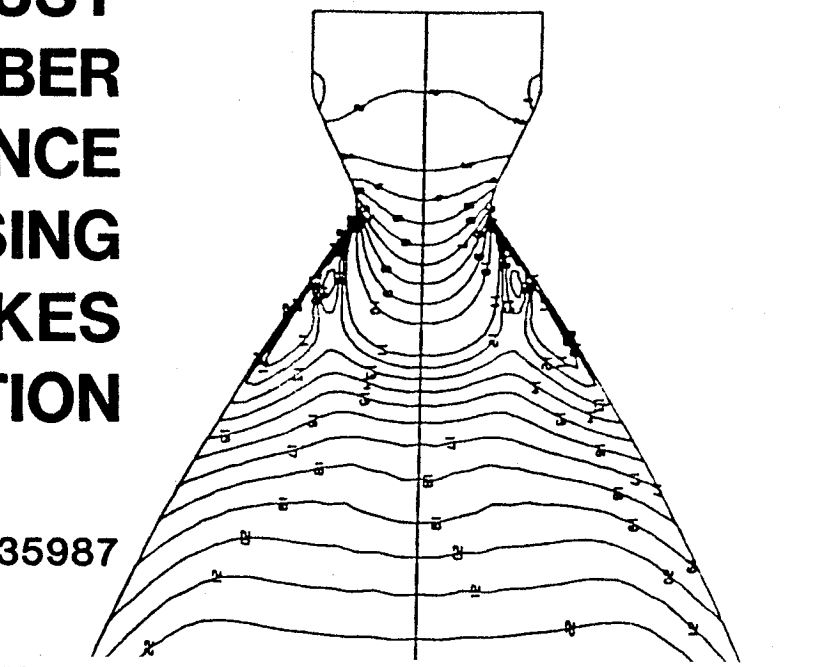
Final Report

THRUST CHAMBER PERFORMANCE USING NAVIER-STOKES SOLUTION



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FOREWORD

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1. INTRODUCTION

During the past few years the requirement for more accurate and economical computational methods for predicting fluid flows in practical engineering configurations has become increasingly important. Full-scale testing or model testing is often expensive and in many cases inconclusive, necessitating heavier reliance on computational procedures. It is also important to have adequate methodologies and computer codes available to help in the interpretation of experimental data and to aid in fluid flow design problems. Many computer codes and associated methodologies have been generated to provide solutions to complex geometric flowfield configurations. The treatment of fluid flows by these finite differencing methods has advanced tremendously in recent years due to production of advanced machines such as the CDC CYBER 205 and the CRAY.

The current computational method for determining rocket thrust chamber performance is the JANNAF procedure. This utilizes the TDK and BLIMP computer codes. Through the advances in computer technology, new codes have been developed which solve the Navier-Stokes equation with finite difference or finite element solution techniques. Since this technology represents flow fields in general, solutions may be obtained for many conditions that exceed the existing TDK/BLIMP capability.

This report presents the results of a contract effort by Lockheed-Huntsville to compute the viscous, axisymmetric flow in the SSME thrust chamber. The Lockheed-Huntsville developed General Interpolants Method (GIM) code was used for the calculation on the CYBER 205 computer at the NASA-Langley center. The results of the study show that Navier-Stokes codes can indeed by used for these flows to study trends, viscous effects, and to determine flow patterns. Limitations on our method for absolute accuracy of

performance numbers have been noted and are explained in this report. The conclusions are summarized as follows: The Navier-Stokes codes that we are familiar with including the GIM code can be used for qualitative study of viscous nozzle flows, but further research and development is needed before they can be used as production tools for nozzle performance calculations.

Section 2 describes the GIM formulation, numerical scheme and computer code that was used in the study. Section 3 discusses the actual SSME nozzle computation, showing grid plots, flow contours and flow parameter plots. The computer system and run times/costs are detailed in Section 4. Conclusions and recommendations for further analysis are given in Section 5. Appendix A presents the detailed flowfield solution in computer printout form including a description of the mesh and identification of flow variables.

2. GIM CODE DESCRIPTION

2.1 THE GIM METHODOLOGY

The General Interpolants Method (GIM) code (Refs. 1 through 7) was developed to analyze complex flow fields which defy solution by simple methods. The code uses numerical difference techniques to solve the full three-dimensional time-averaged Navier-Stokes equations in arbitrary geometric domains. The equations are cast in strong conservation law form and written in an orthogonal Cartesian coordinate system. Included are a continuity equation for global mass conservation, three components of momentum conservation, total energy conservation and equations for conservation of individual species. Pressure is related to the conservation variables through a gas law for arbitrary mixtures. A generalized geometry package is used to model the flow domain, generate the numerical grid of discrete points and to compute the local transformation metrics. Computation is done in physical space by explicit finite difference operators. The GIM approach essentially combines the finite element geometric point of departure with finite difference explicit computation analogs. This provides a capability which takes advantage of the geometric flexibility of an element description and the computation speed of difference representations.

The numerical analogs of the differential equations are derived by representing each flow variable with general interpolant functions. Considering a general quadrilateral element with four nodal points, the differential equations are integrated over this element at each nodal point using Gauss quadrature. See Fig. A-1 in Appendix A for an example of a typical two-dimensional grid element. The point of departure then requires that a weighted integral of interpolants be zero over the flow domain. By choosing the weight functions to be the interpolants themselves, the GIM formulation produces identically the classical implicit finite element

discrete equations. These forms are not used in the GIM code due to their fully implicit nature and inherent inefficiencies. Rather, the weight functions are chosen to be orthogonal to the interpolant functions which produces explicit finite difference type discrete analogs. By appropriate choice of constants in the weight functions, the GIM becomes analogous to standard finite difference schemes such as centered, backward, forward, windward and multi-step predictor-corrector schemes. The GIM analogs, however, are automatically produced for arbitrary geometry flow domains and hence are a general point of departure and provide flexibility in the choice of differencing schemes. The following discussion summarizes the GIM formulation.

2.2 GEOMETRIC TREATMENT

The GIM formulation is not a finite element method in the classical sense. Instead, finite difference methods are used exclusively but with the difference equations written in general non-orthogonal curvilinear coordinates. Transformations are used to transform the physical planes into regions of unit cubes. The mesh is generated on this unit cube and the local metric coefficients generated. Each region of the flow domain is likewise transformed and then blended via the finite element formulation to form the full flow domain. In order to treat "completely-arbitrary" geometric domains, different transformation functions can be employed in different regions. The blended domain is then transformed back to physical space and the Cartesian set of equations is solved for the full region. The geometry part of the problem is thus treated much like a finite element technique, while integration of the equations is done with finite difference analogs.

An important concept of the theory of finite elements is the "disconnectness" property. This means that a domain can be divided into a finite number of pieces called elements and the approximation to the functional distribution over each element can be studied independently. Thus the approximating functions for each element completely define the behavior of

the function profile within the element without consideration of its ultimate location in the full model. After each element is defined, the complete discrete model of the body is obtained by "assembling the system." The assembly is performed by means of mathematical blending of each subdomain while maintaining continuity at the junctions.

The GIM code uses these concepts, borrowed from finite element theory, to obtain discrete finite difference models of the Navier-Stokes equations in arbitrary geometric domains. The development is done in local curvilinear intrinsic coordinates based on the following concepts:

- Analytical regions such as rectangles, spheres, cylinders, hexahedrals, etc., have intrinsic or natural coordinates.
- Complex regions can be subdivided into a number of smaller regions which can be described by analytic functions. The degenerate case is to subdivide small enough to use very small straight-line segments.
- Curvilinear intrinsic coordinate systems result in constant coordinate lines throughout a simply connected, bounded domain in Euclidean space.
- The intersection of the lines of constant coordinates produce nodal points evenly spaced in the domain.
- Curvilinear intrinsic coordinate systems can be produced by a univalent mapping of a unit cube onto the simply connected bounded domain.

Thus, if a transformation can be found which will map a unit cube univalently onto a general analytical domain, then any complex region can be piecewise transformed and blended using general interpolants.

2.3 GIM ELLIPTIC MODULE

The partial differential equations solved by the GIM elliptic module are the Navier-Stokes written in three-dimensional Conservation law form for a Cartesian coordinate system. These are shown in Fig. 1.

$$\frac{\partial U}{\partial t} + \frac{\partial E}{\partial x} + \frac{\partial F}{\partial y} + \frac{\partial G}{\partial z} = 0$$

$$U = \begin{bmatrix} \rho \\ \rho u \\ \rho v \\ \rho w \\ \rho \mathcal{E} \\ \rho C \end{bmatrix}$$

$$E = \begin{bmatrix} \rho u \\ \rho u^2 + P - \tau_{xx} \\ \rho uv - \tau_{xy} \\ \rho uw - \tau_{xz} \\ (\rho \mathcal{E} + P)\, u - u\tau_{xx} - v\tau_{xy} - w\tau_{xz} - q_x \\ \rho uC - R_x \end{bmatrix}$$

$$F = \begin{bmatrix} \rho v \\ \rho vu - \tau_{xy} \\ \rho v^2 + P - \tau_{yy} \\ \rho vw - \tau_{yz} \\ (\rho \mathcal{E} + P)\, v - u\tau_{xy} - v\tau_{yy} - w\tau_{yz} - q_y \\ \rho vC - R_y \end{bmatrix}$$

$$G = \begin{bmatrix} \rho w \\ \rho wu - \tau_{xz} \\ \rho wv - \tau_{yz} \\ \rho w^2 + P - \tau_{zz} \\ (\rho \mathcal{E} + P)\, w - u\tau_{xz} - v\tau_{yz} - w\tau_{zz} - q_z \\ \rho wC - R_z \end{bmatrix}$$

$$\tau_{xx} = 2\mu \frac{\partial u}{\partial x} + \lambda \left(\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} + \frac{\partial w}{\partial z}\right)$$

$$\tau_{yy} = 2\mu \frac{\partial u}{\partial y} + \lambda \left(\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} + \frac{\partial w}{\partial z}\right)$$

$$\tau_{zz} = 2\mu \frac{\partial w}{\partial z} + \lambda \left(\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} + \frac{\partial w}{\partial z}\right)$$

$$\tau_{xy} = \mu \left(\frac{\partial u}{\partial y} + \frac{\partial v}{\partial x}\right)$$

$$\tau_{xz} = \mu \left(\frac{\partial u}{\partial z} + \frac{\partial w}{\partial x}\right)$$

$$\tau_{yz} = \mu \left(\frac{\partial v}{\partial z} + \frac{\partial w}{\partial y}\right)$$

$$q_x = k \frac{\partial T}{\partial x} + \rho \mathcal{D} (h_1 - h_2) \frac{\partial C}{\partial x}$$

$$q_y = k \frac{\partial T}{\partial y} + \rho \mathcal{D} (h_1 - h_2) \frac{\partial C}{\partial y}$$

$$q_z = k \frac{\partial T}{\partial z} + \rho \mathcal{D} (h_1 - h_2) \frac{\partial C}{\partial z}$$

$$R_x = \mathcal{D} \rho \frac{\partial C}{\partial x}$$

$$R_y = \mathcal{D} \rho \frac{\partial C}{\partial y}$$

$$R_z = \mathcal{D} \rho \frac{\partial C}{\partial z}$$

Fig. 1 Navier-Stokes Equations

In the equations, τ represent the viscous stress terms, q the heat conduction and R the mass transfer contributions. The viscosity coefficients, μ, λ, the thermal conductivity, k, and the binary diffusion coefficient $\mathcal{D}$ are obtained by various closure laws for viscous flows. For inviscid, hyperbolic flows with shock waves, these stress terms are also used, but with artificial viscosity coefficients, to facilitate capture of strong shocks. The GIM formulation has built-in formulas for computing the artificial component of the coefficients. These are termed Numerical Diffusion Cancellation (NDC) coefficients. The purpose of these NDC coefficients is to cancel low order truncation error terms which arise in the numerics.

The GIM code solves these equations using explicit finite difference methods. This is done with a set of general interpolation functions $I(\eta_1, \eta_2, \eta_3)$ such that

$$f(\eta_1,\eta_2,\eta_3) = \sum I_j(\eta_1,\eta_2,\eta_3)\, f_j$$

where f_i are the flow variables at the corner points of the element. The simplest form for the I_j are the trivariable Lagrange interpolants. The theory itself does not restrict the I_j to be linear, but in the present code we currently have only the trilinear interpolants. Any flow gradient can then be simply computed as

$$\frac{\partial f}{\partial \eta_i} = \sum \frac{\partial I_j}{\partial \eta_i} f_j$$

The code uses these concepts to produce a discrete analog of the Navier-Stokes equations for a single analytical region. The point of departure is the requirement that

$$\int_V W \Phi \, dV = 0$$

where W is an arbitrary weight function and Φ is the differential equation

$$\Phi = \frac{\partial U}{\partial t} + \frac{\partial E}{\partial x} + \frac{\partial F}{\partial y} + \frac{\partial G}{\partial z}$$

The general interpolants I are used to approximate each of the flow variables U,E,F,G and are used to obtain a discrete analog;

$$[A_{ij}]\,\dot{U}_j + [B_{ij}]\,E_j + [C_{ij}]\,F_j + [D_{ij}]\,G_j = 0$$

where $\dot{U}_j, E_j, F_j, G_j$ are the flow variables at the node points of an element. The coefficient matrices are geometrically dependent only. It is this general finite difference expression that is solved in the GIM code.

2.4 GIM PARABOLIZED MODULE

The full three-dimensional Navier-Stokes equations just discussed are elliptic in character and require either time-dependent or relaxation/iteration schemes to integrate the complete spatial flow field simultaneously. This can require large amounts of computer storage and relatively long run times. If the physical problem is of the nature that such a solution is required, then one has no option other than to "bite the bullet" and use it.

For situations in which a region of the flow is inviscid and entirely supersonic, a spatial hyperbolic marching algorithm would be efficient. There are also many viscous problems of interest in which a parabolic marching solution would be acceptable. The most versatile and efficient use of a GIM code is to combine all three options into a single user-oriented code. In this manner the elliptic algorithms can be called upon to compute in elliptic flow domains up to a hyperbolic downstream boundary. Automatic and/or user supplied conditions can then be used to switch to the forward marching routines to compute the remaining flow domain.

The basic idea of the GIM parabolic technique (Ref. 6) is to combine the classical parabolic marching approach with a "quasi-time" relaxation. This will be termed the GIM parabolized module. The parabolic-march procedure greatly reduces the amount of computer storage compared to a fully elliptic field. The time relaxation form of the equations eliminates the decode ambiguity associated with the parabolic pressure problem and allows velocity boundary conditions at solid walls to be treated. The equations used in the parabolized module are the time-averaged full Navier-Stokes, but with all second order terms dropped in a quasi-marching coordinate. Another way to view the equations is to take the parabolized Navier-Stokes and add back pseudo time derivatives. The solution procedure, as any parabolic marcher, thus allows no streamwise diffusion effects. The solution is assumed known at upstream data planes, 1, 2, ... K-1, and the solution is sought at plane K with no knowledge of plane K+1. Quasi-time relaxation is used to obtain the solution at plane K in terms of the (converged) solution at a number of upstream data planes. Second order backward streamwise differences are used to prohibit downstream feedback. Thus the parabolized algorithm is not a classical space marching scheme, and is also not a time-dependent elliptic method. It is somewhat of a hybrid technique which combines the better features of two approaches and eliminates some of the bad ones.

The procedure for marching a solution is outlined as follows:

- A starting plane of data and gas properties are provided at k=1.
- The first calculated plane k=2 is obtained from a first order finite difference equation.
- An initial guess is provided at t=0 for all flow variables at plane k=3.
- The Predictor-Corrector is iterated to steady state

$$\dot{U} \rightarrow 0$$

which provides the parabolized solution at plane k.

- The conservation variables are decoded and the plane k is set k+1. The marching procedure is then repeated.

2.5 FINITE DIFFERENCE SCHEME

The finite difference scheme used in GIM can best be described as three point "backward in x" and "MacCormack in the y-z plane." The system is entirely explicit in that all nodes are initialized at pseudo time t=0 and relaxed to steady state using known or previous data. The grid and difference equations used for illustration are Cartesian-like for simplicity; the code, of course, has the geometric generality described earlier. All data are known for planes k-2, k-1 and the solution is to be marched to plane k. The following two-step predictor-corrector sequence is used:

Predictor

$$\hat{U}^{n+1}_{i,j,k} = U^{n}_{i,j,k} - \frac{3}{2}\frac{\Delta t}{\Delta x}\left[E^{n}_{i,j,k} - E^{*}_{i,j,k-1}\right] + \frac{1}{2}\frac{\Delta t}{\Delta x}\left[E^{*}_{i,j,k-1} - E^{*}_{i,j,k-2}\right]$$

$$- \frac{\Delta t}{\Delta y}\left[F^{n}_{i+1,j,k} - F^{n}_{i,j,k}\right] - \frac{\Delta t}{\Delta z}\left[G^{n}_{i,j+1,k} - G^{n}_{i,j,k}\right]$$

Corrector

$$U^{n+1}_{i,j,k} = \frac{1}{2}\,U^{n}_{i,j,k} + \hat{U}^{n+1}_{i,k,k} - \frac{3}{2}\frac{\Delta t}{\Delta x}\left[\hat{E}^{n+1}_{i,j,k} - E^{*}_{i,j,k-1}\right] + \frac{1}{2}\frac{\Delta t}{\Delta x}\left[E^{*}_{i,j,k-1}\right.$$

$$\left. - E^{*}_{i,k,k-2}\right] - \frac{\Delta t}{\Delta y}\left[\hat{F}^{n+1}_{i,j,k} - F^{n+1}_{i-1,j,k}\right] - \frac{\Delta t}{\Delta z}\left[\hat{G}^{n+1}_{i,j,k} - \hat{G}^{n+1}_{i,j-1,k}\right]$$

The "hat" (^) indicates provisional values from the predictor step and the superscript (*) denotes converged values at upstream planes k-1, k-2.

Stability of this explicit scheme is obtained by obeying the classical CFL constraint of explicit methods. An artificial viscosity is added to the equations for stability when capturing a strong shock.

2.6 SUMMARY OF THE GENERAL INTERPOLANTS METHOD

- Numerical Solution of Conservation Laws
- Based on Time-Average Navier-Stokes Equations
- Elliptic or Parabolized Solution Algorithms
- Geometrically Arbitrary with Finite Element-Type Treatment
- Grid Generation Using Trivariate Blending Function Interpolation
- Geometry Input by Interactive Graphics
- Finite Difference Nodal Analog Solution Algorithms
- Specific Scheme Selected by User Input
- Boundary Conditions via Finite Difference for Internal or External Flows
- Integration by Predictor-Corrector Scheme
- Shock Capturing Approach for Supersonic Flow
- Ideal and Real Gases
- Inviscid or Viscous Flows
- Laminar Viscosity or Algebraic Eddy Viscosity Turbulence Models
- Two or Three-Dimensional Capability
- Code Operational on Univac 1108, CDC 7600, and Vectorized for CDC CYBER 203 and 205.

2.7 STRUCTURE OF THE CODE

The GIM code is divided into four modules: (1) mesh generation; (2) nodal analog assembly; (3) unsteady integration; and (4) data display. The

mesh generation module accepts boundary geometry data, curve or line formula flags, and number of cuts in each coordinate direction. A set of general curvilinear coordinate maps is then used to subdivide each region into finite elements. Each region which is input is processed and then blended. The output is a set of coordinates for each element along with the element coefficient matrices. The nodal analog assembly module takes the mesh data from a stored external file and performs, via quasi-variational procedure, the assembly of the element equations into the full domain equations. At this point, the dynamic storage allocation is set up so that the unsteady integration module can integrate with virtually unlimited problem size.

The unsteady integration module performs the actual computation of the flow by employing the boundary conditions selected by the user. The nodal analog at this point is arbitrary and any one of a number of schemes can be selected depending on the problem being analyzed. The solution is marched forward in time for a specified number of steps or until a steady state is reached. The data display module reads the solution profiles from external storage (drum/tape) and prints, plots and maps the flow parameters.

The GIM code is currently operational on three computer systems:

Univac 1108/1110 (2-D Scalar, Small Inviscid Problems)
CDC 7600 (2-D Scalar, Small Viscous Problems)
CDC CYBER 203 and 205 (3-D Vectorized, Viscous Problems)

Representative run times for the elliptic code are given in Chart 1.

System	2-D	3-D	Example 10,000 Node, 500 Steps, 3-D
Univac 1108	3.7×10^{-3}	5.9×10^{-3}	8.1 hours
CDC 7600	3.6×10^{-4}	5.8×10^{-4}	48 minutes
CYBER 203	2.2×10^{-5}	3.3×10^{-5}	3 minutes
CYBER 205	5.5×10^{-6}	8.3×10^{-6}	1 minute

Chart 1 CP Run Time for GIM Code (Seconds for Node per Iteration)

3. SSME THRUST CHAMBER PERFORMANCE CALCULATION

3.1 GOVERNING EQUATIONS

The symmetry of the Space Shuttle Main Engine (SSME) nozzle flow about its axis can be used for better computational economy and greater resolution by using an axisymmetric numerical approximation. The complicated three-dimensional Navier-Stokes equations in Section 2 can then be simplified to the following axisymmetric form (Ref. 8):

$$\frac{\partial U^{\alpha}}{\partial t} + \frac{\partial E_1^{\alpha}}{\partial x} + \frac{1}{r}\frac{\partial}{\partial r}(rE_2^{\alpha}) + H^{\alpha} = 0$$

where

$$U = (\rho, \rho u_1, \rho u_2, \rho \mathcal{E})^T$$

$$E_i^{\alpha} = u_i U^{\alpha} - \tau_{i1}\delta^{\alpha 2} - \tau_{i2}\delta^{\alpha 3} - (u_j \tau_{ij} + q_i)^{\alpha 4}$$

$$H^{\alpha} = [\partial \pi / \partial r + 2\mu u_2 / r^2]\, \delta^{\alpha 3}$$

$$\tau_{ij} = \mu(\partial u_i/\partial x_j + \partial u_j/\partial x_i) - \pi \delta_{i1}\delta_{j1}$$

$$\pi = P - \lambda(\partial u_i/\partial x_i + u_2/r)$$

$$q_i = k\partial T/\partial x_i - u_2 \pi \delta_{i2}$$

and summation over repeated indices is implied.

In the equations, ρ, u, $\mathcal{E}$, t, T, q, μ, and λ have the same meaning as those in Section 2. (E_2^{α}, thus, is equivalent to F.) The symbol $\delta_{k\ell}$ or $\delta^{\alpha\beta}$

is the Kronecker delta, the superscript α is the equation index = 1,...,4 and the subscripts i,j are the spatial coordinate index corresponding to x,r, the axial and radial coordinates.

A variation of the Petrov-Galerkin explicit finite element scheme for axisymmetric viscous compressible flows has been developed and incorporated into the General Interpolants Method (GIM) code. This variation preserves the second order accuracy in time and space of the regular Petrov-Galerkin method even in the radial direction without the restriction of $r >> \Delta r$. More detail is available in Ref. 8.

3.2 SSME NOZZLE GEOMETRY

The SSME thrust chamber has a throat radius, r^*, of 5.1527 in. and a total length of 11.167 ft, of which 10.10 ft is the length of the divergent section. Based on the wall contour data points obtained from Klaus W. Gross of NASA- Marshall Space Flight Center the nozzle wall from the tangent point, $\bar{x}_w$, downstream can be curve-fitted as:

$$\bar{r} = -32.44705 + [1123.9917 + 102.1846\ (\bar{x} - \bar{x}_w)]^{1/2} - 0.77040726\ (\bar{x} - \bar{x}_w)$$

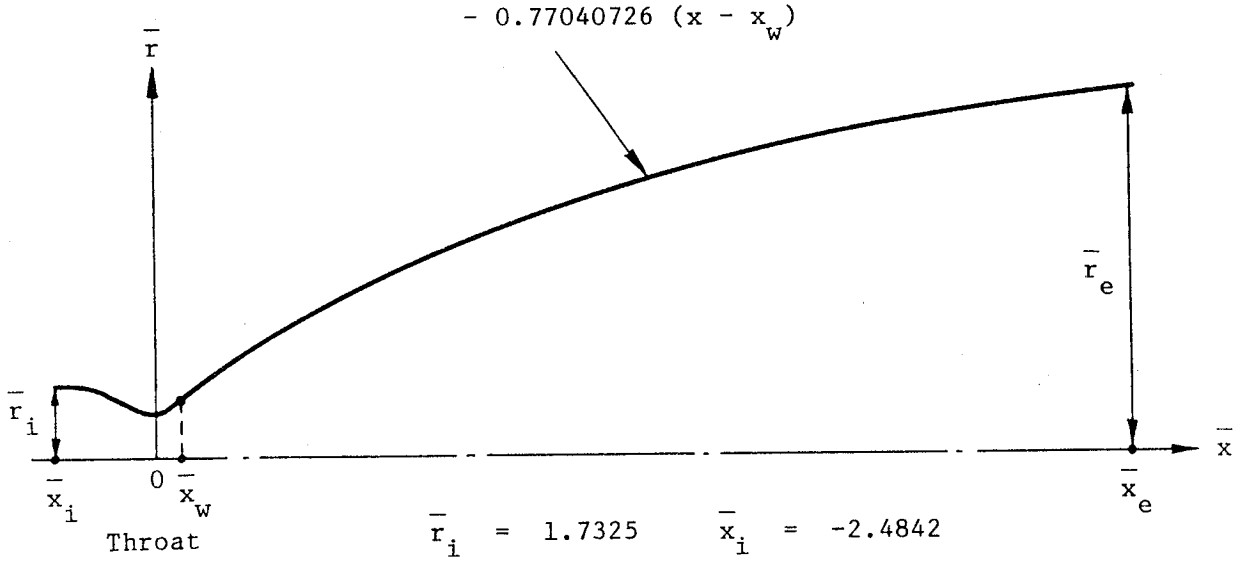
where

$$\bar{r} = r/r^*, \quad \bar{x} = x/r^*, \quad \bar{x}_w = 0.23591149$$

The wall contour of the nozzle and the coordinate system are shown in Fig. 2. The throat area detail is shown in Fig. 3.

To model the flow domain of the SSME nozzle as defined by Figs. 2 and 3 a numerical grid of discrete points was generated. The choice of the grid size is primarily dictated by the solution accuracy, convergence, and stability criteria. The final grid used in the computation is shown in Fig. 4. It can be seen that in the regions close to the wall and around the throat the grid spacing is much finer than that in other regions. Figure 5

$$\bar{r} = -32.44705 + [1123.9917 + 102.1846\ (\bar{x} - \bar{x}_w)]^{1/2} - 0.77040726\ (\bar{x} - \bar{x}_w)$$

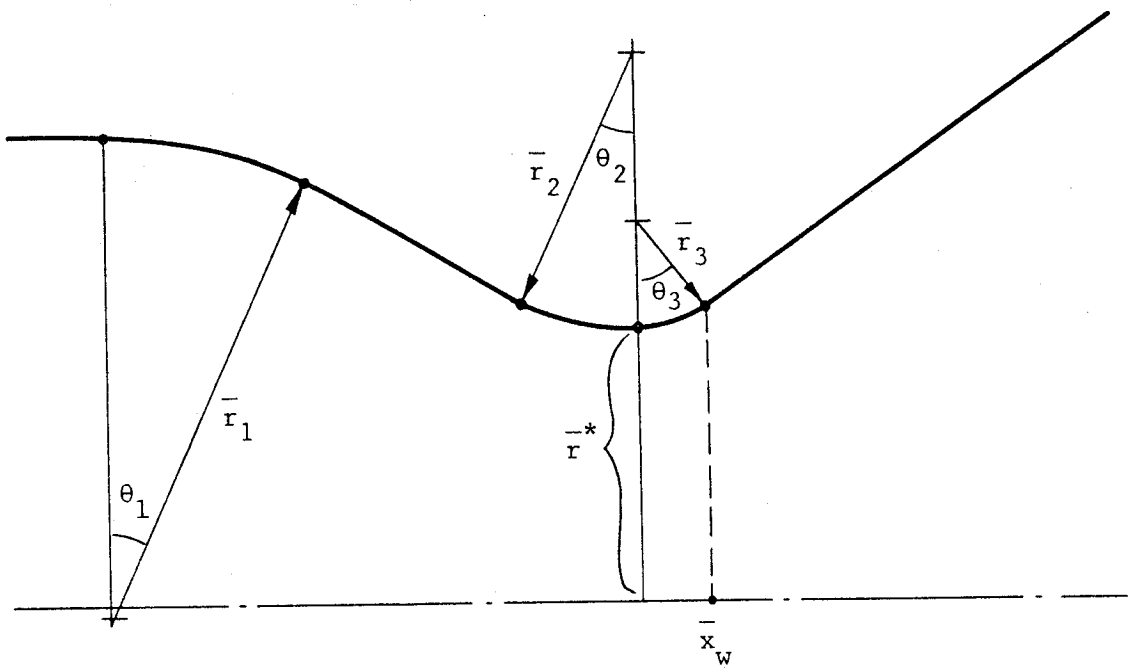


$\bar{r}_i = 1.7325$ $\quad \bar{x}_i = -2.4842$

$\bar{r}_e = 8.8034$ $\quad \bar{x}_e = 23.5232$

$\bar{x}_w = 0.23591149$

Fig. 2 Axisymmetric SSME Nozzle



$\theta_1 = 25.42^\circ$ $\quad \bar{r}_1 = 1.73921$

$\theta_2 = \theta_1$ $\quad \bar{r}_2 = 1.0$

$\theta_3 = 37.0^\circ$ $\quad \bar{r}_3 = 0.392$

Fig. 3 SSME Nozzle Throat Area

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Total Grid Points = 6480 (36 x 180)

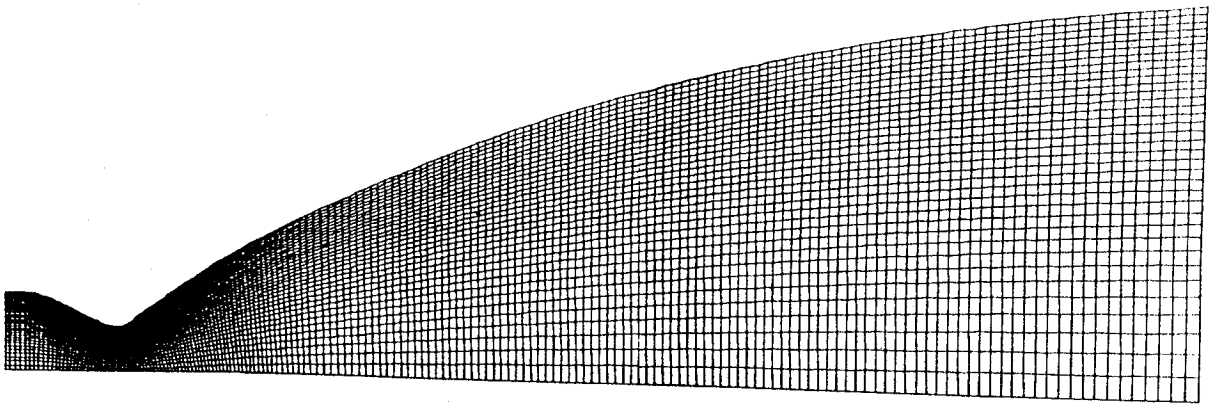

Fig. 4 Axisymmetric SSME Nozzle Grid

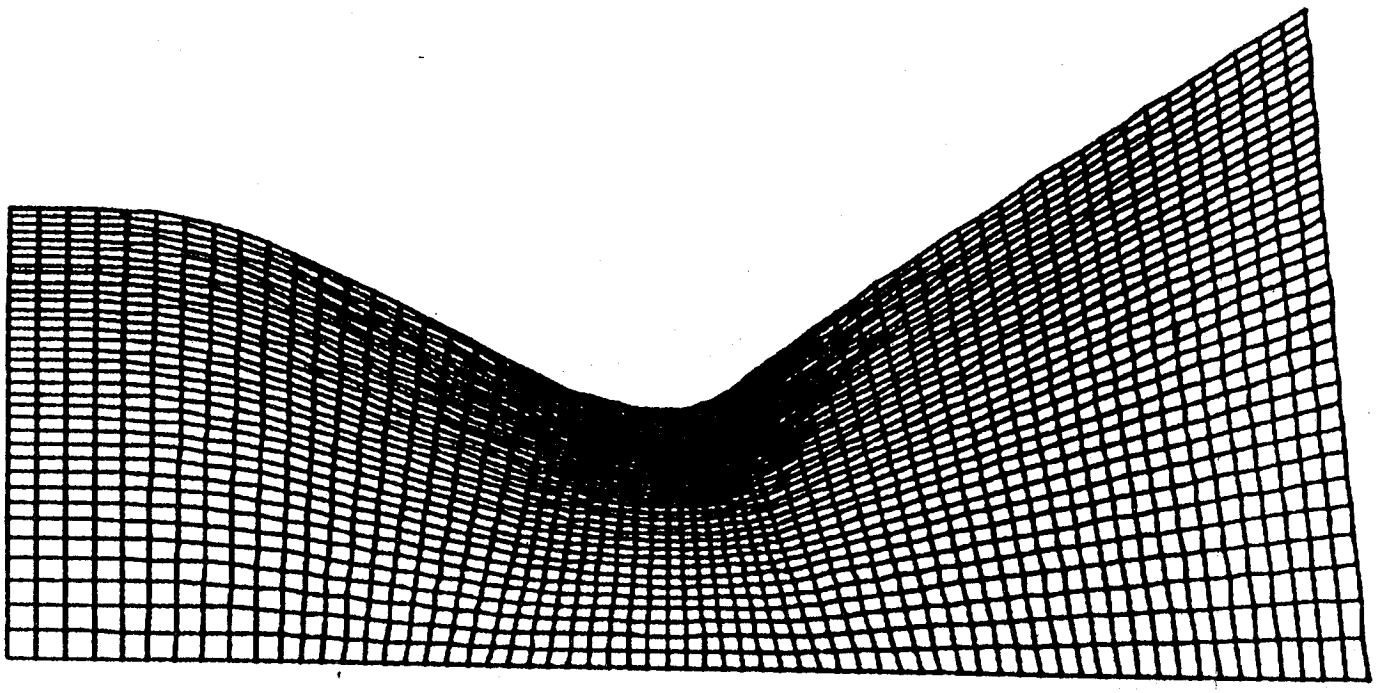

Fig. 5 Enlarged View of Grid near Throat Region

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shows the throat region enlarged. The grid spacing change was carried out, where practicable, in a manner to minimize any sudden spacing variation. These considerations were necessary to obtain better resolution in the numerical results. There are 6480 (36 x 180) grid points in the final grid layout used in the computation. The numbering scheme for the computational mesh is given in Appendix A.

3.3 INITIAL CONDITIONS

The steady state solution of the SSME nozzle flow problem was found as the limiting approach of the time dependent solution to the governing equations noted in Section 3.1. In order to obtain a rapid convergence to the steady state solution the initial values of density, velocity, pressure and other variables were determined from a one-dimensional isentropic expansion. They were derived from the Chemical Equilibrium Composition (CEC) code of NASA-Lewis Research Center (Ref. 9) using 100 percent SSME power level operating conditions:

Chamber Gas Stagnation Pressure, psia:	2935.7
Chamber Gas Stagnation Temperature, R:	6550.2
Oxygen/Hydrogen Ratio:	6.0549
Nozzle Expansion Ratio:	77.5
Liquid H_2 Enthalpy, cal/mol:	-1837.660
Liquid O_2 Enthalpy, cal/mol:	-2884.385

The results from the CEC calculation, assuming equilibrium composition during expansion through the nozzle, are shown graphically in Figs. 6 through 9. They are also shown in tabular form in Table 1. This table was used in the initialization for the GIM code computation using a table look-up and linear interpolation procedure to assign an initial value to each grid point according to its axial location. It is emphasized that the isentropic expansion exponent (γ) and the molecular weight (MW) of the oxygen/hydrogen mixture were varied as a function of x/r^* as shown in Fig. 9 during all the subsequent numerical calculations.

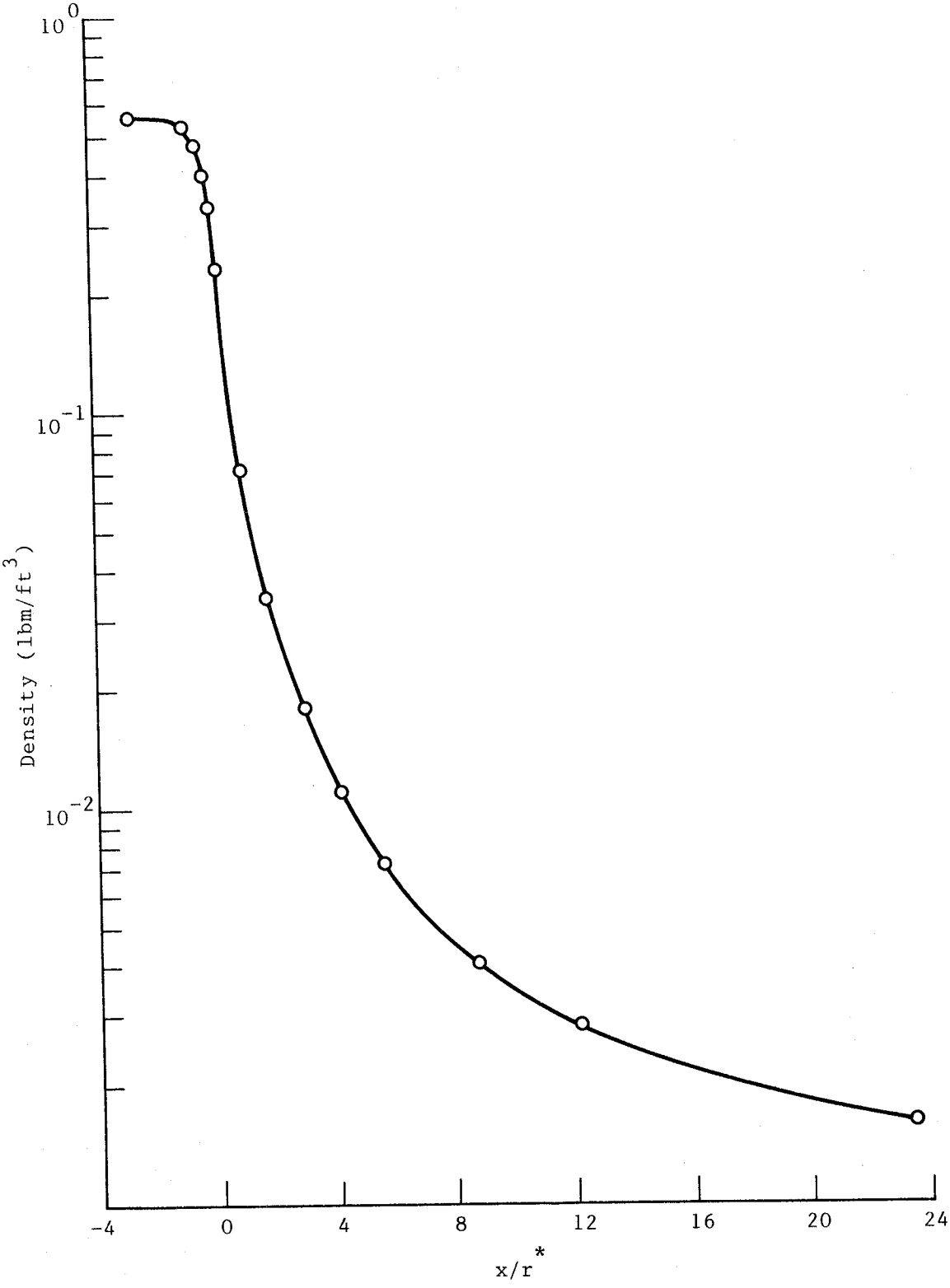

Fig. 6 Density Initial Values from CEC Solution

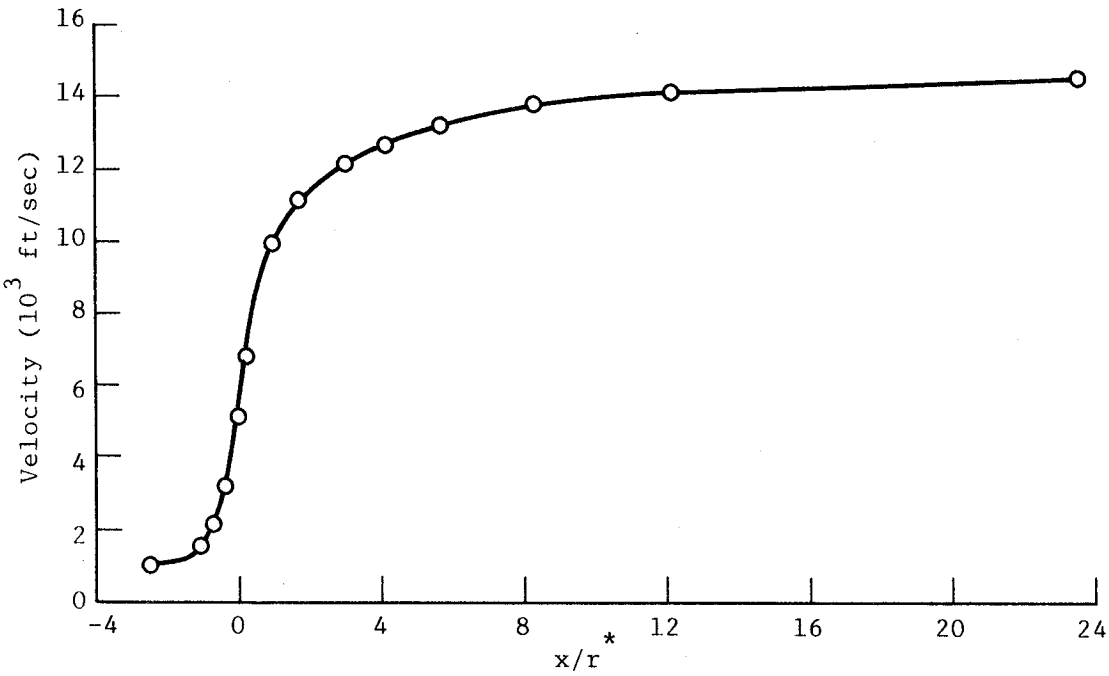

Fig. 7 Total Velocity Initial Values from CEC Solution

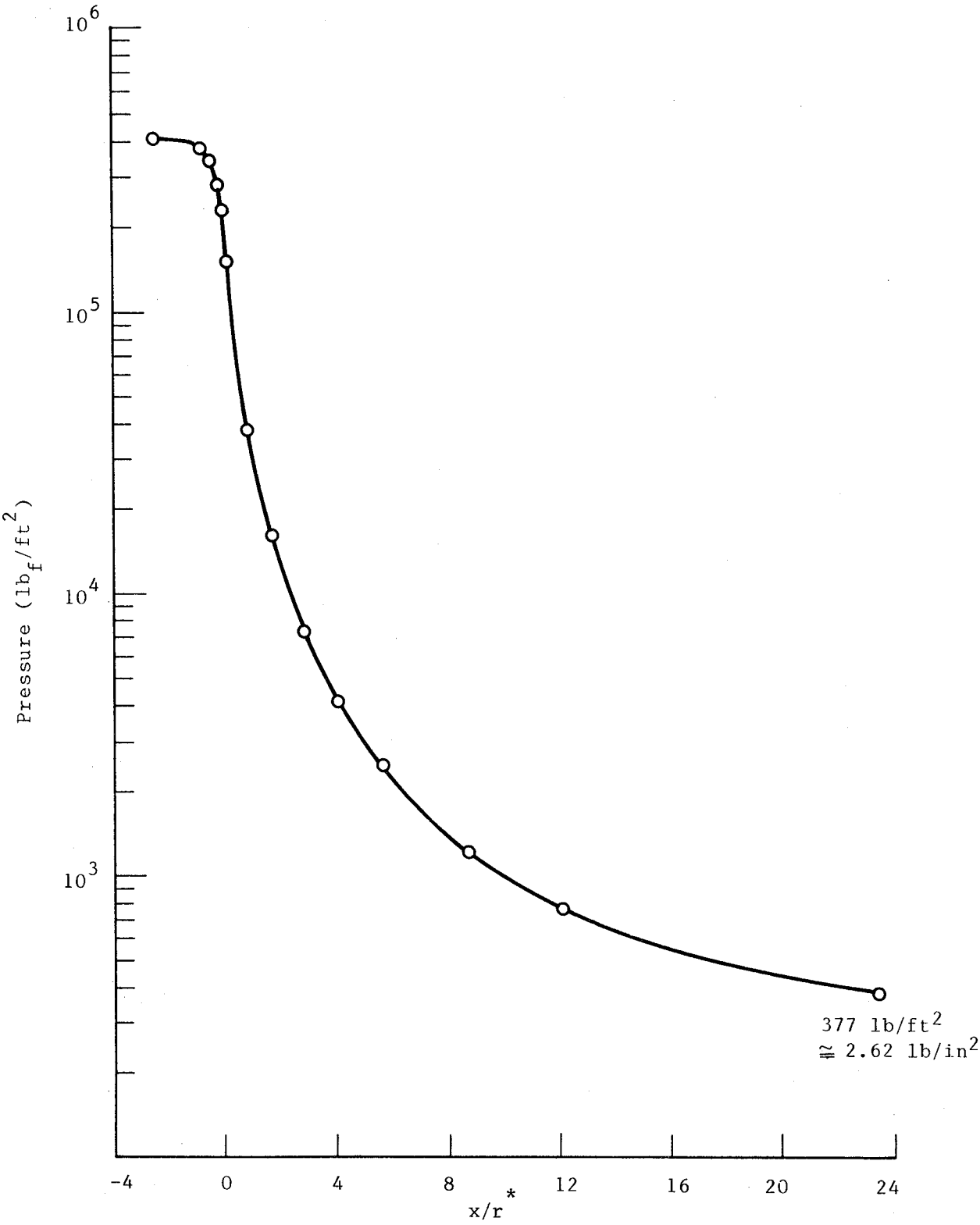

Fig. 8 Pressure Initial Values from CEC Solution

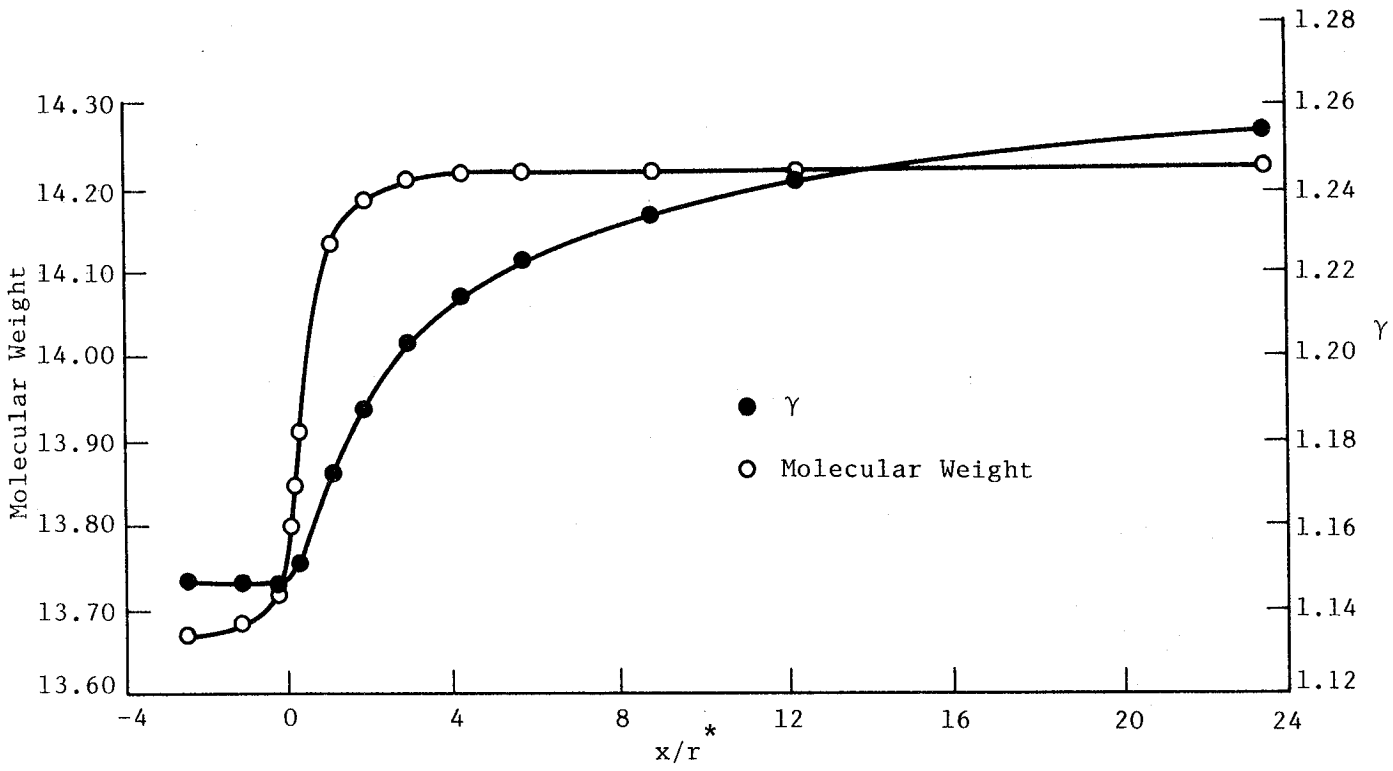

Fig. 9 Molecular Weight and Gamma Initial Values from CEC Solution

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Table 1 FLOWFIELD INITIALIZATION DATA FROM CEC

X/R*	DEN (lb/ft^3)	VEL (ft/sec)	PRE (lb/ft^2)	GAM	MW
-.2484200E+01	.5593100E+00	.1059676E+04	.4129877E+06	.1147000E+01	.1367200E+02
-.2005100E+01	.5593100E+00	.1070117E+04	.4129395E+06	.1147000E+01	.1367200E+02
-.1554900E+01	.5557400E+00	.1215744E+04	.4029819E+06	.1147000E+01	.1367400E+02
-.1166900E+01	.5461700E+00	.1552847E+04	.4018957E+06	.1147000E+01	.1367900E+02
-.7980400E+00	.5270300E+00	.2084175E+04	.3857656E+06	.1147000E+01	.1368900E+02
-.4292000E+00	.4782900E+00	.3091258E+04	.3451442E+06	.1147100E+01	.1371700E+02
-.2914400E+00	.4433100E+00	.3684888E+04	.3163346E+06	.1147200E+01	.1373900E+02
-.1473300E+00	.4006700E+00	.4345546E+04	.2816826E+06	.1147400E+01	.1376700E+02
-.9841900E-01	.3850500E+00	.4571992E+04	.2691300E+06	.1147500E+01	.1377800E+02
-.4926900E-01	.3682500E+00	.4810719E+04	.2561751E+06	.1147700E+01	.1379200E+02
.0	.3523400E+00	.5047183E+04	.2430510E+06	.1147800E+01	.1380200E+02
.3160800E-01	.3348100E+00	.5300366E+04	.2292283E+06	.1148000E+01	.1381600E+02
.9400300E-01	.3000300E+00	.5792360E+04	.2020973E+06	.1148600E+01	.1384400E+02
.2099000E+00	.2332500E+00	.6771627E+04	.1513173E+06	.1150300E+01	.1390600E+02
.9345300E+00	.7100800E-01	.9918918E+04	.3816167E+05	.1169300E+01	.1412400E+02
.1772900E+01	.3384600E-01	.1125596E+05	.1593485E+05	.1189300E+01	.1419000E+02
.2390700E+01	.1782600E-01	.1219776E+05	.7399486E+04	.1204300E+01	.1421300E+02
.4106200E+01	.1103200E-01	.1277690E+05	.4141096E+04	.1214700E+01	.1421900E+02
.5620200E+01	.7190800E-02	.1324006E+05	.2459028E+04	.1223106E+01	.1422100E+02
.8737700E+01	.4056700E-02	.1377883E+05	.1216525E+04	.1234200E+01	.1422200E+02
.1298300E+02	.2775800E-02	.1408979E+05	.7695662E+03	.1242100E+01	.1422200E+02
.2352300E+02	.1583300E-02	.1449253E+05	.3772138E+03	.1254900E+01	.1422200E+02

R^* = 5.1527 in.

3.4 BOUNDARY CONDITIONS

The SSME flow field was computed using the elliptic module of the GIM code. The boundary conditions consist of a subsonic inflow plane with total pressure and total temperature prescribed, a symmetry axis condition at the nozzle centerline, and a supersonic (one-sided) outflow condition at the nozzle exit to simulate a near-vacuum expansion. At the wall, in addition to the viscous no-slip condition, the wall temperature boundary condition was determined from the CEC analysis. The input equilibrium chemistry wall temperature profile from the CEC analysis is shown in Fig. 10. Figure 11 shows schematically the boundary conditions used in the computations.

3.5 TURBULENT VISCOSITY MODEL

Based on the initial values of the density, velocity, and viscosity derived from the CEC calculation the Reynolds number of the flow, Re_D, based on the SSME nozzle throat diameter, is in the order of 10^7. The flow is thus expected to be turbulent. The turbulent model used in the computation was based on Baldwin-Lomax model (Ref. 10) modified by P.D. Thomas for the nozzle wall boundary layer. The modification mainly concerned the method used to compute the vorticity function (Ref. 11). The viscosity used in the computation is the sum of the laminar viscosity from the GIM code input and the turbulent viscosity calculated from the Baldwin-Lomax model. In this model, the eddy viscosity length scale is determined from the spatial distribution of vorticity. Therefore, the turbulent viscosity in the region far away from the nozzle wall boundary layer is nearly null, and the total viscosity in that region will be essentially laminar. This pertinent fact will be demonstrated by the following brief description of the model.

The turbulence model used here is a two-layer algebraic eddy viscosity model in which the inner viscosity is defined by the Prandtl-Van Driest formula:

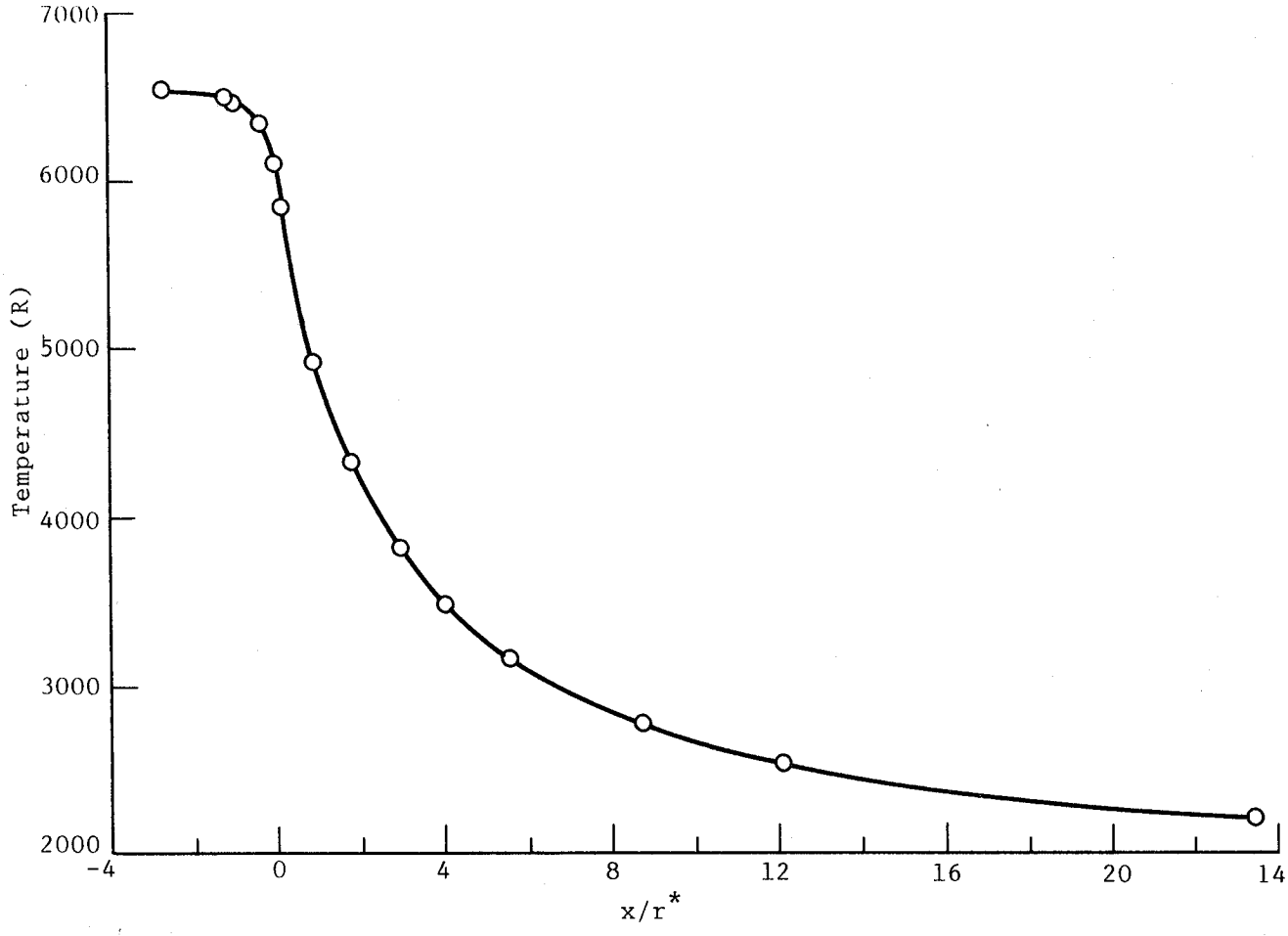

Fig. 10 Equilibrium Chemistry Wall Temperature Profile from CEC Solution

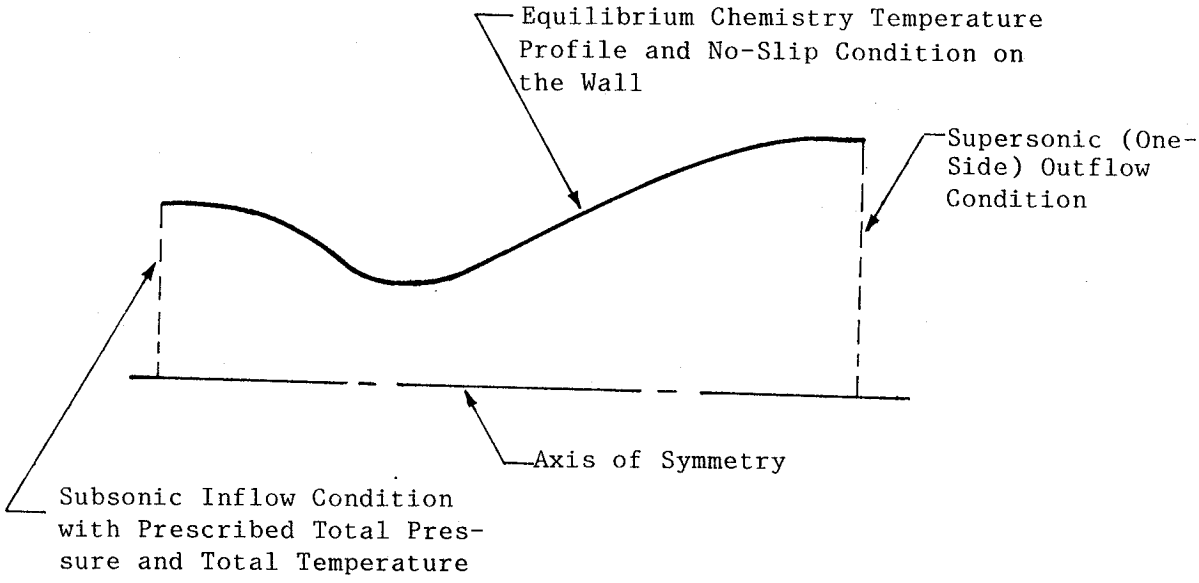

Fig. 11 Boundary Conditions

$$(\mu_t)_{inner} = \rho \ell^2 |\bar{\omega}|, \quad \mathcal{d} \leq \mathcal{d}_c$$

where, $\mathcal{d}$ denotes the normal distance from the wall,

$$\ell = 0.4\, \mathcal{d}[1 - \exp(-\mathcal{d}^+/26)],$$
$$\mathcal{d}^+ = \mathcal{d}(\mathrm{Re}\, \rho_w |\vec{\omega}|_w/\mu_w).$$

and, $\mathcal{d}_c$ is the smallest value of $\mathcal{d}$ at which the inner and outer viscosities are equal. The subscript w denotes conditions at the wall, and $|\vec{\omega}|$ is the magnitude of the vorticity. The corresponding outer viscosity is given as:

$$(\mu_t)_{outer} = 0.0168\, C_{cp} \cdot \rho\, F \cdot F_k(\mathcal{d}), \quad \mathcal{d} > \mathcal{d}_c$$

where, C_{cp} is a constant, and

$$F = \begin{cases} C_{wk}\, u_m^2 \mathcal{d}_m / f_m, & u_m < 2 f_m \\ \mathcal{d}_m f_m, & u_m \geq 2 f_m \end{cases}$$

$$F_k(\mathcal{d}) = \left[1 + 5.5 \left(\frac{C_k \mathcal{d}}{\mathcal{d}_m}\right)^6\right]^{-1},$$

$$u_m^2 = (u^2 + v^2)_{max}.$$

The quantities $\mathcal{d}_m$ and f_m are determined from the function

$$f(\mathcal{d}) = \mathcal{d} |\omega| [1 - \exp(-\mathcal{d}^+/26)].$$

The following values of the constants appearing in the foregoing relations were used in the computation:

$$C_{cp} = 2.08$$
$$C_{k} = 1.0$$
$$C_{wk} = 0.25.$$

The viscosity profile at the exit plane as a function of the distance from the nozzle wall is shown in Fig. 12. At other cross-sectional planes the viscosity profile is similar. The laminar viscosity (μ_{lam}) used in the computation was 0.74×10^{-4} lb/ft-sec. It can be seen from Fig. 12 that in the region from the axis to the half way point from the wall the vorticity is negligible and the viscosity is laminar, and only in the boundary layer and in the region from the boundary layer edge to one half the nozzle wall radius does the turbulent viscosity become dominant.

3.6 CALCULATED FLOW FIELDS

Using previously described boundary conditions and the turbulent viscosity model, the GIM code was run from the initial conditions described in Section 3.3 until a steady state solution was reached. The solution for the case with equilibrium chemistry wall temperature profile assumption is shown on the figures appearing in the following pages. They are:

Figure No.	Description
13	Mach Number Contours
14	Pressure Contours
15	Mass Flow through the Nozzle
16	Axial Mach Number Variation
17	Wall Pressure Variation
18	Wall Density Variation
19	Exit Plane Pressure Profile

It can be seen from the Mach number and pressure contours (Figs. 13 and 14) that the solution in the subsonic/transonic region is very good. In the supersonic region the solution is good except in the neighborhood of the axis. The contour plots clearly show the development of a thin boundary layer adjacent to the nozzle wall. The boundary layer thickness is about one grid width. The oscillation of the Mach number and pressure near the

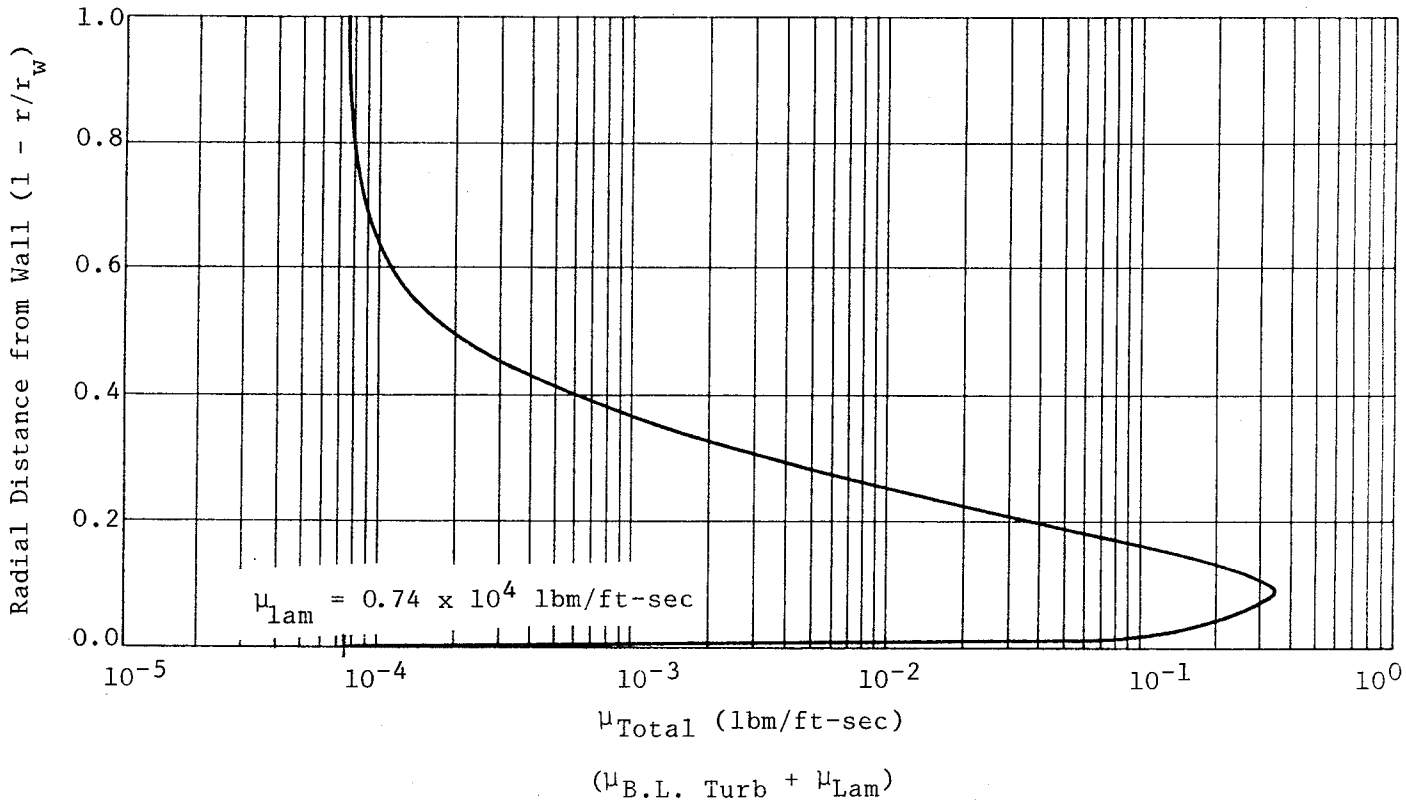

Fig. 12 Viscosity Profile at Nozzle Exit Plane

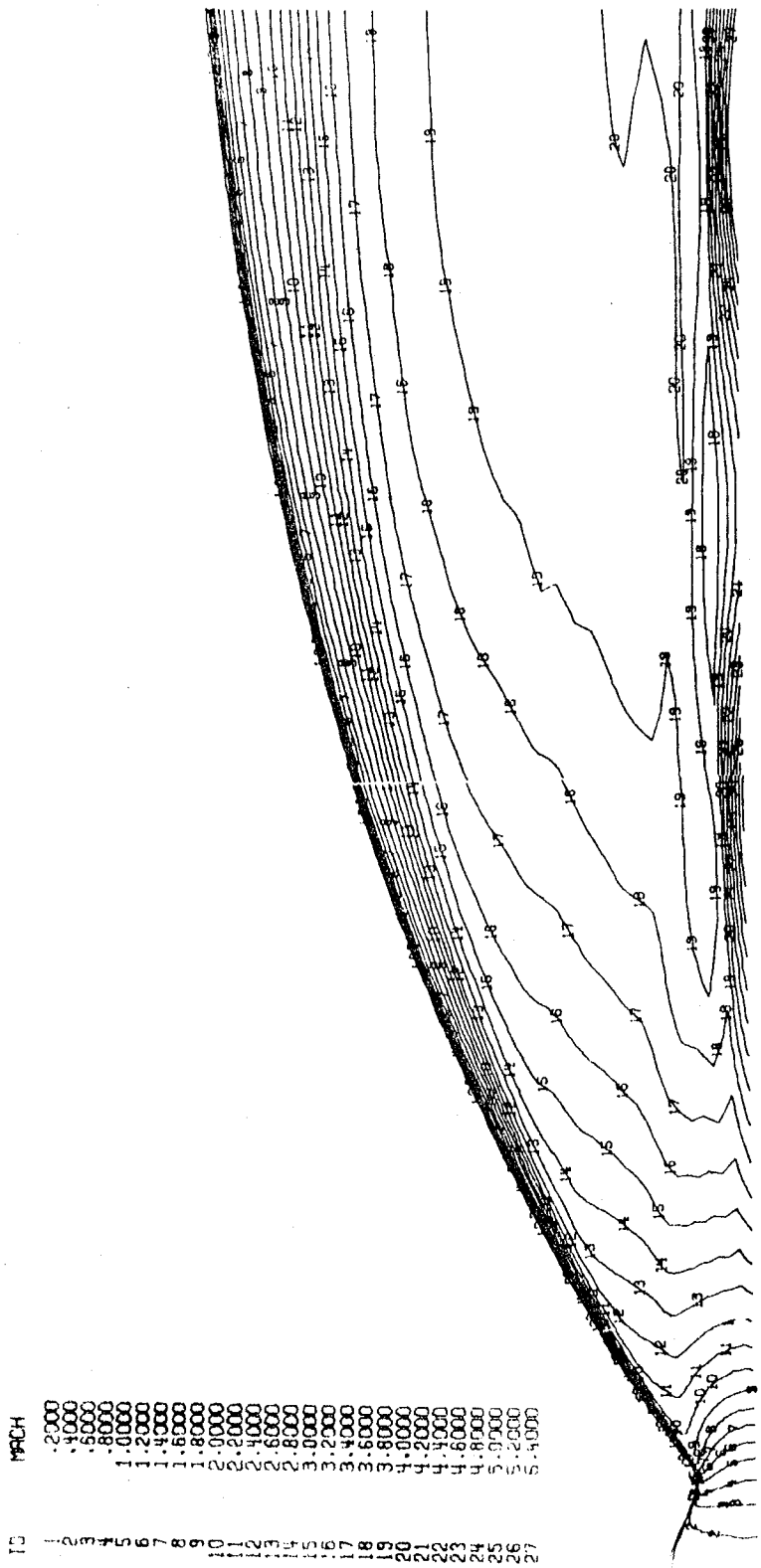

Fig. 13 Mach Number Contours

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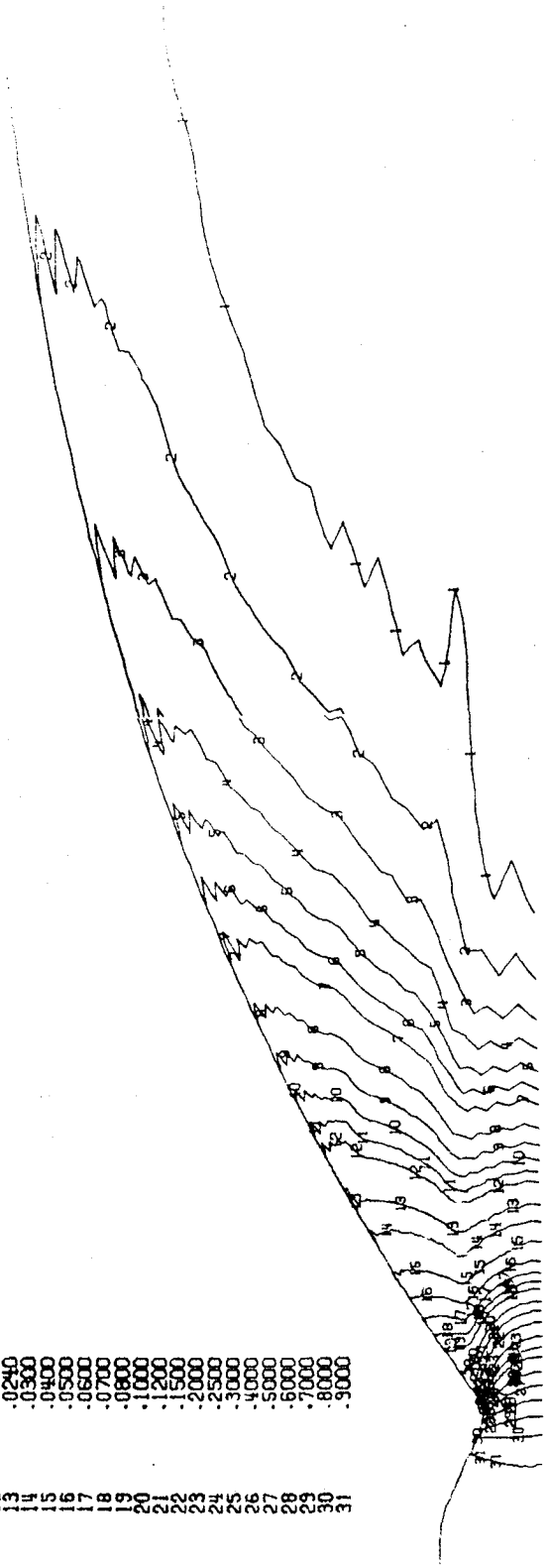

Fig. 14 Pressure Contours

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axis can also be seen in Figs. 16 and 19. We believe that the problem near the axis is due to the numerics and the coarse grid used there. The mass flow through the nozzle is nearly constant with a small variation in the subsonic region (Fig. 15). The mass flow rate at the throat is 978 lb/sec. The variation in mass conservation from the chamber to the exit plane is approximately $\pm$0.8 percent. Figure 17 shows the wall pressure variation. The pressure at the nozzle wall lip is approximately 1020 lb/ft^2 (7.1 psia) which is somewhat higher than 780 lb/ft^2 (5.42 psia) as calculated using the Method of Characteristics solution. The thrust, the sum of the flow rate "dotted" into the velocity and the static pressure times the throat incremental area each term evaluated at the throat plane plus the axial component of the wall static pressure times the wall incremental area evaluated from the throat to the exit plane, was calculated as 512000 lbf and the specific impulse is 523 sec. Due to the high wall pressure the thrust and specific impulse numbers just reported are unreasonably high. These are not to be construed as the final SSME performance numbers.

The problem with the 2-D axisymmetric analysis that has been performed is the calculation of the axis conditions. The axis calculation, using predictor-corrector techniques, is inaccurate at small values of r. This leads to truncation errors which require numerical damping to control, resulting in lower than expected Mach number at the axis and larger than expected wall pressure at the nozzle lip. The axisymmetric treatment of the axis in the Navier-Stokes codes that we are aware of in the open literature clearly require further work before accurate thrust chamber performance numbers can be generated.

A detailed computer printout for the steady state flow field and a description of the printout are given in Appendix A.

The RFP for this effort requested that the heat transfer to the SSME nozzle wall be calculated. The GIM code does not presently calculate the heat transfer coefficient. However, all the elements required to calculate a convective heat transfer coefficient are given in the computer printout found in Appendix A.

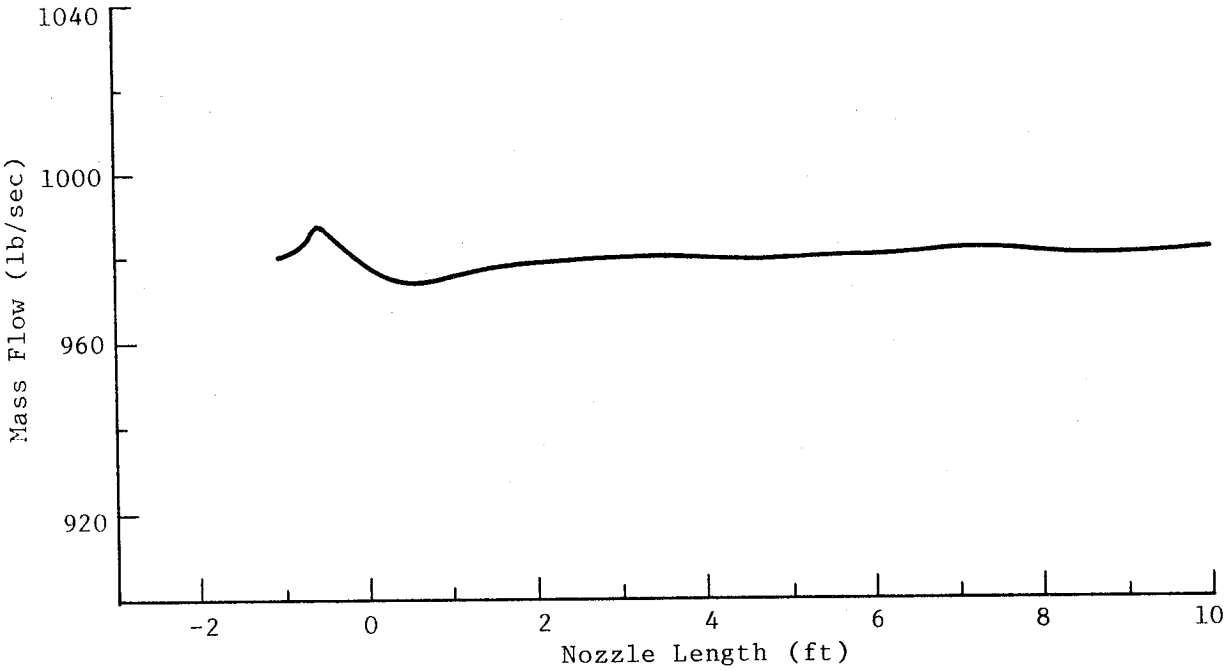

Fig. 15 Mass Flow Through the Nozzle with Equilibrium Chemistry Wall Temperature Profile Assumption

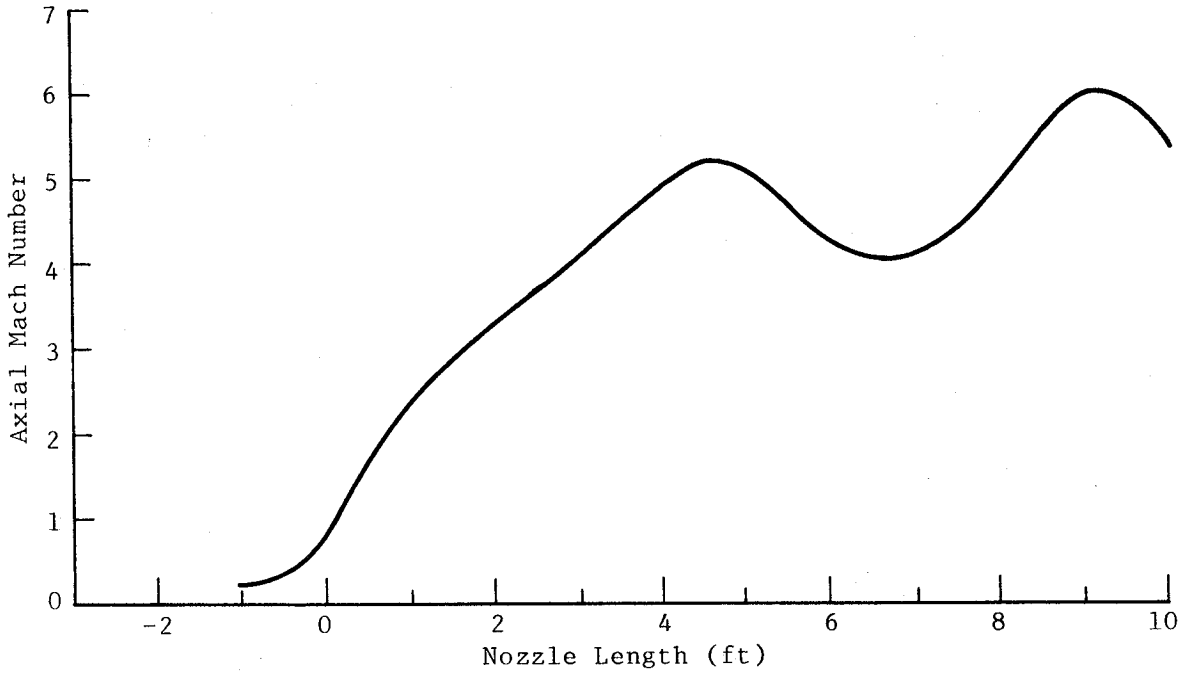

Fig. 16 Mach Number Along the Nozzle Axis with Equilibrium Chemistry Wall Temperature Profile Assumption

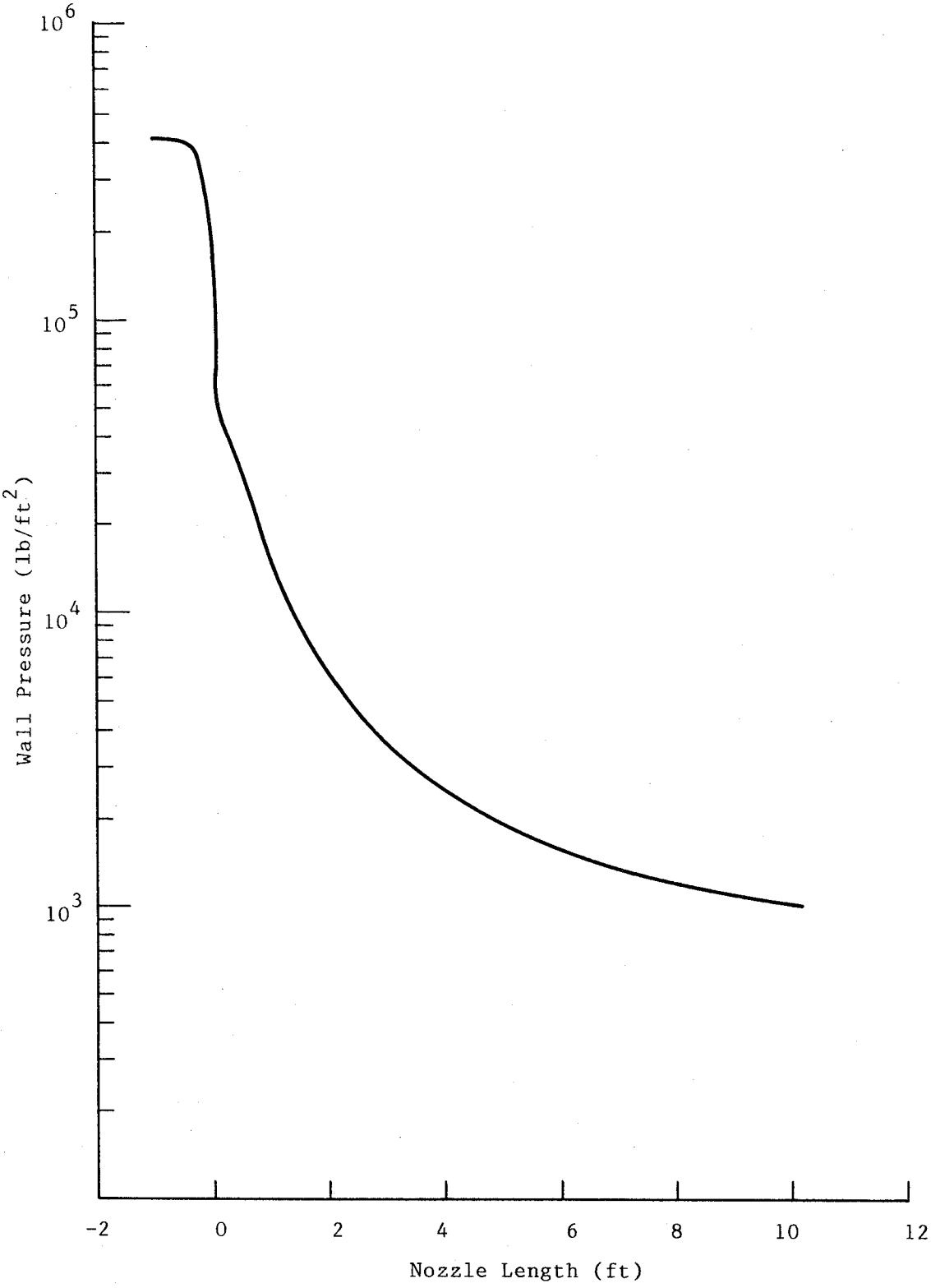

Fig. 17 Wall Pressure Variation with Equilibrium Chemistry Wall Temperature Profile Assumption

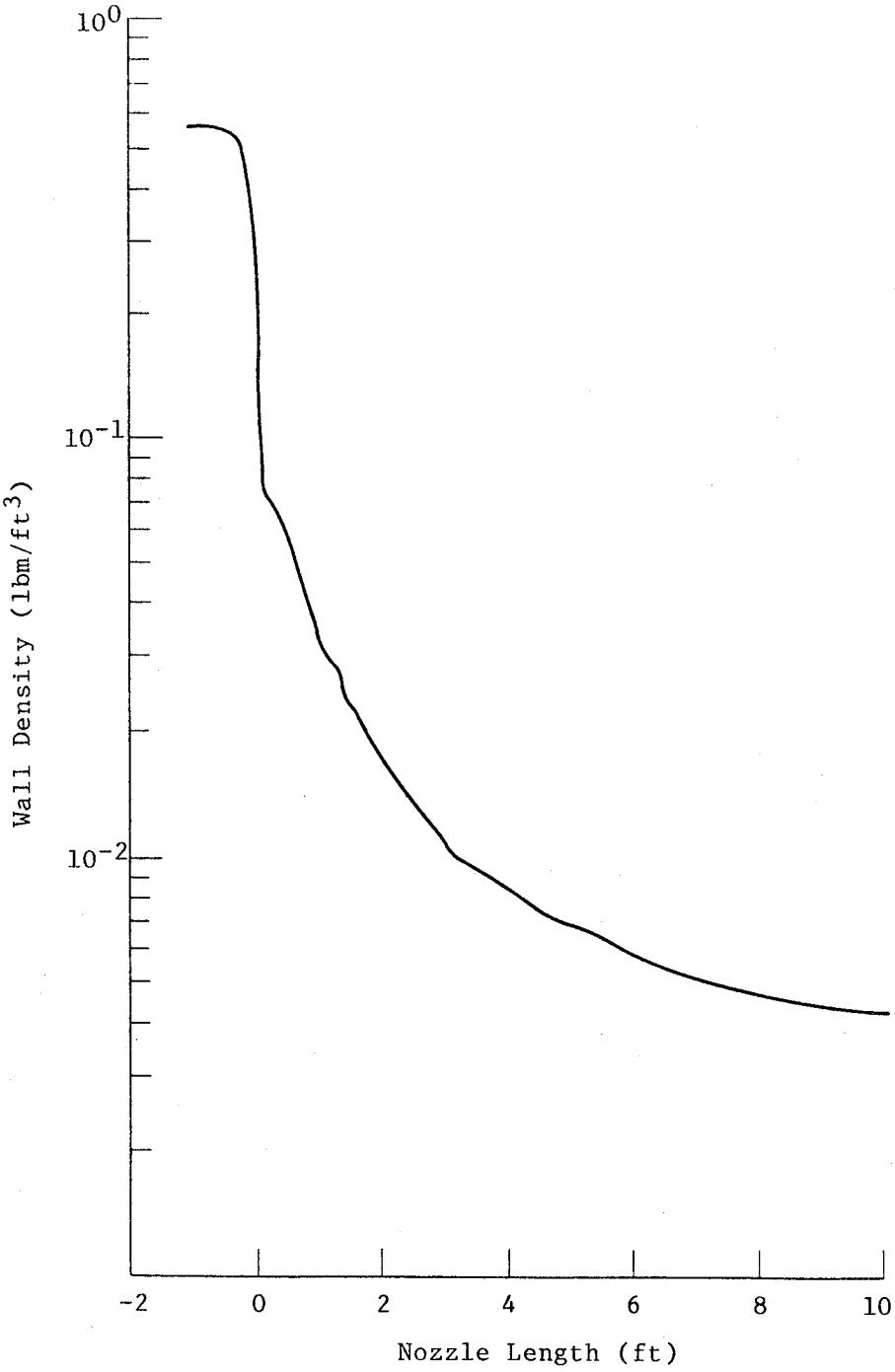

Fig. 18 Wall Density Variation with Equilibrium Chemistry Wall Temperature Profile Assumption

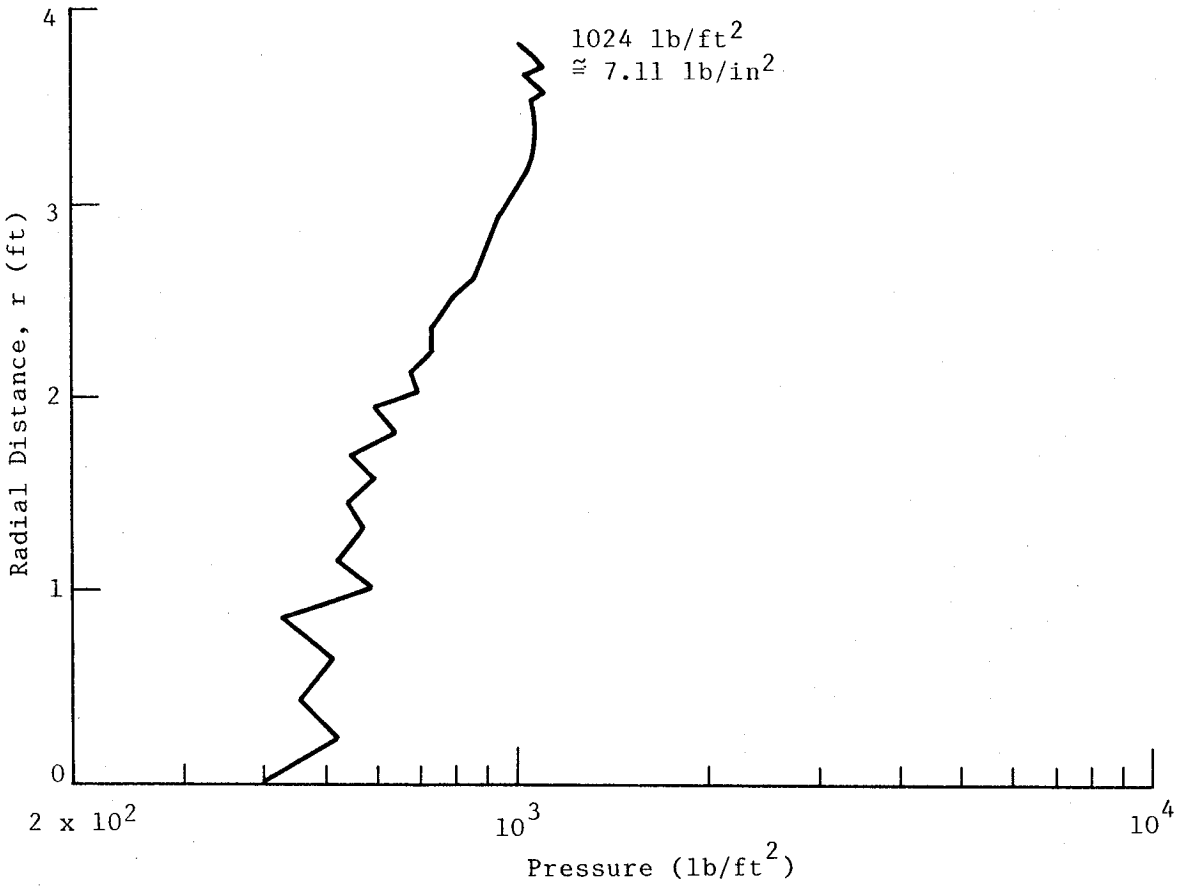

Fig. 19 Exit Plane Pressure Profile with Equilibrium Chemistry Wall Temperature Profile Assumption

4. COMPUTER REQUIREMENTS

4.1 COMPUTER POWER REQUIRED FOR VISCOUS NOZZLE CALCULATIONS

There are two basic concepts in modern digital computer architecture: scalar and vector. A scalar machine performs operations (adds, multiplies) sequentially, one after the other. A vector machine performs "parts" of multiple operations all at the same time. On the CYBER 205 for example, 65,000 multiples can be going on at the same time. This is obviously many times faster than a scalar operation. All Class 6 supercomputers use the vector concept while the older Univac 1100 and CDC 7600 machines are based on scalar architecture.

The GIM code elliptic version used in this analysis requires the use of a large vector processor. The NASA-Langley CYBER 205 with its 16 million word memory is one of the most powerful computers available. This is the type of machine that will be required for the solution of viscous nozzle problems using Navier-Stokes solution techniques. The requirement of fine mesh near the nozzle wall to resolve the boundary layer and fine mesh in the transonic region led to the selection of a large vector machine such as the CYBER 205 as one of the few possibilities for the solution of viscous internal flow problems. Scalar codes can be used to solve this type of problem but are not cost effective for viscous nozzle calculation.

4.2 COMPUTER COSTS FOR THE GIM CODE SSME VISCOUS NOZZLE CALCULATION

The solution reported in Section 3 of this report required 20,000 iterations to reach steady state. The performance of the CYBER 205 is measured

in Computer Resource Units (CRUs) which is approximately one second of execution time. The SSME nozzle calculation required 0.2 CRUs per iteration for a total of 4000 CRUs per case. The rate at the NASA-Langley Computer Center is approximately $0.75 per CRU. Allowing a few CRUs contingency and including the computer time required to set up the computational mesh, each case is estimated to cost approximately $3500 to compute.

5. CONCLUSIONS AND SUMMARY

5.1 THE STATE OF THE ART OF VISCOUS NOZZLE CALCULATIONS

Performance calculations in large area ratio nozzles remains as one of the challenges of CFD Navier-Stokes codes. A number of critical items remain unsolved before the research codes of today can be used to design nozzles of the future. Among these are the following:

1. Algorithms for treating the "axis" singularity in the axisymmetric equations.
2. Turbulence models for treating the wall boundary layer in transonic and supersonic flow.
3. Subsonic boundary condition treatment at the "inflow" boundary to allow numerical waves to pass through it.
4. Numerically stable algorithms which do not require large artificial damping.
5. Algorithms for switching between elliptic solution in transonic flow to parabolic solution in supersonic flow.
6. Efficient models for treating chemistry (equilibrium and finite-rate) in viscous nozzle flow.

The axisymmetric equations for viscous flow contain 1/r terms which become indefinite at the axis ($r = 0$). Most algorithms in use today, MacCormack, Euler, etc., introduce false losses into the solution in an attempt to resolve the axis flow. The problem gets worse as the grid is refined ($\Delta r \rightarrow 0$) since $1/(r\,\Delta r)$ appears in the finite difference equations. One solution is to treat the full three-dimensional equations which avoids the singularity. This is however, very inefficient in axisymmetric nozzles and requires many times more computer resources than the 2-D, axisymmetric equations. Basic research into numerical algorithms for treating the axis singularity is needed before actual performance calculations can be made.

Computation of viscous flow at high Reynolds number requires a specification of the turbulent viscosity coefficient. Many ad hoc models currently exist for this specification. Many arguments also exist as to which model is "best" for nozzle flows. The two-equation k-ϵ turbulent kinetic energy models seem to be the most exact. However, they require large amounts of computer time and the wall boundary conditions for these equations are unknown. Algebraic models, termed "eddy viscosity" are the most practical. The ones which use vorticity as the governing parameter have worked the best to date. Their accuracy in separated boundary layers remains questionable. Perhaps the only real way to ever treat turbulence is to solve the full Navier-Stokes equations including all the "fluctuating" terms rather than the Reynolds-averaged equations. Very large supercomputers, with very long run times will be required.

The inflow boundary condition in an internal, subsonic flow is a critical item. Mathematically, four boundary conditions are required in axisymmetric flow; three at the inflow and one at the outflow. Specifying all four at the inflow boundary results in an ill-posed problem with numerical waves stacking-up against the boundary. In the viscous, axisymmetric nozzle flow, total pressure, total temperature and flow direction are good choices at the inflow, with static pressure, or density (mass flow) at the transonic (throat) boundary. At the supersonic nozzle exit, no boundary condition is required (except perhaps in the subsonic boundary layer region near the lip). The current state-of-the-art in CFD has not checked out this proper treatment.

Artificial damping is currently required in all CFD algorithms. This "numerical viscosity" is present in <u>all</u> schemes whether it is added by the user directly or just simply occurs due to truncation of the infinite series representation. If enough grid points could be used in a high Reynolds number boundary layer, then large damping would not be needed. However, this is very impractical in terms of computer time. An algorithm which treats the "thin" boundary layer without large numbers of grid points is needed.

Proper and efficient treatment of the full nozzle is best done with an elliptic solution in the subsonic/transonic region and a parabolized Navier-Stokes solution in the supersonic region. Currently available codes require the user to switch the algorithms manually. Certain smoothing logic is also needed to blend the solutions. An automated procedure and code could be constructed which would perform this switching in a production code.

An accurate chemistry treatment is also essential if performance numbers are to be predicted. Currently available equilibrium models range from table look-up of previously obtained data as we have done in this solution to in-line solution of the reaction equations. A combination of equilibrium and frozen chemistry is usually required. Solution of nozzle flows with non-equilibrium chemistry can be made with existing codes, but only for benchmark cases. Nozzle design using these chemistry codes is still not practical.

Current CFD Navier-Stokes codes are producing some amazing results for a large variety of problems. The future of such codes for nozzle design is good, but much research remains to be done. The areas discussed above represent a few of these needed research areas.

5.2 COMPUTER SYSTEM REQUIREMENTS

The advent of the Class 6 Supercomputer has revolutionized the field of computational mechanics. The CFD codes in use today are barely practical on the CRAY and CYBER 205 machines. The NASA-MSFC Univac computer cannot be used for running these codes to solve two- or three-dimensional viscous problems. One of the major problems that we have encountered in SSME flow calculations is the computer time purchase situation. Because MSFC does not have a supercomputer, our codes must be run at Langley, Ames, or even commercially to Control Data Corporation. This is very expensive since MSFC must send "money" of some kind to the other NASA centers. We strongly recommend that MSFC get a supercomputer as soon as possible. We also strongly recommend the CDC CYBER 205 and not the CRAY 1.

The very large memory of the 205 and the extra CPU speed make it by far the best on the market today.

This most important item of computer time must be solved before MSFC or its contractors can economically use CFD codes to calculate the performance of advanced propulsion systems.

REFERENCES

1. Prozan, R.J., L.W. Spradley, P.G. Anderson, and M.L. Pearson, "The General Interpolants Method," AIAA Paper 77-642, Albuquerque, June 1977.

2. Spradley, L.W., P.G. Anderson, and M.L. Pearson, "Computation of Three-Dimensional Nozzle Exhaust Flows with the GIM Code," NASA CR-3042, Langley Research Center, Hampton, Va., August 1978.

3. Spradley, L.W., and M.L. Pearson, "GIM Code User's Manual for the STAR-100 Computer," NASA CR-3157, Langley Research Center, Hampton, Va., November 1979.

4. Spradley, L.W., J.F. Stalnaker, and A.W. Ratliff, "Computation of Three-Dimensional Viscous Flows with the Navier-Stokes Equations," AIAA Paper 80-1348, Snowmass, Colo., July 1980.

5. Spradley, L.W., J.F. Stalnaker, and A.W. Ratliff, "Hyperbolic/Parabolic Development for the GIM-STAR Code," NASA CR-3369, Langley Research Center, Hampton, Va., December 1980.

6. Spradley, L.W., J.F. Stalnaker, and K.E. Xiques, "A Quasi-Parabolic Tech- nique for Computation of Three-Dimensional Viscous Flows," AIAA Paper 81-0113, St. Louis, January 1981.

7. Anderson, P.G., and L.W. Spradley, "Finite Difference Grid Generation by Multivariate Blending Function Interpolation," NASA CP-2166, Langley Research Center, Hampton, Va., October 1980.

8. Stalnaker, J.F., "A Variation on MacCormack Method for Axisymmetric Viscous Compressible Flows," AIAA J., July 1983.

9. Gordon, S., and B.J. McBride, "Computer Program for Calculation of Complex Chemical Equilibrium Compositions, Rocket Performance, Incident and Reflected Shocks, and Chapman-Jouguet Detonations, NASA SP-273, 1971.

10. Baldwin, B.S., and H. Lomax, "Thin Layer Approximate and Algebraic Model for Separated Turbulent Flow," AIAA Paper 78-259, January 1975.

11. Thomas, P.D., "Numerical Method for Predicting Flow Characteristics and Performance of Nonaxisymmetric Nozzle - Part 2 - Applications," NASA CR 326, October 1980.

Appendix A

PRINTOUT AND DESCRIPTION OF STEADY STATE FLOW FIELD

Appendix A

A printout of the steady state flow field at iteration 20000 is listed on the following pages. The nomenclature for the printout is:

NODE	nodal point number (see Fig. A-1)
X,Y	Cartesian coordinates of the NODE (Y = r), ft
RHO	static density, lbm/ft^3
u,v	velocity components in X,Y directions, ft/sec
SOS	local sonic velocity, ft/sec
E	total energy, ft^2/sec^2
P	static pressure, lbf/ft^2
IB	node point type (see Table A-1)
GAM	local value of the specific heat ratio
CV	constant-volume specific heat, Btu/lbm-R
THXY	flow angle in X-Y plane, deg
THXZ	flow angle in X-Z plane, deg
MU	local viscosity, lbm/ft-sec
T	temperature, R
M	Mach number

ITERATION NUMBER 20010 DTIME = .24767202E-06 TIME = .34673593E-02

NODE	X	Y GAM	RHO CV	U TAUXY	V TAUXZ	SOS MU	E T	P M	IB
1	-.1.666948E+01	.0	.55599474E+00	.12045924E+04	.0	.52168607E+04	.16213823E+09	.41033477E+06	1
		.11470100E+01	.98798868E+00	.0	.0	.74000031E-04	.65246315E+04	.23093703E+01	
2	-.1.666948E+01	.46262632E-01	.55608622E+00	.12008697E+04	.0	.52169238E+04	.16213766E+09	.41011215E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000001E-04	.65247935E+04	.23018732E+01	
3	-.1.666948E+01	.88605374E-01	.55537612E+00	.12294851E+04	.0	.52164338E+04	.16214211E+09	.41051153E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000002E-04	.65235639E+04	.23569456E+01	
4	-.1.666948E+01	.12756942E+00	.55471392E+00	.12556103E+04	.0	.52159764E+04	.16214627E+09	.41095152E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000003E-04	.65224198E+04	.24072393E+01	
5	-.1.666948E+01	.16360228E+00	.55572366E+00	.12155602E+04	.0	.52166737E+04	.16213993E+09	.41099549E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000004E-04	.65241638E+04	.23301442E+01	
6	-.1.666948E+01	.19707731E+00	.55614647E+00	.11984146E+04	.0	.52169653E+04	.16213728E+09	.41016306E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000005E-04	.65248931E+04	.22971489E+01	
7	-.1.666948E+01	.22830856E+00	.55620024E+00	.11962141E+04	.0	.52170924E+04	.16213694E+09	.41020869E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000009E-04	.65249859E+04	.22929145E+01	
8	-.1.666948E+01	.25756218E+00	.55672650E+00	.11744975E+04	.0	.52173650E+04	.16213364E+09	.41065382E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000013E-04	.65258931E+04	.22511316E+01	
9	-.1.666948E+01	.28506537E+00	.55682764E+00	.11702799E+04	.0	.52174347E+04	.16213301E+09	.41073939E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000018E-04	.65266674E+04	.22430178E+01	
10	-.1.666948E+01	.31101328E+00	.55707253E+00	.11603069E+04	.0	.52176033E+04	.16213147E+09	.41094659E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000025E-04	.65264892E+04	.22232562E+01	
11	-.1.666948E+01	.33557464E+00	.55737625E+00	.11471434E+04	.0	.52178123E+04	.16212957E+09	.41120356E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000036E-04	.65271122E+04	.21985141E+01	
12	-.1.666948E+01	.35889611E+00	.55761454E+00	.11369533E+04	.0	.52179763E+04	.16212808E+09	.41141524E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000051E-04	.65274223E+04	.21789161E+01	
13	-.1.666948E+01	.38110592E+00	.55787976E+00	.11211634E+04	.0	.52182274E+04	.16212588E+09	.41171431E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000073E-04	.65280506E+04	.21485522E+01	
14	-.1.666948E+01	.40231675E+00	.55828542E+00	.11077817E+04	.0	.52184374E+04	.16212388E+09	.41197302E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000105E-04	.65295761E+04	.21229227E+01	
15	-.1.666948E+01	.42262813E+00	.55865133E+00	.10915560E+04	.0	.52186887E+04	.16212169E+09	.41228273E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000152E-04	.65292059E+04	.20916288E+01	
16	-.1.666948E+01	.44212839E+00	.55897398E+00	.10770612E+04	.0	.52189101E+04	.16211958E+09	.41255571E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000222E-04	.65297588E+04	.20637665E+01	
17	-.1.666948E+01	.46089630E+00	.55929114E+00	.10626108E+04	.0	.52191278E+04	.16211763E+09	.41282437E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000326E-04	.65303037E+04	.20359931E+01	
18	-.1.666948E+01	.47900242E+00	.55957438E+00	.10495518E+04	.0	.52193220E+04	.16211583E+09	.41306417E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000486E-04	.65307997E+04	.20108962E+01	
19	-.1.666948E+01	.49651025E+00	.55982020E+00	.10380891E+04	.0	.52194905E+04	.16211431E+09	.41327232E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74000732E-04	.65312114E+04	.19888715E+01	
20	-.1.666948E+01	.51347721E+00	.56006218E+00	.10266848E+04	.0	.52196563E+04	.16211279E+09	.41347722E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74001122E-04	.65316263E+04	.19669586E+01	
21	-.1.666948E+01	.52995543E+00	.56027523E+00	.10167808E+04	.0	.52197988E+04	.16211152E+09	.41365340E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74001751E-04	.65319829E+04	.19479309E+01	
22	-.1.666948E+01	.54599248E+00	.56047277E+00	.10077519E+04	.0	.52199374E+04	.16211023E+09	.41382467E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74002796E-04	.65323299E+04	.19292414E+01	
23	-.1.666948E+01	.56163195E+00	.56066329E+00	.99756687E+03	.0	.52200713E+04	.16210902E+09	.41399051E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74004593E-04	.65326649E+04	.19110215E+01	
24	-.1.666948E+01	.57691398E+00	.56084991E+00	.99872887E+03	.0	.52201949E+04	.16210789E+09	.41414345E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74007753E-04	.65329742E+04	.18944045E+01	
25	-.1.666948E+01	.59187572E+00	.56105975E+00	.99836422E+03	.0	.52203394E+04	.16210658E+09	.41432122E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74013621E-04	.65333335E+04	.18741395E+01	
26	-.1.666948E+01	.60655173E+00	.56122218E+00	.99821768E+03	.0	.52204502E+04	.16210557E+09	.41445965E+06	5
		.11470100E+01	.98798868E+00	.0	.0	.74025051E-04	.65336132E+04	.18564943E+01	

ORIGINAL PAGE IS
OF POOR QUALITY

ITERATION NUMBER 2000 DTIME = .2476729E-06 TIME = .3467359E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
27	-.1 666948E+01	.62097420E+00	.5614479[illegible]E+00	.95885073E+03	.0	.5220[illegible]044E+04	.16210416E+09	.41465077E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.7[illegible]487856E-04	.65339925E+04	.18366853E+00	
28	-.1[illegible]666948E+01	.63517354E+00	.56159710E+00	.95126905E+03	.0	.52207965E+04	.16210323E+09	.41477315E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.74101840E-04	.65342547E+04	.18221[illegible]78E+00	
29	-.1[illegible]666948E+01	.64917839E+00	.56163858E+00	.93887449E+03	.0	.52208714E+04	.16210173E+09	.41498182E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.74232987E-04	.65346676E+04	.17983100E+00	
30	-.1[illegible]666948E+01	.66301596E+00	.56193257E+00	.93403573E+03	.0	.52209356E+04	.16210115E+09	.41506144E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.74600879E-04	.65348282E+04	.17889624E+00	
31	-.1[illegible]666948E+01	.67671227E+00	.56222[illegible]05E+00	.91895721E+03	.0	.52211318E+04	.16209936E+09	.41531501E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.75829325E-04	.65353196E+04	.17600728E+00	
32	-.1 666948E+01	.69029232E+00	.56241942E+00	.90837847E+03	.0	.52212679E+04	.16209812E+09	.41547394E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.81889595E-04	.65356602E+04	.17397661E+00	
33	-.1[illegible]666948E+01	.70378031E+00	.56307029E+00	.87297462E+03	.0	.52217119E+04	.16209408E+09	.41602548E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.11434381E-03	.65367715E+04	.16718169E+00	
34	-.1[illegible]666948E+01	.71719981E+00	.56405641E+00	.81648741E+03	.0	.52223834E+04	.16208797E+09	.41686129E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.53707323E-03	.65384531E+04	.15634383E+00	
35	-.10666948E+01	.73057392E+00	.56681910E+00	.63256681E+03	.0	.52242595E+04	.16207089E+09	.41920316E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.25473993E-01	.65431492E+04	.12130826E+00	
36	-.1[illegible]666948E+01	.74392536E+00	.55931[illegible]0E+00	.0	.0	.52200721E+04	.16161153E+09	.41298770E+06	5
		.11470000E+01	.98798868E+00	.0	.0	.74000000E-04	.65326677E+04	.0	
37	-.1[illegible]201817E+01	.0	.57205167E+00	.11423744E+04	.0	.52284915E+04	.16278575E+09	.42375964E+06	1
		.11470000E+01	.98798868E+00	.0	.0	.40347912E+00	.65537568E+04	.21349824E+00	
49	-.1[illegible]201817E+01	.38110592E+00	.55713511E+00	.11240567E+04	-.25145463E+02	.52177777E+04	.16210153E+09	.41102022E+06	9
		.11470000E+01	.98798868E+00	-.12815089E+01	.0	.48765145E+00	.65269254E+04	.21548215E+00	
61	-.10201817E+01	.59187572E+00	.56050399E+00	.97992411E+03	-.27276552E+02	.52202413E+04	.16210247E+09	.41389615E+06	9
		.11470000E+01	.98798868E+00	-.15944377E+01	.0	.84040626E-01	.65330963E+04	.18779896E+00	
73	-.97366855E+00	.0	.58440786E+00	.11156719E+04	.0	.52370491E+04	.16328621E+09	.43432955E+06	1
		.11470000E+01	.98798868E+00	.0	.0	.47120261E+00	.65752052E+04	.21333481E+00	
85	-.97366855E+00	.38110592E+00	.55763319E+00	.11358376E+04	-.56977474E+02	.52175892E+04	.16210442E+09	.41135779E+06	9
		.11470000E+01	.98798868E+00	-.28717439E+01	.0	.31981846E+01	.65264514E+04	.21795771E+00	
97	-.97366855E+00	.59187572E+00	.56060284E+00	.98569021E+03	-.53438361E+02	.52199351E+04	.16209023E+09	.41392358E+06	9
		.11470000E+01	.98798868E+00	-.31032044E+01	.0	.20542081E+00	.65323240E+04	.18911919E+00	
109	-.92715543E+00	.0	.58699023E+00	.11379500E+04	.0	.52387296E+04	.16341520E+09	.43653011E+06	1
		.11470000E+01	.98798868E+00	.0	.0	.51743956E+00	.65794458E+04	.21704694E+00	
121	-.92715543E+00	.38110592E+00	.55695561E+00	.11462525E+04	-.76948113E+02	.52175927E+04	.16211792E+09	.41085866E+06	9
		.11470000E+01	.98798868E+00	-.38405128E+01	.0	.54118989E+01	.65264627E+04	.22019437E+00	
133	-.92715543E+00	.59187572E+00	.55974249E+00	.99499463E+03	-.78672388E+02	.52197720E+04	.16208668E+09	.41324844E+06	9
		.11470000E+01	.98798868E+00	-.45209113E+01	.0	.11769713E+00	.65317407E+04	.19121591E+00	
145	-.88399137E+00	.0	.57970122E+00	.12050052E+04	.0	.52344840E+04	.16323112E+09	.43041114E+06	1
		.11470000E+01	.98798868E+00	.0	.0	.57994149E+00	.65687984E+04	.23020516E+00	
157	-.88187474E+00	.38033795E+00	.55754334E+00	.11615851E+04	-.11423211E+03	.52175699E+04	.16213776E+09	.41128864E+06	9
		.11470000E+01	.98798868E+00	-.56164978E+01	.0	.97273571E-01	.65264056E+04	.22370346E+00	
169	-.88073470E+00	.59168302E+00	.55993081E+00	.10023324E+04	-.11609744E+03	.52195037E+04	.16208539E+09	.41335607E+06	9
		.11470000E+01	.98798868E+00	-.66769737E+01	.0	.56976964E+00	.65312444E+04	.19331983E+00	
181	-.94082531E+00	.0	.56627039E+00	.12948850E+04	.0	.52264336E+04	.16284322E+09	.41914668E+06	1
		.11470000E+01	.98797362E+00	.0	.0	.44899011E+00	.65486987E+04	.24764211E+00	
193	-.93669132E+00	.37833713E+00	.55768567E+00	.11921659E+04	-.14660872E+03	.52179[illegible]15E+04	.16219947E+09	.41145623E+06	9
		.11470000E+01	.98797057E+00	-.70117232E+01	.0	.46292268E+01	.65274016E+04	.23016794E+00	
205	-.83440503E+00	.58710974E+00	.55919646E+00	.10118207E+04	-.14379704E+03	.52193576E+04	.16208948E+09	.41279035E+06	9
		.11470000E+01	.98796882E+00	-.80865459E+01	.0	.55775914E+00	.65310105E+04	.19589717E+00	
217	-.79766024E+00	.0	.55067[illegible]2E+00	.13911621E+04	.0	.52164533E+04	.16235516E+09	.40604813E+06	1
		.11470000E+01	.98794135E+00	.0	.0	.44391774E+00	.6523925[illegible]E+04	.26668735E+00	

ORIGINAL PAGE IS
OF POOR QUALITY

ITERATION NUMBER 20000 DTIME = .2476720E-06 TIME = .3467359E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
229	-.79171206E+00	.37421269E+00	.55803701E+00	.12183597E+04	-.16414493E+03	.52179885E+04	.16223781E+09	.41171986E+06	9
		.11470000E+01	.99793639E+00	-.76749101E+01	.0	.56586135E+01	.65277951E+04	.23554465E+01	
241	-.78840689E+00	.58117.2JE+00	.55986029E+00	.10367436E+04	-.17778213E+03	.52193684E+04	.16212115E+09	.41328459E+06	9
		.11470000E+01	.99793443E+00	-.97305134E+01	.0	.23985750E+00	.65312645E+04	.20153325E+01	
253	-.75449518E+00	.0	.55637321E+00	.14809062E+04	.0	.52173958E+04	.16182332E+09	.39412874E+06	1
		.11470000E+01	.99793838E+00	.0	.0	.30019664E+00	.65014768E+04	.28436653E+01	
265	-.74700304E+00	.36887998E+00	.55673693E+00	.12571503E+04	-.17588290E+03	.52172554E+04	.16224282E+09	.41064574E+06	9
		.11470000E+01	.99793349E+00	-.79643292E+01	.0	.27199228E+01	.65261819E+04	.24330695E+01	
277	-.74285953E+00	.57288825E+00	.55954151E+00	.10682313E+04	-.24102115E+03	.52195213E+04	.16217703E+09	.41307145E+06	9
		.11470000E+01	.99793038E+00	-.12714538E+02	.0	.54128103E+00	.65318722E+04	.29980548E+01	
289	-.71133012E+00	.0	.55613300E+00	.15549309E+04	.0	.52004772E+04	.16160939E+09	.38550587E+06	1
		.11470000E+01	.99787631E+00	.0	.0	.59076929E+00	.64844490E+04	.29899774E+01	
301	-.70268921E+00	.36236042E+00	.55482438E+00	.13168985E+04	-.19908284E+03	.52157198E+04	.16222863E+09	.40899161E+06	9
		.11470000E+01	.99787035E+00	-.55966768E+01	.0	.11730417E+01	.65225417E+04	.25535414E+01	
313	-.69791038E+00	.56229715E+00	.55958441E+00	.11046393E+04	-.29405464E+03	.52192105E+04	.16221147E+09	.41335385E+06	9
		.11470000E+01	.99786678E+00	-.14906435E+02	.0	.22110798E+01	.65313152E+04	.21901936E+01	
325	-.66816506E+00	.0	.55056237E+00	.16161497E+04	.0	.51971596E+04	.16150185E+09	.38191003E+06	1
		.11470000E+01	.99784455E+00	.0	.0	.62336635E+00	.64763998E+04	.31096788E+01	
337	-.65885396E+00	.35378139E+00	.55198762E+00	.13974140E+04	-.22857600E+03	.52140251E+04	.16223979E+09	.40663720E+06	9
		.11470000E+01	.99782513E+00	-.92896455E+01	.0	.42135038E+00	.65186201E+04	.27157229E+01	
349	-.65370448E+00	.54943941E+00	.55744388E+00	.11472241E+04	-.31872738E+03	.52182654E+04	.16220850E+09	.41132490E+06	9
		.11470000E+01	.99781391E+00	-.15526616E+02	.0	.11078147E+01	.65293007E+04	.22817474E+01	
361	-.62580000E+00	.0	.55999736E+00	.16702852E+04	.0	.51970567E+04	.16158433E+09	.38058141E+06	1
		.11470000E+01	.99775169E+00	.0	.0	.65942771E+00	.64767421E+04	.32137522E+01	
373	-.61558875E+00	.34407611E+00	.55994142E+00	.14748522E+04	-.25738711E+03	.52123631E+04	.16225345E+09	.40487158E+06	9
		.11470000E+01	.99773129E+00	-.96352919E+01	.0	.76991864E+01	.65150835E+04	.28700139E+01	
385	-.61038388E+00	.53436666E+00	.55499491E+00	.12266473E+04	-.36905559E+03	.52161249E+04	.16218762E+09	.40918198E+06	9
		.11470000E+01	.99772001E+00	-.16744717E+02	.0	.20955182E+00	.65245665E+04	.24557748E+01	
397	-.59166657E+00	.0	.55214473E+00	.17154335E+04	.0	.51984553E+04	.16173875E+09	.38184617E+06	1
		.11470000E+01	.99767944E+00	.0	.0	.74000031E-04	.64837726E+04	.32904838E+01	
409	-.57769595E+00	.33379495E+00	.54631761E+00	.15415976E+04	-.26207873E+03	.52106469E+04	.16225102E+09	.40193887E+06	9
		.11470000E+01	.99764916E+00	-.96483033E+01	.0	.74000083E-04	.65113354E+04	.30019021E+01	
421	-.56996948E+00	.51839952E+00	.55091906E+00	.13181755E+04	-.42012723E+03	.52137243E+04	.16217573E+09	.40581317E+06	9
		.11470000E+01	.99763241E+00	-.17678555E+02	.0	.74015484E-04	.65191394E+04	.26535881E+01	
433	-.55833334E+00	.0	.55258808E+00	.17525358E+04	.0	.52008576E+04	.16195963E+09	.38523608E+06	1
		.11470000E+01	.99760720E+00	.0	.0	.74000031E-04	.64871681E+04	.33697055E+01	
445	-.53980316E+00	.32351378E+00	.54393443E+00	.16165851E+04	-.29324320E+03	.52086803E+04	.16225656E+09	.39988347E+06	9
		.11470000E+01	.99756704E+00	-.10281468E+02	.0	.74000081E-04	.65069624E+04	.31542856E+01	
457	-.52955508E+00	.50243237E+00	.54754178E+00	.14133129E+04	-.47533242E+03	.52108456E+04	.16215548E+09	.40287026E+06	9
		.11470000E+01	.99754484E+00	-.18528327E+02	.0	.74015010E-04	.65125205E+04	.28706377E+01	
469	-.52500000E+00	.0	.55837826E+00	.18092323E+04	.0	.52031431E+04	.16223162E+09	.38773868E+06	1
		.11470000E+01	.99753497E+00	.0	.0	.74000031E-04	.64933459E+04	.34771911E+01	
481	-.51911936E+00	.31323261E+00	.53999549E+00	.17087427E+04	-.32443882E+03	.52062991E+04	.16227234E+09	.39662776E+06	9
		.11470000E+01	.99748494E+00	-.10750773E+02	.0	.74000078E-04	.65015548E+04	.33497043E+01	
493	-.48914058E+00	.48646523E+00	.54295675E+00	.15247922E+04	-.51704438E+03	.52082434E+04	.16217615E+09	.39909777E+06	9
		.11470000E+01	.99742979E+00	-.18731486E+02	.0	.74014469E-04	.65167815E+04	.30913705E+01	
505	-.49166667E+00	.0	.55112283E+00	.18773905E+04	.0	.52044820E+04	.16240991E+09	.38983562E+06	1
		.11470000E+01	.99744129E+00	.0	.0	.74000031E-04	.64873111E+04	.36072572E+01	
517	-.46431756E+00	.30295145E+00	.53655032E+00	.18151150E+04	-.35546077E+03	.52033696E+04	.16228944E+09	.39365975E+06	9
		.11470000E+01	.99731430E+00	-.11380822E+02	.0	.74000075E-04	.64953626E+04	.35546066E+01	
529	-.44872629E+00	.47 498.9E+00	.53959673E+00	.16345959E+04	-.45527575E+03	.52053393E+04	.16219619E+09	.39618565E+06	9
		.11470000E+01	.99724463E+00	-.19076435E+02	.0	.74013995E-04	.65177372E+04	.33227037E+01	

ITERATION NUMBER 2000 DTIME = .24767212E-06 TIME = .34673591E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
541	-.45833334E+00	.0	.53108136E+00	.19631735E+04	.0	.52744993E+04	.16257573E+09	.38980755E+06	1
		.11470000E+01	.98728843E+00	.0	.0	.74000011E-04	.64993538E+04	.37720698E+04	
553	-.42612477E+00	.29267028E+00	.53113918E+00	.19413864E+04	-.37723555E+03	.51998579E+04	.16231792E+09	.38915518E+06	9
		.11470000E+01	.98714168E+00	-.10996254E+02	.0	.74000073E-04	.64877326E+04	.39033684E+04	
565	-.43831189E+00	.45453094E+00	.53429249E+00	.17678925E+04	-.60805142E+03	.52021964E+04	.16225412E+09	.39181772E+06	9
		.11470000E+01	.98706055E+00	-.18980215E+02	.0	.74013566E-04	.64941029E+04	.35937464E+04	
577	-.42500000E+00	.0	.52898778E+00	.20636985E+04	.0	.52028643E+04	.16267719E+09	.38802719E+06	1
		.11470000E+01	.98713656E+00	.0	.0	.74000001E-04	.64952705E+04	.39664661E+04	
589	-.38823197E+00	.28238911E+00	.52594544E+00	.20771138E+04	-.48320075E+03	.51958558E+04	.16235401E+09	.38475688E+06	9
		.11470000E+01	.98696912E+00	-.10985415E+02	.0	.74000070E-04	.64788824E+04	.40722509E+04	
601	-.36789749E+00	.43856380E+00	.52912651E+00	.19171178E+04	-.65949680E+03	.51978885E+04	.16229596E+09	.38738692E+06	9
		.11470000E+01	.98687654E+00	-.18983438E+02	.0	.74012968E-04	.64845609E+04	.39033949E+04	
613	-.39166667E+00	.0	.52431987E+00	.21807439E+04	.0	.51997426E+04	.16273299E+09	.38413519E+06	1
		.11470000E+01	.98698476E+00	.0	.0	.74000001E-04	.64884765E+04	.41939457E+04	
625	-.35333917E+00	.27213795E+00	.51850620E+00	.22387370E+04	-.42169337E+03	.51908193E+04	.16240014E+09	.37857962E+06	9
		.11470000E+01	.98679662E+00	-.10667369E+02	.0	.74000070E-04	.64674584E+04	.43937222E+04	
637	-.32748309E+00	.42259665E+00	.52059277E+00	.21047316E+04	-.71152867E+03	.51925925E+04	.16237078E+09	.38035972E+06	9
		.11470096E+01	.98650394E+00	-.18678415E+02	.0	.74012983E-04	.64733223E+04	.42786893E+04	
649	-.35833333E+00	.0	.51774961E+00	.23145191E+04	.0	.51951387E+04	.16274983E+09	.37865666E+06	1
		.11470000E+01	.98693301E+00	.0	.0	.74000001E-04	.64779876E+04	.44551633E+04	
661	-.31244638E+00	.26192678E+00	.51868635E+00	.24105997E+04	-.44374421E+03	.51854423E+04	.16245495E+09	.37203356E+06	9
		.11470191E+01	.98624864E+00	-.10431265E+02	.0	.74000069E-04	.64567168E+04	.47268905E+04	
673	-.28706869E+00	.40662951E+00	.51115903E+00	.23226268E+04	-.76593853E+03	.51854551E+04	.16242279E+09	.37243215E+06	9
		.11470351E+01	.98581819E+00	-.18253469E+02	.0	.74012697E-04	.64587639E+04	.47163681E+04	
685	-.32500000E+00	.0	.51118342E+00	.24596131E+04	.0	.51900257E+04	.16276511E+09	.37238542E+06	1
		.11470112E+01	.98646169E+00	.0	.0	.74000001E-04	.64671226E+04	.47371886E+04	
686	-.31887629E+00	.30535244E-01	.50875726E+00	.24838849E+04	-.46013697E+02	.51880472E+04	.16269467E+09	.37106013E+06	9
		.11470150E+01	.98635775E+00	-.10625598E+01	.0	.74000031E-04	.64626820E+04	.47827466E+04	
687	-.31327144E+00	.58483198E-01	.50710415E+00	.25052277E+04	-.86649810E+02	.51844879E+04	.16253479E+09	.36934599E+06	9
		.11470186E+01	.98626264E+00	-.19809338E+01	.0	.74000002E-04	.64542644E+04	.48350499E+04	
688	-.31811333E+00	.84201376E-01	.50657599E+00	.25182404E+04	-.13492904E+03	.51827586E+04	.16246253E+09	.36871417E+06	9
		.11470218E+01	.98617513E+00	-.39677143E+01	.0	.74000013E-04	.64503707E+04	.48658503E+04	
689	-.31334421E+00	.10798425E+00	.50592062E+00	.25350423E+04	-.18034455E+03	.51816684E+04	.16244146E+09	.36898129E+06	9
		.11470249E+01	.98609421E+00	-.40692033E+01	.0	.74000034E-04	.64480374E+04	.49146927E+04	
690	-.29891317E+00	.13007915E+00	.50425736E+00	.25523270E+04	-.21273612E+03	.51802473E+04	.16240195E+09	.36666908E+06	9
		.11470276E+01	.98601905E+00	-.47645824E+01	.0	.74000006E-04	.64448539E+04	.49441223E+04	
691	-.29477914E+00	.15069306E+00	.50388446E+00	.25593616E+04	-.25376595E+03	.51801578E+04	.16241992E+09	.36638443E+06	9
		.11470302E+01	.98594893E+00	-.55624864E+01	.0	.74000038E-04	.64449604E+04	.49649295E+04	
692	-.29090698E+00	.17000165E+00	.50339268E+00	.25699127E+04	-.29206991E+03	.51800144E+04	.16244564E+09	.36630581E+06	9
		.11470327E+01	.98588326E+00	-.64939196E+01	.0	.74000012E-04	.64449119E+04	.49931448E+04	
693	-.28726632E+00	.18815489E+00	.50253085E+00	.25775362E+04	-.32384545E+03	.51796329E+04	.16244881E+09	.36532464E+06	9
		.11470350E+01	.98582153E+00	-.71612019E+01	.0	.74000017E-04	.64442526E+04	.50154149E+04	
694	-.28383164E+00	.20528158E+00	.50235774E+00	.25825477E+04	-.36137621E+03	.51797610E+04	.16247981E+09	.36521617E+06	9
		.11470372E+01	.98576331E+00	-.79656837E+01	.0	.74000024E-04	.64448449E+04	.50344191E+04	
695	-.28058749E+00	.22149309E+00	.50162430E+00	.25925402E+04	-.39310497E+03	.51792965E+04	.16248624E+09	.36461607E+06	9
		.11470392E+01	.98570819E+00	-.86221396E+01	.0	.74000034E-04	.64439331E+04	.50628053E+04	
696	-.27749346E+00	.23688622E+00	.50125937E+00	.26007609E+04	-.42709937E+03	.51791956E+04	.16250164E+09	.36431009E+06	9
		.11470412E+01	.98565594E+00	-.93259254E+01	.0	.74000048E-04	.64434696E+04	.50890195E+04	
697	-.27455359E+00	.25154561E+00	.50093511E+00	.26109391E+04	-.46051457E+03	.51785923E+04	.16251447E+09	.36394166E+06	9
		.11470431E+01	.98560601E+00	-.10003148E+02	.0	.74000069E-04	.64426504E+04	.51194325E+04	
698	-.27174593E+00	.26554564E+00	.50027677E+00	.26197809E+04	-.49157846E+03	.51780771E+04	.16251947E+09	.36346445E+06	9
		.11470448E+01	.98555842E+00	-.10627463E+02	.0	.74000095E-04	.64416198E+04	.51476678E+04	

ITERATION NUMBER 2000 DTIME = .2476720E-06 TIME = .3467359E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
699	-.2690573E+00	.2799519E+00	.4999135E+00	.2627563E+04	-.5243231E+03	.5177713E+04	.1625321E+09	.3631487E+06	9
		.1147346E+01	.9855129E+00	-.1129499E+02	.0	.7400014E-04	.6440927E+04	.5174906E+03	
700	-.2664761E+00	.2918229E+00	.4993855E+00	.2634553E+04	-.5542693E+03	.5177183E+04	.1625321E+09	.3626906E+06	9
		.1147046E+01	.9854691E+00	-.1183899E+02	.0	.7400024E-04	.6439812E+04	.5203176E+03	
701	-.2639918E+00	.3042155E+00	.4994403E+00	.2637724E+04	-.5851867E+03	.5176871E+04	.1625369E+09	.3623983E+06	9
		.1147039E+01	.9854271E+00	-.1253864E+02	.0	.7400034E-04	.6439231E+04	.5219189E+03	
702	-.2615951E+00	.3161613E+00	.4994732E+00	.2638342E+04	-.6145718E+03	.5176574E+04	.1625362E+09	.3620871E+06	9
		.1147051E+01	.9853864E+00	-.1311257E+02	.0	.7400045E-04	.6438685E+04	.5233144E+03	
703	-.2592775E+00	.3277172E+00	.4993393E+00	.2636213E+04	-.6440684E+03	.5176359E+04	.1625364E+09	.3618193E+06	9
		.1147052E+01	.9853471E+00	-.1372930E+02	.0	.7400068E-04	.6438425E+04	.5242550E+03	
704	-.2570317E+00	.3389161E+00	.4990532E+00	.2632753E+04	-.6729381E+03	.5176226E+04	.1625342E+09	.3615974E+06	9
		.1147054E+01	.9853090E+00	-.1433795E+02	.0	.7400104E-04	.6438183E+04	.5249760E+03	
705	-.2548505E+00	.3497924E+00	.4977373E+00	.2628902E+04	-.7022004E+03	.5176105E+04	.1625325E+09	.3613461E+06	9
		.1147055E+01	.9852721E+00	-.1495836E+02	.0	.7400162E-04	.6438056E+04	.5255205E+03	
706	-.2527277E+00	.3603775E+00	.4975456E+00	.2622235E+04	-.7309688E+03	.5176013E+04	.1625309E+09	.3611883E+06	9
		.1147056E+01	.9852361E+00	-.1557623E+02	.0	.7400259E-04	.6437994E+04	.5259283E+03	
707	-.2506576E+00	.3707002E+00	.4972820E+00	.2615497E+04	-.7605216E+03	.5175949E+04	.1625297E+09	.3609876E+06	9
		.1147058E+01	.9852011E+00	-.1621311E+02	.0	.7400424E-04	.6438010E+04	.5262464E+03	
708	-.2486347E+00	.3807878E+00	.4971799E+00	.2607528E+04	-.7895280E+03	.5175906E+04	.1625272BE+09	.3609872E+06	9
		.1147059E+01	.9851661E+00	-.1684567E+02	.0	.7400718E-04	.6438055E+04	.5263617E+03	
709	-.2466543E+00	.3906623E+00	.4969353E+00	.2598291E+04	-.8196221E+03	.5175877E+04	.1625253TE+09	.3607279E+06	9
		.1147060E+01	.9851333E+00	-.1750771E+02	.0	.7401265E-04	.6438193E+04	.5263821E+03	
710	-.2447116E+00	.4003491E+00	.4969380E+00	.2587097E+04	-.8479980E+03	.5175887E+04	.1625178E+09	.3607280E+06	9
		.1147061E+01	.9851004E+00	-.1814809E+02	.0	.7402317E-04	.6439318E+04	.5260027E+03	
711	-.2428025E+00	.4098685E+00	.4966644E+00	.2573754E+04	-.8783047E+03	.5175926E+04	.1625105TE+09	.3605345TE+06	9
		.1147063TE+01	.9850680E+00	-.1884242E+02	.0	.7404508E-04	.6439567E+04	.5254115E+03	
712	-.2409239E+00	.4192471E+00	.4968471E+00	.2556582E+04	-.9044868E+03	.5175991E+04	.1624924TE+09	.3603675E+06	9
		.1147064E+01	.9850362E+00	-.1948314E+02	.0	.7409413TE-04	.6439889E+04	.5239313TE+03	
713	-.2390692E+00	.4284844E+00	.4964606E+00	.2535971E+04	-.9341168E+03	.5176135E+04	.1624722BE+09	.3604192E+06	9
		.1147065E+01	.9850094E+00	-.2022771E+02	.0	.7421506TE-04	.6439393E+04	.5219523E+03	
714	-.2372375E+00	.4376179E+00	.4970053E+00	.2504360E+04	-.9537938E+03	.5176334E+04	.1624242TE+09	.3609378E+06	9
		.1147066E+01	.9849739E+00	-.2084929E+02	.0	.7455533E-04	.6440026E+04	.5177093TE+03	
715	-.2354246E+00	.4466579E+00	.4963151E+00	.2462033E+04	-.9789652E+03	.5176620E+04	.1623596BE+09	.3603761TE+06	9
		.1147067TE+01	.9849431E+00	-.2168398E+02	.0	.7568657E-04	.6440815E+04	.5118252TE+03	
716	-.2336270E+00	.4556213E+00	.4976048E+00	.2391378E+04	-.9775423E+03	.5177093E+04	.1622144BE+09	.3613792E+06	9
		.1147068E+01	.9849127E+00	-.2223365E+02	.0	.8055346E-04	.6442281E+04	.4997179E+03	
717	-.2318416E+00	.4645246E+00	.4961199E+00	.2280919E+04	-.9907584E+03	.5177587E+04	.1619884BE+09	.3603682E+06	9
		.1147070E+01	.9849824E+00	-.2326692E+02	.0	.1111109E-03	.6443572TE+04	.4795356E+03	
718	-.2300653E+00	.4733814E+00	.4990624E+00	.2065558E+04	-.9903091E+03	.5178221E+04	.1614848BE+09	.3625948TE+06	9
		.1147071TE+01	.9848524E+00	-.2361562E+02	.0	.5022368E-03	.6445292BE+04	.4353527E+03	
719	-.2282950E+00	.4822088E+00	.4960676E+00	.1691917E+04	-.8804679E+03	.5176697E+04	.1606005BE+09	.3602057E+06	9
		.1147072E+01	.9848224E+00	-.2531943E+02	.0	.2326413TE-01	.6441639TE+04	.3615663TE+03	
720	-.2265277E+00	.4910213E+00	.5033562E+00	.0	.0	.5171196E+04	.1595101E+09	.3647214E+06	2
		.1147073E+01	.9847925TE+00	.0	.0	.7400003E-04	.6429097E+04	.0	
721	-.2316667E+00	.0	.5027449E+00	.2609315E+04	.0	.5184368E+04	.1627706E+09	.3661497E+06	1
		.1147032E+01	.9859961E+00	.0	.0	.7403007TE-04	.6455691BE+04	.5031115TE+03	
733	-.2356678E+00	.2412644E+00	.4897975TE+00	.2830294E+04	-.4601134E+03	.5177525E+04	.1625879TE+09	.3548171BE+06	9
		.1147066E+01	.9849644E+00	-.9233461E+01	.0	.7405149E-04	.6425626BE+04	.5545759E+03	
745	-.2162399E+00	.3746952E+00	.4799836E+00	.2933204E+04	-.8435732E+03	.5162331E+04	.1626238E+09	.3465908E+06	9
		.1147069E+01	.9844491E+00	-.1611993E+02	.0	.9331557E-04	.6437639E+04	.5921556E+03	
757	-.2392552E+00	.0	.4942599E+00	.2764914E+04	.0	.5178525E+04	.1623771E+09	.3551527E+06	1
		.1147052TE+01	.9853469E+00	.0	.0	.7400698E-04	.6443725E+04	.5338999E+03	

ITERATION NUMBER 2000 DTIME = .2476720E-06 TIME = .3467359E-12

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
769	-.21495175E+00	.23685413E+00	.48099974E+00	.29928536E+04	-.45964227E+03	.51639673E+04	.16263953E+09	.34753913E+06	9
		.11470832E+01	.98452951E+00	-.97312613E+01	.0	.74859455E-04	.64113703E+04	.5863600 E+07	
781	-.18423539E+00	.36784574E+00	.46831787E+00	.31491489E+04	-.83906807E+03	.51536599E+04	.16271535E+09	.33702777E+06	9
		.11471101E+01	.98407579E+00	-.14919442E+02	.0	.83768316E-04	.63979392E+04	.6323690 3E+07	
793	-.22685185E+00	.0	.4866 399E+00	.29275838E+04	.0	.51719261E-04	.16294046E+09	.35224779E+06	1
		.11470731E+01	.98479900E+00	.0	.0	.74000704E-04	.64298857E+04	.5660529 1E+07	
805	-.18503746E+00	.23293706E+00	.47185935E+00	.31636558E+04	-.45254540E+03	.51569616E+04	.16271372E+09	.34001197E+06	9
		.11470995E+01	.98409916E+00	-.81496548E+01	.0	.74957766E-04	.63960379E+04	.6197174 5E+07	
817	-.16191269E+00	.36176239E+00	.45647602E+00	.33680877E+04	-.82287562E+03	.51443188E+04	.16279945E+09	.32730493E+06	9
		.11471378E+01	.98322827E+00	-.13729290E+02	.0	.83065338E-04	.63684117E+04	.6739771 7E+07	
829	-.19444445E+00	.0	.47630158E+00	.31021763E+04	.0	.51659891E+04	.16292309E+09	.34429740E+06	1
		.11470936E+01	.98424957E+00	.0	.0	.74000738E-04	.64154627E+04	.6006 0462E+07	
841	-.15894244E+00	.22952283E+00	.46115044E+00	.33491556E+04	-.43908617E+03	.51493047E+04	.16279190E+09	.33129685E+06	9
		.11471429E+01	.98311561E+00	-.74690811E+01	.0	.74053072E-04	.63812552E+04	.6559751 3E+07	
853	-.13930814E+00	.35645994E+00	.44240392E+00	.35109363E+04	-.78852239E+03	.51333725E+04	.16290711E+09	.31585620E+06	9
		.11471761E+01	.98237128E+00	-.12318341E+02	.0	.83398501E-04	.63450189E+04	.7260 0811E+07	
865	-.16203704E+00	.0	.46636349E+00	.32847358E+04	.0	.51574733E+04	.16298692E+09	.33610726E+06	1
		.11471376E+01	.98323301E+00	.0	.0	.74000834E-04	.64013090E+04	.6368886 9E+07	
877	-.13269171E+00	.22661972E+00	.45710429E+00	.35415319E+04	-.41669294E+03	.51406663E+04	.16286524E+09	.32226458E+06	9
		.11471872E+01	.98212065E+00	-.67105090E+01	.0	.74002424E-04	.63641398E+04	.6936769 4E+07	
889	-.11546234E+00	.35195126E+00	.42833282E+00	.38541058E+04	-.73431820E+03	.51218972E+04	.16301453E+09	.30443057E+06	9
		.11472281E+01	.98136718E+00	-.10787247E+02	.0	.74425745E-04	.63206259E+04	.7660 1237E+07	
901	-.12962953E+00	.0	.45457064E+00	.34809847E+04	.0	.51493124E+04	.16308617E+09	.32655665E+06	1
		.11471924E+01	.98200470E+00	.0	.0	.74000036E-04	.63860668E+04	.6759901 9E+07	
913	-.10631063E+00	.22423477E+00	.43763926E+00	.37445350E+04	-.38603211E+03	.51319476E+04	.16297408E+09	.31225792E+06	9
		.11472609E+01	.98062969E+00	-.58859511E+01	.0	.74002541E-04	.6347395 3E+04	.7335189 6E+07	
925	-.93414106E-01	.34824732E+00	.41245723E+00	.41153993E+04	-.66453244E+03	.51092271E+04	.16315125E+09	.29167482E+06	9
		.11473025E+01	.98012719E+00	-.91726372E+01	.0	.74442117E-04	.62937579E+04	.8159172 7E+07	
937	-.97222223E-01	.0	.44233498E+00	.36813632E+04	.0	.51403728E+04	.16314172E+09	.31663736E+06	1
		.11472902E+01	.98033182E+00	.0	.0	.74000037E-04	.6369995 1E+04	.7161471 2E+07	
949	-.79824885E-01	.22237377E+00	.42487066E+00	.39534115E+04	-.34534280E+03	.51217314E+04	.16304133E+09	.33191917E+06	9
		.11473465E+01	.97939706E+00	-.49922924E+01	.0	.74002635E-04	.63271877E+04	.7748290 4E+07	
961	-.7202 3326E-01	.34535710E+00	.39640911E+00	.43739131E+04	-.56989121E+03	.50953613E+04	.16326466E+09	.27879321E+06	9
		.11473776E+01	.97988167E+00	-.74234325E+01	.0	.74453831E-04	.62640141E+04	.8656664 5E+07	
973	-.64814815E-01	.0	.42849853E+00	.38941738E+04	.0	.51309569E+04	.16325092E+09	.30558295E+06	1
		.11473950E+01	.97859165E+00	.0	.0	.74000038E-04	.63528579E+04	.7589566 3E+07	
985	-.53260423E-01	.22104125E+00	.41186565E+00	.41640141E+04	-.29333129E+03	.51122835E+04	.16318789E+09	.29100675E+06	9
		.11474476E+01	.97792029E+00	-.40295176E+01	.0	.74002713E-04	.63091436E+04	.8165300 5E+07	
997	-.46870291E-01	.34328763E+00	.37952101E+00	.46387619E+04	-.46218538E+03	.50814171E+04	.16344597E+09	.26543371E+06	9
		.11474789E+01	.97738102E+00	-.56899152E+01	.0	.74462494E-04	.62345377E+04	.9174074 7E+07	
1009	-.32407408E-01	.0	.41438716E+00	.41017474E+04	.0	.51219038E+04	.16329667E+09	.29442592E+06	1
		.11475934E+01	.97604932E+00	.0	.0	.74000039E-04	.63373315E+04	.8038247 6E+07	
1021	-.25643374E-01	.22024944E+00	.39715124E+00	.43799824E+04	-.23410695E+03	.51020667E+04	.16323855E+09	.27998478E+06	9
		.11476480E+01	.97545628E+00	-.30611281E+01	.0	.74002759E-04	.62855334E+04	.8595233 9E+07	
1033	-.23455688E-01	.34204393E+00	.36180877E+00	.49036991E+04	-.32418976E+03	.50666990E+04	.16355239E+09	.25153829E+06	9
		.11476782E+01	.97512954E+00	-.37805545E+01	.0	.74463917E-04	.62032892E+04	.9774127 9E+07	
1045	.0	.0	.39999747E+00	.43129960E+04	.0	.51131444E+04	.16341214E+09	.28317967E+06	1
		.11478300E+01	.97339555E+00	.0	.0	.74000040E-04	.63229652E+04	.8434999 7E+07	
1046	.0	.26702664E-01	.39979924E+00	.43148815E+04	-.17937612E+02	.51122913E+04	.16336947E+09	.28294496E+06	9
		.11478300E+01	.97339555E+00	-.23817785E+00	.0	.74000599E-04	.63218547E+04	.8440 8415E+07	
1047	.0	.51142778E-01	.39997052E+00	.43194234E+04	-.39553935E+02	.51133375E+04	.16327198E+09	.28284981E+06	9
		.11478300E+01	.97339555E+00	-.52465572E+00	.0	.74000585E-04	.63160251E+04	.8452679 5E+07	

ORIGINAL PAGE IS OF POOR QUALITY

ITERATION NUMBER 2000. DTIME = .24767202E-06 TIME = .34673589E-02

NODE	X	Y GAM	RHO CV	U TAUXY	V TAUXZ	SOS MU	E T	P M	IB
1048	.0	.73632719E-01	.39944679E+00	.43316021E+04	-.59984074E+02	.51085426E+04	.16321751E+09	.28225103E+06	9
		.11478000E+01	.97338555E+00	-.78115699E+00	.0	.74000123E-04	.63115892E+04	.84798219E+01	
1049	.0	.94430789E-01	.39923235E+00	.43497175E+04	-.74304271E+02	.51084045E+04	.16319465E+09	.28123531E+06	9
		.11478000E+01	.97338555E+00	-.97866289E+00	.0	.74000176E-04	.63073836E+04	.85186765E+01	
1050	.0	.11375248E+00	.39660862E+00	.43796280E+04	-.89397070E+02	.51053419E+04	.16319666E+09	.28106548E+06	9
		.11478000E+01	.97338555E+00	-.11717677E+01	.0	.74000251E-04	.63036827E+04	.85626826E+01	
1051	.0	.13177937E+00	.39525928E+00	.43937835E+04	-.10344953E+03	.51040198E+04	.16322706E+09	.27882733E+06	9
		.11478000E+01	.97338555E+00	-.13467525E+01	.0	.74000355E-04	.63004159E+04	.86109639E+01	
1052	.0	.14866418E+00	.39336153E+00	.44205170E+04	-.11885464E+03	.51024513E+04	.16324566E+09	.27731819E+06	9
		.11478000E+01	.97338555E+00	-.14753847E+01	.0	.74000502E-04	.62965466E+04	.86663698E+01	
1053	.0	.16453994E+00	.39151701E+00	.44494035E+04	-.12510853E+03	.51009479E+04	.16327329E+09	.27585517E+06	9
		.11478000E+01	.97338555E+00	-.16109829E+01	.0	.74000708E-04	.62928367E+04	.87241872E+01	
1054	.0	.17951601E+00	.38949016E+00	.44789744E+04	-.13462229E+03	.50992177E+04	.16331295E+09	.27424097E+06	9
		.11478000E+01	.97338555E+00	-.17215923E+01	.0	.74000999E-04	.62885625E+04	.87876167E+01	
1055	.0	.19365276E+00	.38736257E+00	.45115674E+04	-.14347621E+03	.50972921E+04	.16334496E+09	.27253697E+06	9
		.11478000E+01	.97338555E+00	-.18214982E+01	.0	.74001411E-04	.62838199E+04	.88553846E+01	
1056	.0	.20715385E+00	.38514991E+00	.45459555E+04	-.15169576E+03	.50951431E+04	.16337279E+09	.27075176E+06	9
		.11478000E+01	.97338555E+00	-.19112160E+01	.0	.74001996E-04	.62785224E+04	.89271012E+01	
1057	.0	.21997329E+00	.38279269E+00	.45823212E+04	-.15874539E+03	.50927786E+04	.16339786E+09	.26884499E+06	9
		.11478000E+01	.97338555E+00	-.19841047E+01	.0	.74002834E-04	.62726956E+04	.90033814E+01	
1058	.0	.23221612E+00	.38039374E+00	.46201162E+04	-.16557156E+03	.50902825E+04	.16342304E+09	.26689833E+06	9
		.11478000E+01	.97338555E+00	-.20524362E+01	.0	.74003942E-04	.62665491E+04	.90821719E+01	
1059	.0	.24393960E+00	.37783991E+00	.46592926E+04	-.17098503E+03	.50876199E+04	.16344598E+09	.26482913E+06	9
		.11478000E+01	.97338555E+00	-.21016766E+01	.0	.74005799E-04	.62599951E+04	.91642635E+01	
1060	.0	.25519529E+00	.37523144E+00	.46975165E+04	-.17583989E+03	.50849365E+04	.16346924E+09	.26271322E+06	9
		.11478000E+01	.97338555E+00	-.21427066E+01	.0	.74008395E-04	.62531474E+04	.92491449E+01	
1061	.0	.26602898E+00	.37248252E+00	.47413643E+04	-.17954644E+03	.50819199E+04	.16349155E+09	.26048951E+06	9
		.11478000E+01	.97338555E+00	-.21686459E+01	.0	.74012235E-04	.62459761E+04	.93365553E+01	
1062	.0	.27647688E+00	.36965695E+00	.47843094E+04	-.18231979E+03	.50788836E+04	.16351473E+09	.25820466E+06	9
		.11478000E+01	.97338555E+00	-.21823635E+01	.0	.74018054E-04	.62385147E+04	.94268396E+01	
1063	.0	.28658435E+00	.36668725E+00	.48286574E+04	-.18426353E+03	.50757220E+04	.16353900E+09	.25581158E+06	9
		.11478000E+01	.97338555E+00	-.21953340E+01	.0	.74026992E-04	.62307503E+04	.95201663E+01	
1064	.0	.29637763E+00	.36362254E+00	.48746109E+04	-.18510701E+03	.50724449E+04	.16356605E+09	.25334638E+06	9
		.11478000E+01	.97338555E+00	-.21735142E+01	.0	.74040994E-04	.62227071E+04	.96169117E+01	
1065	.0	.30588882E+00	.36038354E+00	.49224035E+04	-.18513941E+03	.50690128E+04	.16359501E+09	.25074971E+06	9
		.11478000E+01	.97338555E+00	-.21539734E+01	.0	.74063409E-04	.62142933E+04	.97176371E+01	
1066	.0	.31514536E+00	.35703544E+00	.49721534E+04	-.18358491E+03	.50654142E+04	.16362588E+09	.24806756E+06	9
		.11478000E+01	.97338555E+00	-.21145496E+01	.0	.74100258E-04	.62054691E+04	.98225758E+01	
1067	.0	.32417241E+00	.35345777E+00	.50241105E+04	-.18164974E+03	.50616159E+04	.16365853E+09	.24521376E+06	9
		.11478000E+01	.97338555E+00	-.20706615E+01	.0	.74162636E-04	.61961686E+04	.99323859E+01	
1068	.0	.33299316E+00	.34977630E+00	.50782998E+04	-.17727157E+03	.50575857E+04	.16369101E+09	.24227337E+06	9
		.11478000E+01	.97338555E+00	-.19992499E+01	.0	.74272170E-04	.61863030E+04	.10047072E+01	
1069	.0	.34162903E+00	.34576651E+00	.51349617E+04	-.17285590E+03	.50532750E+04	.16372267E+09	.23908786E+06	9
		.11478000E+01	.97338555E+00	-.19279940E+01	.0	.74472472E-04	.61757627E+04	.10167407E+01	
1070	.0	.35009997E+00	.34168234E+00	.51937934E+04	-.16457841E+03	.50486628E+04	.16375043E+09	.23583268E+06	9
		.11478000E+01	.97338555E+00	-.18141932E+01	.0	.74855515E-04	.61644337E+04	.10292617E+01	
1071	.0	.35842462E+00	.33758182E+00	.52547596E+04	-.15689623E+03	.50436559E+04	.16376996E+09	.23219543E+06	9
		.11478000E+01	.97338555E+00	-.17102252E+01	.0	.75647551E-04	.61522727E+04	.10423196E+01	
1072	.0	.36662042E+00	.33249295E+00	.53161252E+04	-.14218719E+03	.50382265E+04	.16376934E+09	.22854223E+06	9
		.11478000E+01	.97338555E+00	-.15321833E+01	.0	.77394256E-04	.61387343E+04	.10555354E+01	
1073	.0	.37479398E+00	.32712331E+00	.53762258E+04	-.13019475E+03	.50321911E+04	.16373074E+09	.22424444E+06	9
		.11478000E+01	.97338555E+00	-.13972468E+01	.0	.81632171E-04	.61243365E+04	.10686800E+01	

ORIGINAL PAGE IS
OF POOR QUALITY

ITERATION NUMBER 2000 DTIME = .2476720E-06 TIME = .3467359E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
1074	.0	.38269099E+00	.32181657E+00	.54276078E+04	-.10408748E+03	.50255559E+04	.16361186E+09	.22009254E+06	9
		.11478100E+01	.97338555E+00	-.10996503E+01	.0	.93377795E-04	.61081950E+04	.10802001E+01	
1075	.0	.39159646E+00	.31497711E+00	.54612948E+04	-.86117839E+02	.50199669E+04	.16335119E+09	.21477345E+06	9
		.11478100E+01	.97338555E+00	-.90341835E+00	.0	.13163716E-03	.61900038E+04	.10894617E+01	
1076	.0	.39843483E+00	.30907129E+00	.54481462E+04	-.38898769E+02	.50101942E+04	.16280958E+09	.21108571E+06	9
		.11478100E+01	.97338555E+00	-.40990197E+00	.0	.29286877E-03	.60709100E+04	.10874199E+01	
1077	.0	.40622006E+00	.29999741E+00	.53491412E+04	-.17730064E+02	.50023401E+04	.16181202E+09	.20327985E+06	9
		.11478100E+01	.97338555E+00	-.18993976E+00	.0	.12646522E-02	.60519130E+04	.10693317E+01	
1078	.0	.41396576E+00	.29363672E+00	.50326698E+04	.58830063E+02	.49983925E+04	.15993699E+09	.19865434E+06	9
		.11478100E+01	.97338555E+00	.56973614E+00	.0	.11609641E-01	.60423190E+04	.10069285E+01	
1079	.0	.42168524E+00	.28269371E+00	.42346935E+04	.41006199E+02	.49932361E+04	.15593540E+09	.19085742E+06	9
		.11478100E+01	.97338555E+00	.55480358E+00	.0	.66301492E-01	.60299329E+04	.84812514E+00	
1080	.0	.42939167E+00	.27443921E+00	.0	.0	.50472332E+04	.15016409E+09	.18931351E+06	2
		.11478100E+01	.97338555E+00	.0	.0	.74000000E-04	.61611037E+04	.0	
1081	.31250000E-01	.0	.38408455E+00	.45235783E+04	.0	.51111900E+04	.16352728E+09	.27156525E+06	1
		.11483959E+01	.96720113E+00	.0	.0	.74000039E-04	.63297125E+04	.88503427E+00	
1082	.30150680E-01	.26736748E-01	.38439940E+00	.45200071E+04	-.19207137E+02	.51103670E+04	.16349154E+09	.27177618E+06	9
		.11483713E+01	.96744196E+00	-.12938545E+00	.0	.74000057E-04	.63272844E+04	.88448024E+00	
1083	.29144507E-01	.51208058E-01	.38528801E+00	.45178022E+04	-.25545085E+02	.51084825E+04	.16339139E+09	.27213949E+06	9
		.11483487E+01	.96766247E+00	-.32403807E+00	.0	.74000083E-04	.63222621E+04	.88426935E+00	
1084	.28218621E-01	.73726707E-01	.38501132E+00	.45259563E+04	-.35701712E+02	.51062771E+04	.16332278E+09	.27171277E+06	9
		.11483280E+01	.96786544E+00	-.45195210E+00	.0	.74000120E-04	.63164595E+04	.88638027E+00	
1085	.27362387E-01	.94551323E-01	.38411266E+00	.45404555E+04	-.44408616E+02	.51042430E+04	.16328967E+09	.27038679E+06	9
		.11483088E+01	.96805321E+00	-.56037229E+00	.0	.74000172E-04	.63111424E+04	.88958777E+00	
1086	.26566934E-01	.11389768E+00	.38301274E+00	.45585262E+04	-.55003401E+02	.51024652E+04	.16328694E+09	.26990875E+06	9
		.11482910E+01	.96822773E+00	-.69137014E+00	.0	.74000245E-04	.63064754E+04	.89346117E+00	
1087	.25824799E-01	.13194728E+00	.38162389E+00	.45801206E+04	-.63801334E+02	.51007259E+04	.16333091E+09	.26875019E+06	9
		.11482744E+01	.96839054E+00	-.79808177E+00	.0	.74000348E-04	.63013045E+04	.89802219E+00	
1088	.25129657E-01	.14865394E+00	.37988268E+00	.46055753E+04	-.69825033E+02	.50987572E+04	.16331939E+09	.26732114E+06	9
		.11482588E+01	.96854310E+00	-.86859360E+00	.0	.74000491E-04	.62967954E+04	.90337791E+00	
1089	.24476111E-01	.16474897E+00	.37818917E+00	.46326465E+04	-.77286003E+02	.50968677E+04	.16334784E+09	.26593561E+06	9
		.11482442E+01	.96868657E+00	-.95577142E+00	.0	.74000694E-04	.62918993E+04	.90934676E+00	
1090	.23859521E-01	.17974515E+00	.37624115E+00	.46630442E+04	-.82573401E+02	.50947106E+04	.16337643E+09	.26434528E+06	9
		.11482304E+01	.96882196E+00	-.10144903E+01	.0	.74000979E-04	.62863548E+04	.91541514E+00	
1091	.23275880E-01	.19393999E+00	.37419943E+00	.46956587E+04	-.87716073E+02	.50923579E+04	.16343383E+09	.26267381E+06	9
		.11482173E+01	.96895014E+00	-.10701750E+01	.0	.74001382E-04	.62803464E+04	.92226003E+00	
1092	.22721702E-01	.20741826E+00	.37201601E+00	.47303957E+04	-.91915751E+02	.50897969E+04	.16342913E+09	.26087835E+06	9
		.11482049E+01	.96907188E+00	-.11131673E+01	.0	.74001955E-04	.62738364E+04	.92956335E+00	
1093	.22193939E-01	.22025407E+00	.36967177E+00	.47674433E+04	-.95253417E+02	.50870484E+04	.16345467E+09	.25895723E+06	9
		.11481931E+01	.96918793E+00	-.11446162E+01	.0	.74002775E-04	.62668769E+04	.93735981E+00	
1094	.21689915E-01	.23251253E+00	.36722133E+00	.48066035E+04	-.97899785E+02	.50841679E+04	.16348061E+09	.25695198E+06	9
		.11481818E+01	.96929859E+00	-.11669601E+01	.0	.74003957E-04	.62596048E+04	.94549343E+00	
1095	.21207264E-01	.24425117E+00	.36464059E+00	.48464377E+04	-.99761461E+02	.50811058E+04	.16350526E+09	.25484133E+06	9
		.11481710E+01	.96940467E+00	-.11792380E+01	.0	.74005675E-04	.62518978E+04	.95401760E+00	
1096	.20743888E-01	.25552103E+00	.36192543E+00	.48883056E+04	-.10021592E+03	.50779876E+04	.16352967E+09	.25262533E+06	9
		.11481616E+01	.96950653E+00	-.11744653E+01	.0	.74008210E-04	.62438187E+04	.96286922E+00	
1097	.20297914E-01	.26636764E+00	.35910311E+00	.49312885E+04	-.10019385E+03	.50745512E+04	.16355412E+09	.25032862E+06	9
		.11481536E+01	.96960458E+00	-.11638944E+01	.0	.74011962E-04	.62354603E+04	.97203603E+00	
1098	.19867666E-01	.27683178E+00	.35613152E+00	.49765813E+04	-.98457257E+02	.50711021E+04	.16358192E+09	.24792187E+06	9
		.11481461E+01	.96969519E+00	-.11333983E+01	.0	.74017695E-04	.62268354E+04	.98155305E+00	
1099	.19451634E-01	.28695016E+00	.35302714E+00	.50232011E+04	-.96773810E+02	.50675436E+04	.16361339E+09	.24541795E+06	9
		.11481317E+01	.96979068E+00	-.10957362E+01	.0	.74026354E-04	.62179554E+04	.99143099E+00	

ITERATION NUMBER 2000 DTIME = .24767202E-06 TIME = .34673590E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
1100	.19048456E-01	.29675594E+01 .11481225E+01	.34978911E+00 .96957936E+00	.50717863E+04 -.10388452E+01	-.91967997E+02 .0	.50638250E+04 .74039991E-04	.16364713E+09 .62086928E+04	.24281239E+06 .10017368E+01	9
1101	.18656890E-01	.30627926E+00 .11481139E+01	.34635478E+01 .96996650E+00	.51226183E+04 -.97231295E+00	-.86939497E+02 .0	.50599165E+04 .74061801E-04	.16368314E+09 .61989758E+04	.24005893E+06 .10125377E+01	9
1102	.18275899E-01	.31554762E+00 .11481053E+01	.34277955E+01 .97004936E+00	.51759449E+04 -.88352097E+00	-.79821207E+02 .0	.50557968E+04 .74097614E-04	.16372126E+09 .61887293E+04	.23719505E+06 .10238882E+01	9
1103	.17904175E-01	.32458623E+00 .11480970E+01	.33892493E+01 .97013113E+00	.52322376E+04 -.78462107E+00	-.71655897E+02 .0	.50513579E+04 .74158152E-04	.16375986E+09 .61777622E+04	.23411873E+06 .10359053E+01	9
1104	.17541034E-01	.33341821E+00 .11480889E+01	.33490339E+01 .97021104E+00	.52916640E+04 -.55296579E+00	-.63308545E+02 .0	.50466299E+04 .74264277E-04	.16380025E+09 .61560749E+04	.23098945E+06 .10486223E+01	9
1105	.17185505E-01	.34206510E+00 .11480809E+01	.33046425E+01 .97028933E+00	.53548409E+04 -.51236988E+00	-.47887163E+02 .0	.50414847E+04 .74457941E-04	.16383973E+09 .61533881E+04	.22738606E+06 .10621980E+01	9
1106	.16836755E-01	.35054685E+00 .11480731E+01	.32583213E+01 .97036606E+00	.54216639E+04 -.31707719E+00	-.30004016E+02 .0	.50359012E+04 .74832256E-04	.16387694E+09 .61396435E+04	.22370389E+06 .10766192E+01	9
1107	.16494650E-01	.35888210E+00 .11480654E+01	.32053841E+01 .97044152E+00	.54927013E+04 -.11628933E+00	-.11148176E+02 .0	.50296815E+04 .75598820E-04	.16390472E+09 .61243713E+04	.21952771E+06 .10920597E+01	9
1108	.16156636E-01	.36708839E+00 .11480579E+01	.31505876E+01 .97051581E+00	.55663461E+04 .18221910E+00	.17702839E+02 .0	.50228028E+04 .77261697E-04	.16391381E+09 .61075154E+04	.21518648E+06 .11082207E+01	9
1109	.15823845E-01	.37519227E+00 .11480504E+01	.30847411E+00 .97058909E+00	.56414415E+04 .47381347E+00	.46653556E+02 .0	.50149236E+04 .81300693E-04	.16387858E+09 .60892551E+04	.21003000E+06 .11249692E+01	9
1111	.15495029E-01	.38317947E+00 .11480431E+01	.30183254E+00 .97066151E+00	.57105348E+04 .95033053E+00	.94725882E+02 .0	.50060916E+04 .92426154E-04	.16376192E+09 .60667175E+04	.20479607E+06 .11408741E+01	9
1111	.15169569E-01	.39089503E+00 .11480358E+01	.29328149E+00 .97073320E+00	.57649251E+04 .13804518E+01	.13892129E+03 .0	.49958573E+04 .12841703E-03	.16348437E+09 .60418273E+04	.19817288E+06 .11542561E+01	9
1112	.14846872E-01	.39894340E+00 .11480285E+01	.28513351E+00 .97080428E+00	.57775847E+04 .21620469E+01	.21811975E+03 .0	.49846508E+04 .27870959E-03	.16292209E+09 .60146432E+04	.19180503E+06 .11599008E+01	9
1113	.14526352E-01	.40673857E+00 .11480214E+01	.27381085E+00 .97087499E+00	.57059436E+04 .27725136E+01	.27632341E+03 .0	.49731886E+04 .11757922E-02	.16186146E+09 .59869059E+04	.18334349E+06 .11486857E+01	9
1114	.14207491E-01	.41449416E+00 .11480142E+01	.26396842E+00 .97094515E+00	.54371085E+04 .39958533E+01	.37979741E+03 .0	.49640951E+04 .15982819E-01	.15987319E+09 .59649251E+04	.17610297E+06 .10979362E+01	9
1115	.13889678E-01	.42222350E+00 .11480071E+01	.25161593E+00 .97101519E+00	.46424939E+04 .46594891E+01	.37837802E+03 .0	.49545974E+04 .59906086E-01	.15532192E+09 .59420157E+04	.16722655E+06 .94011432E+01	9
1116	.13572412E-01	.42993975E+00 .11480000E+01	.23577103E+00 .97108511E+00	.0 .0	.0 .0	.50287304E+04 .74000000E-04	.14883775E+09 .61210515E+04	.16142186E+06 .0	2
1117	.62500000E-01	.0 .11493562E+01	.36794456E+00 .95541215E+00	.0 .47409418E+04	.0 .0	.51126542E+04 .74000041E-04	.16359851E+09 .63450194E+04	.26008514E+06 .92729568E+00	1
1118	.62958654E-01	.26838779E-01 .11492809E+01	.36886743E+00 .95918542E+00	.47508315E+04 -.27431137E-01	-.22649504E+01 .0	.51129825E+04 .74000060E-04	.16346665E+09 .63408142E+04	.26061344E+06 .92563695E+00	9
1119	.58278487E-01	.51403474E-01 .11492128E+01	.37139598E+00 .95976231E+00	.47216302E+04 -.12882023E+00	-.10615835E+02 .0	.51094087E+04 .74000098E-04	.16339001E+09 .63353586E+04	.26151846E+06 .92410734E+00	9
1120	.55422785E-01	.74108057E-01 .11491455E+01	.37015441E+00 .96027951E+00	.47274127E+04 -.10429439E+00	-.86052269E+01 .0	.51066440E+04 .74000126E-04	.16332566E+09 .63277980E+04	.26107956E+06 .92573919E+00	9
1121	.54705336E-01	.94912142E-01 .11490899E+01	.36958219E+00 .96079646E+00	.47378847E+04 -.12913377E+00	-.10678307E+02 .0	.51044161E+04 .74000181E-04	.16331007E+09 .63216252E+04	.26046043E+06 .92819562E+00	9
1122	.53110452E-01	.11433233E+01 .11490354E+01	.36870215E+00 .96129549E+00	.47537263E+04 -.19505599E+00	-.15353811E+02 .0	.51023359E+04 .74000258E-04	.16332413E+09 .63158676E+04	.25964226E+06 .93168133E+00	9
1123	.51622472E-01	.13245388E+01 .11489846E+01	.36733879E+00 .96174209E+00	.47737336E+04 -.20284551E+00	-.16903625E+02 .0	.51001414E+04 .74000366E-04	.16334727E+09 .63098713E+04	.25847108E+06 .93630613E+00	9
1124	.5.228713E-01	.14942199E+01 .11489337E+01	.36566743E+00 .96217009E+00	.47981547E+04 -.20569885E+00	-.17218139E+02 .0	.50977619E+04 .74000517E-04	.16337674E+09 .63034561E+04	.25766569E+06 .94121413E+00	9
1125	.48918351E-01	.16537767E+01 .11488922E+01	.36403425E+00 .96257276E+00	.48241358E+04 -.23020375E+00	-.19382329E+02 .0	.50955069E+04 .74000730E-04	.16341946E+09 .62973838E+04	.25570115E+06 .94675071E+00	9

ITERATION NUMBER 2000 DTIME = .2476726E-06 TIME = .3467359?E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
1126	.47682089E-01	.18043108E+00	.36203785E+00	.48542361E+04	-.18243323E+02	.50928551E+04	.16345576E+09	.2540435?E+06	9
		.11488500E+01	.96295291E+00	-.21532956E+00	.0	.74001029E-04	.6290363?E+04	.9531530?E+00	
1127	.46511889E-01	.19468009E+00	.36002476E+00	.48862494E+04	-.19286067E+02	.50901455E+04	.1634962?E+09	.2523710?E+06	9
		.11488100E+01	.96331297E+00	-.21441999E+00	.0	.74001453E-04	.62932287E+04	.9599497.E+00	
1128	.45400761E-01	.20820980E+00	.35781935E+00	.49208709E+04	-.16919596E+02	.50871263E+04	.16352992E+09	.2505358?E+06	9
		.11487721E+01	.96365504E+00	-.19700123E+00	.0	.74002055E-04	.62753573E+04	.9673241?E+00	
1129	.44342597E-01	.22109458E+00	.35544335E+00	.49577237E+04	-.14504372E+02	.50838381E+04	.16355773E+09	.2485584?E+06	9
		.11487359E+01	.96398106E+00	-.16762470E+00	.0	.74002916E-04	.6266848?E+04	.9751972?E+00	
1130	.43332029E-01	.23339983E+00	.35311344E+00	.49964176E+04	-.12420800E+02	.50804298E+04	.16358714E+09	.2465357?E+06	9
		.11487114E+01	.96429245E+00	-.14243364E+00	.0	.74004157E-04	.6258?671E+04	.9834666?E+00	
1131	.42364314E-01	.24518326E+00	.35034149E+00	.50372681E+04	-.93668883E+01	.50767753E+04	.16361262E+09	.2443249?E+06	9
		.11486683E+01	.96459085E+00	-.95168044E-01	.0	.74005959E-04	.6248?28?E+04	.9922194?E+00	
1132	.41435244E-01	.25649613E+00	.34759823E+00	.50799581E+04	-.41855205E+01	.50730086E+04	.16364102E+09	.2420589.E+06	9
		.11486366E+01	.96487747E+00	-.47207596E-01	.0	.74008608E-04	.62390848E+04	.1001370?E+01	
1133	.40541066E-01	.26738413E+00	.34464580E+00	.51247921E+04	.15293842E+01	.50690367E+04	.16366876E+09	.2396336?E+06	9
		.11486060E+01	.96515346E+00	.17099694E-01	.0	.74012546E-04	.62289?32E+04	.1010899?E+01	
1134	.39678419E-01	.27788321E+00	.34154577E+00	.51718987E+04	.83756402E+01	.50650290E+04	.16369782E+09	.2371071?E+06	9
		.11485846E+01	.96535781E+00	.92787667E-01	.0	.74018487E-04	.62188324E+04	.1021100?E+01	
1135	.38844276E-01	.28804519E+00	.33824264E+00	.52215148E+04	.16405696E+02	.50608532E+04	.16372931E+09	.2344308?E+06	9
		.11485660E+01	.96554309E+00	.18001942E+00	.0	.74027593E-04	.62082925E+04	.1031751?E+01	
1136	.38035902E-01	.29788839E+00	.33476034E+00	.52739972E+04	.26459651E+02	.50564532E+04	.16376468E+09	.2316177?E+06	9
		.11485479E+01	.96571660E+00	.28745059E+00	.0	.74041824E-04	.61972215E+04	.1043036?E+01	
1137	.37250814E-01	.30744806E+00	.33102436E+00	.53297375E+04	.37965597E+02	.50517777E+04	.16380357E+09	.2286129?E+06	9
		.11485303E+01	.96588817E+00	.40813111E+00	.0	.74064546E-04	.61854942E+04	.1055048?E+01	
1138	.36486746E-01	.31675179E+00	.32706586E+00	.53891963E+04	.52523345E+02	.50467881E+04	.16384641E+09	.2254365?E+06	9
		.11485132E+01	.96605527E+00	.55839989E+00	.0	.74101781E-04	.61730172E+04	.1067877?E+01	
1139	.35741619E-01	.32582486E+00	.32274685E+00	.54526273E+04	.69074939E+02	.50414212E+04	.16389331E+09	.2219899?E+06	9
		.11484965E+01	.96621812E+00	.72579522E+00	.0	.74164577E-04	.61596382E+04	.1081652?E+01	
1140	.35013522E-01	.33469057E+00	.31816003E+00	.55206147E+04	.90354526E+02	.50355921E+04	.16394204E+09	.2183323?E+06	9
		.11484802E+01	.96637736E+00	.93765206E+00	.0	.74274364E-04	.61451516E+04	.1096465?E+01	
1141	.34300686E-01	.34337046E+00	.31305373E+00	.55937514E+04	.11443230E+03	.50291681E+04	.16398979E+09	.2142834?E+06	9
		.11484642E+01	.96653331E+00	.11719458E+01	.0	.74474077E-04	.61292377E+04	.1112494?E+01	
1142	.33601464E-01	.35188458E+00	.30762996E+00	.56719780E+04	.14634143E+03	.50221196E+04	.16403614E+09	.2099839?E+06	9
		.11484486E+01	.96668631E+00	.14779737E+01	.0	.74856631E-04	.61118299E+04	.1129755?E+01	
1143	.32914318E-01	.36025164E+00	.30143141E+00	.57553525E+04	.18193833E+03	.50142035E+04	.16407018E+09	.2051.755E+06	9
		.11484332E+01	.96683671E+00	.18136325E+01	.0	.75632799E-04	.60923431E+04	.1148383?E+01	
1144	.32237805E-01	.36848924E+00	.29489891E+00	.58423836E+04	.23093015E+03	.50054053E+04	.16408478E+09	.1999616?E+06	9
		.11484180E+01	.96698481E+00	.22635349E+01	.0	.77336327E-04	.60707517E+04	.1168126?E+01	
1145	.31570558E-01	.37661401E+00	.28717680E+00	.59308602E+04	.28399370E+03	.49953462E+04	.16404571E+09	.1939614?E+06	9
		.11484031E+01	.96713093E+00	.27414609E+01	.0	.81427466E-04	.6046150?E+04	.1188637?E+01	
1146	.30911231E-01	.38464173E+00	.27919296E+00	.60138563E+04	.35971318E+03	.49840214E+04	.16391901E+09	.1877?206E+06	9
		.11483883E+01	.96727533E+00	.34230151E+01	.0	.92624369E-04	.60185445E+04	.1207839?E+01	
1147	.30258735E-01	.39258749E+00	.26942523E+00	.60790836E+04	.43743163E+03	.49711844E+04	.16361057E+09	.1802?619?E+06	9
		.11483737E+01	.96741828E+00	.41157294E+01	.0	.12863210E-03	.59873624E+04	.1226?26?E+01	
1148	.29611727E-01	.40046582E+00	.25959551E+00	.61357996E+04	.54791212E+03	.49567222E+04	.16300131E+09	.1726249?E+06	9
		.11483592E+01	.96756006E+00	.51277791E+01	.0	.27756899E-03	.5952363?E+04	.1236771?E+01	
1149	.28969106E-01	.40829.739E+00	.24758180E+00	.61863384E+04	.65072763E+03	.49429724E+04	.16185767E+09	.1637253?E+06	9
		.11483448E+01	.96770.91E+00	.61528223E+01	.0	.11632419E-02	.59191696E+04	.1228271?E+01	
1150	.28329747E-01	.41607591E+00	.23521419E+00	.62304543E+04	.76177919E+03	.49289869E+04	.15968717E+09	.1546?629E+06	9
		.11483305E+01	.96784106E+00	.74946643E+01	.0	.10291307E-01	.58955109E+04	.1184898?E+01	
1151	.27692553E-01	.42383475E+00	.22448200E+00	.62183534E+04	.79782442E+03	.49109629E+04	.15448158E+09	.1470151?E+06	9
		.11483162E+01	.96798081E+00	.82139052E+01	.0	.58518722E-01	.58613874E+04	.1012945?E+01	

ITERATION NUMBER 2000 DTIME = .24767202E-06 TIME = .34673591E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IS
1152	.27056436E-01	.43158046E+00	.20232882E+00	.0	.0	.50100198E+04	.14739265E+09	.13745973E+06	2
		.11483029E+01	.96812032E+00	.0	.0	.74000005E-04	.6781941E+04	.0	
1153	.33749999E-01	.0	.35146298E+00	.49591996E+04	.0	.51185699E+04	.16358507E+09	.24805021E+06	1
		.11505211E+01	.94846777E+00	.0	.0	.74000042E-04	.6371967E+04	.96886448E+00	
1154	.33430093E-01	.27108191E-01	.35217111E+00	.49465390E+04	.72824179E+01	.51158184E+04	.16356066E+09	.24903456E+06	9
		.11503194E+01	.94990571E+00	.84454672E-01	.0	.74000063E-04	.6363409 4E+04	.96573861E+00	
1155	.87391480E-01	.51727753E-01	.35414903E+00	.49260088E+04	.10028325E+02	.51133515E+04	.16347043E+09	.25021682E+06	9
		.11502965E+01	.95086095E+00	.11664208E+00	.0	.74000092E-04	.63562366E+04	.96336405E+00	
1156	.84595333E-01	.74474937E-01	.35411184E+00	.49272641E+04	.24596179E+02	.51098968E+04	.16338117E+09	.24987333E+06	9
		.11501110E+01	.95170447E+00	.28600974E+00	.0	.74000132E-04	.63465871E+04	.96427104E+00	
1157	.82009534E-01	.95510896E-01	.35405957E+00	.49334444E+04	.28798878E+02	.51073261E+04	.16336019E+09	.24960431E+06	9
		.11500226E+01	.95248559E+00	.33445911E+00	.0	.74000190E-04	.63392205E+04	.96597091E+00	
1158	.78607292E-01	.11505359E+00	.35342738E+00	.49463929E+04	.32094364E+02	.51046917E+04	.16336177E+09	.24891941E+06	9
		.11499406E+01	.95321218E+00	.37175490E+00	.0	.74000271E-04	.63317733E+04	.96900995E+00	
1159	.77366068E-01	.13329637E+00	.35227797E+00	.49644432E+04	.37133986E+02	.51019027E+04	.16337347E+09	.24785534E+06	9
		.11498640E+01	.95389086E+00	.42856387E+00	.0	.74000384E-04	.63240631E+04	.97308444E+00	
1160	.75256753E-01	.15036462E+00	.35082437E+00	.49872239E+04	.41982469E+02	.50989757E+04	.16339539E+09	.24656486E+06	9
		.11497923E+01	.95452727E+00	.48230469E+00	.0	.74000543E-04	.63159535E+04	.97811813E+00	
1161	.73293073E-01	.16642095E+00	.34934149E+00	.50125213E+04	.44867908E+02	.50961088E+04	.16342905E+09	.24526104E+06	9
		.11497249E+01	.95512621E+00	.51285031E+00	.0	.74000767E-04	.63081063E+04	.98363722E+00	
1162	.71430992E-01	.18156933E+00	.34743559E+00	.50426526E+04	.51000242E+02	.50928188E+04	.16345848E+09	.24362155E+06	9
		.11496613E+01	.95569184E+00	.57945674E+00	.0	.74001092E-04	.62992598E+04	.99021026E+00	
1163	.69668415E-01	.19590823E+00	.34555247E+00	.50750227E+04	.54840649E+02	.50894842E+04	.16349357E+09	.24199664E+06	9
		.11496010E+01	.95622773E+00	.61911359E+00	.0	.74001528E-04	.62903479E+04	.99721676E+00	
1164	.67994814E-01	.20952329E+00	.34334473E+00	.51110437E+04	.60918642E+02	.50857779E+04	.16352307E+09	.24011238E+06	9
		.11495439E+01	.95673701E+00	.68287733E+00	.0	.74002161E-04	.6280 5581E+04	.10053393E+01	
1165	.66430989E-01	.22248936E+00	.34099284E+00	.51497702E+04	.66942636E+02	.50820073E+04	.16356096E+09	.23812544E+06	9
		.11494894E+01	.95722442E+00	.74475450E+00	.0	.74003065E-04	.62736486E+04	.10134195E+01	
1166	.64878852E-01	.23497223E+00	.33845022E+00	.51911175E+04	.74280119E+02	.50780501E+04	.16360033E+09	.23599269E+06	9
		.11494374E+01	.95768637E+00	.81979399E+00	.0	.74004367E-04	.62603146E+04	.10223706E+01	
1167	.63421262E-01	.24673000E+00	.33571071E+00	.52350225E+04	.82926116E+02	.50738445E+04	.16363774E+09	.23370495E+06	9
		.11493876E+01	.95813097E+00	.90752603E+00	.0	.74006257E-04	.62494019E+04	.10318959E+01	
1168	.62021980E-01	.25811424E+00	.33278879E+00	.52914018E+04	.93154543E+02	.50694265E+04	.16367567E+09	.23127721E+06	9
		.11493398E+01	.95855813E+00	.10105994E+01	.0	.74009031E-04	.62379991E+04	.10419765E+01	
1169	.6 6750653E-01	.26907093E+00	.32966493E+00	.53393352E+04	.10487017E+03	.50647984E+04	.16371524E+09	.22869725E+06	9
		.11492938E+01	.95896954E+00	.11271042E+01	.0	.74013151E-04	.62261102E+04	.10526316E+01	
117	.59375717E-01	.27964127E+00	.32632133E+00	.53828878E+04	.11896218E+03	.50599275E+04	.16375674E+09	.22595122E+06	9
		.11492494E+01	.95936677E+00	.12662226E+01	.0	.74019356E-04	.62136552E+04	.10639288E+01	
1171	.58119316E-01	.28986233E+00	.32273663E+00	.54369830E+04	.13482132E+03	.50548149E+04	.16380299E+09	.22302637E+06	9
		.11492065E+01	.95975130E+00	.14205032E+01	.0	.74028852E-04	.62006365E+04	.10759156E+01	
1172	.56931729E-01	.29976762E+00	.31890983E+00	.54951172E+04	.15386547E+03	.50493998E+04	.16385084E+09	.21991131E+06	9
		.11491649E+01	.96012365E+00	.16038856E+01	.0	.74043663E-04	.61869031E+04	.10886981E+01	
1173	.55719215E-01	.30938760E+00	.31474291E+00	.55571783E+04	.17553506E+03	.50436252E+04	.16390283E+09	.21655559E+06	9
		.11491245E+01	.96048579E+00	.18092051E+01	.0	.74067258E-04	.61723237E+04	.11023717E+01	
1174	.54569361E-01	.31875802E+00	.31029845E+00	.56234085E+04	.20159947E+03	.50374342E+04	.16395793E+09	.21298069E+06	9
		.11490852E+01	.96083844E+00	.20531772E+01	.0	.74105827E-04	.61567539E+04	.11174115E+01	
1175	.53446138E-01	.32788433E+00	.30543285E+00	.56942811E+04	.23128261E+03	.50306860E+04	.16401171E+09	.20908722E+06	9
		.11490469E+01	.96118255E+00	.23258941E+01	.0	.74170691E-04	.61398557E+04	.11328429E+01	
1176	.52349365E-01	.33680197E+00	.30022163E+00	.57701539E+04	.26744267E+03	.50233936E+04	.16406939E+09	.20493036E+06	9
		.11490094E+01	.96151699E+00	.26537215E+01	.0	.74283733E-04	.61216635E+04	.11498891E+01	
1177	.51275678E-01	.34553662E+00	.29441617E+00	.58515335E+04	.30845981E+03	.50153948E+04	.16412537E+09	.20033434E+06	9
		.11489727E+01	.96184856E+00	.30175171E+01	.0	.74488616E-04	.61017655E+04	.11683367E+01	

ITERATION NUMBER 2000 DTIME = .2476721E-06 TIME = .3467359E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
1178	.5[illegible]222497E-01	.3541[illegible]444E+00 .11489363E+01	.2682[illegible]732E+00 .9621720[illegible]E+00	.5938[illegible]2575E+04 .3464[illegible]329E+01	.3594[illegible]7978E+03 .0	.5[illegible]0066221E+04 .7487[illegible]9955E+04	.1641[illegible]064E+09 .6[illegible]8[illegible]6771E+04	.1954[illegible]3033E+06 .1168[illegible]2556E+01	9
1179	.49187[illegible]96E-01	.3625[illegible]429E+00 .11499014E+01	.2811[illegible]619E+00 .9624[illegible]003E+01	.6[illegible]3022025E+04 .3954[illegible]3542E+01	.4169[illegible]4553E+03 .0	.4996[illegible]4625E+04 .7566[illegible]106E+04	.1642[illegible]655E+09 .6[illegible]5597877E+04	.1899[illegible]3197E+06 .1289[illegible]6815E+01	9
1180	.48168529E-01	.3778[illegible]386E+00 .11488666E+01	.2737[illegible]554E+00 .9628[illegible]330E+00	.6[illegible]2554435E+04 .4573[illegible]433E+01	.4901[illegible]363E+03 .0	.4986[illegible]035E+04 .7739[illegible]416E+04	.1642[illegible]898E+09 .6[illegible]2935628E+04	.1841[illegible]335E+06 .1232[illegible]725E+01	9
1181	.47163513E-01	.3789[illegible]989E+00 .11498323E+01	.2651[illegible]960E+00 .9631[illegible]245E+00	.6[illegible]2261[illegible]91E+04 .5245[illegible]4661E+01	.5710[illegible]9820E+03 .0	.4973[illegible]7845+04 .8151[illegible]4705E+04	.1641[illegible]467E+09 .5999[illegible]4628E+04	.1774[illegible]6135E+06 .1255[illegible]9425E+01	9
1182	.46170495E-01	.3870[illegible]6824E+00 .11487983E+01	.2561[illegible]4164E+00 .9634[illegible]1805E+00	.6[illegible]3097239E+04 .5[illegible]1338405E+01	.6758[illegible]0574E+03 .0	.4959[illegible]793E+04 .9271[illegible]9478E+04	.1641[illegible]536E+09 .5965[illegible]863[illegible]E+04	.1704[illegible]8692E+06 .1279[illegible]4029E+01	9
1183	.45187618E-01	.3950[illegible]6413E+00 .11487648E+01	.2456[illegible]8228E+00 .9637[illegible]2669E+00	.6[illegible]3762343E+04 .7060[illegible]3060E+01	.7897[illegible]1641E+03 .0	.4944[illegible]7955E+04 .1285[illegible]9083E-03	.1637[illegible]1557E+09 .5929[illegible]0419E+04	.1625[illegible]3330E+06 .1299[illegible]3364E+01	9
1184	.44213083E-01	.4029[illegible]9216E+00 .11497315E+01	.2346[illegible]1356E+00 .9640[illegible]2093E+00	.6[illegible]4064253E+04 .8249[illegible]9335E+01	.9288[illegible]1818E+03 .0	.4927[illegible]2269E+04 .2755[illegible]1578E-03	.1630[illegible]4910E+09 .5886[illegible]3399E+04	.1541[illegible]1136E+06 .1313[illegible]8032E+01	9
1185	.43245154E-01	.4108[illegible]6644E+00 .11486984E+01	.2225[illegible]2335E+00 .9643[illegible]1923E+00	.6[illegible]3281027E+04 .9681[illegible]5962E+01	.1079[illegible]5905E+04 .0	.4911[illegible]4122E+04 .1147[illegible]3678E-02	.1618[illegible]2656E+09 .5848[illegible]5715E+04	.1452[illegible]4286E+06 .1307[illegible]0645E+01	9
1186	.42282141E-01	.4187[illegible]0073E+00 .11486655E+01	.2082[illegible]0579E+00 .9646[illegible]1619E+00	.6[illegible]0849493E+04 .1110[illegible]2522E+02	.1194[illegible]0977E+04 .0	.4892[illegible]7110E+04 .9967[illegible]6830E-02	.1594[illegible]0922E+09 .5803[illegible]7834E+04	.1348[illegible]6315E+06 .1267[illegible]3969E+01	9
1187	.41322387E-01	.4265[illegible]0851E+00 .11486327E+01	.1987[illegible]3431E+00 .9649[illegible]1230E+00	.5[illegible]1235599E+04 .1379[illegible]3695E+02	.1257[illegible]8857E+04 .0	.4882[illegible]6690E+04 .5687[illegible]7482E-01	.1535[illegible]9495E+09 .5779[illegible]6469E+04	.1282[illegible]0388E+06 .1080[illegible]4977E+01	9
1188	.40364256E-01	.4343[illegible]0369E+00 .11486[illegible]708E+01	.1730[illegible]1483E+00 .9652[illegible]0834E+00	.0 .0	.0 .0	.4989[illegible]2450E+04 .7400[illegible]0000E-04	.1458[illegible]4180E+09 .6034[illegible]3615E+04	.1165[illegible]4111E+06 .0	2
1189	.12500[illegible]00E+00	.0 .11524293E+01	.3320[illegible]9567E+00 .9351[illegible]2191E+00	.5[illegible]1988212E+04 .0	.0 .0	.5[illegible]1330942E+04 .7400[illegible]0044E-04	.1635[illegible]0846E+09 .6405[illegible]8623E+04	.2359[illegible]9474E+06 .1012[illegible]8046E+01	1
1190	.12054797E+00	.2724[illegible]3583E-01 .11521575E+01	.3345[illegible]7364E+00 .9370[illegible]2495E+00	.5[illegible]1688528E+04 .1943[illegible]1735E+00	.1753[illegible]1412E+02 .0	.5[illegible]1319[illegible]96E+04 .7400[illegible]0065E-04	.1634[illegible]8573E+09 .6398[illegible]6942E+04	.2375[illegible]4277E+06 .1007[illegible]5421E+01	9
1191	.11647316E+00	.5217[illegible]9793E-01 .11519[illegible]087E+01	.3371[illegible]9343E+00 .9387[illegible]297[illegible]E+00	.5[illegible]1447322E+04 .3537[illegible]2665E+00	.3176[illegible]2409E+02 .0	.5[illegible]1262786E+04 .7400[illegible]0096E-04	.1634[illegible]1179E+09 .6389[illegible]0093E+04	.2390[illegible]8945E+06 .1003[illegible]6189E+01	9
1192	.11272353E+00	.7512[illegible]4307E-01 .11516797E+01	.3376[illegible]6743E+00 .9403[illegible]2417E+00	.5[illegible]1384726E+04 .6[illegible]4588498E+00	.5792[illegible]7527E+02 .0	.5[illegible]1211012E+04 .7400[illegible]0138E-04	.1633[illegible]3366E+09 .6376[illegible]1748E+04	.2389[illegible]8964E+06 .1003[illegible]4559E+01	9
1193	.1[illegible]925592E+00	.9634[illegible]6485E-01 .11514[illegible]679E+01	.3382[illegible]5592E+00 .9418[illegible]0305E+00	.5[illegible]1377[illegible]42E+04 .7726[illegible]0555E+00	.6[illegible]9284584E+02 .0	.5[illegible]1171952E+04 .7400[illegible]0199E-04	.1633[illegible]3986E+09 .6366[illegible]5116E+04	.2390[illegible]8508E+06 .1004[illegible]1065E+01	9
1194	.1[illegible]603449E+00	.1160[illegible]5678E+00 .11512712E+01	.3382[illegible]5702E+00 .9431[illegible]8705E+00	.5[illegible]1467289E+04 .8970[illegible]3183E+00	.8057[illegible]3630E+02 .0	.5[illegible]1130530E+04 .7400[illegible]0284E-04	.1633[illegible]5992E+09 .6356[illegible]2[illegible]E+04	.2385[illegible]9857E+06 .1006[illegible]5727E+01	9
1195	.1[illegible]302899E+00	.1344[illegible]4953E+00 .11510877E+01	.3371[illegible]7575E+00 .9444[illegible]6929E+00	.5[illegible]1602[illegible]492E+04 .1041[illegible]7185E+01	.9384[illegible]1851E+02 .0	.5[illegible]1086[illegible]095E+04 .7400[illegible]0403E-04	.1633[illegible]8738E+09 .6345[illegible]4745E+04	.2376[illegible]0857E+06 .1010[illegible]3767E+01	9
1196	.1[illegible]021380E+00	.1516[illegible]7569E+00 .11509158E+01	.3360[illegible]9400E+00 .9456[illegible]7917E+00	.5[illegible]1811345E+04 .1162[illegible]6178E+01	.1[illegible]0514747E+03 .0	.5[illegible]1042987E+04 .7400[illegible]0570E-04	.1634[illegible]2952E+09 .6334[illegible]6163E+04	.2364[illegible]1175E+06 .1015[illegible]2622E+01	9
1197	.97567[illegible]65E-01	.1678[illegible]7203E+00 .11507542E+01	.3346[illegible]5323E+00 .9468[illegible]1920E+00	.5[illegible]2054486E+04 .1267[illegible]9294E+01	.1152[illegible]1303E+03 .0	.5[illegible]0999126E+04 .7400[illegible]0805E-04	.1634[illegible]7981E+09 .6323[illegible]7797E+04	.2350[illegible]8931E+06 .1020[illegible]9437E+01	9
1198	.95069998E-01	.1831[illegible]5249E+00 .11506[illegible]017E+01	.3327[illegible]7368E+00 .9479[illegible]7964E+00	.5[illegible]2355[illegible]075E+04 .1413[illegible]8259E+01	.1292[illegible]1717E+03 .0	.5[illegible]0950258E+04 .7400[illegible]1135E-04	.1635[illegible]2625E+09 .6311[illegible]7891E+04	.2333[illegible]5209E+06 .1027[illegible]9852E+01	9
1199	.92706354E-01	.1976[illegible]1642E+00 .11504[illegible]574E+01	.3308[illegible]9377E+00 .9489[illegible]1933E+00	.5[illegible]2687[illegible]84E+04 .1524[illegible]4531E+01	.1402[illegible]1617E+03 .0	.5[illegible]0902[illegible]00E+04 .7400[illegible]1635E-04	.1635[illegible]7[illegible]94E+09 .6299[illegible]7984E+04	.2316[illegible]2144E+06 .1035[illegible]4355E+01	9
1200	.9[illegible]462[illegible]50E-01	.2113[illegible]5[illegible]19E+00 .1150[illegible]3203E+01	.3285[illegible]672[illegible]E+00 .9499[illegible]195E+00	.5[illegible]3266[illegible]30E+04 .1669[illegible]2365E+01	.1546[illegible]4556E+03 .0	.5[illegible]0848594E+04 .7400[illegible]2265E-04	.1636[illegible]9745E+09 .6286[illegible]6241E+04	.2295[illegible]4[illegible]06E+06 .1044[illegible]0573E+01	9
1201	.58324714E-01	.2244[illegible]2831E+00 .11502[illegible]384E+01	.3259[illegible]3785E+00 .9518[illegible]7969E+00	.5[illegible]3492[illegible]73E+04 .1812[illegible]1411E+01	.1691[illegible]9832E+03 .0	.5[illegible]0800[illegible]74E+04 .7400[illegible]3209E-04	.1636[illegible]5481E+09 .6274[illegible]1326E+04	.2272[illegible]9116E+06 .1053[illegible]3172E+01	9
1202	.36283515E-01	.2369[illegible]2[illegible]15E+00 .1150[illegible]6865E+01	.3237[illegible]9511E+00 .9511[illegible]95[illegible]5E+00	.5[illegible]3932632E+04 .1959[illegible]6339E+01	.1844[illegible]3944E+03 .0	.5[illegible]0751799E+04 .7400[illegible]4565E-04	.1636[illegible]8675E+09 .6251[illegible]2752E+04	.2248[illegible]8[illegible]3E+06 .1063[illegible]2555E+01	9
1203	.84328872E-01	.2488[illegible]8131E+00 .1150[illegible]1195E+01	.3199[illegible]3519E+00 .9517[illegible]8491E+00	.5[illegible]4415[illegible]63E+04 .2128[illegible]3743E+01	.2022[illegible]3156E+03 .0	.5[illegible]0699[illegible]08E+04 .7400[illegible]6530E-04	.1637[illegible]2199E+09 .6247[illegible]6232E+04	.2222[illegible]2153E+06 .1074[illegible]4402E+01	9

ITERATION NUMBER 2700 DTIME = .2476720 E-06 TIME = .3467359 E-02

NODE	X	Y GAM	RHO CV	U TJXY	V THXZ	SOS MU	E T	P M	IB
1204	.82452287E-01	.2603648 2E+00	.31662897E+00	.54927 38E+04	.2208793 9E+03	.506451 79E+04	.16375884E+09	.21948608E+06	9
		.11500377E+01	.95235177E+00	.23028 3795E+01	.0	.740094 09E-04	.62335641E+04	.10954229E+01	
1205	.8 5461 30E-01	.27141704E+00	.31337 09E+00	.55468 95E+04	.24224780E+03	.505880 24E+04	.16379653E+09	.21651968E+06	9
		.11499761E+01	.95289784E+00	.25036742E+01	.0	.740136 74E-04	.62188299E+04	.10975278E+01	
1206	.78903759E-01	.28207955E+00	.30925119E+00	.56040297E+04	.26600002E+03	.505286 38E+04	.16383941E+09	.21341021E+06	9
		.11499165E+01	.95342514E+00	.27175531E+01	.0	.740200 86E-04	.62035884E+04	.11103286E+01	
1207	.77218913E-01	.29238973E+00	.30520431E+00	.56643661E+04	.29242122E+03	.504664 54E+04	.16388657E+09	.21010994E+06	9
		.11498590E+01	.95393545E+00	.29552541E+01	.0	.740298 75E-04	.61977034E+04	.11238969E+01	
1208	.75586117E-01	.30238139E+00	.30090684E+00	.57282 18E+04	.32271995E+03	.504013 44E+04	.16393967E+09	.20662485E+06	9
		.11498 32E+01	.95443941E+00	.32244663E+01	.0	.740451 09E-04	.61710694E+04	.11383266E+01	
1209	.74100355E-01	.31238524E+00	.29630059E+00	.57958 675E+04	.35636717E+03	.503319 75E+04	.16399545E+09	.20291361E+06	9
		.11497490E+01	.95491151E+00	.35195200E+01	.0	.740693 22E-04	.61535653E+04	.11536921E+01	
1210	.72457048E-01	.32152930E+00	.29139253E+00	.59676637E+04	.39531359E+03	.502583 93E+04	.16405804E+09	.19897906E+06	9
		.11496963E+01	.95538011E+00	.38542810E+01	.0	.741087 98E-04	.61360347E+04	.11701458E+01	
1211	.70952002E-01	.33073922E+00	.28646843E+00	.59433965E+04	.43913699E+03	.501805 30E+04	.16412949E+09	.19474737E+06	9
		.11496449E+01	.95583742E+00	.42243246E+01	.0	.741750 15E-04	.61154872E+04	.11877492E+01	
1212	.69481353E-01	.33973865E+00	.28038858E+00	.60251571E+04	.48099161E+03	.500964 25E+04	.16420451E+09	.19024971E+06	9
		.11495947E+01	.95628463E+00	.46587537E+01	.0	.742930 85E-04	.60944667E+04	.12066988E+01	
1213	.68041528E-01	.34854946E+00	.27413910E+00	.61114385E+04	.54950994E+03	.500043 96E+04	.16427684E+09	.18533437E+06	9
		.11495455E+01	.95672279E+00	.51379337E+01	.0	.744980 52E-04	.60715684E+04	.12271113E+01	
1214	.66629202E-01	.35719199E+00	.26746199E+00	.62029291E+04	.61989149E+03	.499034 85E+04	.16434710E+09	.18009877E+06	9
		.11494972E+01	.95715289E+00	.57071134E+01	.0	.748934 70E-04	.60465763E+04	.12491563E+01	
1215	.65241276E-01	.36568525E+00	.25998475E+00	.62985827E+04	.69921100E+03	.497911 66E+04	.16439751E+09	.17428325E+06	9
		.11494498E+01	.95757587E+00	.63345172E+01	.0	.756894 60E-04	.60188636E+04	.12727733E+01	
1216	.63874812E-01	.37404710E+00	.25200417E+00	.63972249E+04	.79608926E+03	.496655 76E+04	.16442027E+09	.16808976E+06	9
		.11494031E+01	.95799259E+00	.70935774E+01	.0	.771991 6E-04	.59880711E+04	.12979953E+01	
1217	.62527 72E-01	.38229441E+00	.24296593E+00	.64934913E+04	.90519450E+03	.495248 22E+04	.16437029E+09	.16115033E+06	9
		.11493571E+01	.95840389E+00	.79359768E+01	.0	.815387 90E-04	.59536963E+04	.13238371E+01	
1218	.61195429E-01	.39044321E+00	.23330347E+00	.65829762E+04	.10378555E+04	.493638 61E+04	.16420588E+09	.15374339E+06	9
		.11493116E+01	.95881055E+00	.89593638E+01	.0	.926650 97E-04	.59145854E+04	.13500336E+01	
1219	.59877381E-01	.39850882E+00	.22252071E+00	.66449908E+04	.11884279E+04	.491891 65E+04	.16392843E+09	.14560741E+06	9
		.11492666E+01	.95921333E+00	.10139899E+02	.0	.128143 67E-03	.58723314E+04	.13723402E+01	
1220	.58570521E-01	.40650597E+00	.21054897E+00	.66709224E+04	.13551283E+04	.489828 04E+04	.16357941E+09	.13662539E+06	9
		.11492219E+01	.95961296E+00	.11482793E+02	.0	.271925 91E-03	.58227055E+04	.13897063E+01	
1221	.57272519E-01	.41444891E+00	.19860296E+00	.65772297E+04	.15543964E+04	.488308 92E+04	.16175804E+09	.12792311E+06	9
		.11491776E+01	.96001014E+00	.13296742E+02	.0	.112342 94E-02	.57790861E+04	.13848947E+01	
1222	.55981110E-01	.42235151E+00	.18276061E+00	.63196934E+04	.16712753E+04	.485715 01E+04	.15902894E+09	.11661921E+06	9
		.11491335E+01	.96040557E+00	.14813080E+02	.0	.956875 66E-02	.57244396E+04	.13458382E+01	
1223	.54694 70E-01	.43022737E+00	.17436632E+00	.62599970E+04	.17472190E+04	.484840 17E+04	.15257347E+09	.11086663E+06	9
		.11490895E+01	.96079991E+00	.18374997E+02	.0	.547456 76E-01	.57033756E+04	.11431795E+01	
1224	.53409207E-01	.43808991E+00	.14604045E+00	.0	.0	.497024 75E+04	.14424459E+09	.97585854E+05	2
		.11490456E+01	.96119385E+00	.0	.0	.740000 00E-04	.59932001E+04	.0	
1225	.15625003E+00	.0	.31072416E+00	.54758131E+04	.0	.514317 86E+04	.16346939E+09	.22130964E+06	1
		.11543376E+01	.92211069E+00	.0	.0	.740000 45E-04	.64305166E+04	.10646749E+01	
1237	.11307 25E+00	.22698181E+00	.30994266E+00	.55454735E+04	.28588798E+03	.508538 49E+04	.16363938E+09	.21634823E+06	9
		.11515177E+01	.94145537E+00	.29511793E+01	.0	.741033 28E-04	.60975908E+04	.11791209E+01	
1249	.8453 646E-01	.35239536E+00	.25552427E+00	.63584297E+04	.79467645E+03	.498421 04E+04	.16442623E+09	.17154613E+06	9
		.11501987E+01	.95172400E+00	.71235335E+01	.0	.745066 21E-04	.61391937E+04	.12356381E+01	
1261	.19750000E+00	.0	.29075000E+00	.57482969E+04	.0	.515210 45E+04	.16345153E+09	.22745972E+06	1
		.11562458E+01	.90942177E+00	.0	.0	.740000 46E-04	.64523154E+04	.11157183E+01	
1273	.13159525E+00	.22989 75E+00	.29351550E+00	.57637873E+04	.40314013E+03	.508855 33E+04	.16365492E+09	.20490313E+06	9
		.11529321E+01	.93234848E+00	.40079591E+01	.0	.740034 69E-04	.62954631E+04	.11354639E+01	

ITERATION NUMBER 2000. DTIME = .24767272E-06 TIME = .34673989E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
1285	.10967724E+00	.35703133E+00	.23538161E+00	.65969501E+04	.11153433E+04	.49703754E+04	.16458463E+09	.15703325E+06	9
		.11539441E+01	.94547988E+00	.85962237E+01	.0	.74513396E-04	.60065624E+04	.13461897E+01	
1297	.21875000E+00	.0	.27309493E+00	.60441843E+04	.0	.51570368E+04	.16346309E+09	.19276980E+06	1
		.11581541E+01	.69743475E+00	.0	.0	.74000048E-04	.64640611E+04	.11720334E+01	
1309	.15285877E+00	.23337666E+00	.27569022E+00	.59876364E+04	.54863142E+03	.50884338E+04	.16363763E+09	.19223362E+06	9
		.11541305E+01	.92350686E+00	.52352438E+01	.0	.74003668E-04	.60344077E+04	.11816443E+01	
1321	.11541776E+00	.36244512E+00	.21821764E+00	.57956831E+04	.13978545E+04	.49602451E+04	.16467780E+09	.14486861E+06	9
		.11519053E+01	.93875322E+00	.11623469E+02	.0	.74536004E-04	.59818491E+04	.13987134E+01	
1333	.25000000E+00	.0	.24939397E+00	.63478644E+04	.0	.51594419E+04	.16351003E+09	.17787095E+06	1
		.11600623E+01	.88496465E+00	.0	.0	.74000001E-04	.64696290E+04	.12303393E+01	
1345	.17382159E+00	.23733685E+00	.25810711E+00	.62443299E+04	.68535029E+03	.50861051E+04	.16379392E+09	.17960947E+06	9
		.11554106E+01	.91493693E+00	.62607436E+01	.0	.74000087E-04	.62882943E+04	.12350895E+01	
1357	.13169129E+00	.36859548E+00	.20000122E+00	.70229312E+04	.17536052E+04	.49422047E+04	.16482357E+09	.13171178E+06	9
		.11528379E+01	.93233821E+00	.14019906E+02	.0	.74012481E-04	.59381721E+04	.14646411E+01	
1369	.23240741E+00	.0	.23011954E+00	.66476416E+04	.0	.51617317E+04	.16354494E+09	.16399015E+06	1
		.11620412E+01	.87274346E+00	.0	.0	.74000001E-04	.64748159E+04	.12865143E+01	
1381	.21670225E+00	.25015918E+00	.22979366E+00	.66276779E+04	.99486003E+03	.50766526E+04	.16390002E+09	.15903675E+06	9
		.11574184E+01	.90177958E+00	.84521914E+01	.0	.74000099E-04	.62643915E+04	.13198564E+01	
1393	.16483367E+00	.38850763E+00	.15862154E+00	.74378601E+04	.26793359E+04	.48940482E+04	.16517553E+09	.10225007E+06	9
		.11548617E+01	.91859373E+00	.19810512E+02	.0	.74012608E-04	.58224952E+04	.16153769E+01	
1405	.31481481E+00	.0	.21196419E+00	.69297217E+04	.0	.51622962E+04	.16359211E+09	.15082929E+06	1
		.11640201E+01	.86062167E+00	.0	.0	.74000001E-04	.64756771E+04	.13423728E+01	
1417	.23958290E+00	.26288871E+00	.20323045E+00	.69907903E+04	.13167806E+04	.50639063E+04	.16403193E+09	.13970499E+06	9
		.11594262E+01	.88895849E+00	.10667212E+02	.0	.74000103E-04	.62342830E+04	.14047897E+01	
1429	.19797606E+00	.40827873E+00	.12301163E+00	.76876427E+04	.35158694E+04	.48523060E+04	.16545541E+09	.80974896E+05	9
		.11568855E+01	.90523819E+00	.24576531E+02	.0	.74011994E-04	.57230889E+04	.17421556E+01	
1441	.34722222E+00	.0	.19473716E+00	.72174006E+04	.0	.51609723E+04	.16365836E+09	.13826385E+06	1
		.11659991E+01	.84918857E+00	.0	.0	.74000002E-04	.64718033E+04	.13984575E+01	
1453	.27246356E+00	.27552932E+00	.17939238E+00	.73221165E+04	.16594302E+04	.50494705E+04	.16417202E+09	.12240413E+06	9
		.11614340E+01	.87646104E+00	.12769385E+02	.0	.74000104E-04	.61964036E+04	.14868495E+01	
1465	.23111844E+00	.42791021E+00	.13601171E+00	.78408829E+04	.42114909E+04	.48186835E+04	.16569146E+09	.66017049E+05	9
		.11589093E+01	.89222758E+00	.28241111E+02	.0	.74011294E-04	.56435520E+04	.18470486E+01	
1477	.37962953E+00	.0	.17842549E+00	.75046897E+04	.0	.51574529E+04	.16373641E+09	.12629546E+06	1
		.11679780E+01	.83793392E+00	.0	.0	.74000002E-04	.64624295E+04	.14551155E+01	
1489	.37534421E+00	.28808095E+00	.15841801E+00	.76206567E+04	.19981878E+04	.50344298E+04	.16432208E+09	.10726434E+06	9
		.11634418E+01	.86427532E+00	.14692586E+02	.0	.74000101E-04	.61593083E+04	.15648786E+01	
1501	.26426082E+00	.44740349E+00	.90349716E-01	.79471015E+04	.47544294E+04	.47938265E+04	.16588245E+09	.55587757E+05	9
		.11609331E+01	.87954914E+00	.30890377E+02	.0	.74010651E-04	.55849863E+04	.19318022E+01	
1513	.41203703E+00	.0	.16309706E+00	.77908988E+04	.0	.51497895E+04	.16380292E+09	.11491176E+06	1
		.11698678E+01	.82750759E+00	.0	.0	.74000002E-04	.64426457E+04	.15128577E+01	
1525	.33822487E+00	.36054451E+00	.14020549E+00	.78882107E+04	.23242853E+04	.50190927E+04	.16445766E+09	.94192622E+05	9
		.11654497E+01	.85238995E+00	.16417770E+02	.0	.74000098E-04	.61210083E+04	.16384462E+01	
1537	.23740321E+00	.46676201E+00	.79182589E-01	.80373975E+04	.51518381E+04	.47705588E+04	.16603716E+09	.48312998E+05	9
		.11629569E+01	.86719136E+00	.32659196E+02	.0	.74010165E-04	.55478193E+04	.19980478E+01	
1549	.44444444E+00	.0	.14993694E+00	.80696661E+04	.0	.51388383E+04	.16392983E+09	.10434124E+06	1
		.11715732E+01	.81891383E+00	.0	.0	.74000001E-04	.64766127E+04	.15703289E+01	
1561	.37110552E+00	.31292192E+00	.12445739E+00	.81294619E+04	.26321407E+04	.50044145E+04	.16461117E+09	.82981336E+05	9
		.11674575E+01	.84377941E+00	.17940173E+02	.0	.74000093E-04	.60847231E+04	.17974794E+01	
1573	.33054559E+00	.48598115E+00	.71216241E-01	.81287131E+04	.54186559E+04	.47706133E+04	.16613111E+09	.43241792E+05	9
		.11649907E+01	.85513948E+00	.33687695E+02	.0	.74009834E-04	.55310691E+04	.20477923E+01	
1585	.47695185E+00	.0	.13602415E+00	.83371567E+04	.0	.51272515E+04	.16475295E+09	.94727333E+05	1
		.11732887E+01	.81748999E+00	.0	.0	.74000001E-04	.63711345E+04	.16261478E+01	

ITERATION NUMBER 28000 DTIME = .24767202E-06 TIME = .34673587E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
1597	.4[illegible]398618E+00	.32521103E+00 .11694423E+01	.11081828E+00 .82966946E+00	.83515854E+04 .19264573E+02	.29188877E+04 .0	.99818953E+04 .74000099E-04	.16470357E+09 .67443276E+04	.73284562E+05 .17735849E+01	9
1609	.36368797E+00	.50506625E+00 .11670945E+01	.65453965E-01 .84336526E+00	.82269537E+04 .34143475E+02	.55790925E+04 .0	.47710505E+04 .74009651E-04	.16619957E+09 .55365901E+04	.39681284E+05 .20834386E+01	9
1621	.50925926E+00	.0 .11749991E+01	.12429300E+00 .80223111E+00	.85930722E+04 .0	.0 .0	.51151766E+04 .74000001E-04	.16416754E+09 .63345915E+04	.96025132E+05 .16799170E+01	1
1633	.43686683E+00	.33741574E+00 .11711783E+01	.99149995E-01 .82190784E+00	.95561238E+04 .20439184E+02	.31835551E+04 .0	.49696980E+04 .74000084E-04	.16486479E+09 .59932743E+04	.64920981E+05 .18369726E+01	9
1645	.39693036E+00	.52402278E+00 .11690283E+01	.61127293E-01 .83191703E+00	.83372562E+04 .34172968E+02	.56612451E+04 .0	.47756145E+04 .74009562E-04	.16619223E+09 .55406948E+04	.37064966E+05 .21101187E+01	9
1657	.54166656E+00	.0 .11767196E+01	.11365144E+00 .79413243E+00	.98377951E+04 .0	.0 .0	.51926801E+04 .74000001E-04	.16427140E+09 .62971595E+04	.78162294E+05 .17319989E+01	1
1669	.45974748E+00	.34953586E+00 .11729137E+01	.88897236E-01 .81232238E+00	.87443842E+04 .21393828E+02	.34256825E+04 .0	.49522345E+04 .74000088E-04	.16501961E+09 .59449575E+04	.57772286E+05 .18963525E+01	9
1681	.42997274E+00	.54294595E+00 .11708144E+01	.57661210E-01 .82273012E+00	.84541737E+04 .33957704E+02	.56933344E+04 .0	.47800373E+04 .74009526E-04	.16619189E+09 .55457824E+04	.34974636E+05 .21323056E+01	9
1693	.57407407E+00	.0 .11784230E+01	.10400311E+00 .78618924E+00	.90716028E+04 .0	.0 .0	.50898531E+04 .74000001E-04	.16436292E+09 .62597730E+04	.71864329E+05 .17822917E+01	1
1705	.51262814E+00	.36157231E+00 .11746491E+01	.80108285E-01 .80390784E+00	.89184105E+04 .22236643E+02	.36461912E+04 .0	.49357513E+04 .74000076E-04	.16516593E+09 .58992383E+04	.51638160E+05 .19520788E+01	9
1717	.46311512E+00	.56153909E+00 .11725637E+01	.54782658E-01 .81434023E+00	.85744779E+04 .33596999E+02	.56949281E+04 .0	.47863819E+04 .74009554E-04	.16619846E+09 .55546044E+04	.33267312E+05 .21506583E+01	9
1729	.61648148E+00	.0 .11801304E+01	.95271614E-01 .77837023E+00	.92948831E+04 .0	.0 .0	.50767619E+04 .74000001E-04	.16444037E+09 .62205022E+04	.64669879E+05 .18308684E+01	1
1741	.53550879E+00	.37352585E+00 .11763945E+01	.72473795E-01 .79565916E+00	.90814176E+04 .22954670E+02	.38463566E+04 .0	.49202290E+04 .74000072E-04	.16530373E+09 .58560391E+04	.46355074E+05 .20044561E+01	9
1753	.49625751E+00	.58010350E+00 .11743129E+01	.52171711E-01 .83552505E+00	.86915406E+04 .33200044E+02	.56975944E+04 .0	.47930628E+04 .74009593E-04	.16617683E+09 .55642176E+04	.31722867E+05 .21671088E+01	9
1765	.63888889E+00	.0 .11818409E+01	.87366746E-01 .77375202E+00	.95081086E+04 .0	.0 .0	.50634929E+04 .74000001E-04	.16450465E+09 .61816645E+04	.58909115E+05 .18777766E+01	1
1766	.63033093E+00	.46793566E-01 .11813892E+01	.88917915E-01 .77275688E+00	.94095358E+04 .24724297E+01	.40629270E+03 .0	.50747211E+04 .74000002E-04	.16452883E+09 .62107966E+04	.60244247E+05 .18559253E+01	9
1767	.62249809E+00	.89683101E-01 .11809758E+01	.89110445E-01 .77460065E+00	.93741390E+04 .49898997E+01	.81846575E+03 .0	.50652534E+04 .74000003E-04	.16431633E+09 .61891822E+04	.60176679E+05 .18577159E+01	9
1768	.61529027E+00	.12900509E+00 .11805954E+01	.98493889E-01 .77630477E+00	.93383964E+04 .72880147E+01	.11942894E+04 .0	.50560670E+04 .74000004E-04	.16421556E+09 .61881646E+04	.59556997E+05 .18620097E+01	9
1769	.6[illegible]862458E+00	.16544453E+00 .11802436E+01	.87413193E-01 .77788711E+00	.93277733E+04 .93697676E+01	.15391465E+04 .0	.50459628E+04 .74000005E-04	.16437784E+09 .61448372E+04	.58605540E+05 .18735583E+01	9
1770	.60243225E+00	.19929647E+00 .11799167E+01	.85634331E-01 .77936268E+00	.93121604E+04 .11354907E+02	.18700353E+04 .0	.50332622E+04 .74000008E-04	.16444399E+09 .61151464E+04	.57126609E+05 .19870607E+01	9
1771	.59665489E+00	.23087939E+00 .11796118E+01	.83156628E-01 .78074420E+00	.93024044E+04 .13339883E+02	.22042902E+04 .0	.50174483E+04 .74000011E-04	.16451744E+09 .60779966E+04	.55159271E+05 .19053512E+01	9
1772	.59124337E+00	.26[illegible]46242E+00 .11793262E+01	.80636219E-01 .78234251E+00	.92994868E+04 .15122988E+02	.25131972E+04 .0	.50017863E+04 .74000015E-04	.16469501E+09 .60410511E+04	.53166911E+05 .19259318E+01	9
1773	.58615565E+00	.28927530E+00 .11790577E+01	.77840726E-01 .78326691E+00	.92894115E+04 .16923065E+02	.28264243E+04 .0	.49839876E+04 .74000020E-04	.16479539E+09 .59938471E+04	.51968522E+05 .19482577E+01	9
1774	.58135654E+00	.31451540E+00 .11788143E+01	.74779769E-01 .78442545E+00	.92823473E+04 .18677249E+02	.31377934E+04 .0	.49649910E+04 .74000027E-04	.16495843E+09 .59543695E+04	.48604253E+05 .19734885E+01	8
1775	.57681212E+00	.33935333E+00 .11785645E+01	.71937114E-01 .78552512E+00	.92725843E+04 .20329024E+02	.34346331E+04 .0	.49460195E+04 .74000037E-04	.16511217E+09 .59098037E+04	.46391059E+05 .19988557E+01	8
1776	.57249796E+00	.36293740E+00 .11783368E+01	.68736959E-01 .78657201E+00	.92541132E+04 .22102352E+02	.37393464E+04 .0	.49256043E+04 .74000050E-04	.16526456E+09 .58619262E+04	.43988171E+05 .20263601E+01	9

ITERATION NUMBER 20011 DTIME = .2476720E-06 TIME = .3467359E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
1777	.56838945E+00	.38539730E+00	.6581450[illegible]E-01	.92343043E+04	.4027529[illegible]E+04	.4[illegible]566613E+04	.16543363E+09	.41785165E+05	9
		.11781200E+01	.7875715[illegible]E+00	.23562995E+02	.0	.74000069E-04	.5815314[illegible]E+04	.20537378E+01	
1778	.56446573E+00	.40684698E+00	.6281089[illegible]E-01	.92088896E+04	.4316[illegible]403E+04	.48853933E+04	.16559[illegible]05E+09	.39551459E+05	9
		.11779129E+01	.7885283[illegible]E+00	.25111639E+02	.0	.74000094E-04	.5767[illegible]425E+04	.20818732E+01	
1779	.56070840E+00	.42738707E+00	.6[illegible]E-01	.91786443E+04	.4593[illegible]218E+04	.48651361E+04	.16575247E+09	.37484098E+05	9
		.11777146E+01	.7894466[illegible]E+00	.26572490E+02	.0	.74000130E-04	.5721[illegible]319E+04	.21094425E+01	
1780	.55710112E+00	.44710691E+00	.5732725[illegible]E-01	.91429034E+04	.48541706E+04	.4845762[illegible]E+04	.16590812E+09	.35531249E+05	9
		.11775242E+01	.7903302[illegible]E+00	.27964826E+02	.0	.74000181E-04	.5676210[illegible]E+04	.21362174E+01	
1781	.55362931E+00	.46608615E+00	.5490224[illegible]E-01	.91027401E+04	.5097998[illegible]E+04	.48277270E+04	.16605300E+09	.33780663E+05	9
		.11773409E+01	.7911824[illegible]E+00	.28251051E+02	.0	.74000255E-04	.5634660[illegible]E+04	.21610781E+01	
1782	.55027992E+00	.48439615E+00	.5276491[illegible]E-01	.90599799E+04	.5315726[illegible]E+04	.48117943E+04	.16619009E+09	.32256439E+05	9
		.11771642E+01	.7920062[illegible]E+00	.29401259E+02	.0	.74000364E-04	.5598128[illegible]E+04	.21830304E+01	
1783	.54704121E+00	.50210113E+00	.5103907[illegible]E-01	.90165548E+04	.5496613[illegible]E+04	.4798956[illegible]E+04	.16630748E+09	.31039683E+05	9
		.11769932E+01	.7928044[illegible]E+00	.31366766E+02	.0	.74000531E-04	.5568870[illegible]E+04	.22004709E+01	
1784	.54390255E+00	.51925914E+00	.4978755[illegible]E-01	.89757097E+04	.5683778[illegible]E+04	.47902937E+04	.16640556E+09	.30173606E+05	9
		.11768276E+01	.7935794[illegible]E+00	.32101497E+02	.0	.74000794E-04	.5549[illegible]398E+04	.22119121E+01	
1785	.54085430E+00	.53592291E+00	.4909328[illegible]E-01	.89393293E+04	.5711824E+04	.4786440[illegible]E+04	.16646795E+09	.29769061E+05	9
		.11766667E+01	.7943334[illegible]E+00	.32569252E+02	.0	.74001222E-04	.5540[illegible]552E+04	.22161437E+01	
1786	.53788767E+00	.55214054E+00	.4890186[illegible]E-01	.89065278E+04	.5736664[illegible]E+04	.47870666E+04	.16646813E+09	.29604869E+05	9
		.11765101E+01	.7950686[illegible]E+00	.32785449E+02	.0	.74001942E-04	.5542[illegible]288E+04	.22130731E+01	
1787	.53499458E+00	.56795612E+00	.4911[illegible]94E-01	.88756478E+04	.5725782[illegible]E+04	.47907382E+04	.16641[illegible]59E+09	.29776815E+05	9
		.11763574E+01	.7957869[illegible]E+00	.32826527E+02	.0	.74003195E-04	.5551[illegible]474E+04	.22047286E+01	
1788	.53216761E+00	.58341[illegible]23E+00	.4944696[illegible]E-01	.88443287E+04	.5698[illegible]616E+04	.47955875E+04	.16631135E+09	.30049279E+05	9
		.11762[illegible]82E+01	.7964899[illegible]E+00	.32795792E+02	.0	.74005441E-04	.5563694[illegible]E+04	.21939684E+01	
1789	.52939989E+00	.59854[illegible]44E+00	.4980[illegible]30E-01	.88095[illegible]2E+04	.5672515[illegible]E+04	.48002540E+04	.16617641E+09	.30326694E+05	9
		.11760621E+01	.7971793[illegible]E+00	.32777784E+02	.0	.74009624E-04	.5575020[illegible]E+04	.21827673E+01	
1790	.52668503E+00	.61338168E+00	.5001564[illegible]E-01	.87679[illegible]21E+04	.5652593[illegible]E+04	.48043024E+04	.16597871E+09	.30512946E+05	9
		.11759188E+01	.7978567[illegible]E+00	.32804[illegible]04E+02	.0	.74017772E-04	.5594911[illegible]E+04	.21711744E+01	
1791	.52401706E+00	.62796658E+00	.5017[illegible]585E-01	.87158[illegible]35E+04	.5633179[illegible]E+04	.48078193E+04	.16568505E+09	.30655969E+05	9
		.11757780E+01	.7985235[illegible]E+00	.32877472E+02	.0	.74034682E-04	.5593567[illegible]E+04	.21583913E+01	
1792	.52139038E+00	.64232582E+00	.5014510[illegible]E-01	.8643026[illegible]E+04	.5609945[illegible]E+04	.48116392E+04	.16520851E+09	.30692725E+05	9
		.11756394E+01	.7991810[illegible]E+00	.32986467E+02	.0	.74072380E-04	.5602927[illegible]E+04	.21414839E+01	
1793	.51879967E+00	.65648837E+00	.5014857[illegible]E-01	.8537[illegible]2505E+04	.5572251[illegible]E+04	.48171368E+04	.16444419E+09	.30768613E+05	9
		.11755026E+01	.7998305[illegible]E+00	.33133121E+02	.0	.74165537E-04	.5616204[illegible]E+04	.21163287E+01	
1794	.51623991E+00	.67048175E+00	.4990153[illegible]E-01	.83712841E+04	.5494136[illegible]E+04	.4826[illegible]76E+04	.16315969E+09	.30742775E+05	9
		.11753675E+01	.8004732[illegible]E+00	.33277190[illegible]02	.0	.74424710E-04	.5639082[illegible]E+04	.20745237E+01	
1795	.51376628E+00	.68433228E+00	.4976262[illegible]E-01	.81021133E+04	.5359116[illegible]E+04	.48426711E+04	.16105701E+09	.30863396E+05	9
		.11752339E+01	.8011104[illegible]E+00	.33482514E+02	.0	.75289037E-04	.5676826[illegible]E+04	.20659451E+01	
1796	.51119415E+00	.69806525E+00	.4906957[illegible]E-01	.76698567E+04	.5103791[illegible]E+04	.48654846E+04	.15751862E+09	.30724453E+05	9
		.11751[illegible]12E+01	.8017431[illegible]E+00	.33672240E+02	.0	.78922203E-04	.5730[illegible]983E+04	.18941812E+01	
1797	.5[illegible]869965E+00	.71170512E+00	.4891[illegible]289E-01	.69741815E+04	.4706205[illegible]E+04	.48881527E+04	.15161903E+09	.30914205E+05	9
		.11749695E+01	.8023725[illegible]E+00	.34011636E+02	.0	.10191011E-03	.5784894[illegible]E+04	.17212097E+01	
1798	.5[illegible]621663E+00	.72527573E+00	.4826800[illegible]E-01	.59134785E+04	.4[illegible]092921E+04	.48860318E+04	.14174621E+09	.30485174E+05	9
		.11748385E+01	.8029996[illegible]E+00	.34136964[illegible]02	.0	.39931608E-03	.5780323[illegible]E+04	.14622263E+01	
1799	.5[illegible]374265E+00	.73880041E+00	.5054[illegible]502E-01	.43564822E+04	.3[illegible]134602E+04	.48066758E+04	.12660627E+09	.30895437E+05	9
		.11747[illegible]79E+01	.8036285[illegible]E+00	.34672333E+02	.0	.18123576E-01	.5594529[illegible]E+04	.11[illegible]20418E+01	
1800	.5[illegible]127276E+00	.75239222E+00	.5692969[illegible]E-01	.0	.0	.44631615E+04	.9714378[illegible]E+08	.30008016E+05	2
		.11745776E+01	.8042513[illegible]E+00	.0	.0	.7400[illegible]00E-04	.4923845[illegible]E+04	.0	
1801	.67129629E+00	.0	.8022878[illegible]E-01	.37116679E+04	.0	.5[illegible]501426E+04	.1645567[illegible]E+09	.53733528E+05	1
		.11835513E+01	.7632496[illegible]E+00	.0	.0	.7400[illegible]01E-04	.6142799[illegible]E+04	.19230482E+01	
1813	.6[illegible]127013E+00	.39718748E+00	.5998872[illegible]E-01	.93803875E+04	.4190921[illegible]E+04	.48923132E+04	.16555539E+09	.37819088E+05	9
		.11798554E+01	.7796402[illegible]E+00	.24073894[illegible]02	.0	.7400[illegible]66E-04	.5776955[illegible]E+04	.21301623E+01	

ITERATION NUMBER 20000 DTIME = .247672 2E-05 TIME = .3467359[illegible]E-02

NODE	X	Y GAM	RHO CV	U TMXY	V TMXZ	SOS MU	E T	P M	IB
1825	.56254227E+00	.61685115E+00	.47469647E-01	.59200504E+04	.56657026E+04	.48665295E+04	.16614708E+09	.28939994E+05	9
		.11778114E+01	.78899817E+00	.32422279E+02	.0	.74009614E-04	.55837021E+04	.21985267E+01	
1837	.73370370E+00	.0	.73782975E-01	.39058955E+04	.0	.50367992E+04	.16459722E+09	.49184696E+05	1
		.11852618E+01	.75588597E+00	.0	.0	.74000001E-04	.61741212E+04	.19667045E+01	
1849	.63415276E+00	.40589716E+00	.54866417E-01	.95189705E+04	.43380735E+04	.48792507E+04	.16566944E+09	.34359014E+05	9
		.11815908E+01	.77186078E+00	.24500143E+02	.0	.74000063E-04	.57478548E+04	.21439489E+01	
1861	.59568466E+00	.63503685E+00	.45340179E-01	.80339917E+04	.56530630E+04	.48129899E+04	.16614704E+09	.27675911E+05	9
		.11795606E+01	.79097667E+00	.32039036E+02	.0	.74009611E-04	.55928194E+04	.22140428E+01	
1873	.73611111E+00	.0	.67969112E-01	.10091973E+05	.0	.50236234E+04	.16463861E+09	.44915904E+05	1
		.11869722E+01	.74865734E+00	.0	.0	.74000001E-04	.60660179E+04	.20089825E+01	
1885	.66703141E+00	.42452713E+00	.50356114E-01	.96516887E+04	.44696938E+04	.48673954E+04	.16577707E+09	.31335449E+05	9
		.11833262E+01	.76422892E+00	.24848839E+02	.0	.74000060E-04	.57070403E+04	.21652369E+01	
1897	.62882704E+00	.65308874E+00	.43189788E-01	.91374803E+04	.56547691E+04	.48185083E+04	.16613371E+09	.26383805E+05	9
		.11813099E+01	.77311023E+00	.31748330E+02	.0	.74009561E-04	.55997532E+04	.22306113E+01	
1909	.76351852E+00	.0	.62696749E-01	.10274512E+05	.0	.50068410E+04	.16465078E+09	.41100613E+05	1
		.11885417E+01	.74216582E+00	.0	.0	.74000001E-04	.60197034E+04	.20520946E+01	
1921	.69991207E+00	.43277813E+00	.46358628E-01	.97793009E+04	.45875288E+04	.48562571E+04	.16587412E+09	.28673976E+05	9
		.11850615E+01	.75674046E+00	.25131556E+02	.0	.74000058E-04	.56750444E+04	.22243177E+01	
1933	.66196942E+00	.67103801E+00	.41323366E-01	.92430052E+04	.56375808E+04	.48250107E+04	.16610537E+09	.25274395E+05	9
		.11830591E+01	.76539440E+00	.31382244E+02	.0	.74009550E-04	.56089765E+04	.22438518E+01	
1945	.83092592E+00	.0	.57939276E-01	.10451796E+05	.0	.49843490E+04	.16475347E+09	.37607626E+05	1
		.11896220E+01	.73785684E+00	.0	.0	.74000001E-04	.59609755E+04	.20969235E+01	
1957	.73279272E+00	.44355294E+00	.42822537E-01	.99018308E+04	.46919438E+04	.48463204E+04	.16597433E+09	.26339965E+05	9
		.11867971E+01	.74939142E+00	.25353818E+02	.0	.74000056E-04	.56459789E+04	.22609296E+01	
1969	.69511181E+00	.68885582E+00	.39455275E-01	.93443207E+04	.56338977E+04	.48306057E+04	.16609824E+09	.24152112E+05	9
		.11849385E+01	.75782492E+00	.31086705E+02	.0	.74009535E-04	.56161023E+04	.22587914E+01	
1981	.83333333E+00	.0	.53648990E-01	.10622014E+05	.0	.49624063E+04	.16486259E+09	.34485612E+05	1
		.11907023E+01	.73359679E+00	.0	.0	.74000001E-04	.59038919E+04	.21404967E+01	
1993	.75567338E+00	.45494627E+00	.39640374E-01	.10026453E+05	.47838101E+04	.48338054E+04	.16613742E+09	.24223185E+05	9
		.11884468E+01	.74254548E+00	.25556915E+02	.0	.74000053E-04	.56112071E+04	.22582333E+01	
2005	.72825419E+00	.70655331E+00	.37773409E-01	.94430769E+04	.56188041E+04	.48371846E+04	.16617346E+09	.23151421E+05	9
		.11865575E+01	.75039767E+00	.30753422E+02	.0	.74009313E-04	.56255179E+04	.22716306E+01	
2017	.86641143E+00	.0	.49716447E-01	.10736792E+05	.0	.49408842E+04	.16497082E+09	.31651857E+05	1
		.11918350E+01	.72929793E+00	.0	.0	.74000001E-04	.58480313E+04	.21331703E+01	
2029	.79393650E+00	.46693359E+00	.36682921E-01	.10153403E+05	.48692727E+04	.48148232E+04	.16619154E+09	.22218868E+05	9
		.11895876E+01	.73799335E+00	.25621003E+02	.0	.74000054E-04	.55625277E+04	.23387386E+01	
2041	.76313605E+00	.72517020E+00	.36072438E-01	.95497465E+04	.56048056E+04	.48412961E+04	.16601457E+09	.22112877E+05	9
		.11883613E+01	.74289034E+00	.30409938E+02	.0	.74009788E-04	.56289691E+04	.22871991E+01	
2053	.89954998E+00	.0	.46167377E-01	.10944565E+05	.0	.49270211E+04	.16598127E+09	.29117664E+05	1
		.11929096E+01	.72504053E+00	.0	.0	.74000751E-04	.57940257E+04	.22244956E+01	
2065	.83417536E+00	.47895732E+00	.34451972E-01	.10275833E+05	.49424768E+04	.47971197E+04	.16633799E+09	.20454312E+05	9
		.11907304E+01	.73348652E+00	.25696660E+02	.0	.74041141E-04	.55170365E+04	.23769815E+01	
2077	.79802152E+00	.74368833E+00	.34495500E-01	.96547611E+04	.55868895E+04	.48378164E+04	.16602843E+09	.21395149E+05	9
		.11895252E+01	.73624100E+00	.30056541E+02	.0	.81692995E-04	.56160415E+04	.23057341E+01	
2089	.93280990E+00	.0	.42951581E-01	.11096160E+05	.0	.48997433E+04	.16519413E+09	.26841683E+05	1
		.11940184E+01	.72081634E+00	.0	.0	.74000001E-04	.57416727E+04	.22646412E+01	
2101	.86858468E+00	.49073953E+00	.31701987E-01	.10394424E+05	.50041430E+04	.47805916E+04	.16647551E+09	.18893531E+05	9
		.11918774E+01	.72901719E+00	.25737361E+02	.0	.74000050E-04	.54744482E+04	.24131466E+01	
2113	.93306506E+00	.76214195E+00	.33012861E-01	.97592614E+04	.55700583E+04	.48343357E+04	.16606151E+09	.21396445E+05	9
		.11906933E+01	.73363177E+00	.29715892E+02	.0	.74009544E-04	.56031242E+04	.23243653E+01	
2125	.96625298E+00	.0	.41025475E-01	.11242264E+05	.0	.48799693E+04	.16530865E+09	.24781995E+05	1
		.11951332E+01	.71661731E+00	.0	.0	.74006452E-04	.56977522E+04	.23137572E+01	

ITERATION NUMBER 2003 DTIME = .24767202E-06 TIME = .34673598E-02

NODE	X	Y / GAM	RHO / CV	J / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
2137	.90318248E+00	.50260194E+00	.29595361E-01	.10509705E+05	.50548036E+04	.47652109E+04	.16660458E+09	.17507785E+05	9
		.11933307E+01	.72457683E+02	.25685941E+02	.0	.74354539E-04	.54346550E+04	.24473451E+01	
2149	.86830148E+00	.78056485E+00	.31546359E-01	.98582728E+04	.55611431E+04	.48307490E+04	.16610249E+09	.19197514E+05	9
		.11918680E+01	.72905376E+02	.29427748E+02	.0	.14372987E-03	.55899643E+04	.23430426E+01	
2161	.99994236E+00	.0	.37530821E-01	.11383444E+05	.0	.48606117E+04	.16542296E+09	.22527291E+05	1
		.11962562E+01	.71243567E+02	.0	.0	.74000001E-04	.56410354E+04	.23419776E+01	
2173	.93803509E+00	.51446617E+00	.27701123E-01	.10622108E+05	.50948165E+04	.47509628E+04	.16672533E+09	.16273513E+05	9
		.11941925E+01	.72015717E+02	.25624366E+02	.0	.74000045E-04	.53975833E+04	.24796576E+01	
2185	.98379741E+00	.79899057E+00	.30229095E-01	.99540593E+04	.55431875E+04	.48276854E+04	.16609714E+09	.18354346E+05	9
		.11930512E+01	.72449839E+02	.29112432E+02	.0	.74009153E-04	.55780075E+04	.23600189E+01	
2197	.10339430E+01	.0	.34896320E-01	.11520195E+05	.0	.48415768E+04	.16553509E+09	.21233667E+05	1
		.11973896E+01	.70826352E+02	.0	.0	.74006270E-04	.55922930E+04	.23794304E+01	
2209	.97320975E+00	.52635382E+00	.25993697E-01	.10732026E+05	.51243452E+04	.47378519E+04	.16683801E+09	.15171395E+05	9
		.11953651E+01	.71574996E+02	.25523619E+02	.0	.74347093E-04	.53632049E+04	.25101369E+01	
2221	.93962134E+00	.81745266E+00	.28960709E-01	.10049015E+05	.55281613E+04	.48251837E+04	.16613688E+09	.17548429E+05	9
		.11942454E+01	.71995721E+02	.28816059E+02	.0	.14535847E-03	.55673289E+04	.23769524E+01	
2233	.10683224E+01	.0	.32634535E-01	.11652920E+05	.0	.48227725E+04	.16564240E+09	.19684072E+05	1
		.11985357E+01	.70409343E+02	.0	.0	.74000001E-04	.55442646E+04	.24162284E+01	
2245	.10087761E+01	.53828667E+00	.24451443E-01	.10839773E+05	.51434543E+04	.47258840E+04	.16694220E+09	.14135166E+05	9
		.11965507E+01	.71134702E+02	.25384263E+02	.0	.74000042E-04	.53314964E+04	.25388177E+01	
2257	.97584422E+00	.83558494E+00	.27788887E-01	.10138531E+05	.55065268E+04	.48231348E+04	.16611567E+09	.16807686E+05	9
		.11954529E+01	.71542191E+02	.28547652E+02	.0	.74008817E-04	.55576627E+04	.23920962E+01	
2269	.11031506E+01	.0	.30541894E-01	.11781960E+05	.0	.48041016E+04	.16574183E+09	.18261810E+05	1
		.11996967E+01	.69991771E+02	.0	.0	.74005927E-04	.54967414E+04	.24524792E+01	
2281	.10448069E+01	.55028661E+00	.23156348E-01	.10945648E+05	.51520598E+04	.47151032E+04	.16703862E+09	.13301512E+05	9
		.11977518E+01	.70694754E+02	.25206123E+02	.0	.74332524E-04	.53025221E+04	.25657040E+01	
2293	.10125401E+01	.85462174E+00	.26659165E-01	.10233045E+05	.54816883E+04	.48213402E+04	.16614799E+09	.16119499E+05	9
		.11966762E+01	.71088418E+02	.28177284E+02	.0	.14506170E-03	.55485378E+04	.24077942E+01	
2305	.11385015E+01	.0	.28598514E-01	.11907640E+05	.0	.47854821E+04	.16583117E+09	.16950868E+05	1
		.12008751E+01	.69572970E+02	.0	.0	.74000001E-04	.54495133E+04	.24882943E+01	
2317	.10813784E+01	.56237684E+00	.21792905E-01	.11049842E+05	.51499769E+04	.47054976E+04	.16712451E+09	.12503710E+05	9
		.11989709E+01	.70252236E+02	.24988716E+02	.0	.74000039E-04	.52762207E+04	.25908063E+01	
2329	.10497866E+01	.87339813E+00	.25579186E-01	.10322028E+05	.54693163E+04	.48192249E+04	.16618744E+09	.15413776E+05	9
		.11979178E+01	.70633574E+02	.27917702E+02	.0	.74008591E-04	.55386292E+04	.24239397E+01	
2341	.11744531E+01	.0	.26797798E-01	.12030102E+05	.0	.47667862E+04	.16590457E+09	.15738098E+05	1
		.12028736E+01	.69151955E+02	.0	.0	.74000001E-04	.54922805E+04	.25237342E+01	
2353	.11185713E+01	.57458001E+00	.23648099E-01	.11152574E+05	.51370373E+04	.46972233E+04	.16720458E+09	.11797775E+05	9
		.12002107E+01	.69808432E+02	.24731483E+02	.0	.74000038E-04	.52529091E+04	.26140561E+01	
2365	.10876660E+01	.89235824E+00	.24588621E-01	.10411299E+05	.54451577E+04	.48175730E+04	.16618047E+09	.14791124E+05	9
		.11991805E+01	.70176821E+02	.27612035E+02	.0	.74008254E-04	.55297024E+04	.24396480E+01	
2377	.12110681E+01	.0	.25094973E-01	.12149679E+05	.0	.47480829E+04	.16596647E+09	.14613231E+05	1
		.12032948E+01	.68727965E+02	.0	.0	.74005725E-04	.53551919E+04	.25588603E+01	
2389	.11564713E+01	.58692043E+00	.19639403E-01	.11254108E+05	.51132047E+04	.46900058E+04	.16726742E+09	.11158136E+05	9
		.12014741E+01	.69361812E+02	.24433494E+02	.0	.74332457E-04	.52319409E+04	.26356359E+01	
2401	.11262656E+01	.91151549E+00	.23553983E-01	.10496649E+05	.54360579E+04	.48155143E+04	.16622405E+09	.14141463E+05	9
		.12004672E+01	.69717306E+02	.27378964E+02	.0	.14767757E-03	.55197743E+04	.24547244E+01	
2413	.12484952E+01	.0	.23513981E-01	.12268595E+05	.0	.47267237E+04	.16599072E+09	.13550958E+05	1
		.12044445E+01	.68334116E+02	.0	.0	.74000001E-04	.53126239E+04	.25955811E+01	
2425	.11951699E+01	.59942323E+00	.18668192E-01	.11353905E+05	.50779585E+04	.46846776E+04	.16736528E+09	.10586990E+05	9
		.12027642E+01	.68911525E+02	.24095842E+02	.0	.74000035E-04	.52151260E+04	.26549737E+01	
2437	.11656785E+01	.93093294E+00	.22627053E-01	.10579264E+05	.54136585E+04	.48142461E+04	.16619073E+09	.13562950E+05	9
		.12017811E+01	.69254157E+02	.27099894E+02	.0	.74007875E-04	.55115684E+04	.24684989E+01	

ITERATION NUMBER 2000 DTIME = .24767202E-06 TIME = .34673593E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
2449	.12367695E+01	.0	.22307265E-01	.12386492E+05	.0	.47004892E+04	.16690497[illegible]E+09	.12539537E+05	1
		.12052[illegible]72E+01	.68[illegible]78741E+00	.0	.0	.74005301E-04	.52407692E+04	.26351496E+01	
2461	.12347658E+01	.61211481E+00	.17809402E-01	.11454589E+05	.50319245E+04	.46791711E+04	.16736224E+09	.10065267E+05	9
		.12040841E+01	.68456692E+00	.23715144E+02	.0	.74318806E-04	.51978792E+04	.26737791E+01	
2473	.12065053E+01	.95064358E+00	.21719676E-01	.10663492E+05	.53939693E+04	.48131250E+04	.16619624E+09	.12998454E+05	9
		.12031254E+01	.68786473E+00	.26831976E+02	.0	.14574237E-03	.55035946E+04	.24828178E+01	
2485	.13260141E+01	.0	.20599847E-01	.12501304E+05	.0	.46739980E+04	.16608186E+09	.11598253E+05	1
		.12059892E+01	.67917444E+00	.0	.0	.74000001E-04	.51786777E+04	.26746493E+01	
2497	.12753655E+01	.62582307E+00	.17024053E-01	.11556902E+05	.49749614E+04	.46695552E+04	.16743563E+09	.95747866E+04	9
		.12049759E+01	.68154141E+00	.23290687E+02	.0	.74000034E-04	.51729447E+04	.26945218E+01	
2509	.12473543E+01	.97769072E+00	.20838189E-01	.10749856E+05	.53724490E+04	.48099489E+04	.16617826E+09	.12441056E+05	9
		.12044218E+01	.68341779E+00	.26554480E+02	.0	.74007737E-04	.54913969E+04	.24984872E+01	
2521	.13663408E+01	.0	.19274996E-01	.12613227E+05	.0	.46471362E+04	.16608394E+09	.11720804E+05	1
		.12067927E+01	.67551715E+00	.0	.0	.74000001E-04	.51160725E+04	.27141935E+01	
2533	.13170846E+01	.63817764E+00	.16306491E-01	.11658244E+05	.49082343E+04	.46602109E+04	.16751372E+09	.91282444E+04	9
		.12058112E+01	.67876565E+00	.22831567E+02	.0	.74000032E-04	.51488838E+04	.27143245E+01	
2545	.12898435E+01	.99112039E+00	.20017135E-01	.10837117E+05	.53445611E+04	.48017968E+04	.16620065E+09	.11902016E+05	9
		.12052684E+01	.68057557E+00	.26251219E+02	.0	.74007296E-04	.54688433E+04	.25164233E+01	
2557	.14078719E+01	.0	.18027012E-01	.12722489E+05	.0	.46198442E+04	.16605533E+09	.99024564E+04	1
		.12076203E+01	.67280199E+00	.0	.0	.74004590E-04	.50528618E+04	.27538783E+01	
2569	.13503496E+01	.65161[illegible]20E+00	.15647872E-01	.11758298E+05	.49327123E+04	.46519305E+04	.16758387E+09	.87226492E+04	9
		.12066674E+01	.67593234E+00	.22342878E+02	.0	.74296086E-04	.51271402E+04	.27327791E+01	
2581	.13336016E+01	.10119918E+01	.19190514E-01	.10925811E+05	.53251117E+04	.47929393E+04	.16625891E+09	.11360242E+05	9
		.12061404E+01	.67767268E+00	.25984059E+02	.0	.14100775E-03	.54449399E+04	.25359031E+01	
2593	.14507415E+01	.0	.16851378E-01	.12829406E+05	.0	.45923834E+04	.16599752E+09	.91392884E+04	1
		.12084745E+01	.67002195E+00	.0	.0	.74000000E-04	.49889626E+04	.27938795E+01	
2605	.14043994E+01	.66535479E+00	.15037661E-01	.11857156E+05	.47499465E+04	.46445448E+04	.16764738E+09	.83494148E+04	9
		.12075511E+01	.67302819E+00	.21830497E+02	.0	.74000032E-04	.51073162E+04	.27501388E+01	
2617	.13787700E+01	.10333278E+01	.19374717E-01	.11012353E+05	.53094257E+04	.47841501E+04	.16631771E+09	.10829375E+05	9
		.12070404E+01	.67473229E+00	.25743276E+02	.0	.74007314E-04	.54211413E+04	.25554093E+01	
2629	.14950976E+01	.0	.15745190E-01	.12934435E+05	.0	.45638384E+04	.16591482E+09	.84294143E+04	1
		.12093584E+01	.66716938E+00	.0	.0	.74000000E-04	.49243545E+04	.28341133E+01	
2641	.14502870E+01	.67944921E+00	.14466863E-01	.11954908E+05	.46613266E+04	.46378493E+04	.16770561E+09	.80032858E+04	9
		.12084655E+01	.67305129E+00	.21301260E+02	.0	.74000032E-04	.50889372E+04	.27666950E+01	
2653	.14255347E+01	.10552156E+01	.17611200E-01	.11095709E+05	.52869485E+04	.47759640E+04	.16632814E+09	.10335922E+05	9
		.12079716E+01	.67165576E+00	.25477140E+02	.0	.74006829E-04	.53986441E+04	.25734940E+01	
2665	.15411043E+01	.0	.14734966E-01	.13339125E+05	.0	.45350924E+04	.16581290E+09	.77668898E+04	1
		.12102751E+01	.66423603E+00	.0	.0	.74000000E-04	.48597139E+04	.28749414E+01	
2677	.14978823E+01	.69393940E+00	.13924597E-01	.12051714E+05	.45692238E+04	.46316255E+04	.16776141E+09	.76766106E+04	9
		.12094139E+01	.66699109E+00	.20763460E+02	.0	.74000031E-04	.50715332E+04	.27827849E+01	
2689	.14739785E+01	.10777171E+01	.16855793E-01	.11181049E+05	.52681548E+04	.47670557E+04	.16635100E+09	.98478341E+04	9
		.12089375E+01	.66852455E+00	.25228324E+02	.0	.74006843E-04	.53744372E+04	.25927928E+01	
2701	.15889445E+01	.0	.13728957E-01	.13141142E+05	.0	.45058807E+04	.16570104E+09	.71526309E+04	1
		.12112284E+01	.66121272E+00	.0	.0	.74006673E-04	.47930293E+04	.29164425E+01	
2713	.15473743E+01	.70884497E+00	.13402322E-01	.12147703E+05	.44757986E+04	.46255903E+04	.16781526E+09	.73634335E+04	9
		.12104303E+01	.66383827E+00	.20226227E+02	.0	.74484057E-04	.50543761E+04	.27987825E+01	
2725	.15243340E+01	.11100871E+01	.16385855E-01	.11267955E+05	.52576529E+04	.47574538E+04	.16640644E+09	.93524137E+04	9
		.12099419E+01	.66529512E+00	.25013963E+02	.0	.18121966E-03	.53485627E+04	.26136282E+01	
2737	.16388228E+01	.0	.12812579E-01	.13244119E+05	.0	.44760532E+04	.16558178E+09	.65817248E+04	1
		.12122223E+01	.65838957E+00	.0	.0	.74006850E-04	.47260955E+04	.29588831E+01	
2749	.15929748E+01	.72423975E+00	.12890036E-01	.12243083E+05	.43832093E+04	.46195813E+04	.16797189E+09	.70575927E+04	9
		.12114283E+01	.66058231E+00	.19699139E+02	.0	.74512059E-04	.50371839E+04	.28149869E+01	

ITERATION NUMBER 2000[illegible] DTIME = .247672[illegible]E-06 TIME = .34673597E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
2761	.15769370E+01	.11247790E+01	.15363237E-01	.11352523E+05	.52387877E+04	.47489476E+04	.16642854E+09	.88926702E+04	9
		.12109891E+01	.66196897E+00	.24771652E+02	.0	.18663752E-03	.53250912E+04	.26327911E+01	
2773	.15939696E+01	.[illegible]	.11953265E-01	.13347253E+05	.0	.44458751E+04	.16546663E+09	.61525955E+04	1
		.12132614E+01	.65485557E+00	.0	.0	.74007022E-04	.46587856E+04	.30021656E+01	
2785	.16529221E+01	.74016746E+00	.12381939E-01	.12338050E+05	.42935599E+04	.46131839E+04	.16792595E+09	.67546435E+04	9
		.12125032E+01	.65721203E+00	.19187559E+02	.0	.74540484E-04	.50190076E+04	.28318342E+01	
2797	.16318200E+01	.11495155E+01	.14694451E-01	.11436589E+05	.52085021E+04	.47413543E+04	.16641295E+09	.84707220E+04	9
		.12120839E+01	.65852254E+00	.24485679E+02	.0	.19238979E-03	.53035169E+04	.26504630E+01	
2809	.17456451E+01	.0	.11142519E-01	.13451715E+05	.0	.44141975E+04	.16533163E+09	.55569653E+04	1
		.12143508E+01	.65149828E+00	.0	.0	.74007070E-04	.45887155E+04	.33473751E+01	
2821	.17394855E+01	.75668647E+00	.11873949E-01	.12432634E+05	.42083913E+04	.46067050E+04	.16799289E+09	.64517092E+04	9
		.12136303E+01	.65371474E+00	.18706731E+02	.0	.74559707E-04	.50005005E+04	.28492347E+01	
2833	.16894875E+01	.11751703E+01	.14029841E-01	.11524698E+05	.51818752E+04	.47334349E+04	.16644305E+09	.80529815E+04	9
		.12132318E+01	.65494698E+00	.24210218E+02	.0	.19609826E-03	.52910598E+04	.26695369E+01	
2845	.18031456E+01	.0	.10377529E-01	.13557152E+05	.0	.43785458E+04	.16520266E+09	.53885615E+04	1
		.12152166E+01	.64886279E+00	.0	.0	.74006785E-04	.45117790E+04	.30962682E+01	
2857	.17589714E+01	.77396172E+00	.11356269E-01	.12529321E+05	.41279573E+04	.45981723E+04	.16803785E+09	.61433496E+04	9
		.12147750E+01	.65120163E+00	.18236538E+02	.0	.74551736E-04	.49775211E+04	.28687188E+01	
2869	.17500714E+01	.12318443E+01	.13323529E-01	.11616771E+05	.51736546E+04	.47225029E+04	.16649498E+09	.76547154E+04	9
		.12144390E+01	.65122799E+00	.24006447E+02	.0	.19346842E-03	.52517263E+04	.26927880E+01	
2881	.18638093E+01	.0	.96488317E-02	.13663829E+05	.0	.43397371E+04	.16505331E+09	.46447548E+04	1
		.12160604E+01	.64649965E+00	.0	.0	.74006340E-04	.44293552E+04	.31485384E+01	
2893	.18317297E+01	.79176579E+00	.10937486E-01	.12625973E+05	.41515947E+04	.45850186E+04	.16813412E+09	.58253232E+04	9
		.12155859E+01	.64774716E+00	.17791106E+02	.0	.74529194E-04	.49458499E+04	.28920524E+01	
2905	.18139881E+01	.12296501E+01	.12632205E-01	.11737841E+05	.51645131E+04	.47079278E+04	.16655612E+09	.71602785E+04	9
		.12153567E+01	.64843914E+00	.23813032E+02	.0	.19733490E-03	.52155313E+04	.27180361E+01	
2917	.19295259E+01	.0	.89445949E-02	.13769213E+05	.0	.42992131E+04	.16484145E+09	.42227628E+04	1
		.12168495E+01	.64395891E+00	.0	.0	.74018565E-04	.43440482E+04	.32027281E+01	
2929	.18977033E+01	.80984893E+00	.10321198E-01	.12722476E+05	.39788517E+04	.45716290E+04	.16822753E+09	.55115904E+04	9
		.12164383E+01	.64518677E+00	.17366652E+02	.0	.75591899E-04	.49136299E+04	.29158405E+01	
2941	.18801632E+01	.12577341E+01	.12058714E-01	.11793538E+05	.51210759E+04	.46966104E+04	.16654113E+09	.67976787E+04	9
		.12162139E+01	.64596784E+00	.23471831E+02	.0	.41693894E-03	.51869146E+04	.27375932E+01	
2953	.19952527E+01	.0	.83139969E-02	.13867575E+05	.0	.42591517E+04	.16458541E+09	.38495605E+04	1
		.12176988E+01	.64143769E+00	.0	.0	.74028706E-04	.42655541E+04	.32559476E+01	
2965	.19536850E+01	.82770924E+00	.98364697E-02	.12814369E+05	.39122530E+04	.45586299E+04	.16832255E+09	.52192545E+04	9
		.12172909E+01	.64264616E+00	.16977537E+02	.0	.76523937E-04	.48823744E+04	.29391014E+01	
2977	.19462265E+01	.12854729E+01	.11627759E-01	.11873904E+05	.50373538E+04	.46906367E+04	.16646583E+09	.65334214E+04	9
		.12170653E+01	.64331645E+00	.22988471E+02	.0	.62409118E-03	.51701703E+04	.27497847E+01	
2989	.20609947E+01	.0	.77492605E-02	.13959923E+05	.0	.42195565E+04	.16429594E+09	.35192173E+04	1
		.12185483E+01	.63893544E+00	.0	.0	.74027792E-04	.41788501E+04	.33083817E+01	
3001	.20296830E+01	.84535218E+00	.93834910E-02	.12902086E+05	.38510537E+04	.45461304E+04	.16941884E+09	.49481704E+04	9
		.12181437E+01	.64012479E+00	.16615394E+02	.0	.76501023E-04	.48523066E+04	.29617004E+01	
3013	.20123662E+01	.13128724E+01	.11293654E-01	.11958944E+05	.49284293E+04	.46979026E+04	.16635937E+09	.63339634E+04	9
		.12179199E+01	.64078445E+00	.22410678E+02	.0	.62898752E-03	.51605951E+04	.27575821E+01	
3025	.21267610E+01	.0	.72434259E-02	.14047249E+05	.0	.41804724E+04	.16398655E+09	.32265926E+04	1
		.12193580E+01	.63645166E+00	.0	.0	.74026394E-04	.40899944E+04	.33602059E+01	
3037	.20957055E+01	.86278307E+00	.89624310E-02	.12985867E+05	.37905593E+04	.45342430E+04	.16851439E+09	.46981599E+04	9
		.12189968E+01	.63762213E+00	.16272471E+02	.0	.76427999E-04	.48236546E+04	.29834711E+01	
3049	.21785303E+01	.13399434E+01	.10936421E-01	.12024846E+05	.48217551E+04	.46854299E+04	.16625691E+09	.61507293E+04	9
		.12187748E+01	.63827129E+00	.21849931E+02	.0	.62248269E-03	.51516101E+04	.27658716E+01	
3061	.21925598E+01	.0	.67996895E-02	.14130555E+05	.0	.41419676E+04	.16367041E+09	.29669485E+04	1
		.12202432E+01	.63398583E+00	.0	.0	.74025141E-04	.40210873E+04	.34115562E+01	

ITERATION NUMBER 20000 DTIME = .24767202E-05 TIME = .34673590E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
3073	.21617605E+01	.88069701E+00	.85724185E-02	.13065837E+05	.37326238E+04	.45230059E+04	.16860606E+09	.44683388E+04	9
		.12198503E+01	.63513767E+00	.15943481E+02	.0	.76359068E-04	.47964859E+04	.36043174E+01	
3085	.21447271E+01	.13666930E+01	.10665651E-01	.12956616E+05	.47331246E+04	.46812551E+04	.16516283E+09	.59563306E+04	9
		.12196302E+01	.63577649E+00	.21378859E+02	.0	.61506388E-03	.51389013E+04	.27746196E+01	
3097	.22563992E+01	.0	.63813472E-02	.14210438E+05	.0	.41038937E+04	.16334961E+09	.27354467E+04	1
		.12210989E+01	.63153746E+00	.0	.0	.74024039E-04	.39448075E+04	.34626720E+01	
3109	.22278564E+01	.85702895E+00	.82117899E-02	.13142182E+05	.36754766E+04	.45124646E+04	.16869294E+09	.42574535E+04	9
		.12207343E+01	.63267091E+00	.15624723E+02	.0	.76299095E-04	.47708827E+04	.36241716E+01	
3121	.22109647E+01	.13931289E+01	.10298662E-01	.12163097E+05	.46774398E+04	.46740336E+04	.16699356E+09	.57296301E+04	9
		.12204960E+01	.63329950E+00	.21034744E+02	.0	.63551195E-03	.51185391E+04	.27863573E+01	
3133	.23242874E+01	.0	.63137318E-02	.14286832E+05	.0	.40663028E+04	.16302313E+09	.25279482E+04	1
		.12219503E+01	.62910606E+00	.0	.0	.74023965E-04	.38722795E+04	.35134697E+01	
3145	.22940612E+01	.91385367E+00	.78763753E-02	.13214963E+05	.36187402E+04	.45025215E+04	.16876975E+09	.40637666E+04	9
		.12215598E+01	.63022136E+00	.15314261E+02	.0	.76246679E-04	.47466256E+04	.36436679E+01	
3157	.22772514E+01	.14192584E+01	.99942883E-02	.12227399E+05	.46493306E+04	.46643536E+04	.16604002E+09	.54780369E+04	9
		.12213425E+01	.63083987E+00	.20817513E+02	.0	.59413002E-03	.50948533E+04	.28045452E+01	
3169	.23902326E+01	.0	.56722004E-02	.14359722E+05	.0	.40283326E+04	.16266353E+09	.23395961E+04	1
		.12228024E+01	.62669117E+00	.0	.0	.74022203E-04	.37956943E+04	.35646813E+01	
3181	.23602032E+01	.93748573E+00	.75698269E-02	.13284358E+05	.35622415E+04	.44933194E+04	.16884159E+09	.38859485E+04	9
		.12224144E+01	.62778854E+00	.15319899E+02	.0	.76202044E-04	.47240032E+04	.36609176E+01	
3193	.23435955E+01	.14450869E+01	.94774244E-02	.12288622E+05	.46400146E+04	.46532648E+04	.16600144E+09	.52186553E+04	9
		.12221998E+01	.62839709E+00	.20685847E+02	.0	.58225558E-03	.50671739E+04	.28228453E+01	
3205	.24562430E+01	.0	.53604673E-02	.14428622E+05	.0	.39881596E+04	.16227100E+09	.21659772E+04	1
		.12234572E+01	.62485026E+00	.0	.0	.74021388E-04	.37184015E+04	.36179648E+01	
3217	.24264707E+01	.94692975E+00	.72828344E-02	.13351646E+05	.35061818E+04	.44832955E+04	.16889732E+09	.37195395E+04	9
		.12232197E+01	.62554389E+00	.14713823E+02	.0	.76159319E-04	.46999487E+04	.36796307E+01	
3229	.24100352E+01	.14706272E+01	.90588793E-02	.12348168E+05	.46415789E+04	.46409179E+04	.16595913E+09	.49582701E+04	9
		.12230579E+01	.62597070E+00	.20600845E+02	.0	.56916793E-03	.50368553E+04	.28424813E+01	
3241	.25223268E+01	.0	.59726049E-02	.14482444E+05	.0	.39468161E+04	.16182873E+09	.21064858E+04	1
		.12240064E+01	.62331612E+00	.0	.0	.74020686E-04	.36490858E+04	.36719328E+01	
3253	.24928119E+01	.96318990E+00	.78145157E-02	.13417042E+05	.34514326E+04	.44713327E+04	.16897645E+09	.35618036E+04	9
		.12237611E+01	.62400039E+00	.14426125E+02	.0	.76125638E-04	.46728105E+04	.36983734E+01	
3265	.24764987E+01	.14958800E+01	.86804274E-02	.12405849E+05	.46357761E+04	.46264003E+04	.16592998E+09	.47192609E+04	9
		.12236254E+01	.62437946E+00	.20488028E+02	.0	.55900026E-03	.50030905E+04	.28628378E+01	
3277	.25884924E+01	.0	.48073415E-02	.14551076E+05	.0	.39053286E+04	.16133092E+09	.18609573E+04	1
		.12245563E+01	.62178761E+00	.0	.0	.74019935E-04	.35623735E+04	.37259544E+01	
3289	.25592352E+01	.97927140E+00	.67620155E-02	.13480080E+05	.33989957E+04	.44597305E+04	.16905488E+09	.34142541E+04	9
		.12243131E+01	.62246257E+00	.14152099E+02	.0	.76083742E-04	.46465123E+04	.37170298E+01	
3301	.25430545E+01	.15208538E+01	.83258374E-02	.12463589E+05	.46271707E+04	.46128724E+04	.16591197E+09	.44961155E+04	9
		.12241786E+01	.62283648E+00	.20367700E+02	.0	.54702436E-03	.49716445E+04	.29821092E+01	
3313	.25547481E+01	.0	.45644819E-02	.14605593E+05	.0	.38639897E+04	.16080054E+09	.17289577E+04	1
		.12251269E+01	.62026449E+00	.0	.0	.74019396E-04	.34858101E+04	.37799254E+01	
3325	.26257489E+01	.99517530E+00	.65224232E-02	.13541083E+05	.33498109E+04	.44483521E+04	.16913437E+09	.32751189E+04	9
		.12248659E+01	.62093022E+00	.13994939E+02	.0	.76058605E-04	.46207625E+04	.31358289E+01	
3337	.26097113E+01	.15455548E+01	.81239289E-02	.12519374E+05	.46008176E+04	.46013611E+04	.16586319E+09	.43113486E+04	9
		.12247326E+01	.62129901E+00	.20179651E+02	.0	.54095088E-03	.49446402E+04	.28985048E+01	
3349	.27211023E+01	.0	.43440425E-02	.14657690E+05	.0	.38231941E+04	.16027235E+09	.16130172E+04	1
		.12256583E+01	.61874656E+00	.0	.0	.74018645E-04	.34110597E+04	.38338866E+01	
3361	.26923615E+01	.10109485E+01	.62935944E-02	.13600169E+05	.33044384E+04	.44371184E+04	.16921508E+09	.31427581E+04	9
		.12254195E+01	.61940313E+00	.13656547E+02	.0	.76007394E-04	.45953935E+04	.31542663E+01	
3373	.26764655E+01	.15699393E+01	.77485184E-02	.12571520E+05	.45682794E+04	.45911322E+04	.16591595E+09	.41437030E+04	9
		.12252574E+01	.61976684E+00	.19970295E+02	.0	.52966333E-03	.49234709E+04	.29134013E+01	

ITERATION NUMBER 20000 DTIME = .2476721E-05 TIME = .3467359E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
3385	.27875633E+01	.0	.41453284E-02	.14709089E+05	.0	.37832567E+04	.15977910E+09	.15039051E+04	1
		.12262107E+01	.61723361E+01	.0	.0	.74018298E-04	.33346747E+04	.39879437E+01	
3397	.27590813E+01	.13264739E+01	.60743216E-02	.13657327E+05	.32629116E+04	.44260072E+04	.16929497E+09	.30167154E+04	9
		.12259741E+01	.61748108E+01	.13436825E+02	.0	.75991406E-04	.45713403E+04	.31725471E+01	
3409	.27433295E+01	.15941629E+01	.75097395E-02	.12622593E+05	.45236892E+04	.45824508E+04	.16574653E+09	.39978153E+04	9
		.12258431E+01	.61823975E+01	.19716681E+02	.0	.52786662E-03	.48996754E+04	.29261011E+01	
3421	.28541396E+01	.0	.39664055E-02	.14760869E+05	.0	.37442625E+04	.15933778E+09	.14088463E+04	1
		.12267640E+01	.61572541E+01	.0	.0	.74017706E-04	.32687421E+04	.39422632E+01	
3433	.29259170E+01	.10418748E+01	.58640138E-02	.13712553E+05	.32248817E+04	.44150026E+04	.16937210E+09	.28965009E+04	9
		.12265294E+01	.61636386E+01	.13234180E+02	.0	.75945273E-04	.45456126E+04	.31963445E+01	
3445	.29103085E+01	.16180814E+01	.72874669E-02	.12671841E+05	.44760812E+04	.45745165E+04	.16567266E+09	.38648256E+04	9
		.12263997E+01	.61671752E+01	.19454776E+02	.0	.51969937E-03	.48805241E+04	.29378305E+01	
3457	.29258399E+01	.0	.38041210E-02	.14813021E+05	.0	.37069084E+04	.15894181E+09	.13231371E+04	1
		.12273183E+01	.61422178E+01	.0	.0	.74017289E-04	.32088565E+04	.39970284E+01	
3469	.29928770E+01	.10571151E+01	.56624650E-02	.13765939E+05	.31897721E+04	.44041479E+04	.16944578E+09	.27819499E+04	9
		.12270859E+01	.61485126E+01	.13046045E+02	.0	.75912456E-04	.45212530E+04	.32084904E+01	
3481	.28774122E+01	.16417504E+01	.70817817E-02	.12719195E+05	.44264932E+04	.45671579E+04	.16559089E+09	.37419679E+04	9
		.12269574E+01	.61519994E+01	.19188945E+02	.0	.51495633E-03	.48526410E+04	.29487351E+01	
3493	.29876726E+01	.0	.36546019E-02	.14864413E+05	.0	.36689624E+04	.15856215E+09	.12446715E+04	1
		.12278737E+01	.61272249E+01	.0	.0	.74017051E-04	.31342373E+04	.40523884E+01	
3505	.29599701E+01	.10721982E+01	.54696455E-02	.13817672E+05	.31569578E+04	.43934697E+04	.16951695E+09	.26729692E+04	9
		.12276435E+01	.61334387E+01	.12869613E+02	.0	.75896330E-04	.44973275E+04	.32268889E+01	
3517	.29446492E+01	.16651750E+01	.68855854E-02	.12764563E+05	.43785199E+04	.45599328E+04	.16550488E+09	.36251457E+04	9
		.12275162E+01	.61368681E+01	.18933076E+02	.0	.51410228E-03	.48450786E+04	.29593954E+01	
3529	.30546456E+01	.0	.35140931E-02	.14913165E+05	.0	.36299094E+04	.15815683E+09	.11715187E+04	1
		.12284303E+01	.61122735E+01	.0	.0	.74016523E-04	.30679955E+04	.41084124E+01	
3541	.30272048E+01	.10871272E+01	.52855781E-02	.13867942E+05	.31257169E+04	.43830213E+04	.16958704E+09	.25695951E+04	9
		.12282023E+01	.61183909E+01	.12701735E+02	.0	.75846825E-04	.44739416E+04	.32433868E+01	
3553	.30120282E+01	.16883605E+01	.66941408E-02	.12809282E+05	.43346638E+04	.45526972E+04	.16542081E+09	.35115756E+04	9
		.12280761E+01	.61217793E+01	.18697189E+02	.0	.50518816E-03	.48275296E+04	.29700825E+01	
3565	.31217704E+01	.0	.33798532E-02	.14957330E+05	.0	.35911366E+04	.15768593E+09	.11023232E+04	1
		.12289882E+01	.60973616E+01	.0	.0	.74016679E-04	.30014517E+04	.41650686E+01	
3566	.31134709E+01	.13376984E+01	.28992546E-02	.14953599E+05	.61361838E+03	.42107637E+04	.17500523E+09	.12996165E+04	9
		.12289608E+01	.60990929E+01	.23499343E+01	.0	.74021023E-04	.41266617E+04	.35542681E+01	
3567	.31154511E+01	.25618796E+01	.27758129E-02	.14916984E+05	.12695223E+04	.40422643E+04	.17014140E+09	.11471195E+04	9
		.12289357E+01	.61007624E+01	.48644832E+01	.0	.74029318E-04	.38930789E+04	.37035946E+01	
3568	.31126722E+01	.36884614E+01	.30995483E-02	.14928302E+05	.16602036E+04	.41069157E+04	.17127013E+09	.13222207E+04	9
		.12289126E+01	.60993786E+01	.63884635E+01	.0	.74047290E-04	.39257768E+04	.36330558E+01	
3569	.31101023E+01	.47302927E+01	.30564297E-02	.14731286E+05	.19558427E+04	.41153466E+04	.17062829E+09	.13092683E+04	9
		.12288912E+01	.60899485E+01	.75626127E+01	.0	.74066939E-04	.39419794E+04	.36110095E+01	
3570	.31077149E+01	.56981684E+01	.36032172E-02	.14597142E+05	.19973540E+04	.41792552E+04	.17046832E+09	.15917565E+04	9
		.12288714E+01	.61004791E+01	.77582183E+01	.0	.74112711E-04	.40654278E+04	.35226128E+01	
3571	.31054875E+01	.66011687E+01	.38998731E-02	.14442911E+05	.19555213E+04	.42415549E+04	.17015327E+09	.17732883E+04	9
		.12288529E+01	.61009723E+01	.77197643E+01	.0	.74173539E-04	.41856234E+04	.34369798E+01	
3572	.31034011E+01	.74469955E+01	.44609467E-02	.14332039E+05	.19899711E+04	.42869737E+04	.17013951E+09	.19736233E+04	9
		.12288355E+01	.61014352E+01	.79048495E+01	.0	.74281805E-04	.42778219E+04	.33752195E+01	
3573	.31014396E+01	.82421992E+01	.45255648E-02	.14244579E+05	.22654116E+04	.43290765E+04	.17012646E+09	.21244515E+04	9
		.12288192E+01	.61018705E+01	.81364562E+01	.0	.74405549E-04	.43270967E+04	.33480365E+01	
3574	.30995890E+01	.89924408E+01	.47445477E-02	.14159385E+05	.25059375E+04	.43237991E+04	.16987935E+09	.22435624E+04	9
		.12288038E+01	.61022913E+01	.13836324E+02	.0	.74629892E-04	.43517423E+04	.33256452E+01	
3575	.30978373E+01	.97125922E+01	.49293694E-02	.14073250E+05	.27185357E+04	.43428811E+04	.16981106E+09	.23039106E+04	9
		.12287893E+01	.61026701E+01	.10933188E+02	.0	.74871296E-04	.43902892E+04	.33004393E+01	

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673591E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
3576	.30961741E+01	.10376994E+01	.56575125E-02	.13992209E+05	.28665125E+04	.43623190E+04	.16969383E+09	.24383785E+04	9
		.12287755E+01	.61430394E+00	.11577699E+02	.0	.75300313E-04	.44297268E+04	.32741336E+01	
3577	.30945901E+01	.11019456E+01	.51107151E-02	.13916844E+05	.30952337E+04	.43728873E+04	.16965696E+09	.24719771E+04	9
		.12287623E+01	.61033911E+00	.12533015E+02	.0	.75874217E-04	.44512633E+04	.32602529E+01	
3578	.30930773E+01	.11632331E+01	.52550413E-02	.13840862E+05	.32501649E+04	.43872007E+04	.16954451E+09	.25604311E+04	9
		.12287497E+01	.61037273E+00	.13214988E+02	.0	.76767973E-04	.44804964E+04	.32496427E+01	
3579	.30916287E+01	.12219602E+01	.53749938E-02	.13764742E+05	.33930050E+04	.44027692E+04	.16945947E+09	.26355155E+04	9
		.12287377E+01	.61040488E+00	.13847334E+02	.0	.78086991E-04	.45123959E+04	.32199651E+01	
3580	.30902380E+01	.12783420E+01	.55571511E-02	.13689576E+05	.34805927E+04	.44212827E+04	.16931409E+09	.27479222E+04	9
		.12287261E+01	.61043577E+00	.14265267E+02	.0	.80151691E-04	.45534670E+04	.31948015E+01	
3581	.30888994E+01	.13326063E+01	.57426632E-02	.13614889E+05	.35549260E+04	.44416573E+04	.16920251E+09	.28658069E+04	9
		.12287150E+01	.61046557E+00	.14633545E+02	.0	.83344831E-04	.45925449E+04	.31680389E+01	
3582	.30876081E+01	.13849572E+01	.59338104E-02	.13544919E+05	.36133456E+04	.44605892E+04	.16906537E+09	.29865218E+04	9
		.12287043E+01	.61049419E+00	.14936817E+02	.0	.88354428E-04	.46318184E+04	.31427683E+01	
3583	.30863595E+01	.14355782E+01	.60574742E-02	.13477626E+05	.37335708E+04	.44727895E+04	.16898947E+09	.30654888E+04	9
		.12286939E+01	.61052193E+00	.15483792E+02	.0	.96086259E-04	.46572294E+04	.31267299E+01	
3584	.30851494E+01	.14946354E+01	.60838945E-02	.13410739E+05	.38838584E+04	.44787968E+04	.16885774E+09	.30871605E+04	9
		.12286838E+01	.61054881E+00	.16151443E+02	.0	.10797130E-03	.46697858E+04	.31173138E+01	
3585	.30839742E+01	.15322795E+01	.61220738E-02	.13336270E+05	.40453440E+04	.44848592E+04	.16869908E+09	.31149741E+04	9
		.12286741E+01	.61057493E+00	.16874334E+02	.0	.12735702E-03	.46824732E+04	.31074145E+01	
3586	.30828304E+01	.15786482E+01	.61567672E-02	.13252105E+05	.41442687E+04	.44951622E+04	.16831809E+09	.31470604E+04	9
		.12286646E+01	.61060035E+00	.17365786E+02	.0	.15961850E-03	.47040479E+04	.30888764E+01	
3587	.30817150E+01	.16238670E+01	.62975213E-02	.13149758E+05	.42140004E+04	.45107367E+04	.16776116E+09	.32413766E+04	9
		.12286553E+01	.61062514E+00	.17768690E+02	.0	.21748885E-03	.47367362E+04	.30612459E+01	
3588	.30806251E+01	.16680525E+01	.63694867E-02	.13022018E+05	.42441529E+04	.45275886E+04	.16676263E+09	.33029838E+04	9
		.12286462E+01	.61064936E+00	.18051892E+02	.0	.31939003E-03	.47722297E+04	.30250532E+01	
3589	.30795580E+01	.17113119E+01	.65092692E-02	.12853777E+05	.42934945E+04	.45454522E+04	.16533324E+09	.34021828E+04	9
		.12286374E+01	.61067308E+00	.18475211E+02	.0	.51405471E-03	.48099961E+04	.29807075E+01	
3590	.30785114E+01	.17537461E+01	.65323331E-02	.12617054E+05	.43026979E+04	.45643146E+04	.16361638E+09	.34268466E+04	9
		.12286287E+01	.61069635E+00	.18830156E+02	.0	.88118686E-03	.48503345E+04	.29205939E+01	
3591	.30774828E+01	.17954454E+01	.66212382E-02	.12288958E+05	.43075144E+04	.45870590E+04	.15969603E+09	.35244900E+04	9
		.12286201E+01	.61071522E+00	.19316538E+02	.0	.16696663E-02	.48985240E+04	.28388617E+01	
3592	.30764701E+01	.18365305E+01	.65572764E-02	.11832711E+05	.42233665E+04	.46127642E+04	.15467961E+09	.35296366E+04	9
		.12286117E+01	.61074173E+00	.19642650E+02	.0	.33558459E-02	.49536127E+04	.27237101E+01	
3593	.30754712E+01	.18769932E+01	.66930634E-02	.11192112E+05	.41066290E+04	.46390245E+04	.14768685E+09	.36438584E+04	9
		.12286034E+01	.61076394E+00	.20149185E+02	.0	.76396614E-02	.50132082E+04	.25698759E+01	
3594	.30744843E+01	.19170023E+01	.65933329E-02	.10312744E+05	.38488806E+04	.46562247E+04	.13777877E+09	.36162545E+04	9
		.12285952E+01	.61078589E+00	.20466378E+02	.0	.18619823E-01	.50474634E+04	.23640544E+01	
3595	.30735075E+01	.19566029E+01	.68758687E-02	.91167621E+04	.34998657E+04	.46452143E+04	.12451629E+09	.37534280E+04	9
		.12285871E+01	.61080761E+00	.21001471E+02	.0	.52864212E-01	.50236536E+04	.21022647E+01	
3596	.30725390E+01	.19958674E+01	.69344595E-02	.76930707E+04	.30037169E+04	.45772211E+04	.11087072E+09	.36733107E+04	9
		.12285793E+01	.61082915E+00	.21327894E+02	.0	.14297953E+00	.48776966E+04	.18042981E+01	
3597	.30715771E+01	.20348658E+01	.74243947E-02	.63603974E+04	.25674875E+04	.44667917E+04	.94574283E+08	.37475473E+04	9
		.12285710E+01	.61085055E+00	.21982343E+02	.0	.29663936E+00	.46452083E+04	.15355666E+01	
3598	.30706200E+01	.20736660E+01	.74335843E-02	.51531496E+04	.20896318E+04	.43443965E+04	.82673769E+08	.35517686E+04	9
		.12285631E+01	.61087184E+00	.22072838E+02	.0	.33991996E+00	.43941356E+04	.12799762E+01	
3599	.30696661E+01	.21123350E+01	.86229162E-02	.35287084E+04	.14891353E+04	.41412281E+04	.68410791E+08	.37672479E+04	9
		.12285552E+01	.61089305E+00	.22878647E+02	.0	.21949634E+00	.39926115E+04	.92484585E+01	
3600	.30687139E+01	.21509386E+01	.10613937E-01	.0	.0	.35955012E+04	.46041667E+08	.34713482E+04	2
		.12285472E+01	.61091424E+00	.0	.0	.74000000E-04	.37098235E+04	.0	
3601	.31890529E+01	.0	.32508454E-02	.14995694E+05	.0	.35516012E+04	.15712753E+09	.10365611E+04	1
		.12295473E+01	.60824872E+00	.0	.0	.74059140E-04	.29344039E+04	.42222349E+01	

ITERATION NUMBER 20001 DTIME = .24767202E-06 TIME = .34673593E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
3613	.31521346E+01	.11165361E+01	.49456004E-02	.13964331E+05	.30644914E+04	.43631853E+04	.16972612E+09	.23804279E+04	9
		.12293236E+01	.60884294E+00	.12377432E+02	.0	.80686174E-04	.44295256E+04	.32766499E+01	
3625	.31472475E+01	.17340339E+01	.63279618E-02	.12890785E+05	.42567431E+04	.45381790E+04	.16524760E+09	.32953346E+04	9
		.12291999E+01	.60917217E+00	.18274048E+02	.0	.16467265E-02	.47924332E+04	.29913819E+01	
3637	.32565030E+01	.0	.31278952E-02	.15028395E+05	.0	.35115340E+04	.15648946E+09	.97453558E+03	1
		.12301079E+01	.60676482E+00	.0	.0	.74057201E-04	.28572717E+04	.42797237E+01	
3649	.32298474E+01	.11310220E+01	.47908813E-02	.14018250E+05	.30324232E+04	.43543485E+04	.16979282E+09	.22952599E+04	9
		.12298864E+01	.60735038E+00	.12212892E+02	.0	.80511244E-04	.44099910E+04	.32922619E+01	
3661	.32151056E+01	.17565313E+01	.61551457E-02	.12929631E+05	.42200695E+04	.45311842E+04	.16515628E+09	.31940306E+04	9
		.12297639E+01	.60767470E+00	.18076035E+02	.0	.16118707E-02	.47755024E+04	.30016203E+01	
3673	.33241297E+01	.0	.30131392E-02	.15057099E+05	.0	.34715223E+04	.15581102E+09	.91709104E+03	1
		.12306699E+01	.60528429E+00	.0	.0	.74055763E-04	.28010326E+04	.4337319 E+01	
3685	.32977375E+01	.11453662E+01	.46470516E-02	.14054422E+05	.29979820E+04	.43455953E+04	.16985462E+09	.22166994E+04	9
		.12304596E+01	.60586123E+00	.12041426E+02	.0	.80391763E-04	.43898897E+04	.33069389E+01	
3697	.32831414E+01	.17788085E+01	.59985315E-02	.12966916E+05	.41856020E+04	.45242957E+04	.16506239E+09	.30966768E+04	9
		.12303293E+01	.60618777E+00	.17889635E+02	.0	.15882307E-02	.47588825E+04	.30116771E+01	
3709	.33919421E+01	.0	.29089484E-02	.15084543E+05	.0	.34323610E+04	.15515213E+09	.86512017E+03	1
		.12312335E+01	.60380691E+00	.0	.0	.74054368E-04	.27369501E+04	.43948619E+01	
3721	.33658140E+01	.11595715E+01	.45141373E-02	.14096730E+05	.29604341E+04	.43379039E+04	.16990970E+09	.21446930E+04	9
		.12310164E+01	.60437529E+00	.11860249E+02	.0	.80270602E-04	.43723631E+04	.33205541E+01	
3733	.33513639E+01	.18008700E+01	.58315309E-02	.13002583E+05	.41484286E+04	.45180374E+04	.16496093E+09	.30057697E+04	9
		.12308963E+01	.60469009E+00	.17695101E+02	.0	.15631716E-02	.47434972E+04	.30208514E+01	
3745	.34599493E+01	.0	.28166961E-02	.15113479E+05	.0	.33947481E+04	.15456986E+09	.81904976E+03	1
		.12317987E+01	.60233251E+00	.0	.0	.74053272E-04	.26760752E+04	.44520179E+01	
3757	.34340863E+01	.11736405E+01	.43917367E-02	.14137167E+05	.29193855E+04	.43309740E+04	.16995630E+09	.20789232E+04	9
		.12315938E+01	.60289238E+00	.11667815E+02	.0	.80173411E-04	.43564182E+04	.33330731E+01	
3769	.34197824E+01	.18227199E+01	.56856611E-02	.13036712E+05	.41991456E+04	.45121407E+04	.16494677E+09	.29215891E+04	9
		.12314649E+01	.60320246E+00	.17494747E+02	.0	.15432851E-02	.47289559E+04	.30293775E+01	
3781	.35281605E+01	.0	.27358794E-02	.15145466E+05	.0	.33590404E+04	.15409465E+09	.77854333E+03	1
		.12323656E+01	.60086088E+00	.0	.0	.74052308E-04	.26188788E+04	.4538867 E+01	
3793	.35025630E+01	.11675760E+01	.42789755E-02	.14175825E+05	.28749219E+04	.43247820E+04	.16999636E+09	.20188246E+04	9
		.12321528E+01	.60141229E+00	.11464358E+02	.0	.80080276E-04	.43419795E+04	.33445412E+01	
3805	.34884663E+01	.18443623E+01	.55471075E-02	.13069362E+05	.41671804E+04	.45071129E+04	.16473107E+09	.28426017E+04	9
		.12320352E+01	.60171769E+00	.17286122E+02	.0	.15230215E-02	.47160466E+04	.30369543E+01	
3817	.35965853E+01	.0	.26640832E-02	.15180705E+05	.0	.33249485E+04	.15371157E+09	.74245934E+03	1
		.12329342E+01	.59939185E+00	.0	.0	.74051763E-04	.25648148E+04	.45655051E+01	
3829	.35712542E+01	.12013804E+01	.41748266E-02	.14212878E+05	.28274161E+04	.43192203E+04	.17002868E+09	.19637145E+04	9
		.12327237E+01	.59993485E+00	.11251159E+02	.0	.80028379E-04	.43288292E+04	.33550924E+01	
3841	.35572449E+01	.18658312E+01	.54227752E-02	.13100739E+05	.41201648E+04	.45023482E+04	.16459728E+09	.27718516E+04	9
		.12326073E+01	.60023568E+00	.17059444E+02	.0	.15135684E-02	.47041223E+04	.30436758E+01	
3853	.36652330E+01	.0	.25977733E-02	.15214858E+05	.0	.32919533E+04	.15337046E+09	.70936546E+03	1
		.12335048E+01	.59792522E+00	.0	.0	.74051204E-04	.25133095E+04	.4621933 E+01	
3865	.36401693E+01	.12150562E+01	.40782291E-02	.14248443E+05	.27775163E+04	.43142648E+04	.17005644E+09	.19129598E+04	9
		.12332965E+01	.59845986E+00	.11038607E+02	.0	.79973711E-04	.43169118E+04	.33647989E+01	
3877	.36263078E+01	.18873404E+01	.52985642E-02	.13131235E+05	.39757462E+04	.44979996E+04	.16447672E+09	.27018739E+04	9
		.12331813E+01	.59975596E+00	.16944747E+02	.0	.15007676E-02	.46928716E+04	.30502244E+01	
3889	.37341132E+01	.0	.25335894E-02	.15246746E+05	.0	.32588058E+04	.15299501E+09	.67765056E+03	1
		.12340772E+01	.59646081E+00	.0	.0	.74050930E-04	.24615227E+04	.4678629 E+01	
3901	.37093178E+01	.12286058E+01	.39982097E-02	.14282858E+05	.27259362E+04	.43096824E+04	.17007955E+09	.18659227E+04	9
		.12336711E+01	.59698714E+00	.13805168E+02	.0	.79957482E-04	.43057557E+04	.33739515E+01	
3913	.36956047E+01	.19088836E+01	.51872523E-02	.13167784E+05	.39269549E+04	.44939264E+04	.16473929E+09	.26390913E+04	9
		.12337572E+01	.59727862E+00	.16614212E+02	.0	.14985586E-02	.46822365E+04	.30561613E+01	

ITERATION NUMBER 2000 DTIME = .24767202E-06 TIME = .34673590E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
3925	.38932357E+01	.0	.24696959E-02	.15272981E+05	.0	.32241073E+04	.15253979E+09	.64634876E+03	1
		.12344983E+01	.59538934E+00	.0	.0	.74053001E-04	.24055632E+04	.47371195E+01	
3937	.37787095E+01	.12423316E+01	.35037891E-02	.14316682E+05	.26734772E+04	.43044153E+04	.17010387E+09	.18212372E+04	9
		.12343637E+01	.59573129E+00	.10577506E+02	.0	.79896575E-04	.42935327E+04	.33835406E+01	
3949	.37651453E+01	.13289344E+01	.50683822E-02	.13190753E+05	.38874597E+04	.44986015E+04	.16422528E+09	.25713990E+04	9
		.12342892E+01	.59552058E+00	.16420824E+02	.0	.14813686E-02	.46691166E+04	.30636860E+01	
3961	.38726104E+01	.0	.24765147E-02	.15292254E+05	.0	.31887597E+04	.15198354E+09	.61588926E+03	1
		.12348790E+01	.59442427E+00	.0	.0	.74049927E-04	.23553136E+04	.47956747E+01	
3973	.38483543E+01	.12553356E+01	.38241875E-02	.14349853E+05	.26210240E+04	.42984740E+04	.17014004E+09	.17786281E+04	9
		.12347459E+01	.59476129E+00	.10351065E+02	.0	.79895643E-04	.42833627E+04	.33935895E+01	
3985	.38349396E+01	.19495962E+01	.49590491E-02	.13220283E+05	.38454987E+04	.44818631E+04	.16410908E+09	.25076033E+04	9
		.12346723E+01	.59494788E+00	.16218588E+02	.0	.14795874E-02	.46536641E+04	.30719847E+01	
3997	.39422472E+01	.0	.23462854E-02	.15305734E+05	.0	.31537840E+04	.15135865E+09	.58719301E+03	1
		.12352612E+01	.59345856E+00	.0	.0	.74048881E-04	.23032159E+04	.48531334E+01	
4009	.39182623E+01	.12685201E+01	.37494704E-02	.14382234E+05	.25694881E+04	.42927711E+04	.17017899E+09	.17382489E+04	9
		.12351296E+01	.59379089E+00	.10129428E+02	.0	.79803306E-04	.42676864E+04	.34033867E+01	
4021	.39049976E+01	.19700724E+01	.48409482E-02	.13249736E+05	.38147374E+04	.44745233E+04	.16401968E+09	.24391136E+04	9
		.12350568E+01	.59397473E+00	.16061663E+02	.0	.14519239E-02	.46369904E+04	.30814356E+01	
4033	.40121562E+01	.0	.22920768E-02	.15316486E+05	.0	.31204495E+04	.15073864E+09	.56139013E+03	1
		.12356449E+01	.59249229E+00	.0	.0	.74048648E-04	.22540846E+04	.49084229E+01	
4045	.39884436E+01	.12815871E+01	.36754925E-02	.14414020E+05	.25198083E+04	.42871759E+04	.17022172E+09	.16994374E+04	9
		.12355147E+01	.59281969E+00	.99160433E+01	.0	.79797191E-04	.42552417E+04	.34131126E+01	
4057	.39753294E+01	.19903661E+01	.47309707E-02	.13277970E+05	.37814780E+04	.44673096E+04	.16391152E+09	.23752793E+04	9
		.12354427E+01	.59330091E+00	.15896602E+02	.0	.14459396E-02	.46296078E+04	.30904380E+01	
4069	.40823478E+01	.0	.22462724E-02	.15328045E+05	.0	.30900963E+04	.15020461E+09	.53935287E+03	1
		.12360301E+01	.59152528E+00	.0	.0	.74047846E-04	.22097571E+04	.49603779E+01	
4081	.40589085E+01	.12945387E+01	.36940182E-02	.14445372E+05	.24729370E+04	.42815465E+04	.17026837E+09	.16614964E+04	9
		.12359014E+01	.59154755E+00	.97144298E+01	.0	.79704822E-04	.42427460E+04	.34229494E+01	
4093	.40459455E+01	.20134805E+01	.46172564E-02	.13305776E+05	.37549499E+04	.44599403E+04	.16381813E+09	.23097167E+04	9
		.12358303E+01	.59202539E+00	.15759305E+02	.0	.14177292E-02	.46037246E+04	.30999897E+01	
4105	.41528323E+01	.0	.22055507E-02	.15342731E+05	.0	.30636097E+04	.14980844E+09	.52131577E+03	1
		.12364169E+01	.59055741E+00	.0	.0	.74047592E-04	.21713583E+04	.50080565E+01	
4117	.41296676E+01	.13073767E+01	.35329321E-02	.14476393E+05	.24297158E+04	.42757450E+04	.17031902E+09	.16238037E+04	9
		.12362898E+01	.59087515E+00	.95271721E+01	.0	.79654820E-04	.42299268E+04	.34335765E+01	
4129	.41168564E+01	.20304195E+01	.45122138E-02	.13332102E+05	.37239570E+04	.44528825E+04	.16370662E+09	.22494203E+04	9
		.12362195E+01	.59110510E+00	.15606248E+02	.0	.14019332E-02	.45879265E+04	.31086442E+01	
4141	.42236203E+01	.0	.21965698E-02	.15360543E+05	.0	.30410860E+04	.14954967E+09	.50679173E+03	1
		.12368154E+01	.58958855E+00	.0	.0	.74047751E-04	.21398758E+04	.50510059E+01	
4153	.42007313E+01	.13201030E+01	.34613798E-02	.14507130E+05	.23938119E+04	.42696584E+04	.17036915E+09	.15858905E+04	9
		.12366799E+01	.58990149E+00	.93583715E+01	.0	.79632415E-04	.42165625E+04	.34435579E+01	
4165	.41880726E+01	.20501931E+01	.44131911E-02	.13357509E+05	.36930685E+04	.44462770E+04	.16359664E+09	.21913539E+04	9
		.12366103E+01	.59007469E+00	.15454995E+02	.0	.13934862E-02	.45728791E+04	.31169381E+01	
4177	.42347227E+01	.0	.21566525E-02	.15379185E+05	.0	.30219176E+04	.14937827E+09	.49476842E+03	1
		.12371956E+01	.58861858E+00	.0	.0	.74047018E-04	.21113314E+04	.50892138E+01	
4189	.42721106E+01	.13327194E+01	.33889116E-02	.14537588E+05	.23566277E+04	.42632173E+04	.17042031E+09	.15475165E+04	9
		.12370715E+01	.58892671E+00	.92078814E+01	.0	.79489891E-04	.42025188E+04	.34545187E+01	
4201	.42596150E+01	.20697773E+01	.43174923E-02	.13381394E+05	.36551783E+04	.44405151E+04	.16347205E+09	.21390525E+04	9
		.12370029E+01	.58909725E+00	.15291448E+02	.0	.13690262E-02	.45595872E+04	.31239313E+01	
4213	.43661503E+01	.0	.21349959E-02	.15395179E+05	.0	.30052049E+04	.14922061E+09	.48424166E+03	1
		.12375977E+01	.58764739E+00	.0	.0	.74048261E-04	.20873812E+04	.51228383E+01	
4225	.43438164E+01	.13452277E+01	.33154664E-02	.14567771E+05	.23272847E+04	.42564022E+04	.17047097E+09	.15086621E+04	9
		.12374651E+01	.58795171E+00	.90769294E+01	.0	.79568676E-04	.41877613E+04	.34659549E+01	

ITERATION NUMBER 20000 DTIME = .24767212E-06 TIME = .34673590E-02

NODE	X	Y GAM	RHO CV	J THXY	V THXZ	SOS MU	E T	P M	IB
4237	.43314647E+01	.20992029E+01	.42316999E-02	.13484092E+05	.36151898E+04	.44354679E+04	.16334175E+09	.20911178E+04	9
		.12373973E+01	.59611866E+00	.15093976E+02	.0	.13208709E-02	.45477782E+04	.31306097E+01	
4249	.44379142E+01	.0	.21139717E-02	.15475461E+05	.0	.29803185E+04	.14901542E+09	.47456592E+03	1
		.12379815E+01	.58667484E+00	.0	.0	.74047046E-04	.20660950E+04	.51517792E+01	
4261	.44158598E+01	.13576293E+01	.32413127E-02	.14597699E+05	.23026175E+04	.42492396E+04	.17052115E+09	.14694899E+04	9
		.12378605E+01	.58697333E+00	.89638858E+01	.0	.79359949E-04	.41723458E+04	.34778433E+01	
4273	.44036627E+01	.21084633E+01	.41539345E-02	.13425439E+05	.35689037E+04	.44312601E+04	.16320210E+09	.20481458E+04	9
		.12377935E+01	.58713862E+00	.14886730E+02	.0	.13370046E-02	.45377005E+04	.31349336E+01	
4285	.45100258E+01	.0	.20937845E-02	.15408715E+05	.0	.29773062E+04	.14874245E+09	.46582303E+03	1
		.12383773E+01	.58570082E+00	.0	.0	.74048755E-04	.20474985E+04	.51753882E+01	
4297	.44882522E+01	.13699261E+01	.31668972E-02	.14627412E+05	.22822074E+04	.42417900E+04	.17057224E+09	.14302639E+04	9
		.12382573E+01	.58599459E+00	.89679423E+01	.0	.79479749E-04	.41563950E+04	.34901256E+01	
4309	.44762104E+01	.21275607E+01	.40831110E-02	.13445565E+05	.35187573E+04	.44276957E+04	.16305479E+09	.20092924E+04	9
		.12381917E+01	.58615717E+00	.14665625E+02	.0	.13729755E-02	.45299466E+04	.31389639E+01	
4321	.45824955E+01	.0	.20763172E-02	.15405782E+05	.0	.29669500E+04	.14842949E+09	.45858164E+03	1
		.12387750E+01	.58472523E+00	.0	.0	.74144520E-04	.20326265E+04	.51924645E+01	
4333	.45610052E+01	.13821194E+01	.30927468E-02	.14656934E+05	.22654208E+04	.42341327E+04	.17062512E+09	.13912883E+04	9
		.12386571E+01	.58501418E+00	.87862849E+01	.0	.80996682E-04	.41400572E+04	.35027188E+01	
4345	.45491194E+01	.21464976E+01	.40169038E-02	.13464425E+05	.34660740E+04	.44246705E+04	.16290102E+09	.19734224E+04	9
		.12385918E+01	.58517413E+00	.14435912E+02	.0	.38693873E-02	.45212989E+04	.31422444E+01	
4357	.45553380E+01	.0	.20642311E-02	.15399179E+05	.0	.29606946E+04	.14814315E+09	.4538423 E+03	1
		.12391748E+01	.58374796E+00	.0	.0	.74142996E-04	.20233979E+04	.52012226E+01	
4369	.46341304E+01	.13942108E+01	.30193676E-02	.14685247E+05	.22514521E+04	.42263573E+04	.17068013E+09	.13528560E+04	9
		.12390584E+01	.58403207E+00	.87157836E+01	.0	.89543856E-04	.41235399E+04	.35155149E+01	
4381	.46224016E+01	.21652760E+01	.39553148E-02	.13482171E+05	.34115725E+04	.44219662E+04	.16273894E+09	.19401600E+04	9
		.12389940E+01	.58418938E+00	.14200235E+02	.0	.37935254E-02	.45143080E+04	.31450363E+01	
4393	.47285523E+01	.0	.20596530E-02	.15391862E+05	.0	.29597539E+04	.14795276E+09	.45240441E+03	1
		.12395766E+01	.58276867E+00	.0	.0	.74142972E-04	.20214704E+04	.52033857E+01	
4405	.47076398E+01	.14762016E+01	.29472594E-02	.14715255E+05	.22393722E+04	.42185517E+04	.17073617E+09	.13152457E+04	9
		.12394618E+01	.58304812E+00	.86529005E+01	.0	.89204429E-04	.41069854E+04	.35293849E+01	
4417	.46960687E+01	.21833983E+01	.39949516E-02	.13498981E+05	.33584943E+04	.44193782E+04	.16257591E+09	.19076928E+04	9
		.12393983E+01	.58320278E+00	.13971306E+02	.0	.37442262E-02	.45175546E+04	.31476144E+01	
4429	.48021814E+01	.0	.20634880E-02	.15385498E+05	.0	.29654178E+04	.14790835E+09	.45483487E+03	1
		.12399807E+01	.58178751E+00	.0	.0	.74143521E-04	.20285533E+04	.51883071E+01	
4441	.47815457E+01	.14180931E+01	.28766835E-02	.14743803E+05	.22281848E+04	.42108156E+04	.17079144E+09	.12787169E+04	9
		.12398674E+01	.58206220E+00	.85938993E+01	.0	.88870925E-04	.40905975E+04	.35411720E+01	
4453	.47701332E+01	.22023664E+01	.39372246E-02	.13514735E+05	.33046381E+04	.44169349E+04	.16240353E+09	.18767259E+04	9
		.12398048E+01	.58221423E+00	.13740413E+02	.0	.36969382E-02	.45010956E+04	.31498986E+01	
4465	.48762078E+01	.0	.20750864E-02	.15379907E+05	.0	.29779940E+04	.14801342E+09	.46112807E+03	1
		.12403879E+01	.58080424E+00	.0	.0	.74144751E-04	.20451256E+04	.51645193E+01	
4477	.48558604E+01	.14298867E+01	.28387481E-02	.14771693E+05	.22168727E+04	.42032327E+04	.17084301E+09	.12435307E+04	9
		.12402753E+01	.58107419E+00	.85350896E+01	.0	.88561339E-04	.40745375E+04	.35537209E+01	
4489	.48446073E+01	.22206824E+01	.37795063E-02	.13529463E+05	.32534167E+04	.44144692E+04	.16222936E+09	.18458242E+04	9
		.12402135E+01	.58122357E+00	.13521148E+02	.0	.36527778E-02	.44945879E+04	.31521664E+01	
4501	.49506540E+01	.0	.20928216E-02	.15373342E+05	.0	.29773375E+04	.14823303E+09	.47088112E+03	1
		.12407955E+01	.57981975E+00	.0	.0	.74146366E-04	.20776833E+04	.51295121E+01	
4513	.49305956E+01	.14415835E+01	.27433241E-02	.14798747E+05	.22044845E+04	.41959351E+04	.17088977E+09	.12099513E+04	9
		.12406855E+01	.58008393E+00	.84727195E+01	.0	.88229547E-04	.40590593E+04	.35658418E+01	
4525	.49195038E+01	.22388482E+01	.37240725E-02	.13542938E+05	.32110272E+04	.44122832E+04	.16204372E+09	.18163501E+04	9
		.12406246E+01	.58023677E+00	.13298447E+02	.0	.36120815E-02	.44886531E+04	.31539442E+01	
4537	.50255329E+01	.0	.21148323E-02	.15363485E+05	.0	.30214804E+04	.14851756E+09	.48346645E+03	1
		.12412065E+01	.57883099E+00	.0	.0	.74148157E-04	.21038999E+04	.50847277E+01	

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673597E-02

NODE	X	Y	PHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
4549	.50057671E+01	.14531848E+01	.26211125E-02	.14824864E+05	.21901533E+04	.41889574E+04	.17092914E+09	.11781913E+04	9
		.12410980E+01	.57996133E+00	.84038123E+01	.0	.87959193E-04	.40442256E+04	.35774467E+01	
4561	.49948356E+01	.22568654E+01	.36654345E-02	.13553364E+05	.31506102E+04	.44100674E+04	.16185306E+09	.17873082E+04	9
		.12410380E+01	.57923547E+00	.13084675E+02	.0	.35633612E-02	.44826511E+04	.31556636E+01	
4573	.51098576E+01	.0	.21402858E-02	.15348035E+05	.0	.30505827E+04	.14880127E+09	.49859612E+03	1
		.12416199E+01	.57734455E+00	.0	.0	.74150298E-04	.21439098E+04	.50311816E+01	
4585	.50813851E+01	.14646915E+01	.26224969E-02	.14849920E+05	.21731962E+04	.41825549E+04	.17096482E+09	.11485289E+04	9
		.12415130E+01	.57809624E+00	.83257908E+01	.0	.87685844E-04	.40305243E+04	.35882602E+01	
4597	.50706159E+01	.22747359E+01	.36161449E-02	.13566611E+05	.30994641E+04	.44082770E+04	.16165934E+09	.17593325E+04	9
		.12414539E+01	.57923775E+00	.12869079E+02	.0	.35206667E-02	.44775114E+04	.31568261E+01	
4609	.51766414E+01	.0	.21693364E-02	.15326808E+05	.0	.30831572E+04	.14907653E+09	.51603258E+03	1
		.12420358E+01	.57684758E+00	.0	.0	.74153219E-04	.21891969E+04	.49711520E+01	
4621	.51574641E+01	.14761047E+01	.25677287E-02	.14874248E+05	.21530876E+04	.41764344E+04	.17099234E+09	.11208774E+04	9
		.12419305E+01	.57709853E+00	.82365094E+01	.0	.87478719E-04	.40173862E+04	.35985895E+01	
4633	.51468581E+01	.22924612E+01	.35647245E-02	.13577283E+05	.30494541E+04	.44062316E+04	.16145644E+09	.17321225E+04	9
		.12418723E+01	.57723741E+00	.12659553E+02	.0	.34916730E-02	.44718501E+04	.31581461E+01	
4645	.52528983E+01	.0	.22033802E-02	.15306664E+05	.0	.31180481E+04	.14935897E+09	.53594377E+03	1
		.12422682E+01	.57629417E+00	.0	.0	.74156335E-04	.22386173E+04	.49071288E+01	
4657	.52346177E+01	.14874254E+01	.25168141E-02	.14899199E+05	.21295465E+04	.41695421E+04	.17102469E+09	.10947744E+04	9
		.12422190E+01	.57641122E+00	.81347470E+01	.0	.87272514E-04	.40032076E+04	.36094198E+01	
4669	.52235763E+01	.23100428E+01	.35114744E-02	.13588119E+05	.30017851E+04	.44030709E+04	.16126498E+09	.17033628E+04	9
		.12421918E+01	.57647598E+00	.12457277E+02	.0	.34560780E-02	.44642885E+04	.31604613E+01	
4681	.53296413E+01	.0	.22434202E-02	.15271320E+05	.0	.31563386E+04	.14967617E+09	.55909736E+03	1
		.12424682E+01	.57581888E+00	.0	.0	.74161511E-04	.22935670E+04	.49383023E+01	
4693	.53110599E+01	.14986545E+01	.24697881E-02	.14921525E+05	.21024645E+04	.41625061E+04	.17106335E+09	.10705231E+04	9
		.12424198E+01	.57593389E+00	.80202605E+01	.0	.87215136E-04	.39890637E+04	.36201549E+01	
4705	.53007835E+01	.23274821E+01	.34610494E-02	.13599946E+05	.29544912E+04	.43985378E+04	.16107492E+09	.16751759E+04	9
		.12423930E+01	.57599751E+00	.12257526E+02	.0	.34564778E-02	.44543795E+04	.31638219E+01	
4717	.54068857E+01	.0	.22906913E-02	.15240896E+05	.0	.31982687E+04	.15006271E+09	.58605151E+03	1
		.12426695E+01	.57534127E+00	.0	.0	.74166395E-04	.23545278E+04	.47653581E+01	
4729	.53386051E+01	.15097928E+01	.24263509E-02	.14944041E+05	.20720400E+04	.41563612E+04	.17110098E+09	.10482707E+04	9
		.12426218E+01	.57545423E+00	.78939175E+01	.0	.87099087E-04	.39760738E+04	.36301208E+01	
4741	.53784953E+01	.23447804E+01	.34051564E-02	.13609963E+05	.29141555E+04	.43938144E+04	.16090437E+09	.16443174E+04	9
		.12425955E+01	.57551672E+00	.12085237E+02	.0	.34314965E-02	.44440937E+04	.31677338E+01	
4753	.54346455E+01	.0	.23448335E-02	.15217968E+05	.0	.32435101E+04	.15053568E+09	.61689467E+03	1
		.12428721E+01	.57486128E+00	.0	.0	.74172801E-04	.24212165E+04	.46896627E+01	
4765	.54666677E+01	.15208412E+01	.23962666E-02	.14965776E+05	.20384721E+04	.41501465E+04	.17113689E+09	.10278523E+04	9
		.12428252E+01	.57497219E+00	.77564627E+01	.0	.87069392E-04	.39641159E+04	.36393817E+01	
4777	.54567252E+01	.23619390E+01	.33539756E-02	.13620540E+05	.28717538E+04	.43888020E+04	.16071577E+09	.16156445E+04	9
		.12427993E+01	.57503354E+00	.11935864E+02	.0	.34292653E-02	.44332326E+04	.31717057E+01	
4789	.55529357E+01	.0	.24351397E-02	.15182197E+05	.0	.32912449E+04	.15109732E+09	.65141528E+03	1
		.12430761E+01	.57437883E+00	.0	.0	.74178100E-04	.24925980E+04	.46128738E+01	
4801	.55452629E+01	.15318302E+01	.23489596E-02	.14986759E+05	.20024281E+04	.41446890E+04	.17117098E+09	.10089572E+04	9
		.12430300E+01	.57448766E+00	.76103952E+01	.0	.86926536E-04	.39530455E+04	.36480294E+01	
4813	.55354889E+01	.23789590E+01	.32952194E-02	.13631638E+05	.28391797E+04	.43834226E+04	.16055332E+09	.15831912E+04	9
		.12430046E+01	.57454787E+00	.11765298E+02	.0	.33801186E-02	.44216413E+04	.31765230E+01	
4825	.56417715E+01	.0	.24698552E-02	.15154078E+05	.0	.33401624E+04	.15170853E+09	.68886185E+03	1
		.12432815E+01	.57389382E+00	.0	.0	.74185246E-04	.25568193E+04	.45369261E+01	
4837	.56244357E+01	.15426708E+01	.23141810E-02	.15007330E+05	.19643367E+04	.41396920E+04	.17120243E+09	.99141566E+03	9
		.12432363E+01	.57400659E+00	.74573185E+01	.0	.86893542E-04	.39426939E+04	.36561593E+01	
4849	.56148016E+01	.23958415E+01	.32439764E-02	.13641663E+05	.28006368E+04	.43781474E+04	.16036365E+09	.15545585E+04	9
		.12432112E+01	.57405965E+00	.11601635E+02	.0	.33767674E-02	.44182583E+04	.31808443E+01	

ITERATION NUMBER 20000 DTIME = .2476720E-06 TIME = .3467359E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
4861	.57211684E+01	.0	.25374564E-02	.15126304E+05	.0	.33888196E+04	.15233203E+09	.72836392E+03	1
		.12434884E+01	.5734062 E+00	.0	.0	.7419 691E-04	.2641 359E+04	.44635923E+01	
4873	.57041118E+01	.15534533E+01	.22813305E-02	.15026716E+05	.19251532E+04	.41347984E+04	.17123274E+09	.97489959E+03	9
		.12434440E+01	.5735 088E+00	.7300 995E+01	.0	.8673 591E-04	.3932 819E+04	.3663 114E+01	
4885	.56946787E+01	.24125872E+01	.31858803E-02	.13652099E+05	.27715357E+04	.43726233E+04	.16020869E+09	.15226178E+04	9
		.12434194E+01	.5735 880E+00	.1147 756E+02	.0	.3323627 5E-02	.4399 135E+04	.3185 646E+01	
4897	.56911424E+01	.0	.26059459E-02	.15098453E+05	.0	.34358550E+04	.15293145E+09	.76883372E+03	1
		.12436968E+01	.5729 586E+00	.0	.0	.7419 902E-04	.2715 929E+04	.4394 802E+01	
4909	.56843973E+01	.15641484E+01	.22501006E-02	.15045926E+05	.18854035E+04	.41301942E+04	.17126229E+09	.95926485E+03	9
		.12436532E+01	.5731 846E+00	.7142 987E+01	.0	.8669 528E-04	.3923 478E+04	.3671 002E+01	
4921	.56751364E+01	.24291972E+01	.31377370E-02	.13660513E+05	.27321671E+04	.43677943E+04	.16000294E+09	.14960461E+04	9
		.12436290E+01	.5733 522E+00	.1131 192E+02	.0	.3308596 5E-02	.4387 964 E+04	.3189 948E+01	
4933	.56617097E+01	.0	.26741368E-02	.15070655E+05	.0	.34803723E+04	.15348635E+09	.90936077E+03	1
		.12439067E+01	.5724 2274E+00	.0	.0	.7420 4129E-04	.2785 4357E+04	.4331 848E+01	
4945	.56652784E+01	.15747565E+01	.22199665E-02	.15064845E+05	.18460416E+04	.41257090E+04	.17129343E+09	.94420363E+03	9
		.12438639E+01	.5725 2324E+00	.5986 1783E+01	.0	.8659 798E-04	.3914 978E+04	.3678 769E+01	
4957	.56561911E+01	.24456721E+01	.30855613E-02	.13668920E+05	.26991289E+04	.43630417E+04	.15982607E+09	.14677201E+04	9
		.12438402E+01	.5725 7884E+00	.1117 188E+02	.0	.3270 9446E-02	.4377 676 7E+04	.3193 383 E+01	
4969	.56428871E+01	.0	.27406313E-02	.15043739E+05	.0	.35218210E+04	.15399581E+09	.84921656E+03	1
		.12441183E+01	.5719 2674E+00	.0	.0	.7421 1160E-04	.2851 6909E+04	.4271 5797E+01	
4981	.56467719E+01	.15852780E+01	.21906849E-02	.15083592E+05	.18075029E+04	.41212671E+04	.17132659E+09	.92958982E+03	9
		.12440763E+01	.5720 2514E+00	.5833 062E+01	.0	.8648 337E-04	.3905 2071E+04	.3686 1247E+01	
4993	.56378534E+01	.24620126E+01	.30436975E-02	.13674669E+05	.26538980E+04	.43593969E+04	.15961343E+09	.14451414E+04	9
		.12440531E+01	.5720 7957E+00	.1098 3089E+02	.0	.3242 2533E-02	.4369 6180E+04	.3195 3537E+01	
5005	.56446915E+01	.0	.28048833E-02	.15018975E+05	.0	.35604410E+04	.15447123E+09	.88794036E+03	1
		.12443314E+01	.5714 2778E+00	.0	.0	.7421 8601E-04	.2913 4226E+04	.4218 7647E+01	
5017	.56288949E+01	.15957134E+01	.21616518E-02	.15102252E+05	.17706495E+04	.41167981E+04	.17136257E+09	.91512011E+03	9
		.12442903E+01	.5715 2486E+00	.6687 0613E+01	.0	.8651 835E-04	.3896 0721E+04	.3693 5737E+01	
5029	.56201587E+01	.24782192E+01	.30008669E-02	.13679958E+05	.26112391E+04	.43560893E+04	.15941289E+09	.14223991E+04	9
		.12442675E+01	.5715 7732E+00	.1080 6658E+02	.0	.3248 8888E-02	.4362 2390E+04	.3197 1212E+01	
5041	.56271406E+01	.0	.28658243E-02	.14997886E+05	.0	.35948366E+04	.15492891E+09	.92489347E+03	1
		.12445463E+01	.5709 2576E+00	.0	.0	.7422 1463E-04	.2977 1393E+04	.4172 0634E+01	
5053	.56116651E+01	.16060629E+01	.21327821E-02	.15120865E+05	.17355907E+04	.41122374E+04	.17140027E+09	.90074280E+03	9
		.12445059E+01	.5710 1992E+00	.6547 9224E+01	.0	.8624 6290E-04	.3886 7708E+04	.3701 1836E+01	
5065	.56031064E+01	.24942925E+01	.29662143E-02	.13682675E+05	.25581737E+04	.43538655E+04	.15918322E+09	.14042948E+04	9
		.12444836E+01	.5710 7201E+00	.1059 3010E+02	.0	.3185 4660E-02	.4357 0283E+04	.3197 1048E+01	
5077	.56102522E+01	.0	.29225712E-02	.14981672E+05	.0	.36259968E+04	.15537942E+09	.95946307E+03	1
		.12447628E+01	.5704 2061E+00	.0	.0	.7423 3413E-04	.3021 3273E+04	.4131 7390E+01	
5089	.56051004E+01	.16163267E+01	.21034344E-02	.15139425E+05	.17031968E+04	.41075279E+04	.17143917E+09	.88615995E+03	9
		.12447234E+01	.5705 1263E+00	.6418 2995E+01	.0	.8648 2133E-04	.3877 1963E+04	.3709 0265E+01	
5101	.56067208E+01	.25102326E+01	.29323322E-02	.13684743E+05	.25057364E+04	.43520100E+04	.15895935E+09	.13868291E+04	9
		.12447015E+01	.5705 6354E+00	.1037 6166E+02	.0	.3252 7762E-02	.4352 5533E+04	.3196 7431E+01	
5113	.56040447E+01	.0	.29733753E-02	.14977989E+05	.0	.36530129E+04	.15551815E+09	.99054463E+03	1
		.12449812E+01	.5699 1221E+00	.0	.0	.7423 2956E-04	.3165 9789E+04	.4098 2579E+01	
5125	.55992193E+01	.16265749E+01	.20738342E-02	.15157867E+05	.16731740E+04	.41026363E+04	.17147684E+09	.87145646E+03	9
		.12449425E+01	.5700 0213E+00	.6298 9125E+01	.0	.8637 2915E-04	.3867 2956E+04	.3717 1057E+01	
5137	.55710282E+01	.25260399E+01	.29029711E-02	.13684982E+05	.24473337E+04	.43508138E+04	.15871727E+09	.1371949 E+04	9
		.12449212E+01	.5700 5182E+00	.1013 9225E+02	.0	.3161 7805E-02	.4349 4753E+04	.3195 2811E+01	
5149	.55785371E+01	.0	.30161118E-02	.14965726E+05	.0	.36753963E+04	.15622937E+09	.10169715E+04	1
		.12452 13E+01	.5694 0048E+00	.0	.0	.7424 6066E-04	.3133 1135E+04	.4071 8783E+01	
5161	.55640408E+01	.16365977E+01	.20434756E-02	.15176225E+05	.16462323E+04	.40975333E+04	.17151394E+09	.85641244E+03	9
		.12451639E+01	.5694 8822E+00	.6190 2345E+01	.0	.8638 7222E-04	.3856 9665E+04	.3725 4733E+01	

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673590E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
5173	.63560236E+01	.25417145E+01	.28745013E-02	.13684476E+05	.23901345E+04	.43498292E+04	.15847664E+09	.13576341E+04	9
		.12451427E+01	.56953675E+00	.99073583E+01	.0	.32569927E-02	.43466517E+04	.31936057E+01	
5185	.64637487E+01	.0	.30486936E-02	.14965308E+05	.0	.36925115E+04	.15658801E+09	.10373741E+04	1
		.12454234E+01	.56888535E+00	.0	.0	.74645177E-04	.31315276E+04	.40528805E+01	
5197	.64495842E+01	.16466050E+01	.28127758E-02	.15194399E+05	.16218202E+04	.40922319E+04	.17154815E+09	.84121422E+03	9
		.12453365E+01	.56897091E+00	.60925712E+01	.0	.10564715E-03	.38463242E+04	.37340768E+01	
5209	.64417506E+01	.25572563E+01	.28472721E-02	.13682326E+05	.23310690E+04	.43491268E+04	.15822024E+09	.13440983E+04	9
		.12453661E+01	.56901825E+00	.96686934E+01	.0	.81427385E-02	.43446487E+04	.31913253E+01	
5221	.65496993E+01	.0	.30692453E-02	.14968958E+05	.0	.37040708E+04	.15687339E+09	.10507273E+04	1
		.12456473E+01	.56836668E+00	.0	.0	.74647222E-04	.31505981E+04	.40412181E+01	
5233	.65358696E+01	.16565269E+01	.19814843E-02	.15212424E+05	.16002058E+04	.40867466E+04	.17158069E+09	.82576880E+03	9
		.12456113E+01	.56845607E+00	.60049009E+01	.0	.10504528E-03	.38353274E+04	.37429175E+01	
5245	.65282211E+01	.25726655E+01	.28202907E-02	.13679127E+05	.22740688E+04	.43484388E+04	.15795769E+09	.13306994E+04	9
		.12455914E+01	.56849623E+00	.94387421E+01	.0	.80378314E-02	.43423087E+04	.31889292E+01	
5257	.66364094E+01	.0	.30768794E-02	.14976293E+05	.0	.37097866E+04	.15707221E+09	.10564021E+04	1
		.12458733E+01	.56784439E+00	.0	.0	.74649903E-04	.31597568E+04	.40369687E+01	
5269	.66229174E+01	.16663631E+01	.19501406E-02	.15230245E+05	.15805423E+04	.40811299E+04	.17161058E+09	.81032657E+03	9
		.12458381E+01	.56792558E+00	.59247503E+01	.0	.10460585E-03	.38240959E+04	.37519111E+01	
5281	.66154557E+01	.25879416E+01	.27927196E-02	.13674816E+05	.22189671E+04	.43477584E+04	.15768720E+09	.13170378E+04	9
		.12458187E+01	.56797051E+00	.92168618E+01	.0	.79729196E-02	.43401578E+04	.31863956E+01	
5293	.67238999E+01	.0	.30712953E-02	.14987451E+05	.0	.37097111E+04	.15718772E+09	.10542497E+04	1
		.12461013E+01	.56731835E+00	.0	.0	.74651880E-04	.31590492E+04	.40430588E+01	
5305	.67107436E+01	.16761135E+01	.19185664E-02	.15247798E+05	.15628674E+04	.40754311E+04	.17163814E+09	.79483594E+03	9
		.12460670E+01	.56739736E+00	.88522604E+01	.0	.10425806E-03	.38127232E+04	.37609970E+01	
5317	.67034753E+01	.26033844E+01	.27655949E-02	.13669120E+05	.21643698E+04	.43471226E+04	.15740274E+09	.13036244E+04	9
		.12460480E+01	.56744107E+00	.89975218E+01	.0	.79344128E-02	.43380898E+04	.31835799E+01	
5329	.68121923E+01	.0	.30534474E-02	.15003760E+05	.0	.37038370E+04	.15722975E+09	.10446134E+04	1
		.12463313E+01	.56678849E+00	.0	.0	.74651195E-04	.31494715E+04	.40506604E+01	
5341	.67993849E+01	.16857778E+01	.18874792E-02	.15264980E+05	.15458531E+04	.40697374E+04	.17166192E+09	.77962902E+03	9
		.12462980E+01	.56686529E+00	.87825127E+01	.0	.10391174E-03	.38013726E+04	.37730351E+01	
5353	.67923018E+01	.26180935E+01	.27379367E-02	.13661807E+05	.21113673E+04	.43466500E+04	.15710674E+09	.12980669E+04	9
		.12462795E+01	.56690777E+00	.87852874E+01	.0	.78930393E-02	.43363412E+04	.31803791E+01	
5365	.69013088E+01	.0	.30235764E-02	.15023645E+05	.0	.36923214E+04	.15721129E+09	.10277807E+04	1
		.12465635E+01	.56625469E+00	.0	.0	.74647624E-04	.31283414E+04	.40688887E+01	
5377	.68888484E+01	.16953556E+01	.18566631E-02	.15281730E+05	.15295418E+04	.40641046E+04	.17168247E+09	.76463591E+03	9
		.12465311E+01	.56632927E+00	.57156744E+01	.0	.10355243E-03	.37901482E+04	.37789591E+01	
5389	.68819573E+01	.26329683E+01	.27119055E-02	.13652717E+05	.20569167E+04	.43464030E+04	.15679226E+09	.12774168E+04	9
		.12465131E+01	.56637052E+00	.85677388E+01	.0	.78525854E-02	.43350357E+04	.31766025E+01	
5401	.69912720E+01	.0	.29831990E-02	.15048288E+05	.0	.36750974E+04	.15713186E+09	.10043760E+04	1
		.12467980E+01	.56571684E+00	.0	.0	.74641603E-04	.30984686E+04	.40950360E+01	
5413	.69791621E+01	.17048464E+01	.18268700E-02	.15297825E+05	.15124614E+04	.40586500E+04	.17169719E+09	.75020627E+03	9
		.12467664E+01	.56578918E+00	.56463545E+01	.0	.10319896E-03	.37792678E+04	.37875674E+01	
5425	.69724647E+01	.26477180E+01	.26851476E-02	.13642311E+05	.20040289E+04	.43463776E+04	.15647177E+09	.12645587E+04	9
		.12467490E+01	.56582919E+00	.83569695E+01	.0	.78073940E-02	.43341651E+04	.31724623E+01	
5437	.70321055E+01	.0	.29317316E-02	.15079339E+05	.0	.36519561E+04	.15698548E+09	.97452217E+03	1
		.12470347E+01	.56517481E+00	.0	.0	.74633922E-04	.30591595E+04	.41291047E+01	
5449	.70703493E+01	.17142499E+01	.17980374E-02	.15313274E+05	.14944012E+04	.40534341E+04	.17170741E+09	.73632924E+03	9
		.12470140E+01	.56524491E+00	.55737666E+01	.0	.10289368E-03	.37688421E+04	.37957985E+01	
5461	.70638475E+01	.26623120E+01	.26601179E-02	.13638493E+05	.19499406E+04	.43465070E+04	.15613641E+09	.12526065E+04	9
		.12469871E+01	.56528369E+00	.81413373E+01	.0	.77766752E-02	.43335955E+04	.31678915E+01	
5473	.71738332E+01	.0	.29710313E-02	.15112502E+05	.0	.36229960E+04	.15675097E+09	.93983730E+03	1
		.12472737E+01	.56462851E+00	.0	.0	.74624832E-04	.30130904E+04	.41713872E+01	

ITERATION NUMBER 26000 DTIME = .24767202E-06 TIME = .34673587E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
5485	.71624342E+01	.17235652E+01 .12472440E+01	.17707393E-02 .56469634E+00	.15327944E+05 .54939908E+01	.14742637E+04 .0	.40485796E+04 .10263930E-03	.17171272E+09 .37590868E+04	.72327513E+03 .38034773E+01	9
5497	.71561300E+01	.26767792E+01 .12472275E+01	.26333695E-02 .56473386E+00	.13618742E+05 .79378225E+01	.18989207E+04 .0	.43465408E+04 .77482111E-02	.15580761E+09 .43328273E+04	.12397913E+04 .31635485E+01	9
5509	.72664798E+01	.0 .12475151E+01	.28304040E-02 .56407780E+00	.15147535E+05 .0	.0 .0	.35879551E+04 .74613744E-04	.15641531E+09 .29517376E+04	.89818090E+03 .42217739E+01	1
5521	.72554417E+01	.17327918E+01 .12474963E+01	.17449969E-02 .56414336E+00	.15341806E+05 .54056738E+01	.14517605E+04 .0	.40441541E+04 .10242396E-03	.17171399E+09 .37501544E+04	.71106483E+03 .38105228E+01	9
5533	.72493371E+01	.26911086E+01 .12474704E+01	.26064232E-02 .56417962E+00	.13606677E+05 .77413639E+01	.18496985E+04 .0	.43464051E+04 .77236396E-02	.15547524E+09 .43317132E+04	.12267894E+04 .31593526E+01	9
5545	.73600710E+01	.0 .12477590E+01	.27234753E-02 .56352257E+00	.15183471E+05 .0	.0 .0	.35470232E+04 .74602927E-04	.15596642E+09 .28842102E+04	.85352399E+03 .42806236E+01	1
5557	.73493974E+01	.17419289E+01 .12477311E+01	.17213076E-02 .56358583E+00	.15354834E+05 .53054758E+01	.14259050E+04 .0	.40402684E+04 .10232247E-03	.17171239E+09 .37422170E+04	.69992714E+03 .38168008E+01	9
5569	.73434943E+01	.27052989E+01 .12477158E+01	.25770670E-02 .56362083E+00	.13595406E+05 .75662017E+01	.18058525E+04 .0	.43457798E+04 .77139239E-02	.15515159E+09 .43296155E+04	.12123847E+04 .31558929E+01	9
5581	.74546328E+01	.0 .12480054E+01	.26401584E-02 .56296269E+00	.15222024E+05 .0	.0 .0	.35006258E+04 .74587423E-04	.15541715E+09 .28086944E+04	.80574915E+03 .43478008E+01	1
5593	.74443275E+01	.17509755E+01 .12479785E+01	.16996043E-02 .56302365E+00	.15367085E+05 .51930037E+01	.13966223E+04 .0	.40369564E+04 .10210738E-03	.17170967E+09 .37353437E+04	.68983273E+03 .38222903E+01	9
5605	.74386282E+01	.27193487E+01 .12479637E+01	.25462421E-02 .56305737E+00	.13584974E+05 .74007419E+01	.17645590E+04 .0	.43447522E+04 .76608840E-02	.15483403E+09 .43267086E+04	.11970788E+04 .31533209E+01	9
5617	.75501925E+01	.0 .12482544E+01	.25555772E-02 .56239803E+00	.15257286E+05 .0	.0 .0	.34489484E+04 .74575395E-04	.15477843E+09 .27258368E+04	.75692744E+03 .44237501E+01	1
5629	.75402593E+01	.17599306E+01 .12482285E+01	.16801203E-02 .56245667E+00	.15378465E+05 .50664916E+01	.13634264E+04 .0	.40342885E+04 .10211633E-03	.17170573E+09 .37296611E+04	.68688717E+03 .38268918E+01	9
5641	.75347658E+01	.27332564E+01 .12482142E+01	.25126408E-02 .56248910E+00	.13574668E+05 .72633732E+01	.17301357E+04 .0	.43433409E+04 .76498519E-02	.15452056E+09 .43230303E+04	.11802773E+04 .31506806E+01	9
5653	.76467777E+01	.0 .12485360E+01	.24684538E-02 .56182845E+00	.15295276E+05 .0	.0 .0	.33927709E+04 .74556848E-04	.15407338E+09 .26372298E+04	.70735555E+03 .45081959E+01	1
5665	.76372267E+01	.17687933E+01 .12484811E+01	.16627918E-02 .56188476E+00	.15389048E+05 .49258461E+01	.13263001E+04 .0	.40322491E+04 .10188137E-03	.17170156E+09 .37251372E+04	.67304723E+03 .38306404E+01	9
5677	.76319352E+01	.27470205E+01 .12484674E+01	.24797084E-02 .56191591E+00	.13563538E+05 .71244197E+01	.16952988E+04 .0	.43417782E+04 .75655645E-02	.15419173E+09 .43190439E+04	.11637337E+04 .31482668E+01	9
5689	.77444172E+01	.0 .12487605E+01	.23837599E-02 .56125384E+00	.15333371E+05 .0	.0 .0	.33322197E+04 .74541275E-04	.15330043E+09 .25434175E+04	.65878781E+03 .46015486E+01	1
5701	.77352405E+01	.17775621E+01 .12487366E+01	.16474865E-02 .56130779E+00	.15398814E+05 .47723793E+01	.12855992E+04 .0	.40308178E+04 .10180505E-03	.17169736E+09 .37217317E+04	.66624249E+03 .38335612E+01	9
5713	.77301653E+01	.27606390E+01 .12487233E+01	.24461658E-02 .56133764E+00	.13553484E+05 .69876651E+01	.16611967E+04 .0	.43402038E+04 .75126773E-02	.15387918E+09 .43150275E+04	.11469203E+04 .31461443E+01	9
5725	.78431407E+01	.0 .12490177E+01	.22981050E-02 .56067413E+00	.15370557E+05 .0	.0 .0	.32683729E+04 .74525996E-04	.15246577E+09 .24459322E+04	.61077277E+03 .47032805E+01	1
5737	.78343485E+01	.17862360E+01 .12489948E+01	.16341339E-02 .56072562E+00	.15407774E+05 .46068502E+01	.12415341E+04 .0	.40299514E+04 .10180101E-03	.17169187E+09 .37193628E+04	.66342204E+03 .38357072E+01	9
5749	.78294859E+01	.27741099E+01 .12489821E+01	.24129388E-02 .56075416E+00	.13540109E+05 .68594680E+01	.16288152E+04 .0	.43392947E+04 .74726641E-02	.15354375E+09 .43123263E+04	.11306353E+04 .31428449E+01	9
5761	.79429786E+01	.0 .12492779E+01	.22172455E-02 .56008893E+00	.15405750E+05 .0	.0 .0	.32005098E+04 .74512981E-04	.15156097E+09 .23453564E+04	.56505148E+03 .48135300E+01	1
5773	.79345752E+01	.17948134E+01 .12492560E+01	.16224666E-02 .56013811E+00	.15416049E+05 .44319179E+01	.11948394E+04 .0	.40295532E+04 .10189965E-03	.17168686E+09 .37178688E+04	.65543445E+03 .38372109E+01	9
5785	.79299277E+01	.27874310E+01 .12492439E+01	.23852368E-02 .56016532E+00	.13522837E+05 .66098773E+01	.15885353E+04 .0	.43397842E+04 .74647176E-02	.15316272E+09 .43111045E+04	.11173143E+04 .31379411E+01	9

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673590E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
5797	.80439625E+01	.0	.21369942E-02	.15438620E+05	.0	.31307217E+04	.15060926E+09	.52099879E+03	1
		.12495413E+01	.55949931E+00	.0	.0	.74494983E-04	.22437165E+04	.49313293E+01	
5809	.80359524E+01	.18032927E+01	.16122714E-02	.15423772E+05	.11463367E+04	.40295837E+04	.17168348E+09	.65119371E+03	9
		.12495201E+01	.55954513E+00	.42505633E+01	.0	.10175759E-03	.37171288E+04	.38881912E+01	
5821	.80315224E+01	.28005998E+01	.23614155E-02	.13509040E+05	.15372231E+04	.43396975E+04	.15292337E+09	.11062341E+04	9
		.12495086E+01	.55957099E+00	.54923637E+01	.0	.74003144E-02	.43113088E+04	.31327592E+01	
5833	.81461249E+01	.0	.20648738E-02	.15469286E+05	.0	.30594781E+04	.14963045E+09	.48066237E+03	1
		.12498072E+01	.55890207E+00	.0	.0	.74482392E-04	.21423046E+04	.50561847E+01	
5845	.81385126E+01	.18116724E+01	.16032139E-02	.15431086E+05	.10966944E+04	.40298890E+04	.17163169E+09	.64749505E+03	9
		.12497874E+01	.55894645E+00	.40652822E+01	.0	.10183636E-03	.37168938E+04	.38388175E+01	
5857	.81343027E+01	.28136139E+01	.23341388E-02	.13499673E+05	.14957529E+04	.43412040E+04	.15247644E+09	.10939908E+04	9
		.12497764E+01	.55897100E+00	.63271865E+01	.0	.73767573E-02	.43133790E+04	.31264013E+01	
5869	.82494993E+01	.0	.19950252E-02	.15498184E+05	.0	.29884118E+04	.14866429E+09	.44298355E+03	1
		.12500766E+01	.55830005E+00	.0	.0	.74487266E-04	.20434961E+04	.51860936E+01	
5881	.82422897E+01	.18199506E+01	.15949851E-02	.15438103E+05	.10472659E+04	.40304130E+04	.17168302E+09	.64419985E+03	9
		.12500578E+01	.55834203E+00	.38827957E+01	.0	.10295485E-03	.37170513E+04	.38392056E+01	
5893	.82383024E+01	.28264703E+01	.23172307E-02	.13461688E+05	.14428028E+04	.43439761E+04	.15282003E+09	.10872079E+04	9
		.12500474E+01	.55836520E+00	.61175198E+01	.0	.76543231E-02	.43179531E+04	.31166835E+01	
5905	.83541205E+01	.0	.19353446E-02	.15525032E+05	.0	.29186382E+04	.14772672E+09	.40380991E+03	1
		.12503492E+01	.55769213E+00	.0	.0	.75084902E-04	.19487619E+04	.53192725E+01	
5917	.83473183E+01	.18281253E+01	.15872751E-02	.15445061E+05	.99815390E+03	.40313069E+04	.17168735E+09	.64113436E+03	9
		.12503315E+01	.55773159E+00	.36976601E+01	.0	.14011924E-03	.37173331E+04	.38395570E+01	
5929	.83435564E+01	.28391661E+01	.23061746E-02	.13432360E+05	.13694816E+04	.43482845E+04	.15156284E+09	.10839301E+04	9
		.12503217E+01	.55775343E+00	.58214139E+01	.0	.16951935E-01	.43255736E+04	.31051306E+01	
5941	.84600242E+01	.0	.18774930E-02	.15549339E+05	.0	.29515090E+04	.14683262E+09	.37939871E+03	1
		.12506251E+01	.55707804E+00	.0	.0	.75039969E-04	.18597385E+04	.54532211E+01	
5953	.84536345E+01	.18361946E+01	.15794956E-02	.15452036E+05	.95188787E+03	.40315934E+04	.17169548E+09	.63803319E+03	9
		.12506085E+01	.55711505E+00	.35251297E+01	.0	.13911868E-03	.37175727E+04	.38420843E+01	
5965	.84501007E+01	.28516980E+01	.22924583E-02	.13406264E+05	.13013301E+04	.43530111E+04	.15117255E+09	.10795872E+04	9
		.12505993E+01	.55713552E+00	.55442635E+01	.0	.16653333E-01	.43340201E+04	.30942433E+01	
5977	.85672476E+01	.0	.18397053E-02	.15573393E+05	.0	.27886207E+04	.14599542E+09	.35372686E+03	1
		.12509045E+01	.55645772E+00	.0	.0	.75020460E-04	.17782153E+04	.55835460E+01	
5989	.85612755E+01	.18441561E+01	.15716271E-02	.15458992E+05	.90718819E+03	.40320520E+04	.17170435E+09	.63485996E+03	9
		.12508899E+01	.55649222E+00	.33584668E+01	.0	.13909749E-03	.37176032E+04	.38406219E+01	
6001	.85579726E+01	.28640626E+01	.22768513E-02	.13375626E+05	.12427305E+04	.43578292E+04	.15074017E+09	.10743708E+04	9
		.12508804E+01	.55651131E+00	.53081167E+01	.0	.16642122E-01	.43426436E+04	.30825515E+01	
6013	.86758289E+01	.0	.17857535E-02	.15568392E+05	.0	.27311477E+04	.14523292E+09	.33089061E+03	1
		.12511675E+01	.55583092E+00	.0	.0	.75001718E-04	.17052872E+04	.57776341E+01	
6025	.86702797E+01	.18520375E+01	.15630646E-02	.15466081E+05	.86728672E+03	.40323135E+04	.17171495E+09	.63133965E+03	9
		.12511730E+01	.55586291E+00	.32095965E+01	.0	.13916107E-03	.37172413E+04	.38415613E+01	
6037	.86672107E+01	.28762562E+01	.22642717E-02	.13337884E+05	.11828591E+04	.43632031E+04	.15023025E+09	.10708281E+04	9
		.12511650E+01	.55588161E+00	.50679695E+01	.0	.16656798E-01	.43523711E+04	.30688996E+01	
6049	.87858077E+01	.0	.17535737E-02	.15603533E+05	.0	.26819730E+04	.14459826E+09	.31326002E+03	1
		.12514741E+01	.55519750E+00	.0	.0	.74992885E-04	.16440520E+04	.58179259E+01	
6061	.87806868E+01	.18597462E+01	.15540056E-02	.15473343E+05	.82934596E+03	.40323749E+04	.17172560E+09	.62755545E+03	9
		.12514607E+01	.55522696E+00	.39681247E+01	.0	.13938452E-03	.37165021E+04	.38427858E+01	
6073	.87778547E+01	.28882748E+01	.22517103E-02	.13299398E+05	.11211791E+04	.43679329E+04	.14969444E+09	.10669515E+04	9
		.12514533E+01	.55524326E+00	.48198119E+01	.0	.16717801E-01	.43698065E+04	.30555812E+01	
6085	.88972251E+01	.0	.17233977E-02	.15616179E+05	.0	.26413617E+04	.14497055E+09	.29854751E+03	1
		.12517644E+01	.55455727E+00	.0	.0	.74976193E-04	.15942732E+04	.59121697E+01	
6097	.88925381E+01	.18673696E+01	.15438181E-02	.15483690E+05	.79767956E+03	.40329986E+04	.17173464E+09	.62321285E+03	9
		.12517522E+01	.55458417E+00	.29496934E+01	.0	.13899032E-03	.37151254E+04	.38444564E+01	

ITERATION NUMBER 2000[illegible] DTIME = .24767[illegible]E-06 TIME = .3467359[illegible]E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
6109	.88899463E+01	.29001142E+01	.22335586E-02	.13264226E+05	.10647412E+04	.43724642E+04	.14920682E+09	.10603002E+04	9
		.12517454E+01	.55459905E+00	.45893857E+01	.0	.16591376E-01	.43688394E+04	.30433393E+01	
6121	.90101234E+01	.0	.17463201E-02	.15625657E+05	.0	.26129111E+04	.14371389E+09	.28918789E+03	1
		.12520586E+01	.55391003E+00	.0	.0	.74969809E-04	.15597471E+04	.59801715E+01	
6133	.90058761E+01	.18748746E+01	.15329103E-02	.15487791E+05	.76771336E+03	.40316588E+04	.17173730E+09	.61852665E+03	9
		.12520475E+01	.55393435E+00	.28377684E+01	.0	.13974594E-03	.3713439[illegible]E+04	.38462596E+01	
6145	.90035272E+01	.29117699E+01	.22138430E-02	.13231201E+05	.10128839E+04	.43757949E+04	.14872221E+09	.10522938E+04	9
		.12520414E+01	.55394781E+00	.43776076E+01	.0	.16500374E-01	.43744634E+04	.30325721E+01	
6157	.91245466E+01	.0	.16908836E-02	.15631782E+05	.0	.25949177E+04	.14348242E+09	.28257113E+03	1
		.12523567E+01	.55325559E+00	.0	.0	.74965586E-04	.15379729E+04	.60239991E+01	
6169	.91207450E+01	.18822582E+01	.15212410E-02	.15494693E+05	.74351481E+03	.40308736E+04	.17173251E+09	.61343239E+03	9
		.12523468E+01	.55327731E+00	.27472381E+01	.0	.13856793E-03	.3711[illegible]56E+04	.38484266E+01	
6181	.91186425E+01	.29232371E+01	.21851659E-02	.13201125E+05	.98130273E+03	.43784397E+04	.14827983E+09	.10396692E+04	9
		.12523413E+01	.55328932E+00	.42512503E+01	.0	.16365125E-01	.43787[illegible]E+04	.30233489E+01	
6193	.92405402E+01	.0	.16884547E-02	.15633668E+05	.0	.25915998E+04	.14342691E+09	.28137623E+03	1
		.12526590E+01	.55259375E+00	.0	.0	.74965304E-04	.15336723E+04	.60324392E+01	
6205	.92371903E+01	.18395172E+01	.15088592E-02	.15501004E+05	.72004147E+03	.40300985E+04	.17171921E+09	.60805821E+03	9
		.12526502E+01	.55261284E+00	.26595506E+01	.0	.13811190E-03	.3708[illegible]79E+04	.38504563E+01	
6217	.92353377E+01	.29345106E+01	.21614463E-02	.13169733E+05	.94588993E+03	.43804[illegible]0E+04	.14779862E+09	.10290602E+04	9
		.12526454E+01	.55262345E+00	.41081014E+01	.0	.16207152E-01	.43315819E+04	.30142515E+01	
6229	.93581513E+01	.0	.16885618E-02	.15631670E+05	.0	.25899104E+04	.14350691E+09	.28313243E+03	1
		.12529654E+01	.55192429E+00	.0	.0	.74977237E-04	.15431468E+04	.60123881E+01	
6241	.93552595E+01	.18966480E+01	.14967979E-02	.15506690E+05	.69992573E+03	.40291666E+04	.17169439E+09	.60277062E+03	9
		.12529579E+01	.55194073E+00	.25844064E+01	.0	.13839246E-03	.3706[illegible]545E+04	.38525283E+01	
6253	.93536602E+01	.29455851E+01	.21265285E-02	.13140682E+05	.93049412E+03	.43819416E+04	.14735555E+09	.10128947E+04	9
		.12529537E+01	.55194983E+00	.40503647E+01	.0	.16141628E-01	.43835674E+04	.30063352E+01	
6265	.94774289E+01	.0	.17013894E-02	.15624636E+05	.0	.26257314E+04	.14379461E+09	.29[illegible]90585E+03	1
		.12532762E+01	.55124700E+00	.0	.0	.74973912E-04	.15735631E+04	.59515844E+01	
6277	.94758617E+01	.19036470E+01	.14842142E-02	.15511000E+05	.67937958E+03	.40285998E+04	.17165685E+09	.59738619E+03	9
		.12532699E+01	.55126177E+00	.25079440E+01	.0	.13715093E-03	.37041896E+04	.38539125E+01	
6289	.94736593E+01	.29564548E+01	.21033819E-02	.13105353E+05	.88968443E+03	.43846541E+04	.14683982[illegible]E+09	.10028631E+04	9
		.12532664E+01	.55126838E+00	.38836856E+01	.0	.15794359E-01	.43879[illegible]0E+04	.29957932E+01	
6301	.95984237E+01	.0	.17180351E-02	.15614094E+05	.0	.26618378E+04	.14418803E+09	.30181033E+03	1
		.12535915E+01	.55056166E+00	.0	.0	.75001799E-04	.16167269E+04	.58659074E+01	
6313	.95964677E+01	.19105100E+01	.14739480E-02	.15514040E+05	.65692369E+03	.40283190E+04	.17160517E+09	.59302163E+03	9
		.12535864E+01	.55057272E+00	.24246736E+01	.0	.13789455E-03	.37027379E+04	.38546954E+01	
6325	.95953859E+01	.29671135E+01	.20730181E-02	.13071658E+05	.87039050E+03	.43871292E+04	.14635901[illegible]E+09	.98781688E+03	9
		.12535836E+01	.55057884E+00	.38094782E+01	.0	.15832582E-01	.4391742[illegible]E+04	.29861456E+01	
6337	.97211882E+01	.0	.17454766E-02	.15598293E+05	.0	.27128515E+04	.14476885E+09	.31841546E+03	1
		.12539114E+01	.54986803E+00	.0	.0	.75003986E-04	.16788613E+04	.57497777E+01	
6349	.97197104E+01	.19172331E+01	.14633886E-02	.15515488E+05	.63275432E+03	.40287542E+04	.17154543E+09	.59874961E+03	9
		.12539076E+01	.54987637E+00	.23353487E+01	.0	.13634925E-03	.37025996E+04	.38543887E+01	
6361	.97188930E+01	.29775547E+01	.20532481E-02	.13027857E+05	.81455354E+03	.43923490E+04	.14579209E+09	.99189549E+03	9
		.12539054E+01	.54988698E+00	.35777033E+01	.0	.15438491E-01	.44010717E+04	.29718263E+01	
6373	.98457771E+01	.0	.17783715E-02	.15579688E+05	.0	.27708749E+04	.14544117E+09	.33835452E+03	1
		.12542361E+01	.54916588E+00	.0	.0	.75049421E-04	.17509918E+04	.56226601E+01	
6385	.98447845E+01	.19238117E+01	.14572454E-02	.15515145E+05	.61081974E+03	.40301762E+04	.17147778E+09	.58653957E+03	9
		.12542335E+01	.54917147E+00	.22176553E+01	.0	.13793234E-03	.3704241[illegible]E+04	.38526291E+01	
6397	.98442355E+01	.29877716E+01	.20310474E-02	.12989143E+05	.77781228E+03	.43972265E+04	.14533015E+09	.97319359E+03	9
		.12542320E+01	.54917456E+00	.34268759E+01	.0	.15721021E-01	.44097029E+04	.29592328E+01	
6409	.99722471E+01	.0	.18162971E-02	.15556963E+05	.0	.28368874E+04	.14620900E+09	.36253555E+03	1
		.12545656E+01	.54845496E+00	.0	.0	.76299116E-04	.19349337E+04	.54838141E+01	

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673591E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IR
6421	.99717470E+01	.19302411E+01 .12545643E+01	.14538559E-02 .54945776E+00	.15513163E+05 .20946554E+01	.56739283E+03 .0	.40323264E+04 .21034511E-03	.17142217E+09 .37972168E+04	.58443693E+03 .35497716E+01	9
6433	.99714704E+01	.29977567E+01 .12545636E+01	.20208107E-02 .54945932E+00	.12935521E+05 .31425597E+01	.71013996E+03 .0	.44064028E+04 .31973634E-01	.14471267E+09 .44269567E+04	.97236719E+03 .29430405E+01	9
6445	.10100657E+02	.0 .12549002E+01	.18655097E-02 .54773501E+00	.15531689E+05 .0	.0 .0	.29086962E+04 .76359799E-04	.14726618E+09 .19284887E+04	.39091297E+03 .53397425E+01	1
6446	.10100657E+02	.23507465E+00 .12549002E+01	.10875518E-02 .54773501E+00	.15621040E+05 -.20786819E+01	-.56697765E+03 .0	.43750253E+04 .76021531E-04	.18230783E+09 .43629627E+04	.51558091E+03 .35728547E+01	9
6447	.10100657E+02	.45023113E+00 .12549002E+01	.12208756E-02 .54773501E+00	.15713115E+05 -.13582451E+01	-.37256253E+03 .0	.38572572E+04 .77303520E-04	.17233377E+09 .33913887E+04	.44989832E+03 .40747948E+01	8
6448	.10100657E+02	.64821943E+00 .12549002E+01	.13235465E-02 .54773501E+00	.15758206E+05 .17193315E+01	.47300815E+03 .0	.39663837E+04 .79177193E-04	.17345169E+09 .35859962E+04	.51572053E+03 .39746793E+01	8
6449	.10100657E+02	.83131348E+00 .12549002E+01	.11371921E-02 .54773501E+00	.15691160E+05 .35754603E+01	.98045717E+03 .0	.38881146E+04 .80386631E-04	.17084744E+09 .34458668E+04	.42578847E+03 .40435439E+01	8
6450	.10100657E+02	.10014134E+01 .12549002E+01	.14868217E-02 .54773501E+00	.15597815E+05 .23299414E+01	.63463731E+03 .0	.39985075E+04 .85918262E-04	.17182962E+09 .36443173E+04	.58876293E+03 .39041368E+01	8
6451	.10100657E+02	.11601059E+01 .12549002E+01	.13313806E-02 .54773501E+00	.15591107E+05 .26589086E+01	.72405178E+03 .0	.39856044E+04 .89191018E-04	.17146369E+09 .36278351E+04	.52381312E+03 .39160711E+01	8
6452	.10100657E+02	.13087526E+01 .12549002E+01	.14403177E-02 .54773501E+00	.15591715E+05 .26007588E+01	.70822255E+03 .0	.39860479E+04 .87333253E-04	.17147289E+09 .36216409E+04	.56679998E+03 .39156256E+01	8
6453	.10100657E+02	.14485047E+01 .12549002E+01	.13407228E-02 .54773501E+00	.15573172E+05 .19981154E+01	.54331427E+03 .0	.40011044E+04 .10479294E-03	.17145671E+09 .36490526E+04	.53159944E+03 .39945864E+01	8
6454	.10100657E+02	.15803541E+01 .12549002E+01	.14946015E-02 .54773501E+00	.15586768E+05 .14955839E+01	.47695170E+03 .0	.40024378E+04 .12266407E-03	.17163710E+09 .36514853E+04	.59300773E+03 .39956455E+01	8
6455	.10100657E+02	.17351579E+01 .12549002E+01	.13674374E-02 .54773501E+00	.15554645E+05 .17679690E+01	.48012020E+03 .0	.40131891E+04 .13724697E-03	.17143880E+09 .36711287E+04	.54547198E+03 .38777274E+01	8
6456	.10100657E+02	.18236614E+01 .12549002E+01	.15807632E-02 .54773501E+00	.15545231E+05 .84066670E+00	.22810224E+03 .0	.40347333E+04 .17792609E-03	.17174521E+09 .37106504E+04	.63736625E+03 .38532668E+01	8
6457	.10100657E+02	.19365163E+01 .12549002E+01	.14819832E-02 .54773501E+00	.15508298E+05 .19225152E+01	.52056421E+03 .0	.40366574E+04 .21041459E-03	.17132979E+09 .37141903E+04	.58555539E+03 .38443005E+01	8
6458	.10100657E+02	.20442950E+01 .12549002E+01	.16670152E-02 .54773501E+00	.15450784E+05 .84567583E+00	.22806747E+03 .0	.40728865E+04 .29861431E-03	.17124851E+09 .37911594E+04	.68490438E+03 .37939842E+01	8
6459	.10100657E+02	.21475134E+01 .12549002E+01	.16239169E-02 .54773501E+00	.15401571E+05 .14558169E+01	.39141965E+03 .0	.40907765E+04 .39027589E-03	.17099652E+09 .38144495E+04	.67307128E+03 .37661663E+01	8
6460	.10100657E+02	.22465902E+01 .12549002E+01	.17498602E-02 .54773501E+00	.15347848E+05 .10682865E+01	.28619558E+03 .0	.41065394E+04 .56954942E-03	.17053884E+09 .38439025E+04	.73087162E+03 .37360662E+01	8
6461	.10100657E+02	.23419557E+01 .12549002E+01	.17297194E-02 .54773501E+00	.15277723E+05 .17654407E+01	.47089774E+03 .0	.41222230E+04 .79407615E-03	.16993847E+09 .38733196E+04	.72798826E+03 .37079455E+01	8
6462	.10100657E+02	.24339585E+01 .12549002E+01	.18276374E-02 .54773501E+00	.15178881E+05 .15926300E+01	.39817021E+03 .0	.41397979E+04 .12032374E-02	.16855555E+09 .39064174E+04	.77577195E+03 .36678367E+01	8
6463	.10100657E+02	.25229212E+01 .12549002E+01	.18559172E-02 .54773501E+00	.15037020E+05 .18891626E+01	.49361741E+03 .0	.41649787E+04 .18001686E-02	.16740864E+09 .39540844E+04	.79738641E+03 .36122922E+01	8
6464	.10100657E+02	.26091355E+01 .12549002E+01	.19628134E-02 .54773501E+00	.14862140E+05 .15057073E+01	.39066030E+03 .0	.41939097E+04 .28601887E-02	.16550476E+09 .40092073E+04	.85587247E+03 .35449675E+01	8
6465	.10100657E+02	.26928664E+01 .12549002E+01	.19786517E-02 .54773501E+00	.14642240E+05 .19943556E+01	.50979732E+03 .0	.42178066E+04 .44426899E-02	.16294291E+09 .40550264E+04	.87235196E+03 .34736335E+01	8
6466	.10100657E+02	.27743556E+01 .12549002E+01	.20157399E-02 .54773501E+00	.14363097E+05 .28334956E+01	.51997761E+03 .0	.42457528E+04 .71169213E-02	.15963409E+09 .41089397E+04	.89997333E+03 .33851647E+01	8
6467	.10100657E+02	.28538245E+01 .12549002E+01	.20092255E-02 .54773501E+00	.13992352E+05 .25842206E+01	.63152755E+03 .0	.42822305E+04 .11437733E-01	.15541957E+09 .41798477E+04	.91254549E+03 .32786466E+01	8
6468	.10100657E+02	.29314772E+01 .12549002E+01	.20176393E-02 .54773501E+00	.13535651E+05 .26119802E+01	.61609421E+03 .0	.43394287E+04 .18944737E-01	.15025981E+09 .42822429E+04	.94120777E+03 .31155517E+01	8

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673583E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
6469	.10100657E+02	.30075024E+01	.20109753E-02	.12874378E+05	.64815000E+03	.44168476E+04	.14407301E+09	.97163289E+03	8
		.12549002E+01	.54773501E+00	.28820757E+01	.0	.31823196E-01	.44467755E+04	.29185257E+01	
6470	.10100657E+02	.30820755E+01	.19885919E-02	.12088644E+05	.61836144E+03	.45109526E+04	.13559176E+09	.99779259E+03	8
		.12549002E+01	.54773501E+00	.29282564E+01	.0	.53758875E-01	.46177375E+04	.26893582E+01	
6471	.10100657E+02	.31553607E+01	.19832993E-02	.11150644E+05	.63729582E+03	.45582062E+04	.12732590E+09	.10206098E+04	8
		.12549002E+01	.54773501E+00	.32710830E+01	.0	.91012466E-01	.47359629E+04	.24503271E+01	
6472	.10100657E+02	.32275120E+01	.19810134E-02	.10152040E+05	.60961616E+03	.45660784E+04	.11689673E+09	.10281268E+04	8
		.12549002E+01	.54773501E+00	.34364069E+01	.0	.14849033E+00	.47523354E+04	.22273659E+01	
6473	.10100657E+02	.32986749E+01	.20467306E-02	.92213997E+04	.61102627E+03	.45393083E+04	.13712071E+09	.10445417E+04	8
		.12549002E+01	.54773501E+00	.37909780E+01	.0	.22567310E+00	.46967746E+04	.20359096E+01	
6474	.10100657E+02	.33689878E+01	.20575351E-02	.84265228E+04	.58326889E+03	.45031710E+04	.14906861E+09	.10334034E+04	8
		.12549002E+01	.54773501E+00	.39595962E+01	.0	.29368978E+00	.46222905E+04	.18757194E+01	
6475	.10100657E+02	.34385630E+01	.21486991E-02	.77429793E+04	.57604378E+03	.44644337E+04	.92452152E+08	.10607038E+04	8
		.12549002E+01	.54773501E+00	.42547174E+01	.0	.35066530E+00	.45431097E+04	.17391629E+01	
6476	.10100657E+02	.35075874E+01	.21329377E-02	.70482127E+04	.53953128E+03	.44179728E+04	.86003426E+08	.10311219E+04	8
		.12549002E+01	.54773501E+00	.43773789E+01	.0	.30496800E+00	.44490414E+04	.16000172E+01	
6477	.10100657E+02	.35761240E+01	.23059523E-02	.62182303E+04	.51755140E+03	.43473459E+04	.78551308E+08	.10794051E+04	8
		.12549002E+01	.54773501E+00	.47578360E+01	.0	.24425912E+00	.43079313E+04	.14352967E+01	
6478	.10100657E+02	.36443126E+01	.23266109E-02	.51320873E+04	.44205993E+03	.42328945E+04	.69326631E+08	.10278037E+04	8
		.12549002E+01	.54773501E+00	.49231052E+01	.0	.16582967E+00	.42655662E+04	.12196383E+01	
6479	.10100657E+02	.37122705E+01	.28340785E-02	.34919727E+04	.33153009E+03	.39359633E+04	.54582804E+08	.10874263E+04	8
		.12549002E+01	.54773501E+00	.54229534E+01	.0	.10615275E+00	.35312012E+04	.89118524E+00	
6480	.10100657E+02	.37801133E+01	.42971329E-02	.0	.0	.31014759E+04	.37071664E+08	.10237676E+04	2
		.12549002E+01	.54773501E+00	.0	.0	.74000000E-04	.21925888E+04	.0	
36	-.10666948E+01	.74392536E+00	.55931000E+00	.0	.0	.52200721E+04	.16161153E+09	.41298777E+06	0
		.11470000E+01	.98798868E+00	.0	.0	.74000000E-04	.65326673E+04	.0	
72	-.10201817E+01	.74392536E+00	.56219362E+00	.0	.0	.52198604E+04	.16159839E+09	.41508325E+06	2
		.11470000E+01	.98798868E+00	.0	.0	.74000000E-04	.65321370E+04	.0	
108	-.97366855E+00	.74392536E+00	.56208518E+00	.0	.0	.52196486E+04	.16158527E+09	.41496951E+06	2
		.11470000E+01	.98798868E+00	.0	.0	.74000000E-04	.65316969E+04	.0	
144	-.92715543E+00	.74392536E+00	.56196230E+00	.0	.0	.52194368E+04	.16157216E+09	.41484513E+06	2
		.11470000E+01	.98798868E+00	.0	.0	.74000000E-04	.65310769E+04	.0	
180	-.87986153E+00	.74242627E+00	.56238592E+00	.0	.0	.52192214E+04	.16155883E+09	.41512357E+06	2
		.11470000E+01	.98798868E+00	.0	.0	.74000000E-04	.65305387E+04	.0	
216	-.83275570E+00	.73795502E+00	.56176813E+00	.0	.0	.52189299E+04	.16154078E+09	.41462121E+06	2
		.11470000E+01	.98796758E+00	.0	.0	.74000000E-04	.65299477E+04	.0	
252	-.78602976E+00	.73046965E+00	.56111901E+00	.0	.0	.52185886E+04	.16151965E+09	.41408798E+06	2
		.11470000E+01	.98793265E+00	.0	.0	.74000000E-04	.65293246E+04	.0	
288	-.73987039E+00	.72306125E+00	.56042133E+00	.0	.0	.52182504E+04	.16149871E+09	.41322436E+06	2
		.11470000E+01	.98789815E+00	.0	.0	.74000000E-04	.65287763E+04	.0	
324	-.69446292E+00	.70674822E+00	.55865569E+00	.0	.0	.52179166E+04	.16147806E+09	.41216397E+06	2
		.11470000E+01	.98786421E+00	.0	.0	.74000000E-04	.65280955E+04	.0	
360	-.64998953E+00	.69058740E+00	.55712240E+00	.0	.0	.52170253E+04	.16142289E+09	.41089232E+06	2
		.11470000E+01	.98783086E+00	.0	.0	.74000000E-04	.65262508E+04	.0	
396	-.60662907E+00	.67164254E+00	.55602693E+00	.0	.0	.52153115E+04	.16131686E+09	.40981491E+06	2
		.11470000E+01	.98771187E+00	.0	.0	.74000000E-04	.65225844E+04	.0	
432	-.56439559E+00	.65157353E+00	.55502519E+00	.0	.0	.52136268E+04	.16121265E+09	.40881242E+06	2
		.11470000E+01	.98762033E+00	.0	.0	.74000000E-04	.65189752E+04	.0	
468	-.52216211E+00	.63150451E+00	.55318779E+00	.0	.0	.52119266E+04	.16110782E+09	.40719336E+06	2
		.11470000E+01	.98752932E+00	.0	.0	.74000000E-04	.65153279E+04	.0	
504	-.47992462E+00	.61143549E+00	.55025842E+00	.0	.0	.52092929E+04	.16094475E+09	.40462786E+06	2
		.11470000E+01	.98738687E+00	.0	.0	.74000000E-04	.65056413E+04	.0	

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673590E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
540	-.43769514E+00	.59136648E+00	.84739601E+00	.0	.0	.52056863E+04	.16072196E+09	.40196583E+06	2
		.11470000E+01	.98719438E+00	.0	.0	.74000000E-04	.65019374E+04	.0	
576	-.39546165E+00	.57129746E+00	.84181662E+00	.0	.0	.52022080E+04	.16049432E+09	.39730669E+06	2
		.11470000E+01	.98700204E+00	.0	.0	.74000000E-04	.64940176E+04	.0	
612	-.35322817E+00	.55122644E+00	.83579783E+00	.0	.0	.51982560E+04	.16026348E+09	.39232664E+06	2
		.11470000E+01	.98680977E+00	.0	.0	.74000000E-04	.64859166E+04	.0	
648	-.31099468E+00	.53115943E+00	.82778802E+00	.0	.0	.51905582E+04	.15976466E+09	.38531117E+06	2
		.11470200E+01	.98622401E+00	.0	.0	.74000000E-04	.64695694E+04	.0	
684	-.26876120E+00	.51109741E+00	.81983254E+00	.0	.0	.51811376E+04	.15915269E+09	.37746354E+06	2
		.11470467E+01	.98550784E+00	.0	.0	.74000000E-04	.64494715E+04	.0	
720	-.22652771E+00	.49102139E+00	.81335629E+00	.0	.0	.51711963E+04	.15851010E+09	.36472146E+06	2
		.11470733E+01	.98479251E+00	.0	.0	.74000000E-04	.64290970E+04	.0	
756	-.18429423E+00	.47095238E+00	.80732615E+00	.0	.0	.51606901E+04	.15783438E+09	.34517025E+06	2
		.11471000E+01	.98407802E+00	.0	.0	.74000000E-04	.64053418E+04	.0	
792	-.16496217E+00	.46234331E+00	.80149192E+00	.0	.0	.51518263E+04	.15725325E+09	.32899337E+06	2
		.11471327E+01	.98334400E+00	.0	.0	.74000000E-04	.63865216E+04	.0	
828	-.14522942E+00	.45469717E+00	.80773755E+00	.0	.0	.51422983E+04	.15663205E+09	.31361512E+06	2
		.11471660E+01	.98259566E+00	.0	.0	.74000000E-04	.63661378E+04	.0	
864	-.12514392E+00	.44803255E+00	.81711991E+00	.0	.0	.51320605E+04	.15596840E+09	.29764615E+06	2
		.11472000E+01	.98183487E+00	.0	.0	.74000000E-04	.63440761E+04	.0	
900	-.10475445E+00	.44236562E+00	.82724727E+00	.0	.0	.51205315E+04	.15519003E+09	.28217717E+06	2
		.11472659E+01	.98073695E+00	.0	.0	.74000000E-04	.63194826E+04	.0	
936	-.84110535E-01	.43771015E+00	.83549203E+00	.0	.0	.51080225E+04	.15435381E+09	.26540673E+06	2
		.11473326E+01	.97962720E+00	.0	.0	.74000000E-04	.62925511E+04	.0	
972	-.63262319E-01	.43407745E+00	.85422037E+00	.0	.0	.50944412E+04	.15345490E+09	.24902717E+06	2
		.11474000E+01	.97850840E+00	.0	.0	.74000000E-04	.62630522E+04	.0	
1008	-.42260441E-01	.43147635E+00	.88156712E+00	.0	.0	.50798557E+04	.15246075E+09	.23174825E+06	2
		.11475000E+01	.97716432E+00	.0	.0	.74000000E-04	.62316796E+04	.0	
1044	-.21155914E-01	.42991316E+00	.90723475E+00	.0	.0	.50641936E+04	.15129052E+09	.21338185E+06	2
		.11477000E+01	.97489221E+00	.0	.0	.74000000E-04	.61976259E+04	.0	
1080	.0	.42939167E+00	.92443920E+00	.0	.0	.50472332E+04	.15016439E+09	.18931351E+06	2
		.11478000E+01	.97338555E+00	.0	.0	.74000000E-04	.61610039E+04	.0	
1116	.13572412E-01	.42993976E+00	.93577103E+00	.0	.0	.50287304E+04	.14883775E+09	.16142106E+06	2
		.11480000E+01	.97108511E+00	.0	.0	.74000000E-04	.61210515E+04	.0	
1152	.27056436E-01	.43158046E+00	.94232882E+00	.0	.0	.50100198E+04	.14739265E+09	.13745973E+06	2
		.11483020E+01	.96812032E+00	.0	.0	.74000000E-04	.60861841E+04	.0	
1188	.40364256E-01	.43430309E+00	.17301483E+01	.0	.0	.49892450E+04	.14584189E+09	.11654111E+06	2
		.11486000E+01	.96520804E+00	.0	.0	.74000000E-04	.60343615E+04	.0	
1224	.53409207E-01	.43808991E+00	.14604045E+00	.0	.0	.49702475E+04	.14424459E+09	.97585854E+05	2
		.11490456E+01	.96119385E+00	.0	.0	.74000000E-04	.59932005E+04	.0	
1260	.66106336E-01	.44291627E+00	.12165893E+00	.0	.0	.49491269E+04	.14255247E+09	.80573982E+05	2
		.11494794E+01	.95731220E+00	.0	.0	.74000000E-04	.59469104E+04	.0	
1296	.78372952E-01	.44875073E+00	.99403644E-01	.0	.0	.49257336E+04	.14076199E+09	.65189796E+05	2
		.11499984E+01	.95358586E+00	.0	.0	.74000000E-04	.58951630E+04	.0	
1332	.90129170E-01	.45555529E+00	.83199911E-01	.0	.0	.48999493E+04	.13887149E+09	.53916266E+05	2
		.11503000E+01	.95003623E+00	.0	.0	.74000000E-04	.58377195E+04	.0	
1368	.10129943E+00	.46328565E+00	.75580668E-01	.0	.0	.48966865E+04	.13797837E+09	.49196488E+05	2
		.11509929E+01	.94621275E+00	.0	.0	.74000000E-04	.58297708E+04	.0	
1404	.13462952E+00	.48831311E+00	.73621232E-01	.0	.0	.48853431E+04	.13527377E+09	.47364431E+05	2
		.11531174E+01	.93107745E+00	.0	.0	.74000000E-04	.58022713E+04	.0	
1440	.16796782E+00	.51316331E+00	.72415019E-01	.0	.0	.48711736E+04	.13248548E+09	.46235033E+05	2
		.11550527E+01	.91731845E+00	.0	.0	.74000000E-04	.57679289E+04	.0	

ITERATION NUMBER 20000 DTIME = .24767202E-06 TIME = .34673587E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
1476	.20129201E+00	.53783800E+00	.70868476E-01	.0	.0	.48529961E+04	.12957125E+09	.44833199E+05	2
		.11570980E+01	.90392106E+00	.0	.0	.74000000E-04	.57246426E+04	.0	
1512	.23462321E+00	.56233991E+00	.69163403E-01	.0	.0	.48297846E+04	.12647137E+09	.43261061E+05	2
		.11591233E+01	.89057137E+00	.0	.0	.74000000E-04	.56695319E+04	.0	
1548	.26795440E+00	.58666810E+00	.67446693E-01	.0	.0	.47995103E+04	.12309732E+09	.41587028E+05	2
		.11611587E+01	.87815620E+00	.0	.0	.74000000E-04	.55981827E+04	.0	
1584	.30128560E+00	.61082705E+00	.65857767E-01	.0	.0	.47590549E+04	.11931226E+09	.39855771E+05	2
		.11631940E+01	.86576299E+00	.0	.0	.74000000E-04	.55037195E+04	.0	
1620	.33461679E+00	.63461758E+00	.64628421E-01	.0	.0	.47031706E+04	.11489018E+09	.38131908E+05	2
		.11652293E+01	.85367983E+00	.0	.0	.74000000E-04	.53747482E+04	.0	
1656	.36794798E+00	.65864137E+00	.64050299E-01	.0	.0	.46222408E+04	.10942879E+09	.36437779E+05	2
		.11672647E+01	.84189537E+00	.0	.0	.74000000E-04	.51909126E+04	.0	
1692	.40127918E+00	.68230011E+00	.64561981E-01	.0	.0	.44965109E+04	.10213355E+09	.34697417E+05	2
		.11693300E+01	.83039982E+00	.0	.0	.74000000E-04	.49119274E+04	.0	
1728	.43461037E+00	.70579542E+00	.61787812E-01	.0	.0	.44869362E+04	.10050196E+09	.33315562E+05	2
		.11710592E+01	.82150342E+00	.0	.0	.74000000E-04	.48857966E+04	.0	
1764	.46794157E+00	.72912893E+00	.59285712E-01	.0	.0	.44759053E+04	.98841896E+08	.31475743E+05	2
		.11728184E+01	.81278944E+00	.0	.0	.74000000E-04	.48566102E+04	.0	
1800	.50127276E+00	.75230222E+00	.56929595E-01	.0	.0	.44631615E+04	.97143781E+08	.30008016E+05	2
		.11745776E+01	.80425138E+00	.0	.0	.74000000E-04	.48238459E+04	.0	
1836	.53460396E+00	.77531685E+00	.54780261E-01	.0	.0	.44483849E+04	.95395990E+08	.28641257E+05	2
		.11763368E+01	.79588398E+00	.0	.0	.74000000E-04	.47868585E+04	.0	
1872	.56793515E+00	.79917435E+00	.52819835E-01	.0	.0	.44311707E+04	.93584120E+08	.27362027E+05	2
		.11780960E+01	.78768217E+00	.0	.0	.74000000E-04	.47448379E+04	.0	
1908	.60126635E+00	.82367624E+00	.50927073E-01	.0	.0	.44109985E+04	.91590039E+08	.26102901E+05	2
		.11799552E+01	.77964110E+00	.0	.0	.74000000E-04	.46967524E+04	.0	
1944	.63459754E+00	.84342401E+00	.49412426E-01	.0	.0	.43871880E+04	.89690504E+08	.25016574E+05	2
		.11816144E+01	.77175613E+00	.0	.0	.74000000E-04	.46412678E+04	.0	
1980	.66792874E+00	.86581912E+00	.47996882E-01	.0	.0	.43588319E+04	.87555129E+08	.23906237E+05	2
		.11833736E+01	.76402267E+00	.0	.0	.74000000E-04	.45766277E+04	.0	
2016	.70125993E+00	.88806300E+00	.46569867E-01	.0	.0	.43246932E+04	.85243302E+08	.22842495E+05	2
		.11851328E+01	.75643649E+00	.0	.0	.74000000E-04	.45004716E+04	.0	
2052	.73656747E+00	.91146246E+00	.44483113E-01	.0	.0	.42812844E+04	.82539699E+08	.21339587E+05	2
		.11869963E+01	.74855649E+00	.0	.0	.74000000E-04	.44036068E+04	.0	
2088	.77193954E+00	.93473796E+00	.45460436E-01	.0	.0	.42403002E+04	.80180201E+08	.21373008E+05	2
		.11886557E+01	.74170862E+00	.0	.0	.74000000E-04	.43172187E+04	.0	
2124	.80744116E+00	.95793206E+00	.42169466E-01	.0	.0	.42323300E+04	.79299305E+08	.19728872E+05	2
		.11898392E+01	.73699648E+00	.0	.0	.74000000E-04	.42966324E+04	.0	
2160	.84313827E+00	.98108771E+00	.40575203E-01	.0	.0	.42228764E+04	.78378098E+08	.18882087E+05	2
		.11910291E+01	.73231728E+00	.0	.0	.74000000E-04	.42743066E+04	.0	
2196	.87909630E+00	.10042469E+01	.39920241E-01	.0	.0	.42127095E+04	.77436467E+08	.18423015E+05	2
		.11922279E+01	.72766221E+00	.0	.0	.74000000E-04	.42499708E+04	.0	
2232	.91539160E+00	.10274518E+01	.36555764E-01	.0	.0	.42013321E+04	.76459806E+08	.16804480E+05	2
		.11934377E+01	.72302265E+00	.0	.0	.74000000E-04	.42329605E+04	.0	
2268	.95208708E+00	.10507449E+01	.37753268E-01	.0	.0	.41885603E+04	.75440751E+08	.17231948E+05	2
		.11946610E+01	.71839007E+00	.0	.0	.74000000E-04	.41938792E+04	.0	
2304	.98926272E+00	.10741694E+01	.33117479E-01	.0	.0	.41741211E+04	.74370417E+08	.14996412E+05	2
		.11958002E+01	.71375602E+00	.0	.0	.74000000E-04	.41612199E+04	.0	
2340	.10269963E+01	.10977693E+01	.35606924E-01	.0	.0	.41576792E+04	.73237933E+08	.15980114E+05	2
		.11971581E+01	.70911203E+00	.0	.0	.74000000E-04	.41246397E+04	.0	
2376	.10653709E+01	.11215931E+01	.32195325E-01	.0	.0	.41388034E+04	.72129594E+08	.14302832E+05	2
		.11984373E+01	.70444954E+00	.0	.0	.74000000E-04	.40834883E+04	.0	

ITERATION NUMBER 20000 DTIME = .24767202E-05 TIME = .34673593E-02

NODE	X	Y GAM	RHO CV	U THXY	V THXZ	SOS MU	E T	P M	IB
2412	.11044751E+01	.11456789E+01	.39126619E-01	.0	.0	.41169287E+04	.70728161E+08	.13228312E+05	2
		.11997408E+01	.69975996E+00	.0	.0	.74000000E-04	.40365800E+04	.0	
2448	.11444034E+01	.11700845E+01	.32561785E-01	.0	.0	.40913014E+04	.69311082E+08	.14104481E+05	2
		.12017719E+01	.69503413E+00	.0	.0	.74000000E-04	.39826008E+04	.0	
2484	.11852574E+01	.11948587E+01	.28550797E-01	.0	.0	.40608932E+04	.67748412E+08	.12179129E+05	2
		.12024337E+01	.69026317E+00	.0	.0	.74000000E-04	.39197164E+04	.0	
2520	.12271471E+01	.12200555E+01	.30781045E-01	.0	.0	.40242636E+04	.65999289E+08	.12870219E+05	2
		.12039331E+01	.68543750E+00	.0	.0	.74000000E-04	.38454009E+04	.0	
2556	.12701918E+01	.12457338E+01	.26554015E-01	.0	.0	.40046792E+04	.64968062E+08	.10985452E+05	2
		.12048768E+01	.68188720E+00	.0	.0	.74000000E-04	.38050258E+04	.0	
2592	.13145220E+01	.12719544E+01	.28168029E-01	.0	.0	.39952197E+04	.64336740E+08	.11589685E+05	2
		.12057602E+01	.67893550E+00	.0	.0	.74000000E-04	.37844325E+04	.0	
2628	.13602810E+01	.12987341E+01	.26278455E-01	.0	.0	.39845984E+04	.63664638E+08	.10746688E+05	2
		.12066720E+01	.67591514E+00	.0	.0	.74000000E-04	.37616322E+04	.0	
2664	.14076256E+01	.13262947E+01	.23219226E-01	.0	.0	.39725831E+04	.62944496E+08	.94310495E+04	2
		.12076154E+01	.67281796E+00	.0	.0	.74000000E-04	.37362026E+04	.0	
2700	.14567342E+01	.13545642E+01	.25466735E-01	.0	.0	.39588760E+04	.62167259E+08	.10264354E+05	2
		.12085939E+01	.66963514E+00	.0	.0	.74000000E-04	.37076072E+04	.0	
2736	.15077938E+01	.13836777E+01	.20676672E-01	.0	.0	.39430896E+04	.61321445E+08	.82604363E+04	2
		.12096115E+01	.66635699E+00	.0	.0	.74000000E-04	.36751550E+04	.0	
2772	.15610389E+01	.14137286E+01	.22691501E-01	.0	.0	.39247097E+04	.60392215E+08	.89731850E+04	2
		.12106723E+01	.66297296E+00	.0	.0	.74000000E-04	.36379390E+04	.0	
2808	.16167003E+01	.14448197E+01	.22011554E-01	.0	.0	.39030399E+04	.59359983E+08	.86005721E+04	2
		.12117815E+01	.65947116E+00	.0	.0	.74000000E-04	.35947458E+04	.0	
2844	.16750610E+01	.14770651E+01	.21258624E-01	.0	.0	.38771133E+04	.58198255E+08	.81885349E+04	2
		.12129444E+01	.65583879E+00	.0	.0	.74000000E-04	.35439134E+04	.0	
2880	.17364369E+01	.15135915E+01	.20630096E-01	.0	.0	.38455472E+04	.56870164E+08	.78096924E+04	2
		.12141673E+01	.65206130E+00	.0	.0	.74000000E-04	.34831285E+04	.0	
2916	.18011893E+01	.15455406E+01	.19495675E-01	.0	.0	.38242739E+04	.55927922E+08	.72924454E+04	2
		.12151913E+01	.64893928E+00	.0	.0	.74000000E-04	.34418731E+04	.0	
2952	.18674066E+01	.15808392E+01	.18469942E-01	.0	.0	.38132887E+04	.55347899E+08	.68645100E+04	2
		.12160469E+01	.64636006E+00	.0	.0	.74000000E-04	.34197691E+04	.0	
2988	.19336320E+01	.16157328E+01	.17624232E-01	.0	.0	.38012851E+04	.54744481E+08	.65044445E+04	2
		.12169026E+01	.64380087E+00	.0	.0	.74000000E-04	.33959323E+04	.0	
3024	.19998738E+01	.16501421E+01	.17315811E-01	.0	.0	.37881307E+04	.54114498E+08	.63423043E+04	2
		.12177585E+01	.64126117E+00	.0	.0	.74000000E-04	.33701476E+04	.0	
3060	.20661401E+01	.16841675E+01	.16747997E-01	.0	.0	.37736694E+04	.53454201E+08	.60830179E+04	2
		.12186147E+01	.63874042E+00	.0	.0	.74000000E-04	.33421633E+04	.0	
3096	.21324391E+01	.17177889E+01	.16291339E-01	.0	.0	.37577148E+04	.52759187E+08	.58307156E+04	2
		.12194714E+01	.63623812E+00	.0	.0	.74000000E-04	.33116821E+04	.0	
3132	.21987790E+01	.17510161E+01	.15703783E-01	.0	.0	.37400436E+04	.52024236E+08	.55946866E+04	2
		.12203286E+01	.63375375E+00	.0	.0	.74000000E-04	.32783507E+04	.0	
3168	.22651682E+01	.17838592E+01	.15249958E-01	.0	.0	.37203851E+04	.51243103E+08	.53722649E+04	2
		.12211864E+01	.63128681E+00	.0	.0	.74000000E-04	.32417456E+04	.0	
3204	.23316147E+01	.18163244E+01	.14640663E-01	.0	.0	.36984085E+04	.50408253E+08	.51629656E+04	2
		.12220450E+01	.62883683E+00	.0	.0	.74000000E-04	.32013555E+04	.0	
3240	.23981259E+01	.18484233E+01	.14462260E-01	.0	.0	.36737046E+04	.49510508E+08	.49607472E+04	2
		.12229044E+01	.62640332E+00	.0	.0	.74000000E-04	.31565565E+04	.0	
3276	.24647132E+01	.18801634E+01	.13982521E-01	.0	.0	.36633166E+04	.49268548E+08	.47666752E+04	2
		.12235276E+01	.62465321E+00	.0	.0	.74000000E-04	.31371575E+04	.0	
3312	.25313818E+01	.19115523E+01	.13514431E-01	.0	.0	.36574241E+04	.48767597E+08	.45902141E+04	2
		.12240815E+01	.62310653E+00	.0	.0	.74000000E-04	.31256618E+04	.0	

ITERATION NUMBER 20000 DTIME = .2476722E-06 TIME = .3467359E-02

NODE	X	Y GAM	PHO CV	U THXY	V THXZ	SOS MU	Z T	P M	IB
3348	.25981412E+01	.19425994E+01	.13664206E-01	.0	.0	.36511951E+04	.48459919E+08	.44209381E+04	2
		.12246364E+01	.62156533E+00	.0	.0	.74000000E-04	.31136238E+04	.0	
3384	.26649998E+01	.19733109E+01	.12678287E-01	.0	.0	.36446028E+04	.48144145E+08	.42722019E+04	2
		.12251921E+01	.62302949E+00	.0	.0	.74000000E-04	.31109946E+04	.0	
3420	.27319660E+01	.20036946E+01	.12274386E-01	.0	.0	.36376178E+04	.47819784E+08	.41183895E+04	2
		.12257486E+01	.61849875E+00	.0	.0	.74000000E-04	.30877279E+04	.0	
3456	.27990485E+01	.20337577E+01	.11956309E-01	.0	.0	.36302070E+04	.47486216E+08	.39535208E+04	2
		.12263161E+01	.61697290E+00	.0	.0	.74000000E-04	.30737724E+04	.0	
3492	.28662559E+01	.20635071E+01	.11564882E-01	.0	.0	.36223336E+04	.47142583E+08	.38442922E+04	2
		.12268647E+01	.61545173E+00	.0	.0	.74000000E-04	.30590714E+04	.0	
3528	.29335967E+01	.20929494E+01	.11354841E-01	.0	.0	.36139566E+04	.46787975E+08	.37553218E+04	2
		.12274243E+01	.61393503E+00	.0	.0	.74000000E-04	.30435614E+04	.0	
3564	.30010798E+01	.21220911E+01	.10813859E-01	.0	.0	.36050299E+04	.46421380E+08	.35571343E+04	2
		.12279852E+01	.61242260E+00	.0	.0	.74000000E-04	.30271718E+04	.0	
3600	.30687139E+01	.21509386E+01	.10613930E-01	.0	.0	.35955012E+04	.46041667E+08	.34713482E+04	2
		.12285472E+01	.61091424E+00	.0	.0	.74000000E-04	.30098235E+04	.0	
3636	.31365080E+01	.21794978E+01	.10208019E-01	.0	.0	.35853120E+04	.45647567E+08	.33181755E+04	2
		.12291107E+01	.60940973E+00	.0	.0	.74000000E-04	.29914275E+04	.0	
3672	.32044709E+01	.22077746E+01	.10095569E-01	.0	.0	.35743955E+04	.45237651E+08	.32611710E+04	2
		.12296755E+01	.60790889E+00	.0	.0	.74000000E-04	.29718836E+04	.0	
3708	.32726117E+01	.22357748E+01	.99838268E-02	.0	.0	.35626755E+04	.44810306E+08	.32015039E+04	2
		.12302419E+01	.60641150E+00	.0	.0	.74000000E-04	.29510782E+04	.0	
3744	.33409396E+01	.22635037E+01	.98584239E-02	.0	.0	.35500649E+04	.44363701E+08	.31375029E+04	2
		.12308096E+01	.60491739E+00	.0	.0	.74000000E-04	.29288824E+04	.0	
3780	.34094638E+01	.22909667E+01	.97152033E-02	.0	.0	.35364637E+04	.43895749E+08	.30668566E+04	2
		.12313791E+01	.60342635E+00	.0	.0	.74000000E-04	.29051491E+04	.0	
3816	.34781936E+01	.23181689E+01	.95753578E-02	.0	.0	.35217560E+04	.43404061E+08	.29962309E+04	2
		.12319533E+01	.60193819E+00	.0	.0	.74000000E-04	.28797396E+04	.0	
3852	.35471386E+01	.23451154E+01	.94344694E-02	.0	.0	.35058070E+04	.42885887E+08	.29241072E+04	2
		.12325233E+01	.60045272E+00	.0	.0	.74000000E-04	.28523697E+04	.0	
3888	.36163082E+01	.23718109E+01	.93144863E-02	.0	.0	.34884592E+04	.42338049E+08	.28570873E+04	2
		.12330981E+01	.59896974E+00	.0	.0	.74000000E-04	.28229045E+04	.0	
3924	.36857121E+01	.23982599E+01	.91948534E-02	.0	.0	.34695272E+04	.41756846E+08	.27885575E+04	2
		.12336749E+01	.59748908E+00	.0	.0	.74000000E-04	.27910522E+04	.0	
3960	.37553601E+01	.24244672E+01	.90938425E-02	.0	.0	.34503876E+04	.41179873E+08	.27263406E+04	2
		.12342355E+01	.59605721E+00	.0	.0	.74000000E-04	.27590991E+04	.0	
3996	.38252621E+01	.24504369E+01	.88971404E-02	.0	.0	.34458791E+04	.40992424E+08	.26595762E+04	2
		.12346191E+01	.59508257E+00	.0	.0	.74000000E-04	.27510381E+04	.0	
4032	.38954283E+01	.24761732E+01	.87381967E-02	.0	.0	.34411832E+04	.40801061E+08	.26041374E+04	2
		.12350342E+01	.59410744E+00	.0	.0	.74000000E-04	.27426898E+04	.0	
4068	.39659688E+01	.25016803E+01	.85541094E-02	.0	.0	.34362887E+04	.40625548E+08	.25412340E+04	2
		.12353908E+01	.59313171E+00	.0	.0	.74000000E-04	.27340375E+04	.0	
4104	.40365940E+01	.25269620E+01	.84210144E-02	.0	.0	.34311832E+04	.40405633E+08	.24934827E+04	2
		.12357790E+01	.59215526E+00	.0	.0	.74000000E-04	.27250631E+04	.0	
4140	.41076144E+01	.25520222E+01	.82438504E-02	.0	.0	.34258533E+04	.40201043E+08	.24326790E+04	2
		.12361688E+01	.59117797E+00	.0	.0	.74000000E-04	.27157470E+04	.0	
4176	.41789460E+01	.25768647E+01	.81420825E-02	.0	.0	.34212845E+04	.39991483E+08	.23941855E+04	2
		.12365632E+01	.59019973E+00	.0	.0	.74000000E-04	.27060683E+04	.0	
4212	.42505835E+01	.26014914E+01	.79520594E-02	.0	.0	.34144611E+04	.39776636E+08	.23295149E+04	2
		.12369534E+01	.58922135E+00	.0	.0	.74000000E-04	.26962041E+04	.0	
4248	.43225541E+01	.26259177E+01	.78943354E-02	.0	.0	.34083657E+04	.39556155E+08	.23036202E+04	2
		.12373484E+01	.58823979E+00	.0	.0	.74000000E-04	.26855294E+04	.0	

ITERATION NUMBER 2.00. DTIME = .24767202E-06 TIME = .34673593E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
4284	.43948636E+01	.26501167E+01	.76347.25E-02	.0	.0	.34019795E+04	.39329669E+08	.22188052E+04	2
		.12377452E+01	.58725789E+00	.0	.0	.74000000E-04	.26746174E+04	.0	
4320	.44675234E+01	.26741195E+01	.75124020E-02	.0	.0	.33952819E+04	.39096768E+08	.21739737E+04	2
		.12381440E+01	.58627451E+00	.0	.0	.74000000E-04	.26632386E+04	.0	
4356	.45405451E+01	.26979211E+01	.73017885E-02	.0	.0	.33882504E+04	.38857012E+08	.21036016E+04	2
		.12385448E+01	.58528956E+00	.0	.0	.74000000E-04	.26513609E+04	.0	
4392	.46139404E+01	.27215236E+01	.72169427E-02	.0	.0	.33808631E+04	.38699915E+08	.20694249E+04	2
		.12389476E+01	.58430291E+00	.0	.0	.74000000E-04	.26389492E+04	.0	
4428	.46877213E+01	.27449298E+01	.71612596E-02	.0	.0	.33730837E+04	.38554949E+08	.20433546E+04	2
		.12393525E+01	.58331441E+00	.0	.0	.74000000E-04	.26259650E+04	.0	
4464	.47619002E+01	.27681423E+01	.71153601E-02	.0	.0	.33648999E+04	.38091534E+08	.20197439E+04	2
		.12397596E+01	.58232395E+00	.0	.0	.74000000E-04	.26123661E+04	.0	
4500	.48364893E+01	.27911636E+01	.70671180E-02	.0	.0	.33562483E+04	.37819031E+08	.19958996E+04	2
		.12401690E+01	.58133140E+00	.0	.0	.74000000E-04	.25981059E+04	.0	
4536	.49115015E+01	.28139960E+01	.70171591E-02	.0	.0	.33471188E+04	.37536739E+08	.19695794E+04	2
		.12405807E+01	.58033662E+00	.0	.0	.74000000E-04	.25831331E+04	.0	
4572	.49869497E+01	.28366418E+01	.69611514E-02	.0	.0	.33374610E+04	.37243880E+08	.19419521E+04	2
		.12409947E+01	.57933949E+00	.0	.0	.74000000E-04	.25673910E+04	.0	
4608	.50628470E+01	.28591031E+01	.69053506E-02	.0	.0	.33272289E+04	.36939595E+08	.19139491E+04	2
		.12414113E+01	.57833987E+00	.0	.0	.74000000E-04	.25508166E+04	.0	
4644	.51392059E+01	.28813819E+01	.68433060E-02	.0	.0	.33163738E+04	.36622929E+08	.18837572E+04	2
		.12418303E+01	.57733764E+00	.0	.0	.74000000E-04	.25333398E+04	.0	
4680	.52160433E+01	.29034802E+01	.67686834E-02	.0	.0	.33084644E+04	.36387051E+08	.18538822E+04	2
		.12421722E+01	.57652270E+00	.0	.0	.74000000E-04	.25205811E+04	.0	
4716	.52933701E+01	.29253995E+01	.66620804E-02	.0	.0	.33067702E+04	.36313686E+08	.18224709E+04	2
		.12423737E+01	.57604342E+00	.0	.0	.74000000E-04	.25175920E+04	.0	
4752	.53712016E+01	.29471417E+01	.65661917E-02	.0	.0	.33050363E+04	.36239368E+08	.17944635E+04	2
		.12425765E+01	.57556181E+00	.0	.0	.74000000E-04	.25145419E+04	.0	
4788	.54495526E+01	.29687083E+01	.64662005E-02	.0	.0	.33032609E+04	.36164061E+08	.17645557E+04	2
		.12427807E+01	.57507780E+00	.0	.0	.74000000E-04	.25114285E+04	.0	
4824	.55284380E+01	.29901106E+01	.63793891E-02	.0	.0	.33014425E+04	.36087729E+08	.17386622E+04	2
		.12429862E+01	.57459132E+00	.0	.0	.74000000E-04	.25082495E+04	.0	
4860	.56078731E+01	.30113201E+01	.62845522E-02	.0	.0	.32995795E+04	.36010334E+08	.17105976E+04	2
		.12431932E+01	.57410227E+00	.0	.0	.74000000E-04	.25050023E+04	.0	
4896	.56878737E+01	.30323677E+01	.62069982E-02	.0	.0	.32976700E+04	.35931837E+08	.16872503E+04	2
		.12434017E+01	.57361058E+00	.0	.0	.74000000E-04	.25016843E+04	.0	
4932	.57684557E+01	.30532447E+01	.61145358E-02	.0	.0	.32957121E+04	.35852195E+08	.16598629E+04	2
		.12436116E+01	.57311617E+00	.0	.0	.74000000E-04	.24982927E+04	.0	
4968	.58496355E+01	.30739519E+01	.60477952E-02	.0	.0	.32937039E+04	.35771365E+08	.16394663E+04	2
		.12438232E+01	.57261895E+00	.0	.0	.74000000E-04	.24948247E+04	.0	
5004	.59314300E+01	.30944962E+01	.59537229E-02	.0	.0	.32916433E+04	.35689302E+08	.16116697E+04	2
		.12440363E+01	.57211884E+00	.0	.0	.74000000E-04	.24912771E+04	.0	
5040	.60138563E+01	.31148633E+01	.58998653E-02	.0	.0	.32895281E+04	.35605958E+08	.15947632E+04	2
		.12442511E+01	.57161575E+00	.0	.0	.74000000E-04	.24876468E+04	.0	
5076	.60969322E+01	.31350626E+01	.58014258E-02	.0	.0	.32873559E+04	.35521283E+08	.15658118E+04	2
		.12444676E+01	.57110959E+00	.0	.0	.74000000E-04	.24839304E+04	.0	
5112	.61806757E+01	.31550977E+01	.57561227E-02	.0	.0	.32851243E+04	.35435223E+08	.15512038E+04	2
		.12446858E+01	.57060027E+00	.0	.0	.74000000E-04	.24801242E+04	.0	
5148	.62651053E+01	.31749657E+01	.56536520E-02	.0	.0	.32828336E+04	.35347725E+08	.15211936E+04	2
		.12449058E+01	.57008769E+00	.0	.0	.74000000E-04	.24762246E+04	.0	
5184	.63502400E+01	.31946670E+01	.55737146E-02	.0	.0	.32804722E+04	.35258729E+08	.14972645E+04	2
		.12451276E+01	.56957177E+00	.0	.0	.74000000E-04	.24722274E+04	.0	

ITERATION NUMBER 2300[illegible] DTIME = .24767202E-06 TIME = .34673[illegible]E-02

NODE	X	Y	RHO	U	V	SOS	E	P	IB
		GAM	CV	THXY	THXZ	MU	T	M	
5220	.64360994E+01	.32142[illegible]15E+01	.54569114E-02	.0	.0	.32780461E+04	.35168174E+08	.14634574E+04	2
		.12453513E+01	.56[illegible]524[illegible]E+00	.0	.0	.74000000E-04	.24651296E+04	.0	
5256	.65227035E+01	.32335692E+01	.53714198E-02	.0	.0	.32755493E+04	.35075996E+08	.14387758E+04	2
		.12455773E+01	.56852948E+00	.0	.0	.74000000E-04	.24639237E+04	.0	
5292	.66100727E+01	.32527695E+01	.53111721E-02	.0	.0	.32729784E+04	.34982126E+08	.14194555E+04	2
		.12456047E+01	.56900292E+00	.0	.0	.74000000E-04	.24596078E+04	.0	
5328	.66982284E+01	.32718126E+01	.52669410E-02	.0	.0	.32703299E+04	.34886494E+08	.14050976E+04	2
		.12460344E+01	.56747263E+00	.0	.0	.74000000E-04	.24551762E+04	.0	
5364	.67871920E+01	.32906674E+01	.52307689E-02	.0	.0	.32676032E+04	.34789022E+08	.13929600E+04	2
		.12462662E+01	.56653843E+00	.0	.0	.74000000E-04	.24536233E+04	.0	
5400	.68769860E+01	.33093634E+01	.51977569E-02	.0	.0	.32647853E+04	.34689631E+08	.13814266E+04	2
		.12465302E+01	.56640028E+00	.0	.0	.74000000E-04	.24459437E+04	.0	
5436	.69676332E+01	.33279898E+01	.51640500E-02	.0	.0	.32618810E+04	.34598236E+08	.13697678E+04	2
		.12467364E+01	.56585806E+00	.0	.0	.74000000E-04	.24411313E+04	.0	
5472	.70591572E+01	.33462455E+01	.51294899E-02	.0	.0	.32588828E+04	.34484747E+08	.13575763E+04	2
		.12469749E+01	.56531165E+00	.0	.0	.74000000E-04	.24361798E+04	.0	
5508	.71515822E+01	.33644292E+01	.50910502E-02	.0	.0	.32557860E+04	.34379069E+08	.13445815E+04	2
		.12472157E+01	.56476093E+00	.0	.0	.74000000E-04	.24310825E+04	.0	
5544	.72449332E+01	.33824397E+01	.50497233E-02	.0	.0	.32525855E+04	.34271099E+08	.13310479E+04	2
		.12474589E+01	.56420578E+00	.0	.0	.74000000E-04	.24258321E+04	.0	
5580	.73392359E+01	.34002754E+01	.50078617E-02	.0	.0	.32492758E+04	.34160731E+08	.13170692E+04	2
		.12477047E+01	.56364608E+00	.0	.0	.74000000E-04	.24204209E+04	.0	
5616	.74345156E+01	.34179345E+01	.49654374E-02	.0	.0	.32458510E+04	.34047853E+08	.13029313E+04	2
		.12479529E+01	.56308178E+00	.0	.0	.74000000E-04	.24148408E+04	.0	
5652	.75308027E+01	.34354151E+01	.49239533E-02	.0	.0	.32423050E+04	.33932333E+08	.12889091E+04	2
		.12482038E+01	.56251251E+00	.0	.0	.74000000E-04	.24090831E+04	.0	
5688	.76281223E+01	.34527151E+01	.48826302E-02	.0	.0	.32386310E+04	.33814052E+08	.12749563E+04	2
		.12484574E+01	.56193933E+00	.0	.0	.74000000E-04	.24031382E+04	.0	
5724	.77265041E+01	.34698321E+01	.48424544E-02	.0	.0	.32348218E+04	.33692866E+08	.12612416E+04	2
		.12487138E+01	.56135917E+00	.0	.0	.74000000E-04	.23969963E+04	.0	
576[illegible]	.78259781E+01	.34867636E+01	.48151490E-02	.0	.0	.32308696E+04	.33568627E+08	.12482099E+04	2
		.12489730E+01	.56077474E+00	.0	.0	.74000000E-04	.23906465E+04	.0	
5796	.79265750E+01	.35035268E+01	.47646275E-02	.0	.0	.32267661E+04	.33441176E+08	.12342827E+04	2
		.12492351E+01	.56018496E+00	.0	.0	.74000000E-04	.23840773E+04	.0	
5832	.80283266E+01	.35200587E+01	.47281564E-02	.0	.0	.32225022E+04	.33310343E+08	.12213486E+04	2
		.12495003E+01	.55958966E+00	.0	.0	.74000000E-04	.23772762E+04	.0	
5868	.81312657E+01	.35364159E+01	.46727162E-02	.0	.0	.32180682E+04	.33175944E+08	.12034397E+04	2
		.12497665E+01	.55898871E+00	.0	.0	.74000000E-04	.23702356E+04	.0	
5904	.82354260E+01	.35525751E+01	.46197188E-02	.0	.0	.32134537E+04	.33037782E+08	.11861231E+04	2
		.12500399E+01	.55838194E+00	.0	.0	.74000000E-04	.23629240E+04	.0	
5940	.83408425E+01	.35685324E+01	.45678412E-02	.0	.0	.32086470E+04	.32895646E+08	.11664838E+04	2
		.12503146E+01	.55776919E+00	.0	.0	.74000000E-04	.23553429E+04	.0	
5976	.84475514E+01	.35842837E+01	.45159943E-02	.0	.0	.32036359E+04	.32749307E+08	.11524462E+04	2
		.12505926E+01	.55715029E+00	.0	.0	.74000000E-04	.23474696E+04	.0	
6012	.85555900E+01	.35998247E+01	.44673969E-02	.0	.0	.31984968E+04	.32598518E+08	.11367529E+04	2
		.12508742E+01	.55652538E+00	.0	.0	.74000000E-04	.23392861E+04	.0	
6048	.86649967E+01	.36151538E+01	.44178256E-02	.0	.0	.31929452E+04	.32443011E+08	.11340506E+04	2
		.12511592E+01	.55589338E+00	.0	.0	.74000000E-04	.23307725E+04	.0	
6084	.87758117E+01	.36302569E+01	.43645996E-02	.0	.0	.31872348E+04	.32282498E+08	.11264004E+04	2
		.12514483E+01	.55525571E+00	.0	.0	.74000000E-04	.23219073E+04	.0	
612[illegible]	.88880761E+01	.36451378E+01	.43645728E-02	.0	.0	.31812584E+04	.32116663E+08	.11219117E+04	2
		.12517405E+01	.55460979E+00	.0	.0	.74000000E-04	.23126671E+04	.0	

ITERATION NUMBER 2000 DTIME = .2476720E-06 TIME = .3467359E-02

NODE	X	Y / GAM	RHO / CV	U / THXY	V / THXZ	SOS / MU	E / T	P / M	IB
6156	.90018327E+01	.36597877E+01	.44512772E-02	.0	.0	.31749965E+04	.31945165E+08	.11139070E+04	2
		.12523370E+01	.55395751E+00	.0	.0	.74000000E-04	.23030264E+04	.0	
6192	.91171258E+01	.36742 07E+01	.44537869E-02	.0	.0	.31684292E+04	.31767630E+08	.11096622E+04	2
		.12523374E+01	.55329799E+00	.0	.0	.74000000E-04	.22929573E+04	.0	
6228	.92340012E+01	.36883704E+01	.44353481E-02	.0	.0	.31615303E+04	.31583652E+08	.11099199E+04	2
		.12526419E+01	.55263102E+00	.0	.0	.74000000E-04	.22824292E+04	.0	
6264	.93525065E+01	.37022899E+01	.44392180E-02	.0	.0	.31542773E+04	.31392783E+08	.11056382E+04	2
		.12529507E+01	.55195639E+00	.0	.0	.74000000E-04	.22714087E+04	.0	
6300	.94726909E+01	.37159519E+01	.44154418E-02	.0	.0	.31466407E+04	.31194536E+08	.11042287E+04	2
		.12532639E+01	.55127387E+00	.0	.0	.74000000E-04	.22598593E+04	.0	
6336	.95946055E+01	.37293487E+01	.44189663E-02	.0	.0	.31385894E+04	.31098837E+08	.11092748E+04	2
		.12535816E+01	.55058326E+00	.0	.0	.74000000E-04	.22477394E+04	.0	
6372	.97183034E+01	.37424723E+01	.43952988E-02	.0	.0	.31300884E+04	.30773693E+08	.11074126E+04	2
		.12539039E+01	.54988431E+00	.0	.0	.74000000E-04	.22350051E+04	.0	
6408	.98438394E+01	.37553138E+01	.43883492E-02	.0	.0	.31210990E+04	.30549848E+08	.11093359E+04	2
		.12542312E+01	.54917679E+00	.0	.0	.74000000E-04	.22216064E+04	.0	
6444	.99712709E+01	.37678641E+01	.43901605E-02	.0	.0	.31115777E+04	.30316108E+08	.11041451E+04	2
		.12545631E+01	.54846044E+00	.0	.0	.74000000E-04	.22074881E+04	.0	
6480	.10100657E+02	.37801133E+01	.42971329E-02	.0	.0	.31014759E+04	.30071664E+08	.11237676E+04	2
		.12549702E+01	.54773501E+00	.0	.0	.74000000E-04	.21925888E+04	.0	

ELAPSED CPU TIME (SEC) = 1856.66 CURRENT WALL TIME (HH:MM:SS) = 03.49.07

AVERAGE CPU TIME/ITERATION/NODE (SEC) = 4.0932E-05