	3.00E-02
6.83E-03	3.31E-02	1.24E-02	1.16E-02	1.97E-02	3.39E-02	6.22E+00	2.72E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.24E-01	1.00E-04	3.00E-02
6.42E-03	3.26E-02	1.32E-02	1.20E-02	2.06E-02	3.39E-02	6.22E+00	4.88E-07	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.24E-01	1.00E-04	3.00E-02
6.37E-03	3.32E-02	1.64E-02	8.96E-03	2.25E-02	3.41E-02	6.22E+00	5.08E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.21E-01	1.00E-04	3.00E-02
6.90E-03	3.24E-02	1.37E-02	1.05E-02	2.05E-02	3.38E-02	6.22E+00	2.98E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.20E-01	1.00E-04	3.00E-02
6.45E-03	3.28E-02	1.41E-02	9.00E-03	2.00E-02	3.39E-02	6.22E+00	5.14E-05	1.26E+02	1.20E-01	4.44E+01	5.37E+04	1.80E+00	0.00E+00	1.60E+01	4.3E-01	1.00E-04	3.00E-02
6.42E-03	3.31E-02	1.48E-02	1.13E-02	2.15E-02	3.40E-02	6.22E+00	5.06E-05	1.26E+02	1.20E-01	4.48E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.3E-01	1.00E-04	3.00E-02
6.33E-03	3.35E-02	1.35E-02	1.10E-02	2.08E-02	3.41E-02	6.22E+00	1.17E-05	1.26E+02	1.20E-01	4.48E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.1E-01	1.00E-04	3.00E-02
6.70E-03	3.33E-02	1.59E-02	8.65E-03	2.13E-02	3.41E-02	6.22E+00	1.10E-04	1.26E+02	1.20E-01	4.40E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.30E-01	1.00E-04	3.00E-02
5.46E-03	3.36E-02	1.61E-02	1.09E-02	2.03E-02	3.42E-02	6.22E+00	4.64E-06	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.3E-01	1.00E-04	3.00E-02
5.71E-03	3.42E-02	1.63E-02	8.52E-03	2.23E-02	3.45E-02	6.22E+00	2.44E-05	1.26E+02	1.20E-01	4.49E+01	5.40E+04	1.80E+00	0.00E+00	1.60E+01	4.7E-01	1.00E-04	3.00E-02
5.79E-03	3.35E-02	1.50E-02	9.55E-03	2.17E-02	3.45E-02	6.22E+00	2.22E-05	1.26E+02	1.20E-01	4.49E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.7E-01	1.00E-04	3.00E-02
6.19E-03	3.32E-02	1.45E-02	1.14E-02	2.13E-02	3.40E-02	6.22E+00	5.15E-05	1.26E+02	1.20E-01	4.47E+01	5.39E+04	1.80E+00	0.00E+00	1.60E+01	4.50E-01	1.00E-04	3.00E-02
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6.19E-03	3.33E-02	1.48E-02	1.10E-02	2.06E-02	3.4E-02	6.22E+00	7.04E-06	1.26E+02	1.20E-								

667E-03	329E-02	141E-02	123E-02	-215E-02	341E-02	622E+00	-580E-05	136E+02	120E-01	449E+01	539E+04	000E+00	000E+00	329E-01	411-01	106-03	571
607E-03	336E-02	141E-02	117E-02	-218E-02	-345E-02	622E+00	-442E-05	136E+02	121E-01	451E+01	541E+04	000E+00	000E+00	329E-01	411-01	106-03	571
596E-03	336E-02	150E-02	113E-02	-218E-02	-343E-02	622E+00	393E-05	136E+02	120E-01	449E+01	540E+04	000E+00	000E+00	329E-01	406-01	106-03	571
594E-03	337E-02	165E-02	820E-03	-218E-02	-343E-02	622E+00	564E-05	136E+02	120E-01	451E+01	541E+04	000E+00	000E+00	329E-01	406-01	106-03	571
-617E-03	-334E-02	150E-02	110E-02	-224E-02	-340E-02	622E+00	220E-06	136E+02	120E-01	447E+01	539E+04	000E+00	000E+00	329E-01	406-01	106-03	571
581E-03	339E-02	155E-02	948E-03	-221E-02	-345E-02	622E+00	-149E-05	137E+02	121E-01	452E+01	542E+04	000E+00	000E+00	329E-01	411-01	106-03	571
521E-03	351E-02	170E-02	764E-03	-230E-02	-350E-02	622E+00	-295E-05	137E+02	121E-01	454E+01	543E+04	000E+00	000E+00	329E-01	411-01	106-03	571
592E-03	339E-02	151E-02	998E-03	-217E-02	-345E-02	622E+00	364E-05	136E+02	121E-01	451E+01	541E+04	000E+00	000E+00	329E-01	411-01	106-03	571
509E-03	340E-02	115E-02	143E-02	-199E-02	-345E-02	622E+00	-141E-05	136E+02	120E-01	450E+01	541E+04	000E+00	000E+00	329E-01	411-01	106-03	571
587E-03	336E-02	160E-02	781E-03	-201E-02	-344E-02	622E+00	-415E-05	137E+02	121E-01	452E+01	542E+04	000E+00	000E+00	329E-01	411-01	106-03	571
554E-03	336E-02	144E-02	115E-02	-215E-02	-344E-02	622E+00	122E-04	136E+02	120E-01	449E+01	540E+04	000E+00	000E+00	329E-01	411-01	106-03	571
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597E-03	333E-02	137E-02	126E-02	-203E-02	-340E-02	622E+00	562E-06	136E+02	120E-01	446E+01	540E+04	000E+00	000E+00	329E-01	411-01	106-03	571
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588E-02	337E-02	133E-02	104E-02	-196E-02	-343E-02	622E+00	-996E-05	136E+02	120E-01	447E+01	539E+04	000E+00	000E+00	329E-01	411-01	106-03	571
-618E-03	-336E-02	125E-02	141E-02	-205E-02	-344E-02	622E+00	592E-05	136E+02	120E-01	447E+01	539E+04	000E+00	000E+00	329E-01	411-01	106-03	571

Bibliography

1. Abate, Gregg L., *Aerodynamic Research of Wrap-Around Fin Missile Configurations and Alternative Wrap-Around Fin Designs*, Wright Laboratory's Armament Directorate, WL-TR-94-78015, 1994
2. Abate, Gregg L., Hathaway, Wayne H., *Aerodynamic Test and Analysis of Wrap-Around Fins With Base Cavities*, AIAA Paper 94-0051, 1994
3. Abate, Gregg L., Winchenbach, G.L., *Aerodynamics of Missiles With Slotted Fin Configurations*, AIAA Paper 91-0676, Jan 1991
4. ABLE CORPORATION, *Preliminary Calibration of the 0.50 MK VI-B Internal Balance*, Able Corporation Document B-3489, Oct 1994
5. Bearings Inc., Catalog M, p.BR-94, Cleveland OH, 1991
6. Compton, William B. III, *Effect of Base Drag of Recessing the Bases of Conical Afterbodies at Subsonic and Transonic Speeds*, NASA Technical Note D-4821, 1968
7. Elledge, Alan W., *LabVIEW Wind Tunnel Data Acquisition System User's Guide*, unpublished, Feb 1995
8. Kim, Young Hoon, et al., *The Roll Motion of a Wrap-Around Fin Configuration at Subsonic and Transonic Mach Numbers*, AIAA Paper 85-1777, Aug 1985
9. King, Paul, I., *SENG 516 Lecture Notes*, unpublished, Spring 1995
10. Kruiswyk, R.W., Dutton, J.C., *Effect of a Base Cavity on Subsonic Near-Wake Flow*, AIAA Journal, Vol. 28, No 11, p. 1885-1893, 1993
11. Morel, T., *Effect of Base Cavities on the Aerodynamic Drag of an Axisymmetric Cylinder*, Aeronautical Quarterly, Vol. 30, Part 2, p. 400-412, 1979
12. Naselius, Karen A., A Wind Tunnel Study of Magnus Effects on a Differentially Rotating Missile, Thesis, AFIT/GAE/ENY/92D-01
13. Nash, J. F., Quincey, V. G., Callinan, J., *Experiments on Two-Dimensional Base Flow at Subsonic and Transonic Speeds*, ARC R&M, No. 3427, 1963
14. Platou, Anders S., *Magnus Characteristics of Finned and Nonfinned Projectiles*, AIAA Journal, Vol. 3, p. 83-90, Jan 1965
15. Platou, Anders S., *Wind-Tunnel Magnus Testing of a Canted Fin or Self-Rotating Configuration*, AIAA Journal, Vol. 10, p. 965-967
16. Rae, William H. Jr, Pope, Alan, Low-Speed Wind Tunnel Testing, Second Edition, John Wiley and Sons, N.Y. 1984
17. Sjöquist, Anders, *Low-Speed Wind Tunnel Test of Wrap Around Fins With Different Base Cavities*, SAAB Scandia Report

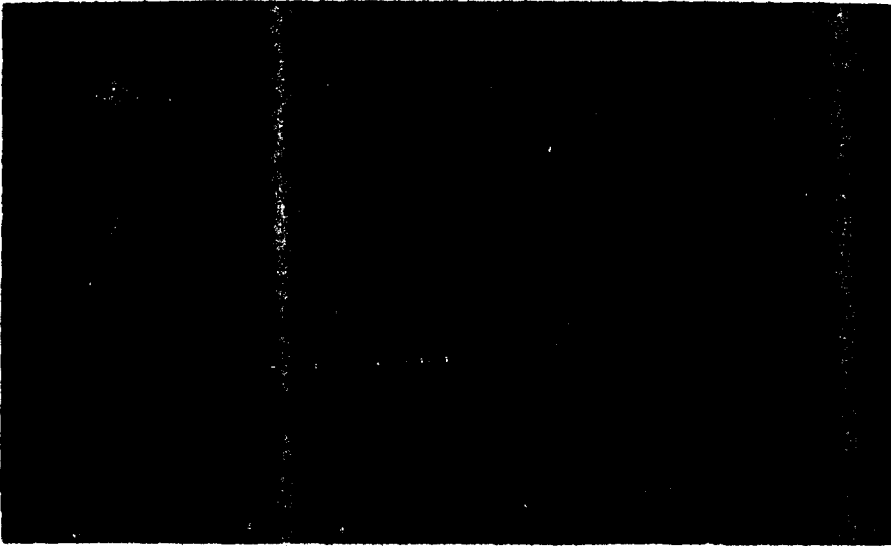
18. Sjöquist, Anders, *Wrap-Around Fins - Neat and not so Nasty*, Swedish Ordnance Paper, S-631 87, Eskilstuna Sweden
19. Tanner, Mauri, *Base Cavity at Angles of Incidence*, AIAA Journal, Vol 26, p. 376-377, Mar 1988
20. Vitale, Rico E., et al., *Aerodynamic Test and Analysis of a Missile Configuration With Curved Fins*, AIAA Paper, No. 92-4490, 1992
21. Whyte, Robert H., et al., *Subsonic and Transonic Aerodynamics of a Wrap-Around Fin configuration*, AIAA Paper, No. 85-0106, Reno NV, 1985

Vita

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VITA-1

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13. ABSTRACT (Maximum 200 words) This study investigates the role base cavity depth plays in altering the overall subsonic aerodynamic forces on a free spinning axisymmetric body with wrap-around fins. Wind tunnel usage allowed the forces to be monitored for varying base cavity depths and angles of attack. A base cavity depth analysis was also performed on a non-spinning axisymmetric body for comparison. Oil flow visualizations were conducted on the non-spinning configuration to further describe airflow patterns around the body and within the cavity. Results revealed that the aerodynamic forces, mostly drag, changed with increasing cavity depth but not to the extent previously believed. The force results, in conjunction with the flow visualizations, suggested that base cavities have very similar effects on spinning and non-spinning missile configurations.			
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